Development & Heritage Standing Committee Meeting

Date: June 6, 2022
Time: 4:30 o'clock p.m.

Location: Council Chambers, 1st Floor, Windsor City Hall

All members will have the option of participating in person in Council Chambers or electronically and will be counted towards quorum in accordance with Procedure By-law 98-2011 as amended, which allows for electronic meetings. The minutes will reflect this accordingly. Any delegations will be participating electronically.

MEMBERS:
Ward 3 – Councillor Rino Bortolin (Chairperson)

Ward 4 – Councillor Chris Holt

Ward 5 – Councillor Ed Sleiman

Ward 7 – Councillor Jeewen Gill

Ward 10 – Councillor Jim Morrison

Lynn Baker

Andrew Foot

Joseph Fratangeli

Anthony Gyemi

John Miller

Dorian Moore

Jake Rondot

ORDER OF BUSINESS

Item #	Item Description
1.	**CALL TO ORDER**

READING OF LAND ACKNOWLEDGEMENT

We [I] would like to begin by acknowledging that the land on which we gather is the traditional territory of the Three Fires Confederacy of First Nations, which includes the Ojibwa, the Odawa, and the Potawatomie. The City of Windsor honours all First Nations, Inuit and Métis peoples and their valuable past and present contributions to this land.

2. **DISCLOSURES OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF**

3. **REQUEST FOR DEFERRALS, REFERRALS OR WITHDRAWALS**

4. **COMMUNICATIONS**

5. **ADOPTION OF THE *PLANNING ACT* MINUTES**

5.1. Development and Heritage Standing Committee Minutes (*Planning Act* Matters) from the meeting held May 2, 2022 (**SCM 136/2022**)

6. **PRESENTATION DELEGATIONS** (*PLANNING ACT* MATTERS)

7. ***PLANNING ACT* MATTERS**

7.1. Multi-Residential Interim Control By-law Study - Proposed Official Plan Amendment and Zoning By-law Amendment (**S 64/2022**)

7.2. Zoning By-Law Amendments for 1646 to 1648 Drouillard Road; File Z-004/22 (ZNG/6659) Ward 7 (**S 46/2022**)

7.3. Official Plan and Rezoning Amendments – Tunio Development – 3885 & 0 Sandwich Street - OPA 152 OPA [6504] Z-028/21 ZNG[6503] - Ward 2 (**S 65/2022**)

7.4. Draft Plan of Condominium with Exemption under Section 9(3) of the Condominium Act – St. Clair Rhodes Development – 233 Watson Avenue – Ward 6 (**S 55/2022**)

7.5. Rezoning – Andi Shallvari - 716 Josephine Ave - Z-011/22 ZNG/6703 - Ward 2 (**S 56/2022**)

7.6. Approval of a Draft Plan of Subdivision for lands located on the south side of North Talbot Rd, between Southwood Lakes Blvd and HWY 401; File No. SDN-001/21[SDN/6575]; Applicant – Bellocorp Inc.; Ward 1 (**S 59/2022**)

8. **ADOPTION OF THE MINUTES**

8.1. Adoption of the Development & Heritage Standing Committee minutes of its meeting held May 2, 2022 (**SCM 125/2022**)

9. **PRESENTATIONS AND DELEGATIONS** (COMMITTEE ADMINISTRATIVE MATTERS)

10. ***HERITAGE ACT* MATTERS**

10.1. 1478 Kildare Road, Cunningham Sheet Metal (formerly) - Heritage Permit Request (Ward 4) (**S 60/2022**)

10.2. Request for Heritage Permit – 3036 Sandwich Street, McKee Park (Ward 2) (**S 61/2022**)

10.3. Request for Partial Demolition of a Heritage Listed Property- 2038 Willistead Crescent, C.E. Platt House (Ward 4) (**S 62/2022**)

11. **ADMINISTRATIVE ITEMS**

11.1. Bill 109, More Homes for Everyone Act, 2022 – Changes to the Planning Act Affecting Site Plan Control Approval, City Wide (**S 57/2022**)

11.2. Closure of part of southerly half of north/south alley between Brant Street and Wyandotte Street East, Ward 3 (**S 58/2022**)

12. **COMMITTEE MATTERS**

13. **QUESTION PERIOD**

14. **ADJOURNMENT**

Item No. 5.1

Committee Matters: SCM 136/2022

Subject: Development and Heritage Standing Committee Minutes (*Planning Act* Matters) from the meeting held May 2, 2022

Development & Heritage Standing Committee
(*Planning Act* Matters)

Date: Monday, May 2, 2022
Time: 4:30 pm

MEMBERS PRESENT:

Councillors:

Ward 3 - Councillor Bortolin (Chair)
Ward 4 - Councillor Holt
Ward 5 - Councillor Sleiman
Ward 7 - Councillor Gill
Ward 10 - Councillor Morrison

Members:

Member Gyemi
Member Moore
Member Rondot

Clerk's Note: Councillors Morrison and Sleiman and Member Rondot participated via video conference (Zoom), in accordance with Procedure By-law 98-2011 as amended, which allows for electronic participation.

ALSO PARTICIPATING VIA VIDEO CONFERENCE ARE THE FOLLOWING FROM ADMINISTRATION:

Neil Robertson, Manager of Urban Design / Deputy City Planner
Rob Vani, Manager of Inspections / Deputy Chief Building Official
Patrick Winters, Development Engineer
Brian Nagata, Planner II – Development Review
Tracy Tang, Planner II – Revitalization & Policy Initiatives
Jim Abbs, Planner III – Subdivisions
Greg Atkinson, Planner III – Economic Development
Adam Szymczak, Planner III – Zoning
Kristina Tang, Planner III – Heritage
Rania Toufeili, Policy Analyst
Marianne Sladic, Clerk Steno Senior
Sandra Gebauer, Council Assistant

ALSO PARTICIPATING IN COUNCIL CHAMBERS ARE THE FOLLOWING FROM ADMINISTRATION:

Thom Hunt, City Planner
Wira Vendrasco, Deputy City Solicitor – Legal & Real Estate
Michael Cooke, Manager of Planning Policy / Deputy City Planner
Anna Ciacelli, Deputy City Clerk / Supervisor of Council Services

1. CALL TO ORDER

The Chairperson calls the meeting of the Development & Heritage Standing Committee (Planning Act Matters) to order at 4:40 pm.

2. DISCLOURES OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF

Member Rondot discloses an interest and abstains from voting on Item 7.4 being the report of the Office of Economic Development & Innovation dated April 12, 2022 entitled "Zoning By-law Amendment Application to add a site specific zoning provision to allow a permanent patio in the rear yard at 642 Windermere Road, Z-008/22 [ZNG/6670]," as he is the Chair of the Walkerville BIA.

3. REQUEST FOR DEFERRALS, REFERRALS OR WITHDRAWALS

None

4. COMMUNICATIONS

None

5. ADOPTION OF THE PLANNING ACT MINUTES

5.1 Minutes of the Development & Heritage Standing Committee (*Planning Act Matters*) minutes held April 4, 2022.

Moved by: Councillor Gill
Seconded by: Councillor Holt

THAT the Minutes of the Development & Heritage Standing Committee meeting (*Planning Act Matters*) meeting held April 4, 2022 **BE ADOPTED** as presented.

CARRIED, UNANIMOUSLY.

Report Number: SCM 113/2022

6. PRESENTATION & DELEGATIONS (*PLANNING ACT MATTERS*)

Item 7.1 Karl Tanner, Dillon Consulting
Item 7.1 Rachel Jordan, Area Resident
Item 7.2 Melanie Muir, Dillon Consulting representing 2342046 Ontario Inc.
Item 7.2 Laura Andreozzi-Chorney, Area Resident
Item 7.3 Tracey Pillon-Abbs, representing the Applicant
Item 7.3 Brian Bondy, Area Resident
Item 7.4 Jeffrey Nanson, Solicitor representing Mr. Vito Maggio, Property Owner
Item 7.4 Vito Maggio, Applicant
Item 7.4 Jeremy McLellan, Area Resident
Item 7.4 Lynne Pearlman, Area Resident

7. PLANNING ACT MATTERS

7.1 SDN-002/21 [SDN/6593] – Wonsch Construction 3550 Howard Ave – Plan of Subdivision Ward 9

Jim Abbs (author), Planner III – Subdivisions

Karl Tanner – Dillon Consulting (agent) is in agreement with Administration's recommendations and is available for questions.

Moved by: Councillor Holt
Seconded by: Councillor Sleiman

Decision Number: **DHSC 386**

RECOMMENDATIONS

I **THAT** the application of Wonsch Construction Company Limited for Draft Plan of Subdivision approval of Part of Block A, Plan 1259, more particularly described as Part 2, 12R-28366, City of Windsor; **BE APPROVED** on the following basis:

A That this approval applies to the draft plan of subdivision, as shown on the attached Drawing SDN002/21-1, which will facilitate the creation of 4 residential lots.

B. That the Draft Plan Approval shall lapse on (3 years from the date of approval).

C. That the owner(s) enter into a subdivision agreement with the Corporation of the City of Windsor for the proposed development on the subject lands:

That prior to the execution and registration of the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor, the Owner(s) shall submit for approval of the City Planner/Executive Director of Planning & Building a final draft M-Plan, which shall include the names of all road allowances within the plan, as approved by the Corporation.

That the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor be registered on title prior to the registration of the final plan of subdivision and shall contain, among other matters, the following provisions:

1. The Owners will include all items as set out in the results of circularization and other relevant matters set out in CR 233/98 (Standard Subdivision Agreement).
2. The Owners create, the following rights-of-way, in accordance with the approved Plan of Subdivision:
   a) 20m right of way for the for the extension of Oakridge Avenue and Farrow Avenue to the northerly limit of the subject lands;
3. The Owners convey 0.3m reserve blocks along the north limit of Oakridge Avenue and Farrow Avenue to the City of Windsor, to the satisfaction of the City Planner.
4. The Owners agrees to complete a geotechnical report to determine the capacity of the soil below the road base and building envelopes to the satisfaction of the City Engineer;
5. The Owner agrees to provide a Noise Study for review prior to registration of the Final Plan of Subdivision and agrees to implement any mitigation measures recommended, to the satisfaction of the City Planner;
6. The Owners agrees to complete an MECP species at risk screening and comply with all requirements, including any required remediation measures, resulting from any study or report submitted to the MECP/MNRF regarding SAR assessment, all at its entire expense, to the satisfaction of the City Planner.
7. The Owners will comply with all the following requirements relating to sidewalks:

   Sidewalks will be constructed:

   On the East Side of Oakridge Avenue and Farrow Avenue, to the satisfaction of the City Engineer and the City Planner;
8. The Owners shall provide a detailed servicing study report on the impact of the increased flow to the existing municipal sewer systems to the satisfaction of the City Engineer, prior to the issuance of a construction permit.
   1. The study shall review the proposed impact and recommend solutions to addressing the problems and ultimate implementation of solutions should there be a negative impact to the system.
   2. The study shall be finalized to the satisfaction of the City Engineer.
9. The Owners(s) will:
   a) Undertake an engineering analysis to identify stormwater quality and quantity measures as necessary to control any increases in flows in downstream watercourses, up to and including the 1:100 year design storm, to the satisfaction of the Municipality and the Essex Region Conservation Authority.

b) Install stormwater management measures identified above, as part of the development of the site, to the satisfaction of the City Engineer and the Essex Region Conservation Authority.

c) Obtain the necessary permit or clearance from the Essex Region Conservation Authority prior to undertaking site alterations and/or construction activities.

10. The Owners provide cash-in-lieu of parkland as permitted in Section 51.1 of the Planning Act and in accordance with By-law 12780, as amended, or any successor by-law to the satisfaction of the Executive Director of Parks and the City Planner prior to the issuance of construction permits.

11 The owner shall agree to provide to Union Gas the necessary easements and/or agreements required by Union Gas for the provision of gas services for this project, in a form satisfactory to Enbridge.

12. The Owner(s) shall agree to place the following warnings in all Offers to purchase, Agreements of Purchase and Sale or lease between the Developer and all prospective home buyers, and in the title:

"Students from this area may not be able to attend the closest neighbourhood school due to insufficient capacity and may have to be bussed to a distant school with available capacity or could be accommodate in temporary portable space."

NOTES TO DRAFT APPROVAL (File: SDN-002/21)

1. The applicant is directed to Section 51(39) of The Planning Act 1990 regarding appeal of any imposed conditions to the Ontario Land Tribunal. Appeals are to be directed to the City Clerk of the City of Windsor.

2. It is the applicant's responsibility to fulfil the conditions of draft approval and to ensure that the required clearance letters are forwarded by the appropriate agencies to the City of Windsor, to the attention of the Executive Director/City Planner, quoting the above-noted file number.

3. The applicant should consult with an Ontario Land Surveyor for this proposed plan concerning registration requirements relative to the Certification of Titles Act.

4. The final plan approved by the Corporation of the City of Windsor must be registered within thirty (30) days or the Corporation may withdraw its approval under Section 51(59) of The Planning Act 1990.

5. All plans of subdivision/condominium are to be prepared and presented in metric units and certified by the Ontario Land Surveyor that the final plan is in conformity to the approved zoning requirements.

II **THAT** the City Clerk and Licence Commissioner **BE AUTHORIZED** to issue the required notice respecting approval of the draft plan of subdivision under Section 51(37) of The Planning Act; and,

III **THAT** prior to the final approval of the plan of subdivision by the Corporation of the City of Windsor, the Executive Director/City Planner shall **BE ADVISED**, in writing, by the appropriate agencies that conditions have been satisfied; and,

IV **THAT** the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary agreements and documents approved as to form and content satisfactory to the City Solicitor.

Motion CARRIED UNANIMOUSLY

Report Number: S 45/2022
Clerk's File: Z/14266

7.2 SDN-003/21 [SDN/6630] – 2342046 Ontario Inc 0 Liberty St – Plan of Subdivision Ward 9

Jim Abbs (author), Planner III – Subdivisions

Melanie Muir – Dillon Consulting (agent) – available for questions.

Moved by: Councillor Sleiman
Seconded by: Member Moore

Decision Number: **DHSC 387**

RECOMMENDATIONS

I **THAT** the application of 2342046 Ontario Inc. for Draft Plan of Subdivision approval of Part of Lots 42 & 43, Plan 713, and Part of Lot 80, Concession 3, City of Windsor, more particularly described as Parts 1, 2 and 3, 12R-13390; **BE APPROVED** on the following basis:

A That this approval applies to the draft plan of subdivision, as shown on the enclosed Drawing SDN-003/21-1, which will facilitate the creation of 4 residential lots.

B. That the Draft Plan Approval shall lapse on (3 years from the date of approval).

C. That the owner(s) enter into a subdivision agreement with the Corporation of the City of Windsor for the proposed development on the subject lands:

That prior to the execution and registration of the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor, the Owner(s) shall submit for approval of the City Planner/Executive Director of Planning & Building a final draft M-Plan, which shall include the names of all road allowances within the plan, as approved by the Corporation.

That the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor be registered on title prior to the registration of the final plan of subdivision and shall contain, among other matters, the following provisions:

1. The Owners will include all items as set out in the results of circularization and other relevant matters set out in CR 233/98 (Standard Subdivision Agreement).
2. The Owners create, prior to the issuance of a building permit, the following rights-of-way, in accordance with the approved Plan of Subdivision:
   b) 20m right of way for Street A;
3. The Owner agrees, prior to the issuance of a building permit, to remove the existing barrier on Liberty Avenue and erect a new barrier on the Liberty Avenue Right of way at the west Limit of the Plan of Subdivision to the satisfaction of the City Engineer
4. The Owners convey 0.3m reserve block along the west limit of Street A to the City of Windsor, to the satisfaction of the City Planner.
5. The Owner agrees to complete a geotechnical report to determine the capacity of the soil below the road base to the satisfaction of the City Engineer;
6. The Owner agrees to complete an MECP species at risk screening and comply with all requirements, including any required remediation measures, resulting from any study or report submitted to the MECP/MNRF regarding SAR assessment, all at its entire expense.
7. The Owners will comply with all the following requirements relating to sidewalks:

Sidewalks will be constructed:

On the East Side of Street A, to the satisfaction of the City Engineer and the City Planner;

8. The Owners shall provide a detailed servicing study report on the impact of the increased flow to the existing municipal sewer systems to the satisfaction of the City Engineer, prior to the issuance of a construction permit.
   3. The study shall review the proposed impact and recommend solutions to addressing the problems and ultimate implementation of solutions should there be a negative impact to the system.
   4. The study shall be finalized to the satisfaction of the City Engineer.
9. The Owners(s) will:
   d) Undertake an engineering analysis to identify stormwater quality and quantity measures as necessary to control any increases in flows in downstream watercourses, up to and including the 1:100 year design storm, to the satisfaction of the Municipality and the Essex Region Conservation Authority.
   e) Install stormwater management measures identified above, as part of the development of the site, to the satisfaction of the City Engineer and the Essex Region Conservation Authority.

f) Obtain the necessary permit or clearance from the Essex Region Conservation Authority prior to undertaking site alterations and/or construction activities.

10. The Owners provide cash-in-lieu of parkland as permitted in Section 51.1 of the Planning Act and in accordance with By-law 12780, as amended, or any successor by-law to the satisfaction of the Executive Director of Parks and the City Planner prior to the issuance of construction permits.

11 The owner shall agree to provide to Union Gas the necessary easements and/or agreements required by Union Gas for the provision of gas services for this project, in a form satisfactory to Enbridge.

13. The Owner(s) shall agree to place the following warnings in all Offers to purchase, Agreements of Purchase and Sale or lease between the Developer and all prospective home buyers, and in the title:

"Students from this area may not be able to attend the closest neighbourhood school due to insufficient capacity and may have to be bussed to a distant school with available capacity or could be accommodate in temporary portable space."

NOTES TO DRAFT APPROVAL (File: SDN-003/21)

1. The applicant is directed to Section 51(39) of The Planning Act 1990 regarding appeal of any imposed conditions to the Ontario Land Tribunal. Appeals are to be directed to the City Clerk of the City of Windsor.
2. It is the applicant's responsibility to fulfil the conditions of draft approval and to ensure that the required clearance letters are forwarded by the appropriate agencies to the City of Windsor, to the attention of the Executive Director/City Planner, quoting the above-noted file number.
3. The applicant should consult with an Ontario Land Surveyor for this proposed plan concerning registration requirements relative to the Certification of Titles Act.
4. The final plan approved by the Corporation of the City of Windsor must be registered within thirty (30) days or the Corporation may withdraw its approval under Section 51(59) of The Planning Act 1990.
5. All plans of subdivision/condominium are to be prepared and presented in metric units and certified by the Ontario Land Surveyor that the final plan is in conformity to the approved zoning requirements.

II **THAT** the City Clerk **BE AUTHORIZED** to issue the required notice respecting approval of the draft plan of subdivision under Section 51(37) of The Planning Act; and,

III **THAT** prior to the final approval of the plan of subdivision by the Corporation of the City of Windsor, the Executive Director/City Planner shall **BE ADVISED**, in writing, by the appropriate agencies that conditions have been satisfied; and,

IV **THAT** the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary agreements and documents approved as to form and content satisfactory to the City Solicitor; and,

V. **THAT** a one-foot wide portion of the Liberty Street right-of-way as shown on Drawing Number. SDN-003/21-1, contained in this report **BE CLOSED AND RETAINED** for municipal purposes subject to the following:

a. Easements, subject to their being accepted in the City's standard form and in accordance with the City's standard practice, be granted to Enbridge Ltd. and EnWin Utilities Ltd.

VI. **THAT** the City Planner **BE REQUESTED** to supply the appropriate legal description for the area to be closed, in accordance with Drawing Number. SDN 003-21-1, contained in this report; and,

VII. **THAT** the City Planner, or designate, **BE AUTHORIZED** to publish the required legal notice regarding the portion of the Liberty St. right-of-way to be closed; and,

VIII. **THAT** the City Solicitor **BE REQUESTED** to prepare the necessary by-law(s) to facilitate the right-of-way closure; and,

IX. **THAT** the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary documents approved as to form and content satisfactory to the City Solicitor; and,

X. **THAT** the matter **BE COMPLETED** electronically pursuant to By-law Number 366-2003; and,

XI. **THAT** the portion of Liberty Street closed by By-law 5588 **BE OPENED** for vehicular traffic.

Motion CARRIED UNANIMOUSLY

Report Number: S 47/2022
Clerk's File: Z/14316

7.3 Z-002/22 [ZNG/6657] – 1933923 Ontario Ltd 0 & 817 Elinor and 0 Wyandotte St E – Rezoning Ward 7

Adam Szymczak (author), Planner III – Zoning

Tracey Pillon-Abbs – Pillon Abbs Inc (agent) is available for questions.

Moved by: Councillor Gill
Seconded by: Councillor Holt

Decision Number: **DHSC 388**

RECOMMENDATIONS

I. THAT Zoning By-law 8600 **BE AMENDED** by changing the zoning of Part Alley, Registered Plan 1142, further described as Parts 3 & 4, Plan 12R-25749, and Lots 26 to 31, Registered Plan 1142, (Roll No: 060-450-13120 & 060-450-13130), situated at the southwest corner of Wyandotte Street East and Elinor Street, and known municipally as 817 Elinor Street and 0 Elinor Street from Development Reserve District 1.1 (DRD1.1) and Residential District 1.2 (RD1.2) to Residential District 2.5 (RD2.5) and by adding a site specific exception to Section 20 (1) as follows:

442. SOUTHWEST CORNER OF WYANDOTTE STREET EAST AND ELINOR STREET

For the lands comprising of Part Alley, Registered Plan 1142, further described as Parts 3 & 4, Plan 12R-25749, and Lots 26 to 31, Registered Plan 1142, a *multiple dwelling* with five or more *dwelling units* shall be subject to the following additional provisions:

a) Lot Area – per *dwelling unit* - minimum 130.0 m^2

b) That the required *front yard depth*, required *rear yard depth*, and *required side yard* width shall not apply.

c) Building Setback – minimum from the lot line adjacent to Wyandotte Street East (including the corner cut-off) 1.20 m

from the lot line adjacent to Elinor Street 2.50 m

from an *interior lot line* 2.50 m

d) Notwithstanding Section 25.5.20.1.6, the minimum separation of a *parking area* from a building wall containing a *habitable room window* or containing both a main pedestrian entrance and a *habitable room window* facing the *parking area* where the *building* is located on the same *lot* as the *parking area* shall be 3.50 m

e) Notwithstanding Section 24.40, a *loading space* is not required.

f) An *access area* or direct vehicular access to Wyandotte Street East is prohibited.

[ZDM 14; ZNG/6588]

II. THAT the Site Plan Approval Officer **BE DIRECTED** to:

a) Circulate any application to the Essex Region Conservation Authority for their review and comment;

b) Consider the comments from municipal departments and external agencies in Appendix D attached to Report S /2022.

Motion CARRIED UNANIMOUSLY

Report Number: S 41/2022
Clerk's File: Z/14296

7.4 Z-008/22 [ZNG/6670] – Vito Maggio Holdings Inc 642 Windermere Rd – Rezoning Ward 4

Brian Nagata (author), Planner II – Development Review

Jeffrey Nanson (agent) and Vito Maggio (applicant) are available for questions. Mr. Nanson gave a brief presentation, referring to the last two years in which a temporary zoning change permitted the use of the alley as a patio.

Area residents opposed to the rezoning noted the following concerns:
- Lighting
- Alley speed and safety
- Parking
- Operating hours, and
- Noise

Moved by: Councillor Holt
Seconded by: Councillor Sleiman

Decision Number: **DHSC 389**

RECOMMENDATIONS

THAT Zoning By-law 8600 **BE AMENDED** by changing the zoning of Lot 3, Plan 502 (642 Windermere Road; Roll No. 020-070-06600; PIN No. 01136-0246), located on the east side of Windermere Road, south of Wyandotte Street East, by adding a site specific provision to Section 20(1) as follows:

438. EAST SIDE OF WINDERMERE ROAD, SOUTH OF WYANDOTTE STREET EAST

For the lands comprising of Lot 3, Registered Plan 502 (known municipally as 642 Windermere Road; Roll No. 020-070-06600; PIN No. 01136-0246), situated on the east side of Windermere Road, south of Wyandotte Street East, a permanent patio (*deck*), exclusive to the Restaurant, located on the property to the north, known municipally as 1731-1737 Wyandotte Street East (legally described as Lot 1, Registered Plan 502; Roll No. 020-070-06900; PIN No. 01136-0386) shall be an additional permitted use and the following additional provisions shall apply:

a) Fence with a height of 1.0 metre shall be installed along the east lot line and the segment of the north lot line which bounds the *rear yard*, save and except a 1.5 metre wide opening to provide pedestrian access to the permanent patio.

b) Landscaped open space yard with a minimum depth of 1.2 metres shall be installed along the east lot line and the segment of the north lot line which bounds the *rear yard*, save and except a 1.5 metre wide opening to provide pedestrian access to the permanent patio.

c) Screening fence with a minimum height of 1.8 metres shall be maintained along the segment of the south lot line which bounds the *rear yard*.

d) Notwithstanding Table 24.20.5.1 herein and the registered Site Plan Control Agreement, dated May 16, 1996, for file number SPC-015/96, no parking spaces shall be required for the existing legal non-conforming *Business Office* use at 642 Windermere Road.

THAT Administration **BE DIRECTED** to provide additional information related to the ability of licensing to address concerns specifically related to: lighting, noise, operating hours, safety in alleys, and vehicular movement; and recommended measures; including the implementation of traffic calming measures, reducing the hours of operation to 11:00 p.m., and prohibition of amplified music; and that this information **BE PROVIDED** when this matter proceeds to Council.

Motion CARRIED
Member Rondot discloses an interest and abstains from voting on this matter.

Report Number: S 49/2022
Clerk's File: Z/14315

8. ADJOURNMENT

There being no further business, the meeting of the Development & Heritage Standing Committee is adjourned at 6:07 p.m.

Ward 3 – Councillor Bortolin (Chairperson)	Thom Hunt (Secretary)

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 64/2022

Subject: Multi-Residential Interim Control By-law Study - Proposed Official Plan Amendment and Zoning By-law Amendment

Reference:

Date to Council: June 6, 2022
Author: Laura Strahl, MCIP, RPP
Planner III - Special Projects
lstrahl@citywindsor.ca
519-255-6543 x6396
Planning & Building Services
Report Date: May 20, 2022
Clerk's File #: Z2022

To: Mayor and Members of City Council

Recommendation:

1. THAT the reports titled "MRICBL Background Study" prepared by Municipal Planning Consultants, dated April 2022, attached as Appendix A to Report S64/2022 **BE ACCEPTED**.

2. THAT Volume 1: The Primary Plan of the City of Windsor Official Plan ("Official Plan") **BE AMENDED** as follows:

2A) Change the text of the Official Plan as follows:

a) "Commercial Corridor" changes to "Mixed Use Corridor"

b) "Commercial Centre" changes to "Mixed Use Centre"

c) "Mixed Use" changes to "Mixed Use Node"; and

THAT Schedule A-1: Special Policy Areas of the Official Plan **IS AMENDED** by adding the Mature Neighbourhoods designation as shown on Schedule A-1-1 attached to this report; and,

THAT Schedule D: Land Use of the Official Plan **IS AMENDED** by changing the names of the designations in the Legend as follows:

i. "Commercial Corridor" changes to "Mixed Use Corridor"

ii. "Commercial Centre" changes to "Mixed Use Centre"

iii. "Mixed Use" changes to "Mixed Use Node"; and

THAT Schedule D: Land Use of the Official Plan **IS FURTHER AMENDED** by changing the existing land use designations to the Mixed Use Corridor, Mixed Use Centre, and Mixed Use Node designations as shown on Schedule D-1 attached to this report.

2B) Add the following to the Chapter 6 – Land Use:

RESIDENTIAL INTENSIFICATION	6.1.14	To direct residential intensification to those areas of the City where transportation, municipal services, community facilities and goods and services are readily available

2C) Delete 6.3.1.3 and replace it with the following:

INTENSIFICATION, INFILL & REDEVELOPMENT	6.3.1.3	To promote residential redevelopment, infill and intensification initiatives in appropriate locations in the City.

2D) Delete 6.3.2.1 and replace it with the following:

PERMITTED USES	6.3.2.1	Uses permitted in the Residential land use designation identified on Schedule D: Land Use include Low Profile and Medium Profile dwelling units. High Profile Residential Buildings shall be directed to locate in the City Centre, Mixed Use Centres and Mixed Use Corridors.

2E) Delete 6.3.2.3 and replace it with the following:

TYPES OF LOW PROFILE HOUSING	6.3.2.3	For the purposes of this Plan, Low Profile housing development is further classified as follows: (a) small scale forms: single detached, semi-detached, duplex and row and multiplexes with up to 8 units.

2F) Delete 6.3.2.4 and replace it with the following:

LOCATIONAL CRITERIA	6.3.2.4	Residential intensification shall be directed to the Mixed Use Nodes and areas generally within 200 metres of those Nodes. Within these areas mid-profile buildings, up 4 storeys in height shall be permitted. These taller buildings shall be designed to provide a transition in height and massing from low-profile areas. Residential development shall be located where: (a) there is access to a collector or arterial road; (b) full municipal physical services can be provided; (c) adequate community services and open spaces are available or are planned; and (d) public transportation service can be provided.

2G) Delete 6.3.2.5 (c) and replace it with the following:

(c) In existing neighbourhoods, compatible with the surrounding area in terms of scale, massing, height, siting, orientation, setbacks, parking and amenity areas.

In Mature Neighbourhoods as shown on Schedule A-1, compatible with the surrounding area, as noted above, and consistent with the streetscape, architectural style and materials, landscape character and setback between the buildings and streets;

2H) Delete 6.3.2.5 (f) and replace it with the following:

(f) facilitating a gradual transition from Low Profile residential development to Medium and/or High profile development and vice versa, where appropriate. In accordance with Design Guidelines approved by Council.

2I) Delete 6.3.2.9 and replace it with the following:

NEIGHBOURHOOD COMMERCIAL EVALUATION CRITERIA

6.3.2.9 Neighbourhood Commercial uses shall be encouraged to locate in Mixed Use Nodes as shown on Schedule J. Ideally these uses would form part of a multi-use building with residential uses located above or behind the non-residential uses on the street front.

At the time of submission, the proponent shall demonstrate to the satisfaction of the Municipality that a proposed Neighbourhood Commercial development within a designated Residential area is:

(a) feasible having regard to the other provisions of this Plan, provincial legislation, policies and appropriate guidelines and support studies for uses:

(i) within or adjacent to any area identified on Schedule C: Development Constraint Areas and described in the Environment chapter of this Plan;

(ii) adjacent to sources of nuisance, such as noise, odour, vibration and dust;

(iii) within a site of potential or known contamination;

(iv) where traffic generation and distribution is a provincial or municipal concern;

(v) adjacent to heritage resources; and

(vi) where market impact is identified as a municipal concern;

(b) in keeping with the goals, objectives and policies of any secondary plan or guideline plan affecting the surrounding area;

(c) compatible with the surrounding area in terms of scale, massing, height, siting, orientation, setbacks, parking and landscaped areas;

(d) capable of being provided with full municipal physical services and emergency services; and

(e) provided with adequate off-street parking.

2J) Delete 6.3.2.17 and replace it with the following:

HERITAGE CONSERVATION	6.3.2.17	Council shall encourage the retention, restoration and sensitive renovation of historic and/or architecturally significant residential buildings in accordance with the Heritage Conservation chapter of this Plan. Infill and intensification within Mature Neighbourhoods, shown on Schedule A-1, shall be consistent with the built form, height, massing, architectural and landscape of the area. Council will adopt Design Guidelines to assist in the design and review of development in these areas.

2K) Delete 6.3.2.29 and replace it with the following:

COMPATIBLE ADDITIONAL UNITS	6.3.2.29	The creation of additional units through renovation or redevelopment in existing residential neighbourhoods shall be done in a manner that is compatible and complimentary to the character of the neighbourhood. The Zoning By-law will establish regulations for height, density, and massing that will preserve the character of stable neighbourhoods. Council will adopt Design Guidelines to assist in the design and review of development applications within existing stable neighbourhoods.

2L) Delete 6.5 and replace it with the following:

6.5 Commercial

Commercial lands provide the main locations for the purchase and sale of goods and services. In order to strengthen Windsor's economy, ensure convenient access and address compatibility concerns, Commercial land uses are provided under three designations on Schedule D: Mixed Use Centre, Mixed Use Corridor and Mixed Use Nodes.

Over the lifetime of this Plan, the Mixed Use Centres will evolve to become vibrant mixed-use commercial and residential areas. Ideally, the predominant form of new or redeveloped housing should be medium and high-density residential buildings with ground floor and possibly second floor commercial uses and upper floor residential dwellings.

The following objectives and policies establish the framework for development decisions in all Commercial areas.

2M) Add the 6.5.1.8 to the Chapter 6 – Land Use:

RESIDENTIAL INTENSIFICATION	6.5.1.8	To promote residential intensification with medium and high profile buildings to meet the housing needs of the City in appropriate areas where municipal services, transit and employment are in proximity.

2N) Delete 6.5.2.2 and replace it with the following:

RESIDENTIAL AND ANCILLARY USES	6.5.2.2	Medium and high profile residential uses either as stand-alone buildings or part of a commercial-residential mixed use buildings shall be integrated within the Mixed Use Centres in a manner that creates a mixed-use community in a modern and attractive urban environment. Institutional uses, community, cultural, recreational and entertainment facilities shall be permitted in stand-alone buildings, or in mixed-use buildings/developments. Hotels, institutional uses, community, cultural, recreational and entertainment facilities may be located on individual sites, or form part of a larger, comprehensively planned retail commercial centre. In addition to the uses permitted above, Council may permit ancillary Open Space and Major Institutional uses in areas designated as Mixed Use Centre on Schedule D: Land Use without requiring an amendment to this Plan provided that: (a) the ancillary use is clearly incidental and secondary to, and complementary with, the main commercial use; and

(b) the development satisfies the policies for the proposed land use.

2O) Add 6.5.2.6 (i) to 6.5.2.6:

(i) Council will adopt Design Guidelines that will assist in the design and review of development applications in a manner that will ensure implementation of these policies.

2P) Delete 6.5.3 and replace it with the following:

The Mixed Use Corridor land use designation is intended for areas which are designed for vehicle oriented Mixed Use uses. Mixed Use Corridors take the form of Mixed Use strips along Arterial and Collector roads within Windsor. These Mixed Use Corridors are expected to provide people-oriented employment and to accommodate higher density/intensity development, while maintaining a broad mix of land uses that support investment in transit and the achievement of complete communities.

2Q) Delete 6.5.3.1 and replace it with the following:

PERMITTED USES 6.5.3.1 Uses permitted in the Mixed Use Corridor land use designation are primarily retail, wholesale store (added by OPA 58, 24 07 2006) and service oriented uses and, to a lesser extent, office uses.

Medium and High profile residential uses either as stand-alone buildings or part of a commercial-residential mixed use buildings shall be throughout the Corridors.

2R) Delete 6.5.3.3 and replace it with the following:

STREET PRESENCE 6.5.3.3 Council will encourage Mixed Use Corridor development to provide a continuous street frontage and presence. Accordingly, development along a Mixed-Use Corridor shall be:

(a) no more than four storeys in height, except on lands immediately adjacent to an intersection with a Class I or Class II Arterial Road or Class I or Class II Collector Road where the height of buildings shall generally not exceed the width of the road right-or-way abutting the development site; and

(b) Notwithstanding the identified maximum building height, the City may consider additional height, where the City is satisfied that the proposed height achieves compatible development, and where appropriate transitions to abutting lower scale development are established. Appropriate transitions may be achieved through the implementation of regulatory techniques including, but not limited to new height limitations, enhanced building setbacks and step backs, enhanced landscape buffers and planting requirements and/or the implementation of an angular plane. Permissions for taller buildings may be established through a site specific zoning By-law Amendment;

(c) encouraged to locate the buildings at the street frontage lot line with parking accommodated at the rear of the site.

2S) Add 6.5.3.8 (f) to 6.5.3.8:

(i) Council will adopt Design Guidelines that will assist in the design and review of development applications in a manner that will ensure

2T) Delete 6.9 and replace it with the following:

The lands designated as “Mixed Use Nodes” on Schedule D: Land Use provide the main locations for compact clusters of commercial, office, institutional, open space and residential uses. These areas are intended to serve as the focal point for the surrounding neighbourhoods, community. As such, they will be designed with a pedestrian orientation and foster a distinctive and attractive area identity.

The following objectives and policies establish the framework for development decisions in Mixed Use Nodes areas.

2U) Delete 6.9.2.2

2V) Delete 6.9.2.3 and replace it with 6.9.2.2:

LOCATIONAL CRITERIA 6.9.2.2 Mixed Use Nodes development shall be located where:

(a) there is access to Class I or Class II Arterial Roads or Class I Collector Road;

(b) full municipal physical services can be provided;

(c) public transportation service can be provided; and

(d) the surrounding development pattern is compatible with Mixed Use Nodes development.

2W) Delete 6.9.2.5(b) and replace it with 6.9.2.4 (b):

(b) the mass, scale, orientation, form, and siting of the development achieves a compact urban form and a pedestrian friendly environment. Building should not exceed 4 storeys in height;

2X) Add 8.7.2.3 (j) to the Chapter 8 – Urban Design:

(j) Council may adopt Design Guidelines that will assist in the design and review of applications for development in accordance with the policies noted above.

2Y) Add 9.3.8 to Chapter 9 – Heritage Conservation:

RECOGNIZE MATURE NEIGHBOURHOODS AS HERITAGE RESOURCE 9.3.8 Schedule A-1 illustrates Mature Neighbourhoods in the City. These areas are not designated as Heritage Areas or Heritage Conservation Districts. However, the areas reflect the cultural heritage of the City and should be protected. When considering the development of these areas, the policies of Section 9.3.7(d) shall be applied.

3. THAT Zoning By-law 8600 **BE AMENDED** as follows:

3A) Delete Section 10.1.5.4 and substitute with a new Section 10.1.5.4 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.4	Main Building Height - maximum	9.0 m	9.0 m	9.0 m

3B) Add Section 10.1.5.10 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.10	Gross Floor Area - maximum	400 m^2	400 m^2	400 m^2

3C) Delete Section 10.2.5.4 and substitute with a new Section 10.2.5.4 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.4	Main Building Height - maximum	9.0 m	9.0 m	9.0 m

3D) Add Section 10.2.5.10 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.10	Gross Floor Area - maximum	400 m^2	400 m^2	400 m^2

3E) Delete Section 10.3.5.4 and substitute with a new Section 10.3.5.4 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.4	Main Building Height - maximum	9.0 m	9.0 m	9.0 m

3F) Add Section 10.3.5.10 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.10	Gross Floor Area - maximum	400 m^2	400 m^2	400 m^2

3G) Delete Section 10.4.5.4 and substitute with a new Section 10.4.5.4 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.4	Main Building Height - maximum	9.0 m	9.0 m	9.0 m

3H) Add Section 10.4.5.10 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.10	Gross Floor Area - maximum	400 m^2	400 m^2	400 m^2

3I) Delete Section 10.5.5.4 and substitute with a new Section 10.4.5.4 as follows:

.4	Main Building Height - maximum	9.0 m

3J) Add Section 10.5.5.10 as follows:

.10	Gross Floor Area - maximum	400 m^2

3K) Delete Section 11.1.5.4 and substitute with a new Section 11.1.5.4 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.4	Main Building Height - maximum	9.0 m	9.0 m	9.0 m

3L) Add Section 11.1.5.10 as follows:

		Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.10	Gross Floor Area - maximum	400 m^2	400 m^2	400 m^2

3M) Delete Section 11.2.5 and substitute with a new Section 11.2.5 as follows:

11.2.5 PROVISIONS

.1 Duplex Dwelling

.1	Lot Width – minimum	12.0 m
.2	Lot Area – minimum	360.0 m^2
.3	Lot Coverage – maximum	45.0%
.4	Main Building Height – maximum	9.0 m
.5	Front Yard Depth – minimum	6.0 m
.6	Rear Yard Depth – minimum	7.50 m
.7	Side Yard Width – minimum	1.20 m
.10	Gross Floor Area – maximum	400 m^2

.2 Semi-Detached Dwelling

.1	Lot Width – minimum	15.0 m
.2	Lot Area – minimum	450.0 m^2
.3	Lot Coverage – maximum	45.0%
.4	Main Building Height – maximum	9.0 m
.5	Front Yard Depth – minimum	6.0 m
.6	Rear Yard Depth – minimum	7.50 m
.7	Side Yard Width – minimum	1.20 m

.10	Gross Floor Area – maximum	400 m^2
.3	Single Unit Dwelling	
.1	Lot Width – minimum	9.0 m
.2	Lot Area – minimum	270.0 m^2
.3	Lot Coverage – maximum	45.0%
.4	Main Building Height – maximum	9.0 m
.5	Front Yard Depth – minimum	6.0 m
.6	Rear Yard Depth – minimum	7.50 m
.7	Side Yard Width – minimum	1.20 m
.10	Gross Floor Area – maximum	400 m^2
.4	Double Duplex Dwelling or Multiple Dwelling	
.1	Lot Width – minimum	18.0 m
.2	Lot Area – minimum	540.0 m^2
.3	Lot Coverage – maximum	45.0%
.4	Main Building Height – maximum	9.0 m
.5	Front Yard Depth – minimum	6.0 m
.6	Rear Yard Depth – minimum	7.50 m
.7	Side Yard Width – minimum	1.80 m
.10	Gross Floor Area – maximum	400 m^2
.5	Townhome Dwelling	
.1	Lot Width – minimum	20.0 m
.2	Lot Area – per *dwelling unit* – minimum	200.0 m^2
.3	Lot Coverage – maximum	45.0%
.4	Main Building Height – maximum	9.0 m
.5	Front Yard Depth – minimum	6.0 m
.6	Rear Yard Depth – minimum	7.50 m
.7	Side Yard Width – minimum	1.50 m
.10	Gross Floor Area – maximum	400 m^2

3N) Delete Section 11.3.5.4 and substitute with a new Section 11.3.5.4 as follows:

		Semi-Detached Dwelling	Single Unit Dwelling	Townhome Dwelling
.4	Main Building Height - maximum	9.0 m	9.0 m	9.0 m

3O) Add Section 11.3.5.10 as follows:

		Semi-	Single Unit	Townhome

		Detached Dwelling	Dwelling	Dwelling
.10	Gross Floor Area - maximum	400 m^2	400 m^2	400 m^2

3P) Delete Section 11.4.5.4 and substitute with a new Section 11.4.5.4 as follows:

		Semi-Detached Dwelling	Single Unit Dwelling
.4	Main Building Height - maximum	9.0 m	9.0 m

3Q) Add Section 11.4.5.10 as follows:

		Semi-Detached Dwelling	Single Unit Dwelling
.10	Gross Floor Area - maximum	400 m^2	400 m^2

3R) Delete Section 5.2.20.1

4. THAT Interim Control By-law 103-2020 **BE REPEALED** when the amending by-laws that implement the Official Plan Amendment and Zoning By-law amendments are in force.

5. THAT the City of Windsor Intensification Guidelines **BE ADOPTED** as the Design Guidelines referenced in the Official Plan to evaluate Infill and Intensification development proposals.

Executive Summary:

On July 13th, 2020, Council approved Interim Control By-law 103-2020 that prohibits the use on all lands, buildings, and structures for a Group Home, Shelter, Lodging House, and a Dwelling with five or more dwelling units, other than those exempted in the Interim Control By-law in order to conduct a study. Council approved an extension to By-law 99-2021 on May 18, 2022 for an additional year. The Interim Control By-law will expire on July 13, 2022.

The City hired a consortium of consultants made up of Municipal Planning Consultants, The Planning Partnership and The Altus Group (the "consultants) to undertake the study. The main purpose of the Multi-Residential Interim Control By-law (MRICBL) Study is to determine the following:

- The appropriate locations within the city that can accommodate additional residential density;
- How to appropriately guide growth to those geographic areas;
- The extent to which a designated area can accommodate growth;
- How to ensure compatibility within the existing neighbourhood context; and
- The MRICBL Study also includes a review of Group Homes, Lodging Houses and Shelters to bring in compliance with the Human Rights Code.

The consultants have completed three reports that contain recommendations for the City to consider implementing to achieve the purposes of the MRICBL Study. Some of these recommendations will be implemented with the adoption of the OPA and Zoning Bylaw amendments contained in the recommendations of this report, while others will form part of an ongoing work program for the City.

The proposed Official Plan Amendment (OPA) implements a number of the recommendations that start to put the policy direction around infill and intensification in place. This policy direction focus intensification to areas that can support it and where it is most appropriate. The majority of intensification will be guided to "Intensification Priority Areas" made up of Mixed Use Centres, Mixed Use Corridors and Mixed Use Nodes, all of which will be identified on a new Official Plan Schedule D1.

Compatibility of proposed development within existing neighbourhoods is also addressed in the amendments by providing some direction about defining and describing it, as well as making it a requirement of all new development. The OPA also provides the policy foundation for adopting the Intensification Guidelines as a way to help design and evaluate development proposals for compatibility with surrounding neighbourhood.

The proposed ZBA focuses primarily on addressing the compatibility of infill development proposals in existing mature/stable neighbourhoods.

This report also recommends the adoption of the Windsor Intensification Guidelines to provide direction for the design of future residential projects that respect the unique character of Windsor's existing neighbourhoods. The Urban Design Guidelines will provide predictability for applicants, the City, and stakeholders, by providing consistent direction about the criteria for the design of proposed development in Intensification Areas. The provisions, and examples in the Intensification Guidelines will be used as the foundation of design for intensification projects, and will be used in the assessment development proposals.

The MRICBL Study includes a review of definitions of Group Home, Lodging House and Shelter in Zoning By-law 8600 and 85-18. These definitions have been problematic in the way they are defined in the zoning by-law and need to be addressed for compliance with the Ontario Human Rights Code. Staff are continuing to work with the consultants to develop appropriate definitions and zoning requirements that are consistent with the OHRC and what the *Planning Act* can enable. A subsequent ZBA will be coming to Standing Committee and Council in the near future to addresses the definitional issues.

Additionally, staff have been reviewing opportunities within the existing zoning categories to allow more "as of right" housing options. A subsequent ZBA will be coming to Standing Committee and Council to "pre-zone" some of the Intensification Priority Areas to provide for more housing options.

Background:

Section 38(1) of the Planning Act permits a municipality to pass an interim control by-law (ICBL) that prohibits the use of land, buildings or structures for such purposes as set out in the by-law. This in effect "freezes" development (that is described by the by-law) on the lands for a period not to exceed one year. An ICBL is an important planning tool that allows the municipality to rethink its current land use policies by suspending development that may end up conflicting with any new policy that may be developed. However, in order to enact an ICBL, Council must direct that a review or study be undertaken with respect to the existing land use policies in question.

On July 13th, 2020, Council approved Interim Control By-law 103-2020 that prohibits the use on all lands, buildings, and structures for a Group Home, Shelter, Lodging House, and a Dwelling with five or more dwelling units, other than those exempted in the Interim Control By-law in order to conduct a study. No appeals were received. This will allow Administration to review and, if deemed appropriate, implement the findings of the said study.

On May 18, 2021, Council approved By-law 99-2021 that extended Interim Control By-law 103-2020 for an additional year. The Interim Control By-law will expire on July 13, 2022.

The City hired a consortium of consultants made up of Municipal Planning Consultants, The Planning Partnership and The Altus Group (the "consultants) to undertake the study. The consultants have now completed the background studies and drafted amendments to the City's Official Plan and Zoning By-law 8600 to implement the recommendations of the background reports.

The purpose of this report is to recommend amendments to the Official Plan and Zoning By-law 8600 and By-law 85-18 that implement the findings of the Multi-Residential Interim Control By-law (MRICBL) Study.

Discussion:

The main purpose of the MRICBL Study is to determine the following:

- The appropriate locations within the city that can accommodate additional residential density;
- How to appropriately guide growth to those geographic areas;
- The extent to which a designated area can accommodate growth;
- How to ensure compatibility within the existing neighbourhood context; and
- The MRICBL Study also includes a review of Group Homes, Lodging Houses and Shelters to bring in compliance with the Human Rights Code.

To address the above items, the consultants completed three reports:

Demographics and Economic Analysis (Altus Group) (attached as Appendix A) – This report provides demographic and economic analysis on factors driving intensification and infill demand in the City to inform planning policy recommendations for necessary changes to the City of Windsor Official Plan and Zoning By-law to achieve the goal of increased intensification within the City's existing built-up area.

The Multi-Residential Interim Control Bylaw Study Background Report (Municipal Planning Consultants and The Planning Partnership) (attached as Appendix B) – This report reviews relevant legislation, and City of Windsor policy documents and makes recommendations to address the main purposes of the study.

Intensification Guidelines (The Planning Partnership) (attached as Appendix C) – This document contains design guidelines that are intended as a framework that outlines the characteristics of various design concepts and principles associated with infill and intensification. The intent is to guide new development to become distinctive, while contextually compatible with existing neighbourhoods.

Each report contains recommendations for the City to consider implementing to achieve the purposes of the MRICBL Study. Some of these recommendations will be implemented with the adoption of the OPA and Zoning Bylaw amendments contained in the recommendations of this report, while others will form part of an ongoing work program for the City. The key findings of the above reports are as follows:

The Demographic Report:

The Demographic Report was prepared by the Altus Group. This report provides demographic and economic analysis on factors driving intensification and infill demand in the City to inform planning policy recommendations for necessary changes to the City's Official Plan and Zoning By-law with the goal of increasing intensification within the City's existing built-up area. The analysis contained in the report was used to inform the policy recommendations made in the subsequent consultant reports.

The following is a summary of the findings of the Demographic Report:

- The City needs more housing in the inner areas of the City, with populations in a majority of the City declining due to a lack of new housing options and shrinking average household sizes;

- The City is not seeing enough purpose-built rental housing constructed to meet demand;

- Access to retail, transit and other community amenities can bolster the market for new residential development, making an area attractive to prospective new households;

- Similarly, adding residential uses near existing retail clusters can improve the viability of those retail environments. The practice of redeveloping major retail centres for a mix of uses including residential, as well as other community amenities such as parks, community centres, and even additional retail is growing across Ontario and Canada;

- The introduction of residential uses in close proximity to established retail centres can help to add value for retailers and allow for a mix of uses that make for convenient shopping for new residents, as well as help boost demand for additional retail uses in some cases;

- The City needs to account for prospective growth in post-secondary enrolment in forecasting housing needs; and,

- Given the significant under supply of industrial space in the Province and Southwestern Ontario, the City should be seeking to retain as many occupied and vacant employment lands as possible, unless there are compelling reasons to allow residential uses on them.

The Multi-Residential Interim Control Bylaw Study Background Report:

Enabling infilling and intensification in the city can help to achieve a number of Provincial and municipal objectives. As such, the main purpose of the study prepared by Municipal Planning Consultants and The Planning Partnership is to

- Determine the appropriate locations within the City that can accommodate additional residential density;
- How to appropriately guide growth to those geographic areas;
- Determine to what extent a designated area can accommodate growth; and,
- How to ensure compatibility within the existing neighbourhood context.

A comprehensive approach to planning for residential intensification within a definable urban structure framework provides greater clarity and certainty for the developers looking to construction infill and/or higher density projects, and the neighbourhoods that will become home to these projects. This means that there is a clear responsibility for the City to define where intensification initiatives are appropriate and desirable, and equally important, where those intensification activities need to be more significantly planned for and managed.

There is an increasing awareness that the character of existing and historic or mature communities in Windsor is vitally important. The proposed framework encourages intensification in the appropriate areas while also ensuring the compatibility of the development with the surrounding neighbourhood. As such, there has been as much emphasis on ensuring compatible development as there has been on exploring new ways for the city to grow.

In order to develop the framework, and the subsequent recommendations, it is important to understand a number of fundamental principles and the legislative authority under the Planning Act for planning for housing. All regulations of the City's planning instruments must implement planning regulations in accordance with the Ontario Human Rights Code. Section 2.1 of the Code which states:

> *Every person has a right to equal treatment with respect to the occupancy of accommodation without discrimination because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status, disability or the receipt of public assistance.*

The City cannot use the *Planning Act* to regulate the number of residents in a dwelling unit, the tenure of a dwelling unit, or the relationship to one another of the people living in the dwelling unit. It cannot implement policies or regulations that discriminate, even inadvertently, against anyone based on the any of the reasons cited above.

The City can control the land uses permitted on a lot, the number of dwelling units on a lot, the number and size of buildings on a lot, the location of the buildings on a lot and the height and massing of buildings on a lot and parking requirements. It can also require that new development be compatible with existing neighbourhoods, and implement ways to evaluate this. The Multi-Residential Interim Control Bylaw Study Background Report focuses on a policy framework that the City can implement under its Planning Act authority, while also ensuring compliance with Ontario's Human Rights Code. The following is a summary of the conclusions found within the Multi-Residential Interim Control Bylaw Study Background Report:

- Stand-alone medium and high profile buildings should be permitted in the Regional Centres (designation name to exclude "Commercial"), with a policy framework that ensures appropriate transitions to adjacent communities;
- Medium profile combined (mixed) use buildings should be permitted in the Regional Centres and the Corridors with a policy framework that ensures appropriate transitions to adjacent communities;

- Combined use buildings up to 4 storeys high should be permitted in the Neighbourhood Nodes;
- The Residential policies should include consideration of modestly scaled intensification projects within 50 m of a Neighbourhood Node;
- Mature Neighbourhoods should be identified on Schedule G to the Official Plan;
- Intensification in these areas should be limited to development of a consistent character to what presently exists in those areas in terms of front and side-yard setbacks, height and density;
- The low density Residential Zones should include maximum gross floor area limits and reduce maximum height to 9 metres;
- The minimum dwelling unit size should be eliminated from the Zoning By-law;
- The Residential policies should define limits to intensification that will ensure that re-development for intensification is compatible with the existing built form;
- Additional policies regarding parking and landscaping requirements should be included in the Official Plan;
- The City should amend the Official Plan and Zoning By-law to ensure compliance with the Human Rights Code for various forms of Special Needs Housing; and,
- The Official Plan should enable Council to adopt Design Guidelines and implement those guidelines through architectural control in the development process. Design Guidelines will be implemented through a combination of Associated Official Plan design-focused policies, the Zoning By-law and Site Plan Approval, and potentially through urban/architectural design control processes.

Recommendation 1 is to adopt The Multi-Residential Interim Control Bylaw Study Background Report as the required study from passing the Interim Control By-law and as the supporting documentation for the proposed Official Plan Amendment and Zoning Bylaw Amendments.

Proposed Official Plan Amendment

The proposed Official Plan Amendment (OPA) implements a number of the recommendations above. The OPA puts the policy direction around infill and intensification in place. This policy direction focus intensification to areas that can support it and where it is most appropriate – places that have access to transit, goods and services, infrastructure, etc.

The majority of intensification will be guided to “Intensification Priority Areas” made up of Mixed Use Centres, Mixed Use Corridors and Mixed Use Nodes, all of which will be identified on a new Official Plan Schedule D1.

Compatibility of proposed development within existing neighbourhoods is also addressed in the amendments by providing some direction about defining and describing it, as well as making it a requirement of all new development. The OPA also

provides the policy foundation for adopting the Intensification Guidelines as a way to help design and evaluate development proposals for compatibility with surrounding neighbourhood.

The Official Plan (OP) is implemented by the Zoning Bylaw, so adopting the OPA will allow for the Zoning Bylaw Amendments to be consistent with the OP. The policy framework will also provide guidance for the development of subsequent Zoning Bylaw Amendments that will implement the remaining recommendations contained in the consultant's report.

Recommendation 2 is recommending that the OP be amended in the manner described in the recommendation.

Proposed Zoning By-law Amendment

The proposed Zoning By-law Amendment (ZBA) addresses a number of the recommendations coming out of the Multi-Residential Interim Control Bylaw Study Background Report and begins to implement the policy framework contained within the updated OP.

The proposed ZBA focuses primarily on addressing the compatibility of infill development proposals in existing mature/stable neighbourhoods. The Low Profile Neighbourhoods have existing intensification rights as a result of the Additional Dwelling Unit policies which now permit up to three units on a property. The consultants concluded that the current zoning provisions, particularly the building massing provisions, for the lower profile zoning categories are too permissive and fail to preserve the character of the surrounding neighbourhoods.

As a result, the recommended ZBA reduces the maximum building height from 10 metres to 9 metres in the RD1.1, RD1.2, RD1.3, RD1.4, RD1.5, RD2.1, RD2.2, RD2.3, and RD2.4. It will also limit the total maximum gross floor area to 400m^2 (~4,305 ft^2) for a property. These changes are intended to make sure that the scale and height of new development is more consistent with what is currently found within many neighbourhoods.

Recommendation 3 describes the proposed amendments to the Comprehensive Zoning By-law and recommends that Zoning By-law be amended.

Provincial Policy Statement, 2020

The Provincial Policy Statement (PPS) provides direction on matters of provincial interest related to land use planning and development and sets the policy foundation for regulating the development and use of land in Ontario.

The vision of the PPS focuses growth and development within urban settlement areas, that land use must be carefully managed to accommodate appropriate development to meet the full range of current and future needs, while achieving efficient development patterns. Planning authorities are encouraged to permit and facilitate a range of housing options, including residential intensification, to respond to current and future needs. Land use patterns should promote a mix of housing, including opportunities for infill and

intensification that support a broad range of housing options. Specific Provincial Policy that applies to this OPA and ZBA are summarized below.

Policy 1.1.1 of the PPS states:

"Healthy, liveable and safe communities are sustained by:

a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;

b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;"

The proposed OPA and ZBA is supportive of an efficient development approach that will have no adverse impact on the financial well-being of the City, land consumption, and servicing costs, and it accommodates an appropriate range of residential uses, and optimizes investments in transit.

Policy 1.1.3.1 of the PPS states:

"Settlement areas shall be the focus of growth and development."

Policy 1.1.3.2 of the PPS states:

"Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

a) efficiently use land and resources;

b) are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;

e) support active transportation;

f) are transit-supportive, where transit is planned, exists or may be developed;"

Policy 1.1.3.3 of the PPS states:

> *Planning authorities shall identify appropriate locations and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options through intensification and redevelopment where this can be accommodated taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs.*

The OPA and ZBA promotes a land use that makes efficient use of land and existing infrastructure, and identifies appropriate locations and promote opportunities for transit-

supportive development and a range of housing options through intensification. Active transportation options and transit services have been taken into consideration in recommending the appropriate locations for additional infill and intensification.

Policy 1.1.3.3 of the PPS states:

> *Appropriate development standards should be promoted which facilitate intensification, redevelopment and compact form, while avoiding or mitigating risks to public health and safety.*

The OPA provides development standards that will help to facilitate appropriate intensification and development that is compatible with the surrounding neighbourhood.

Windsor Intensification Guidelines

Building on the principles of 'compatible' development and guided by the policies articulated in the Official Plan (OP), the objective of the Intensification Guidelines is to provide direction for the design of future residential projects that respect the unique character of Windsor's neighbourhoods.

The design guidelines (see Appendix C) are intended to guide new development to become distinctive, while relating harmoniously to the use, scale, architecture, streetscapes, and neighbourhoods of Windsor, as well as meeting the needs of its citizens and visitors. The Urban Design Guidelines will provide predictability for applicants, the City, and stakeholders, by providing consistent direction about the criteria for the design of proposed development in Intensification Areas. The provisions, and examples in the Intensification Guidelines will be used as the foundation of design for intensification projects, and will be used in the assessment development proposals.

Recommendation 5 is to adopt the City of Windsor Intensification as the Design Guidelines referenced in the Official Plan to evaluate Infill and Intensification development proposals.

Future Work Program

There are few areas that were identified in the Background Report that are still being reviewed and will be part of the Planning Department's short-term work programme. It is anticipated that there will be additional Zoning By-law Amendments required to further support intensification across the city.

The MRICBL Study includes a review of definitions of Group Home, Lodging House and Shelter in Zoning By-law 8600 and 85-18. These definitions have been problematic in the way they are defined in the zoning by-law and need to be addressed for compliance with the Ontario Human Rights Code. Staff are continuing to work with the consultants to develop appropriate definitions and zoning requirements that are consistent with the OHRC and what the *Planning Act* can enable. A subsequent ZBA will be coming to Standing Committee and Council in the near future to addresses the definitional issues.

Additionally, staff have been reviewing opportunities within the existing zoning categories to allow more “as of right” housing options. A subsequent ZBA will be coming to Standing Committee and Council to “pre-zone” some of the Intensification Priority Areas to provide for more housing options.

Risk Analysis:

Given that the Recommendations in this report represent a fundamental change to how the City of Windsor proposes to guide and regulate infill and intensification opportunities throughout the city, there is a significant chance that the recommended OPA and/or ZBA(s) will be appealed to the Ontario Land Tribunal (OLT).

In the event of an appeal to the OLT, the Interim Control By-law will remain in place until such time that all appeals have been resolved.

Financial Matters:

There are no short term financial implications with adoption of these recommendations. The implementation of the recommendations from this report and subsequent Zoning By-law Amendments will provide more housing options in a fiscally responsible way.

Consultations:

An in-person Open House was held at All Saints Church on May 26, 2022 to consult the public on the draft Official Plan Amendment and draft Zoning By-law Amendment.

A special meeting of the Development & Heritage Standing Committee was held on May 9, 2022 to discuss the Background Report and preliminary direction coming from the recommendations. This meeting was open to the public and saw one delegate offer their support for the direction of the study.

A virtual public engagement session was held on April 5, 2022 from 6-8pm to present the findings and recommendations from the background report to interested members of the public. Eighteen (18) people attended the session and provided feedback. The feedback from the session was positive.

Planner’s Opinion:

It is the Planner’s opinion that the proposed OPA and ZBA related to infill development and intensification are consistent with the Provincial Policy Statement and represent good planning.

Conclusion:

The recommendations above come from the extensive background review and analysis conducted by the consultants hired by the City to prepare the study that is required with the passing of an Interim Control By-law. The consultants provided an infill and intensification framework and a number of recommendations that will be implemented by adopting the OPA and ZBA proposed above, as well as, subsequent Zoning Bylaw Amendments.

Planning Act Matters:

I concur with the above comments and opinion of the Registered Professional Planner.

Neil Robertson, MCIP, RPP Thom Hunt, MCIP, RPP

Manager of Urban Design City Planner

I am not a registered Planner and have reviewed as a Corporate Team Leader

JP

Approvals:

Neil Robertson	Manager of Urban Design / Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Chief Administration Officer (A)

Notifications:

Name	Address	Email

Appendices:

1 Appendix A – The ALTUS Background Report
2 Appendix B – The Multi-Residential Interim Control Bylaw Study Background Report
3 Appendix C – The City of Windsor Intensification Guidelines

City of Windsor
Multi-Residential Interim Control By-law Study

Independent Real Estate Intelligence

DRAFT REPORT

January 30, 2022

Altus Group

City of Windsor
Multi-Residential Interim Control By-law Study

Prepared for:

City of Windsor

Prepared by:

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January 30, 2022

DRAFT

EXECUTIVE SUMMARY

Altus Group Economic Consulting was retained by the City of Windsor to assist in undertaking research into determining appropriate locations in the City that can accommodate additional residential density.

This report provides demographic and economic analysis on factors driving intensification and infill demand in the City to inform planning policy recommendations for necessary changes to the City's Official Plan ("OP") and Zoning By-law to achieve the goal of increased intensification within the City's existing built-up area.

The analysis contained in this report will be used by the City's planning consultants (Municipal Consultants) to bring policy recommendations for the City to promote and encourage growth within the City.

The City experienced a growth in population between 2001-2005, however, it lost population each year over the 2006-2011 period. Since 2012, the City's population has grown, with the rate of growth increasing in the most recent past five years.

The composition of growth has changed in Windsor over the last two decades. When shown by four-year period, the net inflows to the City from domestic (from other provinces or parts of Ontario) and international sources (immigration, non-permanent residents) is roughly 4,500 persons per year between 2017-2020, nearly two-and-half times what it was in the prior four-year period (2013-2016). These more recent trends are markedly different than the net outflows seen during the period two four-year periods from 2005-2008 and 2009-2012

Population losses and gains have not been evenly distributed throughout the City. Of the 52 Census Tracts ("CTs") in the City of Windsor, a total of 43 CTs (or 83%) lost population over the 2006-2016 period. Of the nine (9) CTs that gained population, six (6) were located on the eastern, western, or southern edges of the City's boundary.

The population Inner Area of the City shrunk by nearly 4%, or 5,300 persons, with only one CT in the Inner Area seeing population growth, while the Outer Area outside of the blue line in the Figure below, grew by 6%, or roughly 5,900 persons.

Declining household sizes is also one major driver spurring the need for housing. The City needed 3,030 new homes over the 2006-2016 period just to maintain in the 2006 population levels, exclusive of any growth that occurred to 2016. The shrinking household sizes is also related to an aging population, with age brackets between 45-90+ all seeing increases of persons between 2006-2016, while age brackets below 45 saw loses.

Since 2001, average prices for single-detached units in the City have increased by 232%, from $177,500 in 2001 to $588,400 in 2020. While the average prices for single-detached units in Ontario have increased by a similar rate (239%) since 2001, the gap between the average prices in Ontario and the City have increased from $86,000 in 2001 to over $300,000 in 2020.

After rising from 3.0% in 2001 to a high of 15.0% in 2008, the vacancy rate in the City has steadily fallen to a low of 2.5% in 2017, and has been below 4.0% in each of the past five years. As expected during periods of high vacancy rates, rents were relatively unchanged over the 2001-2014 period, ranging between $652 and $703 per month over the 14-year period. As vacancy rates declined over the 2011-2017 period and have stayed low since, rents have increased to a 20-year high of $933 per month, an increase of 33% since 2014. The significant decline in vacancy rates and corresponding increase in average rents is indicative of a rental housing market that is in need of additional supply

To understand the overall housing market demand, we have undertaken an analysis of post-secondary enrolment trends for the institutions located in the City. It was projected that total post-secondary student enrolment in Windsor will increase by another 3,500 students, or another 17.7%, between Fall 2020 and Winter 2025.

Currently, there is only one formal student housing space for every 14 students as of the 2019-2020 school year but by the 2024-2025 school year, the City is expected to have 1 formal student housing space for every 10 students. Should there be any delays to the proposed new student housing developments, the City is expected to have 1 formal student housing space for every 16 students.

The recent acceleration of population growth in the City (and the broader Essex County area) has had implications for the price of new housing.

Despite the increase in demand, the amount of new housing constructed in the City has not increased substantially.

It is estimated that the City will see an increase in housing demand in the next 20 years, with total net housing demand forecasted to be:

- 5,432 single/semi-detached units;
- 1,443 townhouse units;
- 3,012 apartment units per year, including 2,317 rental apartments, and 694 condominium apartments; and
- 145 'other' dwellings (such as accessory apartments, etc.)

Based on our analysis of the demographic, and real estate market trends affecting the City, the broader region and the Province of Ontario as a whole, our recommendations are as follows:

- The City needs more housing in the inner areas of the City, with populations in a majority of the City declining due to a lack of new housing options and shrinking average household sizes;
- The City is not seeing enough purpose-built rental housing constructed to meet demand;
- Access to retail, transit and other community amenities can bolster the market for new residential development, making an area attractive to prospective new households;
- Similarly, adding residential uses near existing retail clusters can improve the viability of those retail environments. The practice of redeveloping major retail centres for a mix of uses including residential, as well as other community amenities such as parks, community centres, and even additional retail is growing across Ontario and Canada;
- The City needs to account for prospective growth in post-secondary enrolment in forecasting housing needs.

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1 INTRODUCTION

1.1 BACKGROUND

Altus Group Economic Consulting was retained by the City of Windsor to assist in undertaking research into determining appropriate locations in the City that can accommodate additional residential density.

This report provides demographic and economic analysis on factors driving intensification and infill demand in the City to inform planning policy recommendations for necessary changes to the City's Official Plan ("OP") and Zoning By-law to achieve the goal of increased intensification within the City's existing built-up area.

1.2 INTERIM CONTROL BY-LAW

In July 2020, the City of Windsor Council approved interim control by-law (ICBL) 103-2020 that allows the City to reconsider current land use policies in respect of high-density dwellings such as group homes, shelters, lodging houses, residential care facilities and buildings with five or more dwelling units.

1.3 APPROACH

This study reviews trends relating to population, housing and employment growth in the City, including how the City has changed over the past 10-20 years.

The analysis contained in this report will be used by the City's planning consultants (Municipal Consultants) to bring policy recommendations for the City to promote and encourage growth within the City.

2 POPULATION AND HOUSING TRENDS

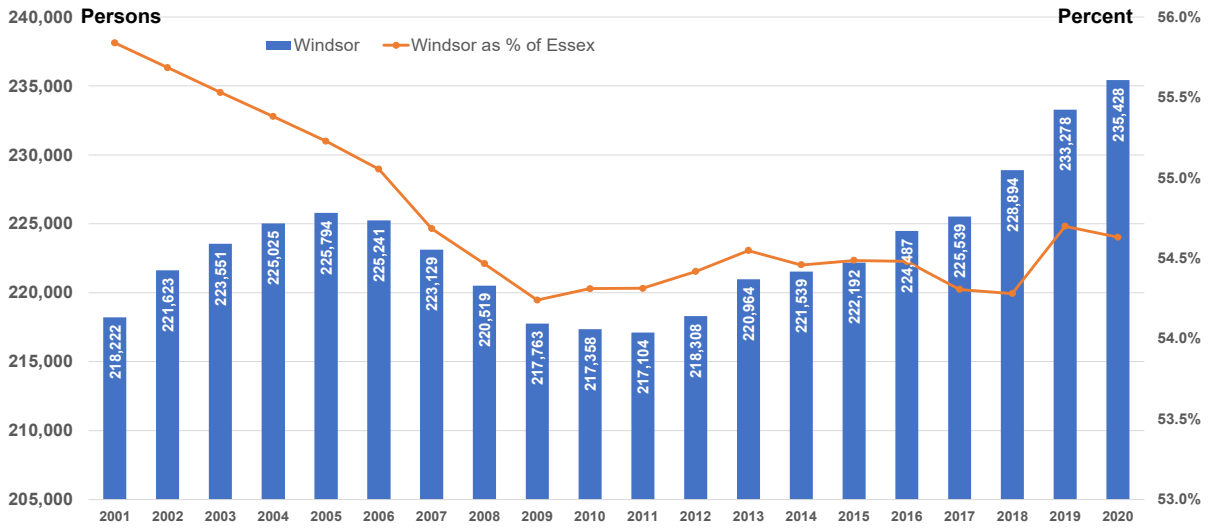
This section of the report reviews historic trends related to the population and composition of population in the City of Windsor.

2.1 POPULATION

2.1.1 Change in Population

Figure 1 shows the population of the City of Windsor in total, and as a share of total Essex County population over the 2001-2020 period, as estimated by Statistic Canada. Over the full 20-year period of analysis, the City grew by 7.9%, or 17,200 persons, while the population in Essex County increased by 10.3%, or 40,100 persons. The share of Essex County population in the City of Windsor fell from nearly 56% in 2001 to a low of 54.2% in 2009, but since that time the City's share of County population has remained relatively steady at over 54%.

Figure 1 **Population, City of Windsor, 2001-2020**



Source: Altus Group Economic Consulting based on Statistics Canada Population Estimate, 2001-2020

The City experienced a growth in population between 2001-2005, while it lost population each year over the 2006-2011 period. However, since 2012, the City's population has grown, with the rate of growth increasing in the past five years.

2.1.2 Change in Population by Age Group

Figure 2 provides a population breakdown of the number of people by age group in the City of Windsor over the 2006 to 2016 period. The City of Windsor has seen significant losses of population in the age groups of ages 0-14, 25-34, and 35-44, while it has seen large relative population gains in the age groups of ages 55-64, 64-74, and 85-90+. As a population ages, there will be a corresponding increase in number of dwelling units required per person (as persons aged 0-14 will not generate any demand for housing in-and-of-itself).

Overall, the City's population has only grew by 0.3% over the 2006-2016 period, or a total of 710 people, between 2006-2016, however, the distribution of losses and gains has not been even across the demographic spectrum. While the City saw a decline in the number of children and young adults (aged 15-24 and 25-44), it gained persons in the older adults (aged 45-64) and seniors (aged 65+).

Figure 2

Census Population by Age Group, City of Windsor, 2006-2016

	2006	2011	2016	Change 2006-2016	
Age Group		*Persons*		*Total*	*Percent*
0-14	39,480	36,270	35,425	(4,055)	(10.3)
15-24	29,490	28,510	29,350	(140)	(0.5)
25-34	31,175	26,360	27,490	(3,685)	(11.8)
35-44	33,090	28,680	26,390	(6,700)	(20.2)
45-54	29,795	31,795	31,180	1,385	4.6
55-64	22,435	26,090	29,065	6,630	29.6
65-74	15,535	16,980	20,680	5,145	33.1
75-84	11,800	11,505	11,970	170	1.4
85-90+	3,680	4,700	5,640	1,960	53.3
Total	216,480	210,890	217,190	710	0.3

Source: Altus Group Economic Consulting based on Statistics Canada Population Census 2006, 2011, 2016

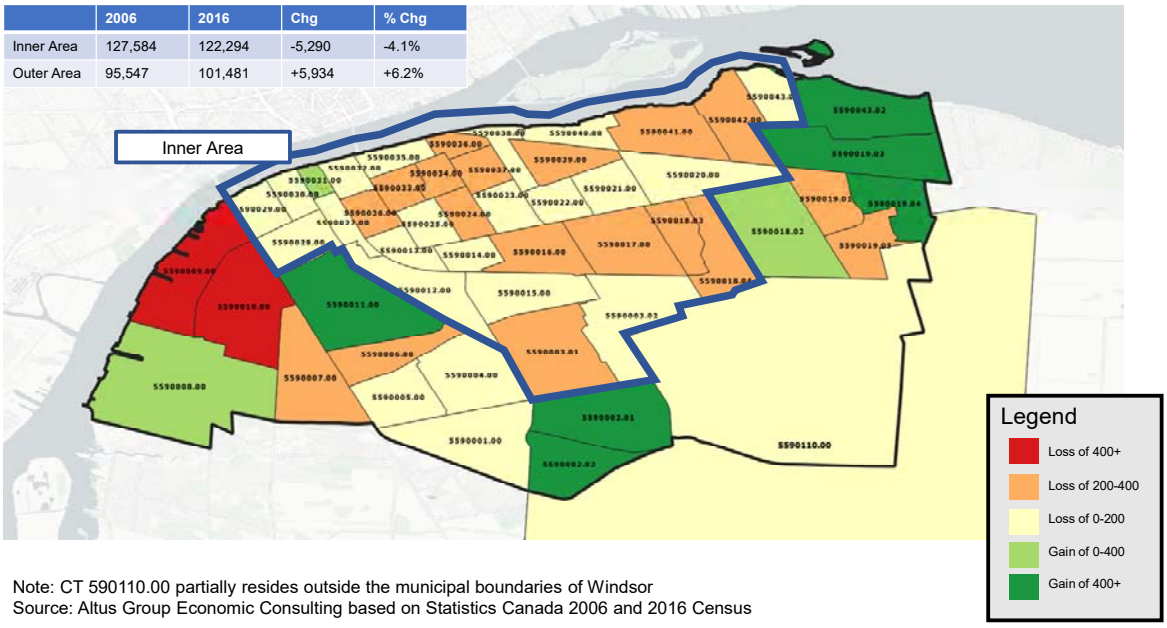
2.1.3 Change in Population by Area of City

Of the 52 Census Tracts ("CTs") in the City of Windsor, a total of 43 CTs (or 83%) lost population over the 2006-2016 period. Of the nine (9) CTs that gained population, six (6) were located on the eastern, western, or southern edges of the City's boundary.

Figure 3

Population Changes by Census Tract, City of Windsor, 2006-2016

	2006	2016	Chg	% Chg
Inner Area	127,584	122,294	-5,290	-4.1%
Outer Area	95,547	101,481	+5,934	+6.2%



Note: CT 590110.00 partially resides outside the municipal boundaries of Windsor
Source: Altus Group Economic Consulting based on Statistics Canada 2006 and 2016 Census

The Inner Area population of the City, demarcated by the thick blue line, over the 2006-2016 period, shrunk by nearly 4%, or 5,300 persons, with only one CT in the Inner Area seeing population growth, while the Outer Area, outside of the blue line in the Figure below, grew by 6%, or roughly 5,900 persons.

Understanding the amount of population loss in built-up areas of the City is important to recognising that a certain proportion of the dwelling unit intensification being considered through this planning exercise will be to regain and retain population in the Inner Area part of the City. The decline in population in existing built-up areas of the City is driven by a combination of not enough new housing being constructed combined with declining average household sizes, meaning that a certain amount of development will be required just to maintain the population in existing areas of the City.

2.1.4 Average Household Sizes

Windsor has seen the number of people per unit ("PPU") of households decrease by 3.3% between 2006-2016. This resulted in the population in existing households declining by over 7,000 persons, meaning that the City

needed 3,030 new homes over the 2006-2016 period just to maintain the 2006 population levels, exclusive of any growth that occurred to 2016.

Figure 4 **Household Size by Dwelling Type, City of Windsor, 2006-2016**

Dwelling Type	2006	2016	Change	% Change
	Persons Per Unit (PPU)			*Percent*
Single-detached house	2.72	2.63	(0.08)	-3%
Semi-detached house	2.68	2.61	(0.07)	-3%
Row house	2.56	2.44	(0.13)	-5%
Apartment	1.70	1.64	(0.07)	-4%
Total	2.42	2.34	(0.08)	-3%

Source: Altus Group Economic Consulting based on Statistics Canada 2006 and 2016 Census

The City's 2020 DC Study, authored by Hemson Consulting, forecasted continued steady decline in average household sizes to 2.27 persons per unit by 2041, a further 3.4% decline in average household size.

Figure 5 **Forecasted Total Population, Households, and Household Size, City of Windsor, 2020-2041**

Mid-Year	Census Population	Total Occupied Households	Average Household Size
	Persons	*Dwellings*	*Persons / Unit*
2020	220,991	94,593	2.35
2041	239,989	105,903	2.27
Change 2020-2041	18,998	11,310	(0.08)
		Percent	
% Change 2020-2041	8.6%	12.0%	-3.4%

Source: Altus Group Economic Consulting based on City of Windsor Development Charge Background Study, 2020

2.1.5 Sources of Population Change

2.1.5.1 International Immigration

International immigrants are defined by Stats Canada as:

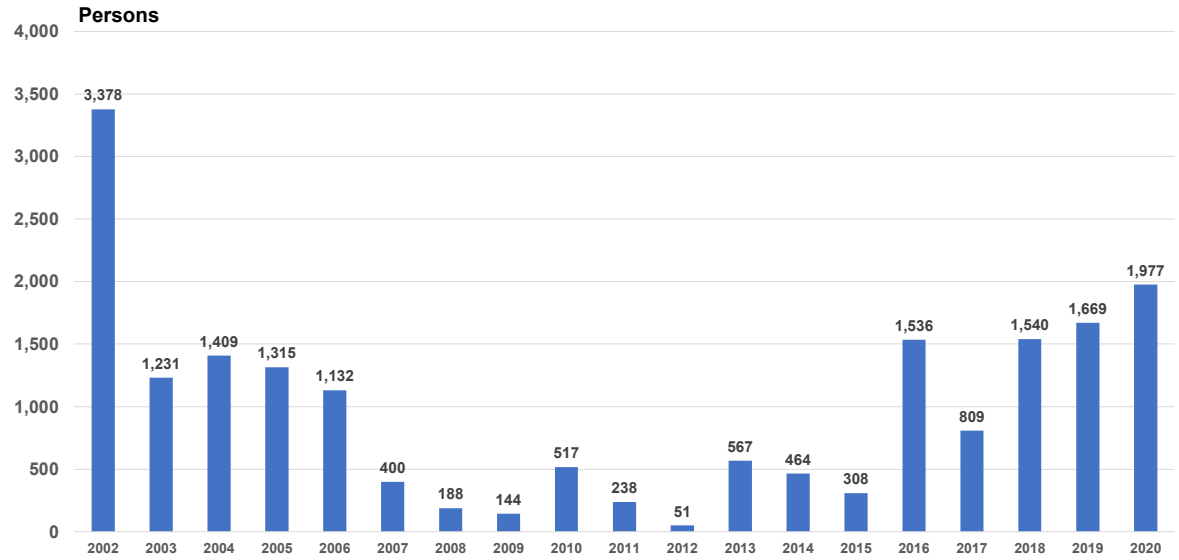
> "…persons who are, or who have ever been, landed immigrants or permanent residents. Such persons have been granted the right to live in Canada permanently by immigration authorities. Immigrants who have obtained Canadian citizenship by naturalization are included in this category"

The statistics on immigration do not include people who hold study permits, which are counted as "non-permanent residents" which will be discussed separately later in this report.

Between 2009-2015, net international immigration[1] to the City progressively decreased from 3,400 to 300 net new persons per year. Beginning in 2016 through to the year 2020, net international immigration increased to approximately 1,500 to 2,000 people per annum (except for 2017). Four of the past five years have been the highest net inflow of persons to the City since 2002.

Figure 6

Net International Immigration by Age Cohort, City of Windsor, 2002-2020



Source: Altus Group Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

Generally, net international immigration to the City has been led by adults between the ages of 25-34 and children between the ages of 0-14. The second largest immigrant age cohort to the City are young adults between the ages of 15-24 and adults aged 35-44. There has been some but much more limited numbers of net international immigration by people in the age cohorts of 45-54 and 55-64, however, there have been very few immigrants, in senior cohorts above 65+ years in age.

2.1.5.2 Interprovincial Migration

Interprovincial migration is the net movement of people between provinces or territories within Canada. In this case, it measures the net number of

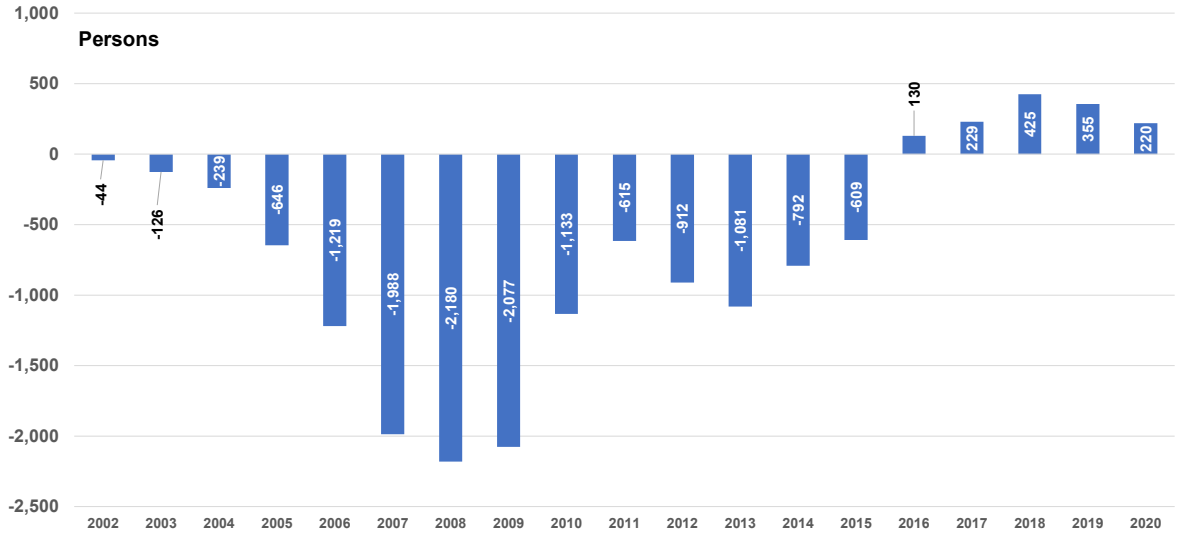
[1]Net immigration is immigration (people arriving in Canada as permanent residents) less emigration (permanent residents of Canada leaving to live outside of Canada)

people moving to/from Windsor from/to other provinces/territories outside of Ontario.

Over the 2002-2015 period, the City saw net outflows of people from the City to other provinces, however, since 2016, this statistic has become a net inflow of people from other provinces of Canada.

Figure 7

Interprovincial Migration, City of Windsor, 2002-2020



Source: Altus Group Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

2.1.5.3 Intraprovincial Migration

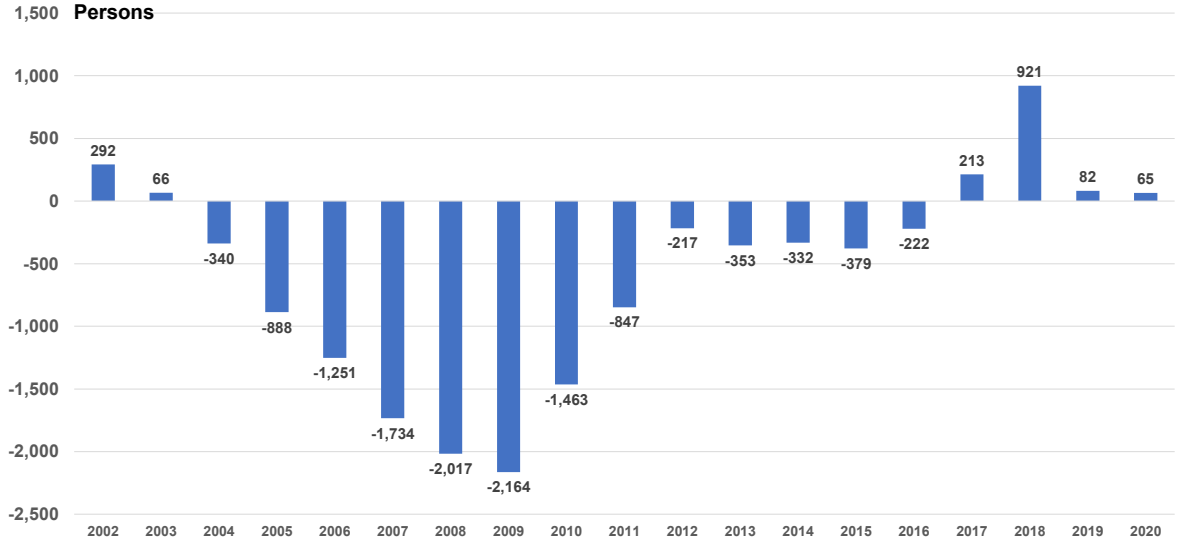
Intraprovincial migration is the movement of people within the same province or territory. In this case, it represents the net number of people moving to/from Windsor from/to other parts of Ontario.

Windsor has seen net negative outflows to intraprovincial migration in every year where there is data available except more recently between 2017-2020.[2] In total, the City has lost approximately 10,600 people between 2002-2020, with the largest share of this loss being made up of people in the age cohorts of between 15-44.

The two largest negative total outflow years between 2002-2020 were recorded in 2008 (2,000 persons) and 2009 (2,200 persons). However, since

those peak negative outflow years, the City has seen diminishing outflows of people with recorded positive inflows beginning in in 2017 to the present.

Figure 8 **Intraprovincial Migration, City of Windsor, 2002-2020**



Source: Altus Group Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

2.1.5.4 Non-Permanent Residents

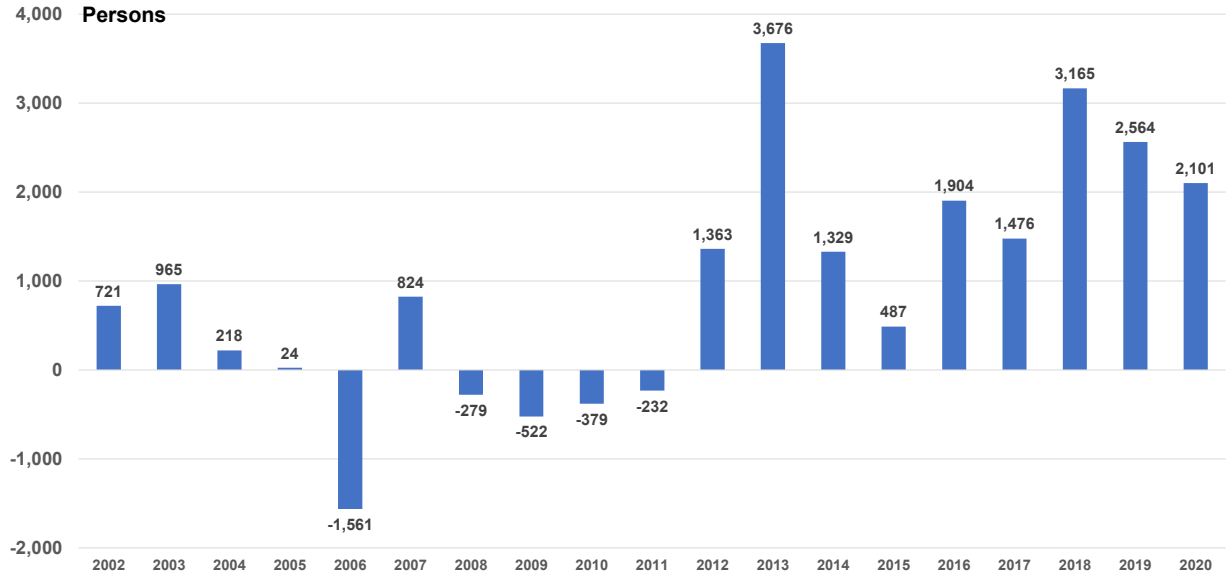
Statistics Canada defines non-permeant residents as:

> persons from another country with a usual place of residence in Canada and who have a work or study permit or who have claimed refugee status (asylum claimants).
>
> Family members living with work or study permit holders are also included, unless these family members are already Canadian citizens or landed immigrants/permanent residents.

After the City saw net outflows of non-permanent residents in five of the six years between 2006 and 2011, the City has since seen net inflows in each year over the 2012-2020 period, reaching a high of nearly 3,700 persons in 2013. The net inflow has been above 2,000 persons in each of the past three years (2018-2020).

Figure 9

Non-Permanent Residents, City of Windsor, 2002-2020

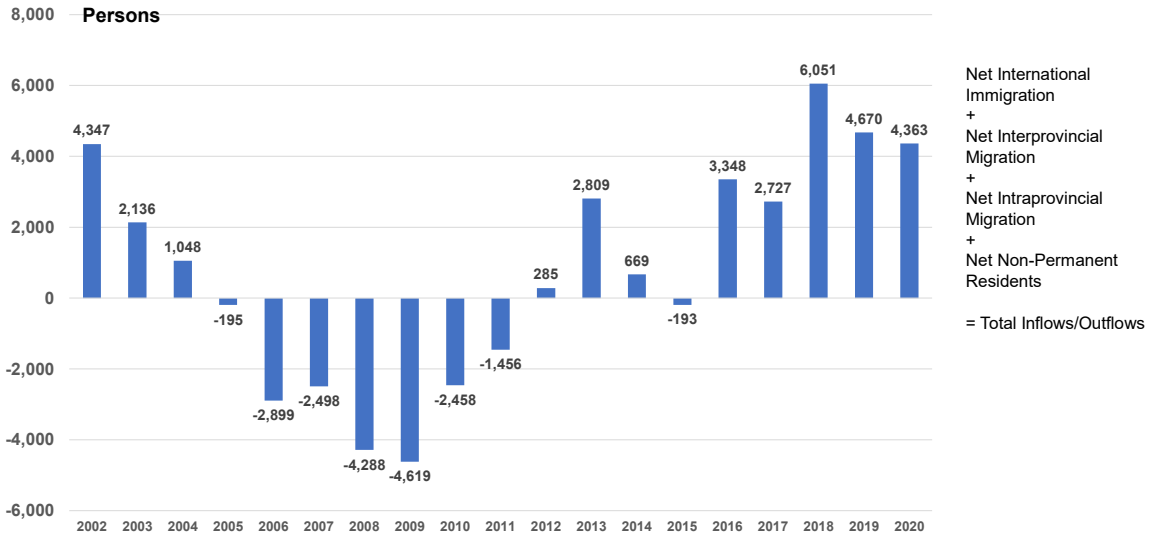


Source: Altus Group Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

2.1.5.5 Conclusions Regarding Sources of Population Change

When the annual inflows/outflows from net international immigration, net interprovincial migration, net intraprovincial migration and net non-permanent residents, it is evident that the net inflows from international and domestic sources are increasing significantly, with the past five years (2016-2020) being five of the largest seven years of inflows to the City since 2002 (behind only 2013 and 2002).

Figure 10 **Total Inflows/Outflows, City of Windsor, 2002-2020**

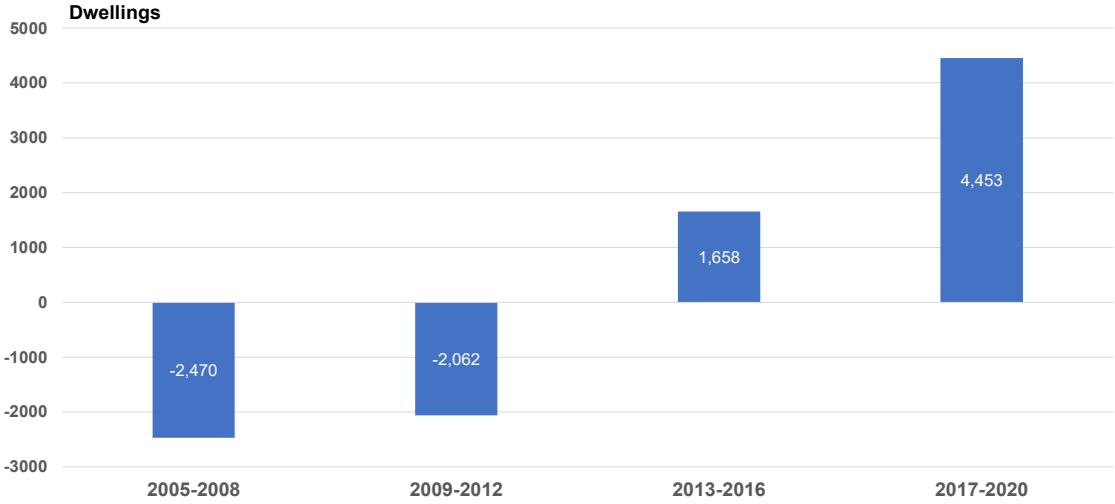


Source: Altus Group Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

When shown by four-year period, the net inflows to the City from domestic and international sources is roughly 4,500 persons per year, nearly two-and-half times what it was in the prior four-year period (2013-2016), and markedly different than the net outflows seen during the period two four-year periods from 2005-2008 and 2009-2012.

Figure 11 **Annual Net Inflows/Outflows, City of Windsor**

City of Windsor, 2005-2020, by 4-Year Period



Source: Altus Group Economic Consulting based Statistics Canada Estimates of the Components of Demographic Growth, 2005-2020

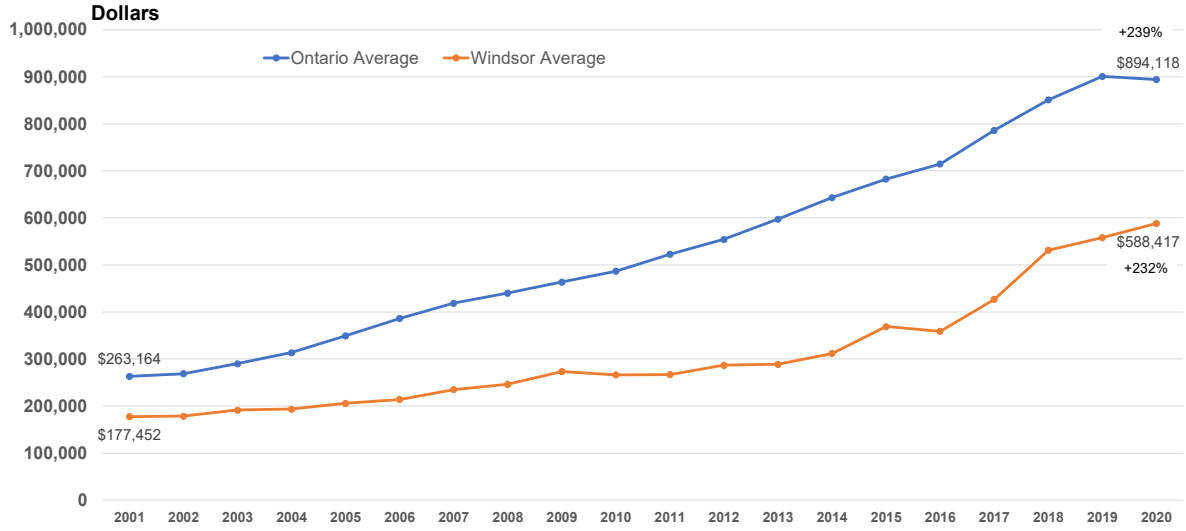
2.2 HOUSING

2.2.1 Housing Prices

Figure 12 shows the average price for absorbed (sold and completed) single-detached homes in the City of Windsor between 2001-2020, as reported by CMHC.[3]

Since 2001, average prices for single-detached units in the City have increased by 232%, from $177,500 in 2001 to $588,400 in 2020. While the average prices for single-detached units in Ontario have increased by a similar rate (239%) since 2001, the gap between the average prices in Ontario and the City have increased from $86,000 in 2001 to over $300,000 in 2020.

Figure 12 Average Absorbed Single-Detached Price, Ontario and City of Windsor, 2001-2020



Source: Altus Group Economic Consulting based on CMHC Housing Absorption Data, 2001-2020

2.2.2 Size of New Construction

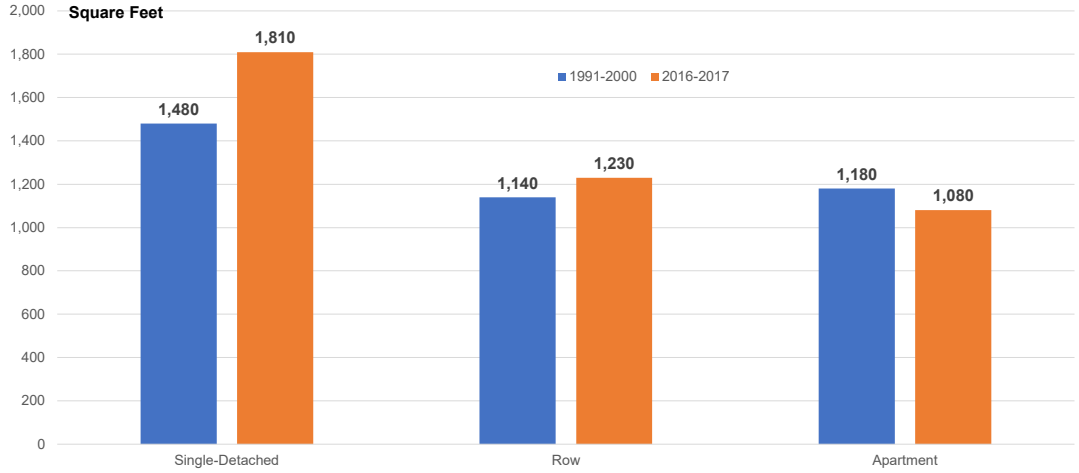
Figure 13 provides a breakdown of average above-grade living area by structure type for the City of Windsor.

The average size of a new single-detached unit in the City has grown from their average size in the 1990s by 22%, while the average townhouse unit has increased in size by 10%. The average size for apartment units has fallen by

[3] The data from CMHC does not control for unit sizes.

8%, but at 1,080 square feet is still on average larger than most new apartment units built elsewhere in Ontario.

Figure 13 **Average Above-Grade Living Area by Unit Type, by Period of Construction, City of Windsor**

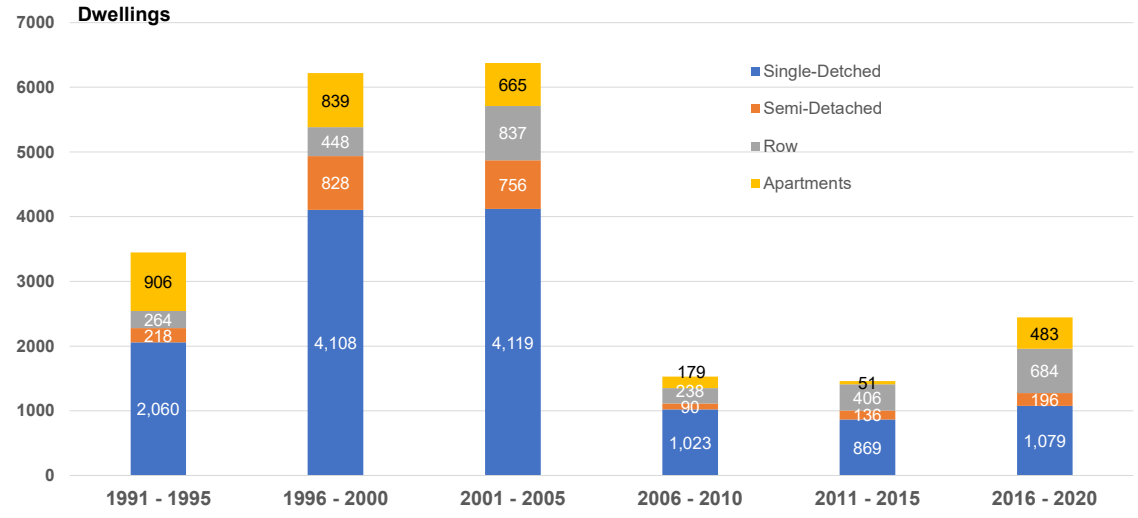


Source: Altus Group Economic Consulting based on Statistics Canada, Table 46-10-0028-01

2.2.3 Housing Completions by Unit Type

Figure 14 shows total housing completions by structure type in Windsor over the past 30 years, as broken out into separate five-year periods.

Figure 14 **Housing Completions by Structure Type**
City of Windsor, 1991-2020, by 5-Year Period



Source: Altus Group Economic Consulting based on CMHC Housing Completions Data

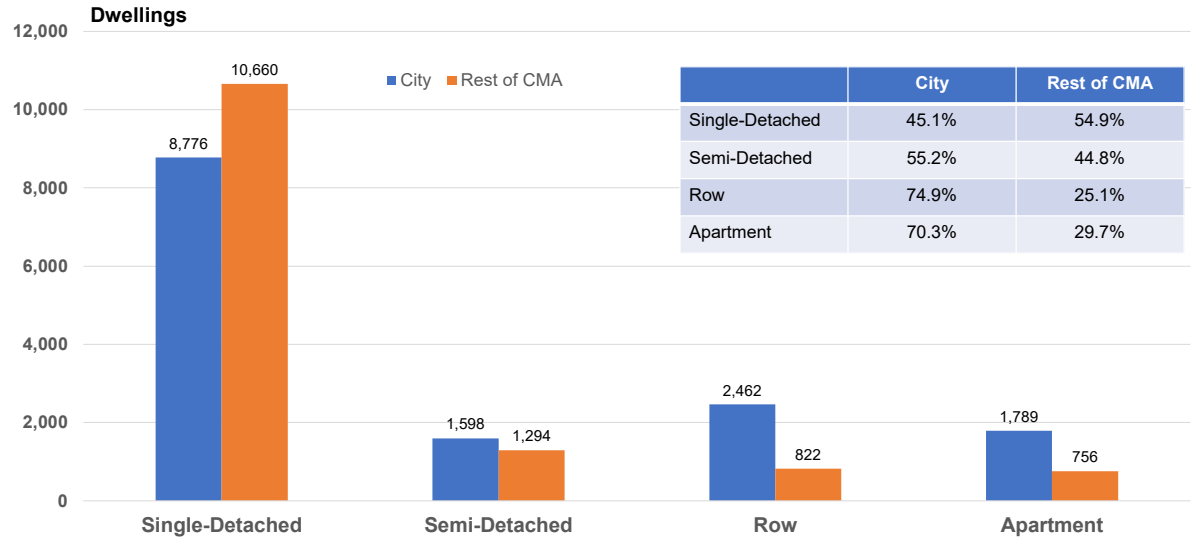
Since the 1996-2000 period, ground-oriented housing (single-detached and semi-detached) has progressively made up a smaller share of the total completed units in the City, falling from 79% of units in the 1996-2000 period, to 52% in the most recent five-year period (2016-2020).

Row housing (townhouses) has increased in importance, making up 7-16% of new housing completions in the City over the 1991-2010 period, but 28% in each of the past two five-year periods.

The total number of apartment completions in the City was highest during the 1991-2005 period, when 2,410 apartment units were completed or an average of 160 units per year. Over the next fifteen-year period, the City saw just 713 apartment units completed or under 48 units per year.

Since 1999, the City has received roughly 52% of the housing unit completions in the broader Windsor CMA, however, the share differs by unit type, with the City receiving lower than average shares of single-detached units, but higher than average shares of all other types of housing[4], with the City's share of CMA completions for rows (74.9%) and apartments (70.3%) each exceeding 70%.

Figure 15 **Location of Housing Completions by Structure Type**
City of Windsor and Rest of Windsor CMA, 1999-2020



	City	Rest of CMA
Single-Detached	45.1%	54.9%
Semi-Detached	55.2%	44.8%
Row	74.9%	25.1%
Apartment	70.3%	29.7%

Source: Altus Group Economic Consulting based on CMHC Housing Completions Data

[4] Semi-detached, row, apartment

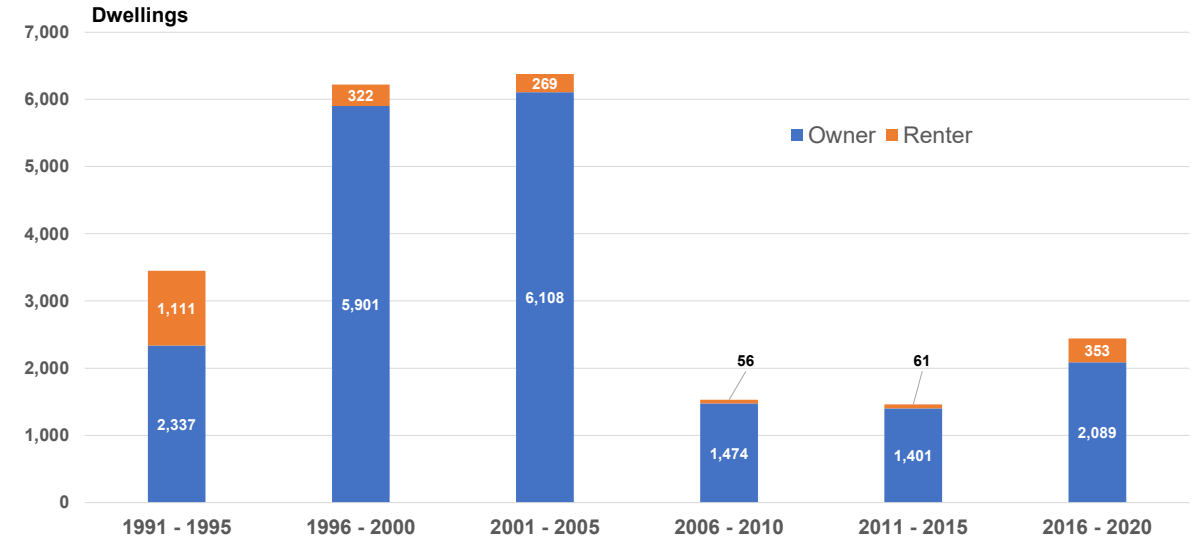
As the housing demand forecasts undertaken by Altus Group Economic Consulting are done for the Windsor CMA, the proportions of housing by structure type between the City and rest of CMA will be utilized to form assumptions for what proportion of future housing demand is likely to be directed towards the City of Windsor.

2.2.4 Housing Completions by Tenure

Figure 16 shows total housing completions by tenure in the City of Windsor over the past 30 years, as broken out into separate five-year periods.

The share of housing completions that were rental tenure over the 1991-2020 period was just 10.1%, heavily driven by the 32% share seen in the 1991-1995 period. Since 1991-1995, just 5.9% of new housing completions in the City have been rental tenure, or only 1,061 rental units in total (or 42 units per year).

Figure 16 **Housing Completions by Tenure**
City of Windsor, 1991-2020, by 5-Year Period



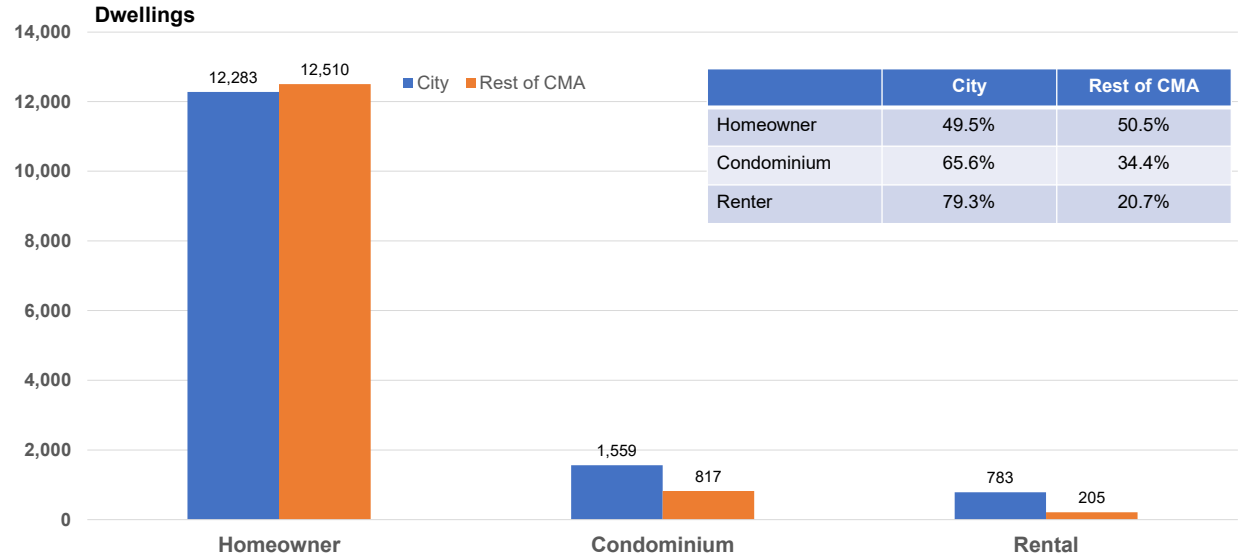
Source: Altus Group Economic Consulting based on CMHC Housing Completions Data, 1991-2020

Since 1999, the City has received roughly 52% of the housing unit completions in the broader Windsor CMA, however, like the differences in unit type, there are also significant differences in the forms of housing tenure that the City receives versus the rest of the CMA.

The City receives a lower-than-average shares of freehold ownership units (49.5%), but higher than average share of all other tenures, including

condominium (65.6%) and rental units (79.3%). To the extent that our housing demand forecast identifies specific unit types and tenures, these historic trends will be used to inform assumptions that allocate housing demand to the City or the rest of the Windsor CMA.

Figure 17 **Location of Apartment Housing Completions by Tenure**
City of Windsor and Rest of Windsor CMA, 1999-2020



	City	Rest of CMA
Homeowner	49.5%	50.5%
Condominium	65.6%	34.4%
Renter	79.3%	20.7%

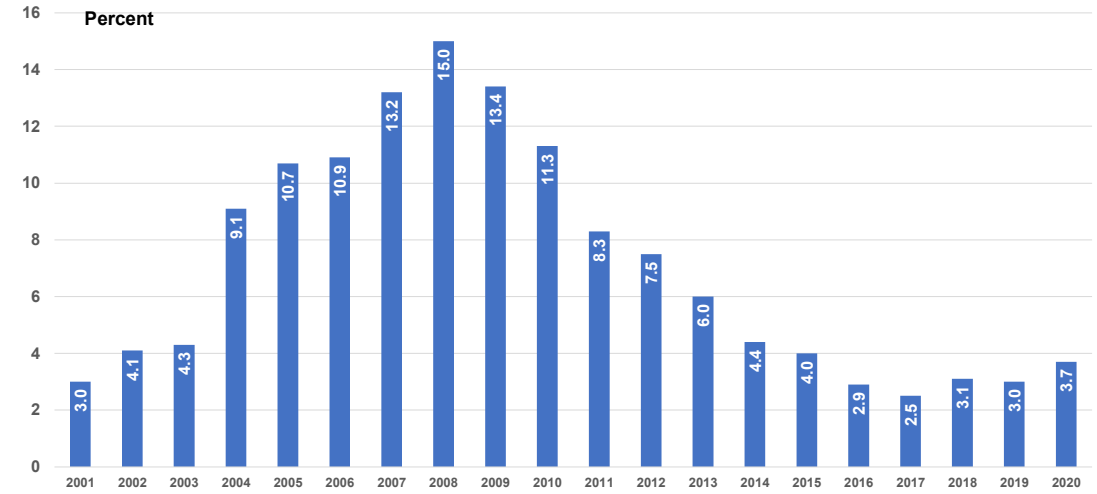
Source: Altus Group Economic Consulting based on CMHC Housing Completions Data

When the rental tenure units are broken down by unit type, the City receives a substantial share of the purpose-built rental housing completions within the CMA. Of the rental row houses, 93% were located in the City, while 82% of rental apartments were located in the City.

2.2.5 Rental Housing Market Trends

Figure 18 shows the 20-year trend in vacancy rates for private rental apartment units in the City of Windsor. After rising from 3.0% in 2001 to a high of 15.0% in 2008, the vacancy rate in the City has steadily fallen to a low of 2.5% in 2017, and has been below 4.0% in each of the past five years.

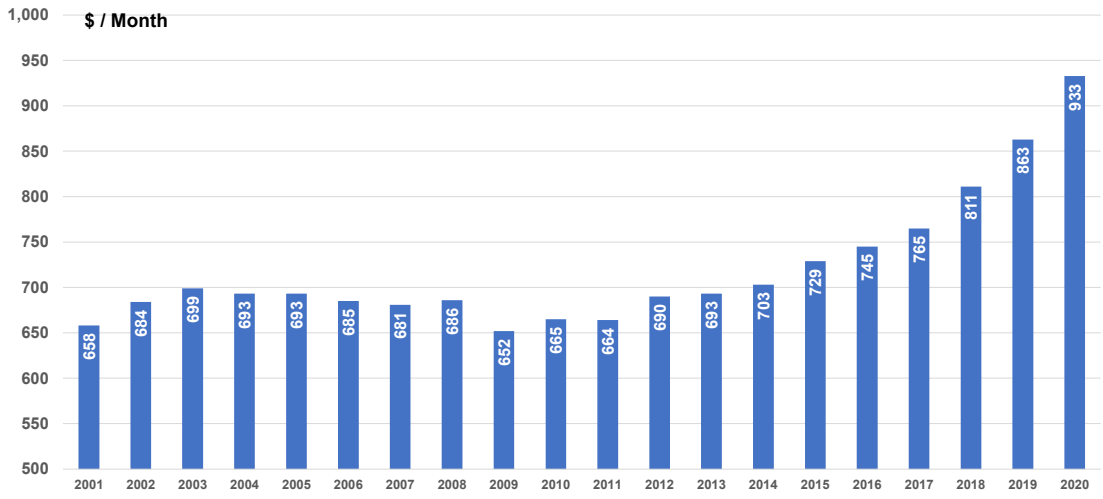
Figure 18 **Rental Apartment Vacancy Rate, City of Windsor**



Source: Altus Group Economic Consulting based on CMHC Rental Market data

Figure 19 shows the changes to average monthly rents for private apartment units in the City. As expected during periods of high vacancy rates, rents were relatively unchanged over the 2001-2014 period, ranging between $652 and $703 per month over the 14-year period. As vacancy rates declined over the 2011-2017 period and have stayed low since, rents have increased to a 20-year high of $933 per month, an increase of 33% since 2014.

Figure 19 **Average Monthly Rents, Rental Apartments, City of Windsor**



Source: Altus Group Economic Consulting based on CMHC Rental Market data

The significant decline in vacancy rates and corresponding increase in average rents is indicative of a rental housing market that is in need of additional supply. Over the 2001 to 2020 period, the number of private rental apartments in the City has increased by just 296 units, from 14,218 units in 2001 to 14,516 units in 2020.

2.2.6 Seniors Housing Market Trends

Figure 20 provides the vacancy rate, total number of residence buildings, residents, and spaces for senior housing in Windsor over the 2019-2021 period. The vacancy rate in the City has risen from 8.7% in 2020 to 26.2% in 2021.

Figure 20

Senior Housing, Vacancy Rates, Total Residences, Residents and Spaces, 2020-2021, City of Windsor

Year	Vacancy Rate	Total Residences	Total Residents	Total Spaces
	Percent	*Buildings*	*People*	
2019	6.6	n.d	n.d	n.d
2020	8.7	10	1,087	1,113
2021	26.2	10	888	1,130
Change 2020-2021	17.5	-	(199)	17

Source: Altus Economic Consulting based on CMHC Senior Housing Data

Figure 21 provides the vacancy rate by rent range and unit type for senior housing in Windsor between 2019 and 2021.

Figure 21

Vacancy Rate, by Rent Range and Unit Type, 2019-2021, City of Windsor

	Rent Range				
Year	Less than $2,500	$2,500-$2,999	$3,000-$3,499	$3,500-$3,999	$3,500-$3,999
			Percent		
2019	6.8	12.4	6.6	n.d	4.0
2020	n.d	13.3	6.2	5.3	6.0
2021	32.9	28.0	27.0	21.1	22.9

	Unit Type			
	Ward/ Semi-Private	Bachelor/ Studio	1 Bedroom	2 Bedroom+
			Percent	
2019	n.d	9.5	4.6	n.d
2020	n.d	11.1	4.6	n.d
2021	n.d	25.2	21.7	n.d

Source: Altus Economic Consulting based on CMHC Senior Housing Data

Mirroring total vacancy rates, the rates by either rent range or unit type have grown significant since the onset of the COVID-19 pandemic. Generally,

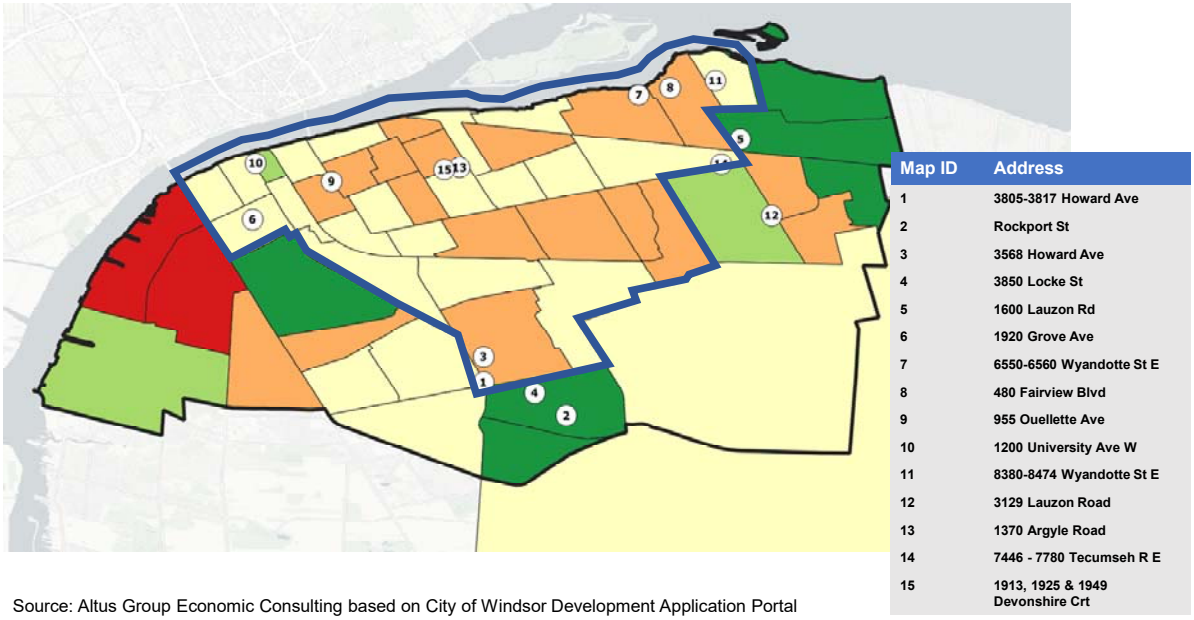
vacancy rates are higher for smaller rental units and those with lower rental prices.

2.3 OTHER CONSIDERATIONS – POPULATION AND HOUSING

2.3.1 Location of Development Applications

Of the major development applications in the City, there are 1,038 dwelling units proposed (for those with known unit counts), with the majority of these dwelling units proposed for the "Inner Area" where the population has been declining.

Figure 22 **Major Residential Development Applications, City of Windsor**



Map ID	Address
1	3805-3817 Howard Ave
2	Rockport St
3	3568 Howard Ave
4	3850 Locke St
5	1600 Lauzon Rd
6	1920 Grove Ave
7	6550-6560 Wyandotte St E
8	480 Fairview Blvd
9	955 Ouellette Ave
10	1200 University Ave W
11	8380-8474 Wyandotte St E
12	3129 Lauzon Road
13	1370 Argyle Road
14	7446 - 7780 Tecumseh R E
15	1913, 1925 & 1949 Devonshire Crt

Source: Altus Group Economic Consulting based on City of Windsor Development Application Portal

Of the 1,038 units in the active development applications, 81% are located in the Inner Area, including 89% of the apartments under proposal.

This is indicative of a high-density residential market willing and able to locate in the existing parts of the City, however, the quantum of new development will need to be increased to meet demand through supportive policies permitting and encouraging high-density residential projects in existing built-up parts of the City.

Figure 23 **Active Major Residential Developments, City of Windsor, Winter 2022**

Map ID	Address	Single	Semi	Row	Apartment	Total
				Dwelling Units		
1	3805-3817 Howard Ave	-	-	-	54	54
2	Rockport St	80	-	-	-	80
3	3568 Howard Ave	13	-	-	-	13
4	3850 Locke St	-	18	-	-	18
5	1600 Lauzon Rd	n.d	n.d	n.d	n.d	n.d
6	1920 Grove Ave	-	40	-	-	40
7	6550-6560 Wyandotte St E	n.d	n.d	n.d	n.d	n.d
8	480 Fairview Blvd	-	-	-	15	15
9	955 Ouellette Ave	-	-	-	32	32
10	1200 University Ave W	-	-	-	133	133
11	8380-8474 Wyandotte St E	-	-	-	63	63
12	3129 Lauzon Road	-	-	-	96	96
13	1370 Argyle Road	-	-	-	81	81
14	7446 - 7780 Tecumseh R E	-	-	-	390	390
15	1913, 1925 & 1949 Devonshire Crt	-	-	-	23	23
Total		93	58	-	887	1,038

Note: Inclusive of development proposals greater than 5 dwelling units, but excludes residential and senior care facilities
Source: Altus Group Economic Consulting based on City of Windsor Development Application Portal

In their recent Economic Outlook for the City, CBRE indicated that the City of Windsor was primed to see growth within the existing built-up part of the City:

> **Windsor Municipality Targets Density & Development**
>
> The City of Windsor's aggressive push to incentivize new development and spur urban density in the core is expected to expand and drive developer interest. With robust fundamentals, further tax rebates and new community improvement plans expected, both new and long proposed projects could finally break ground or get announced in 2021.

2.3.2 Importance of Access to Transit

Transit Windsor currently operates 15 different bus routes including a new limited-stop *express* route (Route 518X) from Tecumseh Mall to St. Clair College (via Devonshire Mall) intended to reduce travel times by over an hour each way between the eastern portions of the City and St. Clair College. This route is set to become a permanent corridor after experiencing strong ridership in its pilot phase – averaging 1,500 to 1,800 unique trips, or annualized ridership of over 90,000[5]. It is estimated that transit will see a 30% increase in ridership once the route is approved for expansion[6]. The success of this pilot is integral to the execution of the City's 2019 Transit Master Plan;

[5] City of Windsor (Dec 2021) – https://www.citywindsor.ca/Newsroom/Pages/Proposed-2022-Budget-Delivers-Results-for-Transit-Operations.aspx

[6] City of Windsor – 2022 Budget Issue Detail (Public), Page 250

More Than Transit ("TMP") that prioritizes enhanced transit service and increased ridership.

The 518X joins an existing transit network which is "downtown" centric, with 10 routes originating or terminating in Downtown Windsor. There are also four routes that are interregional connecting to points outside of the City, including Downtown Detroit, the Town of LaSalle, the Town of Tecumseh and a limited service to the Municipality of Leamington.

Transit ridership has generally followed the population trends of Windsor – remaining relatively stagnant since 2007, at times declining, and rising slightly during the years prior to the pandemic.

However, Transit Windsor continues to face several challenges:

- The historical operating budget for Transit Windsor for the service shows that both revenues and expenses have been increasing over the past decade; however, expenditures continue to be roughly double the operating revenue generates;[7]
- Despite increasing costs, the City has been unable to increase revenue vehicle kilometres and hours;
- A review of Transit Windsor travel patterns shows that a gap exists between peak transit demand and service supply, as commute trips by all modes of travel are distributed across the City rather than being focused on the core, despite the majority of the network routes being directed there. As an example, less than 10% of morning peak period trips have a destination of Downtown Windsor, an outcome that contrasts with most other major municipalities[8].

To improve the City's transit infrastructure, the City has budgeted $63 million for new capital projects over the next decade. In addition, following the success of the Express 518X, the next major service improvement is the addition of Route 418, estimated to cost about $1 million annually to operate[9]. The route will provide express east-west service along Tecumseh Road and

[7] City of Windsor & Dillon Consulting (2019) – Transit Master Plan; *More Than Transit,* Page 7

[8] City of Windsor & Dillon Consulting (2019), Page 8

[9] Blackburn News (Dec 2021) - https://blackburnnews.com/windsor/windsor-news/2021/12/02/budget-proposes-transit-windsor-investments-enough/

the new St. Denis Athletic and Community Centre at the University of Windsor.

It will be important to focus intensification within the City of Windsor on areas already well-served by transit services, to leverage and optimize planned capital and operational investments.

2.3.3 Importance of Access to Amenities

There is a great deal of literature that reviews the impacts of various amenities on land values and home prices. Using land values and homes prices acts as a proxy for reviewing the impact on housing demand from amenities, as growth in prices are an indicator of greater demand. These include:

- **Public Transit:** Access to public transit is positively correlated with higher land values and homes prices[10], however, geographic context needs to be accounted for. The impact from higher order transit has a wider but less sizable effect on low-rise communities, while in high rise transit orientated communities ("TOD") the effect is greater but not as geographically dispersed.[11]
- **Parks and Open Spaces:** Access to public parks and open spaces has been found to have significant impact on nearby residential properties' sale prices, particularly for housing types that lack self-contained green spaces (i.e., backyards), like apartments or townhomes.[12]
- **Libraries:** It was also found that being located within walking distance to a public library increased property values, with a nearly 8% property value increase for properties within 400 metres of a library. [13]

[10] Shanaka Herath. *Elevating the Value of Urban Location: A Consumer Preference-Based Approach to Valuing Local Amenity Provision.* Land. 2021

[11] Higgins and Kanaroglou. *Rapid transit, transit-oriented development, and the contextual sensitivity of land value uplift in Toronto*. Urban Studies. 2017

[12] McCord, McCluskey, Davis, et al. *Effect of public green space on residential property values in Belfast metropolitan Area*. Journal of Financial Management of Property and Construction. 2014

[13] Diamond, Gillen, et al. *The Economic Value of The Free Library in Philadelphia. Fels Institute of Government at the University of Pennsylvania*. 2010

- **Retail**: A 2007 study of a municipality in Washington State found that proximity to retail had a significant positive effect on residential values.[14]

2.3.4 University and College Enrolment and Housing Options

The Census population for the City only includes permanent population, excluding non-permanent populations such as post-secondary students. However, while post-secondary students are not included in population counts, they do require housing for much of the year, and need to be considered in understanding the housing trends affecting a municipality.

Therefore, to understand the overall housing market demand, we have undertaken an analysis of post-secondary enrolment trends for the institutions located in the City – primarily the University of Windsor and St. Clair College primarily, but others as well.

Student enrollment for both St. Clair College and the University of Windsor has grown by a total of approximately 3,600 students between Fall 2012-Winter 2020 semesters.[15] However, the increase in student population has been greatest at the University of Windsor, which has seen a growth of approximately 3,200 full-time students, an increase of 23.1%.

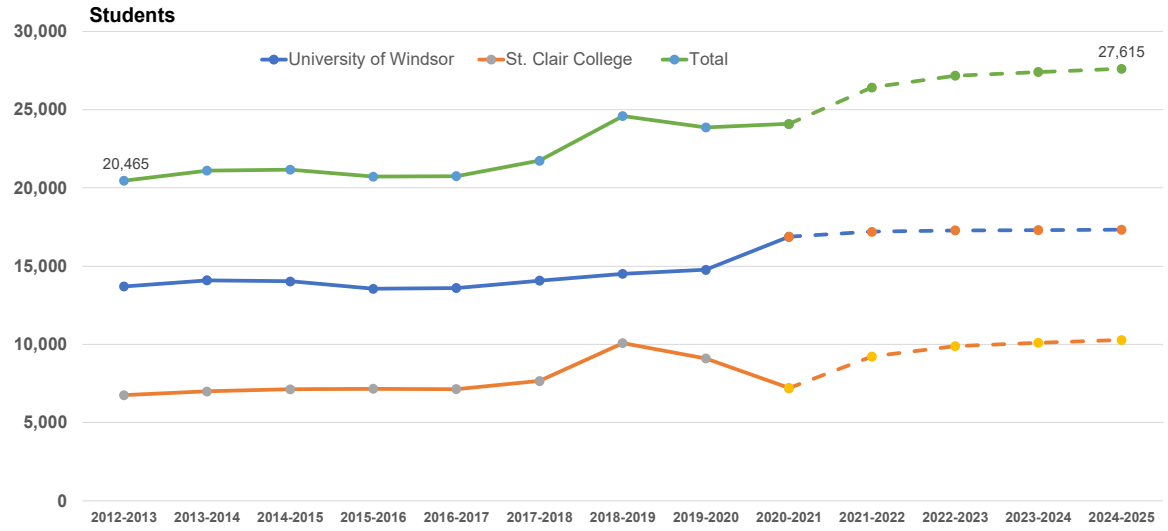
It was projected that total post-secondary student enrolment in Windsor will increase by another 3,500 students, or another 17.7%, between Fall 2020 and Winter 2025.

[14] Matthews. *Retail Proximity and Residential Values*. 2007

[15] See Appendix B **Error! Reference source not found.** for a yearly breakdown of student enrollment by higher education institution and by total.

Figure 24 **University and College Enrollment**

City of Windsor, 2012-2020 (actual) and 2021-2025 (projected)



Note: Projections of student enrollment between 2020-2025 for St. Clair College have been discounted to account for campuses outside of Windsor
Source: Altus Group Economic Consulting based on University of Windsor, St. Clair College, and Ministry of Colleges and Universities

Figure 25 below provides a summary of both existing and future potential formal student housing in the City.

Currently, there is only one formal student housing space for every 14 students as of the 2019-2020 school year. Assuming that both the unnamed future residence hall at the University of Windsor with 450 spaces and the new International Student Residence Hall with 512 spaces at St. Clair College are completed by the 2024-2025 school year, the City is expected to have 1 formal student housing space for every 10 students. Should both student residences at the College and University be delayed beyond 2025, then the City is expected to have 1 formal student housing space for every 16 students.

Figure 25

Existing and Potential Future Student Housing, City of Windsor

Existing Housing	
Educational Institution and Reisdent Halls	Spaces
St. Clair College	
Windsor Campus	408
Total	408
University of Windsor	
Alumni Hall	337
Laurrie Hall	150
Cartier Hall	153
Risidence West[1]	270
Total	910
Potential Future Housing	
St. Clair College	
Intnational Student Residence	512
University of Windsor	
Unnamed Residence Hall	450
Total Existing Student Housing	1,726
Total Potential Student Housing	962
Total Student Housing	2,688

1 Closed for 2021-2022 semister
Source: Altus Group Economic Consulting based on University of Windsor, St. Clair College

Based on discussions with the University of Windsor, it was identified that most student who choose to dwell in student residences are typically first-year bachelor program students from outside the Windsor Region. As these students mature into second and subsequent school years, they typically move into student housing in the nearby neighbourhoods or in other parts of City.

In devising housing need forecasts, the City should ensure that current and future post-secondary students are captured in the estimated housing demand.

2.3.5 Commuting Flows

Figure 26 below shows, for persons with a usual place of work, the place of work for persons who reside in the City of Windsor, and the place of residence for people who work within the City. In total, the number of people working in the City at a usual place of work (93,565 persons) is significantly greater than the number of working persons who live in the City

(76,425 persons), meaning that there is a net inflow of 17,140 persons from areas surrounding the City.

Figure 26

Commuting Flow, City of Windsor, 2016

Municipality	2016 Persons Working in Windsor	2016 Place of Work for Persons Living in Windsor	2016 Net Inflow / (Outflow)
		Persons	
Windsor, CY	60,310	60,310	-
LaSalle, T	8,430	1,750	6,680
Amherstburg, T	4,445	760	3,685
Lakeshore, T	7,230	3,970	3,260
Essex, T	2,980	740	2,240
Kingsville, T	1,830	660	1,170
Chatham-Kent, MU	860	450	410
Leamington, MU	850	715	135
Tecumseh, T	6,210	6,425	(215)
All Other	420	645	(225)
Total	93,565	76,425	17,140

Source: Altus Group Economic Consulting based on Statistics Canada, Catalogue no. 98-400-X2016325

The greatest net inflow of workers into the City is from LaSalle, where 8,430 people live and work in the City of Windsor, but only 1,750 persons who live in the City of Windsor and commute to LaSalle, for a net inflow of nearly 6,700 persons.

There are also significant net inflows from Amherstburg (3,685 persons), Lakeshore (3,260 persons), Essex (2,240 persons) and Kingsville (1,170 persons).

3 EMPLOYMENT AND ECONOMIC TRENDS

This section of the report reviews trends in employment in the City, as well as trends affecting the retail and industrial sectors in particular.

3.1 EMPLOYMENT TRENDS

3.1.1 Change in Employment

In 2006, the City of Windsor had 114,785 jobs, but over the 2006-2016 period, the number of jobs in the City has declined by 8% or nearly 9,000 jobs. The decline in nearly 10,000 jobs with a usual place of work was offset somewhat by an increase of 1,450 jobs with 'no fixed' place of work, which may include construction workers, delivery drivers, and other occupations without a usual place of work.

Figure 27

Total Employment in City of Windsor, 2006-2016

	2006	2016	Change 2006 -2016	
		Jobs		*Percent*
Work at Home	3,765	3,325	(440)	-12%
No Fixed Place of Work	7,090	8,540	1,450	20%
Usual Place of Work	103,930	93,960	(9,970)	-10%
Total Employment	114,785	105,825	(8,960)	-8%

Source: Altus Economic Consulting based on Statistics Canada Census, 2006 and 2016

3.1.2 Change in Employment by Sector

Figure 28 below shows the change in employment in the City by industry sector over the 2006-2016 period, where the City saw a decline of nearly 10,000 jobs. The largest decline was seen in the manufacturing sector, which lost 27% of the jobs the sector had in 2006, or a decline of nearly 6,900 jobs in the 10-year period.

Figure 28 **Change in Jobs Located in City of Windsor by Industry, 2006-2016**

Industry	2006	2016	Change 2006-2016	% Change
		Jobs		*Percent*
11 Agriculture, forestry, fishing and hunting	190	130	(60)	-32%
21 Mining and oil and gas extraction	295	245	(50)	-17%
22 Utilities	535	490	(45)	-8%
23 Construction	2,475	2,020	(455)	-18%
31-33 Manufacturing	25,235	18,340	(6,895)	-27%
41 Wholesale trade	2,700	1,995	(705)	-26%
44-45 Retail trade	13,150	11,445	(1,705)	-13%
48-49 Transportation and w arehousing	3,765	3,465	(300)	-8%
51 Information and cultural industries	1,490	1,230	(260)	-17%
52 Finance and insurance	3,310	3,835	525	16%
53 Real estate and rental and leasing	1,385	1,155	(230)	-17%
54 Professional, scientific and technical services	3,970	3,995	25	1%
55 Management of companies and enterprises	50	45	(5)	-10%
56 Administrative and support, w aste management, remediation, etc.	2,705	3,775	1,070	40%
61 Educational services	7,740	8,030	290	4%
62 Health care and social assistance	11,415	13,900	2,485	22%
71 Arts, entertainment and recreation	4,990	3,120	(1,870)	-37%
72 Accommodation and food services	9,440	8,425	(1,015)	-11%
81 Other services (except public administration)	4,405	3,540	(865)	-20%
91 Public administration	4,675	4,795	120	3%
Total	103,930	93,960	(9,970)	-10%

Source: Altus Group Economic Consulting based on 2006 and 2016 Census

Other sectors seeing large losses were the arts/entertainment/recreation sector (-37% or 1,870 jobs), the accommodation/food service sector (-11% or 1,015 jobs), and retail (-13% or 1,705 jobs).

The only sectors that saw increased employment in the City were the health care sector, the administrative and support sector and educational services.

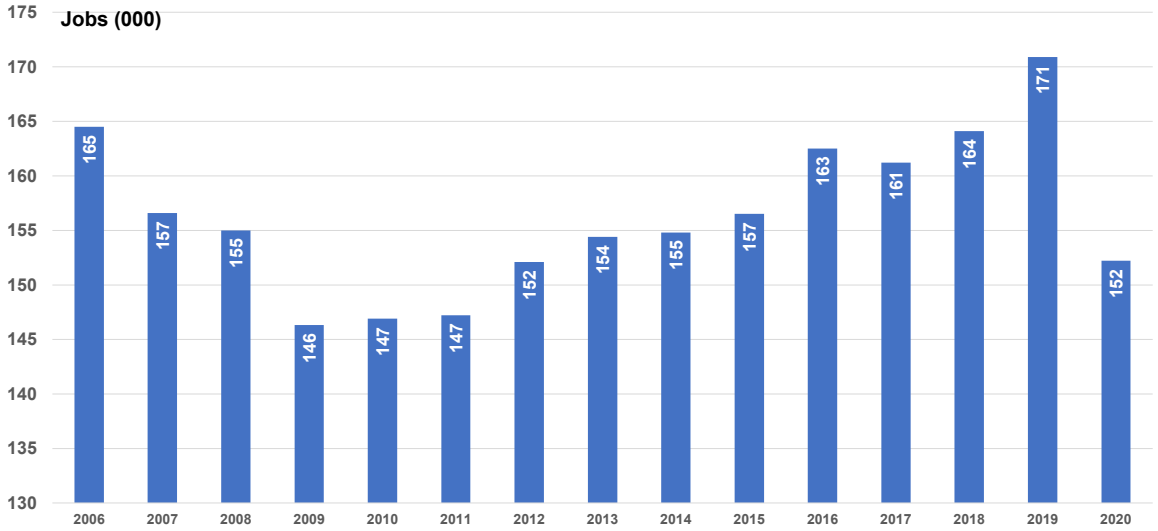
3.1.3 Employment Rate and Unemployment Rate

Figure 29 provides labour force characteristic statistics between 2006-2020 for the Windsor Census Metropolitan Area ("CMA")[16]. Note, census metropolitan areas are the lowest level of geographic analysis for publicly available employment data that is provided by Statistics Canada.

Over the 2009-2019 period, total employment in the Windsor CMA increased by nearly 25,000 jobs, from 146,000 jobs in 2009 to 171,000 jobs in 2019. Employment levels fell to 152,000 jobs in 2020 due to impacts from the COVID-19 pandemic.

[16] Includes the City of Windsor along with the Towns of Amherstburg, LaSalle, Lakeshore and Tecumseh.

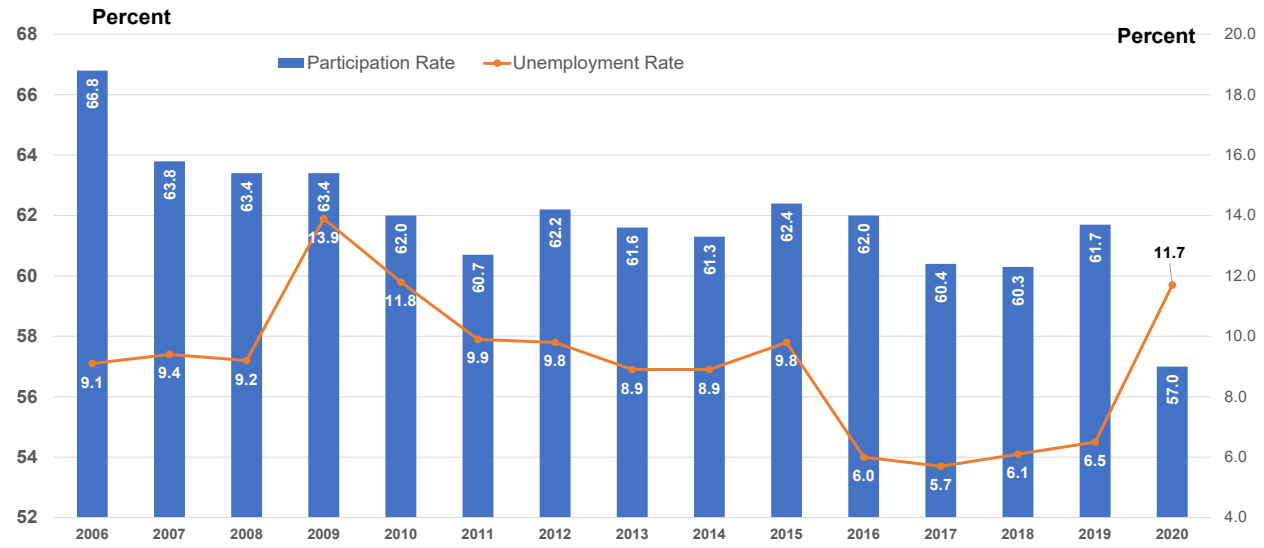
Figure 29 **Total Employment, Windsor CMA, 2006-2020**



Source: Altus Group Economic Consulting based on Statistics Canada, Table 14-10-0385-01

The participation rate (number of persons aged 15+ with work or looking for work as % of all persons aged 15+) among City residents has fallen from roughly 67% in 2006 to 62% in 2019 before falling further in 2020 to approximately 57%.

Figure 30 **Trends in Labour Participation Rate and Unemployment Rate, Windsor CMA, 2006-2020**



Source: Altus Group based on Statistics Canada, Table 14-10-0385-01

The unemployment rate in the Windsor CMA since 2009 had been on a general declining trend, settling at roughly 6% since 2016. However, in 2020, due to the impacts from the COVID-19 pandemic, the unemployment rate increased to 11.7%, although this is expected to return to long-term historic averages once the economic effects of the pandemic ease in 2021 and beyond.

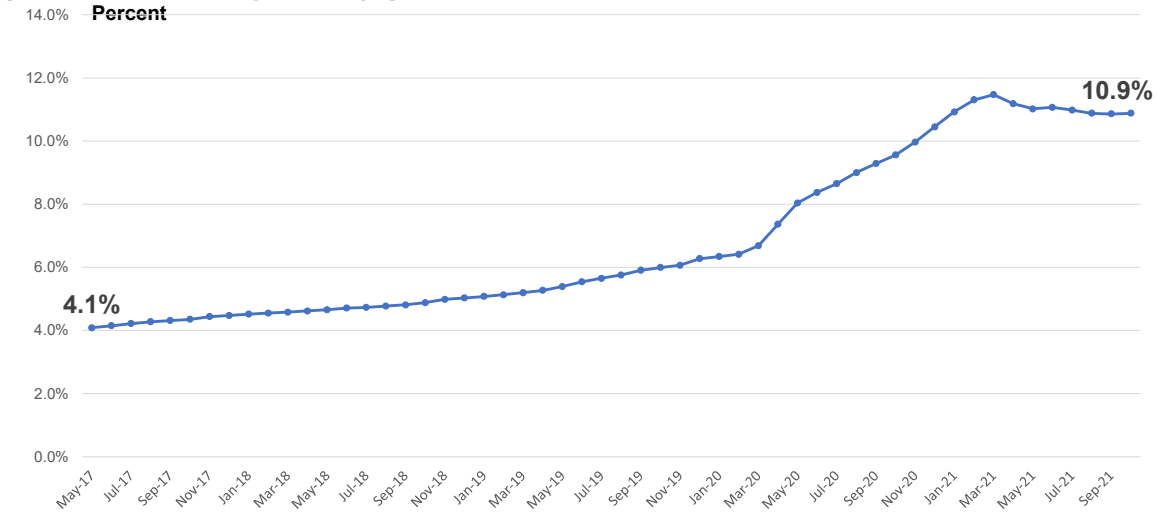
3.2 NON-RESIDENTIAL MARKET TRENDS

3.2.1 Retail Market

Ecommerce as a share of all retail sales in Canada has grown from 4.1% of sales in mid-2017 to 10.9% in late-2021, with the growth accelerated by the pandemic.

Figure 31

E-Commerce as % of Retail Sales, Canada, 2017-2021
(12 month moving average)



Source: Altus Group Economic Consulting based Statistics Canada, Table 20-10-0072-01

A continued increase in the shift towards online retail will push fulfilment of retail demand towards the industrial sector, where online orders are processed through warehouse and distribution centres, and away from traditional retail store formats. It is estimated that with every $1 billion in online e-commerce sales, an additional 1.25 million square feet of industrial space is required.[17]

[17] CBRE, Market Outlook Report, 2021

CBRE forecasts that e-commerce will grow another 58% in the next five years, and this growth may alone be responsible for an additional 40 million square feet of demand for industrial and warehousing space throughout Canada.

Analyses done on retail vacancy rates in major Canadian urban centres has generally found that retail spaces in smaller neighbourhood centres have fared better than more isolated, regional shopping centres such as enclosed malls. The average vacancy rate among "Regional Centres", which generally consists of enclosed malls is over 9%. Meanwhile, the vacancy rate for power centres (which typically include hardware stores and general retailers like Wal-Mart or Canadian Tire) is lower at 3.1%, while community/neighbourhood retail also has maintained a low vacancy rate at 3.7%.

Figure 32

Vacancy Rates by Type of Retail Location

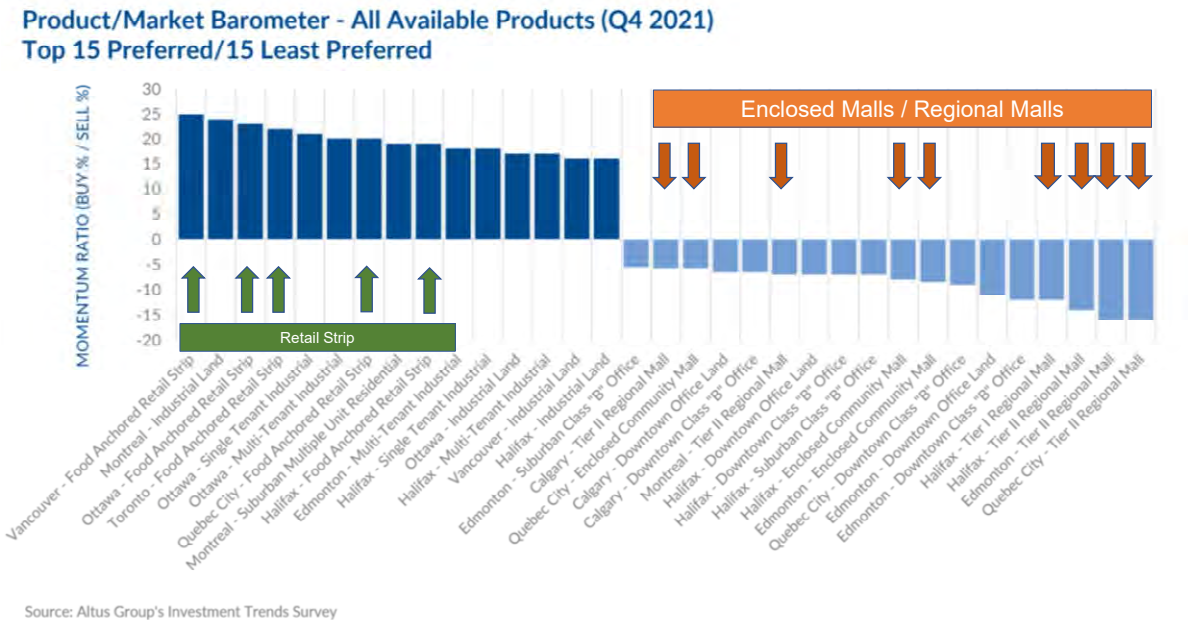
	Community, Neighbourhood and Strip Plaza	Power Centre	Regional Centre
		Percent	
Vancouver	3.6%	1.4%	n.a.
Calgary	4.0%	3.0%	17.0%
Edmonton	3.0%	1.7%	6.9%
Winnipeg	5.5%	4.1%	14.5%
Toronto	2.8%	2.9%	5.0%
Ottawa	3.2%	2.4%	10.6%
Montreal	4.7%	5.3%	7.9%
Halifax	6.0%	6.2%	23.5%
Average	3.7%	3.1%	9.3%

Note: Power Centre is generally big-box format retail locations
Note: Regional Centre is generally enclosed malls
Source: Altus Group Economic Consulting based on CBRE, Canada Retail Report, Spring 2021

Similar to the findings by CBRE, Altus Group's Investment Trends Survey found that out of the 128 combinations of product types (various types of office, retail, industrial types) and location across Canada, both "Enclosed Malls" and "Regional Malls" were among the least preferred asset types among investors. Combined large-scale retail development types comprised nine (9) of the 15 least preferred asset types across Canada, with a mix of regional malls and enclosed malls.

However, of the top 10 most preferred asset types, "food anchored retail strip" in various locations across made up five (5) of the top 10 most preferred assets.

Figure 33



Source: Altus Group's Investment Trends Survey

The introduction of residential uses in close proximity to established retail centres can help to add value for retailers and allow for a mix of uses that make for convenient shopping for new residents, as well as help boost demand for additional retail uses in some cases.

The addition of residential uses to established shopping centres is a burgeoning trend occurring across Canada, as well as Ontario, with the following shopping centres seeking to add residential uses to transform isolated commercial areas into mixed-use community hubs.

Figure 34

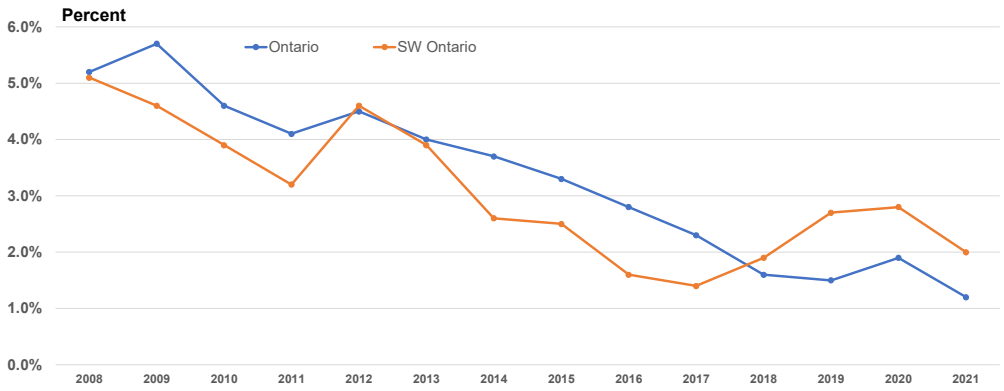
Shopping Centre	Municipality	Proposed Additional Uses
Yorkdale Shopping Centre	Toronto	1,500 rental residential units, hotel, additional retail space
CF Shops at Don Mills	Toronto	2,800 residential units
Bayview Village	Toronto	1,130 residential units and 147,100 square feet of additional retail space

Shopping Centre	Municipality	Proposed Additional Uses
Cloverdale Mall	Toronto	Refurbished retail uses, plus addition of residential, parks, open spaces.
Promenade Mall	Vaughan	1,000 residential units, office space, hotel
Agincourt Mall	Toronto	4,000 residential units, office space, additional commercial space, child care centre, etc.
Square One	Mississauga	Significant number of high-density residential units
Westgate Shopping Centre	Ottawa	Five residential buildings, 20,000 square feet of retail
Source: Retail Council of Canada, Canadian Shopping Centre Study, 2019		

3.2.2 Industrial Market

As of year-end 2021, the industrial market across Ontario is severely constrained by a lack of supply, with vacancy rates across the entirety of Ontario nearing 1.0%, with just 12.7 million square feet (out of a total of 1.07 billion square feet province-wide) available as of Q4 2021.

Figure 35 **Trends in Industrial Vacancy Rates, Ontario and SW Ontario**



**SW Ontario includes Brantford, Cambridge, Guelph, Hamilton, Waterloo Region, London, St. Catharines, Stratford, Woodstock*
Source: Altus Data Studio

While Altus Group's "Southwestern Ontario" submarket area does not extend far enough to include the City of Windsor, it does cover an area from Niagara Region to the London area, with the same Province-wide trends evident in the SW Ontario submarket, including vacancy rates of just 2.0% and only 2.37 million square feet (out of 120.5 million square feet total) available to be leased.

In essence, vacancy rates in the range of 1-2% represent 'full occupancy' as there will always be an expectation of 'structural' vacancy consisting of companies moving to new buildings, going out of business, awkward available space sizes or configurations that have limited marketability, etc. that can leave buildings vacant for short periods of time.

The vacancy rate in the SW Ontario submarket is consistent with the findings of CBRE which specifically studies the Windsor industrial market. CBRE found that the availability rate for industrial in the City as of year-end 2020 was just 2.2%, down from 2.6% the year prior. The net asking rents, owing to the relative lack of supply, increased from $6.85 per sf in 2019 to $7.75 per sf in 2020, an increase of 13% in just one year.

CBRE found that the industrial sector in the City could soon significantly expand and build upon the various employment lands ready and available for development in the City.

> **Automotive & Manufacturing Tailwinds to Drive Investment**
>
> 2020 carried with it a series of multibillion-dollar announcements to invest in Southwestern Ontario's automotive industry from Ford, General Motors and Stellantis, which should solidify the region's economic future. With these tailwinds, an influx of corporate investment across Windsor's manufacturing sectors is anticipated to follow in the years ahead as the electric and autonomous vehicle market takes shape.

The expectations of a 'tight' industrial market in the City is expected to continue, given a modest development pipeline:

> **Record Tight Industrial Market Here to Stay**
>
> Windsor's industrial market ended the year on a high note and recorded an eye catching 2.2% availability rate, which decreased 100 bps from a year prior to a new record-low. Despite an anticipated minor softening of demand in 2021, availability is expected to remain near current levels as a result of the modest development pipeline which has virtually no speculative development.

Given the significant under supply of industrial space in the Province and Southwestern Ontario, the City should be seeking to retain as many occupied and vacant employment lands as possible, unless there are compelling reasons to allow residential uses on them.

4 GROWTH FORECASTS AND HOUSING OUTLOOK

This section provides a high-level overview of the housing demand forecast prepared by Altus Group Economic Consulting for housing by unit type and tenure in the Windsor CMA, and how much of this estimated demand can be expected to accrue to the City of Windsor.

4.1 HOUSING PROPENSITY MODEL (ALTUS GROUP FORECASTS)

4.1.1 Approach and Methodology

Based on modelling from Altus Group Economic Consulting, estimates of housing demand by unit type in the Windsor CMA have been undertaken.

The Altus Group Housing Demand Model is a multi-dimensional propensity-based model taking demographic inputs (from the separate cohort survival population growth model) and analysing among historical and projected propensities for the interplay between age of household maintainers, household type, household tenure, and household structure type. In all the model considers some 780 demand propensities.

Our approach to forecasting these propensities is to model the historical pattern on propensities and evaluate trend that is significantly different than zero (no change) those that are not significantly different than zero are projected to be held constant. Typically, this accounts for some 80-90% of propensities - for those that show a significant trend up or down over the historical period, an analysis is done to evaluate the drivers of that trend and factors related to those drivers are evaluated for the forecast.

The sections of the report below will summarize some of the key findings from the housing demand model. However, the detailed forecasts will be provided in an appendix to this report.

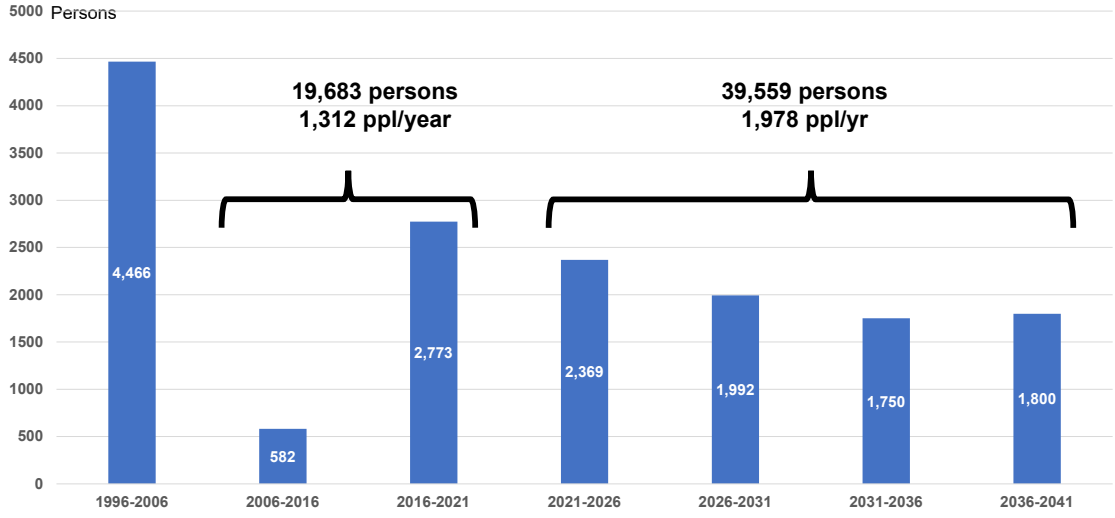
4.1.2 Windsor CMA Population Forecast

Figure 36 depicts the population forecast in the Windsor CMA based on the Altus Group model.

In total, it is expected that the Windsor CMA will grow by nearly 39,600 persons over the 2021-2041 period, or approximately 1,978 persons per year. This compares to the average annual rate of growth over the 2006-2021 period of 1,312 persons per year. Therefore, the amount of population growth

forecasted over the 2021-2041 period represents an increase in population growth of approximately 51% over the preceding 15-year period.

Figure 36 **Forecasted Change to Windsor CMA Population**
City of Windsor, 2006-2021 (actuals) and 2021-2041 (forecast), Annual Averages



Source: Altus Group Economic Consulting

4.1.3 Windsor CMA Housing Demand by Structure Type

The figure below provides the detailed results from the Altus Group forecast of housing demand by structure and tenure in the Windsor CMA over the 2021-2041 period.

In total, it is forecast that housing demand will equate to approximately 891 units per year over the 20-year period, with the first ten years of the forecast period most heavily weighted, with each five-year period from 2021-2031 seeing annual housing demand in the CMA exceed 1,000 units per year.

The distribution of housing demand growth by unit consists of 58.8% single-detached, 7.1% semi-detached, 10.8% row houses, and 21.7% apartment units.

Of the apartment unit demand, nearly three-quarters is for rental apartment units (15.8% of total housing demand), with the remaining apartment demand being for condominium apartment units.

Figure 37 **Potential Housing Demand by Structure Type, Windsor CMA (Draft 1.14.22) 1996-2041**

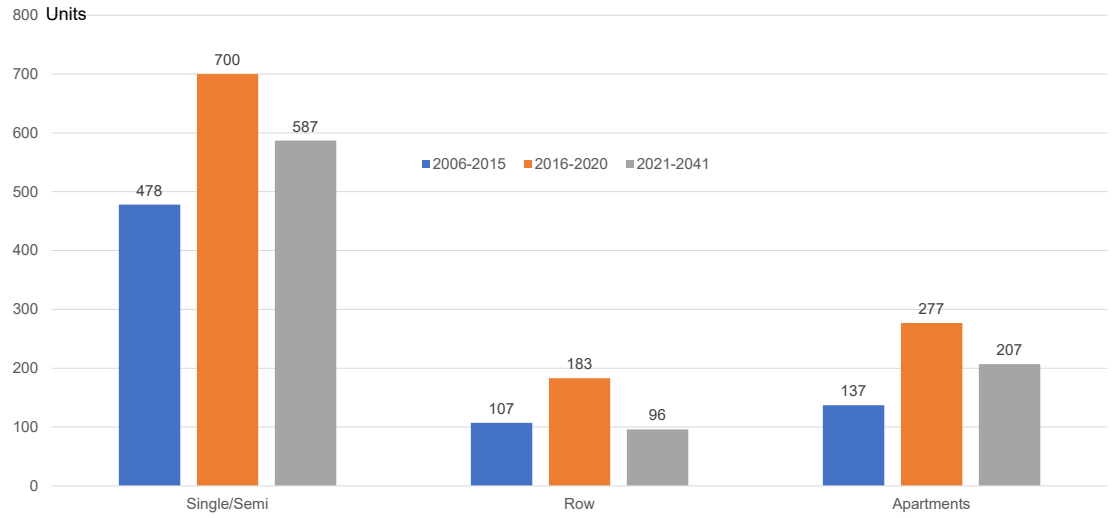
Base Scenario

				Apartments				
	Single Detached	Semi Detached	Row	Total	Owner	Renter	Other	Total
Households				*Occupied Dwelling units*				
1996	72,100	2,995	4,485	21,505	1,775	19,730	4,740	105,825
2006	86,690	5,250	6,310	23,475	4,065	19,410	4,065	125,790
2016	91,045	5,670	7,375	24,455	3,595	20,860	4,340	132,885
2021	93,963	6,250	8,289	25,140	3,860	21,280	4,357	137,999
2026	96,601	6,684	9,026	26,525	4,178	22,348	4,430	143,267
2031	99,566	7,047	9,618	27,668	4,484	23,184	4,497	148,396
2036	102,214	7,331	10,022	28,410	4,739	23,671	4,543	152,520
2041	104,449	7,512	10,214	29,010	4,918	24,092	4,636	155,821
Annual Household Growth				*Occupied Dwelling units*				
1996-06	1,459	226	183	197	229	(32)	(68)	1,997
2006-16	436	42	107	98	(47)	145	28	710
2016-21	584	116	183	137	53	84	3	1,023
2021-26	528	87	147	277	64	213	15	1,054
2026-31	593	73	118	229	61	167	13	1,026
2031-36	529	57	81	148	51	97	9	825
2036-41	447	36	38	120	36	84	19	660
2021-41	524	63	96	194	53	141	14	891
Distribution of Households				*Percent*				
1996	68.1	2.8	4.2	20.3	1.7	18.6	4.5	100.0
2006	68.9	4.2	5.0	18.7	3.2	15.4	3.2	100.0
2016	68.5	4.3	5.5	18.4	2.7	15.7	3.3	100.0
2026	67.4	4.7	6.3	18.5	2.9	15.6	3.1	100.0
2036	67.0	4.8	6.6	18.6	3.1	15.5	3.0	100.0
Distribution of Growth				*Percent*				
1996-06	73.1	11.3	9.1	9.9	11.5	(1.6)	(3.4)	100.0
2006-16	61.4	5.9	15.0	13.8	(6.6)	20.4	3.9	100.0
2016-21	57.1	11.3	17.9	13.4	5.2	8.2	0.3	100.0
2021-26	50.1	8.2	14.0	26.3	6.0	20.3	1.4	100.0
2026-31	57.8	7.1	11.5	22.3	6.0	16.3	1.3	100.0
2031-36	64.2	6.9	9.8	18.0	6.2	11.8	1.1	100.0
2036-41	67.7	5.5	5.8	18.2	5.4	12.8	2.8	100.0
2021-41	58.8	7.1	10.8	21.7	5.9	15.8	1.6	100.0

Source: Altus Group Economic Consulting, Housing Demand Model

Figure 38 shows the average annual housing demand by unit type for the City over the 2021-2041 period, and as compared to the 2006-2015 and 2016-2020 periods.

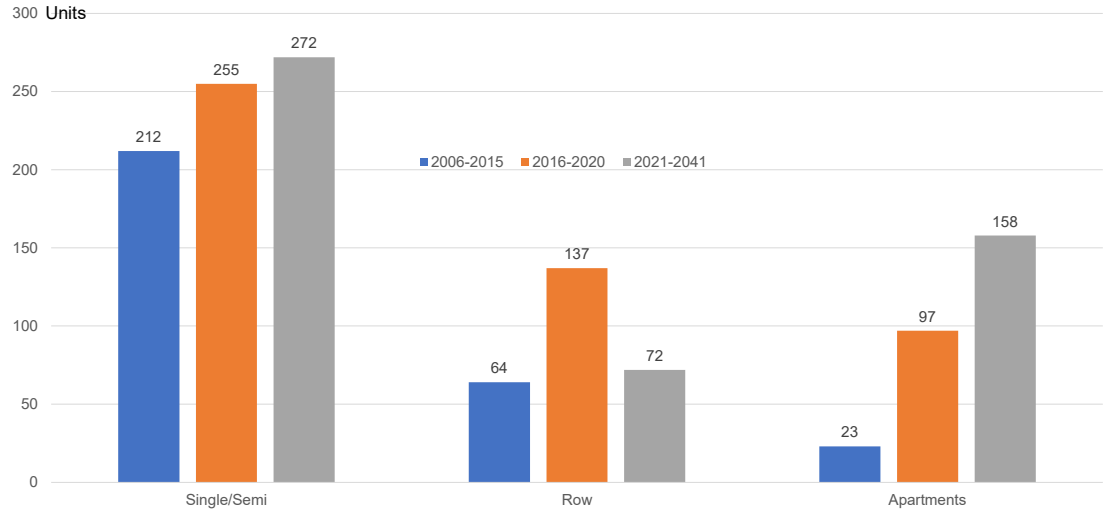
Figure 38 **Forecasted Housing Demand by Unit Type,**
Windsor CMA, 2021-2041, Annual Averages



Source: Altus Group Economic Consulting

Based on the historic share of housing completions by type in the City versus the rest of the Windsor CMA, and the housing forecast by unit type for the CMA, it is expected that the City would receive approximately 56.3% of the forecasted housing demand in the Windsor CMA over the 2021-2041 period.

Figure 39 **Forecasted Housing Demand by Unit Type,**
City of Windsor, 2021-2041, Annual Averages



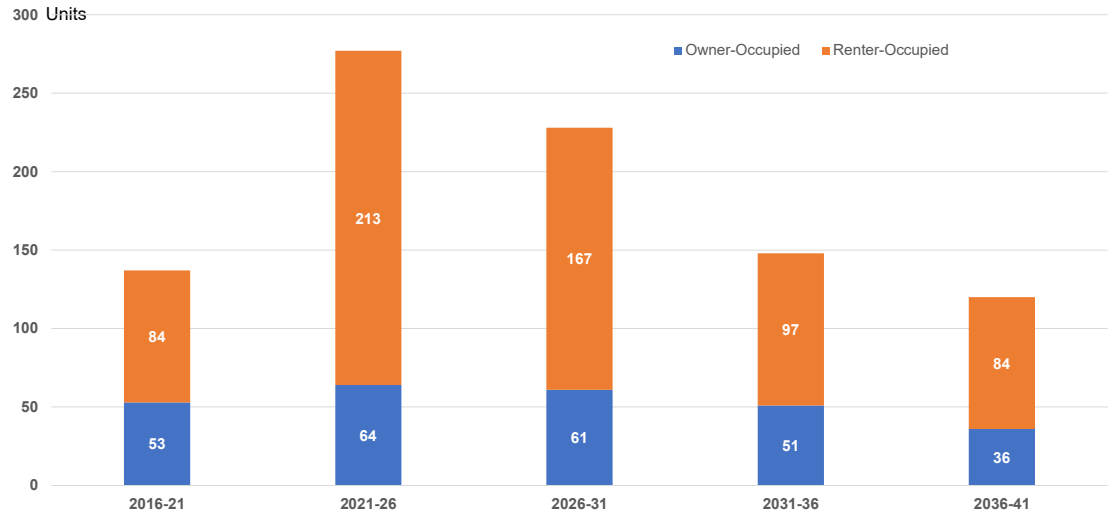
Source: Altus Group Economic Consulting

4.1.4 Windsor CMA and City Apartment Housing Demand by Tenure

Figure 40 shows how the annual Windsor CMA housing forecast of apartment dwelling demand of 194 units per year changes over time, and how it is broken down by tenure (ownership or rental).

The demand for owner-occupied apartments in the CMA over the 2021-2041 period ranges from 36 to 64 units per year, or an average of 53 units per year. This is consistent with the demand for owner-occupied apartment units that were added in the City over the 2016-2021 period (53 units per year).

Figure 40 **Forecasted Apartment Unit Demand by Tenure**
Windsor CMA, 2016-2021 (actuals) and 2021-2041 (forecast), Annual Averages

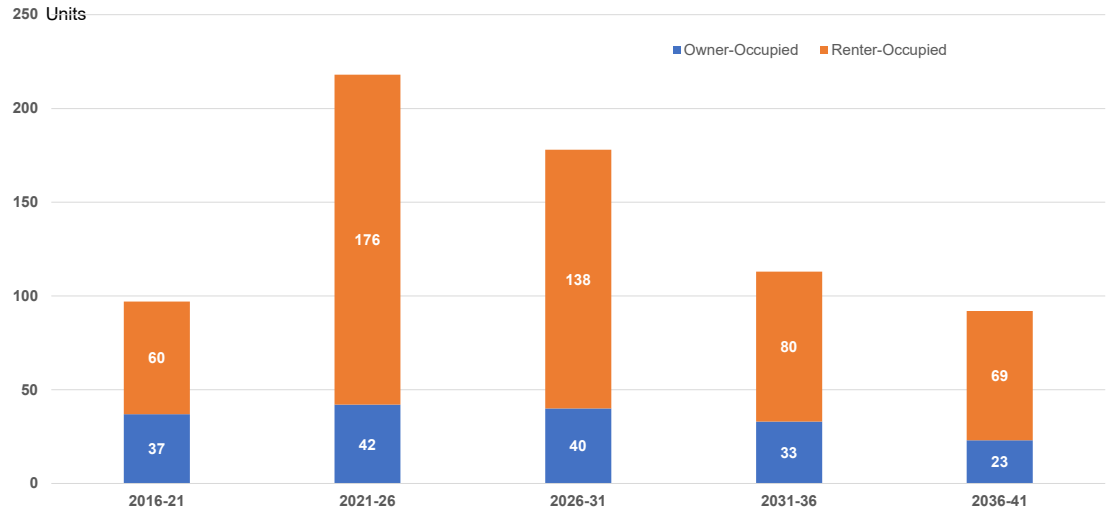


Source: Altus Group Economic Consulting

The driver of future apartment unit demand is for renter-occupied units, which ranges from 84 to 213 units per year over the 2021-2041 period, and averages 141 units per year, up 67% from the amount seen over the 2016-2021 period (84 units per year).

It is estimated that a significant proportion of the apartment unit demand (owner or rental in tenure) will be located in the City of Windsor. Based on historic trends, of the 194 apartment units forecast for the CMA each year over the 2021-2041 period, roughly 158 units will be located in the City (or 78% of all apartment housing demand in the CMA).

Figure 41 **Forecasted Apartment Unit Demand by Tenure**
City of Windsor, 2006-2021 (actuals) and 2021-2041 (forecast), Annual Averages



Source: Altus Group Economic Consulting

A significant proportion of the growth in apartment units (both condominium and rental tenure) can be expected to be located within the City's existing built-up area.

4.2 SUMMARY OF CITY OF WINDSOR HOUSING DEMAND FORECAST

The table below summarizes the City of Windsor housing forecast by unit type over the 2021-2041 period. In total, housing demand is estimated to be 10,032 occupied dwelling units.

Note that these forecasts only incorporate housing demand for people with their primary residence in the City. Any additional housing demand from increased post-secondary enrolment, temporary foreign workers, etc., should be over and above the housing demand forecasts summarized below.

Figure 42 **Potential Housing Demand by Structure Type, City of Windsor 2021-2041**

Base Scenario

	Single Family			Apartment				
	Singles	Semis	Rows	Total	Condo	Renter	Other	Total
CMA Forecasts (annual)				*Occupied Dwelling units*				
2021-2026	528	87	147	277	64	213	15	1,054
2026-2031	593	73	118	229	61	167	13	1,026
2031-2036	529	57	81	148	51	97	9	825
2036-2041	447	36	38	120	36	84	19	660
Annual Average 2021-2041	524	63	96	194	53	141	14	891
				Percent				
City Share	45%	55%	75%	78%	66%	82%	52%	
City Forecasts (annual)				*Occupied Dwelling units*				
2021-2026	238	48	111	218	42	176	8	622
2026-2031	268	40	89	178	40	138	7	581
2031-2036	239	31	61	114	33	80	5	450
2036-2041	202	20	29	93	23	69	10	353
Annual Average 2021-2041	237	35	72	151	35	116	7	502
City Forecasts (total)								
2021-2026	1,191	240	553	1,088	209	880	38	3,110
2026-2031	1,339	200	443	890	201	689	35	2,907
2031-2036	1,195	157	303	568	167	401	24	2,248
2036-2041	1,010	100	144	465	117	347	48	1,766
Total 2021-2041	4,735	697	1,443	3,012	694	2,317	145	10,032

Source: Altus Group Economic Consulting, Housing Demand Model

5 RECOMMENDATIONS AND CONCLUSIONS

5.1 SUMMARY OF FACTORS DRIVING DEMAND FOR HOUSING IN WINDSOR

The City of Windsor's population is growing, however the inner-areas of the City have seen a decline in population even while the rest of the City was growing, and the City needs to encourage and promote intensification and infill to ensure that populations in existing parts of the City do not continue to decline. The decline in existing population in existing areas of the City is caused by a relative lack of new development and declining average household sizes.

In the past 5-10 years, the City has seen a steadily increasing amount of persons arriving in the City from international sources (immigration, non-permanent residents), as well as domestic sources (from other provinces, or elsewhere in Ontario), and in the case of domestic flows into or out of the City, Windsor has seen a reversal of long periods of net outflow to other parts of Canada and Ontario, and is now seeing net inflows from the rest of Canada.

The recent acceleration of population growth in the City (and the broader Essex County area) has had implications for the price of new housing, with average single-detached housing prices increasing by 232% since 2001, most of that price growth being in the last five years when both international and domestic sources of population growth increased dramatically.

Despite the increase in demand, the amount of new housing constructed in the City has not increased substantially, well below the amounts constructed during the 1996-2005 period, and only marginally higher than the period of 2006-2015 when only 300 new housing units were being completed per year.

Like elsewhere in Ontario, the City has seen very little purpose-built rental housing constructed, with just 6% of the new housing completions in the City since 1996 being rental in tenure.

Consistent with the lack of rental housing construction in the City, the rental vacancy rate has declined significantly over the past ten years, falling from above 13% in several years, to below 4% in each of the past five years. The

reduced vacancy rates in purpose-built rental apartments has caused apartment rental rates per month to increase by 33% since 2014.

The City imports a net 17,000 persons per day (as of 2016) from other parts of Essex County and the broader region, who come into the City for their place of employment, with the largest inflows to the City coming from LaSalle, Amherstburg, Lakeshore and the Town of Essex.

Perhaps owing to the relative lack of new housing production, the City has seen a significant decline in jobs located in the City, with nearly 9,000 fewer jobs located in the City in 2016 than there were in 2006.

Adding more housing options in the City of all types can help to reduce the need for in-commuters to fill jobs located in the City and make the City more attractive to employers by providing a sufficient locally-residing workforce.

The continued growth of e-commerce could impact the viability of 'bricks and mortar' retail options, however, studies have shown that retail oriented around neighbourhoods and communities are faring better than more isolated separated forms of retail (enclosed malls). Directing residential growth towards major retail centres can help add vitality to these areas of the City, support the existing retail in the City, and help build complete communities.

The industrial market across Ontario is at all-time low vacancy rates, with just 1.0% of industrial space across the Province vacant and available. The tightness of the industrial market, combined with emerging manufacturing investment in Michigan, means that the City should not rely on large-scale employment land conversion to add residential dwelling units in the built-up areas of the City. In fact, the shift towards online retail pushes a lot of demand for 'space' into the industrial sector, with every $1 billion in e-commerce sales equating to a need for an additional 1.25-million square feet of industrial space.

5.2 RECOMMENDATIONS AND FINDINGS REGARDING MOST SUITABLE LOCATIONS FOR INFILL AND INTENSIFICATION

Based on our analysis of the demographic, and real estate market trends affecting the City, the broader region and the Province of Ontario as a whole, our recommendations are as follows:

- The City needs more housing in the inner areas of the City, with populations in a majority of the City declining due to a lack of new housing options and shrinking average household sizes;
- The City is not seeing enough purpose-built rental housing constructed to meet demand;
- Access to retail, transit and other community amenities can bolster the market for new residential development, making an area attractive to prospective new households;
- Similarly, adding residential uses near existing retail clusters can improve the viability of those retail environments. The practice of redeveloping major retail centres for a mix of uses including residential, as well as other community amenities such as parks, community centres, and even additional retail is growing across Ontario and Canada;
- The City needs to account for prospective growth in post-secondary enrolment in forecasting housing needs;

It is estimated that the City will see an increase in housing demand in the next 20 years, with annual housing demand forecasted to be:

- 5,432 single/semi-detached units;
- 1,443 townhouse units;
- 3,012 apartment units per year, including 2,317 rental apartments, and 694 condominium apartments; and
- 145 'other' dwellings (such as accessory apartments, etc.)

In order to meet the housing demand forecast, particularly the likely demand for apartment dwellings in existing built-up parts of the City, the City should ensure that more sufficient land is designated and available for development to act as a contingency factor and to ensure that there is adequate choice in possible development sites for the entirety of the forecast period.

Appendix A
Detailed Data

Figure A- 1

Total Housing Completions by Structure Type, City of Windsor, 1991-2020

Year	Single-Detached	Semi-Detached	Row	Apartments	Total
			Units		
1991	260	12	47	429	748
1992	329	116	120	226	791
1993	393	20	52	76	541
1994	489	46	26	16	577
1995	589	24	19	159	791
1996	783	156	48	115	1,102
1997	864	94	40	297	1,295
1998	775	158	63	16	1,012
1999	773	206	123	75	1,177
2000	913	214	174	336	1,637
2001	839	144	119	67	1,169
2002	1,003	186	148	151	1,488
2003	841	212	183	124	1,360
2004	831	124	180	83	1,218
2005	605	90	207	240	1,142
2006	444	20	74	16	554
2007	180	28	30	8	246
2008	130	8	14	139	291
2009	107	16	47	16	186
2010	162	18	73	0	253
2011	106	12	39	12	169
2012	199	26	120	16	361
2013	161	16	81	6	264
2014	199	54	67	17	337
2015	204	28	99	0	331
2016	271	64	89	3	427
2017	231	44	162	84	521
2018	120	52	166	13	351
2019	206	20	71	18	315
2020	251	16	196	365	828

Source: Altus Economic Consulting based on CMHC Housing Completions Data

Figure A- 2

Total Housing Completions by Structure Type, City of Windsor, Five-Year Period 1991-2020

5 Year Period	Single-Detached	Semi-Detached	Row	Apartments	Total
			Units		
1991-1995	2,060	218	264	906	3,448
1996-2000	4,108	828	448	839	6,223
2001-2005	4,119	756	837	665	6,377
2006-2010	1,023	90	238	179	1,530
2011-2015	869	136	406	51	1,462
2016-2020	1,079	196	684	483	2,442

Source: Altus Economic Consulting based on CMHC Housing Completions Data

Figure A- 3 **Percentage Housing Completions by Structure Type, City of Windsor, Five-Year Periods 1991-2020**

5 Year Period	Single-Detached	Semi-Detached	Row	Apartments	Total
			Percent		
1991-1995	59.7	6.3	7.7	26.3	100.0
1996-2000	66.0	13.3	7.2	13.5	100.0
2001-2005	64.6	11.9	13.1	10.4	100.0
2006-2010	66.9	5.9	15.6	11.7	100.0
2011-2015	59.4	9.3	27.8	3.5	100.0
2016-2020	44.2	8.0	28.0	19.8	100.0

Source: Altus Economic Consulting based on CMHC Housing Completions Data

Figure A- 4 **Total Housing Completions by Tenure, City of Windsor, 1991-2020**

Year	Homeowner	Rental	Condo	Co-Op	Total
			Units		
1991	270	469	9	0	748
1992	349	302	4	136	791
1993	465	76	0	0	541
1994	557	20	0	0	577
1995	634	108	49	0	791
1996	959	75	68	0	1,102
1997	970	181	144	0	1,295
1998	990	22	0	0	1,012
1999	1,102	2	73	0	1,177
2000	1,296	42	299	0	1,637
2001	1,092	22	55	0	1,169
2002	1,322	54	112	0	1,488
2003	1,236	0	124	0	1,360
2004	1,119	52	47	0	1,218
2005	880	141	121	0	1,142
2006	538	16	0	0	554
2007	228	8	10	0	246
2008	144	16	131	0	291
2009	121	16	49	0	186
2010	176	0	77	0	253
2011	118	11	40	0	169
2012	237	22	102	0	361
2013	207	6	51	0	264
2014	278	20	39	0	337
2015	295	2	34	0	331
2016	416	5	6	0	427
2017	435	36	50	0	521
2018	338	13	0	0	351
2019	293	18	4	0	315
2020	412	281	135	0	828

Source: Altus Economic Consulting based on CMHC Housing Completions Data

Figure A- 5 **Total Housing Completions by Tenure, City of Windsor, Five-Year Period 1991-2020**

5 Year Period	Homeowner	Rental	Condo	Co-Op	Total
			Units		
1991-1995	2,275	975	62	136	3,448
1996-2000	5,317	322	584	-	6,223
2001-2005	5,649	269	459	-	6,377
2006-2010	1,207	56	267	-	1,530
2011-2015	1,135	61	266	-	1,462
2016-2020	1,894	353	195	-	2,442

Source: Altus Economic Consulting based on CMHC Housing Completions Data

Figure A- 6 **Percentage Housing Completions by Tenure, City of Windsor, Five-Year Period 1991-2020**

5 Year Period	Homeowner	Rental	Condo	Co-Op	Total
			Percent		
1991-1995	66.0	28.3	1.8	3.9	100.0
1996-2000	85.4	5.2	9.4	-	100.0
2001-2005	88.6	4.2	7.2	-	100.0
2006-2010	78.9	3.7	17.5	-	100.0
2011-2015	77.6	4.2	18.2	-	100.0
2016-2020	77.6	14.5	8.0	-	100.0

Source: Altus Economic Consulting based on CMHC Housing Completions Data

Figure A- 7 **Total Apartment Completions by Structure Size, City of Windsor, 2006-2020**

Year	1 to 49	50 to 99	100 to 199	200+	Total
			Units		
2006	16	-	-	-	16
2007	8	-	-	-	8
2008	16	-	123	-	139
2009	16	-	-	-	16
2010	-	-	-	-	-
2011	12	-	-	-	12
2012	16	-	-	-	16
2013	6	-	-	-	6
2014	17	-	-	-	17
2015	-	-	-	-	-
2016	3	-	-	-	3
2017	34	50	-	-	84
2018	13	-	-	-	13
2019	18	-	-	-	18
2020	93	-	272	-	365

Source: Altus Economic Consulting based on CMHC Housing Completions Data

Figure A- 8 **Total Apartment Completions by Structure Size, City of Windsor, Five-Year Periods 2006-2020**

5 Year Period	1 to 49	50 to 99	100 to 199	200+	Total
			Units		
2006-2010	56	-	123	-	179
2011-2015	51	-	-	-	51
2016-2020	161	50	272	-	483
2006-2020	**268**	**50**	**395**	**-**	**713**

Source: Altus Economic Consulting based on CMHC Housing Completions Data

Figure A- 9 **Percentage Apartment Completions by Structure Size, City of Windsor, Five-Year Periods 2006-2020**

5 Year Period	1 to 49	50 to 99	100 to 199	200+	Total
			Percent		
2006-2010	31.3	-	68.7	-	100.0
2011-2015	100.0	-	-	-	100.0
2016-2020	33.3	10.4	56.3	-	100.0
2006-2020	**37.6**	**7.0**	**55.4**	**-**	**100.0**

Source: Altus Economic Consulting based on CMHC Housing Completions Data

Figure A- 10 **Absorbed Single Detached Prices, City of Windsor, 1991-2020**

			Year-Over-Year Change	
	Median	Average	Median	Average
Year	*Dollars*		*Percentage*	
1991	140,000	160,428		
1992	135,000	150,318	-3.6%	-6.3%
1993	140,000	157,607	3.7%	4.8%
1994	155,000	169,878	10.7%	7.8%
1995	155,000	164,334	0.0%	-3.3%
1996	150,000	164,723	-3.2%	0.2%
1997	160,000	175,903	6.7%	6.8%
1998	150,000	169,148	-6.3%	-3.8%
1999	150,000	172,564	0.0%	2.0%
2000	150,000	163,992	0.0%	-5.0%
2001	160,000	177,452	6.7%	8.2%
2002	165,000	178,461	3.1%	0.6%
2003	170,000	191,731	3.0%	7.4%
2004	175,000	193,467	2.9%	0.9%
2005	180,000	205,982	2.9%	6.5%
2006	200,000	214,232	11.1%	4.0%
2007	215,000	234,982	7.5%	9.7%
2008	220,000	246,370	2.3%	4.8%
2009	245,000	273,579	11.4%	11.0%
2010	235,000	266,250	-4.1%	-2.7%
2011	250,000	267,039	6.4%	0.3%
2012	252,500	286,718	1.0%	7.4%
2013	267,500	288,863	5.9%	0.7%
2014	280,000	312,031	4.7%	8.0%
2015	340,000	369,230	21.4%	18.3%
2016	330,000	359,038	-2.9%	-2.8%
2017	420,000	426,843	27.3%	18.9%
2018	520,000	531,455	23.8%	24.5%
2019	555,000	558,172	6.7%	5.0%
2020	580,000	588,417	4.5%	5.4%

Source: Altus Economic Consulting based on CMHC Housing Absorption Data

Figure A- 11 **Average Absorbed Singled Detached Homes In Ontario and Select Municipalities**

Year	Ontario	Windsor	London	Kitchener	Hamilton	Toronto
			Dollars			
2001	263,164	177,452	214,492	227,021	231,706	564,140
2002	269,081	178,461	220,386	239,285	235,128	551,918
2003	290,124	191,731	240,688	236,186	265,749	520,823
2004	313,664	193,467	253,763	245,259	301,256	570,836
2005	349,663	205,982	276,860	271,456	331,422	609,595
2006	386,261	214,232	281,845	305,086	344,357	890,223
2007	418,785	234,982	296,745	338,060	340,989	919,300
2008	440,309	246,370	326,504	338,603	377,445	944,011
2009	463,661	273,579	352,167	349,037	399,266	940,566
2010	486,918	266,250	352,936	388,675	422,685	1,233,587
2011	522,909	267,039	354,114	413,267	419,949	1,252,512
2012	554,319	286,718	365,827	444,673	460,698	1,202,158
2013	597,562	288,863	383,963	485,782	470,423	1,577,146
2014	643,190	312,031	415,157	445,975	489,281	1,739,480
2015	682,769	369,230	435,469	452,732	487,077	2,032,261
2016	714,706	359,038	455,346	470,937	468,228	1,976,205
2017	786,091	426,843	536,395	503,552	457,194	1,846,322
2018	851,038	531,455	629,224	669,668	530,351	1,990,584
2019	900,979	558,172	656,733	740,994	572,245	1,889,558
2020	894,118	588,417	654,956	751,338	622,407	1,914,339
Change	630,954	410,965	440,464	524,317	390,701	1,350,199
2001-2020	239.8%	231.6%	205.4%	231.0%	168.6%	239.3%

Source: Altus Economic Consulting based on CMHC Housing Absorption Data

Figure A- 12 Median Absorbed Singled Detached Homes In Ontario and Select Municipalities

Year	Ontario	Windsor	London	Kitchener	Hamilton	Toronto
			Dollars			
2001	250,000	160,000	195,000	200,000	205,000	500,000
2002	250,000	165,000	200,000	220,000	220,000	400,000
2003	270,000	170,000	215,000	195,000	232,500	340,000
2004	290,000	175,000	225,000	210,000	280,000	380,000
2005	325,000	180,000	250,000	250,000	300,000	405,000
2006	350,000	200,000	260,000	270,000	320,000	800,000
2007	375,000	215,000	270,000	290,000	320,000	805,000
2008	395,000	220,000	300,000	300,000	350,000	885,000
2009	405,000	245,000	315,000	315,000	355,000	900,000
2010	425,000	235,000	320,000	340,000	390,000	995,000
2011	440,000	250,000	330,000	380,000	390,000	1,095,000
2012	480,000	252,500	335,000	425,000	440,000	995,000
2013	495,000	267,500	355,000	445,000	450,000	1,340,000
2014	515,000	280,000	380,000	415,000	475,000	1,790,000
2015	520,000	340,000	400,000	412,500	480,000	2,000,000
2016	570,000	330,000	427,500	450,000	455,000	2,000,000
2017	610,000	420,000	500,000	475,000	395,000	1,892,500
2018	650,000	520,000	600,000	625,000	490,000	2,000,000
2019	700,000	555,000	650,000	700,000	490,000	1,950,000
2020	700,000	580,000	600,000	700,000	580,000	1,990,000
Change	450,000	420,000	405,000	500,000	375,000	1,490,000
2001-2020	180.0%	262.5%	207.7%	250.0%	182.9%	298.0%

Source: Altus Economic Consulting based on CMHC Housing Absorption Data

Figure A- 13 **Population, City of Windsor & County of Essex, 2001-2020**

			Year-Over Year Change	
	Windsor	Essex	Windsor	Essex
Year	*People*		*Percent*	
2001	218,222	390,809		
2002	221,623	397,995	1.6	1.8
2003	223,551	402,572	0.9	1.2
2004	225,025	406,321	0.7	0.9
2005	225,794	408,840	0.3	0.6
2006	225,241	409,126	(0.2)	0.1
2007	223,129	408,034	(0.9)	(0.3)
2008	220,519	404,870	(1.2)	(0.8)
2009	217,763	401,476	(1.2)	(0.8)
2010	217,358	400,207	(0.2)	(0.3)
2011	217,104	399,724	(0.1)	(0.1)
2012	218,308	401,171	0.6	0.4
2013	220,964	405,080	1.2	1.0
2014	221,539	406,797	0.3	0.4
2015	222,192	407,791	0.3	0.2
2016	224,487	412,050	1.0	1.0
2017	225,539	415,308	0.5	0.8
2018	228,894	421,687	1.5	1.5
2019	233,278	426,474	1.9	1.1
2020	235,428	430,945	0.9	1.0
Change 2001-2020	17,206	40,136	7.9	10.3

Source: Altus Economic Consulting based on Statistics Canada Population Estimate, 2001-2020

Figure A- 14 **International Immigration by Age Cohort, City of Windsor, 2002-2020**

Year	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-90+	Total
					Persons					
2002	1,017	644	1,240	739	240	140	97	24	2	4,143
2003	642	443	792	446	169	117	67	14	-	2,690
2004	755	485	923	541	192	121	82	21	-	3,120
2005	807	532	893	587	174	56	49	14	-	3,112
2006	749	487	907	539	215	112	64	8	5	3,086
2007	594	468	742	432	195	92	44	16	-	2,583
2008	550	442	682	410	199	121	63	26	-	2,493
2009	436	342	566	306	174	103	68	16	2	2,013
2010	502	404	501	335	195	98	55	9	-	2,099
2011	498	314	469	350	180	92	54	12	4	1,973
2012	363	267	391	296	146	98	75	28	6	1,670
2013	436	295	482	311	178	122	103	26	2	1,955
2014	378	322	496	276	167	121	71	32	2	1,865
2015	301	221	464	227	127	83	44	13	2	1,482
2016	846	381	723	439	210	121	78	22	1	2,821
2017	487	205	592	302	124	88	55	27	2	1,882
2018	529	345	857	365	163	108	65	33	6	2,471
2019	521	359	964	376	142	124	83	34	11	2,614
2020	598	379	1,023	345	164	105	60	16	1	2,691
Total	11,009	7,335	13,707	7,622	3,354	2,022	1,277	391	46	46,763

Source: Altus Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

Figure A- 15

Emigration by Age Cohort, City of Windsor, 2002-2020

Year	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-90+	Total
					Persons					
2002	102	89	247	186	70	43	15	13	-	765
2003	215	114	500	371	128	76	29	25	1	1,459
2004	330	217	502	403	147	85	18	9	-	1,711
2005	373	163	574	421	153	80	23	10	-	1,797
2006	383	188	601	441	197	117	20	5	2	1,954
2007	478	178	653	512	202	99	32	26	3	2,183
2008	477	307	634	498	233	118	22	16	-	2,305
2009	408	197	516	403	206	110	20	9	-	1,869
2010	374	168	416	319	170	92	27	16	-	1,582
2011	401	152	425	336	232	116	48	25	-	1,735
2012	396	152	407	314	176	86	53	29	6	1,619
2013	302	148	344	253	187	97	35	17	5	1,388
2014	298	165	349	248	200	101	26	14	-	1,401
2015	239	136	289	196	160	82	46	22	4	1,174
2016	241	155	331	225	176	95	41	20	1	1,285
2017	208	98	259	176	166	93	43	24	6	1,073
2018	178	111	237	157	124	72	30	18	4	931
2019	180	112	242	160	125	74	30	18	4	945
2020	138	85	177	122	96	55	25	15	1	714
Total	5,721	2,935	7,703	5,741	3,148	1,691	583	331	37	27,890

Source: Altus Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

Figure A- 16

Net Immigration by Age Cohort, City of Windsor, 2002-2020

Year	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-90+	Total
					Persons					
2002	915	555	993	553	170	97	82	11	2	3,378
2003	427	329	292	75	41	41	38	(11)	(1)	1,231
2004	425	268	421	138	45	36	64	12	-	1,409
2005	434	369	319	166	21	(24)	26	4	-	1,315
2006	366	299	306	98	18	(5)	44	3	3	1,132
2007	116	290	89	(80)	(7)	(7)	12	(10)	(3)	400
2008	73	135	48	(88)	(34)	3	41	10	-	188
2009	28	145	50	(97)	(32)	(7)	48	7	2	144
2010	128	236	85	16	25	6	28	(7)	-	517
2011	97	162	44	14	(52)	(24)	6	(13)	4	238
2012	(33)	115	(16)	(18)	(30)	12	22	(1)	-	51
2013	134	147	138	58	(9)	25	68	9	(3)	567
2014	80	157	147	28	(33)	20	45	18	2	464
2015	62	85	175	31	(33)	1	(2)	(9)	(2)	308
2016	605	226	392	214	34	26	37	2	-	1,536
2017	279	107	333	126	(42)	(5)	12	3	(4)	809
2018	351	234	620	208	39	36	35	15	2	1,540
2019	341	247	722	216	17	50	53	16	7	1,669
2020	460	294	846	223	68	50	35	1	-	1,977
Total	915	555	993	553	170	97	82	11	2	18,873

Source: Altus Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

Figure A- 17

Interprovincial Migration by Age Cohort, City of Windsor, 2002-2020

Year	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-90+	Total
					Persons					
2002	33	(60)	(8)	14	10	(18)	(8)	(4)	(3)	(44)
2003	(39)	(61)	(8)	14	-	(22)	(8)	1	(3)	(126)
2004	(30)	(106)	(33)	(7)	(23)	(30)	(7)	-	(3)	(239)
2005	(126)	(173)	(168)	(84)	(41)	(38)	(10)	(3)	(3)	(646)
2006	(300)	(281)	(348)	(186)	(47)	(43)	(9)	-	(5)	(1,219)
2007	(406)	(491)	(626)	(283)	(102)	(75)	9	(10)	(4)	(1,988)
2008	(318)	(656)	(698)	(323)	(114)	(80)	14	(1)	(4)	(2,180)
2009	(269)	(643)	(670)	(315)	(122)	(84)	25	4	(3)	(2,077)
2010	(27)	(322)	(479)	(212)	(62)	(42)	19	(2)	(6)	(1,133)
2011	20	(209)	(299)	(124)	(17)	(15)	28	5	(4)	(615)
2012	(56)	(309)	(343)	(194)	-	(11)	(1)	(1)	3	(912)
2013	(108)	(308)	(387)	(217)	(45)	(40)	11	10	3	(1,081)
2014	(15)	(328)	(251)	(147)	(28)	(29)	1	2	3	(792)
2015	55	(228)	(297)	(179)	24	(8)	8	3	13	(609)
2016	225	(50)	(56)	(53)	43	12	(1)	-	10	130
2017	289	31	(170)	(48)	73	44	5	3	2	229
2018	202	(29)	104	68	59	36	(11)	(3)	(1)	425
2019	186	(5)	53	42	39	22	10	4	4	355
2020	165	(33)	13	24	29	13	6	1	2	220
Total	(519)	(4,261)	(4,671)	(2,210)	(324)	(408)	81	9	1	(12,302)

Source: Altus Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

Figure A- 18

Intraprovincial Migration by Age Cohort, City of Windsor, 2002-2020

Year	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-90+	Total
					Persons					
2002	52	140	(234)	312	99	(49)	13	(28)	(13)	292
2003	(31)	109	(246)	310	65	(87)	-	(37)	(17)	66
2004	(61)	33	(437)	205	50	(81)	(4)	(31)	(14)	(340)
2005	(181)	(210)	(554)	136	40	(89)	13	(30)	(13)	(888)
2006	(320)	(255)	(623)	56	15	(93)	14	(30)	(15)	(1,251)
2007	(390)	(242)	(629)	(409)	(125)	28	76	(1)	(42)	(1,734)
2008	(387)	(313)	(724)	(455)	(157)	23	71	(14)	(61)	(2,017)
2009	(415)	(363)	(818)	(521)	(178)	-	136	31	(36)	(2,164)
2010	(186)	(337)	(621)	(399)	(78)	72	125	12	(51)	(1,463)
2011	(92)	(164)	(410)	(279)	(41)	91	93	3	(48)	(847)
2012	174	(153)	(305)	(144)	102	69	27	11	2	(217)
2013	143	(285)	(268)	(122)	72	44	44	17	2	(353)
2014	105	(296)	(314)	(148)	127	88	73	27	6	(332)
2015	106	(275)	(317)	(150)	95	65	65	25	7	(379)
2016	193	(198)	(375)	(182)	140	92	74	28	6	(222)
2017	381	(138)	(235)	(95)	109	101	61	23	6	213
2018	415	(171)	(10)	28	231	205	152	54	17	921
2019	381	(445)	(207)	(81)	171	152	76	27	8	82
2020	387	(478)	(207)	(80)	172	155	80	30	6	65
Total	274	(4,041)	(7,534)	(2,018)	909	786	1,189	117	(250)	(10,568)

Source: Altus Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

Figure A- 19

Non-Permanent Residents by Age Cohort, City of Windsor, 2002-2020

Year	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85-90+	Total
					Persons					
2002	138	494	65	37	(6)	(4)	(1)	(2)	-	721
2003	152	540	187	94	23	(11)	(10)	(8)	(2)	965
2004	31	306	(32)	(35)	(16)	(20)	(13)	(3)	-	218
2005	23	229	(111)	(54)	(35)	(10)	(11)	(7)	-	24
2006	(180)	(329)	(862)	(169)	(29)	13	(6)	(3)	4	(1,561)
2007	96	446	104	117	66	4	(11)	3	(1)	824
2008	180	134	(150)	(152)	(188)	(88)	(6)	(8)	(1)	(279)
2009	(45)	198	(147)	(234)	(205)	(70)	(12)	(4)	(3)	(522)
2010	(72)	140	(182)	(141)	(77)	(33)	(9)	(6)	1	(379)
2011	(31)	106	(176)	(92)	(18)	(25)	1	1	2	(232)
2012	10	907	363	164	(35)	(27)	(13)	(3)	(3)	1,363
2013	64	2,311	938	289	89	2	(14)	(4)	1	3,676
2014	106	1,316	(202)	83	34	(23)	9	7	(1)	1,329
2015	(10)	10	(237)	271	309	140	8	(4)	-	487
2016	(27)	442	(7)	796	559	153	(7)	(7)	2	1,904
2017	158	2,038	(89)	(210)	(255)	(152)	(14)	2	(2)	1,476
2018	105	5,261	79	(848)	(972)	(419)	(44)	3	-	3,165
2019	236	3,212	(100)	(318)	(294)	(139)	(30)	(1)	(2)	2,564
2020	70	2,653	(375)	(28)	(119)	(73)	(23)	(4)	-	2,101
Total	1,004	20,414	(934)	(430)	(1,169)	(782)	(206)	(48)	(5)	17,844

Source: Altus Economic Consulting based on Statistics Canada Estimates of the Components of Demographic Growth, 2002-2020

Figure A- 20

University and College Enrollment, City of of Windsor, 2012-2025

School Year (Fall/Winter)	University of Windsor	St. Clair College	Total
		Students	
2012-2013	13,710	6,755	20,465
2013-2014	14,103	7,004	21,107
2014-2015	14,028	7,135	21,163
2015-2016	13,560	7,164	20,724
2016-2017	13,610	7,148	20,758
2017-2018	14,078	7,662	21,740
2018-2019	14,506	10,086	24,592
2019-2020	14,769	9,102	23,871
2020-2021	16,880	7,213	24,093
2021-2022	17,200	9,228	26,428
2022-2023	17,285	9,888	27,173
2023-2024	17,305	10,108	27,413
2024-2025	17,331	10,284	27,615
Change 2012-2020	3,170	458	3,628
	23.1%	6.8%	17.7%
Change 2020-2025	451	3,071	3,522
	2.7%	42.6%	14.6%

Note: Student enrollment projections for St. Clair College between 2020-2025 have been discounted to account for campuses outside of Windsor

Source: Altus Economic Consulting based on University of Windsor, St. Clair College, and Ministry of Colleges and Universities

THE CITY OF WINDSOR
ONTARIO, CANADA

Multi-Residential Interim Control Bylaw Study
Background Report

The Planning Partnership

Municipal Planning Consultants

April 20,2022

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FIGURES:

1.0 Introduction

The City of Windsor passed Interim Control By-law 103-2020 on July 13, 2020 to prohibit the use on all lands, buildings, and structures for a Group Home, Shelter, Lodging House, and a Dwelling with five or more dwelling units, other than those excepted by the Interim Control By-law, in order to allow the municipality to review and, if deemed appropriate, implement the findings of the review.

There is a desire across Ontario to see existing communities intensify over time because, in accordance with Provincial Policy, intensification delivers on a number of key planning principles, including:

- A more efficient use of land and investments in municipal infrastructure, typically based on an urban structure of higher density centres and corridors;
- The establishment of transit supportive forms of development that will support transit system investment and promote more mobility options within the City; and,
- The delivery of a broader mix of housing types, including housing that is more affordable than the traditional housing stock.

Intensification also causes great anxiety where it is proposed within or immediately adjacent to any of the City's existing residential neighbourhoods. Conversations about community character and impacts of change dominate Council's deliberations on development applications that affect residential communities.

The main purpose of the study is to:

- Determine the appropriate locations within the City that can accommodate additional residential density;
- How to appropriately guide growth to those geographic areas;
- The extent to which a designated area can accommodate growth; and,
- How to ensure compatibility within the existing neighbourhood context.

In September 2021 the City retained the consulting team comprised of Municipal Planning Consultants, The Planning Partnership and Altus Group to complete this study. The result of this work will be changes to the City of Windsor Official Plan and

Zoning By-law to build a foundation within municipal planning documents to detail a rationale for where density makes sense within the City. The end products will be amendment to the City's Official Plan and Zoning By-laws that are required to implement the recommendations in this report, as may be approved by Council. In addition, the products will include Design Guidelines to assist staff and Council in their review and assessment of intensification proposals to ensure compatibility within the community.

2.0 Policy Review

The hierarchy of Planning legislation and policy in the Province of Ontario requires the Official Plan to have regard for matters of Provincial Interest and be consistent with Policy Statements issued by the Province. The Province strongly supports intensification and infilling within the existing urban areas and requires the City of Windsor to enable and promote this form of development. The following is a brief summary of the legislation and Policies that are intended to guide decisions regarding these matters.

2.1 Planning Act, RSO 1990, c.13,) (as amended)

Section 2 of the Planning Act requires all decisions on Official Plans and Zoning By-laws to have regard for the following matters of Provincial Interest as they relate to housing and communities:

(e) the supply, efficient use and conservation of energy and water;
(f) the adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems;
(g) the minimization of waste;
(h) the orderly development of safe and healthy communities;
(h.1) the accessibility for persons with disabilities to all facilities, services and matters to which this Act applies;
(i) the adequate provision and distribution of educational, health, social, cultural and recreational facilities;
(j) the adequate provision of a full range of housing, including affordable housing;
(k) the adequate provision of employment opportunities;
(l) the protection of the financial and economic well-being of the Province and its municipalities;
(m) the co-ordination of planning activities of public bodies;
(n) the resolution of planning conflicts involving public and private interests;
(o) the protection of public health and safety;

(p) the appropriate location of growth and development;
(q) the promotion of development that is designed to be sustainable, to support public transit and to be oriented to pedestrians;
(r) the promotion of built form that,
(i) is well-designed,
(ii) encourages a sense of place, and
(iii) provides for public spaces that are of high quality, safe, accessible, attractive and vibrant; and
(s) the mitigation of greenhouse gas emissions and adaptation to a changing climate.

Enabling infilling and intensification in the City has been demonstrated to achieve these objectives where this form of development is properly planned and managed.

The key issue in considering how the City can appropriately manage/regulate the development and use of various forms of housing under the legislative authority of the Planning Act starts with a recognition of a number of fundamental principles, including:

- The regulations of the City's planning instruments must begin with an understanding of the responsibility to implement planning regulations in accordance with the Human Rights Code. Section 2.1 of the Code states:

  "Every person has a right to equal treatment with respect to the occupancy of accommodation without discrimination because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status, disability or the receipt of public assistance."

- The City cannot regulate the occupancy of a dwelling unit. In other words, the number of residents in a dwelling unit cannot be controlled.

- The City cannot regulate the tenure of a dwelling unit. In other words, whether the unit is owned or rented, and whether that rental is short-term or long-term.

- The City can control the land uses permitted on a lot, the number of dwelling units on a lot, the number of buildings on a lot, the location of the buildings on a lot and the height and massing of buildings on a lot and parking requirements.

2.2 Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) is the only policy statement issued under Section 3 of the Planning Act that is in effect within the City of Windsor. The PPS is a wide reaching document, addressing all of the planning issues identified in Section 2 of the Act and providing direction to municipalities for implementation of the policies. Consideration of policies related to intensification include environmental, social, health and safety, financial and cultural issues. These matters are addressed in the PPS and to a great extent have already been implemented in the City of Windsor Official Plan. Key to the consideration of this matter are the policies that direct the City to undertake specific actions and include policies in the City's Official Plan to encourage and promote intensification. The following provides a brief summary of those policies.

1.0 Building Strong Healthy Communities

Ontario's long-term prosperity, environmental health and social well-being depend on wisely managing change and promoting efficient land use and development patterns. Efficient land use and development patterns support sustainability by promoting strong, liveable, healthy and resilient communities, protecting the environment and public health and safety, and facilitating economic growth.

1.1.1 Healthy, liveable and safe communities are sustained by:

a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;

b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;

d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;

e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;

f) improving accessibility for persons with disabilities and older persons by addressing land use barriers which restrict their full participation in society;
g) ensuring that necessary infrastructure and public service facilities are or will be available to meet current and projected needs;
h) promoting development and land use patterns that conserve biodiversity; and
i) preparing for the regional and local impacts of a changing climate.

1.1.2 Sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to 25 years, informed by provincial guidelines. However, where an alternate time period has been established for specific areas of the Province as a result of a provincial planning exercise or a provincial plan, that time frame may be used for municipalities within the area.

Within settlement areas, sufficient land shall be made available through intensification and redevelopment and, if necessary, designated growth areas.

1.1.3.2 Land use patterns within settlement areas shall also be based on a range of uses and opportunities for intensification and redevelopment in accordance with the criteria in policy 1.1.3.3, where this can be accommodated.

1.1.3.3 Planning authorities shall identify appropriate locations and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options through intensification and redevelopment where this can be accommodated taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs.

1.1.3.4 Appropriate development standards should be promoted which facilitate intensification, redevelopment and compact form, while avoiding or mitigating risks to public health and safety.

1.1.3.5 Planning authorities shall establish and implement minimum targets for intensification and redevelopment within built-up areas, based on local conditions. However, where provincial targets are established through provincial plans, the provincial target shall represent the minimum target for affected areas.

1.1.3.6 New development taking place in designated growth areas should occur adjacent to the existing built-up area and should have a compact form, mix of uses and densities that allow for the efficient use of land, infrastructure and public service facilities.

The provincial support for intensification is strong and the requirement for the City to accommodate and plan for this form of development is very clear.

2.3 City of Windsor Official Plan

The Official Plan for the City was originally approved in 2002 but has been the subject of significant amendments to keep the Plan updated. Chapter 3 of the Plan includes a broad Development Strategy for the City and was included in the Plan by amendment in 2012. At that time the 2005 PPS was in effect and had many of the same or similar policies regarding infilling and intensification as the 2020 PPS.

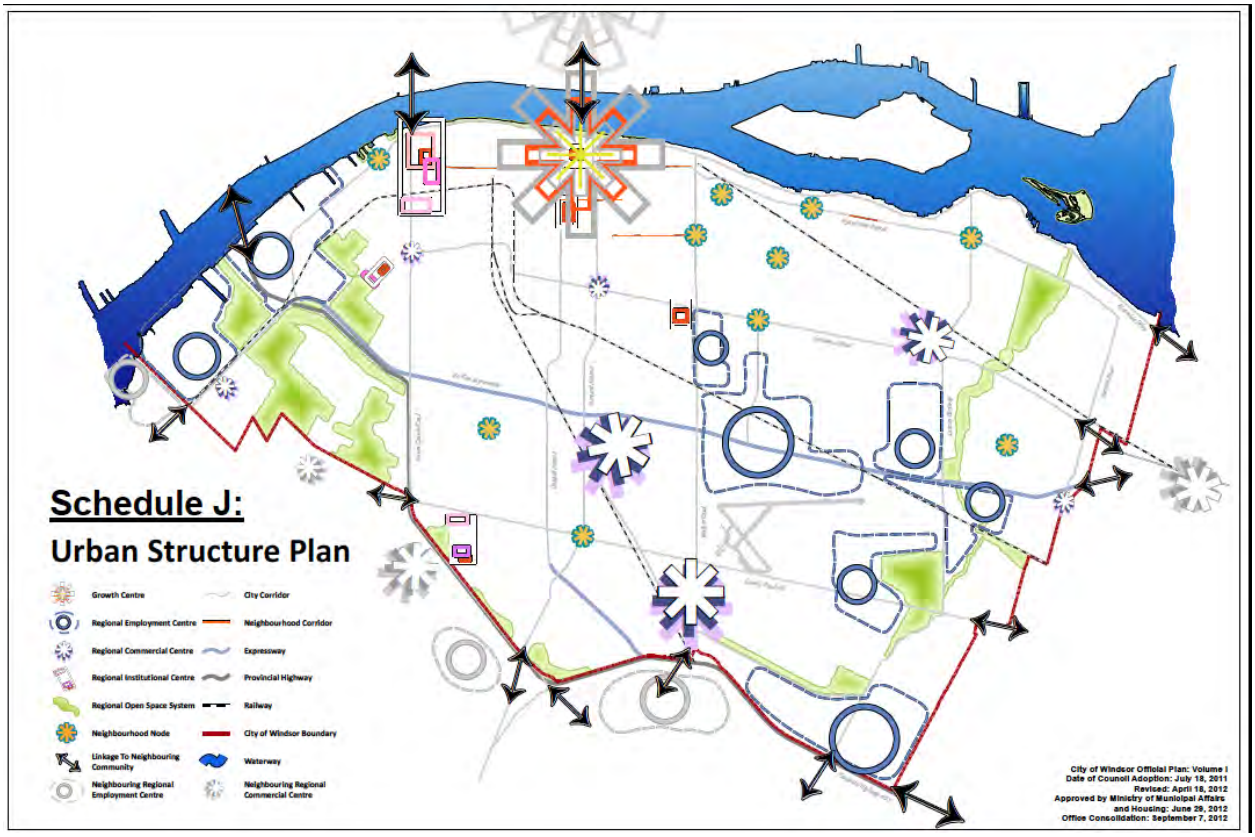


Figure 1 – Windsor Official Plan Schedule J

Schedule J to the Official Plan, the Urban Structure plan was added to the Official Plan at the same time and is shown here as Figure 1. It acts as an overlay designation and refers back to the policies in Section 6 and designations on Schedule D (Land Use) and Schedule E (City Centre Planning District) of the Plan.

Schedule J identifies a number Nodes in the City. The following policies describe the characteristics and functions of the Nodes:

> *3.3.1 Nodes*
> *Nodes in this context are existing or future locations of concentrated activity on the Urban Structure Plan that serve the societal, environmental and economic needs at a neighbourhood and/or regional scale. The most successful nodes are the ones that exhibit a wide variety of land uses, including higher density residential and employment uses, and have access to frequent public transit service. Smaller scale community and neighbourhood nodes play an important role in providing services to the surrounding neighbourhoods, providing a range of housing opportunities and, providing a recognized sense of place for these neighbourhoods.*

There are a hierarchy of Nodes identified in the Plan. This hierarchy is summarized in the following policy excerpts from the Plan:

> *3.3.1.1 Growth Centres are the highest in the hierarchy of nodes in Windsor due to their scale, density, range of uses, function and current or future identity. Growth Centres should be planned:*
> - *(a) To serve as focal areas for investment in institutional and regionwide public services, as well as commercial, recreational, cultural and entertainment uses;*
> - *(b) To accommodate and support major transit infrastructure;*
> - *(c) To serve as high density major employment centres;*
> - *(d) To accommodate a significant share of households and employment growth; and,*
> - *(e) To accommodate a minimum density of 200 residents and 200 jobs per net hectare;*

The minimum density for new residential-only development is 80 units per net hectare.

While these policies do not specifically promote intensification of these Growth Centres, they clearly support higher density residential uses within the identified Nodes.

> *3.3.1.2 Major Activity Centres are second in the hierarchy of nodes in Windsor.*

The following comprise Windsor's Major Activity Centres:
(a) Regional Commercial Centres;
(b) Regional Institutional Centres;
(c) Regional Employment Centres; and
(d) Regional Open Space System.

Future residential development and redevelopment at Major Activity Centres should be medium (30 units per net hectare) to high-density (80+ units per net hectare). Residential intensification is desired at or near Major Activity Centres.

Regional Employment Centres and Regional Open Space System areas are not appropriate for residential development. However, the existing policies enable residential development to occur at significant densities in the and Regional Commercial Centres. This concept is supported by the following:

In the future these nodes should function as vibrant mixed-use commercial-residential neighbourhoods serving a higher density of population. Ideally, the predominant form of new or redeveloped housing should be medium and high-density residential buildings with ground floor and possibly second floor commercial uses and upper floor residential dwellings.

The Urban Structure Plan also identifies as hierarchy of Corridors within the City, including City Corridors and Neighbourhood Corridors. Residential development along City Corridors include medium and high profile developments of between 14 and 58 metres (16 storeys) in height. There are no provisions for intensification of residential uses within the Neighbourhood Corridors.

The Neighbourhood policies in Chapter 3 permit a mix of low and medium density development within the Neighbourhood areas as follows:

The three dominant types of dwellings in Windsor's neighbourhoods are single detached, semi-detached and townhouses. The density range for Windsor's neighbourhoods is between 20 to 35 units per net hectare. This density range provides for low and some medium-density intensification to occur in existing neighbourhoods. Multiple dwelling buildings with medium and high-densities are encouraged at nodes identified in the Urban Structure Plan.

The policies in Chapter 3 of the Plan are implemented in greater detail in Chapter 6, and on Schedules D and E of the Plan. It is noted that many of the policies in Chapter 6 of the Plan were enacted before Chapter 3 and Schedule J were approved.

There are three Land Use designations that permit residential uses; Residential, Mixed Use (Schedule D) and City Centre Planning District (Schedule E).

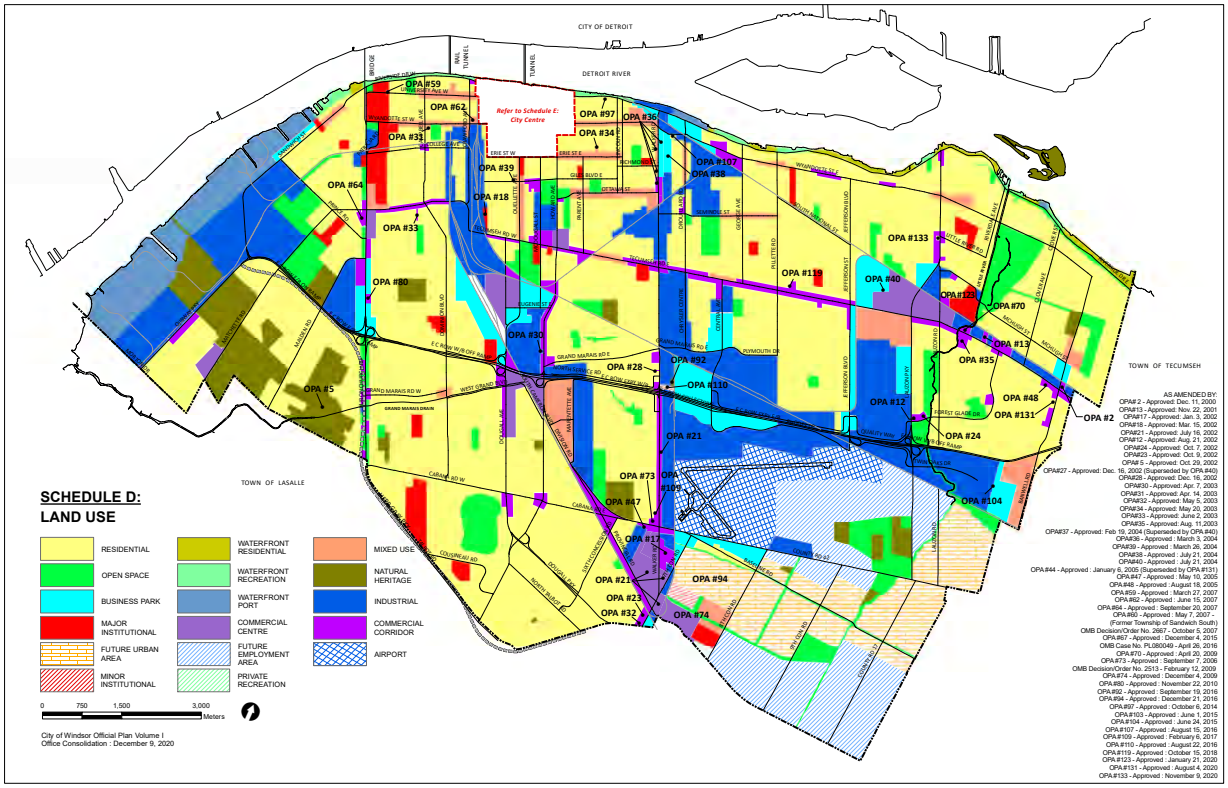


Figure 2 – Windsor Official Plan Schedule D

The Residential policies in the Plan permit low, medium and high profile residential uses subject to the following policies:

6.3.1.3 To promote selective residential redevelopment, infill and intensification initiatives.

6.3.2.5 At the time of submission, the proponent shall demonstrate to the satisfaction of the Municipality that a proposed residential development within an area having a Neighbourhood development pattern is:

(b) in keeping with the goals, objectives and policies of any secondary plan or guideline plan affecting the surrounding area;
(c) compatible with the surrounding area in terms of scale, massing, height, siting, orientation, setbacks, parking and amenity areas;
(d) provided with adequate off street parking;

(e) capable of being provided with full municipal physical services and emergency services; and

(f) facilitating a gradual transition from Low Profile residential development to Medium and/or High profile development and vice versa, where appropriate.

Apart from these policies, there is little direction provided to direct higher densities in the Residential designation. This is why the Urban Structure policies in Section 3 are of assistance.

The City updated the Residential policies in 2020 (OPA 130) to incorporate the permissions for secondary residential units as required by the Province in Bill 108. The policies now permit additional units in a single detached, semi-detached, or rowhouse dwelling (the primary dwelling unit) or a building accessory to the primary dwelling unit located on the same lot. These policies enable significant small-scale intensification in the City

The Mixed Use areas are multi-functional areas which integrate compatible commercial, institutional, open space and residential uses. Low profile residential uses are not permitted in these areas however there are no policies related to permitted density or height. Mixed Use Areas include Corridors and Centres. Often there are Commercial Centres in proximity to Mixed Use Areas (Devonshire Mall and Tecumseh Mall areas). A number of the Mixed Use areas are also in proximity to the Nodes and on City Corridors shown on Schedule J. The criteria for evaluation residential uses in the Mixed Use area are the same as identified in Section 6.3.2.5, quoted above.

Within the Regional Commercial Centre Nodes shown on Schedule J, there are Commercial Centre and Commercial Corridor designations shown on Schedule D to the Plan. While residential uses are described and density policies are included in Chapter 3 of the Plan, residential uses are not permitted in the Commercial Centre or Commercial Corridor policies in Chapter 6 of the Plan. Therefore, it would be necessary to amend the Official Plan, Chapter 6 and Schedule D, in order to implement the policies in Chapter3 and Schedule J.

The City Centre Planning District is identified as a Growth Centre on Schedule J. Schedule E identifies the land use designations associated with the policies in Chapter 6. The designations that permit residential uses include the Residential Areas and the Mixed Use Areas.

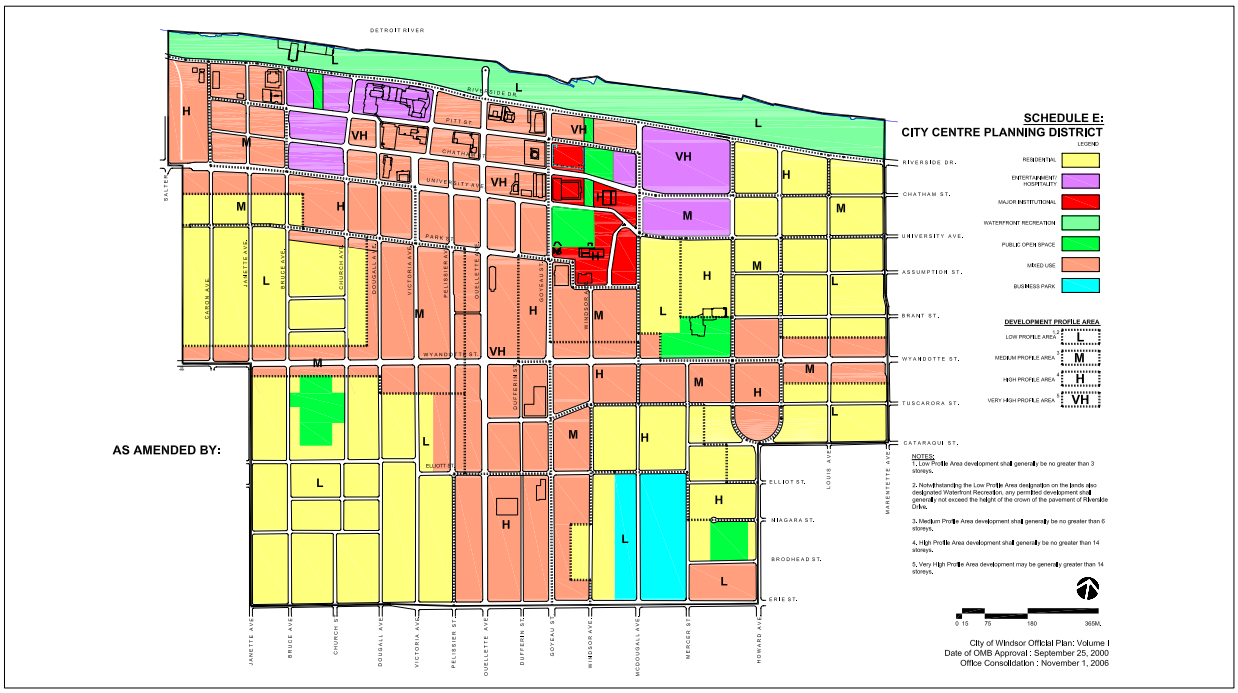


Figure 3 – Windsor Official Plan Schedule E

Schedule D and the policies in Chapter 6 of the Plan assign the following height/density provisions for this area:

(a) *Low Profile Area (L) where development is generally no greater than three (3) storeys in height and up to 8 units;*
(b) *Medium Profile Area (M) where development is generally no greater than six (6) storeys in height;*
(c) *High Profile Area (H) where development is generally no greater than fourteen (14) storeys in height; and*
(d) *Very High Profile Area (VH) where development is generally greater than fourteen (14) storeys in height.*

2.4 Zoning By-law

Most of the City is regulated under Zoning By-law 8600. It was initially approved in 1986 and has been amended on many occasions through the years. That part of the City that was Annexed from the Town of Tecumseth in 1985 is subject the Zoning By-law 85-18.

Zoning enables development to occur immediately, subject to compliance with other applicable law. For this reason, most land is zoned to permit the existing use as well

as a range of uses permitted by the Official Plan. The City passed Interim Control By-law 103-2020 in July, 2020 to prohibit the use on all lands, buildings, and structures for a Group Home, Shelter, Lodging House, and a Dwelling with five or more dwelling units that would otherwise be permitted by the Zoning By-law. Since that time the City has approved a number of exceptions to the ICBL to permit multiple residential uses. The location of these exceptions is shown on Figure 4.

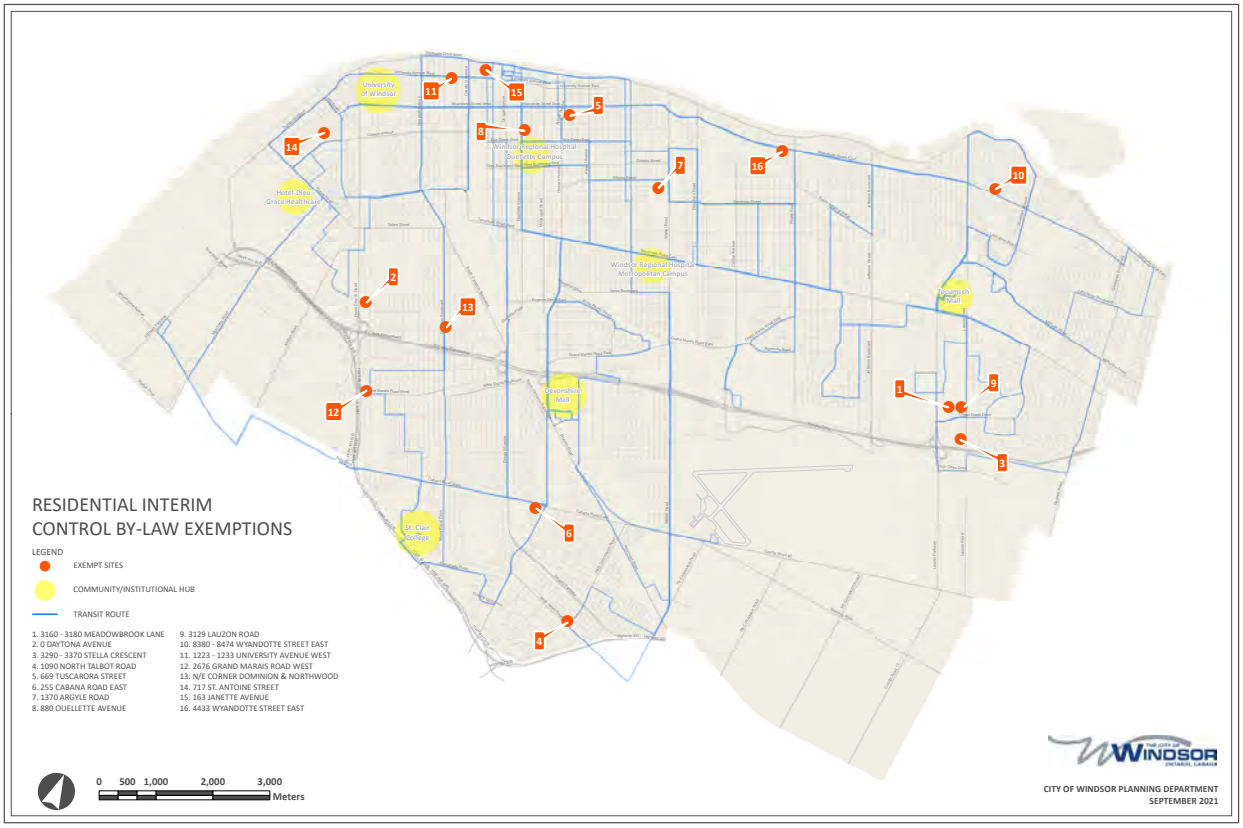


Figure 4 – Approved Exceptions to ICBL

Most intensification projects in the City occur through a zoning by-law amendment process. This allows for a full review and public consultation of the proposal before the zoning is in place. This process would occur for most of the developments of 5 or more units that are currently subject to the Interim Control By-law (ICBL). For this reason, this section of the report is focused on those other forms of housing that are currently restricted under the ICBL; group home, shelter and lodging house. We have also added the definition of fraternity house for reasons described below. These uses are defined in By-law 8600 as follows:

FRATERNITY OR SORORITY HOUSE means a dwelling used exclusively for the accommodation of students of a college or university who are also members of a chartered fraternity or sorority.

GROUP HOME means a dwelling that is:

1. *For the accommodation of six to ten persons, exclusive of staff;*
2. *For persons living under supervision in a single housekeeping unit and who require a group living arrangement for their well-being; and*
3. *Licensed or funded by the federal, provincial or municipal government. A correctional institution, fraternity or sorority house, hospital, hotel, lodging house, private home day care, religious residence or residential care facility is not a group home.*

LODGING HOUSE means a dwelling in which a minimum of four persons, not including staff, are provided with lodging for hire, with or without meals. A correctional institution, fraternity or sorority house, group home, hospital, hotel, private home day care, religious residence or residential care facility is not a lodging house.

SHELTER means a lodging house used exclusively for the provision of temporary accommodation to individuals who are in need of ancillary health care, counselling and social support services.

The preferred term to use is Special Needs Housing. The Social Housing Reform Act (2002 s.2) defined Special Needs Housing as;

A unit that is occupied by or is made available for occupancy by a household having one or more individuals who require accessibility modifications or provincially-funded support services in order to live independently in the community;

The reason for including the definition of Fraternity House in this report it that appears to be contrary to Section 35 of the *Planning Act,* and more recent decisions on the Human Rights Code in that it regulated who can live in the dwelling based on their relationship (students and members of a chartered fraternity or sorority). The definition should be deleted and the use should be considered a Lodging House for the purposes of the Zoning By-law.

Lodging houses are permitted in many of the Residential District Zones. Figure 5 illustrates where these zones are located in the City. In addition there have been many amendments to the By-law to permit lodging houses in other residential Zones within the City.

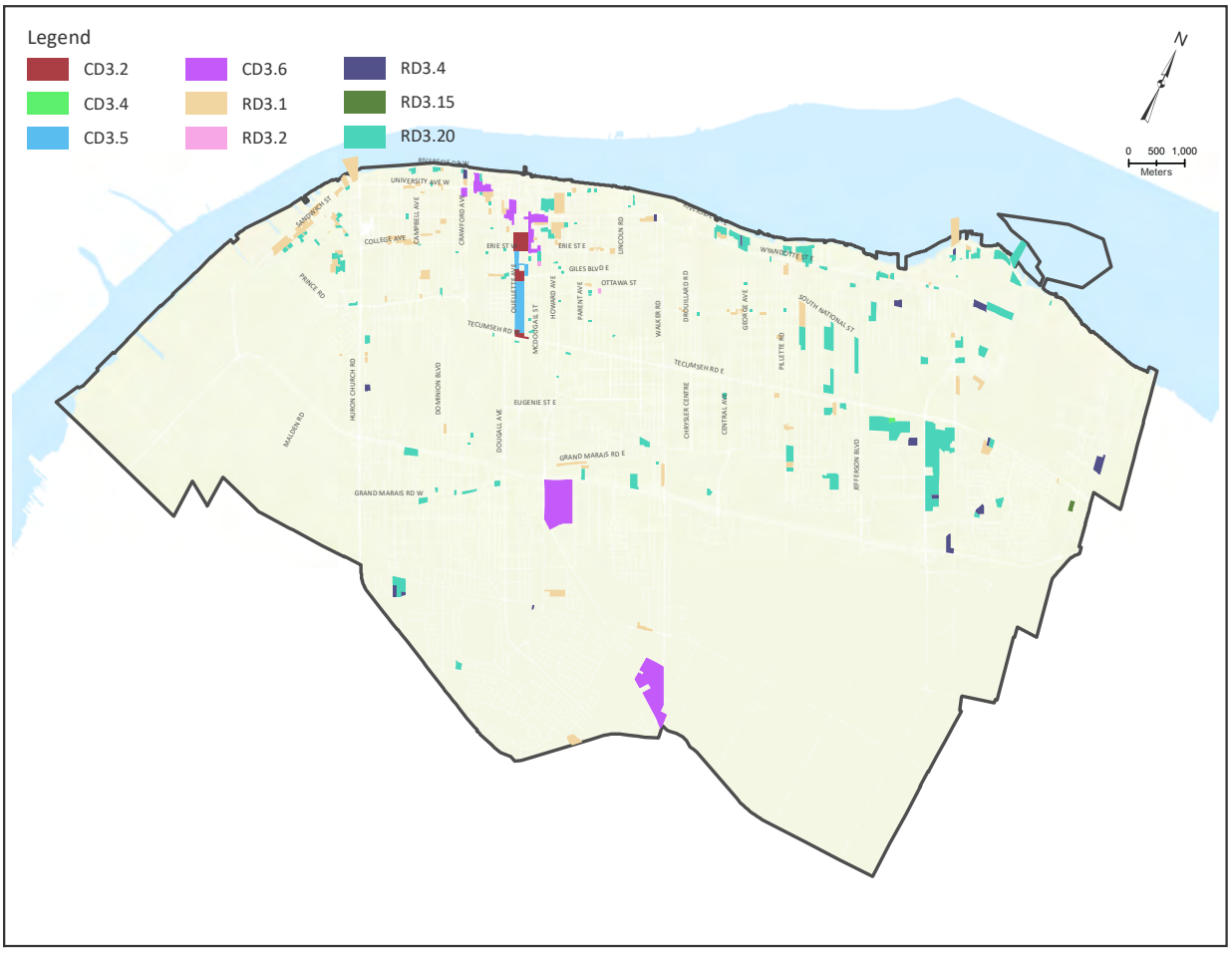


Figure 5 – As of Right Lodging House Zones

Group Homes have been recognized as residential uses and, under the provisions of the Human Rights Code, cannot be treated any differently than any other residential use in the Zoning By-law.

Shelters are only permitted as of right in the Institutional District 6 (ID1.6) Zone. However, the definition of 'shelter' includes a lodging house, which is permitted in many RD3 and CD3 Zones. A minor adjustment to the By-law could correct this potential problem.

Most of Windsor's low density residential areas are in the R1 and R2 zones. The Zone standards are very common for urban areas; 9 m frontage for singles, 12 m frontage

for duplex, lot coverage of 45% and maximum height of 10 m. While these zone standards are typical, they do not reflect the existing built form of many areas.

In those neighbourhoods with primarily 1 or 1 1/2 story houses, the By-law permits 3 stories with a flat roof and a building of 486 sq m (5,225 sq ft), excluding the basement. On a 12 m lot the By-law permits up 607 sq m (6530 sq ft).

After the Province enacted Bill 108 in 2019, the More Homes, More Choice Act, the City was required to amend its Zoning By-law to permit up to three dwelling units on a single lot. Where a duplex is a permitted use up to six units are now permitted. With the zone regulations described above, it is possible to build a duplex with six units, each unit being over 100 sq m – the typical size for a three bedroom unit. These types of buildings are current being constructed in the residential areas in proximity to the University. There is concern that this size of the buildings and the density are not in character with the neighbourhood. In order to address this issue it is necessary to amend the zoning By-law to limit the size of the buildings, perhaps through greater limits on height and gross floor area

It is also noted that the City's Zoning By-law includes a minimum dwelling unit size of 40 sq m. Staff note a number of variance requests to reduce this requirement. The Building Code specifies the minimum size for specific rooms in a dwelling. Many municipalities have eliminated a zoning requirement and relied upon the Building code to regulate dwelling unit size, thereby enabling smaller units without planning approval.

The Commercial District Three (CD3.1 and CD3.2) Zones permit mixed use developments as of right. The maximum height is limited to the longest length of an exterior lot line – usually frontage. This zoning promotes the development of combined use buildings in those areas. The large retail centres are presently zoned CD3.3 and do not permit residential uses. It is reasonable to expect that, in the event that the Official Plan was changed to permit residential uses in these areas, the approval process would require an amendment to the Zoning By-law.

Many of the Corridors in the City are zoned in the Commercial District Two (CD2) Zones. The zone permits dwelling units as part of a 'combined use building' (not defined). The Zones impose 14 m height limit on buildings which is just enough for ground floor retail and three residential floors. To build a 5 storey building an amendment to the By-law would be required as a 5 storey building with ground floor retail would be 20 m high.

The CD1 zone also permits residential dwellings but establishes a 7.5 m height limit, providing only for two storey buildings. To build a 3 storey building the height limit would need to be 12 m. The CD2 and CD3 zones permit residential dwellings in a combined use building but restrict the residential units to floors above the commercial uses. The City advises that a number of amendments to the By-law have been considered to permit residential units on main floors, behind commercial units.

Areas where combined use buildings are permitted as of right in the Zoning By-law are shown on Figure 6.

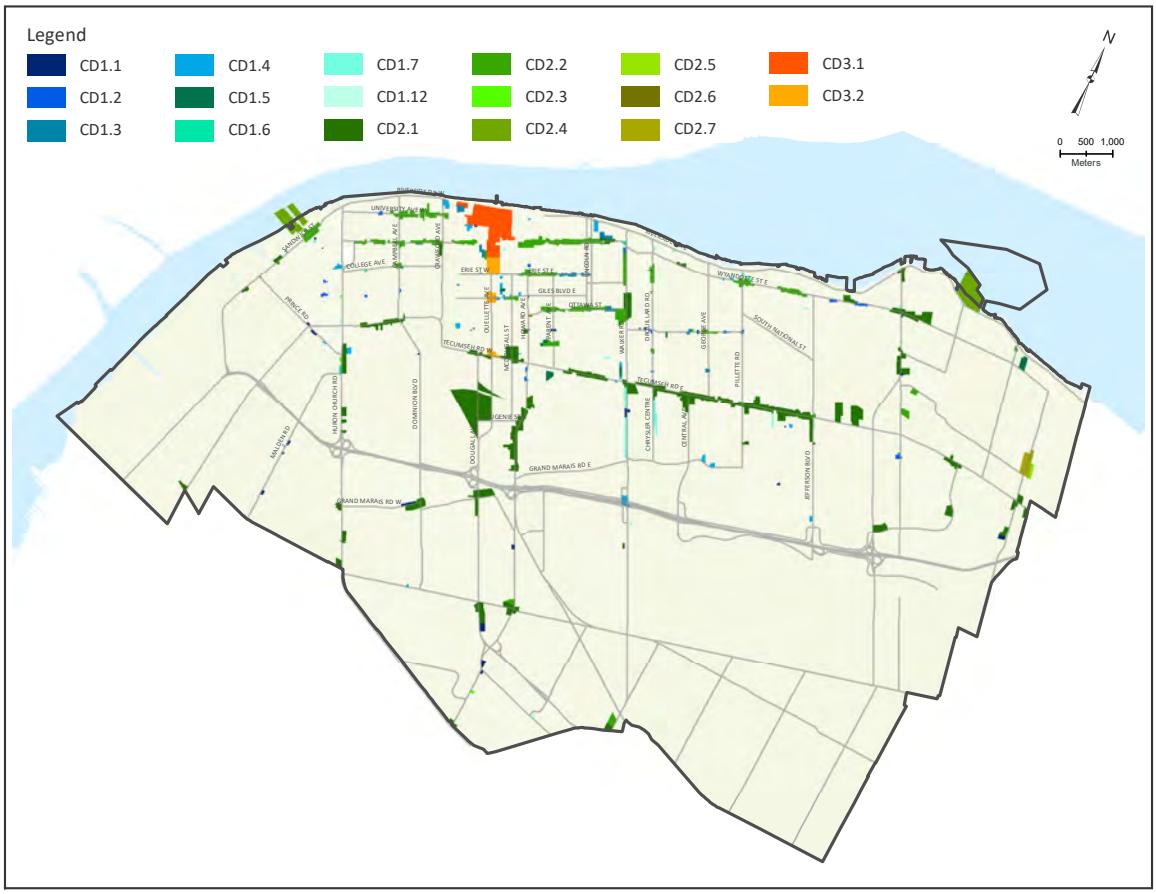


Figure 6 – Permitted Combined Use

The Zoning By-law plays a crucial role in implementing the framework for various forms of Special Needs Housing, as articulated in the Official Plan. It is crucial that the Zoning By-law permit Special Needs Housing in all zones that permit residential uses, subject to the built form regulations of the individual zone, again, keeping in mind that there should be no reference to elements of occupancy or tenure. This is absolutely crucial

because if there is to be consideration of a licensing program under the Municipal Act, the use must be identified as a permitted use in the Zoning By-law.

3.0 Licensing Special Needs Housing under the Municipal Act

The Planning Act is a very poor regulatory instrument in dealing with the management of various forms of Special Needs Housing. On the other hand, the Municipal Act (2001) gives municipalities the specific authority to license, regulate and govern some forms of Special Needs Housing operating within the municipality. This includes the authority to pass licensing by-laws covering the business of renting residential units and operating rooming, lodging or boarding houses/group homes.

It is suggested that the City consider for those forms of Special Needs Housing that are not within a Commercial or Institutional Zone, the implementation of a licensing program that appropriately manages the number of occupants/staff, ensures appropriate inspections by fire and building officials and establishes a regime to ensure the health and safety of staff and residents of those facilities. A licensing regime may also regulate behavioural elements of some forms of Special Needs Housing, where there is the potential for non-compliance and/or nuisance. Most municipalities do not charge significant licensing fees in order to encourage participation in the licensing program.

Of course, the establishment of a licensing program requires a commitment to enforcement and, potentially the need to levy fines or other orders that affect granting of permits, inspection and the management of health and safety issues as well as behavioural issues.

4.0 Market Overview Summary

Altus Consulting Group has prepared a Market Overview for housing in the City of Windsor (2022) as part of this Study. The following is a summary of their findings.

1. The City needs more housing in the inner areas of the City, with populations in a majority of the City declining due to a lack of new housing options and shrinking average household sizes;
2. The City is not seeing enough purpose-built rental housing constructed to meet demand;
3. Access to retail, transit and other community amenities can bolster the market for new residential development, making an area attractive to prospective new households;

4. Similarly, adding residential uses near existing retail clusters can improve the viability of those retail environments. The practice of redeveloping major retail centres for a mix of uses including residential, as well as other community amenities such as parks, community centres, and even additional retail is growing across Ontario and Canada;
5. The City needs to account for prospective growth in post-secondary enrolment in forecasting housing needs.

For greater detail, refer to the full Altus Report (Attachment 2).

5.0 Directing Intensification

There is an increasing awareness that the character of existing and historic or mature communities in Windsor is vitally important. The image of a community is created by the buildings and landscape elements which frame and contain spaces that are viewed from streets and sidewalks. A comprehensive approach to planning for residential intensification in a definable urban structure means that there is a clear responsibility of the City to define where intensification initiatives are appropriate and desirable within the City, and equally important, where those intensification activities need to be more significantly managed.

In addition to reviewing the Land Use designations, associated policies and Zoning within the City, the following additional factors have been considered:

- Transit
- Goods and Services
- Municipal Services
- Development Constraints
- Community Improvement Areas
- Mature/Historic Neighbourhoods

5.1 Transit

The transit system in Windsor is a bus system. Promoting intensification and affordable housing in proximity to transit is critical to reducing the reliance and costs of operating a motor vehicle. The CAA estimates the cost of new automobile ownership in Canada to be about $1,100/month. Owning a used car is less expensive however eventually maintenance costs balance payment costs. Locating density in proximity to transit (within 500 m) reduces household costs and municipal costs and is significantly better for the environment.

5.2 Goods and Services

The ability to walk to sources of essential goods and services reduces costs, pollution, energy consumption and promotes a healthier life-style. Having goods and services within 500 m to one's residence provides these benefits. In addition, the residential uses in proximity to the commercial uses supports the vitality of the commercial uses. For these reasons, mixed-use areas provide excellent opportunities for intensification and affordable housing.

5.3 Municipal Services and Infrastructure

In order to support higher densities at moderate costs, it is important to locate that development in areas that are already serviced at a level that can support the additional uses. Intensification should be directed to areas in proximity to roads that can accommodate additional traffic, sanitary and water services that can accommodate additional flow, and stormwater management facilities that can accommodate additional flow.

Consideration must also be given to areas where community services and institutions and reasonably close. Proximity to parks and schools is important for providing for quality of life and recreation. Major institutions provide services and well as employment.

5.4 Development Constraints

Natural development constraints are identified as Natural Heritage Areas in the Official Plan. All forms of development should avoid these areas.

Flooding is a major constraint in Windsor as the land is very flat and the natural soils have low permeability. Major flooding events have happened through the City in recent years. The high water table in the City also makes it difficult and expense to create underground parking areas in many parts of the City.

Large areas within the City are also recognized as having High Archaeological Potential. While not an absolute constraint, the costs to assess, document and perhaps recover features or leaving them in place, can considerably extend the approval time and costs for new development.

5.5 Community Improvement Areas

Community Improvement Areas in the City are places where the City has already undertaken studies and determined that development should be encouraged. The Municipal Act prohibits municipalities from providing funding in the form of grants, low cost loans or reduced municipal fees for properties without first completing a Community Improvement Plan. Community Improvement Areas also have targeted municipal expenditures for improvements to infrastructure, streetscape, parkland and other community facilities to encourage redevelopment and investment.

5.6 Mature Neighbourhoods

There are areas in the City where intensification needs to be limited in order to protect the character and cultural significance of the neighbourhood. Provincial policies mandate that some intensification shall be permitted in all residential areas - primarily in the form of additional residential units. However, care must be taken in the neighbourhoods that have cultural and historic significance to ensure that what intensification is permitted is done so with the greatest consideration of the potential impact on the character of those neighbourhoods. The examples of as-of-right development permitted in the RD1 and RD2 zones in Section 2.4 illustrate the need tp change some zoning provisions in order to protect low density residential neighbouthoods.

These factors have been combined on a single map of the city (Figure 7) in order to assist in the establishment of areas that should be considered as priority intensification areas.

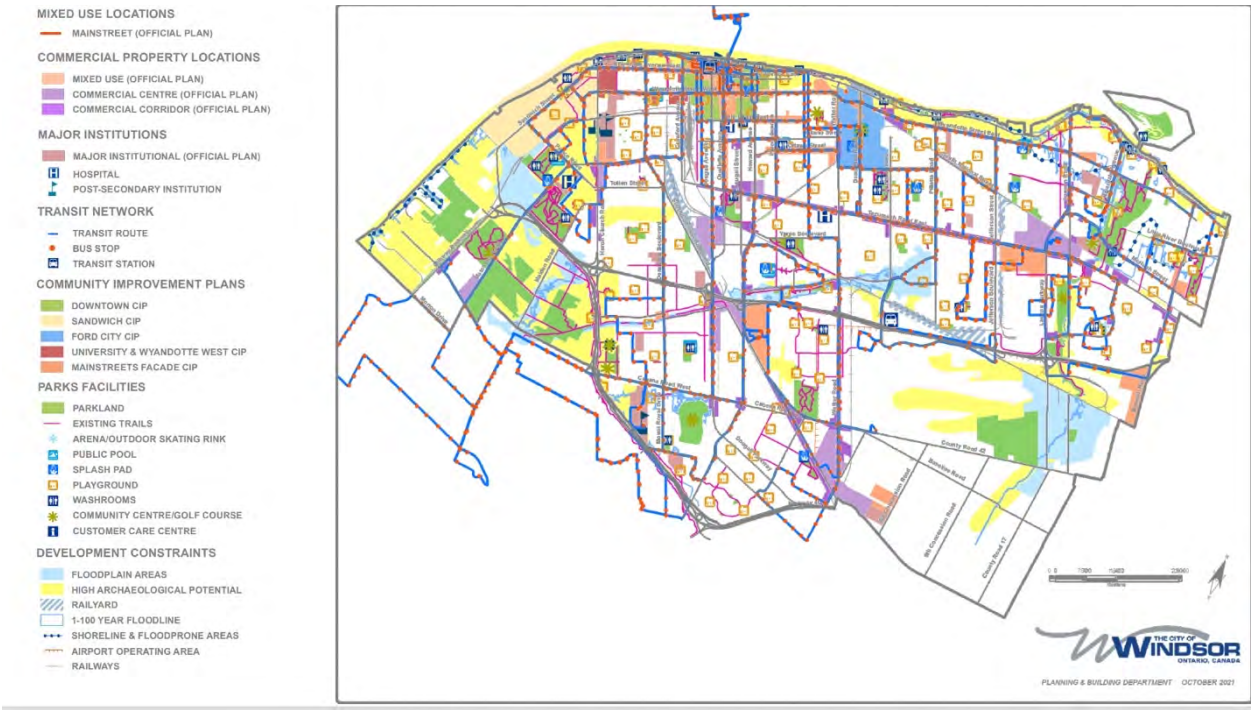


Figure 7 - Intensification Location Factors

Based on these location factors, the existing City Centre, Regional Commercial Nodes and Corridors appear to be best suited to accommodating the majority of intensification activity. These areas should be identified as Intensification Priority Areas in the Official Plan. The official Plan should clearly identify that the majority of intensification in the City should be directed to these areas. Intensification in Neighbourhood Nodes can also produce affordable units through intensification while re-enforce the local function of those areas.

6.0 Character Precincts

A review of the Official Plan Location Factors and the built form in the City indicates that there are five residential and residential/commercial mixed use areas that have distinct characteristics. These areas are shown on Figure 8 and described below.

Each of these Precincts will require different policies and Design Guidelines to guide intensification.

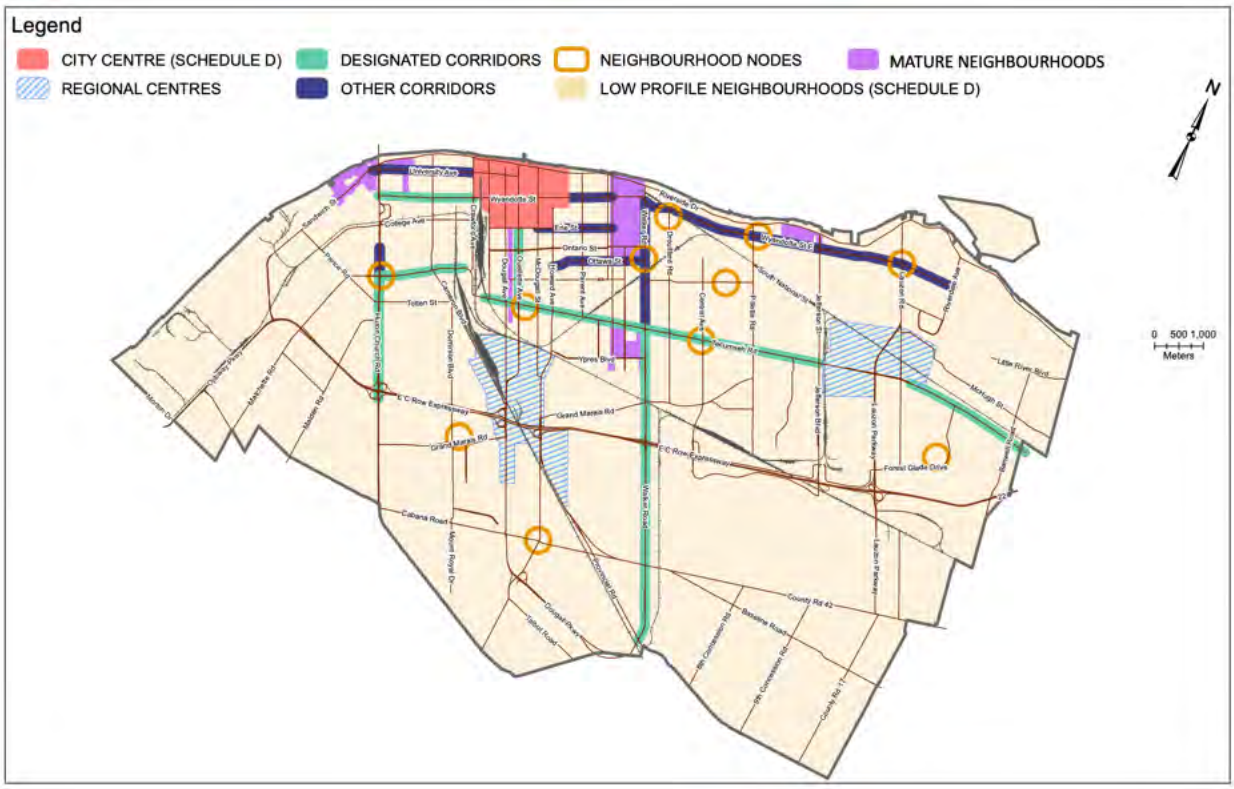


Figure 8 - Windsor Character Precincts

6.1 City Centre

This area is shown on Schedule E to the Official Plan and well described in that document. It consists of medium to high profile buildings, ground floor retain/office uses and generally reflects a post-war architectural style. The Official Plan directs higher density residential uses to this area as part of the mixed use character and includes appropriate Design Criteria.

6.2 Regional Nodes

These areas are shown graphically on Schedule J to the Official Plan. Schedule D to the Official Plan shows the areas as Mixed Use, Commercial Centres, Commercial Corridors and Business Parks. Chapter 3 of the Official Plan acknowledges that over time these areas will become mixed use communities, however this is not reflected in Chapter 6 of the Plan. The areas are large commercial centres with generally low profile buildings (less than 3 stories), vast parking lots and adjacent to major transportation routes.

6.3 Corridors

The Corridors connect Regional Centres, the City Centre and Employment Areas with four-lane roads and major transit routes. They are referred to as Commercial Corridors in Chapter 6 of the Plan and on Schedule D. However, they also include low and medium profile residential uses and local commercial uses.

6.4 Neighbourhood Nodes

Neighbourhood Nodes typically occur at intersections of arterial or collector roads. They are mixed use areas with local commercial uses, some specialty retail and dining and low to medium profile (under 5 stories) residential uses. The goods and services provided are local serving and oriented to pedestrian traffic. There is limited off street parking.

6.5 Low Profile Neighbourhoods

Most of the residential areas in the City are designated as Residential areas on Schedule D to the Official Plan. However, these areas also contain some medium profile and high profile buildings as the Official Plan permits all densities within the Residential designation. Most of the medium and high profile buildings are in the vicinity of Corridors and Neighbourhood nodes within the Residential designation. Many of the low profile neighbourhoods that were reviewed reflect the architectural style of the 1960's and 1970's, primarily bungalow or 1 1/2 story buildings on large lots with mature landscapes

6.6 Mature Neighbourhoods

There are a number of neighbourhoods in the City that warrant special consideration due to their historic and culturally significant character. These communities include Walkerville, Old Town and Sandwich. These neighbourhoods were designed and built in the 1920's and 1930's and have a consistent architectural style that reflects the prosperous City that Windsor became in that era.

7.0 Policy Direction

The passing of the ICBL is an indication that the City believes it does not have suitable policies or regulations to address appropriate infilling and intensification within the City. Updated policies are required to provide greater direction to Council, Staff and the public when considering proposals for multiple residential developments. The

following provides general direction for how the current planning policies and regulations should be modified to provide this direction.

7.1 Change and Investment

Maintaining historic neighbourhoods requires investment, however that investment is of a smaller scale, primarily directed toward maintenance. The City has Community Improvement Plans that provide incentives for maintaining the architecture integrity of historic buildings while promoting investment in those areas.

Investment in change is more significant as it often requires purchase and removal of existing development and investment in infrastructure to support large scale buildings. The City directs the most significant change and investment to be directed to the City Centre and the least change to occur in Historic and Stable Neighbourhoods. The following graphic depicts the scale of investment in change anticipated in the City's Official Plan.

Investment in Change

City Centre - Regional Centres – Corridors - Neighbourhood Nodes - Residential Neighbourhoods – Mature Neighbourhoods

The Official Plan Policies should clearly direct the greatest degree of change and investment in intensification to the City Centre, followed by Regional Centres then Corridors.

Figure 9 - Tecumseh Rd and Lauzon Parkway Regional Centre

The current Regional Commercial Centres have tremendous capacity to accommodate large scale housing projects. They typically have sufficient vacant lands to accommodate buildings and

parking. The Centres could also use additional residential support for the commercial uses. These areas should be identified as Intensification Priority Areas.

The corridors in the City, and to a lesser extent the Neighbourhood Nodes can accommodate mid-rise residential and commercial mixed use buildings through the redevelopment of presently underutilized commercial sites. Recent changes to the retail market will put added pressure on old shopping centres and plazas to redevelop in order to ensure that the site remains viable.

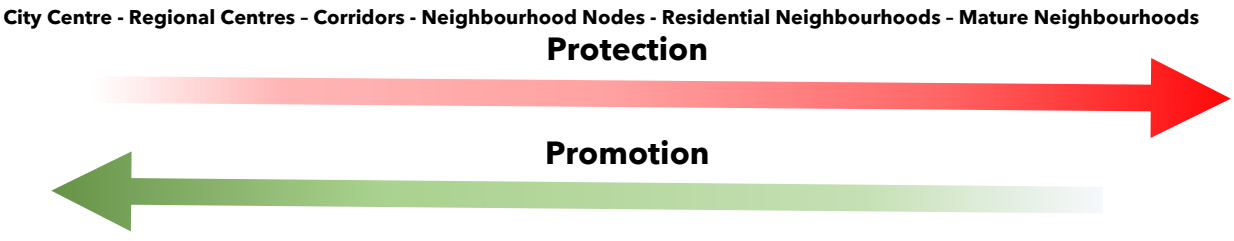
Figure 10 - Tecumseh Rd Corridor

The Corridors and Nodes should also be identified as Intensification Priority Areas in the Official Plan.

7.2 Protection and Promotion

In order to promote or facilitate investment, planning policies must reduce uncertainty. Similarly, in order to protect existing neighbourhoods and their individual character, policies must clearly protect those areas. These objectives should also be reflected in the City's Intensification Strategy.

In developing this Strategy, the policies need to reflect the degree of protection and the degree of promotion or facilitation. The following graphic depicts how these directions relate to the Character Precincts in the City.



The current Official Plan policies in Chapter 3 of the Plan clearly express the intent to promote investment in the City Centre and promote change in the Regional Commercial Centres. Additional policies to increase the extent of promoting change and development in the Corridors would assist in directing intensification to those Areas.

Clear policies are required to protect the character of stable Residential Neighbourhoods and especially the identified Mature Neighbourhoods. In these areas, detailed Design Guidelines would greatly assist the City to protect the character while not entirely preventing any change,

7.3 Defining Compatible Development

All communities evolve over time, and one of the most important challenges for decision makers is to establish an approach to development approval that ensures that change is understood on the basis of "Compatible Development". The concept and definition of compatible development is intended to ensure that all new development within the City is appropriately integrated into the existing built form and landscape and enhances the image, livability and character of the entire City. The starting point is to consider the tested definition of "Compatible Development", as follows:

> *"Compatible development means development that may not necessarily be the same as, or even similar to the existing buildings in the vicinity, but, nonetheless, enhances an established community and coexists with existing development without causing any undue, adverse impact on surrounding properties."*

"Compatible Development" is an overarching principle of good planning, applicable throughout the City of Windsor, and its definition needs to be clearly understood, and applied in different ways, in different contexts throughout the City. This definition raises a variety of key phrases that require further definition:

Development in the vicinity - the concept of vicinity can be flexible. Within this neighbourhood context, the definition of vicinity should vary by the scale of development. There are generally two key scales of development/ redevelopment that must be considered, including:

- Major redevelopment, where land assembly and significant development intensification are proposed – likely in a townhouse or apartment form. The vicinity here should be extensive, perhaps community based; and,

- Minor redevelopment, where land assembly is not necessarily required, but existing dwellings are demolished and replaced by new intensified development. The vicinity here should include properties within 150 metres in all directions. This vicinity could be reduced further if the anticipated impacts are considered to be more immediate - within a few properties on either side and across the street of a proposal.

Enhance an established community - this is a general phrase that needs to be articulated. In order to pass this test, the nature and character of the defined vicinity needs to be considered and clearly articulated. Clear statements about those attributes that define the character of that vicinity are required to assist in the determination of what form of building can "enhance" that character, and what form of building may be "detrimental". Further, community investment is an important factor to consider where new and significant investment within a District may be both necessary and desirable.

"Coexistence without undue, adverse impact on surrounding properties" - this is quite an onerous test, usually related to easily identifiable/quantifiable impacts like shadow, privacy, traffic and parking problems. In some instances, the concept of "visual impact" may be established as an important development review criteria. Visual impact analysis will need to be tied to the attributes that define the area's character, either on a District-wide or defined vicinity basis.

7.4 Special Needs Housing

The Official Plan and Zoning By-law need to be amended to provide a definition of Special Needs Housing, and remove all other definitions that related to how a dwelling unit is to be used, particularly where a specific group of people are specifically recognized - like students, or seniors - or where the number residents and/or relationship among residents is identified. It is appropriate for the definition of Special Needs Housing to be inclusive of a host of types of Special Needs Housing so that direction can be appropriately provided in the Zoning By-law.

- Permit in all designations where residential uses are permitted, specific identification of Special Needs Housing, subject to meeting the built-form policies and regulations of the designation.

- Define the differences among forms of Special Needs Housing that are institutional in nature (long-term care homes, for example), and potentially commercial (short-term accommodations, for example) and identify where those uses are appropriately accommodated.

8.0 Summary of Recommendations

The next phase of this project will be a comprehensive implementation strategy that will consider a host of recommendations that are geared to:

- Prioritizing the City's centres corridors and nodes for intensification through supportive Official Plan policies.

- Reducing the risks inherent to the planning approvals process by pre-zoning identified centres and corridors for intensification and mixed-use development. Pre-zoning will identify the appropriate permitted land uses and will establish appropriate built form, massing and transition regulations.

- Reducing the cost of development by right-sizing parking standards and parkland dedication requirements and identifying areas where financial incentives may be considered.

The corollary is also true, the comprehensive implementation strategy will provide a host of recommendations that will provide planning tools aimed at regulating intensification initiatives within the City's established neighbourhoods

Subject to the endorsement of these recommendations, amendments to the Official Plan and Zoning By-law would be prepared for consideration by the City:

1. Stand-alone medium and high profile buildings should be permitted in the Regional Centres (designation name to exclude “Commercial”), with a policy framework that ensures appropriate transitions to adjacent communities.

2. Medium profile combined (mixed) use buildings should be permitted in the Regional Centres and the Corridors with a policy framework that ensures appropriate transitions to adjacent communities.

3. Combined use buildings up to 4 storeys high should be permitted in the Neighbourhood Nodes.

4. The Residential policies should include consideration of modestly scaled intensification projects within 50 m of a Neighbourhood Node.

5. Mature Neighbourhoods should be identified on Schedule G to the Official Plan. Intensification in these areas should be limited to development of a consistent

character to what presently exists in those areas in terms of front and side-yard setbacks, height and density.

6. The low density Residential Zones should include maximum gross floor area limits and reduce maximum height to 10 m.

7. The minimum dwelling unit size should be eliminated from the Zoning By-law

8. The Residential policies should define limits to intensification that will ensure that re-development for intensification is compatible with the existing built form. Additional policies regarding parking and landscaping requirements should be included in the Official Plan.

9. The City should amend the Official Plan and Zoning By-law to ensure compliance with the Human Rights Code, and to set a policy framework for the City to establish and enforce a licensing program for various forms of Special Needs Housing.

10. The Official Plan should enable Council to adopt Design Guidelines and implement those guidelines through architectural control in the development process. Design Guidelines will be implemented through a combination of Associated Official Plan design-focused policies, the Zoning By-law and Site Plan Approval, and potentially through urban/architectural design control processes.

Respectfully submitted

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Municipal Planning Consultants

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The Planning Partnership

THE CITY OF WINDSOR

City of Windsor

Intensification Guidelines

APRIL 2022 • DRAFT

The Planning Partnership

Prepared by:

The Planning Partnership

For the City of Windsor

April 2022
Draft

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1. INTRODUCTION

1.1 Design Guidelines Context

The City of Windsor is located in the southernmost portion of Ontario, situated on the south bank of the Detroit River and Lake St. Clair, one mile across from Detroit, Michigan. The City currently covers approximately 146.9 square kilometres and is the chief port of entry between Canada and the United States.

There is a desire across Ontario to see existing communities intensify over time to assist with delivering on a number of key planning principles, including:

- A more efficient use of land and investments in municipal infrastructure, typically based on an urban structure of higher density centres and corridors;
- The establishment of transit supportive forms of development that will support transit system investment and promote more mobility options; and,
- The delivery of a broader mix of housing types, including housing that is more affordable than the traditional housing stock.

The current planning paradigm in the City plans for the City's greatest height and density along its major corridors and in its nodes while promoting compatibility and stability in the surrounding low density neighbourhoods. Significant intensification is being directed to Intensification Priority Areas resulting in new sets of challenges and opportunities for the City including compatible development and heritage conservation.

The City's Intensification Priority Areas have substantial potential to accommodate intensification in a residential and mixed use form and will be directed to:

- Regional Centres;
- Corridors;
- Neighbourhood Nodes; and,
- Stable and Mature Neighbourhoods.

1.2 Purpose of the Design Guidelines

Guided by the community vision articulated in the Official Plan (OP), and building on the principles of 'compatible' development, the objective of the Urban Design Guidelines is to provide direction for the design of future uses that respect the unique character of Windsor's neighbourhoods.

The design guidelines are intended as a framework that outlines the salient characteristics of various design concepts and principles. The intent is to guide new development to become distinctive, while relating harmoniously to the use, scale, architecture, streetscapes, and neighbourhoods of Windsor, as well as meeting the needs of its citizens and visitors. The Urban Design Guidelines will provide predictability for applicants, the City, and stakeholders, by providing consistent direction about the criteria for the design of proposed development in Intensification Areas.

The provisions, and examples in the Urban Design Guidelines should be used as the foundation of design for intensification projects in the City and will be used in the assessment development proposals.

Meeting the requirements of the guidelines does not preclude the necessity to design specific site elements to function properly, be of high quality construction, and with appropriate attention to details that ensure that site improvements can be properly maintained.

Note. Illustrations and photographs shown throughout this guideline document demonstrate examples of how the guidelines can be applied and are not intended to exclude other designs that meet the intent of the Guidelines.

1.3 What are Design Guidelines

Good urban design contributes to the vitality and health of a community; aesthetics, architecture, and compatibility; and to vibrant and successful public spaces. The Urban Design Guidelines for intensification in Windsor are a set of recommendations intended to guide development to achieve a desired level of prescribed quality for intensification.

Urban Design Guidelines address the relative height, massing and articulation of elements (buildings and landscapes), and their relationship to one another and to their surroundings. These 'qualitative' aspects of physical form work in combination with zoning parameters to lend shape and 'character' to a neighbourhood.

Urban Design Guidelines are statements that include design guidance, criteria, standards and codes for how to shape the built environment, both the individual elements, as well as how these should be spatially arranged and relate to one another. Urban Design Guidelines address diverse scales of development, from site specific to city-wide. Design Guidelines typically address the design of buildings, landscape features and their organization within a defined area, as well as their relationship to their surroundings - built and natural.

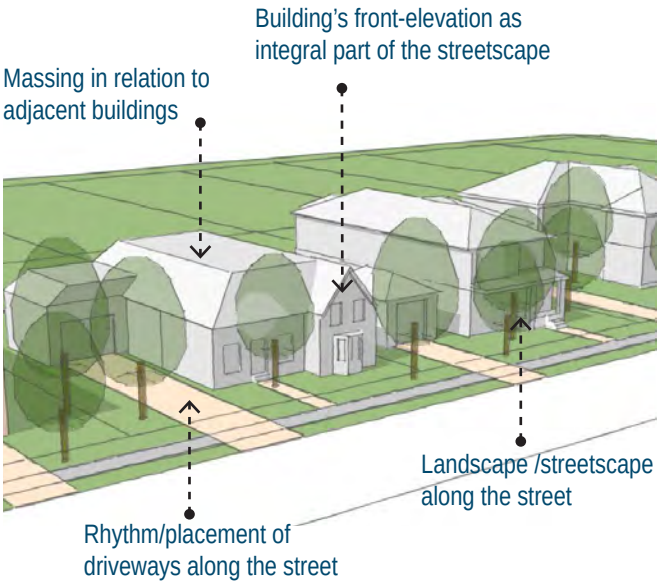


Diagram generally illustrating the contextual considerations for new buildings in a Neighbourhood.

1.4 How Will They be Used?

The Urban Design Guidelines shall apply to all intensification projects subject to review and Planning approval by the City through subdivisions, condominiums, and site plan control applications as permitted under the Planning Act and the Zoning By-law, and in some instances, Committee of Adjustment.

The Zoning by-law establishes clear regulations for lot coverage, parking, setbacks, and height - the 'quantitative' aspects of a neighbourhood's physical form. While zoning regulates how buildings sit within a lot/block, it represents only one of the planning tools that may be used to guide and shape development. These guidelines are not intended to duplicate the Zoning By-law, but instead, work in conjunction with the zoning standards to ensure enhancements of development through qualitative, context related design.

The Urban Design Guidelines will be used to evaluate development applications in order to ensure that a high level of urban design is achieved. The Urban Design Guidelines will be used by:

- City Council and Committees;
- City staff and external agencies;
- The development industry including but not limited to developers, consultants, and property owners; and
- The public for a greater awareness of the benefits of urban design in their neighbourhoods.

Guidelines, as opposed to Official Plan policies or Zoning By-law regulations, are a qualitative test that require interpretation. Development applications will be assessed on a basis of compatibility with adherence to the spirit, if not the letter, of the guidelines. The test is "consistency" rather than "conformity". Consistency in terms of agreement, or in keeping with, the intent of the guidelines and avoiding contradiction. As such, these Urban Design Guidelines are intended as a reference. They indicate the City's expectations with respect to the character, quality, and form of new development in Windsor's centres, corridors, nodes, and neighbourhoods.

1.5 Applicability

Compliance with the provisions of the Urban Design Guidelines does not preclude compliance with other development regulations associated with an application as required by the City or other applicable jurisdiction.

Where provisions of the Urban Design Guidelines conflict due to the characteristics of a proposal, the more restrictive shall apply and/or an alternative design solution(s) may be required that meets the intent of the Urban Design Guidelines.

1.6 Submissions

To assist decision makers, stakeholders, and community members in understanding proposals applicants shall submit an **Urban Design Brief** in support of a development application. The Urban Design Brief will provide the design rationale for the building, landscape, and site design elements of the proposed development.

The Urban Design Brief shall describe the project and demonstrate to the City how their proposal is consistent with the Urban Design Guidelines, including any additional written materials, graphic illustrations, and diagrams necessary to demonstrate compliance with the Urban Design Guidelines.

The Urban Design Brief shall outline how the design considerations of the guidelines have been met, how the development responds harmoniously to the specific context, and how it is complementary to the character of the surrounding neighbourhood in terms of building placement, building design, height, massing, materials, heritage considerations, etc.

Further information see **Appendix A** for the Urban Design Brief Terms of Reference.

1.7 Compatible Development

All communities evolve over time, and one of the most important challenges for decision makers is to establish an approach to development approval that ensures that change is understood on the basis of “Compatible Development”.

The intent for intensification in Windsor is to encourage compatible design that does not deviate substantially from an established pattern, without requiring an identical design, architectural style, or material palette for every dwelling or building in a neighbourhood. It is important that intensification integrates with the existing context and co-exists in harmony with no undue physical or functional adverse impact on existing or proposed development in the area.

The concept and definition of compatible development is intended to ensure that all new development within the City is appropriately integrated into the existing built form and landscape and enhances the image, livability, and character of the entire City.

The starting point is to consider the tested definition of “Compatible Development”, as follows:

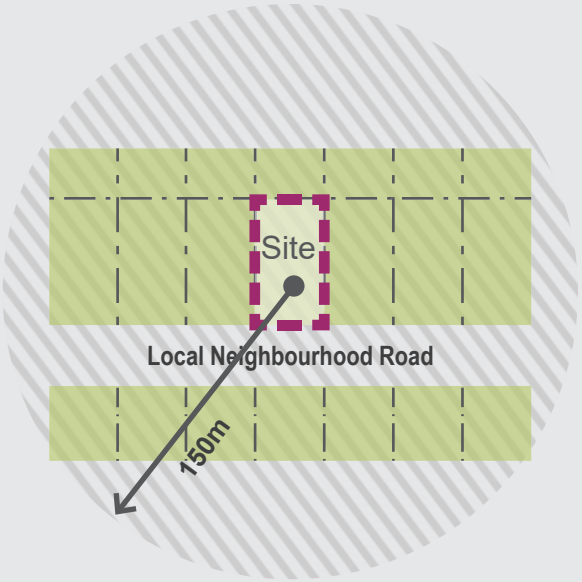
“Compatible development means development that may not necessarily be the same or similar to the existing buildings in the vicinity, but, nonetheless, enhances an established community and coexists with existing development without causing any undue adverse impact on surrounding properties.”

“Compatible Development” is an overarching principle of good planning, applicable throughout the City of Windsor, and its definition needs to be clearly understood, and applied in different ways, in different contexts throughout the City. This definition raises a variety of key phrases that require further definition:

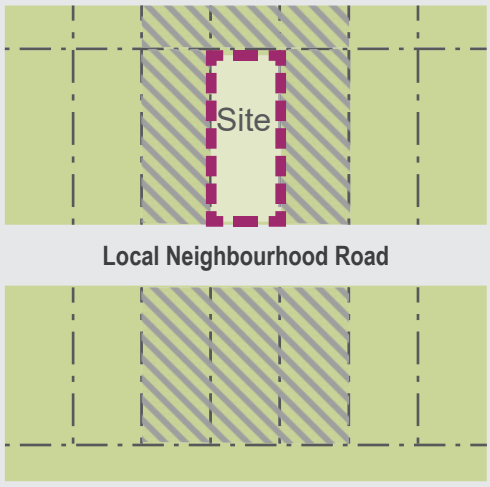
- **Development in the vicinity** - the concept of vicinity can be flexible. Within this neighbourhood context, the definition of vicinity should vary by the scale of development. There are generally two key scales of development/redevelopment that must be considered, including:
  - Major redevelopment, where land assembly and significant development intensification are proposed – likely in a townhouse or apartment form. The vicinity here should be extensive, perhaps community based; and,
  - Minor redevelopment, where land assembly is not necessarily required, but existing dwellings are demolished and replaced by new intensified development. The vicinity here should include properties within 150 metres in all directions. This vicinity could be reduced further if the anticipated impacts are considered to be more immediate - within a few properties on either side and across the street of a proposal.
- **Enhance an established community** - this is a general phrase that needs to be articulated generally. In order to pass this test, the nature and character of the defined vicinity needs to be considered and clearly articulated. Clear statements about those attributes that define the character of that vicinity are required to assist in the determination of what form of building can "enhance" that character, and what form of building may be "detrimental". Further, community investment is an important factor to consider where new and significant investment within a neighbourhood may be both necessary and desirable; and,
- **Coexistence without undue, adverse impact on surrounding properties** - this is quite an onerous test, usually related to easily identifiable/quantifiable impacts like shadow, privacy, traffic, and parking problems. In some instances, the concept of "visual impact" may be established as an important development review criteria. Visual impact analysis will need to be tied to the attributes that define the area's character, either on a community-wide or defined vicinity basis.

In determining compatibility, an area of influence in the vicinity of the new development shall be used. New development should be compatible with the existing development within its area of influence. The scale of new development determines the appropriate scale of the area of influence.

Scale of new development	Area of influence for determining compatibility
Major redevelopment - land assembly; significant intensification	neighbourhood or community based
Minor redevelopment - conversion, demolition, or redevelopment of existing dwelling or property	streetscape/block or 150 metres in all directions
Renovation/Addition - renovation or addition to dwelling on an existing lot	existing dwelling and immediate neighbours (including across the street)



When a new building is proposed, or a lot is severed, the context area to be considered generally includes the area indicated.



When an addition to an existing building is proposed, the area of influence generally includes the adjacent lots indicated.

Diagrams generally illustrating the area of influence, in relation to the scale of building proposed.

The focus of compatible development within a defined **Centre, Node or Corridor** is less about protecting community character as new development is specifically promoted to change the character of these centres and corridors, and more focused on ameliorating undue, adverse impacts on adjacent properties.

As such, the following considerations should be taken into account to ensure compatibility where intensified development is proposed within an identified **Centre, Node or Corridor**:

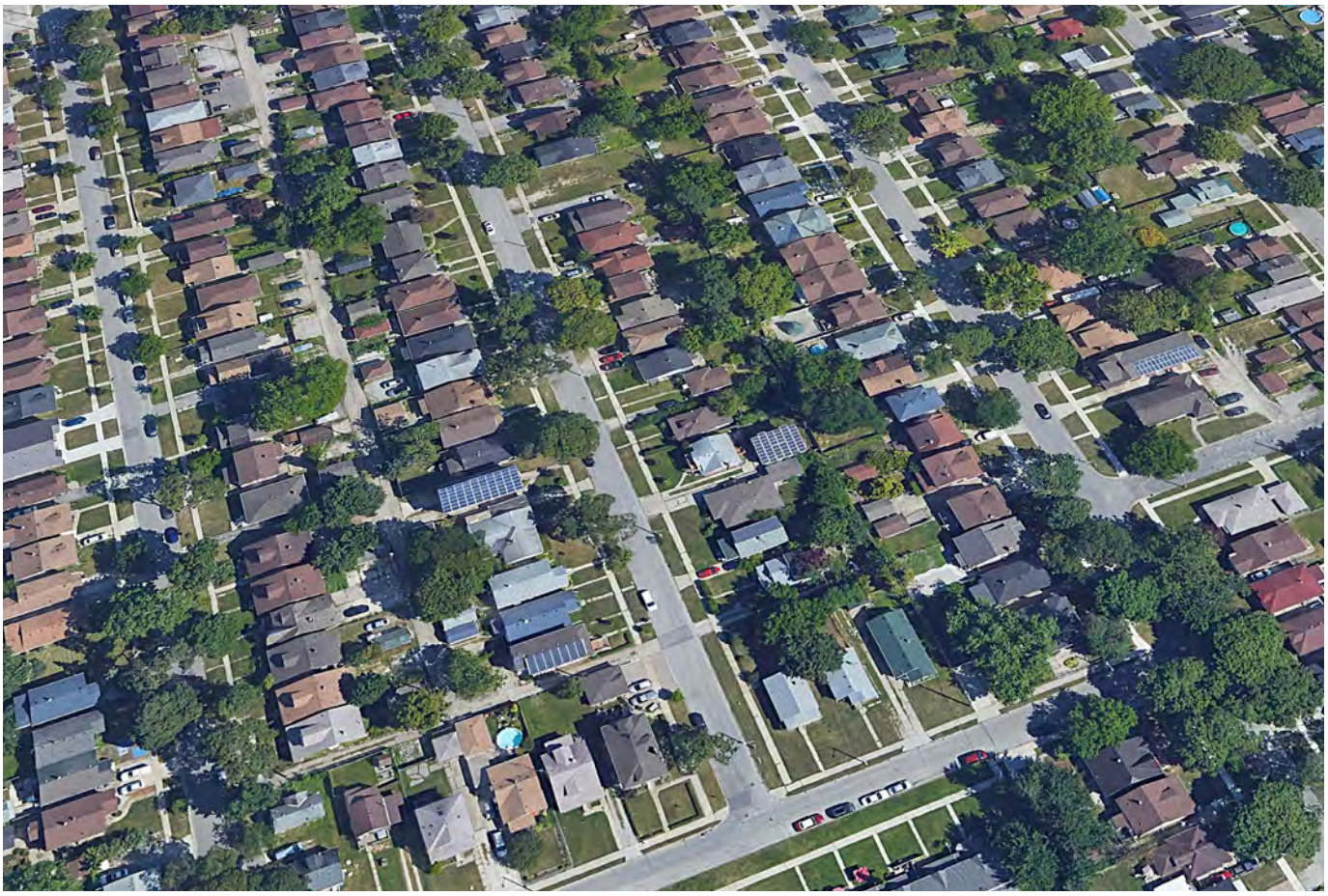
- Consider the height and massing of nearby buildings, and where appropriate, incorporate buffers and/or transitions in height and density to adjacent properties;
- Provide, or permit the reduction of on-site amenity space that is reflective of the evolving urban and mixed use context;
- Implement appropriately urban streetscape patterns, including block lengths, setbacks, and building separations; and,
- Ensure capacity exists and that there are no adverse impacts on the City's sewer, water, storm water management, and transportation systems.

Consistent Development

Throughout the Urban Design Guidelines, the terms consistent and consistency are used. Consistent refers to responding harmoniously to a specific context and being complementary to the existing area.

It is the intent of the Urban Design Guidelines to ensure that intensification in the Mature Neighbourhoods reflects a consistency of style. Within a locality of consistent character there are usually predominant building materials, textures, and ranges of colour, particularly in detail and decoration. Good infill buildings should recognise characteristic materials, textures, and colours used locally and in adjacent buildings. These should be re-interpreted and incorporated as part of the new building.

2. STABLE & MATURE NEIGHBOURHOODS



Throughout a number of Windsor's **Stable and Mature Neighbourhoods** there is a growing trend of dwellings being renovated, enlarged, or replaced by new dwellings, which are often significantly larger or conflict with the existing character of the community. Due to this trend, special consideration must be placed in a number of neighbourhoods in the City due to their historic and culturally significant character.

The City's objective for these evolving and historic neighbourhoods is to promote new construction that recognizes and enhances the neighbourhoods unique character as it is defined based on elements of urban design, streetscape, architecture, and landscape which contribute positively to their evolving image.

The purpose of the Urban Design Guidelines is to implement the Official Plan Vision for Stable and Mature Neighbourhoods by identifying the key attributes that contribute to the character of the area and providing a framework to guide the design of additions, new buildings, and landscapes that:

- Reconcile compatibility with diversity, while avoiding both monotony and harsh contrasts;
- Respect the architectural character of the neighbourhood;
- Promote a contextual design approach that considers the adjacent and surrounding development and fosters pedestrian scaled/oriented streetscapes;
- Encourage appropriate flexibility, innovation, and diversity in design, intrinsic to evolving communities; and,
- Recognize and implement the existing standards and guidelines for the conservation of Cultural Heritage Resources, where appropriate.

2.1 Understanding Neighbourhood Character

The **Stable and Mature Neighbourhoods** design guidelines are intended to address the changes occurring in these neighbourhoods so that compatibility and consistency can be achieved within the existing context and neighbourhood character.

Stable Neighbourhoods

Achieving compatibility in Stable Neighbourhoods is not about replicating the existing form or reproducing architectural styles or details of nearby buildings. Rather, the focus is to direct how new development can be designed to maintain and preserve neighbourhood character.

New development in Stable Neighbourhoods should be designed to respond to the basic neighbourhood patterns and reoccurring characteristics, such as lot patterns; placement and orientation; scale, height, and massing of dwellings; existing vegetation; topography; and other common or distinctive elements.

Mature Neighbourhoods

New development in Mature Neighbourhoods should also achieve compatibility similar to Stable Neighbourhoods, but the focus in these areas is to be consistent with the architectural style, building elements, and materials of existing dwellings in the surrounding neighbourhood.

The intent is to maintain and protect the existing historic and culturally significant character of these neighbourhoods. Colour schemes and materials should be inspired by, and carefully coordinated, with surrounding buildings for visual harmony and consistency with the architectural style of the buildings, as well as the neighbourhood.

Materials and colours of surrounding buildings need not be simply copied but used as a point of reference. Modern materials can be used if their proportions and details are harmonious within the surrounding historic context. Colour, texture and tonal contrast can be unifying elements.

Neighbourhood Character

Character means the collective qualities and characteristics that distinguish a particular area or neighbourhood. In a general sense, the character of the City's Stable and Mature Neighbourhoods is defined by the comfortable scale of the buildings and the streets, the street trees and landscape features, and the feeling of history invoked by the inventory of period appropriate and historic homes.

In many of Windsor's neighbourhoods there is a diversity of building forms, housing types, streetscapes, and landscape features. Diversity is an element to be celebrated as a defining factor within each of these neighbourhoods.

Three storey apartment buildings on Argyle Street in the Walkerville neighbourhood.

The character of the City's Stable and Mature Neighbourhoods is defined generally by the following elements:

- **Architecture** - Architectural styles, in some cases vary dramatically, while in other neighbourhoods, convey consistency. While a rigorous adherence to a particular form or style is neither desirable nor realistic there are key elements of all building designs that can be used to ensure that different forms and styles can co-exist alongside one another in a compatible and complementary manner;
- **Heritage** - The inventory of heritage buildings within the Stable and Mature Neighbourhoods is a key contributor to the character of the neighbourhoods. To maintain the historic character of these areas, the design of both new development and additions must complement the heritage character and be context-specific to avoid detracting from the existing built fabric.
- **Lot Size/Frontage** - Streets that display the most diversity in terms of lot size and street frontage are not necessarily negative in terms of community character. Varying lot sizes and frontages can accommodate a diversity of housing types and built forms. To support this variety and diversity as a positive attribute, it is important to ensure that the development is appropriate for the site and within the context of the surrounding built form;
- **Setbacks** - Front and side yard setbacks are character giving elements within these neighbourhoods that establish both the building's relationship with the street, and the visual separation between buildings. Consistency in building setbacks, regardless of built form, is a key character giving element of any street;
- **Streets** - On a street by street basis, right-of-way and pavement widths are considered important to the image of a Stable and Mature Neighbourhood and are directly related to the adjacent scale of development, with a desire to maintain existing relationships among pavement width, boulevard treatment, and the interface between the street and the adjacent buildings;
- **Street Trees and Landscaping** - The protection of mature street trees and the enhancement and maintenance of front yard landscapes in all Stable and Mature Neighbourhoods is a crucial objective in maintaining its positive character; and,
- **Parking** - Dealing with the issue of parking is often a flashpoint in the conversation about residential intensification. Parking must be appropriately accommodated on the site of any specific residential development, and that parking supply may be augmented by on-street parking, or in parking spaces provided in communal facilities. A lack of parking supply, with too much reliance on on-street parking has a significant negative impact on community character and may impact the functional operation of the street network.

Gateway to historic Sandwich Town

2.2 General Guidelines for all Development

The intent for development within Windsor's Stable and Mature Neighbourhoods is to maintain the Low Profile built form character of the area and ensure a sensitive integration of new development, additions, or renovations to adjacent properties.

Low Profile development in the Stable and Mature Neighbourhoods includes single-detached, semi-detached, duplex, townhouses, and apartments that are generally no greater than three (3) storeys in height.

2.2.1 Site Orientation

The relationship between buildings through placement on the lot is important to ensure a consistent neighbourhood 'feel' and to define and frame the street while imparting the sense of openness and enclosure.

The Zoning By-law establishes clear regulations for front yard setbacks and interior/exterior side yard setbacks. The objectives of the Urban Design Guidelines in directing the relationship of the building to lot lines are to:

- Maintain consistent spacing between dwellings; and,
- Allow a measure of privacy between neighbours by providing space for light and landscaping.

1. Consider building placement and siting on a property in relation to the street and the property's neighbours to reinforce the positive characteristics of the existing streetscape.

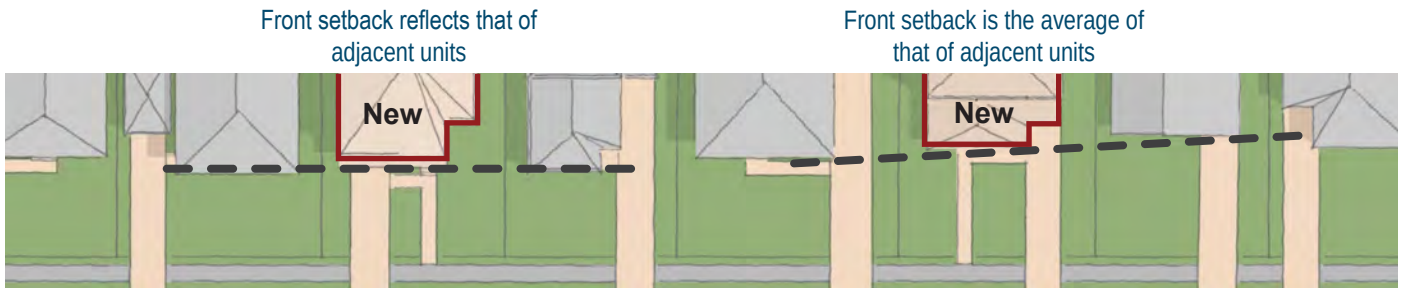
2. Ensure the scale of Low Profile buildings is compatible and sensitively integrated with residential buildings in the immediate vicinity in terms of building mass, height, setbacks, orientation, privacy, landscaping, shadow casting, accessibility, and visual impact.

3. Locate dwellings close to the street edge to frame the streetscapes, however, this will depend on the setbacks to houses on either side of the site.

4. Maintain consistent front yard setbacks along the street. New development should have a set back equal to the predominant setback (70%+) on the street (+/- 1.0m), or a distance that is the average of those on either side of the development site (+/- 1.0m).

5. Provide side yard setbacks that reflect those of adjacent homes, or are the average distance of those on either side of the development, in accordance with existing zoning standards, to a minimum of 1.2 metres.

Generally consistent spacing between buildings



Front yard setback approaches

6. Consider rear yard privacy issues when extending a home towards the rear property line or building a new dwelling by:
   a. Minimizing extensions beyond the adjacent dwellings rear wall;
   b. Limit direct conflict with new windows on the side elevations with existing windows on the abutting building;
   c. Minimizing the location of second floor balconies on rear and side elevations or providing privacy screening on the side of the balcony; and,
   d. Providing fencing that effectively screens the rear amenity and minimizes its exposure to/ from adjacent properties, where appropriate.

7. Limit blocks of street townhouses to a maximum of 8 units, with 6 units preferred. The length of the townhouse blocks should not exceed 50 metres, unless it is essential to the architectural style of the townhouse block.

8. Orient blocks of attached townhouse units to the street with integrated front garages accessed from the street. For rear lane townhouses an attached or detached garage will be located at the rear of the block and accessed from a lane.

2.2.2 Developments within Heritage Contexts

1. Locate and design buildings to respect and complement the scale, character, form, and siting of on-site and surrounding cultural heritage resources.

2. Ensure that conceptual design and massing of development or redevelopment projects are compatible with adjacent listed heritage buildings and/or sites.

3. New buildings located adjacent to built cultural heritage resources will be compatible with existing historical building types, colours, and material palettes having regard for modern building designs, techniques, and materials.

2.2.3 Access & Parking

Garages and driveways should be located and sized based on the established pattern of the neighbourhood. The objectives of the Urban Design Guidelines in directing the location and width of garages and driveways are to:

- Prioritize the location of a garage off an open and travelled alley;
- Ensure that garage doors do not dominate the front facade of the house;
- Minimize the garage and driveway presence on the streetscape;
- Direct parking to the side or rear of a building to ensure the front yard can be landscaped; and,
- Maintain a consistent garage type and driveway width along the street.

1. Place garages behind the front wall of the dwelling or at the side or rear of the lot, unless the predominant location of the garage on other houses on the streetscape are at the front of the house or not at the side or rear.

2. Townhouses should be serviced with access to the garage or parking from the rear of the unit. The front yard is best fully landscaped, with a single width driveway leading to the parking or garage area at the rear.

3. Ensure rear lane accessed garages are complementary in design and building material with the principal dwelling.

4. Where there is no option for rear access parking, the garage on the front face of the dwelling unit should not dominate the streetscape.

5. Set back detached garages from the main front wall of the dwelling. Ensure detached garages are similar in material and architectural character to the dwelling.

6. Ensure front-facing garages attached to the main dwelling do not occupy more than 50% of the building's width. For semi-detached, duplex, and townhouse units, pair garages to allow for more substantial front yard green space

7. Locate and space driveways to reinforce the rhythm along a street and to allow for street trees to be planted in the boulevard.

8. Ensure the garage door does not protrude beyond the front wall of the townhouse. Building design should include elements to reduce the dominance of the garage doors by, for example:
   a. Single car garages only (2.7 m door width);
   b. Including a habitable room over the garage;
   c. Articulating the front door with a porch; and,
   d. Integrating the design of the roof over the garage with that of the townhouse units.

9. Parking for detached, semi-detached, and townhouse dwellings is only permitted in the front or exterior side yard and only on a driveway or a parking pad.

10. For Low Profile apartments, locate visitor parking, loading, and service areas in areas of low public visibility in side or rear yards and set back from the front facade of the building.

2.2.4 Landscaping

The objectives of the Urban Design Guidelines with respect to landscape are to:

- Maintain the green landscape character of the neighbourhood;
- Plan for the urban canopy;
- Screen views to rear yard parking; and,
- Preserve mature trees.

1. Preserve existing mature trees where possible. The planting of new trees is encouraged to provide a continuous canopy over the street and to replace any canopy lost to new development.

2. Enhance the bio-resiliency of the area through planting of native, non-invasive trees and shrubs.

3. Include landscaped areas in front of buildings that provide a transition from private to public areas. A minimum of 50% of the front yard zone should include soft landscaping areas (non-paved areas supporting grass, groundcovers, trees and/ or shrubs).

4. Encourage permeable paving for new walkways and driveways to reduce run-off to storm sewers and soften the streetscape appearance.

Garages set back from the main dwelling.

Landscaped areas provide a transition from private to public areas.

5. Where the predominant (70%+) existing streetscape character has design elements such as low stone walls, low permeable fences, planting and/or other landscaping at the front of the lot, ensure new development provides similar elements.

6. Maintain the green character of the front yards and avoid monotony of treatment over large extents of development. The front yards of units in a new townhouse development should have a coordinated landscape design that should include fences/hedges, and street trees in the boulevard.

7. Ensure front yard hedges or fencing that are used to define the edge of private property are no more than 1.2 metres high to maintain visibility to the street.

8. Screen the parking lots of apartments from abutting residents and street view through the use of landscape buffers and/or fencing that is consistent with the building's architectural style.

9. Consider outdoor amenity areas in the form of second floor decks or rooftop patios for townhouses with an attached garage in the rear as an alternative to traditional rear yard amenity areas.

10. Provide outdoor amenity space for apartment units either individually or in a shared space.

2.2.5 Materials

The variety of building materials contributes to the interest along the street and to the varied architectural character of the neighbourhood.

The objectives of the Urban Design Guidelines for renovations, additions, and new construction are to:

- Ensure high quality materials are used;
- Preserve the variety of design, colour and building materials within a range that enhances the character of the neighbourhood; and,
- Ensure that while buildings will inevitably change over time, they will maintain the cohesive visual character of the street.

1. Ensure building materials reflect and complement the existing materials in the area and are high quality, durable, and easily maintained.

2. Ensure the materials selected are consistent for a building's facade and any walls that are publicly visible.

3. Recommended building materials include brick masonry, stone masonry, wood, or stucco; one or two of these materials should be selected as base materials and may be complemented by a wider range of accent materials.

4. For additions or renovations to an existing building, incorporate materials and colours that are consistent with and complement the main building.

5. Ensure material changes on exposed elevations occur at transition points, such as a change of plane.

6. Ensure rear and side walls exposed to public view are of a similar composition to the front wall.

7. Colour should be selected from the heritage palette. In most cases the predominant colours throughout the City's historic neighbourhoods are subdued. The preferred colours are those within a traditional palette.

8. Traditional high quality building materials are encouraged. The traditional building materials utilized within each historic neighbourhood should be identified and are to be encouraged for new development.

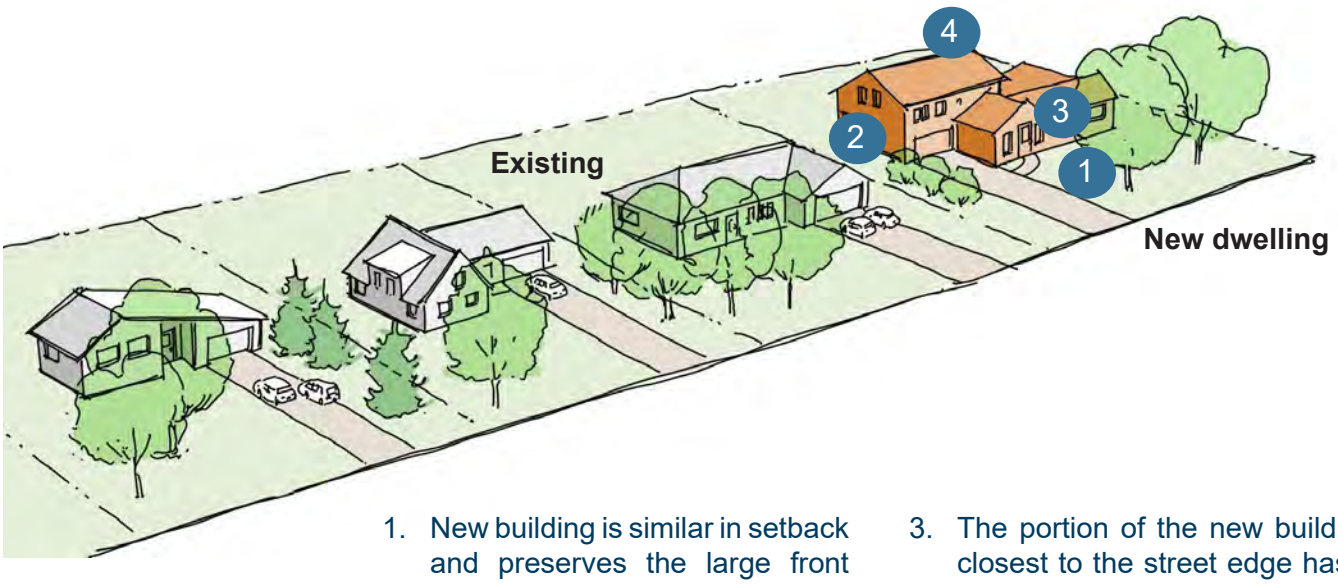
9. Ensure material changes on exposed elevations occur at transition points, such as a change of plane.

2.3 Modest Infill Development

The intent for development of **single lot infill** is to encourage compatible design that does not deviate substantially from an established pattern, without requiring an identical design, architectural style, or material palette for every dwelling or building in a neighbourhood. It is important that infill development integrates with the existing context and co-exists in harmony with no undue physical or functional adverse impact on existing or proposed development in the area.

2.3.1 General Guidelines

1. Infill development in the form of architecture for renovations and new construction shall:
   a. Ensure development is sensitively integrated with the existing context and character of the neighbourhoods identity.
   b. Preserve the variety of design, colour and construction materials within a range that enhances the character of the neighbourhood; and,
   c. Maintain compatible architectural character in the design of roofs, windows, doors, porches and signs.
2. Ensure the architecture of a new dwelling is consistent with the architectural style and era in which its neighbourhood was built.
3. Design the architecture of an addition to be consistent with the original architecture of the existing dwelling.
4. On second-story additions and new two-story dwellings, maintain architectural continuity of materials and detailing around all sides of the dwelling, especially where the dwelling backs onto and is visible from adjacent streets or other public areas.
5. Ensure solar access by designing a new dwelling or addition to not adversely affect the availability of daylight falling on neighbouring properties. Design the location, scale, and massing of an addition or new dwelling to have regard for the amount of shadow upon neighbours' rear yard areas.



1. New building is similar in setback and preserves the large front yard and mature trees.
2. New building is similar in side yard setback.
3. The portion of the new building closest to the street edge has a similar low profile to the existing buildings; taller portions are set back.
4. Similarity in massing and roofline elements.

Demonstration of compatible infill.

2.3.2 Building Design

2.3.2.1 Massing & Elevation Articulation

The objectives of the Urban Design Guidelines in directing the relationship of the building elevation and entrance to the street are to:

- Encourage a variety of architectural forms and styles that reflect the evolution of the neighbourhood while enhancing its character.
- Promote “eyes on the street” and a strong presence of the main elevation on the street;
- Ensure that the prominence of the front entrance is maintained and consistent with the surrounding neighbourhood; and,
- Ensure the entrance remains the main feature of the house and is oriented to and clearly visible from the street.

1. Design dwellings to have articulated elevations, especially those exposed to streets and open spaces. Articulated elevations might include changes in plane, projections, enhanced fenestration, highlighted entrances, complementary materials, among other architectural elements.

2. Design the building envelope, and individual architectural elements within the building, to reference the architectural treatment of buildings in the neighbourhood. The goal is not to replicate buildings of the neighbourhood, but to ensure new development relates to them by incorporating similarities in design language to promote compatibility. Massing and architectural elements to be considered include:

   a. Similar building shape (square, rectangular, L-shaped, etc.);

   b. Roof lines with similar massing, pitches and articulation (gable, hipped, shed, flat, use of dormers, etc.);

   c. Similar principal building massing elements (bays, projections, first floor height, building height, entry features, etc.);

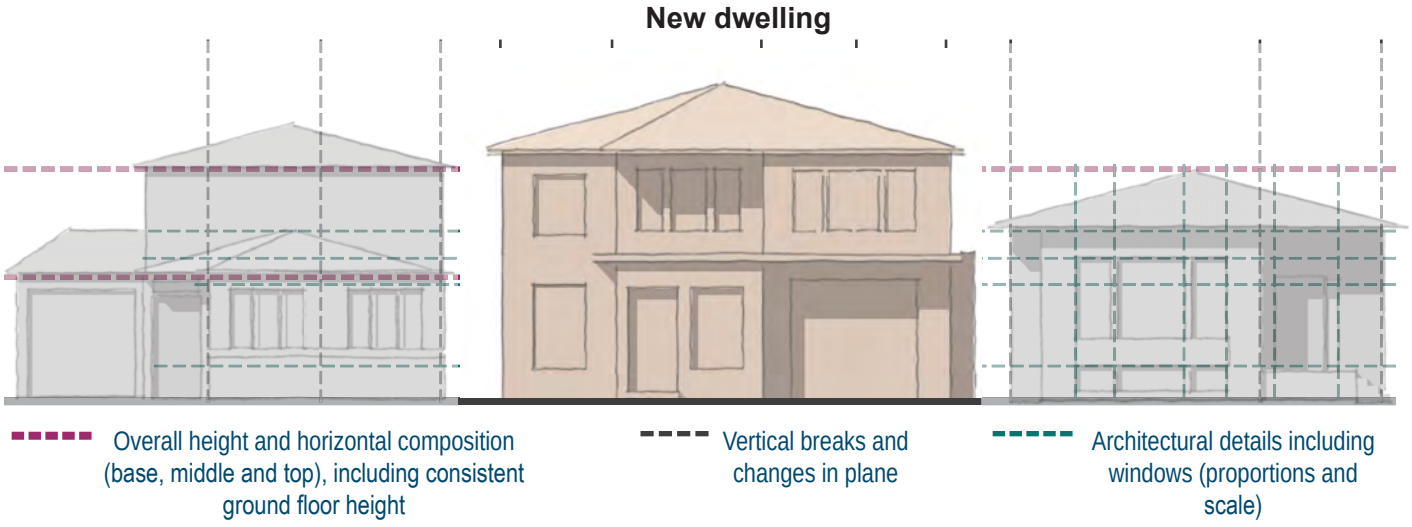
   d. Similar architectural features (porches, stoops, chimneys, columns, frieze boards, etc.);

   e. Important datum lines (cornice, base courses, string courses, window alignment, bays, etc.); and,

   f. Similar proportions (bays, windows, garage, etc.).

3. Ensure the new building is generally consistent in height and massing with adjacent buildings along the streetscape.

4. Provide appropriate transitions in height to existing adjacent buildings and ensure no new building is more than 1.5 storeys or 4.5 metres higher than the adjacent dwellings.



The design of a new dwelling reflects the proportions of those adjacent to it.

5. Where possible, maintain the existing lot grading and the neighbourhood's characteristic first floor height.

6. Avoid mixing historic architectural elements with other architectural style elements.

7. Contemporary designs may be considered provided they exhibit consistency with the massing and articulation guidelines in this section and are not located within a heritage context or adjacent to a heritage dwelling.

2.3.2.2 Porches and Entry Features

1. Ensure the main entrance faces the street, with the door in a prominent position. The front door should be clearly visible and approachable from the street.

2. Front porches are encouraged as features that increase the prominence of the front entrance.

3. Encourage weather protection elements at the main entrance and design to complement the overall design of the dwelling.

2.4 Townhouse Development

Townhouses in Windsor's Stable and Mature Neighbourhoods are considered a popular choice for their ability to provide housing at greater densities than traditional single detached dwellings. In these neighbourhoods, the general appearance and placement of townhouses is characteristically different from the existing forms of development. Of special concern for townhouse development is the dominance of front facing garages.

The architectural character of new townhouse units has the potential to exert a greater impact on stable and mature neighbourhoods than that of single-detached or semi-detached dwelling units. Townhouse developments typically present a large unified extent of building face exposed to the street. Their massing characteristics could easily have an overwhelming effect that may be out of character with the neighbourhood.

The intent of these Guidelines is to translate the characteristics of more historic buildings found in the Stable and Matures Neighbourhoods to the townhouse form. The objectives of the Urban Design Guidelines with respect to townhouses are to:

- Ensure a form and character that is compatible with the dominant single detached housing in the neighbourhoods;
- Ensure that new developments do not impact adjacent residents due to, e.g., loss of privacy or sunlight;
- Ensure that the landscape treatment of the front yards contributes to sustaining the lush and green landscape character of the neighbourhood; and,
- Ensure that the street view is not dominated by garages.

Illustration demonstrating the approach to height variation and transition between dwelling types.

2.4.1 Building Design

2.4.1.1 Massing & Elevation Articulation

1. Building mass should be compatible with buildings in the immediate vicinity of the development. Generally, the building foot print should not exceed 35% of the lot area. In addition, 40% of the lot area should be dedicated to landscaped open space exclusive of parking facilities and driveways.

2. Maintain the traditional range of building heights. Townhouses should not exceed three storeys. Consideration of height will depend on the height of housing in the immediate vicinity of the development.

3. Articulate the elevation of the townhouse block in a manner that provides variation between units with common characteristics that visually unites the block.

4. The main entrance should face the street, with the door in a prominent position. The front door should be clearly visible and approachable from the street.

5. For units flanking a window street, the main front door should be visible from, and oriented to, the exterior side elevation of the dwelling with access to the sidewalk. Ensure the entries are articulated through the use of entry features such as projecting porches facing the street.

6. The roofline should feature modulation of roof planes and use of dormer windows to avoid monotony.

7. Utilize variety in the design of roofs through the use of traditional gables and dormers, or more contemporary designs that include cantilevers and parapet details to break up the massing of units within a block. The main roof should appear as one roof where possible and reflect the architectural style of the unit block.

2.4.1.2 Porches and Entry Features

1. Front porches are encouraged as features that increase the prominence of the front entrance. The composition of wall elements should support the location and definition of the main entrance.

2. Housing in the Stable and Mature Neighbourhoods is characterized by front doors that have a direct relationship to the street grade. Avoid a finished floor elevation of the first floor and the front door at a second floor height up a full set of stairs.

3. The elevation of the front door should be no more than 1.5 m above grade.

Townhouse development in Walkerville neighbourhood.

2.4.1.3 Utility Meters and Mechanical Equipment

1. Where possible, locate utilities and meters in interior side or rear yards, away from public view.

2 Locate utility and service meters discreetly by:

   a. Integrating into the design of the building;

   b. Screening through landscaping;

   c. Recessing or enclosing in the porch entry or landing;

   d. Installing below porch slabs and porch steps;

   e. Grouping in one location in a wall recess, enclosure or, where appropriate, a small roof overhang; and,

   f. Screening meters on exposed elevations by integrating them into a wall or below porches and steps, providing complementary landscaping, or placing them behind a change in plane towards the rear of the elevation.

2.5 Low Profile Apartments

There is some demand for development of Low Profile apartment buildings in the stable and mature neighbourhoods. The City has a number of good examples of existing low profile walk up apartments that are compatible in scale and landscape character with adjacent lower density forms of housing. However, there is a very fine balance between allowing new low profile apartments within the context of a historic neighbourhood and maintaining the character of existing built and landscape form.

The intent of these Guidelines is to translate the characteristics of the historic Low Profile apartment buildings found in Windsor to a more modern apartment building form. Similar to the objectives for townhouses, the objectives of Urban Design Guidelines with respect to low profile apartment buildings are to:

- Ensure a mass, height and character that is compatible with the character of the neighbourhood;
- Ensure that new buildings do not impact adjacent residents such as through loss of privacy or sunlight;
- Ensure that the landscape treatment of the front yards contributes to sustaining the lush and green landscape character of the neighbourhood; and,
- Ensure that the street view is not dominated by parking.

Three storey apartment building in Riverside neighbourhood.

2.5.1 Building Design

2.5.1.1 Massing & Elevation Articulation

1. Compatible building height will vary depending on the specific conditions of the buildings in the immediate context of the site of the apartment building. Low Profile apartments shall have a maximum height of 3 storeys in the existing Stable and Mature Neighbourhoods.

2. Design the building and the site layout to consider overall form, massing and proportions, and rhythm of major repetitive building elements to create a streetscape that is pedestrian scale.

3. Orient buildings to face the street. The front face of the building should be articulated with windows and/or balconies.

4. Locate and orient primary building entrances to public roads, and design to be visible and accessible to the public. The main door of the building should be clearly visible from the street and be articulated with special architectural treatment.

2.5.1.2 Mechanical Equipment

1. All mechanical penthouses should be designed and clad with materials that complement the main building façades.

2. Locate mechanical rooms to the centre of the building rooftop and integrate into the rooftop design so they are not visible from the public realm.

2.6 Guidelines for Road Rights-of-way

The streets and streetscapes within Windsor's historic neighbourhoods display elements that provide an important overall character to the neighbourhood. The prominent tree canopies, often joining above the street, are a foreground to many of the houses providing a park-like character. Sidewalks are present on most streets at least on one side and provide a safe pedestrian environment.

These Guidelines direct the streetscape treatment in the boulevard of the right-of-way of the street. The guidelines include consideration of special paving patterns and materials, planting, lighting, and street furniture. The objectives of the Design Guidelines with respect to streetscape are to:

- Maintain the streetscape character in the historic neighbourhoods;
- Maintain the pedestrian character of the streets; and,
- Protect existing street trees and enhance canopies.

2.6.1 Roads and Sidewalks

1. Road improvements and maintenance of utilities should be completed in a manner that preserves and enhances the character of the City's mature neighbourhoods. Care must be taken to ensure that road improvements do not create a new suburban road type. Trees should be carefully pruned when required.

Example of a street in Windsor with sidewalks on both sides of the street and on-street parking.

2. The pavement width should be kept as narrow as possible to accommodate two travel lanes and on street parking on at least one side.

3. Existing informal road edges such as grassed verges and road side drainage swales add character to the historic neighbourhoods and should be preserved, based on input from residents on the street and the City's engineers.

4. Provide sidewalks on a least one side of the street with a grassed boulevard/verge. Sidewalks throughout the historic neighbourhoods should be poured concrete or concrete pavers.

2.6.2 Street Trees

1. Protect the existing street trees, replace dead trees, and plant trees to complete the existing gaps. Support the re-establishment of a complete street tree canopy.

2. Ensure that there is sufficient space adjacent to the street and sufficient soil medium to sustain long-term growth and healthier tree life.

3. Plant deciduous street trees in the centre of the grass boulevard at the edge of the pavement and spaced 8 to 10 metres on-centre to form a continuous canopy at maturity.

4. Trees should be native, broad leaf species with a straight trunk. A variety of species should be selected for street trees to avoid a mono-culture. Refer to the City of Windsor tree guide.

2.6.3. Utilities

1. Locate poles, lights, signs, transformers, and mail boxes along the street tree line to minimize clutter and disruption of the street's character and pedestrian circulation.

Large canopy trees provide shade over the street.

3. CENTRES, NODES AND CORRIDORS

The City's urban structure of centres, nodes and corridors continues to evolve with higher density development, including opportunities for higher density forms of residential development. It will be important to ensure that undue, adverse impacts are not created on surrounding low profile neighbourhoods. Ensuring compatibility between new and existing uses will be a foundational criteria in determining the appropriate built form within centre, nodes and along corridors moving forward.

The purpose of the Urban Design Guidelines for Centres, Nodes and Corridors is to:

- Manage the transition between new, higher intensity development and existing lower density residential neighbourhoods;
- Manage the scale and massing of new development when considering a more intensified form of development;
- Mitigate any adverse effects on adjacent built form and the comfort and use of the open spaces and streets; and,
- Respect the prominent heritage fabric of adjacent residential neighbourhoods.

3.1 Centres, Nodes and Corridors

The intent for development within Windsor's Centres, Nodes and Corridors is to ensure a sensitive transition to adjacent properties and appropriate height, scale and massing of new development.

Regional Centres are defined as large scale sites that are integrated with, or connected to sites that accommodate larger scale retail centres. Development in Regional Centres is anticipated to accommodate Medium and High Profile built forms, on large vacant sites and/or within existing underutilized parking lots.

Neighbourhood Nodes are located at Collector Road intersections and serve the local neighbourhood with retail and mixed use buildings.

Corridors are located along Arterial or Collector Roads and are expected to accommodate Low and Medium Profile built forms that include mixed use, retail, office, and residential development.

Transition

Transition can be achieved through the regulations of the Zoning By-law through setbacks and height control. Through transition, the guidelines will consider:

- Buffering that typically includes fencing and/or landscape plantings that abut property lines where the transition is most sensitive.
- Mitigating issues of overlook/privacy, shadow impacts, and concerns about the visual impact of new buildings that are not the same character as the adjacent neighbourhood.
- Applying stepbacks, angular plane, or linking the height of buildings with the width of the road right-of-way.

Height

Minimum and maximum building heights vary across the Centres, Nodes and Corridors and are outlined under Section 3.4 of the guidelines and defined in the Zoning By-law. In addressing height, these guidelines seek to:

- Protect and maintain established sable and mature residential areas.
- Ensure buildings form an appropriately scaled and designed street wall that reinforces the desired character at the street level.
- Ensure appropriate height taking into consideration existing and permitted heights; proportional relationships to streets; and, visual and physical impacts on pedestrians and adjacent areas.

Scale and Massing

As in height, the scale and massing of buildings (the size of buildings) must be designed to:

- Provide a respectful adjacency to other buildings and open spaces.
- Consider how the building fits within its context.
- Create a comfortable "human scale" experience along the streetscape and allow for physical and visual permeability.

3.2 General Guidelines for all Development

All development shall ensure excellence in design, be designed to achieve a high degree of environmental sustainability, and demonstrate high quality architectural detailing, in accordance with the following guidelines.

3.2.1 Regional Centres

Regional Centres are large scale sites that are intended to intensify with Medium and High Profile development. They are a focus for intensification and should be planned to evolve into highly active urban places with mixed use buildings, residential, commercial services, and office uses that are well served by transit.

1. Design Regional Centres to serve the area and provide for a pedestrian oriented mix of land uses and functions including residential, commercial, office, small-scale employment, recreation, entertainment, and culture.

2. Ensure buildings address the street and provide a development pattern that supports a range of uses.

3. Line the perimeter of the development site with a distinct edge of buildings and open spaces.

4. Ensure development is complementary to adjacent development in terms of overall massing, orientation, setback and exterior design, particularly character, scale and appearance.

5. Design parking lots to be internal to the site, located to the side or rear of buildings.

3.2.2 Corridors

Corridors can accommodate a full range of residential, office, recreational, entertainment cultural, and community uses and facilities over time. Corridors are the connective spines of the City and intensification is envisioned to develop as mixed use and transit supportive.

1. Locate Low and Medium Profile forms of development and mixed uses along the Corridors and at gateways to create areas of community focus.

2. Ensure buildings relate to adjacent streets, particularly at transit stops. Block patterns should be permeable, providing access and frontage among buildings along the Corridors.

3. Design parking lots with planting strips and landscaped traffic islands, medians, or bump-outs to break up the expanse of hard surface areas.

4. Design buildings to be compatible with, and sensitively integrated with the surrounding land uses and built forms. Ensure appropriate transition to adjacent uses and built forms.

3.2.3 Neighbourhood Nodes

Neighbourhood Nodes are located at the intersections of Collector Roads and serve the convenience needs of surrounding local neighbourhoods within walking distance.

1. Design the nodes as mixed use areas with local commercial uses, specialty retail and dining and Low to Medium Profile residential uses.

2. Ensure new buildings are compatible in scale and function to the neighbourhood setting.

3. Frame the street edge with a consistent building setback.

4. Ensure primary entrances to buildings are clearly visible and located on a public road or onto a public open space for reasons of public safety and convenience.

5. Provide on-street parking by using lay-by parking with resident parking provided at the rear of the building and accessed from a lane.

3.3 Site Planning

Site planning plays an important role in how a development is experienced and how it functions, including elements such as building orientation, site access, and landscaping. The following will guide new development to continue Windsor's development pattern of walkable and interconnected neighbourhoods.

3.3.1 Placement and Orientation

1. Arrange all development to address the street by lining streets with building front facades, active uses, and public spaces. Reinforce and maintain existing setbacks by aligning the building base of new development with adjacent building bases, or by placing the building at the average distance between those of adjacent properties.

2. Use prominent built form to address gateways and other key locations. On larger sites, create 'paired' corner buildings on either side of a street to emphasize a sense of entry or to distinguish one street district from another

3. Provide a safe, clear, and accessible site circulation system for pedestrians, cyclists, and vehicles, including connections to the surrounding street network, public sidewalks, transit stops, and parking areas.

4. Create a pedestrian-scaled environment by arranging buildings to create comfortable and protected pedestrian spaces that provide a sense of enclosure.

5. Provide mid-block pedestrian connections for development blocks over 200 metres in length to support pedestrian movement.

6. Enhance wayfinding by using buildings as gateways and landmarks, public spaces as focal points, and streetscapes to frame significant views.

7. On sites with multiple High Profile towers, provide mid-block pedestrian connections through the podium to enhance permeability, break-up the podium, and create additional corner conditions.

8. Ensure all pedestrian connections and entrances are visible and universally accessible. Distinguish walkways from driveways through a change in material or by using a planted or sodded edge.

9. Where multiple towers exist on a site, arrange the buildings to provide a gradual and appropriate transition in height to adjacent established or planned uses.

3.3.2 Access, Parking, and Servicing

1. Provide access to parking, servicing, and loading from the rear of the building, or from a laneway where possible. On corner sites, provide access from secondary streets provided the entrance facilities are well integrated into the rest of the frontage.

2. Provide a variety of parking options, including on-street parking, structured parking, and screened at-rear parking courtyards. Avoid the use of large surface parking areas, where possible.

3. Design surface parking into small courtyards by using walkways, public art, or landscaped strips.

4. Screen surface parking lots from view from roads, open spaces, and adjacent residential areas with low fencing, architectural features, landscaping or other mitigating design measures, such as lowered parking surfaces with landscaped buffers.

5. Incorporate pedestrian walkways and landscaping into surface parking areas along primary vehicular routes to enable safe, barrier free, and direct movement to principal building entrances and the sidewalk.

6. Consider above grade parking structures where feasible in efforts to conserve land and reduce heat island effect. Incorporate active uses at-grade for above grade parking structures facing onto any Arterial or Collector Road, where possible.

7. Avoid vehicular site access from higher order roads. Provide access from local roads or rear lanes where possible.

8. Consolidate vehicular entrances to serve multiple buildings in order to minimize the number of interruptions to the street wall and sidewalk network. Limit the number of accesses from the same street to two.

9. Locate and screen parking, loading, utilities, and servicing areas away from public view through a combination of soft and hard landscaping, as well as other integrated architectural elements such as walls and pergolas.

10. Integrate facilities for handling, storing, and separating waste and recycling into the building design and screen from public view through landscaping and architectural elements.

11. Provide accessible and secure bicycle racks and parking at retail, commercial, and employment developments, as well as at other key locations to promote active transportation.

Parking lot with smaller courts, plantings, and decorative paving.

Landscaped islands and pedestrian walkways with distinct paving and plantings provide safe crossing through the parking lot.

3.3.3 Landscaping

Landscaping design should reinforce the structure of the site with a focus on creating a safe, comfortable, and animated pedestrian environment.

Landscaped Buffers are linear green open spaces that serve to provide an appealing and 'soft' transitional interface between new development areas in Centres, Nodes, along Corridors and the backyards of exiting low density established areas. Buffers serve to minimize any noise, light, and visual impacts associated with denser and more urban developments.

1. Develop a comprehensive strategy for planting, built features, fencing, walls, paving, lighting, signage, and site furnishings.

2. Base planting strategies on year-round interest, hardiness, drought, salt and disease tolerance, and bio-diversity.

3. Preserve, protect, and incorporate existing healthy and mature trees into the site's landscape design.

4. Minimize the use of hard, paved areas to reduce surface run-off and heat island effect. Consider permeable paving wherever possible.

5. Utilize high-quality, durable materials for all landscape features such as paving, fences, walls, planters, site furniture, and shade structures.

6. Design landscaped buffers to incorporate lush landscaping including the use of trees and plantings, such as evergreens, that retain their foliage in all seasons to provide a visual barrier as well as some sound attenuation.

7. Design landscaped buffers to be environmentally sustainable with respect to stormwater management, plant species, bio-diversity, and extent of maintenance requirements.

8. Consider green roofs for Medium and High Profile buildings. This will assist with reducing heat island effects and improving air quality and noise insulation.

9. Incorporate a combination of soft landscaping, planters, and trees along non-residential frontages to delineate and differentiate private open spaces, entrances, and individual units at grade.

10. Appropriate planting conditions such as soil depth, volume, and growing mediums must be provided for successful landscapes.

11. Design lighting to avoid light spill onto abutting properties and adjacent residential neighbourhoods.

Street tree planting to buffer the sidewalk from the street.

Landscaped buffer with a variety of trees and shrubs.

3.4 Built Form Guidelines

Low Profile Buildings

Low Profile buildings are generally no greater than three (3) storeys. Low Profile buildings can be townhouses, apartment buildings, or mixed use buildings with retail and commercial at grade and residential above.

Example of a three storey mixed use building and townhouses.

Medium Profile Buildings

A Medium Profile building is any building generally no greater than six (6) storeys in height. A Medium Profile building can be a landmark, a prominent destination, or a focal point of a community that provides a transition between stable neighbourhoods and High Profile buildings.

Example of a 6 storey residential building.

High Profile Buildings

A High Profile building is a multi-storey structure generally no more than fourteen (14) storeys in height.

Given the characteristics of a High Profile development, the condition of each site will ultimately define its possibilities. The built form of a High Profile development can be designed to include one or a combination of the following:

- Slab - large-horizontal structure
- Tower - slim structure
- Tower(s) over podium

Example of a 9 storey residential building with ground floor retail.

3.4.1 General Guidelines

1. Concentrate the greatest heights and massing along the frontage of an Arterial or Collector Road.

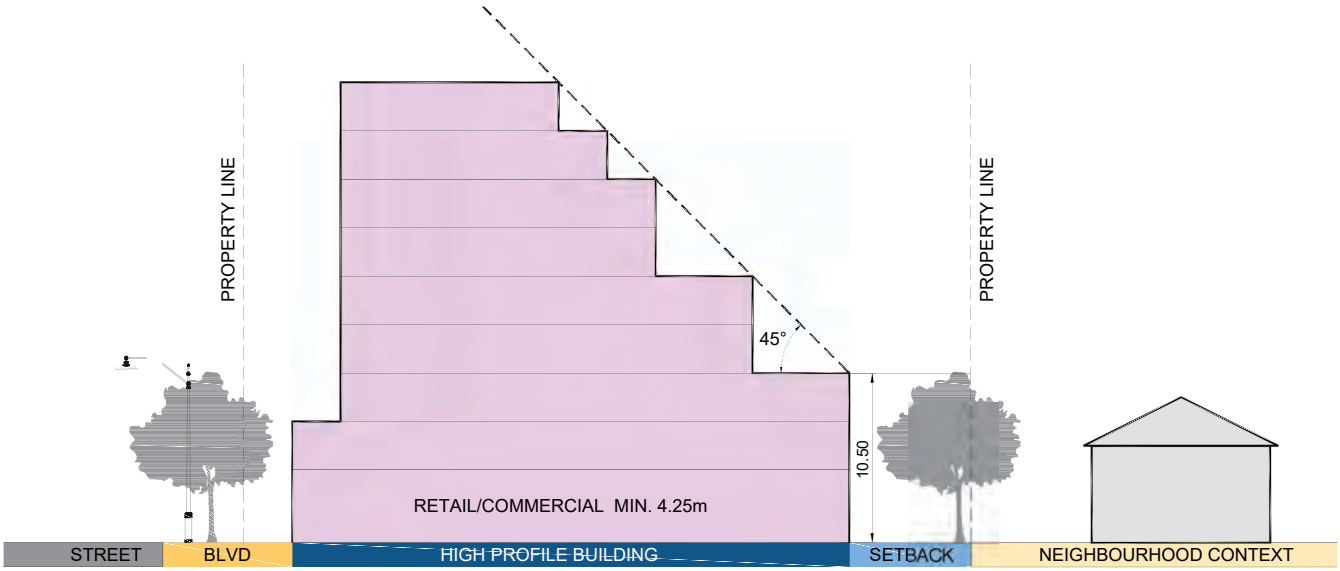
2. Ensure the scale of Medium and High Profile buildings is compatible and sensitively integrated with surrounding residential uses in terms of building mass, height, setbacks, orientation, privacy, landscaping, shadow casting, accessibility, and visual impact.

3. To demonstrate mitigation of potential shadow or wind impacts on existing or proposed pedestrian routes, public spaces, and adjacent development technical studies may be required including a wind study and/or sun/shadow study.

4. For Medium and High Profile buildings, ensure development transition requirements are met using a combination of the following:
   a. Separate Medium and High Profile buildings from low profile buildings with a Local Road;
   b. Locate less dense and lower scale residential buildings in locations adjacent to existing low density neighbourhoods;
   c. Require a minimum 7.5 metre rear yard setback where Medium and High Profile development abuts low profile properties;
   d. Mitigate the actual and perceived massing impacts of a Medium or High Profile building by breaking up the mass horizontally and vertically, through the creative incorporation of changes in materials, balcony and floor plate design, architectural features, and unit/amenity locations;
   e. Provide rear and side step-backs for upper storeys to provide contextually appropriate transitions from the Medium and High Profile buildings to the surrounding low profile neighbourhoods; and,
   f. Provide high quality landscape treatment such as decorative fencing, trees, shrubs, grassed areas, and berming.

5. Angular planes can be used as a tool to evaluate the massing and height transition of a proposed High Profile building to low profile neighbourhoods to ensure appropriate skyview, light, and separation. Consider a 45 degree angular plane, measured from a height of 10.5 metres at the 7.5 metre setback, to determine the maximum height of the building.

6. Ensure new development is compatible with adjacent and neighbouring development by siting and massing new buildings to avoid undue adverse impacts on adjacent properties particularly in regard to adequate privacy conditions for residential buildings and their outdoor amenity areas.



Angular plane diagram - 45 degree angular plane taken from a height of 10.5m at the 7.5 metre setback.

7. Locate and orient primary building entrances to public roads, and design to be visible and accessible to the public in order to support public transit and for reasons of public safety and convenience.

8. Design sites with multiple buildings to reflect a consistent architectural theme. Similar building elements could include colours, materials, signage, and the base and top of buildings. Design individual buildings to offer visual interest and variety in design through architectural features.

3.4.2 Low Profile Buildings

1. All Low Profile buildings shall demonstrate design excellence and compatibility with the surrounding context. Ensure architectural detailing, landscape treatments, colour, and building materials are representative of the highest quality possible.

2. The height difference between adjacent Low Profile buildings on the same block should not vary by more than 1 storey to maintain a consistent street wall.

3. For Low Profile residential and mixed use buildings locate and orient windows, decks, and balconies to limit overlook into nearby windows and amenity spaces of adjacent properties while enabling “eyes on the street” for common public areas.

4. Limit continuous residential forms such as stacked townhouse buildings to 3 to 8 units per block and the length of the townhouse block should not exceed 50 metres, unless it is essential to the architectural style of the building.

5. Locate garages at the rear of the building to be accessed from a lane or private drive.

6. When located at a corner, design buildings to address both street frontages and be massed towards the corner location for visual interest and to anchor the building.

3.4.3 Medium and High Profile Buildings

1. Medium and High Profile buildings may include commercial and office uses at grade and multi-unit residential above or behind. Design ground floors to be appealing to pedestrians and include uses that are more active in terms of pedestrian traffic, such as commercial/retail, personal service, and restaurant type uses on the ground floor.

2. Provide retail and service commercial uses on the ground floors of buildings to bring animation to the street and encourage pedestrian activity. Such uses should have a minimum 4.25 metre floor-to-ceiling height.

Example of three storey mixed use buildings at a node location.

Use of step-backs to provide appropriate transition to adjacent uses.

3. Ensure residential entrances are clearly distinguished from the commercial entrances through building design and locate at the front or side of the building.

4. Locate visitor drop off areas at the side or rear of buildings with lane or private drive access.

5. Design interior courtyards to maximize sun exposure through the massing and location of tall building elements.

3.4.4 Building Design

3.4.4.1 Height and Massing

Medium and High Profile buildings are generally comprised of a podium, tower, and top.

1. The height of the podium, and the tower step-backs above, should reflect the established streetwall. Ensure the height of the podium matches existing adjacent structures to reinforce the pedestrian scale of the streetscape.

2. Where no established streetwall exists, the minimum height of the podium shall be 3 storeys to frame the streetscape.

3. Where windows are proposed within the podium, provide an 11 metre separation distance between adjacent properties. Where no adjacent buildings exist, a 5.5 metre setback is appropriate. Where a continuous streetwall is desirable, no side-yard setbacks are necessary.

4. Provide a tower step-back of a minimum of 3 metres from the podium to differentiate between the building podium and tower and to ensure usable outdoor amenity space.

5. Consider an additional step-back for buildings taller than 8 storeys in height.

6. Provide a minimum separation distance of 25 metres between High Profile towers to maximize privacy and sky views, and to minimize the cumulative shadow impacts of multiple tall buildings. Balconies shall not be provided within this separation distance.

7. The top of the building defines the tower while further distinguishing a unique and interesting skyline. Design the top of buildings to include a variety of elements, such as step-backs, material variations, lighting, and other architectural elements to reinforce a strong presence at the top of the building.

8. Where possible, include outdoor amenity space within the top of the building, including balconies, patios, terraces, and rooftop gardens.

9. For developments with more than one building, provide a range of heights and establish a height hierarchy related to site conditions and context.

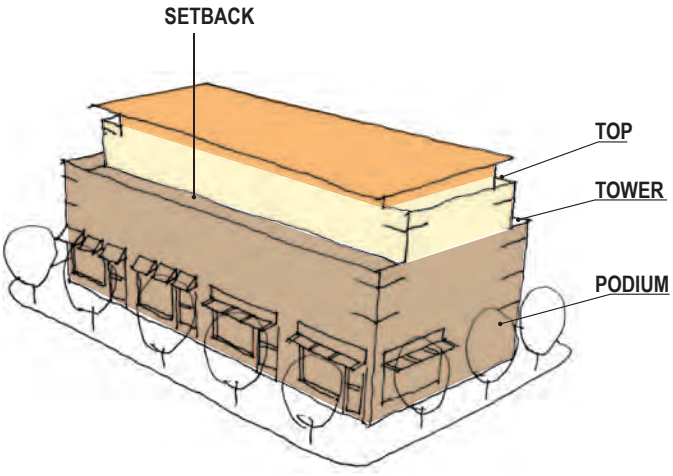


Diagram illustrating the building components of podium, tower and top.

The height of the podium on the mid-rise building should match the adjacent dwellings.

3.4.4.2 Articulation and Architectural Features

1. To animate the public realm and promote safe environments encourage active uses at grade based on the street character (i.e., retail, commercial uses, day-care facilities, townhouses, etc).

2. Mitigate the actual and perceived impacts of Medium and High Profile buildings by breaking up the mass both vertically and horizontally through the creative incorporation of changes in materials, balcony and floor plate design, architectural features, and amenity locations.

3. Incorporate windows and balconies on all elevations, especially if exposed to public view.

4. Provide a high level of glazing at ground level, especially for those areas related to lobbies, common/amenity areas, and non-residential uses (i.e. commercial uses).

5. Encourage weather protective design at grade and at the podium level through canopies, arcades, and cantilevers. Canopies located on the ground floor should be at least 1.5 metres deep.

6. Avoid blank or long expansive elevations which are exposed to the public view. Where unavoidable, consider art or special wall treatments (i.e., screens, living walls, metallic or wooden textures).

3.4.4.3 Exterior Materials

1. Ensure high quality and durable materials are used on all elements and elevations of the development.

2. Select materials to complement the architecture, character, size, and style of the building, as well as the streetscape.

3. Incorporate changes in materials to visually break-up the building massing.

4. Use reflective, low intensity colours on rooftops to reduce heat island effect and HVAC loads.

5. Minimize danger to migratory birds by:
   a. Avoiding untreated reflective glass or clear glass that reflects trees and the sky;
   b. Ensuring glass has visual markers and is not reflective within the first 12 metres of building height; and,
   c. Locating and managing lighting to reduce reflections that might confuse migratory birds.

Windows and balconies on the front elevation of the building.

Changes in exterior materials lessen the visual impact of the building.

3.4.4.4 Developments within Heritage Contexts

1. Locate and design buildings to respect and complement the scale, character, form and siting of on-site and surrounding cultural heritage resources.

2. Use existing heritage buildings to inform the site plan and podium layout and design.

3. Ensure building bases respect the scale of the surrounding historic fabric.

4. When an existing building is adapted or incorporated into the base of a High Profile building, maintain the size and shape of the original window openings and entrances.

3.4.4.5 Signage

Signage plays an important role in the overall image of any area. Signs contribute to the quality of individual buildings and the overall streetscape, and reflect the unique characteristic of their context.

1. Integrate signage in the building design and ensure it complements the building's elevation, animates the ground level, and enhances the streetscape.

2. In Neighbourhood Nodes, design signage to be compatible with the character of the neighbourhood.

3. Signage should add diversity and interest to the street and not overwhelm either the storefront or streetscape. Design building signage to be compatible and complement the architecture of the building in its scale, material, consistency, and design.

4. Design signage to be consistent with respect to materials, size, location (on a building), lettering and lighting, while also allowing some flexibility for tenant branding.

5. Direct signage lighting to limit light trespass to surrounding properties and to prevent light pollution.

6. Ensure signage does not obscure windows, cornices, or other architectural elements.

7. Back-lit illuminated sign boxes are discouraged.

8. Projecting or hanging signs should be permitted to encroach over the street line provided that they do not project more than 1.0 metre from the building. There should be a minimum 2.4 metre clearance between the bottom of the sign and grade.

Lighting above signage is directed at the sign and complements the design of the building.

High quality signage is in keeping with the scale and material of the rest of the building.

Hanging signs encroach over the streetline and extend into the pedestrian realm.

3.4.4.6 Storefronts

1. Provide retail and service commercial uses on the ground floors of buildings to bring animation to the street and encourage pedestrian activity.

2. Locate entrances to stores at grade and design to be universally accessible, highly visible, and clearly articulated.

3. Provide spill-out space around the base of buildings for uses such as patios, street furniture, and special events.

4. Where retail uses are provided at-grade, ensure a significant amount of the building frontage on the ground floor and at the building base level is glass to allow views of the indoor uses and create visual interest for pedestrians. Clear glass is preferred to promote the highest level of visibility.

5. Provide awnings or canopies above windows and doors for weather protection.

6. Ensure storefronts on corner sites address both street frontages through entries and glazing.

7. Locate patios along primary streets in areas that maximize sun exposure and effectively animate the streetscape.

3.4.4.7 Mechanical Equipment

1. Screen rooftop mechanical equipment from view through architectural design that reflects the building's façade treatment. Add-on screening elements such as lattice are prohibited.

2. Design and clad mechanical penthouses with materials that complement the main building façades.

3. Locate mechanical rooms to the centre of the building rooftop and integrate into the rooftop design so they are not visible from public view.

An enhanced pedestrian realm along a commercial street with plantings, paving materials, and canopies projecting from the buildings.

A appendix

urban design brief terms of reference

Purpose

An Urban Design Brief may be required to support a development proposal as part of a complete development application, such as an Official Plan Amendment, Zoning By-law Amendment, Draft Plan of Subdivision/ Condominium, and/or Site Plan Control Application. This requirement will be identified by Planning Staff at the Pre-Consultation meeting.

An Urban Design Brief is intended to describe and illustrate the proposed design for a development proposal and demonstrate how the design meets the intent of the Urban Design Guidelines and other City design guidelines and policies.

Planning Staff will use the Urban Design Brief to assess the urban design aspects of development applications to ensure high quality design is achieved. The City is committed to urban design excellence that results in a complete, functional, sustainable, and attractive built environment consistent with Windsor's character and vision for the future, as outlined in the City's Official Plan.

The Urban Design Brief Terms of Reference has been prepared to standardize the City's expectation for Urban Design Brief submissions. The scope and level of detail expected in the Urban Design Brief will depend on the scale, site, nature, and complexity of the development proposal.

Components of an Urban Design Brief

1.0 Existing Site Conditions and Surrounding Context

The Urban Design Brief should provide a description and analysis of the site and surrounding context. Photographs and a context map showing the subject site in relation to the existing neighbourhood should be included.

2.0 Applicable Design Guidelines and Policies

The Urban Design Brief should identify relevant urban design guidelines and policies from the following documents that are applicable to the proposed development:

- City of Windsor Official Plan
- Applicable Secondary Plans and Guidelines
- City of Windsor Intensification Urban Design Guidelines

3.0 Project Design Analysis

The Urban Design Brief should provide an analysis of the design rationale for the building, landscape, and site design elements of the proposed development and explain why the proposed development represents the optimum design solution. Discussion should consider the following:

- How the design of the proposed development meets the intent of the City's applicable urban design guidelines and policies;
- How the design addresses existing site conditions and constraints such as lot size, grading, or natural heritage features;
- How the design of the proposed development integrates with the existing neighbourhood and enhances its function and aesthetics; and,
- How the design of the proposed development will influence and integrate with future development in the neighbourhood.

4.0 Design Considerations

The Urban Design Brief should include a written description, plans, elevations, diagrams, and/or photographs to illustrate the design choices of the proposed development and site design. Depending on the scale of the development proposal explain how the applicable design considerations have been addressed:

- Street and block pattern (e.g., connectivity, pedestrian access);
- Lot sizes;
- Building orientation and site layout;
- Built form, height, scale, and massing;
- Building articulation and detailing;
- Building materials;
- Setbacks from adjacent properties and the street;
- Building step back (if applicable);
- Building transition to adjacent neighbourhoods;
- Heritage considerations (if applicable);
- Location of parking (surface or underground), driveways, ramps, drop-off areas;
- Access to transit;
- Bicycle parking/storage;
- Location of servicing, garbage, organics, and recycling storage and collection, and loading areas;
- Streetscape elements (e.g., boulevard design, landscaping, street furniture, public art, signage, lighting, etc.); and,
- On-site landscaping and buffering.


THE CITY OF
WINDSOR

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 46/2022

Subject: Zoning By-Law Amendments for 1646 to 1648 Drouillard Road; File Z-004/22 (ZNG/6659) Ward 7

Reference:

Date to Council: June 6, 2022
Kevin Alexander, Senior Planner Special Projects
519-255-6543 x6732
kalexander@citywindsor.ca

Colin Funk, Planning Assistant
Planning & Building Services
Report Date: April 11, 2022
Clerk's File #: Z/14314

To: Mayor and Members of City Council

Recommendation

THAT Zoning By-law 8600 **BE AMENDED** by adding the following site specific amendment to the existing Commercial District 2.2 (CD2.2) zoning category for the property known municipally as 1646 to 1648 Drouillard Road on Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235), situated on the northeast side of Drouillard Road, by adding the following site specific provision to Section 20(1):

384. **Northeast Side of Drouillard Road**

For the lands comprising Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235); a *multiple dwelling* shall be an additional permitted use; and the following provisions shall apply:

a) Section 15.2.5.9 shall not apply.
b) Section 15.2.5.15 shall not apply.
c) The maximum number of *dwelling units* shall be 4.

[ZDM 7; ZNG/6659]; and,

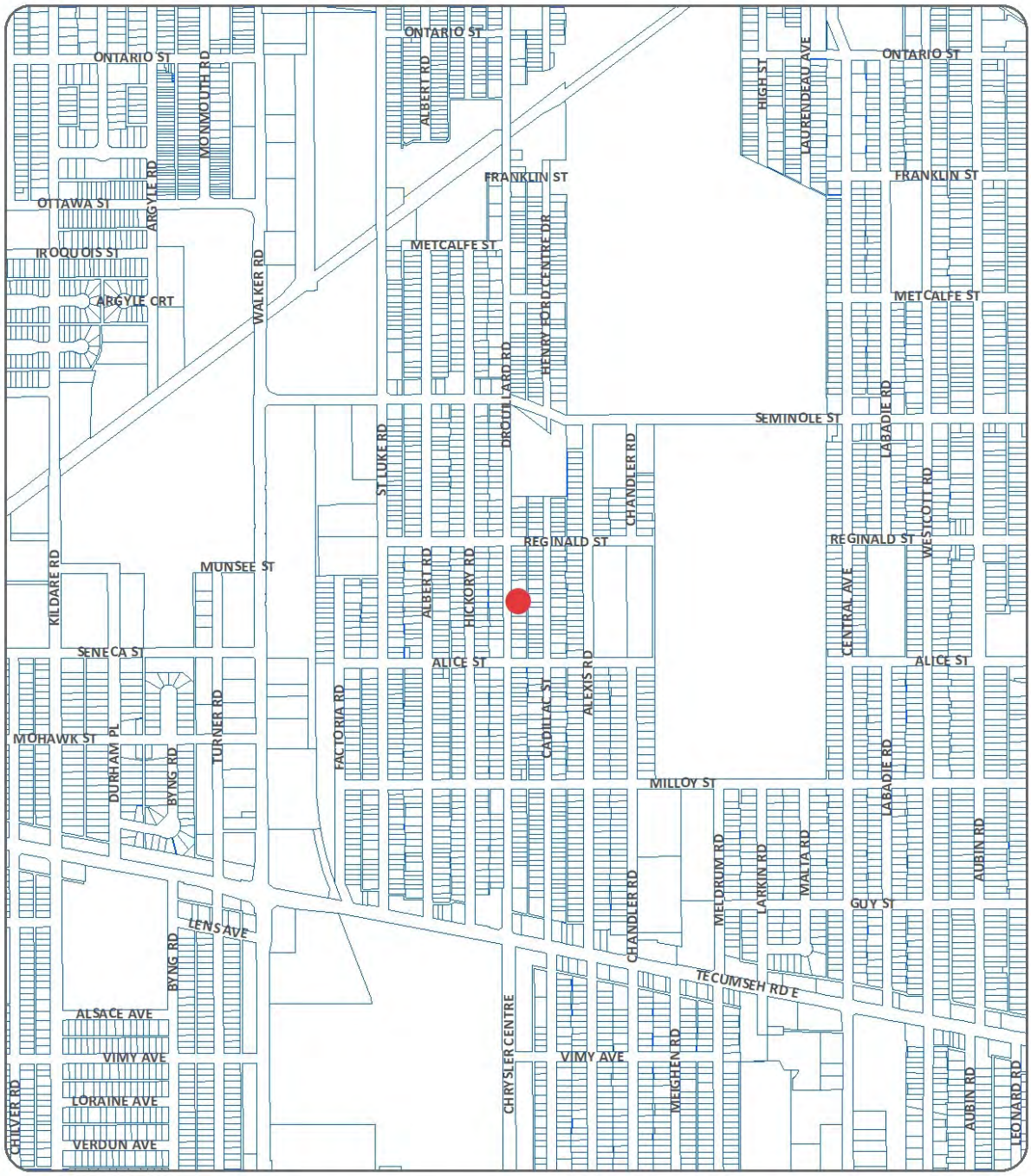
THAT the owner of the property located at 1646 to 1648 Drouillard Road **BE REQUIRED** to provide elevation drawings as part of the Site Plan Review process to ensure that alterations will not be irreversible to the commercial storefront facing Drouillard Road and landscaping is provided when converting the existing commercial units to residential.

Executive Summary:

N/A

Background:

1. KEY MAP



KEY MAP - Z-004/22, ZNG-6659

SUBJECT LANDS

APPLICANT: LEE J DOUCETTE

ADDRESS: 1646-1648 DROUILLARD ROAD

2. APPLICATION INFORMATION

Location: The subject parcel is located on the northeast side of Drouillard Road. The property is known municipally as 1646 to 1648 Drouillard Road and legally described as Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235).

Applicant: Lee J Doucette.

Agent: Jacob Dickie, Urban in Mind has been retained to undertake a planning justification report.

Registered Owner: Lee John Doucette.

Proposal:

The existing mixed-use building has been used for a number of neighbourhood commercial uses over the years at the front of the building and residential uses at the back of the building. In recent years, the two front commercial units have been used as an illegal use for two (2) residential units and the Building Division issued an Order to Comply on August 6th, 2019. However, as of March 23, 2022, the illegal dwelling units had been vacated and the Order to Comply satisfied and closed.

The applicant proposes bringing the two existing non-conforming residential units at the front of the existing one story building into conformity with Zoning By-law 8600, resulting in a total of four residential units on the ground floor of the existing building. The building has been converted from two commercial units and two residential units on the ground floor to a multiple dwelling with four dwelling units. Specifically, the proponent is proposing to legalize the conversion of the two existing commercial units into two dwelling units. The two dwelling units at the rear of the first floor will remain for a total of four residential units in the low profile building.

The building height will remain, and there will be no exterior additions to the building.

The applicant is requesting amendments to Zoning By-law 8600 to add site specific regulations and zoning provisions. The amendments to Zoning By-Law 8600 will maintain the current Commercial District 2.2 (CD2.2) and add a site specific provision to Section 20(1) permitting a *multiple dwelling* as an additional permitted use. Additionally, the site specific amendment will also permit a maximum of 4 *dwelling units* on the site and exempt the property from the required amenity area.

SUBMISSIONS BY APPLICANT: Applications (ZBA), Planning Justification Report, Conceptual Site Plan, and Amendment of Agreement of Purchase and Sale.

3. SITE INFORMATION

OFFICIAL PLAN	ZONING	CURRENT USES	PREVIOUS USE
Residential	Commercial District (CD2.2)	Residential	Mixed Use
FRONTAGE	**DEPTH**	**AREA**	**SHAPE**
12.19 M	30.48 M	371.61 SQ M	rectangular
Note: All measurements are approximate. This property was developed for use as commercial on the main level.			

4. REZONING MAP

PART OF ZONING DISTRICT MAPS 7

N.T.S.

ZONING

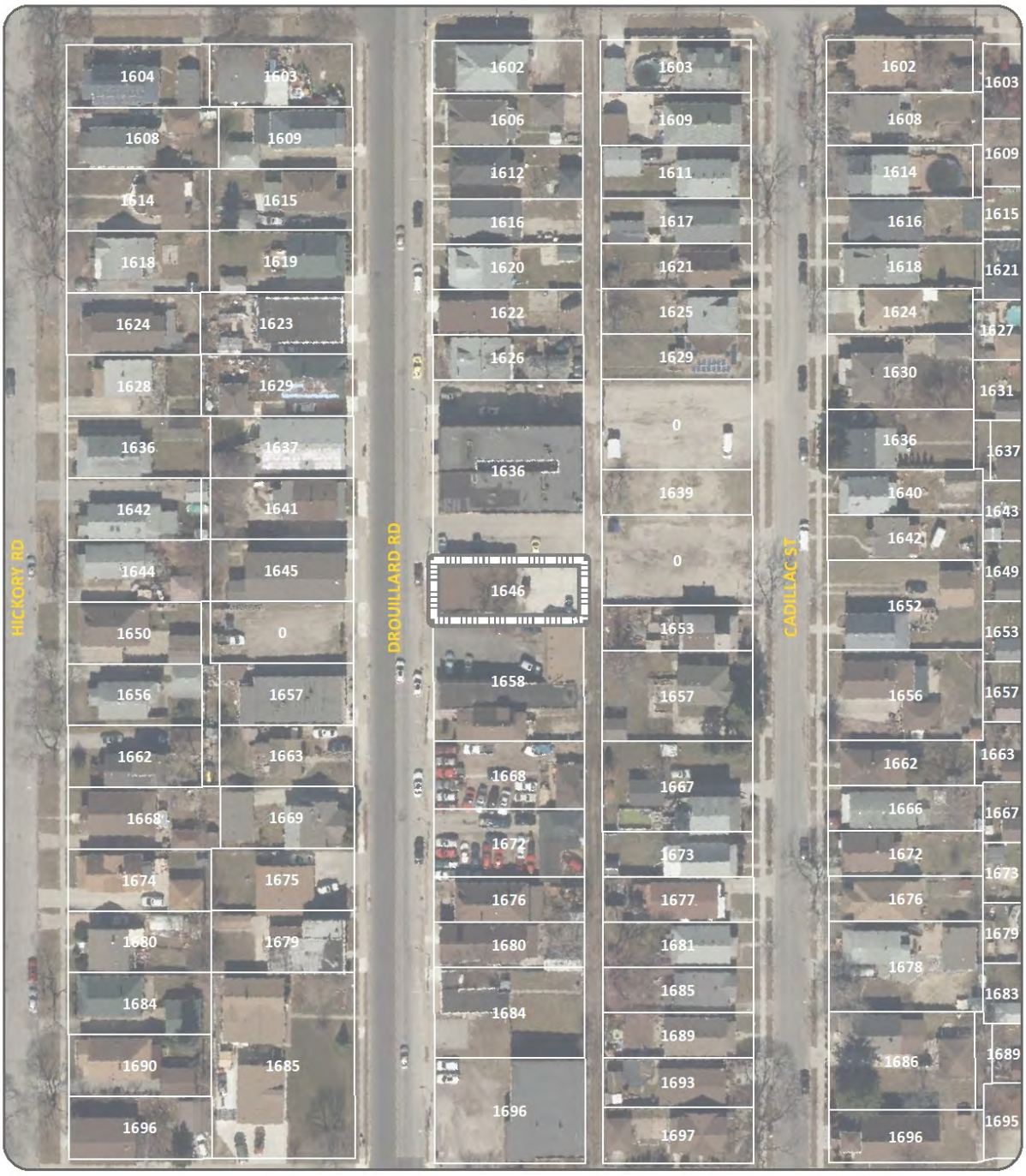
APPLICANT: LEE J DOUCETTE

SUBJECT LANDS

PLANNING & BUILDING DEPARTMENT

DATE : FEBRUARY 2022
FILE NO. : Z-004/22, ZNG-6659

5. NEIGHBOUROOD MAP



NEIGHBOURHOOD MAP - Z-004/22, ZNG-6659

SUBJECT LANDS

APPLICANT: LEE J DOUCETTE

ADDRESS: 1646-1648 DROUILLARD ROAD

6. SURROUNDING LAND USES

North of subject lands: Commercial units with commercial retail addition facing Sandwich Street within a 'Commercial District 2.2' (CD2.2) zoning category.

East of the subject lands: a municipal laneway; vacant property and a one (1) storey residential dwelling facing Cadillac Street within a 'Residential District 1.3' (RD1.3) zoning category.

West side of the subject lands: a municipal right-of-way known as Drouillard Road and heating and cooling contractor shop known as Bradd Heating & Cooling within a CD2.2 zoning category.

South side of the subject lands: two (2) storey commercial building within a CD2.2 zoning category.

Site attached photos (Google Street View, September 2022 in **Appendix A**) which identify the surrounding land uses and the context of the subject neighbourhood.

7. MUNICIPAL INFRASTRUCTURE

Sanitary sewer/Storm sewer: Sanitary sewer and storm sewer on the Drouillard Road right-of-way.

Water Fire hydrants: Fire Hydrant west across the public right-of-way of Drouillard Road. Fire Hydrant south on the northeast side of the intersection of Drouillard Road and Alice Street.

Drouillard Road: Class I Collector

Transit Windsor Bus: Central 3 on Drouillard Road at Alice Street Northeast Corner.

Discussion:

PLANNING ACT

The comments, submissions or advice affecting planning matters provided to the council of a municipality, as well as the decision of the council of a municipality shall be consistent with the Provincial Policy Statement 2020 (PPS) and shall conform to the Official Plan (OP).

PROVINCIAL POLICY STATEMENT (PPS) 2020

The recommended amendments to Zoning By-law 8600 represent sound planning and are consistent with the PPS. The recommended amendments will result in the placement of dwelling units on the main floor of the building being consistent with PPS policies identified below (See **Appendix B** for applicable PPS Sections).

PPS provides policy direction for appropriate development taking into consideration efficient use of land and resources, accommodating an appropriate mix of residential uses and supporting active transportation and public transit. The PPS recognizes that land use must be managed to meet the full range of current and future needs, while protecting public safety and the natural environment.

The proposed additional dwelling units on the ground floor contribute to the building of a strong healthy community as per policy 1.1.1 (a, b, c, d, e, f, g, h, and i) of PPS. The proposed amendments are consistent with the PPS as follows:

- The subject building is fully connected to municipal services.

- The inclusion of two additional units represents an effective re-use of the existing building that has experienced vacancies. The addition of two dwelling units will provide rental apartments in a low vacancy rate environment.

- The amendment will allow for a type of flexible zoning where the ground floor dwelling units are permitted as an additional permitted use. Four (4) parking spaces will be provided at the rear of the property. This amendment will provide the flexibility to convert the ground floor commercial use to residential. When/if demand for neighbourhood retail changes in the future, the owner can effectively convert the residential units back to a commercial use.

- There are no impacts on the natural environment. There are no known negative impacts on climate change.

The proposed dwelling units focus growth and development within a settlement area and existing building stock and supports active transportation, as per policy 1.1.3.1, 1.1.3.2, and 1.1.3.3. The proposed amendments are consistent with the PPS as follows:

- The subject lands are within the urban area of the settlement for the City of Windsor. The additional units are contained within the building minimizing land consumption and promoting intensification.

- The subject development will be supportive of active transportation. The new units are located on a street with a bus service (Transit Windsor Bus: Central 3 on Drouillard Road running east and west)

These sections are also identified in Section 4.2 of the *Planning Justification Report* (see **Appendix H**) submitted with the application. The applicable PPS sections promote the vitality of the existing settlements recognizing the importance of long-term prosperity of these communities while minimizing the unnecessary public expenditures.

The requested amendments will facilitate the re-use of an existing building and promotes a healthy, liveable and safe community. The recommended amendments are consistent with the general direction of the PPS as referenced above.

OFFICIAL PLAN (OP)

Applicable OP Sections can by found in detail in the **Appendix C** of this report.

The Official Plan, Schedule D: Land Use designates the subject land as "Residential" providing the main location for housing in Windsor outside of the City Centre Planning District. In order to develop safe, caring and diverse neighbourhoods, opportunities for a broad range of housing types and complementary services and amenities are provided. The legalization of the proposed units is consistent with this description. Specifically, the proposed zoning changes are consistent with the following policy sections:

- 6.3.1.1., *to support a complimentary range of housing forms and tenures in all neighbourhoods*

- 6.3.1.2., *to promote compact neighbourhoods which encourage a balanced transportation system*

- 6.3.1.3, to promote selective residential redevelopment, infill and intensification initiatives

The proposed zoning amendment is consisted with section 6.3.2.1 of the Official Plan "Residential - Permitted Uses", identifying small-scale Low Profile residential development as permitted.

Chapter 2 "Glossary" of the Official Plan defines small-scale forms as multiplexes with up to 8 units.

The proposed zoning amendment is consistent with section 6.3.2.4 of the Official Plan "Residential – Locational Criteria" because there is access to a collector road, full municipal physical services, and public transportation services can be provided. Adequate community services and open spaces are also available in the area.

The building is built to a regular setback from Drouillard Road and is on an established frontage along Drouillard Road.

The proposed changes within the existing building will accommodate four (4) units. The building has been in place for many years with existing residential and commercial uses on the ground floor. Recently, the commercial units have been used as non-compliant residential units. Therefore, the applicant is requesting the conversion of the two ground floor commercial units to two residential units on the ground floor to create a total of four residential units as an adaptive re-use within an established building.

The proposed development is consistent with the following policies of the Official Plan:

As per Chapter 3 Development Strategy, Section 3.2.1.2 Permitted Uses and Section 6.3.2.4 Locational Criteria, the Official Plan encourages a variety of housing types located within the urban settlement area and in proximity of existing infrastructure and amenities. The availability of various housing types would prevent urban sprawl and allow people to live in the same community at any stage of their life.

The subject property is located in close proximity to the Ford Test Track Park and a block away from Seminole Street, which provides a variety of services including access to a library and various businesses. Tecumseh Road East is located two blocks south, providing more access to local businesses. The subject property has access to full municipal services, an arterial road and transit. The adaptive re-use of the existing building stock facilitates the use of existing infrastructure through intensification.

Regarding parking the applicant will provide four parking spaces at the rear of the building (See **Appendix F Conceptual Site Plan)**. Site Plan Control will be required.

ZONING

The property is zoned Commercial District 2.2 (CD 2.2) in Zoning Bylaw 8600.

As per Section 15.2.1 Permitted Uses dwelling units are permitted in a combined use building with other uses such as offices, retail, restaurant, etc.

The requested amendment will provide a type of flexible zoning where the existing vacant commercial units are permitted as an additional permitted use. If demand for neighbourhood retail changes in the future the owner can convert the residential units back to a commercial use. Permitting residential units at the front of the building will allow the applicant to accommodate four dwelling units in the existing building.

Section 2.1 of the *Planning Justification Report* (see **Appendix H**) submitted with the application states that parking for the residential use has been located at the rear of the site with access from the public lane, and that limited on-street parking is available on Drouillard Road. Section 24.6 (Table 24.20.5.1) requires Multiple Dwellings containing a maximum of four dwelling units to provide 1 space for each dwelling unit. Section 15.2.5.9 requires an Amenity Area per unit. Given that the property is in close proximity to the Drouillard Road Main Street and other open space areas no amenity space is being proposed.

SITE PLAN

Given that there is a change of use, Site Plan Review is required to ensure that the first floor storefront can not only accommodate dwelling units but also be able to be converted back if the applicant wishes to convert the units to a retail storefront in the future. Through the Site Plan Review process, staff will request that large storefront windows and glazing are replaced with windows that match the buildings original profile.

Risk Analysis:

N/A

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

N/A

Consultations:

City Departments and Agencies

Comments from municipal departments and external agencies are summarized and attached as **Appendix E** Consultation to this report. There are no objections to the proposed amendments.

Public Notice

The official notice will be advertised in the Windsor Star newspaper as mandated by the Planning Act.

A courtesy notice will be mailed to all properties within 120 meters (400 feet) of the subject site, prior to the Planning and Heritage Standing Committee (PHEDSC) meeting.

Conclusion:

The recommended Zoning By-law amendments provides an appropriate adaptive re-use of the vacant first floor of the existing building with additional onsite parking to service the fourunit multi-residential building. The parking area will be designed to City standards with curb, guttering, drainage, and landscape areas.

The recommended Zoning By-law Amendment will maintain conformity with the Official Plan and is consistent with the PPS.

The subject Zoning By-law amendment constitutes good planning because the proposal is consistent with the Provincial Policy Statement and Windsor's Official Plan. The zoning amendment permits ground floor residential units as an additional permitted use, giving the property owner another viable option to the existing vacant storefronts. If demand for neighbourhood retail changes in the future the owner can convert the ground floor residential units back to a commercial use.

Planning Act Matters:

I concur with the above comments and opinion of the Registered Professional Planner.

Neil Robertson, MCIP RPP

Manager of Urban Design/Deputy City Planner

Thom Hunt, MCIP RPP

City Planner

I am not a registered Planner and have reviewed as a Corporate Team Leader

JP SAH

Approvals:

Name	Title
Neil Robertson	Manager of Urban Design / Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development and Innovation
Shelby Askin Hager	Chief Administration Officer (A)

Notifications:

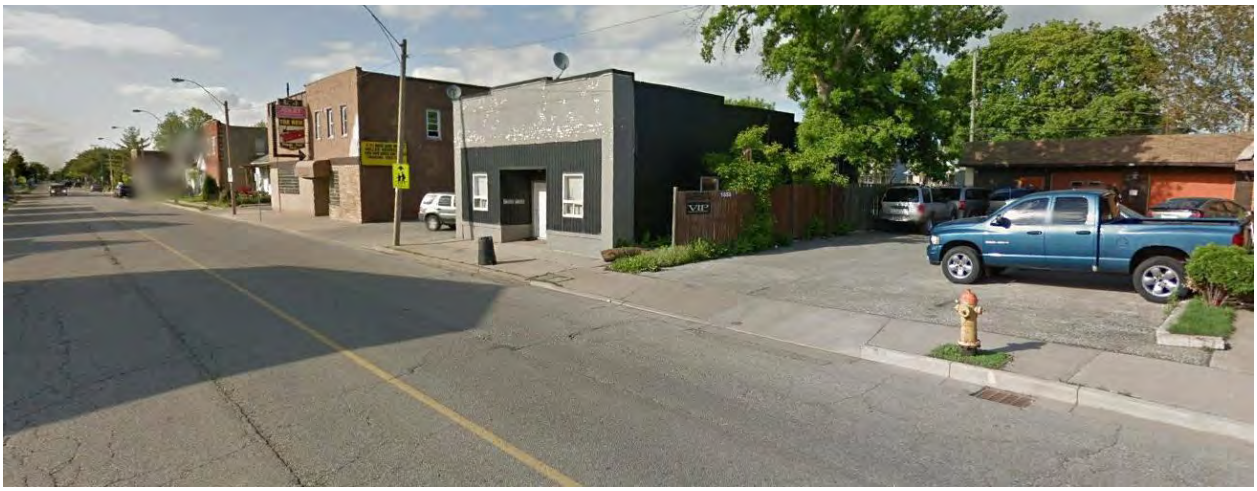
Name	Address	Email
Abutting property owners, tenants/occupants within 120m (400ft) radius of the subject land.		

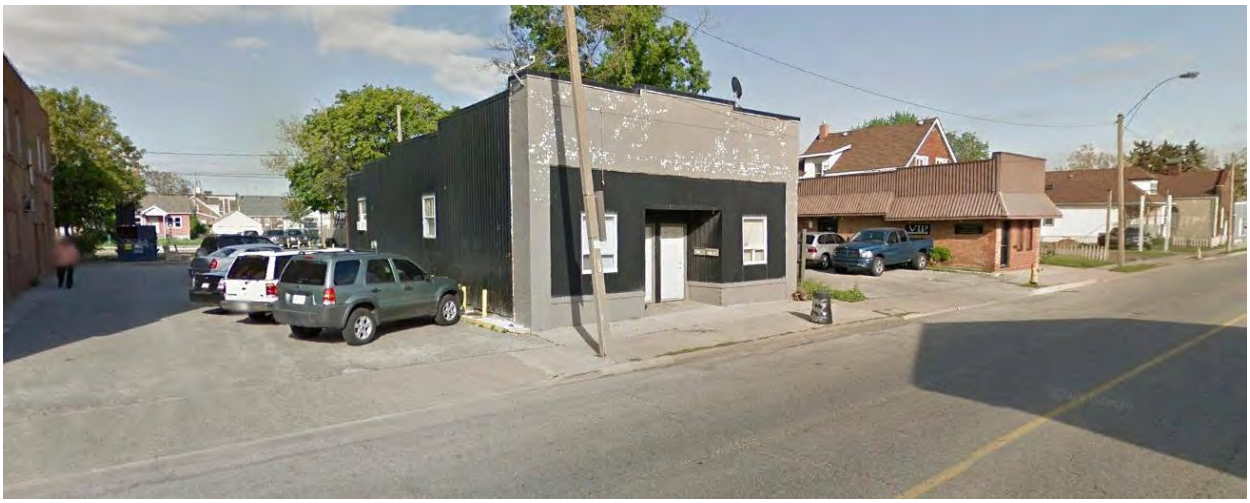
Appendices:

1 Appendix 'A' Surrounding Land Uses
2 Appendix 'B' Excerpts from the PPS
3 Appendix 'C' Excerpts from the OP
4 Appendix 'D' Excerpts from Zoning By-law 8600
5 Appendix 'E' Consultations
6 Appendix 'F' Survey and proposed Floor and Parking Area Plans
7 Appendix G - Draft By-Law Amendment
8 Appendix 'H' Planning Justification Report

Appendix ‘A’

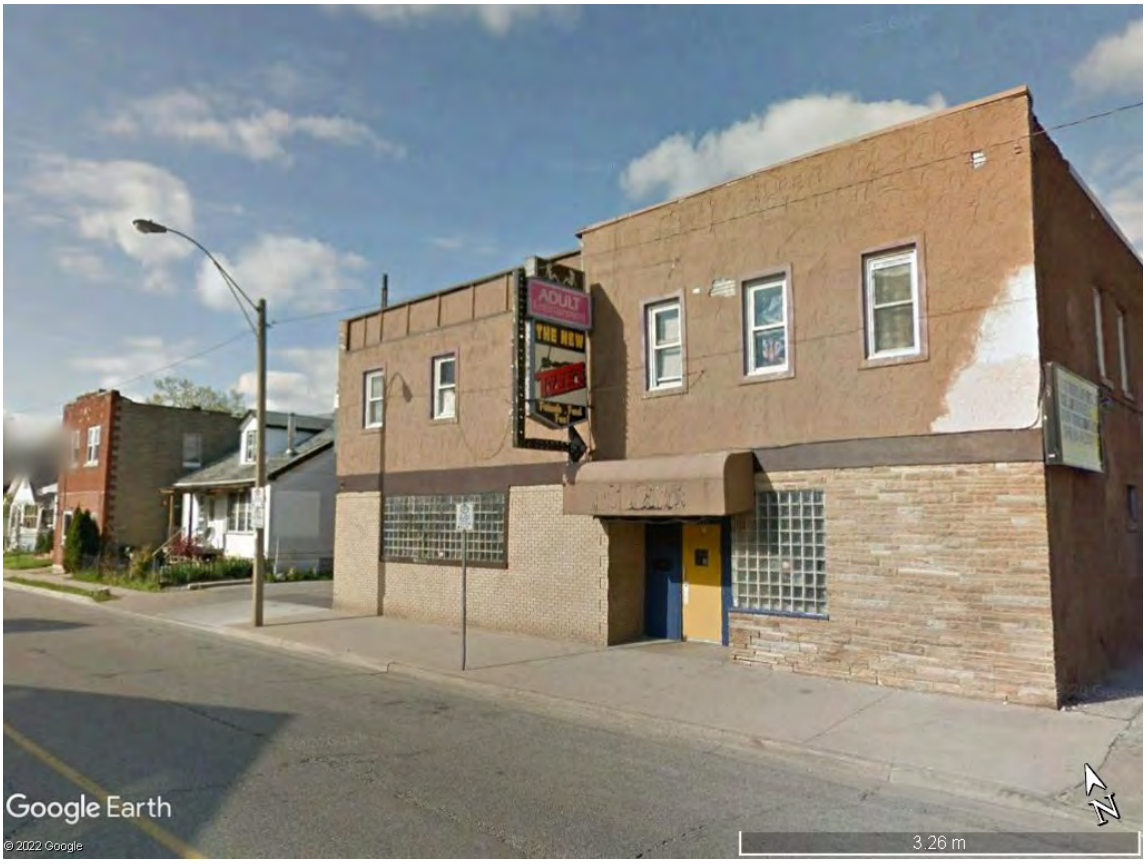
Subject Property located at 1646 to 1648 Drouillard Road





Appendix ‘A’
Surrounding Land Uses

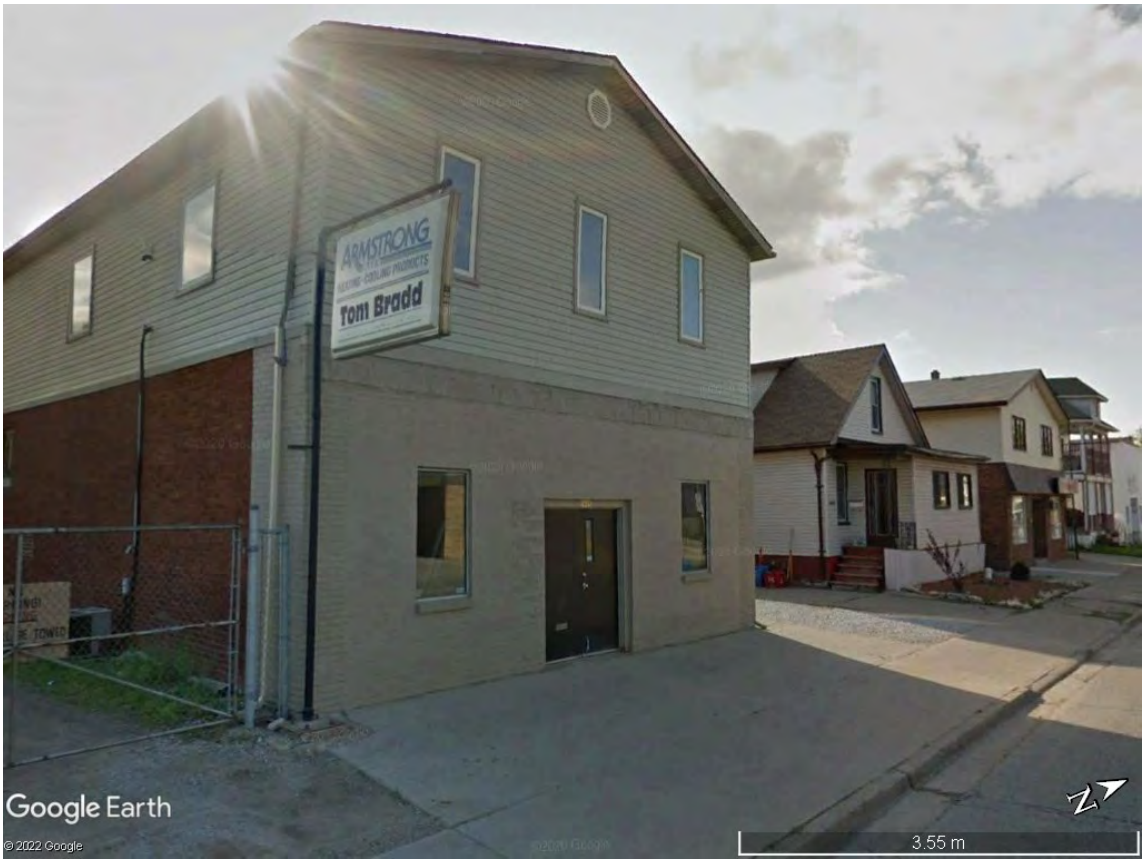
North



South

Appendix ‘A’ – Surrounding Land Uses

West



East

Appendix B
Excerpts from the
Provincial Policy Statement (PPS) 2020

Applicable PPS Sections:

1.1.1 Healthy, liveable and safe communities are sustained by:

a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;

b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;

d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;

e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;

f) improving accessibility for persons with disabilities and older persons by addressing land use barriers which restrict their full participation in society;

g) ensuring that necessary infrastructure and public service facilities are or will be available to meet current and projected needs;

h) promoting development and land use patterns that conserve biodiversity.

1.1.3.1 Settlement areas shall be the focus of growth and development.

1.1.3.2 Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

a) efficiently use land and resources;
b) are appropriate for, and efficiently use, the *infrastructure* and *public service facilities* which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;
c) minimize negative impacts to air quality and climate change, and promote energy efficiency;
d) prepare for the *impacts of a changing climate*
e) support *active transportation*;
f) are *transit-supportive*, where transit is planned, exists or may be developed; and

g) are *freight-supportive*; and

Land use patterns within settlement areas shall also be based on a range of uses and opportunities for intensification and redevelopment in accordance with the criteria in policy 1.1.3.3, where this can be accommodated.

1.1.3.3 Planning authorities shall identify appropriate locations and promote opportunities for *transit-supportive* development, accommodating a significant supply and range of *housing options* through *intensification* and *redevelopment* where this can be accommodated taking into account existing building stock or areas, including *brownfield sites*, and the availability of suitable existing or planned *infrastructure* and *public service facilities* required to accommodate projected needs.

Appendix C
Excerpts from the
City of Windsor Official Plan (OP) 2012

Applicable Official Plan Sections:

6.3 Residential

Residential lands provide the main locations for housing in Windsor outside of the City Centre Planning District. In order to develop safe, caring and diverse neighbourhoods, opportunities for a broad range of housing types and complementary services and amenities are provided.

6.3.1.1 To support a complementary range of housing forms and tenures in all neighbourhoods.

6.3.1.2 To promote compact neighbourhoods which encourage a balanced transportation system

6.3.1.3 To promote selective residential redevelopment, infill and intensification initiatives.

6.3.1.4 To ensure that the existing housing stock is maintained and rehabilitated.

Appendix D
Excerpts from the
Zoning By-Law 8600

The City of Windsor Zoning Bylaw 8600 designates the zoning for the subject property as 'Commercial District 2.2 (CD 2.2)

15.1.1 PERMITTED USES --'Commercial District 2.2 (CD 2.2)

Bakery, Business Office, Child Care Centre, Commercial School, Confectionery, Food Outlet - Take-Out, Funeral Establishment, Medical Office, Micro-Brewery, Personal Service Shop, Place of Entertainment and Recreation, Place of Worship, Professional Studio, Public Hall, Repair Shop – Light, Restaurant Retail Store, Veterinary Office, Wholesale Store.

Dwelling Units in a *Combined Use Building* with any one or more of the above uses.

Gas Bar, Outdoor Market, Parking Garage, Public Parking Area, Tourist Home, Existing Automobile Repair Garage, Existing Service Station.

Any use accessory to any of the preceding uses. An *Outdoor Storage Yard* is prohibited, save and except, in combination with the following main uses: *Garden Centre, Temporary Outdoor Vendor's Site, Existing Automobile Repair Garage.*

Report S xxx/2022 proposes amending the Zoning By-law 8600 to a site specific 'Commercial District 2.2 (CD 2.2) zoning category for the subject property.

15.2.5 PROVISIONS

.4 Building Height – maximum 14.0 m

.9 Amenity Area – Per Dwelling Unit – minimum 12.0 m2 per unit

.10 Gross Floor Area – maximum

Bakery or Confectionary 550.0 m2

.15 For a *Combined Use Building*, all dwelling units, not including entrances thereto, shall be located above the non-residential uses.

.24 An *Outdoor Market* is permitted within a Business Improvement Area. An Outdoor Market is prohibited elsewhere.

24.20.5 REQUIRED PARKING SPACES

TABLE 24.20.5.1 - REQUIRED PARKING SPACES	
USE	**PARKING RATE - MINIMUM**
Multiple Dwelling containing a maximum of 4 Dwelling units	1 for each dwelling unit

Appendix E
Consultation

Transit Windsor Comments
Transit Windsor has no objections to this development. The closest existing transit route to this property is with the Central 3. The closest existing bus stop to this property is located on Drouillard at Alice Northeast Corner. This bus stop is approximately 110 metres away from this property falling well within our walking distance guidelines of 400 metres to a bus stop. This will be maintained with our Council approved Transit Master Plan.

Jason Scott
Supervisor, Planning
Transit Windsor
3700 North Service Road East, Windsor, ON, N8W 5X2
Phone: (519) 944-4141x2230

ENWIN Comments
Hydro Engineering: No Objection, provided adequate clearances are achieved and maintained from our distribution plant.

Please note that ENWIN has the following hydro distribution around the property.

1. Overhead 16.0KV primary distribution and 120/240V secondary distribution along the east side of the development property in the back alley
2. Overhead 120/240V secondary service conductor at the south east corner of the development property servicing 1646-1648 Drouillard Rd
3. Overhead 120/240V secondary streetlight distribution along the west side of the development property along Drouillard Rd

An acceptable clearance must be maintained from our existing pole lines and conductors to the proposed development area.

Prior to working in these areas, we suggest notifying your contractor and referring to the Occupational Health and Safety Act and Regulations for Construction Projects to confirm clearance requirements during construction. Also, we suggest referring to the Ontario Building Code for required clearances for construction / renovations.

See attached sketch for reference only. This attachment does not replace the need for utility locates.

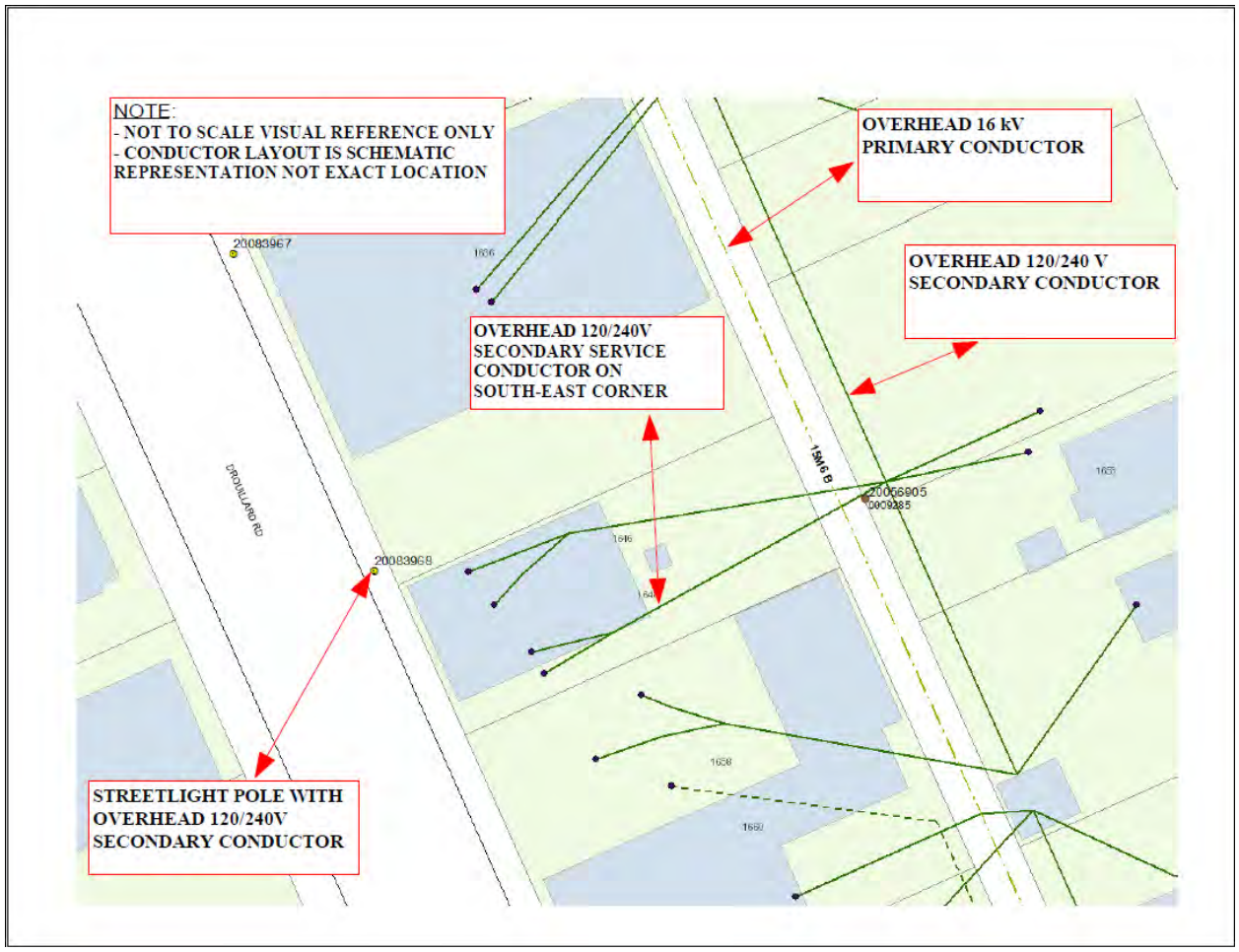
Water Engineering: Water Engineering has no objections to the rezoning. There is an existing 19mm water service to the building.

Nillavon Balachandran
Hydro Engineering Technologist

Bruce Ogg

Appendix E
Consultation

Water Project Review Officer
ENWIN Utilities Ltd.
tsd@enwin.com
P. (519) 251-7303
F. (519) 251-7309
4545 Rhodes Drive | P.O. Box 1625 Station A | Windsor, Ontario | N8W 5T1



Public Works-Engineering
The subject lands are located at 1646-1648 Drouillard Road, zoned Commercial District 2.2 (CD2.2) by Zoning By-Law 8600. The applicant is requesting an amendment to Zoning By-law 8600 to rezone the site to Residential District 2.2 with Site-Specific Provisions (RD2.2) and permit the conversion of the ground floor commercial units to two residential dwelling units as an additional permitted use.

Appendix E
Consultation

SEWERS - The site may be serviced by a 375mm concrete pipe storm sewer and a 250mm vitrified clay pipe sanitary sewer, both of which are located within Drouillard Road. The applicant will be required to submit site servicing drawings.

RIGHT-OF-WAY – The Official Plan classifies Drouillard Road as a collector road, requiring a right-of-way width of 26m. The current right-of-way width is 16.2m; requiring a land conveyance of 4.9m, however, a conveyance is not being requested at this time. Permits will be required from this department should any work be required in the right-of-way.

The proposed alley access and rear yard parking is not supported, as the alley is grass/gravel and does not receive snow removal services. If approved, the owner will be required to contribute to the alley maintenance fund in the amount of $1,220.00 as per the 2022 User Fee Schedule and the parking area would need to be graded to drain away from the alley.

In summary we have no objection to the proposed rezoning, subject to the following requirements (Requirements can be enforced during Building and Right-of-Way permitting):

Alley Contribution – The owner agrees, prior to the issuance of a Building Permit, to contribute the sum of $1,220.00 payable to the City of Windsor and deposited in the General Fund intended for the upkeep of alleys within the City of Windsor.

Patrick Winters,
Development Engineer

Transportation Planning
The Official Plan classifies Drouillard Road as a Class I Collector road, requiring a right-of-way width of 26m. The current right-of-way width is insufficient however a land conveyance is not being requested at this time.

Parking must comply with Zoning By-Law 8600.

All accesses shall conform to the TAC Geometric Design Guide for Canadian Roads and the City of Windsor Standard Engineering Drawings.

All exterior paths of travel must meet the requirements of the Accessibility for Ontarians with Disabilities Act (AODA).

Rania Toufeili
Policy Analyst - Transportation Planning
519.255.6543 ext. 6830

Appendix E
Consultation

Police Services
The Windsor Police Service has no concerns or objections with the proposed Zoning By-law amendment to permit the conversion of the two ground floor commercial units into two residential dwelling units. The nature of this change, in this particular situation, presents no discernible risks to public safety. A review of our incident response records reveals no concerns that exist now and the conceptual site plan being put forward by the applicant shows a layout that ensures proper police incident response capability (including emergency situations) can be achieved and maintained. In case the application is not of a magnitude that would trigger site plan control, we would request approval be conditional on the following important site-specific features that relate to safety and security:

- Building's address number is highly visible, without obstruction, from Drouillard Road to facilitate effective police response
- Lighting is provided for both the front and rear building entrances that yields at least 4.0 foot-candles
- Rear parking lot off the alley has lighting provided that yields at least 1.75 foot-candles

Barry Horrobin
Police Services

Building Department
The Building Code Act, Section 8.(1) requires that a building permit be issued by the Chief Building Official for construction or demolition of a building. The building permit review process occurs after a development application receives approval and once a building permit application has been submitted to the Building Department and deemed a complete application.

Due to the limited Ontario Building Code related information received, review of the proposed project for compliance to the Ontario Building Code has not yet been conducted.

It is strongly recommended that the owner and/or applicant contact the Building Department to determine building permit needs for the proposed project prior to building permit submission.

The City of Windsor Building Department can be reach by phoning 519-255-6267 or, through email at buildingdept@citywindsor.ca

Barbara Rusan
Manager, Policy & Regulatory Services, Building Department

Landscape Architect

Appendix E
Consultation

Pursuant to the application for a zoning amendment (Z 004/22) to permit the conversion of the ground floor commercial units to two residential dwelling units as an additional permitted use on the subject, please note no objections. Please also note the following comments:

Zoning Provisions for Parking Setback:
With the entire building being proposed for residential use, the owner is to provide the minimum required 50% soft landscape in the front of the building. Removal of all the concrete in front of building except for the width of the entrance doors, to be excavated to an appropriate depth for landscaping and provision of soft landscape elements as part of the Site Plan review process.

Climate Change & Tree Preservation:
N/A

Urban Design:
The segment of Drouillard Road at the frontage of the subject is not classified as a Theme Street or Civic Way in the Official Plan.

Parkland Dedication:
Require a parkland dedication representing 5% of the subject lands, to the satisfaction of the Executive Director of Parks, as per By-law 12780 and the Planning Act.

Stefan Fediuk
Landscape Architect

CONCEPT SITE PLAN

1646 & 1648 DROUILLARD ROAD, WINDSOR

LEGAL DESCRIPTION:
PLAN 719: LOT 20 & N PT LOT 21

CURRENT ZONING:
CD2.2 (COMMERCIAL DISTRICT - GENERAL)
PROPOSED ZONING:
RD2.2-XX (RESIDENTIAL DISTRICT - MEDIUM DENSITY)
(Zoning By-Law No. 8600)

TOTAL SITE AREA: 371.6 m² (0.09 ac, 0.04 ha)

ZONING: RD2	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	540 m²	371.6 m²	371.6 m²
MIN. LOT WIDTH	18.0 m	12.2 m	12.2 m
MIN. FRONT YARD	6.0 m	1.0 m	1.0 m
MIN. INT. SIDE YARD	1.8 m	0.5 m	0.5 m
MIN. REAR YARD	7.5 m	14.2 m	14.2 m
MAX LOT COVERAGE	45.0%	41.6%	41.6 %
BUILDING HEIGHT	10.0 m	±3.5 m	±3.5 m
MIN. ACCESS ISLE	3.5 m	6.1 m	6.1 m
MIN. PARKING ISLE	3.5 m	--------	6.1 m
PARKING SEPERATION	2.0 m	--------	3.6 m
ALLEY SEPERATION	0.9 m	--------	0.6 m
NO. DWELLING UNITS			4 UNITS
PROPOSED DENSITY			100 u.p.h.
REQUIRED PARKING			4 SPACES
PROVIDED PARKING			4 SPACES
BUILDING AREA		154.5 m²	154.5 m²

MEASURMENTS ARE NOT EXACT. DRAWING FOR DISCUSSION PURPOSES ONLY.

PARKING: Multiple Dwelling containing a maximum of 4 Dwelling units 1 for each dwelling unit (Table 24.20.5.1). Each parking space shall be 2.5 x 5.5m, with a minimum of 3m access from a rear lane

NOTE: DRAWING IS FOR DISCUSSION PURPOSES ONLY AND HAS NOT BEEN CREATED FROM A LEGAL SURVEY.

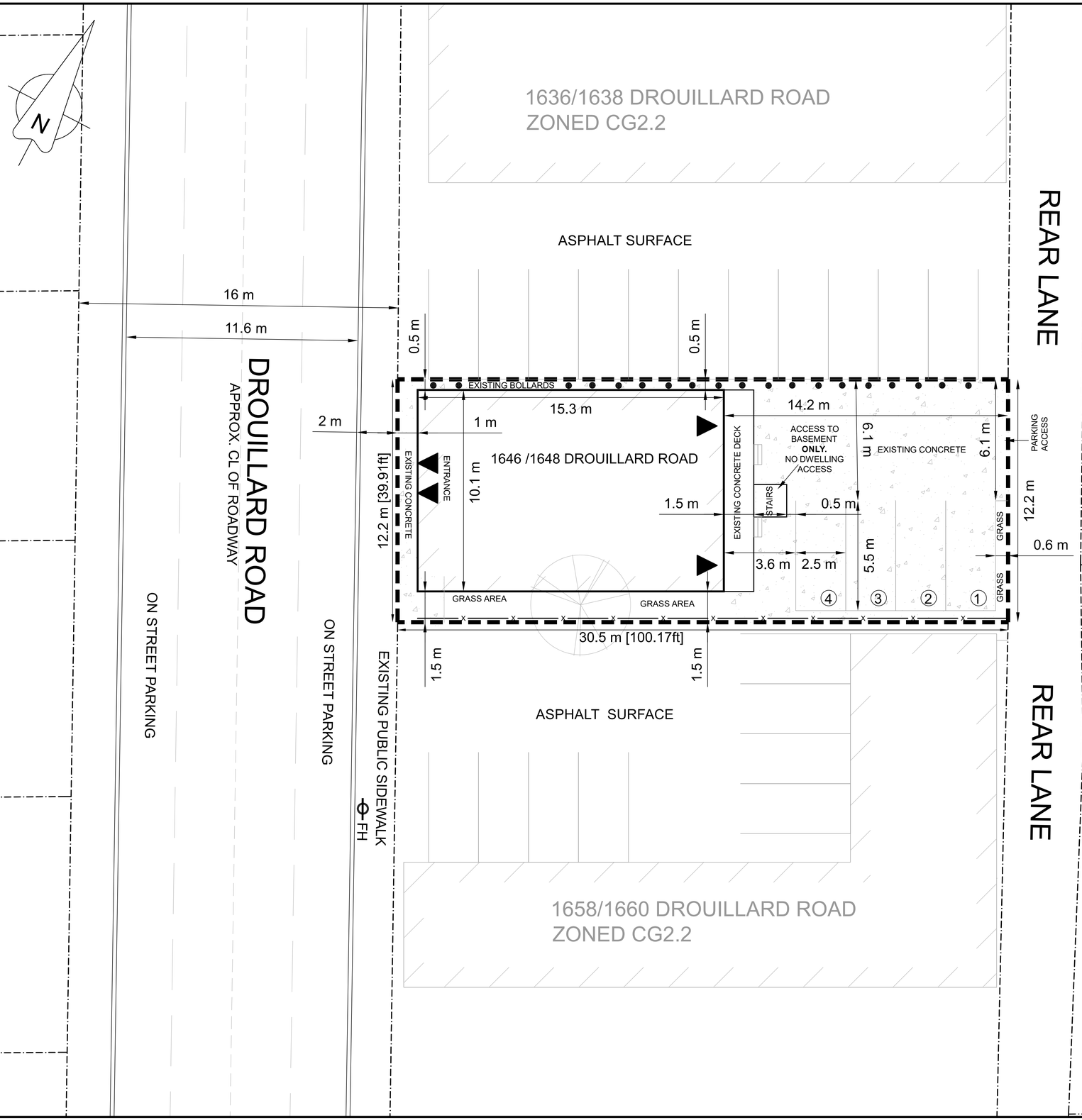
SCALE: 1:100
WHEN PRINTED ON 24 X 36

PROJECT FILE NO.
2021_44

DATE:
DECEMBER 16, 2021

DRAWN BY: S.C.
REVIEWED BY: T.G.

Urban in Mind
WWW.URBANINMIND.CA



APPENDIX G - Draft By-law Amendment

B Y - L A W N U M B E R -2022

A BY-LAW TO FURTHER AMEND BY-LAW NUMBER 8600
CITED AS THE "CITY OF WINDSOR ZONING BY-LAW"

Passed the day of , 2022.

WHEREAS it is deemed expedient to further amend By-law Number 8600 of the Council of The Corporation of the City of Windsor, cited as the "City of Windsor Zoning By-law" passed the 31st day of March, 1986, as heretofore amended:

THEREFORE the Council of The Corporation of the City of Windsor enacts as follows:

1. That subsection 1 of Section 20, of said by-law, is amended by adding the following paragraph:

394. **EAST SIDE OF DROUILLARD ROAD BETWEEN REGINALD STREET AND ALICE STREET**

For the lands comprising Lot 20 and North Part Lot 21, Plan 719; Windsor (PIN 011260235), known municipally as 1646-1648 Drouillard Road, a *multiple dwelling* shall be an additional permitted use and the following additional provisions shall apply to a *multiple dwelling*:

a) The maximum number of *dwelling units* shall be 4.

b) Section 15.2.5.9 shall not apply.

c) Section 15.2.5.15 shall not apply.

[ZDM 7; ZNG/6659]

2. The said by-law is further amended by changing the Zoning District Maps or parts thereof referred to in Section 1, of said by-law and made part thereof, so that the lands described in Column 3 are delineated by a broken line and further identified by the zoning symbol shown in Column 5:

1. Item Number	2. Zoning District Map Part	3. Lands Affected	4. Official Plan Amendment Number	5. Zoning Symbol
	7	Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235), (1646-1648 Drouillard Road, situated on the east side of Drouillard Road on the block between Reginald Street and Alice Street.)		S.20(1)

DREW DILKENS, MAYOR

CLERK

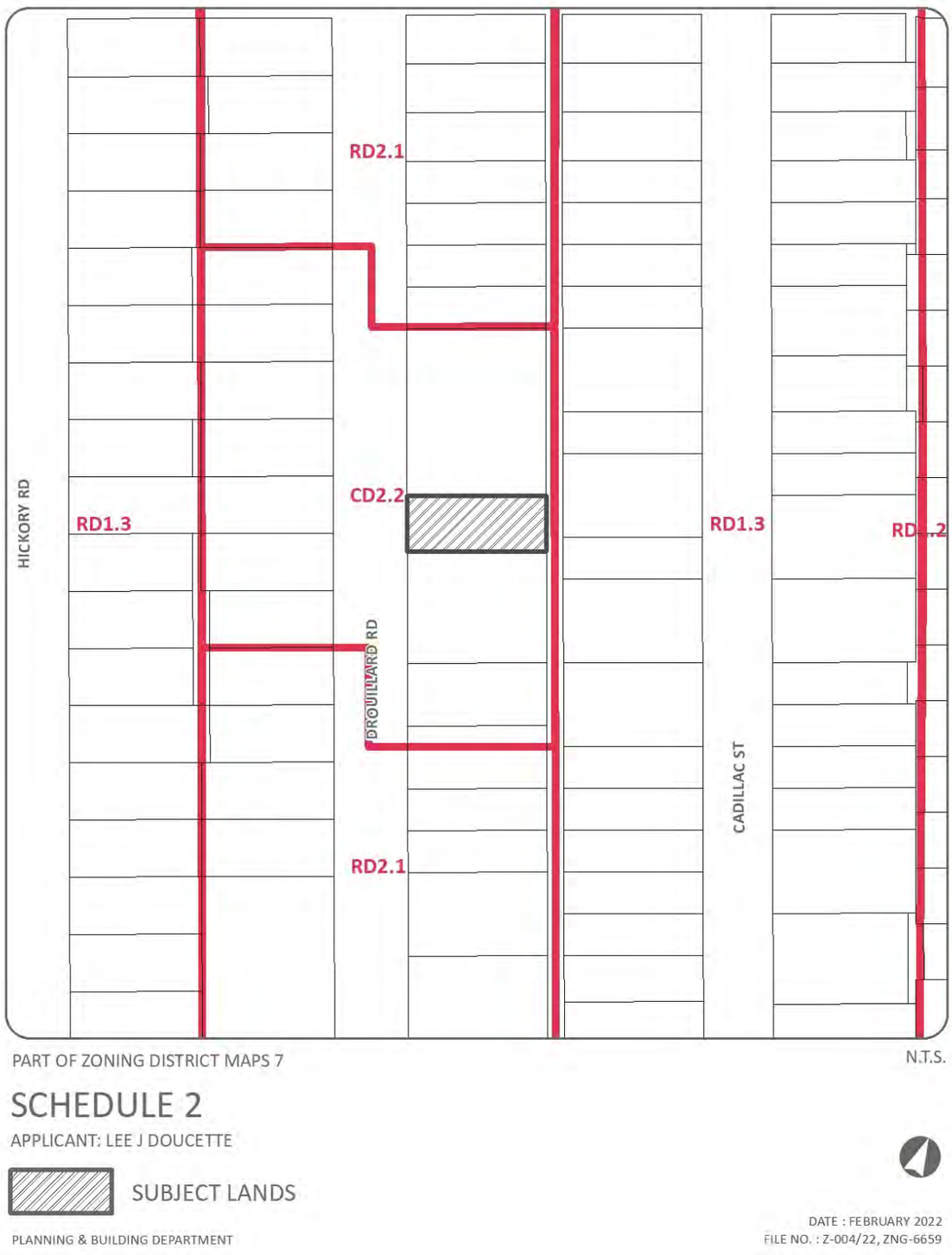
First Reading - , 2022
Second Reading - , 2022
Third Reading - , 2022

SCHEDULE 2

1. By-law _____ has the following purpose and effect:

   To amend the zoning of Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235), known municipally as 1646-1648 Drouillard Road, situated on the east side of Drouillard Road on the block between Reginald Street and Alice Street, as Commercial District 2.2 (CD2.2) by adding a site specific exception to allow a multiple dwelling as an additional permitted use subject to additional provisions.

2. Key map showing the location of the lands to which By-law _____applies.
   (See map following page.)



PLANNING JUSTIFICATION REPORT FOR ZONING BY-LAW AMENDMENT & SITE PLAN CONTROL APPLICATIONS

DECEMBER 20, 2021

1646-1648 DROUILLARD AVENUE, WINDSOR, ON

Subject Property

Prepared by:

Urban in Mind,
Professional Urban Planning, Land Development & CPTED Consultants
www.UrbanInMind.ca

(905) 320-8120

Urban in Mind

TABLE OF CONTENTS

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LIST OF FIGURES

LIST OF APPENDICES

1.0 INTRODUCTION:

Urban in Mind has been retained by the owner of 1646-1648 Drouillard Avenue ("subject property") in the City of Windsor Ontario, to submit a **Zoning By-Law Amendment** and a **Site Plan Control Application** to bring the 2 (two) existing non-conforming residential units into conformity with the Zoning By-law, which will result in a total of 4 (four) legal residential units on the ground floor of the existing building. The purpose of this proposal is to provided need housing choices to the neighbourhood, to an otherwise underutilized building that has no possibility of providing sustainable commercial tenants. It is understood that the site is also ripe for redevelopment, and as conditions allow, it is fully expected that the property will ultimately be redeveloped sometime in the future.

1.1 Purpose of the Report:

The purpose of this **Planning Justification Report** is to provide a sound analysis of the proposed development to allow for a maximum of 4 residential units within the existing building on the site, against the current planning policies. The result of this analysis should provide justification for the approval of the respective Zoning By-Law Amendment & Site Plan Control Applications.

2.0 SUBJECT PROPERTY AND SURROUNDING AREA:

2.1 Site Overview:

Figure 1 – Aerial View #1 of Subject Property (Windsor MAPS)

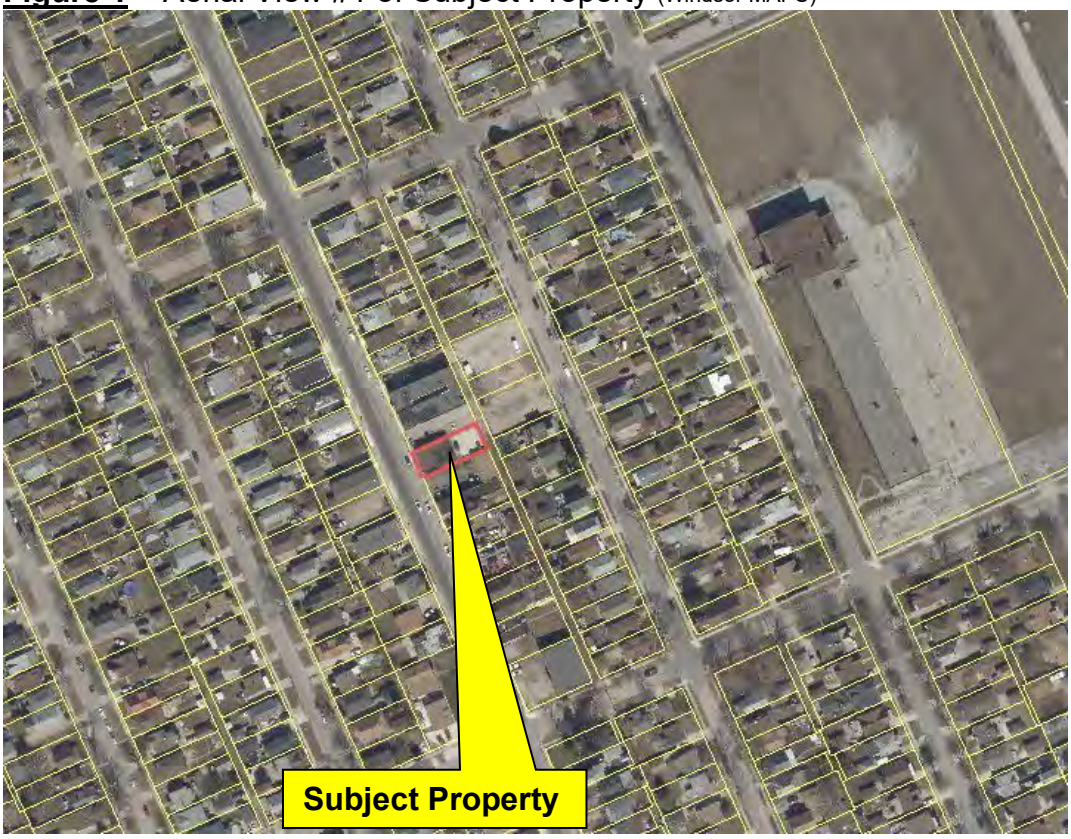
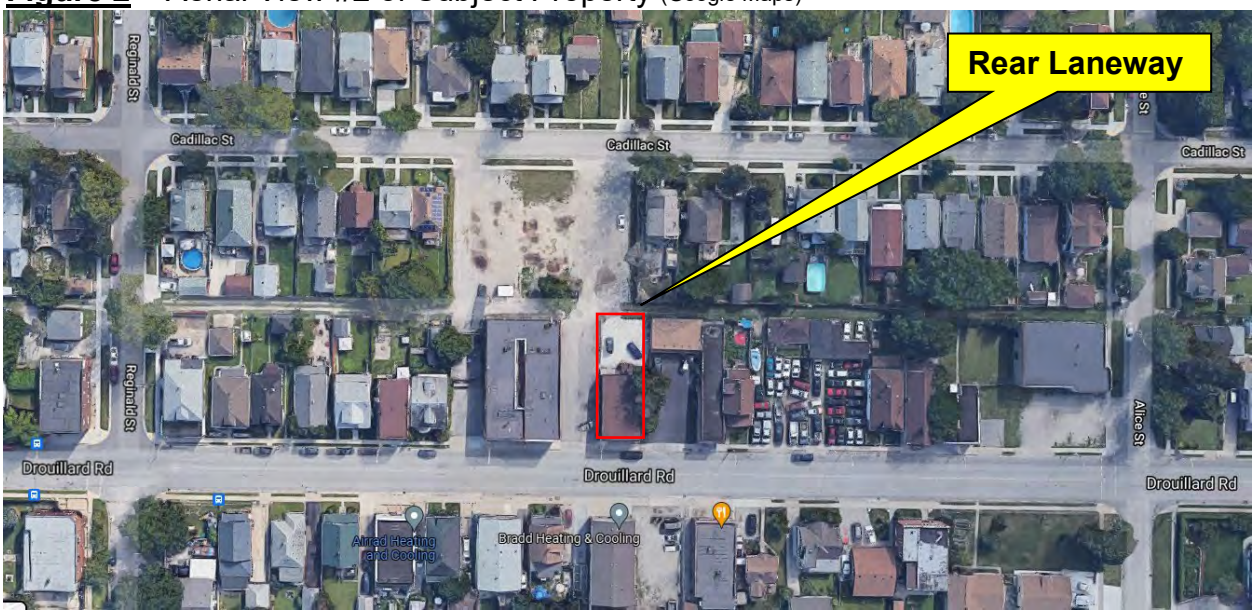


Figure 2 – Aerial View #2 of Subject Property (Google Maps)



Subject Property

Figure 3 – Street View (Drouillard Road) of Subject Property (Google Maps)

The subject property (**Figure 1-3**) is a rectangular shaped lot that has an approximate total area of 379 sq.m (0.094 ac/0.038 ha) and an approximate frontage of 12.5 m (41 ft) along Drouillard Road. The only vehicular access to the site is from the public lane that abuts the parking lot at the rear of the property. Limited on-street parking is available

along Drouillard Road and in the vicinity of the site. The site is currently occupied by a 1-storey building where two (2) residential units are permitted. The proposal is to allow 2 (two) additional residential units in-place of the dysfunctional and new leased commercial units at the front of the building. Each of the proposed 4 (four) units will have a separate entrance, with 2 doors being located in the front of the building, and 2 doors located in the rear (as exists today).

In terms of topography, the site is relatively flat and is primarily comprised of hard surface treatment (being either asphalt or building surface). There is one tree located along the side wall of the building along with an existing fence. The existing tree and fence are proposed to be maintained.

2.2 Neighbourhood Character:

The subject property is located along Drouillard Road which maintains a pedestrian-friendly streetscape character due to the compact form of older buildings which exhibit a diversity of architectural styles. Many of the buildings found along the street maintain narrow front and side-yard setbacks as a result of the existing rear yard public laneways which provide access to the properties. For the most part, the buildings maintain an average height of 1 - 2 storeys. While the street is primarily residential in character, there are plenty examples of dysfunctional, vacant, and boarded-up commercial units found along the Drouillard Road frontage. This is more prevalent along the segment of Drouillard that abuts the subject property. Nevertheless, Drouillard Road acts as the primary spine within the larger pure residential neighbourhood which is dominated by single-detached homes.

Figure 4 – Drouillard Road Streetscape Character (Google Maps)

The immediate surrounding area includes the following (**Figure 5 - 8**):

Figure 5 – Abutting Property (**North**) (Google Maps)

1636-1638 Drouillard Road, 'Adult Entertainment Club'

Figure 6 – Rear View of Subject Property from Cadillac Street (**East**) (Google Maps)

Figure 7 – Abutting Property (**South**) (Google Maps)
1658-1660 Drouillard Road

Figure 8 – Across the Street, Opposite Side of Drouillard Road (**West**) (Google Maps)
1645 Drouillard Road, Heating and Cooling Contractor

Figure 9 – 1680-1696 Drouillard Road (**South**) (Google Maps)
Boarded up, vacant, and concerted non-commercial units

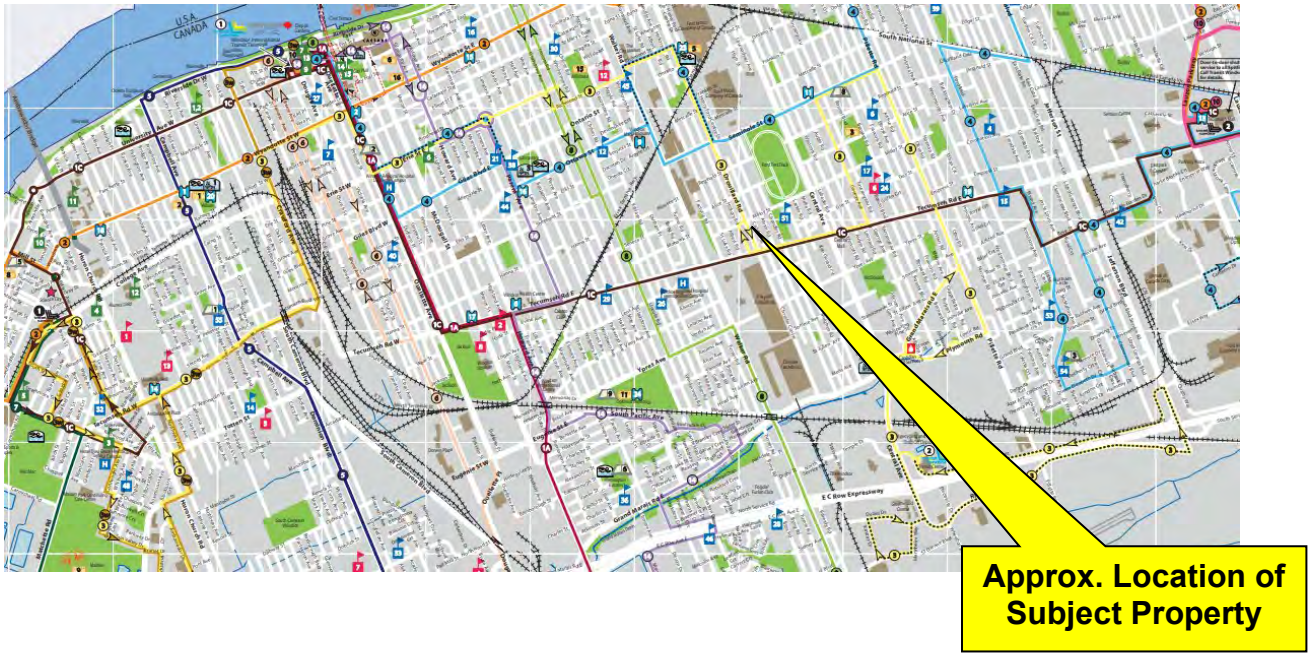
2.3 Transportation:

The subject property fronts on to Drouillard Road which is classified as a 'Class 1 Collector Road' with an approximate 'current' right-of-way of 16.5 m (**Appendix 'C'**). According to Schedule 'X' in the City of Windsor Official Plan, this segment of Drouillard Road that abuts the subject property has a required ultimate right-of-way width of 26 m (**Appendix 'D'**). It unclear if there will be a future right-of-way widening and how it may impact the subject property given that the existing building is physically located within this ultimate proposed right-of-way area. Nevertheless, the subject property is located within a convenient location for transit, walkability, and bicycle commuting.

The closest bus stop is located approximately ~150m from the subject property, and can be used to get to Downtown Windsor within 20-30 minutes or to the University of Windsor Campus within 35-50 minutes via Bus Route #3 & #4. In addition, there are number of different parks, stores and community facilities that are within convenient walking and biking distance to the subject property especially along the Tecemuseh Road East, Seminole Street and Ottawa Street commercial corridors.

Figure 10 – Closest Bus Stops *(Google Maps)*

Figure 11 – Transit Windsor Bus Routes *(Transit Windsor)*



3.0 PROPOSED DEVELOPMENT & PLANNING APPLICATIONS

As indicated on the City's Pre-submission Consultation Letter, the following planning applications are required to bring the proposed 2 (two) new non-complying residential units (bringing the total residential unit count to 4 (four) units within the existing 1 storey building without a commercial use:

- Zoning By-Law Amendment
- Site Plan Control

Table 1 below includes conditions for the proposed rezoning from Commercial District 2.2 (**CD2.2**) to Residential District 2.2 with Site-Specific Provisions (**RD2.2-XX**).

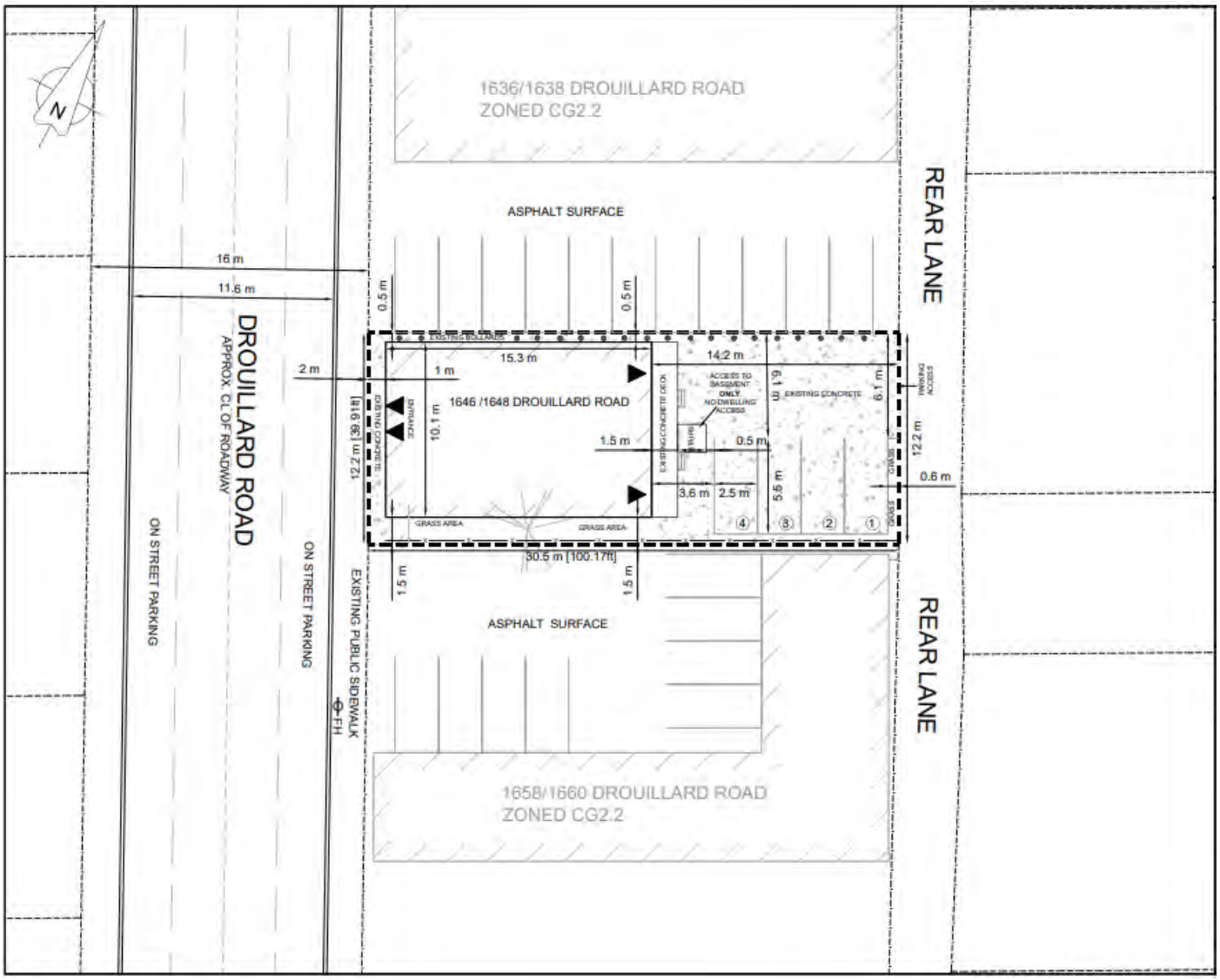
Table 1: Proposed Zoning By-Law Amendment

ZONING BY-LAW 8600	REQUIRED RD2.2	PROPOSED RD2.2-XX
Min. Lot Area	540 m^2	371.6 m^2 (ex.)
Min. Lot Width	18.0 m	12.2 m (ex.)
Min. Front Yard	6.0 m	1.0 m (ex.)
Min. Interior Side Yard	1.8 m	0.5 m (ex.)
Min. Rear Yard	7.5 m	14.2 m (ex.)
Max. Lot Coverage	45.0%	41.6% (ex.)
Max. Building Height	10.0 m	1 storey (ex.)
Min. Access Aisle	3.5 m	6.1 m (ex.)
Min. Parking Aisle	3.5 m	6.1 m
Min. Parking Spaces	4	4
Min. Parking Area Separation – From Building Wall with a Main Pedestrian Entrance	2.0 m	3.6 m
Min. Parking Area Separation – From Alley	0.9 m	0.6 m
The area forming the parking area separation shall be maintained exclusively as a landscaped open space yard.		No landscaping will be provided in the parking separation areas.

**There are no changes being proposed to the existing building on the site.*

****(ex.)** represents existing conditions of the property. The only physical change to the exterior of the building is the re-delineation of parking spaces to meet City Zoning Requirements – see the last 5 columns in Table 1 above.*

Figure 12 – Concept Site Plan Drawing *(Urban in Mind)*



**There are no structural changes to the exterior of the building being proposed. The only change that is being proposed on the site plan is the delineation of parking spaces and possibly interior renovations.*

3.1 Impact of the Proposed Development:

The proposed development will provide for an opportunity to legalize 2 (two) existing non-complying residential units that provide alternative and additional forms of housing for the City's population. No new building, structures or external renovations are being proposed on the site as a result of this application(s). Furthermore, legalizing the existing residential units will not create any added pressures on municipal infrastructure, local traffic patterns and on-site parking demand, but will provide affordable housing alternatives and new customers for local businesses, not to mention the useful repurposing of a building (from mixed-commercial to pure residential) that would otherwise remain vacant and perhaps boarded-up. The Drouillard Road streetscape appearance will not be changing as a result of the proposed development, as no new development (to the exterior of the building) is proposed at this time. The only thing the is changing on the property is the delineation of 4 parking spaces in the rear in order to meet zoning requirements.

4.0 PLANNING POLICY REVIEW:

4.1 Planning Act, R.S.O. 1990, c. P.13:

The Planning Act is the leading provincial legislation that sets out the rules for land use planning in Ontario. The Planning Act ensures that matters of provincial interest are met and guides planning policy to protect citizen rights and the natural environment.

Applicable provisions from the Planning Act have been included as follows:

"**PART I PROVINCIAL ADMINISTRATION**

Provincial Interest

2 The Minister, the council of a municipality, a local board, a planning board and the Tribunal, in carrying out their responsibilities under this Act, shall have regard to, among other matters, matters of provincial interest such as,

(a) the protection of ecological systems, including natural areas, features and functions;
(b) the protection of the agricultural resources of the Province;
(c) the conservation and management of natural resources and the mineral resource base;
(d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest;
(e) the supply, efficient use and conservation of energy and water;
(f) the adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems;
(g) the minimization of waste;
(h) the orderly development of safe and healthy communities;
(h.1) the accessibility for persons with disabilities to all facilities, services and matters to which this Act applies;

(i) the adequate provision and distribution of educational, health, social, cultural and recreational facilities;
(j) **the adequate provision of a full range of housing, including affordable housing;**
(k) the adequate provision of employment opportunities;
(l) the protection of the financial and economic well-being of the Province and its municipalities;
(m) the co-ordination of planning activities of public bodies;
(n) the resolution of planning conflicts involving public and private interests;
(o) the protection of public health and safety;
(p) the appropriate location of growth and development;
(q) **the promotion of development that is designed to be sustainable, to support public transit and to be oriented to pedestrians;**
(r) the promotion of built form that,
(i) is well-designed,
(ii) encourages a sense of place, and
(iii) provides for public spaces that are of high quality, safe, accessible, attractive and vibrant;
(s) the mitigation of greenhouse gas emissions and adaptation to a changing climate. 1994, c. 23, s. 5; 1996, c. 4, s. 2; 2001, c. 32, s. 31 (1); 2006, c. 23, s. 3; 2011, c. 6, Sched. 2, s. 1; 2015, c. 26, s. 12; 2017, c. 10, Sched. 4, s. 11 (1); 2017, c. 23, Sched. 5, s. 80."

4.2 Provincial Policy Statement (PPS) (2020):

The Provincial Policy Statement (PPS) for the Province of Ontario was recently updated in May 2020. It provides the provincial policy direction on matters of provincial interest related to land development provided under Section 3 of the *Planning Act*. The goal of the PPS is to enhance the quality of life for all people living, working and/or playing in Ontario.

Applicable excerpts from the Provincial Policy Statement have been included as follows:

"Part V: Policies

1.0 Building Strong Healthy Communities

1.1 Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns

1.1.1 Healthy, liveable and safe communities are sustained by:

a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;

b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons),

employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;

d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;

e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;

1.1.3 Settlement Areas

Settlement areas are urban areas and rural settlement areas, and include cities, towns, villages and hamlets. Ontario's settlement areas vary significantly in terms of size, density, population, economic activity, diversity and intensity of land uses, service levels, and types of infrastructure available.

The vitality and regeneration of settlement areas is critical to the long-term economic prosperity of our communities. Development pressures and land use change will vary across Ontario. It is in the interest of all communities to use land and resources wisely, to promote efficient development patterns, protect resources, promote green spaces, ensure effective use of infrastructure and public service facilities and minimize unnecessary public expenditures.

1.1.3.1 Settlement areas shall be the focus of growth and development.

1.1.3.2 Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

a) efficiently use land and resources;

b) are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;

e) support active transportation;

f) are transit-supportive, where transit is planned, exists or may be developed; and Land use patterns within settlement areas shall also be based on a range of uses and opportunities for intensification and redevelopment in accordance with the criteria in policy 1.1.3.3, where this can be accommodated.

1.1.3.3 Planning authorities shall identify appropriate locations and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options through intensification and redevelopment

where this can be accommodated taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs.

1.1.3.4 Appropriate development standards should be promoted which facilitate intensification, redevelopment and compact form, while avoiding or mitigating risks to public health and safety.

1.4 Housing

1.4.3 Planning authorities shall provide for an appropriate range and mix of housing options and densities to meet projected market-based and affordable housing needs of current and future residents of the regional market area by:

b) permitting and facilitating:

1. all housing options required to meet the social, health, economic and well-being requirements of current and future residents, including special needs requirements and needs arising from demographic changes and employment opportunities; and

2. all types of residential intensification, including additional residential units, and redevelopment in accordance with policy 1.1.3.3;

c) directing the development of new housing towards locations where appropriate levels of infrastructure and public service facilities are or will be available to support current and projected needs;

d) promoting densities for new housing which efficiently use land, resources, infrastructure and public service facilities, and support the use of active transportation and transit in areas where it exists or is to be developed;

e) requiring transit-supportive development and prioritizing intensification, including potential air rights development, in proximity to transit, including corridors and stations; and

f) establishing development standards for residential intensification, redevelopment and new residential development which minimize the cost of housing and facilitate compact form, while maintaining appropriate levels of public health and safety.

1.6 Infrastructure and Public Service Facilities

1.6.6 Sewage, Water and Stormwater

1.6.6.1 Planning for sewage and water services shall:

a) accommodate forecasted growth in a manner that promotes the efficient use and optimization of existing:

1. municipal sewage services and municipal water services;

c) promote water conservation and water use efficiency;

d) integrate servicing and land use considerations at all stages of the planning process; and

e) be in accordance with the servicing hierarchy outlined through policies 1.6.6.2, 1.6.6.3, 1.6.6.4 and 1.6.6.5. For clarity, where municipal sewage services and municipal water services are not available, planned or feasible, planning authorities have the ability to consider the use of the servicing options set out through policies 1.6.6.3, 1.6.6.4, and 1.6.6.5 provided that the specified conditions are met.

1.6.6.2 Municipal sewage services and municipal water services are the preferred form of servicing for settlement areas to support protection of the environment and minimize potential risks to human health and safety. Within settlement areas with existing municipal sewage services and municipal water services, intensification and redevelopment shall be promoted wherever feasible to optimize the use of the services.

1.6.6.7 Planning for stormwater management shall:

a) be integrated with planning for sewage and water services and ensure that systems are optimized, feasible and financially viable over the long term;

b) minimize, or, where possible, prevent increases in contaminant loads;

c) minimize erosion and changes in water balance, and prepare for the impacts of a changing climate through the effective management of stormwater, including the use of green infrastructure;

d) mitigate risks to human health, safety, property and the environment;

e) maximize the extent and function of vegetative and pervious surfaces; and

f) promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.

1.6.7 Transportation Systems

1.6.7.4 A land use pattern, density and mix of uses should be promoted that minimize the length and number of vehicle trips and support current and future use of transit and active transportation.

1.7 Long-Term Economic Prosperity

1.7.1 Long-term economic prosperity should be supported by:

a) promoting opportunities for economic development and community investment-readiness;

b) encouraging residential uses to respond to dynamic market-based needs and provide necessary housing supply and range of housing options for a diverse workforce;

c) optimizing the long-term availability and use of land, resources, infrastructure and public service facilities;

d) maintaining and, where possible, enhancing the vitality and viability of downtowns and main streets;

e) encouraging a sense of place, by promoting well-designed built form and cultural planning, and by conserving features that help define character, including built heritage resources and cultural heritage landscapes.

1.8 Energy Conservation, Air Quality and Climate Change

1.8.1 Planning authorities shall support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and preparing for the impacts of a changing climate through land use and development patterns which:

a) promote compact form and a structure of nodes and corridors;

b) promote the use of active transportation and transit in and between residential, employment (including commercial and industrial) and institutional uses and other areas;

e) encourage transit-supportive development and intensification to improve the mix of employment and housing uses to shorten commute journeys and decrease transportation congestion;"

4.3 City of Windsor Official Plan (2000 as amended):

The current version of the Official Plan (OP) for the City of Windsor has been in effect since 2000, however, the document has been amended several times over the years with routine changes to ensure policy consistency with the Provincial Policy Statement.

The OP is the leading planning document for guiding growth, land use and development within the City of Windsor. The document addresses matters such as infrastructure, population growth, servicing, transit, natural heritage, cultural heritage, and administrative municipal policies.

Compliance with the City of Windsor Official Plan should be sought for all planning applications.

The following City of Windsor Official Plan designations apply to the subject property:

- The segment of Drouillard road that abuts the subject property is adjacent to a 'Proposed Recreationway' (**Appendix 'A'**).
- The subject property is located within the '**Residential**' Land Use Designation (**Appendix 'B'**).
- The segment of Drouillard Road that abuts the subject property is classified as a Class II Collector Road (**Appendix 'C'**).

- The segment of Drouillard Road that abuts the subject property has an ultimate Right-of-Way of “26m” (**Appendix ‘D’**).

Applicable excerpts from the City of Windsor Official Plan are as follows:

“Chapter 3 – Development Strategy

3.2 Growth Concept

3.2.1 Safe, Caring and Diverse Community

3.2.1.2 Encouraging a range of housing types will ensure that people have an opportunity to live in their neighbourhoods as they pass through the various stages of their lives. Residents will have a voice in how this new housing fits within their neighbourhood. As the city grows, more housing opportunities will mean less sprawl onto agricultural and natural lands.

3.2.1.3 Windsor will keep much of what gives its existing neighbourhoods their character – trees and greenery, heritage structures and spaces, distinctive area identities, parks, and generally low profile development outside the City Centre. Around the neighbourhood centres, the existing character of the neighbourhood will be retained and enhanced. Newly developing areas will be planned to foster their own unique neighbourhood identities with a mixture of homes, amenities and services.

3.3 Urban Structure Plan

3.3.3 Neighbourhoods

Neighbourhoods are the most basic component of Windsor’s urban structure and occupy the greatest proportion of the City. Neighbourhoods are stable, low-to-medium-density residential areas and are comprised of local streets, parks, open spaces, schools, minor institutions and neighbourhood and convenience scale retail services. The three dominant types of dwellings in Windsor’s neighbourhoods are single detached, semi-detached and townhouses. The density range for Windsor’s neighbourhoods is between 20 to 35 units per net hectare. This density range provides for low and some medium-density intensification to occur in existing neighbourhoods. Multiple dwelling buildings with medium and high-densities are encouraged at nodes identified in the Urban Structure Plan

Chapter 4 – Healthy Community

4.2 Objectives

4.2.1 Healthy and Liveable City

4.2.1.5 To encourage a mix of housing types and services to allow people to remain in their neighbourhoods as they age.

4.2.2 Environmental Sustainability

4.2.2.4 To promote development that meets human needs and is compatible with the natural environment.

4.2.2.5 To reduce environmental impacts.

4.2.3 Quality of Life

4.2.3.2 To encourage the location of basic goods and services floe to where people live and work.

4.2.3.3 To recognize the needs of the community in terms of shelter, support services, accessibility and mobility.

4.2.3.4 To accommodate the appropriate range and mix of housing.

4.2.4 Sense of Community

4.2.4.2 To encourage development that fosters the integration of all residents into the community.

Chapter 5 – The Environment

5.3.2 Greenway System Policies

5.3.2.9 Lands identified as part of the Greenway System may be protected by the Municipality through:

(a) conveyance or dedication as a part of the planning process;

5.3.2.11 The Recreationways designated on Schedule B: Greenway System will provide for recreational movement within the Greenway System and are further described in section 7.2.3 of this Plan

Chapter 6 – Land Use

6.1 Goals

In keeping with the Strategic Directions, Council's land use goals are to achieve:

6.1.2 Environmentally sustainable urban development.

6.1.3 Housing suited to the needs of Windsor's residents.

6.2 General Policies

6.2.1.2 For the purpose of this Plan, Development Profile refers to the height of a building or structure. Accordingly, the following Development Profiles apply to all land use designations on Schedule D: Land Use unless specifically provided elsewhere in this Plan:

(a) Low Profile developments are buildings or structures generally no greater than three (3) storeys in height;

(b) Medium Profile developments are buildings or structures generally no greater than six (6) storeys in height; and

(c) High Profile developments are buildings or structures generally no greater than fourteen (14) storeys in height.

6.3 Residential

6.3.1 Objectives

6.3.1.1 To support a complementary range of housing forms and tenures in all neighbourhoods.

6.3.1.2 To promote compact neighbourhoods which encourage a balanced transportation system.

6.3.1.3 To promote selective residential redevelopment, infill and intensification initiatives.

6.3.1.4 To ensure that the existing housing stock is maintained and rehabilitated.

6.3.2 Policies

In order to facilitate the orderly development and integration of housing in Windsor, the following policies shall apply.

6.3.2.1 Uses permitted in the Residential land use designation identified on Schedule D: Land Use include Low, Medium and High Profile dwelling units.

6.3.2.3 For the purposes of this Plan, Low Profile housing development is further classified as follows:

(a) small scale forms: single detached, semi-detached, duplex and row and multiplexes with up to 8 units; and

(b) large scale forms: buildings with more than 8 units.

6.3.2.4 Residential development shall be located where:

(a) there is access to a collector or arterial road;

(b) full municipal physical services can be provided;

(c) adequate community services and open spaces are available or are planned; and

(d) public transportation service can be provided.

6.3.2.5 At the time of submission, the proponent shall demonstrate to the satisfaction of the Municipality that a proposed residential development within an area having a Neighbourhood development pattern is:

(a) feasible having regard to the other provisions of this Plan, provincial legislation, policies and appropriate guidelines and support studies for uses:

(iv) where traffic generation and distribution is a provincial or municipal concern; and

(c) compatible with the surrounding area in terms of scale, massing, height, siting, orientation, setbacks, parking and amenity areas;

(d) provided with adequate off street parking;

(e) capable of being provided with full municipal physical services and emergency services; and

6.3.2.18 Council shall promote the maintenance of Windsor's housing stock at a standard sufficient to provide acceptable conditions of health, safety and appearance in accordance with the Community Improvement section of this Plan.

Chapter 7 – Infrastructure

7.2 Transportation System

7.2.2 General Policies

7.2.2.12 Council shall require adequate off-street parking and loading facilities as a condition of development approval in accordance with the Land Use chapter of this Plan.

7.2.2.13 Council shall require parking lots to be designed in accordance with the Urban Design chapter of this Plan.

7.2.3 Pedestrian Network Policies

7.2.3.4 Council shall provide for the development of the Recreationway by:

(c) Ensuring that new development proposals and infrastructure undertakings include extensions and improvements to the Recreationway; and

7.2.6 Road Network Policies

7.2.6.7 Council shall provide for Class II Collector Roads as follows:

(b) Operational and design characteristics:

(i) Class II Collector Roads shall be designed to carry moderate volumes of traffic and shall have a minimum right-of-way width of 26 metres;

(iv) Cycling facilities may be permitted; and

(v) On street parking may be permitted.

7.2.6.16 Council shall support the construction of new roads and right-of-way widening for the purpose of adding to the travelled portion of a road only when either of the following factors have been met:

(a) The new road and/or widened right-of-way have been identified as a recommended system improvement in this Plan, the transportation master plan and/or the cycling master plan; or other relevant transportation plan.

(b) The need for the new road and/or widened right-of-way has been clearly demonstrated through a comprehensive analysis and public consultation process, conducted in addition to the transportation master plan, in accordance with relevant provincial legislation and the resulting road improves the transportation system by:

(iv) Minimizing any negative impacts on the social and natural environment of adjacent areas;

(v) Providing for cycling facilities, as appropriate; and

(vi) Providing for transit service, as appropriate.

7.2.6.21 As a condition of development approval, council shall require gratuitous land conveyances to the Municipality where it has been determined that the existing right-of-way width is insufficient based on the requirements set out in Schedule ‘X’, or other provisions of this Official Plan. The size and dimension of each such conveyance shall be determined by what is identified in Schedule ‘X’, or other provisions of this Official Plan. Generally, equal widths of land will be taken from both sides of the road.

7.2.6.22 Gratuitous land conveyances to the Municipality may also be required as a condition of development approval for, but not limited to any of the following elements:

(a) Corner cut offs;

(e) Acceleration or deceleration lanes;

(f) Transit infrastructure, including transit lanes, stations and transit stops including shelters;

(g) Cycling infrastructure, including bike lanes and multi-use recreational trails;

(h) Bus bays; and

(i) Sidewalks.

7.2.6.25 Notwithstanding the right-of-way widths identified in the policies of this Official Plan, Council may require additional land for exclusive turning lanes or special features. The exact width of this additional right-of-way shall be

determined on a site-specific basis during the development approval process.

7.3 Infrastructure

7.3.2.3 Council shall require all new developments to have full municipal infrastructure available, or agreements in place to provide such infrastructure, as a condition of approving a development proposal.

7.3.2.4 Council shall not permit development on individual on-site sewage services beyond existing farm living lots.

7.3.2.5 Council shall not permit the installation of individual on-site sewage services in new developments

7.3.3 Infrastructure Provision Policies

7.3.3.5 Council shall require that the provision, expansion or modification of infrastructure minimize negative effects on existing neighbourhoods, adjacent land uses and the natural environment

4.4 Zoning By-Law 8600:

The subject property is currently zoned as '**Commercial District 2.2 (CD2.2)**' under Zoning By-Law 8600 (**Appendix 'E'**). The proposed Zoning By-Law Amendment seeks to rezone the site to '**Residential District 2.2 with Site-Specific Provisions (RD2.2**)', which will bring the property's zoning into compliance with the City's Official Plan.

Applicable excerpts from the City of Windsor Zoning By-Law 8600 are as follows:

"SECTION 11 - RESIDENTIAL DISTRICTS 2. (RD2.)

~PROPOSED ZONING~

11.2 RESIDENTIAL DISTRICT 2.2 (RD2.2)

11.2.1 PERMITTED USES

One Double Duplex Dwelling
One Duplex Dwelling
One Multiple Dwelling containing a maximum of four dwelling units
One Semi-Detached Dwelling
One Single Unit Dwelling Townhome Dwelling
Any use accessory to any of the preceding uses

11.2.5 PROVISIONS

.4 Double Duplex Dwelling or Multiple Dwelling

.1 Lot Width – minimum	18.0 m
.2 Lot Area – minimum	540.0 m^2

.3 Lot Coverage – maximum	45.0%
.4 Main Building Height – maximum	10.0 m
.5 Front Yard Depth – minimum	6.0 m
.6 Rear Yard Depth – minimum	7.50 m
.7 Side Yard Width – minimum	1.80 m

SECTION 15 - COMMERCIAL DISTRICTS 2. (CD2.)

~CURRENT ZONING~

15.2 COMMERCIAL DISTRICT 2.2 (CD2.2)

15.2.1 PERMITTED USES

Bakery Business Office
Child Care Centre
Commercial School Confectionery
Food Outlet - Take-Out
Funeral Establishment
Medical Office
Micro-Brewery
Personal Service Shop
Place of Entertainment and Recreation
Place of Worship
Professional Studio
Public Hall
Repair Shop – Light
Restaurant
Retail Store
Veterinary Office
Wholesale Store

Dwelling Units in a Combined Use Building with any one or more of the above uses

Gas Bar Outdoor Market Parking
Garage Public Parking Area
Tourist Home
Existing Automobile Repair Garage
Existing Service Station

Any use accessory to any of the preceding uses. An Outdoor Storage Yard is prohibited, save and except, in combination with the following main uses: Outdoor Market, Existing Automobile Repair Garage.

15.2.3 PROHIBITED USES

A Gas Bar and a Service Station is prohibited on any lot located within 63.50 m of the east or west limits of Sandwich Street between Detroit Street and Brock Street or within 30.0 m of the south limit of Mill Street between Russell Street and Sandwich Street.

15.2.5 PROVISIONS

.4 Building Height – maximum 14.0 m

.9 Amenity Area – Per Dwelling Unit – minimum 12.0 m^2

.10 Gross Floor Area – maximum per unit Bakery or Confectionary 550.0 m

.15 For a Combined Use Building, all dwelling units, not including entrances thereto, shall be located above the non-residential uses.

.24 An Outdoor Market is permitted within a Business Improvement Area. An Outdoor Market is prohibited elsewhere.

SECTION 24 – PARKING, LOADING AND STACKING PROVISIONS

24.10.10 PROVISION AND MAINTENANCE

.1 All required parking spaces, visitor parking spaces, accessible parking spaces, bicycle parking spaces, loading spaces or stacking spaces shall be provided and clearly identified and marked at the time of the erection of a building or addition thereto, expansion of a use or when there is a change of use of a lot or building and shall be subsequently maintained, identified and marked exclusively for the use for which they are required for as long as such use is in operation.

24.20 PARKING SPACE PROVISIONS

24.20.5 REQUIRED PARKING SPACES – ALL OTHER AREAS AND USES NOT LISTED IN TABLES 24.20.1.1 AND 24.20.3.1

TABLE 24.20.5.1 - REQUIRED PARKING SPACES

Multiple Dwelling containing a maximum of 4 Dwelling units: **1 for each dwelling unit**

24.20.10 SIZE OF PARKING SPACE

.1 Each parking space shall have a minimum length of 5.5 metres and a minimum width of 2.5 metres, except where one side of the parking space is flanked by a wall or fence, each parking space shall have a minimum length of 5.5 metres and a minimum width of 3.5 metres.

SECTION 25 - PARKING AREA PROVISIONS

25.5.20 PARKING AREA SEPARATION

TABLE 25.5.20.1 – PARKING AREA SEPARATION

.1 A parking area separation shall be provided as shown in Table 25.5.20.1:

TABLE 25.5.20.1 – PARKING AREA SEPARATION		
	PARKING AREA FROM	MINIMUM SEPARATION
.1	Huron Church Road between the south limit of College Avenue and the north limit of the EC Row Expressway	10.00 m
	Save and except for Parts 4 and 5, Plan 12R-12366 and Part Lots 1346 to 1360, Part Lot 1820 and Part Block A, Registered Plan 1059 (situated on the west side of Huron Church Road, north of Tecumseh Road West)	3.00 m
.2	Any other street	3.00 m
.3	An interior lot line or alley	0.90 m
.4	A rear lot line on a lot located in a Commercial District 3.9	10.00 m
.5	A building wall in which is located a main pedestrian entrance facing the parking area	2.00 m
.6	A building wall containing a habitable room window or containing both a main pedestrian entrance and a habitable room window facing the parking area where the building is located on the same lot as the parking area	4.50 m

.5 The area forming the parking area separation shall be maintained exclusively as a landscaped open space yard.

25.5.30 ACCESS AREA

.4 An access area for all other uses shall have one or more one-way lanes. Each lane shall have a minimum width of 3.50 metres and a maximum width of 4.50 metres.

.5 The width of each lane in an access area shall be measured a maximum of 3.00 metres from the lot line the access area crosses.

25.5.50 PARKING AISLE

.3 The minimum width of a parking aisle shall be as follows:

TABLE 25.5.50.3 – MINIMUM PARKING AISLE WIDTH		
ANGLE OF PARKING SPACE RELATIVE TO THE PARKING AISLE (IN DEGREES)		MINIMUM WIDTH OF A PARKING AISLE
.1	30.0°	3.50 metres
.2	45.0°	4.50 metres
.3	60.0°	5.50 metres
.4	90.0°	6.00 metres
.5	All angles and widths not indicated above are deemed to be the next highest angle and width indicated.	

5.0 PLANNING JUSTIFICATION:

5.1 Planning Act, R.S.O. 1990, c. P.13:

The proposed Zoning By-Law Amendment and Site Plan Control Applications seeks to legalize a 4 (four) unit multiple dwelling building, thereby providing affordable rental housing options and choice to the City's population. Given the high demand for affordable rental housing, the proposed development to increase the number of dwellings units on the property from 2 to 4 is appropriate for the site, especially given its location within an urban area that is well serviced by transit and municipal infrastructure. Furthermore, design changes will be made to the parking area in the rear (delineation of parking spaces) in order to provide for a safer and more attractive development.

As such, the proposed development conforms to the Planning Act.

5.2 Provincial Policy Statement (PPS) (2020):

The proposed Zoning By-Law Amendment and Site Plan Control Applications are well-aligned with the Provincial Policy Statement (PPS) as they seek to increase the number of dwelling units on an existing lot in order to meet the long-term affordable housing needs of current and future residents (**1.4.3 b) 1.**). The site is easily capable of handling the proposed density of 4 (four) dwelling units given that that the proposed development will not result in an extension or exterior alteration of the existing 1 (one) storey building on the property. In addition, the 4 (four) dwelling units will all be connected to municipal services (**1.1.3.3**). Furthermore, the tenants of the 4 four dwelling units will help to maintain the viability and long-term economic prosperity of local business and community institutions within the surrounding area (**1.7.1 d**).

As such, the proposed development conforms with the policies of the Provincial Policy Statement.

5.3 City of Windsor Official Plan (2000):

In accordance with the City of Windsor Official Plan, the subject property is located within the '**Residential**' Land Use Designation (**Appendix 'B'**) which allows for multiplexes with up to 8 units (**6.3.2.3 (a)**). As such, the proposed rezoning of the site from a commercial to a residential zone to allow for a 4 (four) unit multiplex is in accordance with the Official Plan. Furthermore, the 'Residential' policies of the Official Plan speak to the importance of promoting the maintenance of the existing housing stock while also encouraging a mix of housing options to allow people to remain in their neighbourhoods as they age through intensification initiatives (**6.3.1.4**) (**4.2.1.5**) (**6.3.1.3**). The proposed development accomplishes these objectives.

As such, the proposed development conforms with the policies of the Growth Plan.

5.4 Zoning By-Law 8600:

The proposed Zoning By-Law Amendment will introduce new site-specific zone under the (**RD2.2-XX**). This zone that would convert the existing building on the site into a 'multiple dwelling building' by providing 2 (two) additional legal dwelling units, thereby creating 4 (four) legal dwelling units, within the existing building. The requested site-specific zoning adjustments include the following minor deviations from the (**RD2.2**) zone as shown on Table 1 in this report:

(need to recognize the following Existing Conditions)

- Reduced Minimum Lot Width (**11.2.5 .4 .1**)
- Reduced Minimum Lot Area (**11.2.5 .4 .2**)
- Reduced Minimum Lot Coverage (**11.2.5 .4 .3**)
- Reduced Minimum Font Yard Setback (**11.2.5 .4 .5**)
- Reduced Minimum Side Yard Setback (**11.2.5 .4 .7**)

(need to allow the proposed parking area delineation)

- Reduced Minimum Parking Area Separation – From an Alley (**25.5.20 .1 .3**)
- Delete the Following Provision: "The area forming the parking area separation shall be maintained exclusively as a landscaped open space yard" (**25.5.20 .5**)

Given that no new buildings or external building renovations are being proposed on the site, the proposed Zoning By-Law Amendment will have little impact on the functionality of the site or surrounding neighbourhood, but will bring the zoning into conformity with the City's Official Plan, and allow the property to be better utilized for a more appropriate purpose. The proposed only changes to the site effect the delineation of 4 parking spaces in the rear of the property, which will improve the safety and the overall attractiveness of the property. Overall, the proposed zoning standards are well-aligned with intensification objectives of both the Provincial Policy Statement and the City of Windsor Official Plan as they permit for a higher residential density with the existing building on the subject property.

As such, the proposed development meets the general intent of Zoning By-Law 8600.

6.0 SITE SUITABILITY:

The existing building on the subject property has the capacity to easily support 4 (four) dwellings units; However, due to current zoning requirements only 2 of the 4 residential units within the building are currently recognized by the City under the 'Commercial' Zone. The proposed Site-Specific Zoning By-Law Amendment will bring the property into the correct 'Residential' (**RD2.2**) zone, which will resolve the conflict. The proposal also intends to create site specific zoning provisions that will both recognize the existing conditions of the property, but also facilitate the re-configured rear yard parking area. The zoning amendment will permit the 'Multiple Dwelling' with 4 dwellings units, and the site specific zoning provisions will facilitate the reuse of the existing building/property. These deviations are suitable for the lands based on the following merits:

1. Reduced Minimum Lot Width (18.0 m vs 12.2 m)

No new lot is being created. The purpose of this deviation is to bring the existing lot into conformity with the proposed rezoning and as such will not create a situation that is out of context for the neighbourhood. Furthermore, given the large depth of the site (30 m), there is enough space on the site for multiple dwelling building with 4 (four) residential units.

2. Reduced Minimum Lot Area (540 m^2 vs 371.7 m^2)

Again, there is no new lot that is being created. The purpose of this deviation is to bring the existing lot into conformity with the proposed rezoning. A reduced lot area can be justified base on the premises that only allowing for 2 dwellings units on the property would constitute as an underutilization of the site especially given its location with a walkable urban area with accessible transit. Furthermore, it can be expected that many of the adjacent residential lots within the area have or will be converted in the future to accommodate multiple dwelling units especially as the demand for affordable rental housing increases.

3. Reduced Minimum Lot Coverage (45.0% vs 41.6%)

No new buildings or structures are being proposed on the site. Furthermore, there are no plans to extend the footprint of the existing building on the property. The purpose of this deviation is to bring the existing lot/building into conformity with the proposed rezoning. The proposed reduction to the minimum lot coverage requirement only represents a 3.4% difference from the required standard as such is minor in nature. The property is not overdeveloped. There are others lots within the area that maintain a similar lot coverage. Furthermore, there is ample room for parking and maneuvering in the rear yard. With respect to access to green space, the site is within comfortable walking distance to the 'Ford Test Track' which is one of the largest parks in the city.

4. Reduced Minimum Front Yard Setback (6.0 m vs 1.0 m)

The proposed development to allow 4 (four) residential dwelling units within the existing building will not result in any changes to the front yard setback situation. The purpose of this deviation is to bring the existing building into conformity with the proposed rezoning.

A reduced front yard setback of 1.0 m is appropriate for the site given the context of the existing streetscape character for Drouillard Road which sees buildings sited close to the public sidewalk in order to create a pedestrian-friendly environment that is advantageous to the mixed-use corridor. A reduced front yard setback can also be justified by the site's ability to provide for an ample amount of parking spaces in the rear via the public laneway.

5. Reduced Minimum Side Yard Setback (6.0 m vs 1.0 m)

Just like the front yard setback situation, the proposed development to allow 4 (four) residential dwelling units within the existing building and will not result in any changes the existing side yard setbacks. The interior side yard setback abutting the north lot line maintains a distance of 0.5 m, while the interior side yard setback abutting the south lot line maintains a distance of 1.5 m. Abutting both of these lot lines are parking areas for the neighbouring uses. As such, there is plenty of room in between the existing building on the subject property and the buildings on the abutting lots. Furthermore, the existing side yard setbacks are not out of character for the existing Drouillard streetscape, which maintains a relatively compact built form. The property is deep but not wide, so it is only reasonable to expect narrow side yard setbacks despite the fact there is an ample amount of space on the lot for an adequately sized building and parking area.

6. Reduced Minimum Parking Area Separation – From an Alley (0.9 m vs 0.6 m)

The proposed development seeks to improve the parking area situated in the rear of the lot by delineating 4 parking spaces. Consequently, parking space #4 fails to meet the parking area separation distance of 0.9 m from an Alley. The alternative is to reduce the parking requirement to 3 parking spaces, which is less desirable give the traditional automotive use in the area. In addition, the alley does not have a high volume of traffic, and impacts to the lane will be minimal at best (but improved from the current situation and site conditions). The proposed Zoning Amendment is intended to improve the parking situation by facilitating 4 (four) on-site parking spaces. The proposed 0.9 m separation distance from the alley will not create any added conflicts when compared to the existing situation.

7. Delete the Following Provision: "*The area forming the parking area separation shall be maintained exclusively as a landscaped open space yard*"

Due to the small size of the lot, there is not enough room to landscape the parking separation areas (between parking space #1 and the alley) & (between parking space #4 and mail building wall containing a pedestrian entrance) and also allow for the 4 (four) parking spaces. Despite the fact that there isn't enough room for landscaping. it is worth delineating the spaces in order to create a safer and more attractive parking area.

7.0 CONCLUSION:

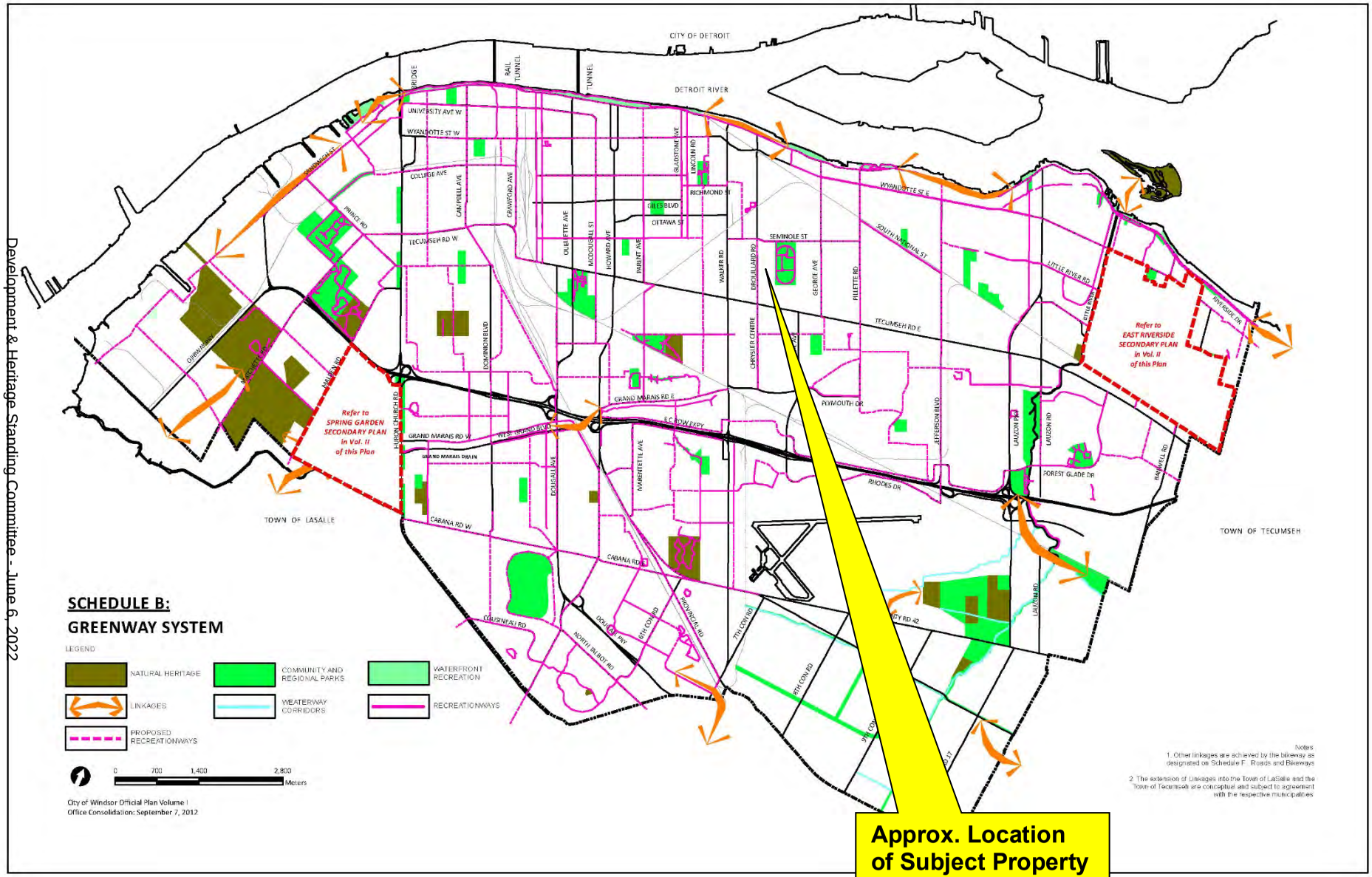
Given the analysis presented in this Planning Justification Report, it is in the Author's professional planning opinion that there is merit to support the proposed Zoning By-Law Amendment and Site Plan Control Applications because they are considered to be of

'***Good Planning***,' in the '**Public Interest**', and in '**Conformity**' with the Planning Act, Provincial Policy Statement and the City of Windsor Official Plan while also meeting the general intent of Zoning By-Law 8600.

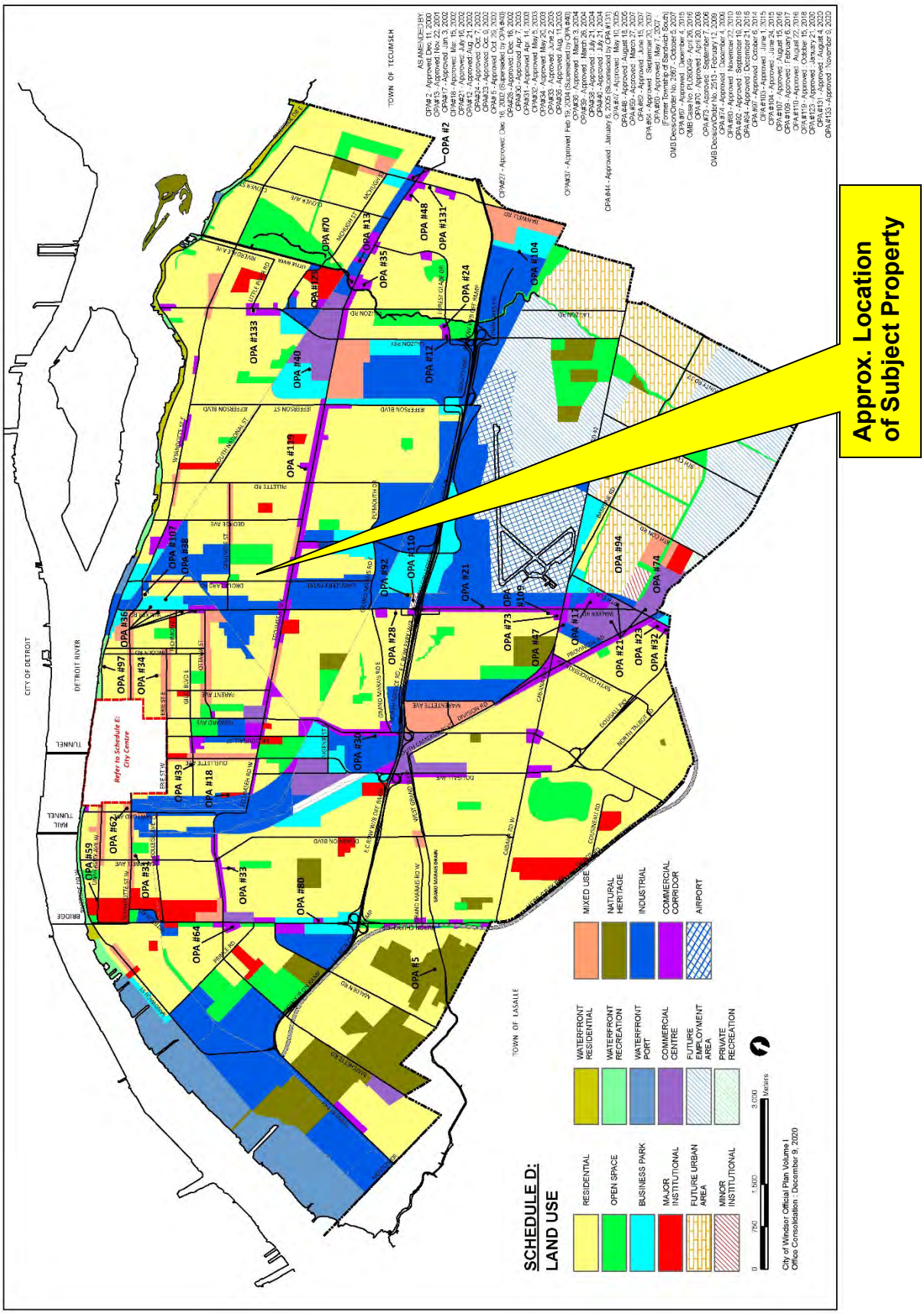
I hereby certify that this Planning Justification Report was prepared and reviewed by Registered Professional Planner (RPP), within the meaning of the *Ontario Professional Planners Institute Act*, 1994.

Terrance Glover, RPP, CPT
Principal
Urban in Mind,
Professional Urban Panning, Land Development & CPTED Consultants

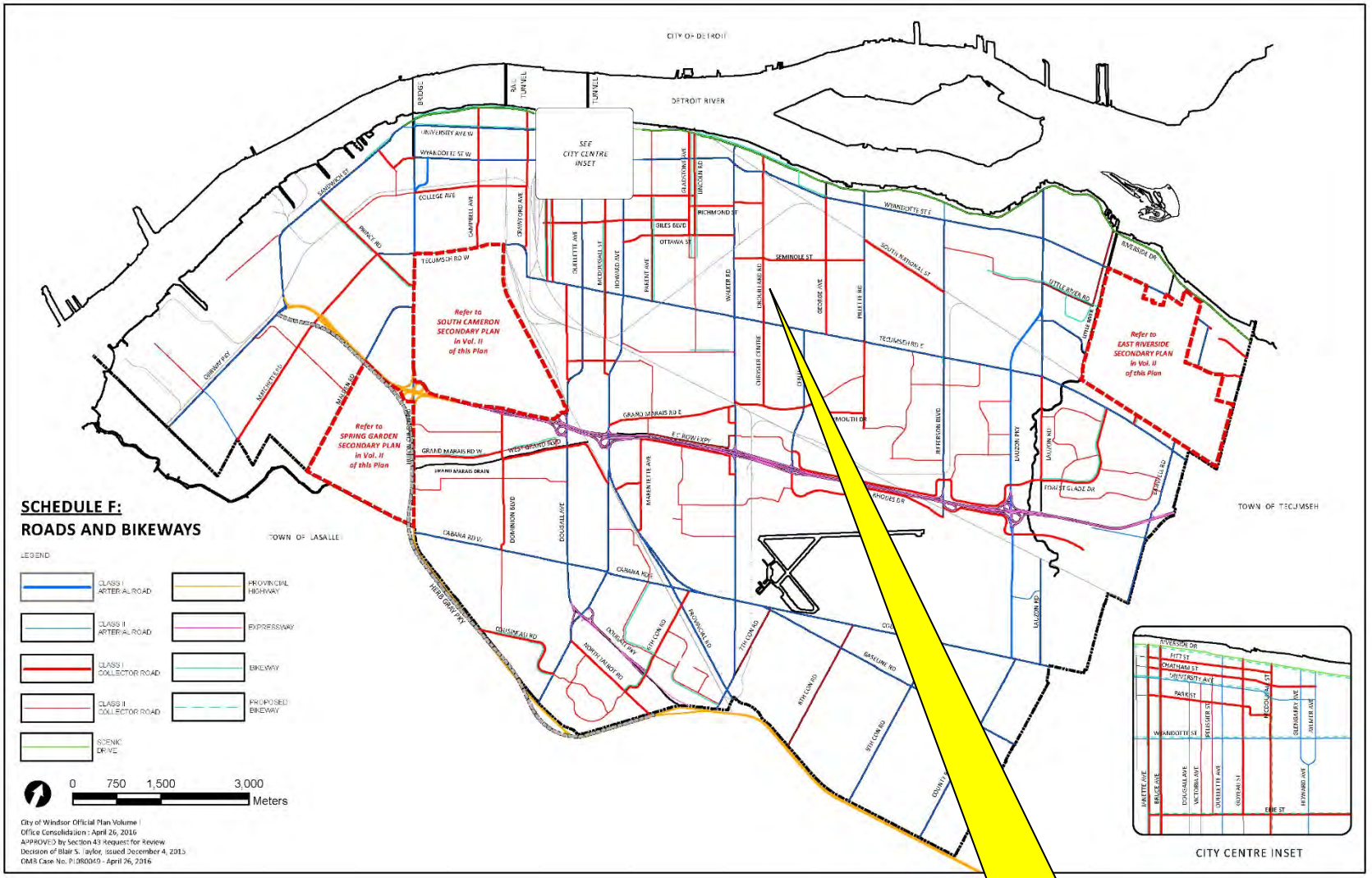
Appendix 'A'
(City of Windsor Official Plan – Schedule B, Greenway System)



Appendix 'B'
(City of Windsor Official Plan – Schedule D, Land Use)



Appendix 'C'
(City of Windsor Official Plan – Schedule F, Roads and Bikeways)

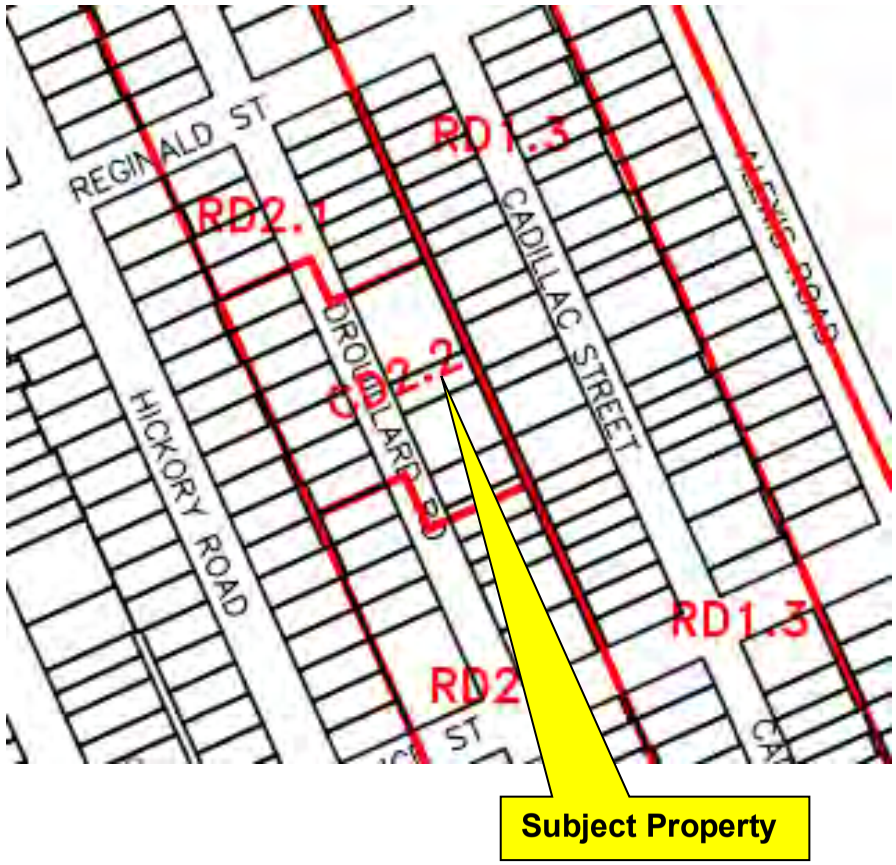


Appendix 'D'

(City of Windsor Official Plan – Schedule X, Right-of-Way Width)

Street ID	Segment ID	Street Name	From Street Name	To Street Name	Road Classification	Required ROW Width (m)	Bike Facilities	Transit Facilities
10245	0020	DROUILLARD RD	RIVERSIDE DR E	WYANDOTTE ST E	C1_COL	26		
10245	0080	DROUILLARD RD	WYANDOTTE ST E	EDNA ST	C1_COL	29.3		
10245	0090	DROUILLARD RD	EDNA ST	TRENTON ST	C1_COL	16.5		
10245	0095	DROUILLARD RD	TRENTON ST	WHELPTON ST	C1_COL	16.5		
10245	0100	DROUILLARD RD	WHELPTON ST	RICHMOND ST	C1_COL	16.5		
10245	0110	DROUILLARD RD	RICHMOND ST	ONTARIO ST	C1_COL	24		
10245	0120	DROUILLARD RD	ONTARIO ST	DEMING ST	C1_COL	24		
10245	0125	DROUILLARD RD	DEMING ST	FRANKLIN ST	C1_COL	24		
10245	0130	DROUILLARD RD	FRANKLIN ST	METCALFE ST	C1_COL	24		
10245	0135	DROUILLARD RD	METCALFE ST	METCALFE ST	C1_COL	24		
10245	0140	DROUILLARD RD	METCALFE ST	SEMINOLE ST	C1_COL	24		
10245	0150	DROUILLARD RD	SEMINOLE ST	REGINALD ST	C1_COL	26	Lanes	
10245	0160	DROUILLARD RD	REGINALD ST	ALICE ST	C1_COL	26	Lanes	
10245	0170	DROUILLARD RD	ALICE ST	MILLOY ST	C1_COL	26	Lanes	
10245	0180	DROUILLARD RD	MILLOY ST	TECUMSEH RD E	C1_COL	26	Lanes	

Appendix 'E'
(Zoning By-Law 8600 – Zoning District Map 7)



Zoning District Map 7

LEGEND:

- Zone Boundary[1]
- Specific Zoning Exemptions[2] S.20 (1) 267/ By-Law 127-2010
- Specific Temporary Zoning Exemptions[3]
- Registered Plan Parcel Limits
- Ownership Parcel Limits
- Municipal Boundary Line
- Inland Watercourse Flood Prone Area[4]
- Detroit River/Lake St.Clair Flood Prone Area[4]

NOTES:

1. Each Zoning District symbol corresponds to a zoning district set out in the text of By-law 8600 (i.e. CD1.1 - Commercial District 1.1.)

DRD 1._	- Development Reserve District	- See Section 8
GD1._	- Green District	- See Section 9
RD1._	- Residential Districts (Low Density)	- See Section 10
RD2._	- Residential Districts (Medium Density)	- See Section 11
RD3._	- Residential Districts (High Density)	- See Section 12
ID1._	- Institutional District	- See Section 13
CD1._	- Commercial Districts (Neighbourhood)	- See Section 14
CD2._	- Commercial Districts (General)	- See Section 15
CD3._	- Commercial Districts (Major)	- See Section 16
CD4._	- Commercial Districts (Highway/Restricted Use)	- See Section 17
MD1._	-Industrial District (Light/Business Park)	-See Section 18
MD2._	-Industrial District (Heavy)	-See Section 19

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 65/2022

Subject: Official Plan and Rezoning Amendments – Tunio Development – 3885 & 0 Sandwich Street - OPA 152 OPA[6504] Z-028/21 ZNG[6503] - Ward 2

Reference:

Date to Council: 2022-06-06
Author: Kevin Alexander, MCIP RPP
Senior Planner Special Projects
519-255-6543 x6732
kalexander@citywindsor.ca
Planning & Building Services
Report Date: 2022-05-20
Clerk's File #: Z/14317

To: Mayor and Members of City Council

Recommendation:

THAT the City of Windsor Official Plan, Volume II, Part 1-Special Policy Areas **BE AMENDED** by deleting and replacing Specific Policy Area 1.7 as follows:

"1. 7 **Sandwich Street and Chappell Avenue**

1.7.1 The property comprising Part of Lot 27, Registered Plan 40S, east side of Sandwich Street and Part of Lot 28, east Side of Sandwich Street, and Lot 28 west side corner of Sandwich Street, Registered Plan 40, located at the northeast corner of Sandwich Street and Chappell Avenue;

Site Specific Policy Direction 1.7.2

Notwithstanding Section **6.4.3.1 Industrial Policies**-*Permitted Uses* designation of the subject lands on Schedule D: Land Use in Volume I--The Primary Plan, the uses permitted in Section 6.9.2.1 shall be additional permitted uses; and,

THAT Zoning By-law 8600 **BE AMENDED** by changing the zoning of Part Lot 27, Registered Plan 40S, Lot 28 East Side, Registered Plan 40, and Lot 28 West Side, Registered Plan 40, situated at the northeast corner of Sandwich Street and Chappell Avenue (known municipally as 0 and 3885 Sandwich Street; Roll # 050-170-09700 and 050-170-09800) from Development Reserve District 1.1 (DRD1.1), Commercial District 2.1 (CD2.1) and Manufacturing District 1.4 (MD1.4) to Commercial District 2.1 (CD2.1) and by adding the following site specific provision:

445. **NORTHEAST SIDE OF SANDWICH STREET AND CHAPPELL AVENUE**

For the lands comprising Part Lot 27, Registered Plan 40S; Lot 28 East Side on Registered Plan 40; and Lot 28 West Side, Registered Plan 40:

1. The following uses are prohibited:
   Bakery

   Food Outlet-Drive-Through

   Gas Bar

   Place of Entertainment and Recreation

   Public Hall

   Restaurant with Drive-through

2. A *Multiple Dwelling* and *Dwelling Units in a Combined Use Building* shall be additional permitted main uses and shall be subject to the following provisions:

a) Main Building Height – maximum 37.0 m

b) Amenity Area – Per Dwelling Unit – minimum 5.0 m^2

c) For a *Combined Use Building*, all *dwelling units*, not including entrances thereto, are located above the non-residential uses

d) Exposed flat concrete block walls or exposed flat concrete wall, whether painted or unpainted, are prohibited

e) Required Number of Parking Spaces – minimum - 156

[ZDM 4; ZNG/6503]; and,

THAT Part Lot 27 on Registered Plan 40S (PIN 012580193) (Roll # 050-170-09800-0000) known municipally as 0 Sandwich Street and for Lots 28 East Side; & Lot 28 West Side; Corner on Registered Plan 40 (PIN 012580190) (Roll #170-09700-0000) known municipally as 3885 Sandwich Street, situated at the northeast corner of Sandwich Street and Chappell Avenue **BE CLASSIFIED** as a Class 4 area pursuant to Publication NPC-300 (MOECP Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning); and,

THAT the Site Plan Approval Officer **BE DIRECTED** to incorporate the mitigation measures including warning clauses required for a Class 4 designation pursuant to Publication NPC-300 identified in the Acoustical Report prepared by Baird AE (Project No. 20-028), dated October 1, 2021, in the site plan approval and the site plan agreement; and,

THAT the City Planner or their designate **BE DIRECTED** to provide a copy of the Council Resolution approving the Class 4 area classification and a copy of any development agreement or site plan agreement for the subject lands that incorporates noise mitigation measures to the surrounding noise sources identified in the Acoustical Report prepared by Baird AE (Project No. 20-028), dated October 1, 2021.

Executive Summary:

N/A

Background:

Application Information:

Location: Northeast Corner of Sandwich Street and Chappell Avenue;
3885 Sandwich Street and 0 Sandwich Street;
Roll No. 050-170-09700-0000, 050-170-09800-0000

Ward: 2 **Planning District:** Sandwich **Zoning District Map**: 4

Applicant: Tunio Development (Khurram Tunio)

Agent: Pillon Abbs Inc. (Tracey Pillon-Abbs)

Proposal:

The applicant requests a Site Specific Amendment to the City's Official Plan (OPA) and Site Specific Amendment to Zoning By-law 8600 (ZBA) to allow for the construction of an eleven (11) storey Combined-Use Building (Mixed-Use) with one-hundred and fifty (150) affordable residential units, two (2) retail units, one-hundred and fifty-six (156) parking spaces including six (6) accessible parking spaces, eleven (11) bicycle spaces, and two (2) loading spaces. Access will be provided via two driveways from Sandwich Street and Chappell Avenue. Refuse bins are located within the building.

The applicant submitted the following studies:

- Planning Rational Report (PRR), by Pillon Abbs Inc. (October 15, 2021);

- Urban Design Brief, by Baird AE (September 2, 2021)
- Acoustical Report, by Baird AE. (October 1, 2021);
- A Geotechnical Investigation, by CT Soils & Materials Engineering Inc. (May 21, 2021);
- Traffic Impact Study (TIS), by Baird AE (October 5, 2020)
- Phase 1 (April 3, 2020) and Phase 2 (January 28, 2021) Site Assessment (ESA) by WOOD Environment & Infrastructure Solutions;
- Functional Servicing Report (FSR) for Storm and Sanitary, dated October 8th, 2020.

The revised PRR (See Appendix D) suggests designating the Site to a site specific "Industrial" use to permit a combined use building with commercial on the main floor and residential above. The Planning Department suggested that the PRR report be revised to consider a site specific Official Plan Amendment to permit uses identified in Section 6.9.2.1 as additional permitted uses and additional policies in the Provincial Policy Statement (PPS) should be considered with respect to Section 1.3.2.5 regarding the conversion of Employment Lands. Pillon Abbs Inc. submitted a revised PRR dated May 25th, 2022.

Based on feedback from Transportation Planning, the TIS provided by Baird AE requires a memo clarifying information related to minor changes to the preliminary site plan. In addition, due to the large deficiency in parking with respect to Zoning By-law 8600, a parking study is required. The Parking Justification Report was submitted on April 22, 2022. Transportation Planning reviewed the study but found some inaccuracies related to the interpretation of the parking requirements identified in Zoning By-law 8600. An updated memo regarding the TIS and a revised Parking Justification Report was submitted on May 25th, 2022.

Based on the updated Parking Justification Report the deficiency in parking was somewhat reduced by providing additional amenity space to be used by the residents. The applicant can provide 156 parking spaces based on the current design. The development will be deficient by 60 parking spaces based on the parking requirements set out in Section 24 (Parking, Loading and Stacking) in Zoning By-law 8600.

Although the parking is deficient based on By-law 8600 more than one space is provided per residential unit providing sufficient parking in the evening hours, which is considered the peak hours when parking is required for the residential units. Whereas the peak hours for commercial uses is typically weekends during the day. Therefore, while residents are working or performing other daily tasks during the day on-site parking and on street parking will be available to users of the commercial/retail space during the day.

The Acoustical Report prepared by Baird AE. (October 1, 2021) suggests a Class 2 area designation pursuant to NPC-300 (MOECP Environmental Noise guideline – Stationary and Transportation Sources – Approval and Planning). This is an acceptable designation, however, Class 4 would be the preferable designation requested by the Planning Department. The Class 4 area designation is a tool that allows a municipality to approve a noise sensitive land use with relaxed noise limit levels in an area of existing stationary noise sources to promote intensification.

The Planning Department suggested that the Acoustical Report should be revised to request a Class 4 area designation subject to the mitigation measures identified in the study, noise levels can be mitigated to levels identified in NPC-300 for a Class 4 area. It should also include a recommendation for the inclusion of the appropriate warning clause for a Class 4 area in addition to the warning clauses identified in the assessment. One of the Recommendations of this report request that the subject lands be classified as a Class 4 area pursuant to Publication NPC-300 (MOECP Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning).

Site Information:

OFFICIAL PLAN	ZONING	CURRENT USE	PREVIOUS USE
Industrial	Commercial District 2.2 (CD2.1) S.20(1)15 Development Reserve Residential District (DRD1.1) Manufacturing District (MD1.4)	Vacant Land	Commercial Residential
LOT FRONTAGE SANDWICH STREET	**LOT FRONTAGE CHAPPELL AVENUE**	**AREA**	**SHAPE**
94.31 m	82.34 m	6,694 m^2 / 0.67 ha	Irregular
309.42 ft	270.14 ft	83,587 sq ft / 1.92 ac	
All measurements are provided by applicant and are approximate.			

Neighbourhood Characteristics:

The surrounding land uses consist of a mix of residential, commercial, industrial, and transportation uses. In the City of Windsor, the Detroit River is considered north. However, in the Sandwich Town neighbourhood the Detroit River bends towards the east and therefore the Ambassador Bridge is considered north and the Detroit River is west. When taking into consideration the change in direction in Sandwich Town, to the north of the subject lands low-density residential uses are located along the east side of Sandwich Street with an Industrial use (Volmer/Fahrhall) is located on the west side of Sandwich Street across the street from the subject lands. Low-density residential uses are also located just east of the subject lands. A commercial use (Tim Hortons) with a drive-through is located south of the subject lands (across from Chappell Avenue). Other Industrial uses also exists southwest of the subject lands.

The Essex Terminal Railway is located west and south of the Industrial uses to the southwest of the subject lands.

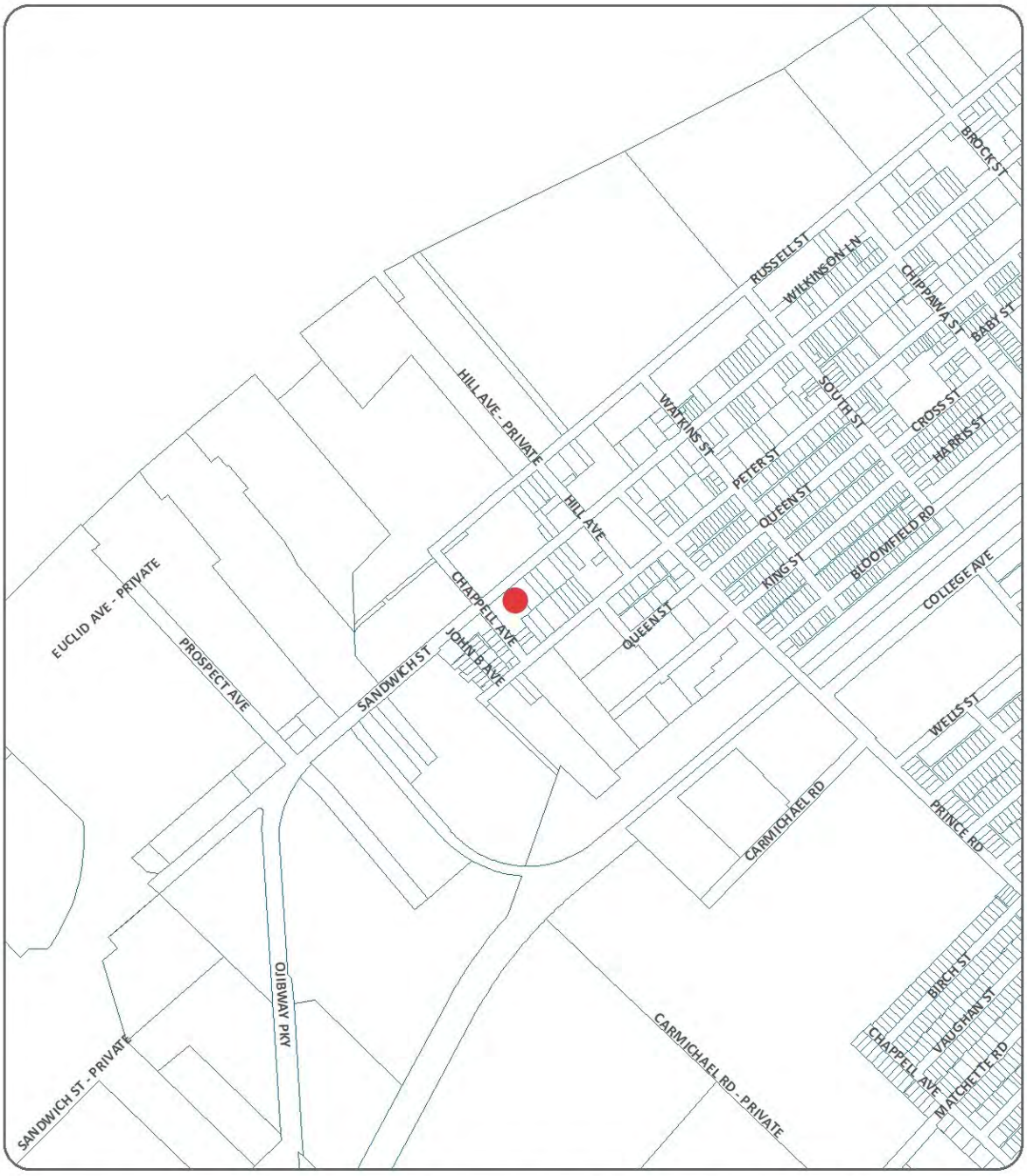
The Sandwich Street Corridor extends south towards Ojibway Parkway where mostly Industrial uses flank Sandwich Street on the east and west sides. However, residential uses do exist east of Sandwich Street along this route. The Sandwich Street corridor also extends north towards the Sandwich Main Street and Business Improvement Area (BIA). Along that route both single-family and multi-family residential uses, commercial, and industrial uses flank the east and west side of Sandwich Street.

Sandwich Street is classified as a Class II Arterial Road on Schedule F: Roads and Bikeways in the Official Plan. Chappell Avenue is classified as a Local Road.

Public transit is available via the Crosstown 2. The closest bus stop to the subject lands is located on Prince Road at the southeast corner of Peter Street. This bus stop is located approximately 450 metres from the subject lands falling outside of Transit Windsor's 400 metre walking distance guideline to a bus stop. However, the Council approved Transit Master Plan will introduce a new secondary route along Sandwich Street in the area of the subject lands and will likely site a bus stop on Sandwich Street at Chappell Avenue, thereby providing a direct service to the proposed development.

As part of the Sandwich Street Reconstruction Project new bike lanes and parking spaces are proposed on the west and east sides of Sandwich Street between Chappell Street and Hill Avenue.

Figure 1: Key Map



KEY MAP - Z-028/21, ZNG-6503 & OPA 152, OPA-6504

SUBJECT LANDS

APPLICANT: TUNIO DEVELOPMENT

ADDRESS: 0 & 3885 SANDWICH STREET

Figure 2: Subject Parcel – Rezoning

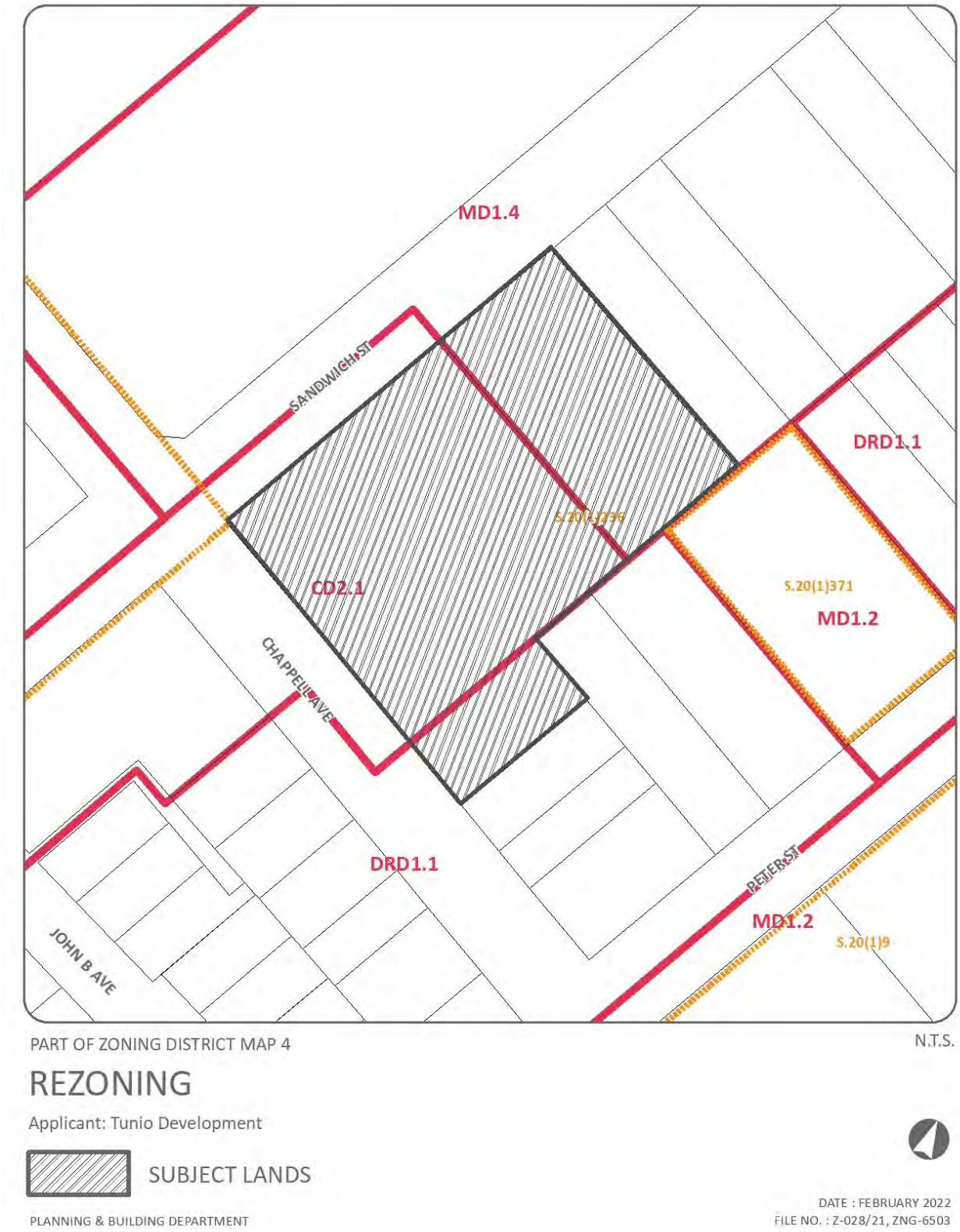


Figure 3: Neighborhood Map

NEIGHBOURHOOD MAP - Z-028/21, ZNG-6503 & OPA 152, OPA-6504

SUBJECT LANDS

APPLICANT: TUNIO DEVELOPMENT

ADDRESS: 0 & 3885 SANDWICH STREET

Discussion:

Provincial Policy Statement 2020

The Provincial Policy Statement (PPS) provides direction on matters of provincial interest related to land use planning and development and sets the policy foundation for regulating the development and use of land in Ontario. Relevant excerpts form the PPS are found in Appendix E.

The review of the PPS applies to both the Official Plan Amendment and the Zoning By-law amendment. Many of the policies identified below are also supported in the PRR.

Policy 1.1.1 of the PPS states:

"Healthy, liveable and safe communities are sustained by:

a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;

b) accommodating an appropriate range and mix of residential (including second units, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;

e) promoting cost-effective development patterns and standards to minimize land consumption and servicing costs;"

The construction of a combined use building represents an efficient development and land use pattern that will have no adverse impact on the financial well-being of the City of Windsor, land consumption, and servicing costs, and accommodates a residential use that is lacking in the surrounding area and that is in close proximity to commercial, employment, and institutional uses.

Policy 1.1.2 of the PPS states:

1.1.2 Sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to 25 years.....Within settlement areas, sufficient land shall be made available through intensification and redevelopment and, if necessary, designated growth areas.....

The proposed combined use building with 150 residential units above commercial retail space represents a form of intensification and redevelopment that will help the City of Windsor meet the full range of current and future residential needs. Within this exiting settlement area, the site will provide for residential/commercial infill in the form of a new affordable housing choice and minor employment opportunities.

The amendments are consistent with Policy 1.1.1 and 1.1.2 of the PPS.

Policies 1.1.3.1, 1.1.3.2 and 1.1.3.3 of the PPS state:

"1.1.3.1 Settlement areas shall be the focus of growth and development, and their vitality and regeneration shall be promoted.

1.1.3.2 Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

a) efficiently use land and resources

b) are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;

e) support active transportation;

f) are transit-supportive, where transit is planned, exists or may be developed

1.1.3.3 Planning authorities shall identify appropriate locations and promote opportunities for intensification and redevelopment where this can be accommodated taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs."

1.1.3.4 Appropriate development standards should be promoted which facilitate intensification, redevelopment and compact form, while avoiding or mitigating risks to public health and safety.

1.1.3.6 New development taking place in designated growth areas should occur adjacent to the existing built-up area and should have a compact form, mix of uses and densities that allow for the efficient use of land, infrastructure and public service facilities.

The subject parcel is located within the settlement area. The requested amendments promote a land use that makes efficient use of land and existing infrastructure by permitting a mix of uses (commercial and multiple residential dwellings) on one site. Active transportation options such as bike lanes and transit services are located or planned adjacent to, or near, the subject lands. The subject location represents an appropriate location for intensification and redevelopment.

The construction of the proposed combined-use building will be built with a high standard of construction and will utilize modern building methods, which will conform to the Ontario Building Code concerning safety and energy efficiency. Through the development review process the building will be designed to address the Sandwich CIP Urban Design Guidelines. There will be no risk to the public as identified in the PRR, ESA, and TIS.

The proposed mixed-use development is located within the existing built-up well-established Sandwich Town neighbourhood and is considered a compact built form with commercial on the main floor and residential above. The proposed Eleven (11) storey

building allows for an efficient use of land utilizing existing infrastructure and public services.

The amendments are consistent with PPS Policies 1.1.3.1, 1.1.3.2, 1.1.3.3, 1.1.3.4, and 1.1.3.6.

Policy 1.3.2 Employment Areas states:

1.3.2.3 Within employment areas planned for industrial or manufacturing uses, planning authorities shall prohibit residential uses and prohibit or limit other sensitive land uses that are not ancillary to the primary employment uses in order to maintain land use compatibility.

Employment areas planned for industrial or manufacturing uses should include an appropriate transition to adjacent non-employment areas.

It is appropriate to recommend an OPA and ZBA to permit Multiple Dwelling Units in a Combined Use Building as an additional permitted use within the Industrial Land Use category for the following reasons:

- Most industrial uses within the Sandwich Town Neighbourhood are found on the west side of Sandwich Street and Sandwich Street provides an appropriate buffer.
- Part of the subject lands (3885 Sandwich Street, on Plan 40 (PIN 012580190) PT Lot 28 West Side; Corner; 050-170-09700-0000) located at the corner of Sandwich Street and Chappell Avenue was previously used for a commercial use for many years
- Part of the subject lands (3885 Sandwich Street, on Plan 40 (PIN 012580190) PT Lot 28 East Side; 050-170-09700-0000; and 0 Sandwich Street, Plan (PIN 012580193) 40S, PT Lot 27; Roll # 050-170-09800-0000) was previously used for residential purposes including a 6-family dwelling according to our records.
- The area is in transition and the property has remained vacant for at least fifteen (15) years where there has been no interest in redeveloping the subject lands for Industrial uses

1.3.2.4 Planning authorities may permit conversion of lands within employment areas to non-employment uses through a comprehensive review, only where it has been demonstrated that the land is not required for employment purposes over the long term and that there is a need for the conversion.

The conversion from Employment Lands is not being considered as part of a comprehensive review, but is a privately initiated transition.

1.3.2.5 Notwithstanding policy 1.3.2.4, and until the official plan review or update in policy 1.3.2.4 is undertaken and completed, lands within existing employment areas may be converted to a designation that permits non-employment uses provided the area has not been identified as provincially significant through a provincial plan exercise or as regionally significant by a regional economic development corporation working together with affected upper and single-tier municipalities and subject to the following:

a) there is an identified need for the conversion and the land is not required for employment purposes over the long term;

b) the proposed uses would not adversely affect the overall viability of the employment area; and

c) existing or planned infrastructure and public service facilities are available to accommodate the proposed uses.

Based on recent Provincial housing policies (*More Homes for Everyone*) related to increasing more affordable housing supply options there is an identified need to provide *Multiple Dwelling Units in a Combined Use Building* as an additional permitted use in the existing Industrial land use category in the City's Official Plan. The Site is not required for employment purposes over the long term for the following reasons:

- The size and location, and immediate adjacent residential and commercial uses make the site no longer appropriate or desirable for industrial uses. This is further supported by the fact that the subject site has remained vacant for over fifteen (15) years and to our knowledge, there has been no interest in developing the subject lands for an industrial use.

- The site is in an area of transition where the most adjacent land uses are residential and commercial and Sandwich Street provides a buffer from the industrial uses along the west side of Sandwich Street.

- The recommended OPA and ZBA to amend the Official Plan and Zoning By-law 8600 is consistent with the Official Plan.

- Section 1.1.4 of the City's Official Plan identified the transfer of lands from the Town of Tecumseh as being sufficient to accommodate Employment Land growth through the 20-year planning period.

- The proposed use will not adversely affect the overall viability of the employment area because as identified the site has been vacant for over fifteen (15) years and has not been pursued as being desirable for industrial uses based on our records. Any new employment can occur in nearby industrial areas. The recommended OPA and ZBA to permit a mixed used development as an additional permitted use within Industrial Land Use category will have a minor impact on the overall vacant Employment Land Inventory.

- Infrastructure and public service facilities are available to accommodate the proposed uses as identified through the required studies.

The amendments are consistent with PPS Policies 1.3.2.3; 1.3.2.4; and 1.3.2.5.

Policy 1.4 of the PPS states:

"1.4.1 To provide for an appropriate range and mix of housing types and densities required to meet projected requirements of current and future residents of the regional market area, planning authorities shall:

a. *maintain at all times the ability to accommodate residential growth for a minimum of 15 years through residential intensification and redevelopment and, if necessary, lands which are designated and available for residential* development; and

b. maintain at all times where new development is to occur, land with servicing capacity sufficient to provide at least a three-year supply of residential units available through lands suitably zoned to facilitate residential intensification and redevelopment, and land in draft approved and registered plans.

1.4.3 Planning authorities shall provide for an appropriate range and mix of housing types and densities to meet projected requirements of current and future residents of the regional market area by:

b. permitting and facilitating:

1. all forms of housing required to meet the social, health and well-being requirements of current and future residents, including special needs requirements; and

2. all forms of residential intensification, including second units, and redevelopment in accordance with policy 1.1.3.3;

c. directing the development of new housing towards locations where appropriate levels of infrastructure and public service facilities are or will be available to support current and projected needs;

d. promoting densities for new housing which efficiently use land, resources, infrastructure and public service facilities, and support the use of active transportation and transit in areas where it exists or is to be developed;"

The proposed combined use building (mixed-use) with 150 residential units above commercial retail space represents a form of intensification and redevelopment. It will facilitate the municipality's ability to accommodate residential growth through intensification and redevelopment, will provide a form of housing that is appropriate in terms of range and mix, and will meet the social, health and well being of current and future residents. Appropriate levels of infrastructure, active transportation (walking, bike lanes and bike parking), and transit are available or will be available and community amenities such as community centres and parks exist along the Sandwich Main Street/BIA and within the Sandwich Neighbourhood.

The amendments are consistent with PPS Policy 1.4.

Policy 1.6.1 of the PPS states:

1.6.1 Infrastructure and public service facilities shall be provided in an efficient manner that prepares for the impacts of a changing climate while accommodating projected needs.

As confirmed through comments form Public Works (Engineering & ROW) combined sanitary and storm sewers exist in the area and the development can connect to existing municipal services. As identified previously in the report Public transit is available via the Crosstown 2 and a secondary route along Sandwich Street in the area of the subject lands is proposed.

The amendments are consistent with PPS Policy 1.6

Policies 1.6.6 states:

1.6.6.2 Municipal sewage services and municipal water services are the preferred form of servicing for settlement areas to support protection of the environment and minimize potential risks to human health and safety. Within settlement areas with existing municipal sewage services and municipal water services, intensification and redevelopment shall be promoted wherever feasible to optimize the use of the services.

1.6.6.7 Planning for stormwater management shall:

a) be integrated with planning for sewage and water services and ensure that systems are optimized, feasible and financially viable over the long term;

b) minimize, or, where possible, prevent increases in contaminant loads;

c) minimize erosion and changes in water balance, and prepare for the impacts of a changing climate through the effective management of stormwater, including the use of green infrastructure;

d) mitigate risks to human health, safety, property and the environment;

e) maximize the extent and function of vegetative and pervious surfaces; and

f) promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.

Combined sanitary and storm sewers exist in the area and the development can connect to existing municipal services.

A FSR has been completed identifying no negative impacts on the municipal system and will not add to the capacity in a significant way. However, a sewer servicing study will be required for sanitary and storm. ERCA has concerns with the potential impact of the quantity and quality of runoff in the downstream watercourse due to the future development of the site. A storm water management plan is required at the time of Site Plan Control. The proposed development is an efficient use of existing infrastructure in an already built-up area of the city. These studies will also help address PPS 2.2.1 related to water quantity and quality.

An ESA was also completed to mitigate any risk to health and safety.

The amendments are consistent with PPS Policy 1.6.6 and 2.2.1

Policies 1.6.7 states:

1.6.7.1 Transportation systems should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.

1.6.7.2 Efficient use should be made of existing and planned infrastructure, including through the use of transportation demand management strategies, where feasible.

1.6.7.4 A land use pattern, density and mix of uses should be promoted that minimize the length and number of vehicle trips and support current and future use of transit and active transportation.

A TIS was provided by Baird AE and based on Transportation Planning's review requires a memo clarifying information related to minor changes to the preliminary site plan. In addition, due to the large deficiency in parking with respect to Zoning By-law 8600 a parking justification report was required. The Parking Justification Report was submitted on April 22, 2022. Transportation Planning reviewed the study but found some inaccuracies related to the interpretation of the parking requirements identified in Zoning By-law 8600. An updated memo regarding the TIS and a revised Parking Justification Report was submitted on May 25th, 2022.

The subject property is adjacent Sandwich Street (Class II Arterial in the Official Plan) and Chappell Avenue (local Road). There is sufficient width to accommodate the proposed development and no conveyance will be required.

The proposed development provides a good infill opportunity in an existing built-up area of the City and is an efficient use of the existing transportation network and provides the opportunity for additional ridership on the existing transit network. Active transportation options are proposed through the siting of sidewalks and bike lanes as part of a future Sandwich Street Road reconstruction project.

The amendments are consistent with PPS Policy 1.6.7.1, 1.6.7.2, and 1.6.7.4.

The proposed development can be appropriately designed and buffered via the implementation of the mitigation measures identified in the Acoustical Study and will not impact the long-term operation and economic role of the rail facilities. The rail corridor is within 300 metres from the proposed development. The amendments are consistent with PPS Policy 1.6.9.1.

Policies 3.0 states:

Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.

An Acoustical Report with mitigation measures and ESA have been completed identifying no natural or human-made hazards. However, the municipality will request a Class 4 area pursuant to Publication NPC-300 (MOECP Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning) to ensure that existing Industrial uses existing and future facility needs are not impacted by the proposed mixed-use development (residential/commercial).

The amendments are consistent with PPS Policy 3.0

Official Plan:

Relevant excerpts from the Official Plan are attached as Appendix F.

The subject property is located within the Sandwich Planning District, is designated Industrial on Schedule D: Land Use of the City of Windsor Official Plan, and is located within 300 metres of a Rail Corridor. We have circulated the Essex Terminal Railway. The Lou Romano Pollution Control Plant is over 500 metres away. Nevertheless, we have also circulated the Manager of the Lou Romano Pollution Control Plant.

Permitted uses in the Industrial designation include large physical sized facilities, outdoor storage of materials/products, multi-modal transportation facilities and service and repair facilities. Ancillary uses included open space, convenience stores and restaurants that serve employees in the industrial area, adult entertainment parlours, motor vehicle sales, club, athletic, and sports facilities, whole sale store, the sale of goods produced by an industrial use, and accessory to retail sale of building supplies and materials, home improvement products, and nursery products.

Notwithstanding the uses permitted in the Industrial designation (*Section 6.4.3.1 Industrial Policies*), the applicant is requesting a Site Specific Amendment to the City's Official Plan (OPA) to permit "mixed-use" as an additional permitted use within the Industrial designation.

Permitted uses in the Mixed Use designation include retail and service commercial establishments, offices, cultural, recreation and entertainment uses, and institutional, open space and residential uses, exclusive of small scale Low Profile residential development (Section 6.9.2.1). The proposed development is a combined-use building with retail commercial on the ground floor and residential uses above and is not defined as a small scale low profile residential development.

Section 3.2-Growth Concept in the City's Official Plan states that: "*Mixed use developments will be encouraged with strong pedestrian orientations and to support public transit. This concept will enable Windsor to continue its growth and foster a vibrant economy, while ensuring a safe, caring and diverse community and a sustainable, healthy environment*." The mixed use proposal with residential above ground floor commercial/retail space is pedestrian oriented and transit supported where bike lanes are proposed and supports the following Official Plan policies:

- *Neighbourhood Housing Variety* (3.2.1.2) --the proposal encourages a range of housing types where people will have an opportunity to live in their neighbourhoods as they pass through various stages of their lives;

- *Distinctive Neighbourhood Character* (3.2.1.3) --Newly developing areas will be planned to foster their own unique neighbourhood identities with a mixture of homes, amenities and services. The subject lands is in an area of transition and the proposal provides an opportunity for limited commercial with residential uses above that will be compatible with the Sandwich Town neighbouhood;

- Transportation System (3.2.3.1) – the intent is to construct a mixed use development with an affordable housing choice with the target market aimed at

commuters working in Michigan and living in Windsor, as well as students attending the University of Windsor. This development helps Windsor achieve this goal of a more sustainable transportation system where businesses and services can be closer to home and all modes of transportation can play a more balanced role by providing opportunities for walking, cycling and transit.

The proposed development helps Council achieve the following land use goals because the proposal provides for an affordable residential infill opportunity on land that is in transition and has sat vacant for over fifteen (15) years and pedestrian oriented:

6.1.1 Safe, caring and diverse neighbourhoods

6.1.3 Housing suited to the needs of Windsor's residents.

6.1.10 Pedestrian oriented clusters of residential, commercial, employment and institutional uses.

In keeping with the Section 6.2.1.2-General Policies in the Official Plan the proposed mixed-us development is considered a High Profile development which is eleven (11) stories in height.

The PRR highlights how the proposed site specific OPA for the 'mixed use' proposal is in keeping with the Section 6.4 –Employment in the Official plan and is compatible in within this "Industrial" designation, which is also adjacent to other commercial and residential uses. The commercial uses located on the first floor will provide some employment opportunities and services to the surrounding industrial and residential uses. Infrastructure and public services are available to accommodate the proposed uses. The site is within an area of transition and has sat vacant for more than fifteen (15) years, where no industrial uses have been proposed for this site on record. The proposed development also satisfied the following objectives:

Section 6.4.1.3-*Compatible Development*—the expansion of commercial on the ground floor is compatible with the Tim Horton commercial use to the south and can provide services to the residential uses to the east and north, as well as provide services to the industrial uses to the west.

Section 6.4.1.4—*Range of Uses*—the commercial/retail will provide local convenience to the area.

Section 6.4.1.6—*Accessible*—the proposed development provided convenient access to all modes of transportation uses such as automobile (provides parking), bicycle (bike parking and bike lanes), pedestrians (sidewalks) and is in close proximity to existing and future transit services.

Section 6.4.1.8—Infrastructure—the site has full access to municipal services

The existing designation is "Industrial" the applicant is requesting a Site Specific Amendment to the Official Plan to include "Mixed-Use" as an additional permitted use. As identified in PRR the proposal is consistent with the following Mixed Use policies identified in Section 6.9 of the City's Official Plan:

Section 6.9.1.1—*Multi-Functional Area*—the proposal will provide residential and commercial uses and help service the proposed and existing residential and industrial uses in the area.

Section 6.9.1.2—*Compact Form*—the proposal will provide mixed use and compact given the size of the site.

Section 6.9.2.1—*Permitted Uses*—the proposal will provide commercial with residential uses on the site.

Section 6.9.2.3 states that mixed use development shall be located where there is access to a Class II Arterial Road or a Class I Collector Road, full municipal services can be provided, public transportation can be provided and the surrounding development pattern is compatible with the proposed development.

The parcel is located at the intersection of a Class II Arterial Road (Sandwich Street) and a Local Road (Chappell Avenue). Full municipal services are available and matters such as storm and sanitary sewer capacity will be further reviewed during site plan control. The site is adjacent to three bus routes and additional bus routes are located with 500 m. The parcel is located at the corner of one major road (the Sandwich Street Corridor) and is large enough to accommodate the proposed development in a manner that is compatible with the surrounding development pattern.

Public transit is available via the Crosstown 2. The closest bus stop to the subject lands is located on Prince Road at the southeast corner of Peter Street and is within 500 metres from the subject lands. However, according to comments provided by Transit Windsor the Council approved Transit Master Plan will introduce a new secondary route along Sandwich Street in the area of the subject lands and will likely site a bus stop on Sandwich Street at Chappell Avenue, thereby providing a direct service to the proposed development. As part of the Sandwich Street Reconstruction Project new bike lanes are proposed on the west and east sides of Sandwich Street between Chappell Street and Hill Avenue. The UDB and preliminary Site Plan illustrates the location and siting of the building.

Section 6.9.2.4 lists criteria to be used in evaluating a mixed use development. The Acoustical Report and PRR submitted by the applicant conclude that with appropriate mitigation measures and the requested Official Plan Amendment, the proposed development is feasible despite being close to road and rail noise sources and a number of stationary noise sources. The subject lands are located within the 300 metre buffer area as identified in Section 7.2.8.8 (a)-*Development Adjacent to a Corridor*. However, the subject lands are beyond the 75 metre buffer area identified for development adjacent a Rail Corridor in Section 7.2.8.8 (b) of the Official Plan.

In addition, the criteria identified in Section 6.9.2.4 is feasible for the following reasons:

- Full municipal services can be provided. A functional FSR for storm and sanitary was provided by Baird/AE and because of the potential impact of the quality and quantity of run-off a Storm Water Management Plan will be required at the time of Site Plan Control.

- The applicant submitted a Traffic Impact Study (TIS). Based on Transportation Planning's review a memo clarifying information related to minor changes to the preliminary site plan is required. In addition, due to the large deficiency in parking with respect to Zoning By-law 8600 a parking study was required. The Parking Justification Report was submitted on April 22, 2022. Transportation Planning reviewed the study but found some inaccuracies related to the interpretation of the parking requirements identified in Zoning By-law 8600. An updated memo regarding the TIS and a revised Parking Justification Report was submitted on May 25th, 2022.

- The siting of the building located at the corner of Sandwich Street and Chappell Avenue provides pedestrian access and is pedestrian oriented. The UDB provides renderings highlighting the pedestrian oriented entrances and ground floor of the building. Through the Site Plan Control process, further attention will be given to the importance of pedestrian oriented entranceways to the building and site.

- Although the proposal is significantly taller than adjacent buildings, there are other tall or higher profile buildings in the Sandwich Neighbourhood and the building has been sited/oriented along the Sandwich Street corridor and setback from lower profile residential development. The UDB provides renderings that use materials (i.e. brick, steel, glass,) and colours found within the Sandwich Neighbourhood. Through the Site Plan Control process, the proposal will be further refined to be compatible with the neighbourhood and address the Sandwich Community Improvement Plan (CIP) Urban Design Guidelines.

Section 6.9.2.5 lists guidelines when evaluating a proposed design. The proposal will be further be evaluated through the Site Plan Control process to determine how the proposal addresses Section 8, Urban Design of the City's Official Plan and how the mass, scale, orientation, form, and siting of the development achieves a compact urban form and a pedestrian friendly environment. The UDB and number of residential units (150) with commercial units provides evidence of a compact urban form and pedestrian friendly environment.

Section 7.2.8.8 (a) requires the completion of a noise study for new development within 300 metres of a rail corridor. The noise study shall identify and recommend appropriate mitigation measures, if needed. Section 7.2.8.8 (b) requires the completion of a vibration study for new development within 75 metres of a rail corridor. The vibration study shall identify and recommend appropriate mitigation measures, if needed. The proposal is within 300 metres of the Essex Terminal Railway rail corridor. However, not within 75 metres of the rail corridor.

The matter of noise and vibration were discussed under PPS Policy 1.6.9.1. The Acoustical Report satisfies Section 7.2.8.8 (a) and Section 7.2.8.8 (b).

The PRR states that an Acoustical Report was prepared for the Site to address sensitive land uses (rail, road, and noise from nearby industrial uses) and recommendations were made in the report to provide mitigation measures such as warning clauses, and minimum sound transmission class (STC) for windows, doors, and walls leading to sensitive living areas. The Planning Department concurs with the

mitigation measures identified in the Acoustical Report and PRR. However, the municipality will also requests a Class 4 area designation pursuant to Publication NPC-300 (MOECP Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning) to ensure that existing Industrial uses existing and future facility needs are not impacted by the proposed mixed-use development (residential/commercial)

As previously stated, the applicant submitted an UDB with renderings that use materials (i.e. brick, steel, glass,) and colours found within the Sandwich Neighbourhood. Through the Site Plan Control process, the proposal will be further refined to be compatible with the neighbourhood, address the Sandwich CIP Urban Design Guidelines, and Section 8-Urban Design of the City's Official Plan.

When Official Plan Amendment 152 is approved, the requested zoning amendment will conform to the Zoning By-law Amendment Policies identified in Section 11.6.3.1—*Amendment Must Conform* and 11.6.3.3—*Evaluation Criteria*, of the Official Plan and conform to the general direction of the Official Plan.

Zoning By-Law:

Relevant excerpts from Zoning By-law 8600 are attached as Appendix G.

The applicant requested the following amendments:

- From Manufacturing District 1.4 (MD1.4) to Commercial District 2.1 (CD2.1) zoning category for the property municipal known as 0 Sandwich Street;
- From a Development Reserve Residential District 1.1 (DRD 1.1) to Commercial District 2.1 (CD2.1) zoning category for Lot 28 East Side on Registered Plan 40 (PIN 012580190) known municipally as 3885 Sandwich Street situated north of the northeast corner of Sandwich Street; and
- A Site Specific Amendments to the Commercial District 2.1 (CD2.1) zoning category for all subject lands concerning a decrease in the minimum parking spaces required from 216 spaces to 156 spaces.
- A Site Specific Amendment resulting in an increase in the maximum building height from 14.0 metres to a total of 37 metres.

Regarding the Building Height there are some concerns based on renderings and the UDB related to the height of the ground floor based on the height of the residential storeys. Typically, the ground floor commercial storey is taller then residential storeys to give the building a sense of presence and to provide for a more pedestrian environment. This detail can be worked out through the Site Plan Control process.

The mitigation measures identified in the Noise Study and the various requirements of municipal departments and external agencies will be implemented and/or incorporated through the site plan review process.

Risk Analysis:

N/A

Climate Change Risks

Climate Change Mitigation:

The redevelopment of the subject site contributes to the revitalization of the Sandwich Town Neighbourhood. The new development is compact and provides multifamily residential units, promotes walking and other alternative modes of transportation, thereby contributing to a complete community. The construction of the new building will utilize modern building methods, which will conform to the Ontario Building Code concerning safety and energy efficiency.

Utilizing an existing site in a built-up area of the City also promotes efficiency on the existing infrastructure network by not promoting development on greenfield land.

Climate Change Adaptation:

As temperatures increase and when considering the Urban Heat Island effect for the City of Windsor, the property does not appear to be located within a Heat Vulnerability area. However, the rehabilitation of the existing site and construction of the new building will utilize modern building methods, which will conform to the Ontario Building Code concerning energy efficiency.

Financial Matters:

Once the development is complete and the subject property reassessed the development will increase the tax assessment on the property. The applicant has also applied for grants through the Sandwich CIP. This Report will be sent to the Committee and Council on a future agenda.

Consultations:

Comments received from municipal departments and external agencies are attached as Appendix H Existing and Surrounding Photos are attached as Appendix A. The Planning Department noted some minor gaps in the Planning Rational Report (PRR) submitted November 30th, 2002, as a result of changes to the Preliminary Site Plan. Pillon Abbs Inc. submitted a revised PRR dated on May 25th, 2022 that satisfies the requirements of the Planning Department.

BairdAE and Transportation Planning have discussed providing a memo to clarify information in the Traffic Impact Study (TIS) and a revised Parking Justification Report (PJR) will be submitted for review by municipal staff. An updated memo regarding the TIS and a revised Parking Justification Report was submitted on May 25th. 2022. Measures identified in the TIS will be considered during Site Plan Review.

The various requirements of municipal departments and external agencies will be considered and/or incorporated during the Site Plan Review.

On behalf of the owners, Tunio Development, Pillon Abbs Inc. hosted a virtual Public Open House held on Thursday December 16th, 2021, from 6:00PM to 7:00PM. This public open house was held in addition to the statutory public meeting required under the Ontario Planning Act. Surrounding landowners, which included owners of industrial, commercial, and residential uses, were sent the public notice via Canada Post. The Sandwich Town BIA and Ward Councillor were also sent the notice of the

virtual Public Open House. A total of 50 properties were provided notice, which represents 120 m radius of the Site.

In addition to City of Windsor Staff, Ward 1 Councillor, Planning Consultant, BIA Representative, Developer, and Architect a total of one (1) person from the public attended. The open house provided members of the public with opportunities to review and comment on the proposed development. Overall, the proposed development was supported. The following topics were discussed:

Fencing- there is existing fencing along the residential properties that front onto Peter Street. The owner of the adjacent property would like it to remain due to concerns from vandalism that occurred in the past. Through the Site Plan Control process the developer will work with the City on the final deign, style, and material used for new fencing.

Garbage-concerns regarding garbage being left on the subject property. Through the Site Plan Control process, the location for garbage enclosures will be provided on site.

Commercial Uses—The BIA enquired about the size of commercial and residential space and their willingness to help the developer identify commercial uses. The BIA suggested a grocery store as a use for the commercial space. The staff Planner will review the CD2.1 zoning to limit commercial uses that may negatively impact the BIA area and Sandwich Town Main Street.

Road Improvements—The developer discussed future road improvements, bike lanes and parking spaces being included on the concept plan.

Public Notice: The Statutory notice was advertised in the Windsor Star (a local daily newspaper) on Friday, May 13th, 2022. A courtesy notice was mailed to property owners and residents within 120m of the subject lands.

Planner's Opinion:

The *Planning Act* requires that a decision of Council in respect of the exercise of any authority that affects a planning matter, *"shall be consistent with"* Provincial Policy Statement 2020. The requested official plan and zoning amendments have been evaluated for consistency with the Provincial Policy Statement 2020 and conformity with the policies of the City of Windsor Official Plan.

Based on the information presented in this report, it is my opinion that the requested amendment to the City of Windsor Official Plan, to permit uses permitted under Section 6.9.2.1 as additional permitted uses such as retail, service commercial, offices, cultural, recreation and entertainment uses, and institutional, open space and residential uses, exclusive of small scale Low Profile residential development, within 300 m of a rail yard, is consistent with the PPS 2020 and is in conformity with the City of Windsor Official Plan when the mitigation measures identified in the Acoustical Report are implemented during site plan review.

The requested amendment to Zoning By-law 8600 is consistent with PPS 2020 and will be in conformity with the City of Windsor Official Plan when OPA 152 is approved.

A *Multiple Dwelling* and *Dwelling Units in a Combined Use Building* is compatible with existing and permitted uses on the subject parcel and with the surrounding neighbourhood. The mitigation measures identified in the Acoustical Report shall be implemented during the site plan review process.

Conclusion:

It is recommended that Official Plan Amendment 152 adding a site specific policy to the City of Windsor Official Plan and that an amendment to Zoning By-law 8600 changing the zoning of the subject lands from MD1.4, DRD1.1, and CD2.1, to CD2.1 with site specific provisions to allow the construction of a *Combined Use Building*, be approved.

Planning Act Matters:

Kevin Alexander, MCIP, RPP

Senior Planner – Special Projects

I concur with the above comments and opinion of the Registered Professional Planner.

Neil Robertson, MCIP, RPP — Thom Hunt, MCIP, RPP

Manager of Urban Design — City Planner

I am not a registered Planner and have reviewed as a Corporate Team Leader

JP *SAH*

Approvals:

Name	Title
Neil Robertson	Manager of Urban Design / Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Dana Paladino	Acting, Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Chief Administrative Officer (A)

Notifications:

Name	Address	Email
Denis Demoulin		dumoulindenis1@gmail.com
Tunio Development		Khurramtunio@yahoo.com
Pillon Abbs Inc.		tpillonabbs@gmail.com
Adam Meloche BAIRD/AE		AMeloche@bairdae.ca
Shurjeel Tunio BAIRD/AE		stunio@bairdae.ca
Thomas Coke, Coordinator, Sandwich Town BIA		tc_35@hotmail.com
Mary Ann Cuderman, Chair, Sandwich Town BIA		macuderman@hotmail.com
Councillor Costante		fcostante@citywindsor.ca
Property owners and residents within 120 m of the subject lands		

Appendices:

1 Appendix A - Existing and Surrounding Land Uses
2 Appendix B - Preliminary Site Plan
3 Appendix C - 3D Renderings
4 Appendix D - Planning Rational Report
5 Appendix E - Excerpts from the PPS
6 Appendix F - Excerpts from the Official Plan
7 Appendix G - Excerpts from Zoning By-law 8600
8 Appendix H - Results of Department and Agencies Circulation
9 Appendix I - Draft By-Law Amendment
10 Appendix J - Acoustical Report
11 Appendix K - Functional Servicing Report
12 Appendix L - Urban Design Brief
13 Appendix M - Geotechnical Investigation

APPENDIX ‘A’

EXISTING & SURROUNDING LAND USES

NEIGHBOURHOOD MAP - Z-028/21, ZNG-6503 & OPA 152, OPA-6504

SUBJECT LANDS

APPLICANT: TUNIO DEVELOPMENT

ADDRESS: 0 & 3885 SANDWICH STREET

APPENDIX ‘A’

EXISTING & SURROUNDING LAND USES

Subject Lands: Looking East at 3885 and 0 SANDWICH STREET

Subject Lands: Looking North along Chappell Avenue

APPENDIX ‘A’

EXISTING & SURROUNDING LAND USES

SURROUNDING USES: Looking North

SURROUNDING USES: Residential uses Looking Southeast

APPENDIX ‘A’

EXISTING & SURROUNDING LAND USES

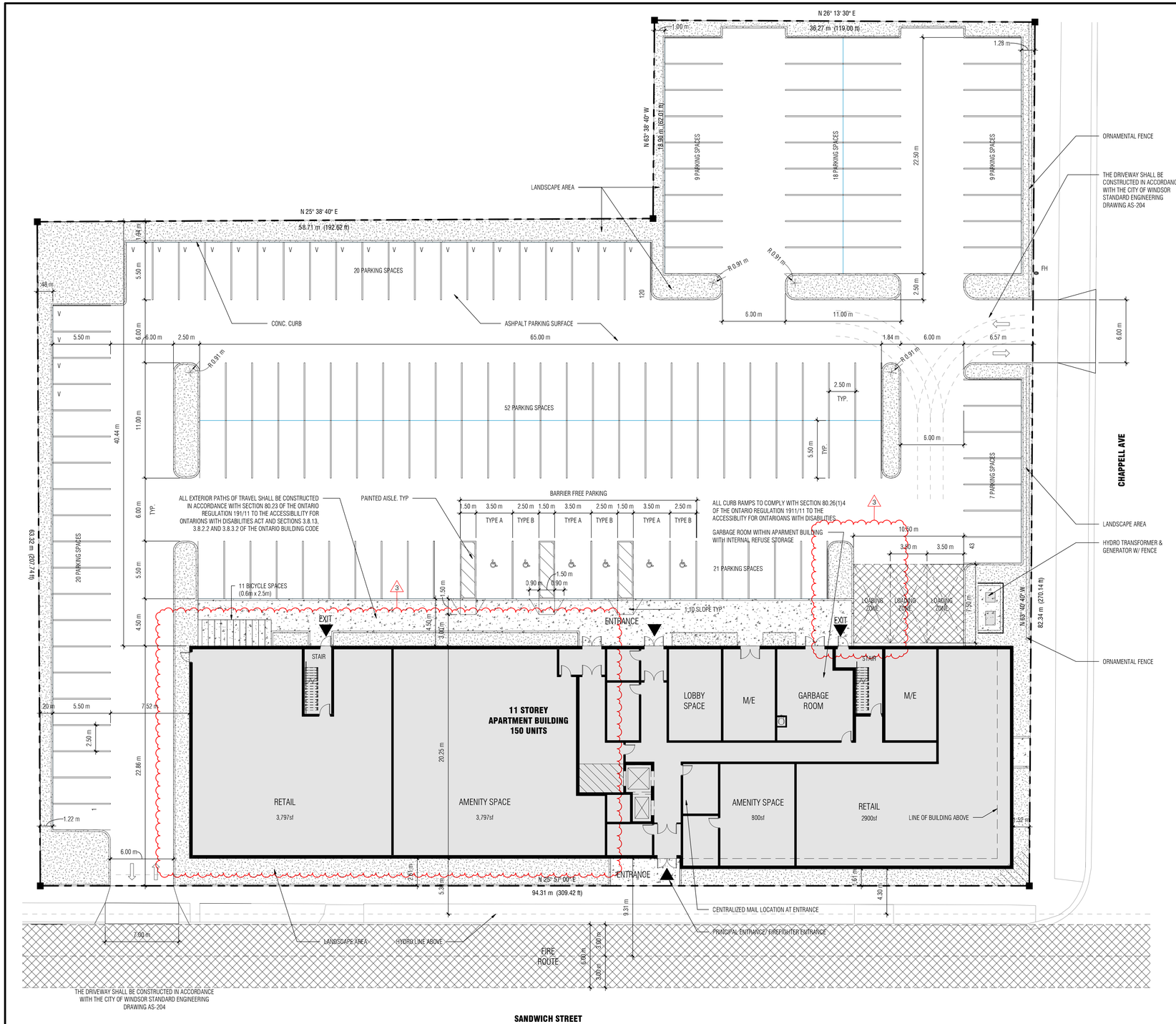
SURROUNDING USE: Commercial use Looking South

SURROUNDING USE: Looking West

APPENDIX ‘A’

EXISTING & SURROUNDING LAND USES

SURROUNDING USE: Looking Northwest



SITE DATA MATRIX					OBC REFERENCE
PROJECT DESCRIPTION: 11 STOREY MULTI UNIT RESIDENTIAL BUILDING 150 RESIDENTIAL UNITS		☒ NEW ☐ ADDITION ☐ ALTERATION ☐ CHANGE OF USE			☒ PART 3 ☐ PART 9 ☐ PART 11
ZONING DESIGNATION:	CD2.1				
MAJOR OCCUPANCY:	RESIDENTIAL				
BUILDING CLASSIFICATION:	GROUP C				
SITE AREA		**BUILDING AREA**		**GROSS AREA**	
EXISTING:	6,694m²	EXISTING:	N/A	EXISTING:	N/A
PROPOSED:	6,694m²	PROPOSED:	1,622m²	PROPOSED:	19,122.04m²
TOTAL:	6,694m²	TOTAL:	1,622m²	TOTAL:	19,122.04m²
LOT COVERAGE		**MINUMUM LOT WIDTH**		**BUILDING HEIGHT**	
MAXIMUM:	N/A	REQUIRED:	N/A	MAXIMUM:	14m
PROVIDED:	1,623m²	PROVIDED:	94.8m	PROVIDED:	37m
MINIMUM FRONT YARD DEPTH		**MINIMUM REAR YARD DEPTH**		**MINIMUM SIDE YARD DEPTH**	
MAXIMUM:	N/A	REQUIRED:	N/A	MAXIMUM:	N/A
PROVIDED:	1.61m	PROVIDED:	40.44m	PROVIDED:	1.52m
PARKING		**BICYCLE SPACES**		**LOADING SPACES**	
USE CLASSIFICATION		EXISTING:	0	EXISTING:	0
EXISTING:	0	PROPOSED:	11	PROPOSED:	3
PROPOSED:	156 (6 BF, 3 TYPE A & 3 TYPE B) 1.04 RATIO	REQUIRED:	11	REQUIRED:	3
REQUIRED:	188 (6 BF, 3 TYPE A & 3 TYPE B) 1.25 RATIO	TOTAL:	11	TOTAL:	3
TOTAL:	156 (6 BF, 3 TYPE A & 3 TYPE B) 1.04 RATIO				
LANDSCAPE AREA		**AMENITY SPACE**		**SCREENING FENCE LENGTH**	
EXISTING:	N/A	REQUIRED:	900m2	EXISTING:	N/A
PROPOSED:	868m²	PROPOSED:	1294m2	PROPOSED:	N/A
TOTAL:	868.56m²	TOTAL:	N/A	TOTAL:	N/A

NOTE:

1. ALL EXTERIOR PATHS OF TRAVEL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 80.23 OF ONTARIO REGULATIO 191/11 TO THE ACCESSIBILITY FOR ONTARIONS WITH DISABILITIES ACT AND SECTIONS 3.8.1.3 AND 3.8.3.2 OF THE ONTARIO BUILDING CODE

2. ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 80.26(1) OF THE ONTARIO REGULATION 191/11 TO THE ACCESSIBILITY FOR ONTARIOANS WITH DISABILITIES ACT AND SECTION 3.8.3.18 OF THE ONTARIO BUILDING CODE.

1 SITE PLAN (A3) SP-1
1/16" = 1'-0"

GENERAL NOTES::

1. This drawing is NOT to be scaled.
2. This drawing, as an instrument of service, is provided by and is the property of Baird AE Engineers Planners Architects
3. The contractor must verify and accept responsibility for all dimensions and conditions on site and must notify Baird AE of any variation from the supplied information.
4. This discipline is not responsible for the accuracy of survey, and the other disciplines information shown on this drawing. Refer to the appropriate consultant's drawings before proceeding with the work.
5. Construction must conform to all applicable codes and requirements of authorities having jurisdiction.
6. The contractor working from drawings not specifically marked 'For Construction' must assume full responsibility and bear costs for any corrections or damages resulting from his work.

BAIRD|AE architecture + engineering
102 - 27 Princess Street
Leamington ON N8H 2X8
1000 - 267 Pelissier Street
Windsor ON N9A 4K4
A DIVISION OF MATTHEW J. BAIRD CONSULTING SERVICES INC.
PARTNER / CONSULTANTS

No.	Description	Date
3	SITE REVISIONS 2	22.05.25
2	SITE REVISIONS	21.06.06
1	ISSUED FOR OPA/ZBA/SPC	20.11.09

Revision Schedule

SEAL

ONTARIO ASSOCIATION OF ARCHITECTS PAUL WEIDL LICENCE 7289

PROJECT TITLE
MIXED-USE DEVELOPMENT
SANDWICH ST, WINDSOR ON

SHEET TITLE
SITE PLAN

JOB NUMBER 20-028

SHEET NUMBER
SP-1
2022-05-25 3:23:07 PM

20-028 - Mixed Use Development Sandwich St_detailed.vt

APPENDIX ‘C’

3D RENDERINGS

APPENDIX ‘C’

3D RENDERINGS

APPENDIX ‘C’

3D RENDERINGS

APPENDIX ‘C’

3D RENDERINGS

APPENDIX ‘C’

3D RENDERINGS

APPENDIX ‘C’

3D RENDERINGS

APPENDIX ‘C’

3D RENDERINGS

PLANNING RATIONALE REPORT

OFFICIAL PLAN AND ZONING BY-LAW AMENDMENT
PROPOSED MIXED-USE DEVELOPMENT

0 and 3885 Sandwich Street

City of Windsor, Ontario

May 25, 2022

AS REVISED

Prepared by:

Tracey Pillon-Abbs, RPP
Principal Planner
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Chatham, ON N7M 5J7
226-340-1232
tpillonabbs@gmail.com
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Table of Content

1.0 INTRODUCTION

I have been retained by the owner/applicant, Khurram Tunio (Tunio Development Inc.), to provide a land use Planning Rationale Report (PRR) in support of a proposed mixed-use development located at 0 Sandwich Street and 3885 Sandwich Street (herein the "Site") in the City of Windsor, Ontario.

The purpose of this report is to review the relevant land use documents, including Provincial Policy Statement (PPS) 2020, the City of Windsor Official Plan (OP) and the City of Windsor Zoning By-law (ZBL).

The Site is currently vacant and is in an area of transition whereby fewer industrial activities are occurring, which is creating an attractive area for a small commercial node with residential uses.

It is proposed to use the Site for mixed use with commercial on the main floor and residential above.

The proposed commercial will provide for employment opportunities.

The residential uses will offer a new housing choice in the area, which will be constructed to be affordable with a target market for international commuters working in Michigan and living in Windsor as well as students attending the University of Windsor.

It is proposed to construct an eleven (11) storey combined use building with one-hundred and fifty (150) affordable residential units above in the tenure form of rentals and condominiums. The total commercial space proposed is 622.17 m2. Parking for 156 spaces is proposed to be located on-site to serve both the commercial and residential uses. The development is expected to be completed in 2022.

The proposal adheres to the design direction of the Old Sandwich Town Community Improvement Plan (CIP).

A site specific Official Plan Amendment (OPA) and site specific Zoning By-law Amendment (ZBA) is required in support of the proposed development.

Exemption from the provisions of Interim Control By-law 103/2020 is also requested.

Once the OPA and ZBA have been approved, the applicant will proceed with a Site Plan Control (SPC) Application and a Plan of Condominium Application.

Pre-submission was completed by the applicant (City File #PS-031/20) in addition to a meeting with City Administration on March 23, 2021. Comments were received and have been incorporated into this PRR.

This PRR will show that the proposed development is suitable intensification of affordable residential with commercial use, is consistent with the PPS, conforms to the intent and purpose of the City of Windsor OP and represents good planning.

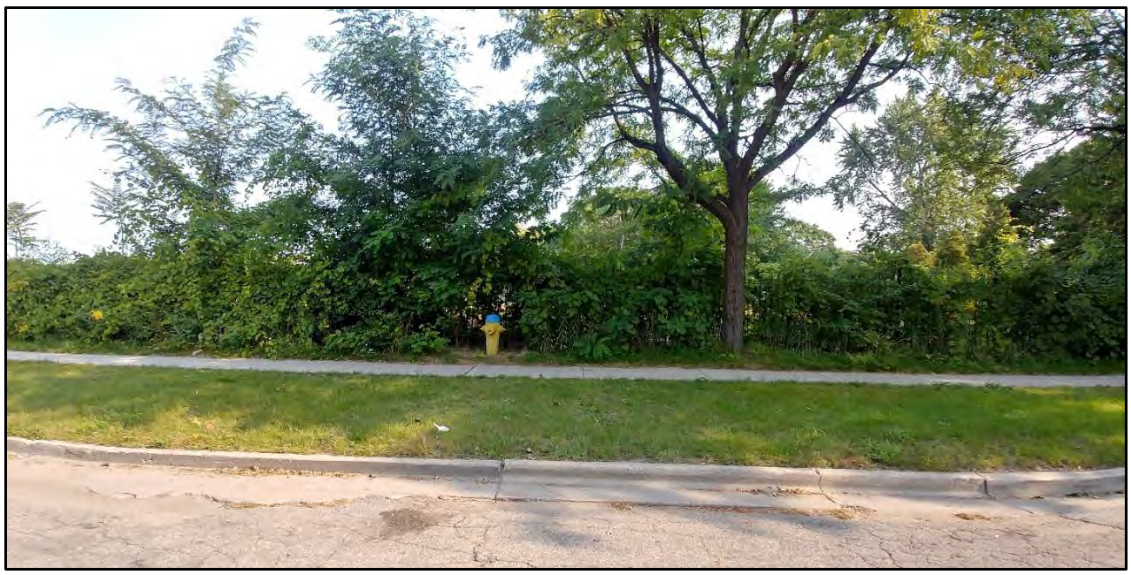
2.0 SITE AND SURROUNDING LAND USES

2.1 Legal Description and Ownership

The Site is owned by Khurram Tunio (Tunio Development Inc.) and made up of two (2) parcels located on a corner, on the north side of Chappell Avenue and the east side of Sandwich Street (see Figures 1a – Site Location, Street View 1a – Sandwich Street and Street View 1b – Chappell Street).

Figure 1a – Site Location

Street View 1a – Sandwich Street



Street View 1b – Chappell Street

The 2 properties are legally described as Plan 40 PT Lot 28 East Side; & Pt Lot 28 West Side; Corner (ARN 050-170-09700-0000).

The Site located at 3885 Sandwich Street was first developed in approximately 1903 for use as a hotel and restaurant. The building was used as a restaurant, tavern, and hotel for the entirety of its 103-year lifespan, suffering one major fire in 1977 and another major fire in 2006. The building was demolished in 2006.

A residential house was identified at 0 Sandwich Street since (at least) 1924; the house was demolished by 1987.

2.2 Physical Features of the Site

2.2.1 Size and Site Dimension

The Site consists of a total area of approximately 6,694 m2 with 82.34 m of frontage on the north side of Chappell Avenue and a depth of 94.31 m on east side of Sandwich Street.

The Site is an irregularly shaped corner lot.

2.2.2 Existing Structures

The Site is currently vacant. There is an electric sign on the Site, which will be removed.

2.2.3 Vegetation and Soil

There are no mature trees on the Site other than some existing hedgerows along the fence line. Soil type is Burford Loam (Bg).

2.2.4 Topography

The Site is level and is outside the regulated area of the Essex Region Conservation Authority (ERCA).

2.2.5 Other Physical Features

The property currently has three driveways, sidewalks and a parking area left from the previous uses. Abutting land uses are buffered with existing fencing.

2.2.6 Municipal Services

The property has access to municipal water, storm and sanitary services.

Streetlights are located on the east side of Sandwich Street and the south side of Chappell Avenue.

There are existing on-street parking spaces on Chappell Street.

The City of Windsor is proposing new bike lanes and parking spaces on the west side of Sandwich Street between Chappell Street and Hill Avenue as part of the Sandwich Street Reconstruction Project (see Figure 1b – Proposed Improvements).

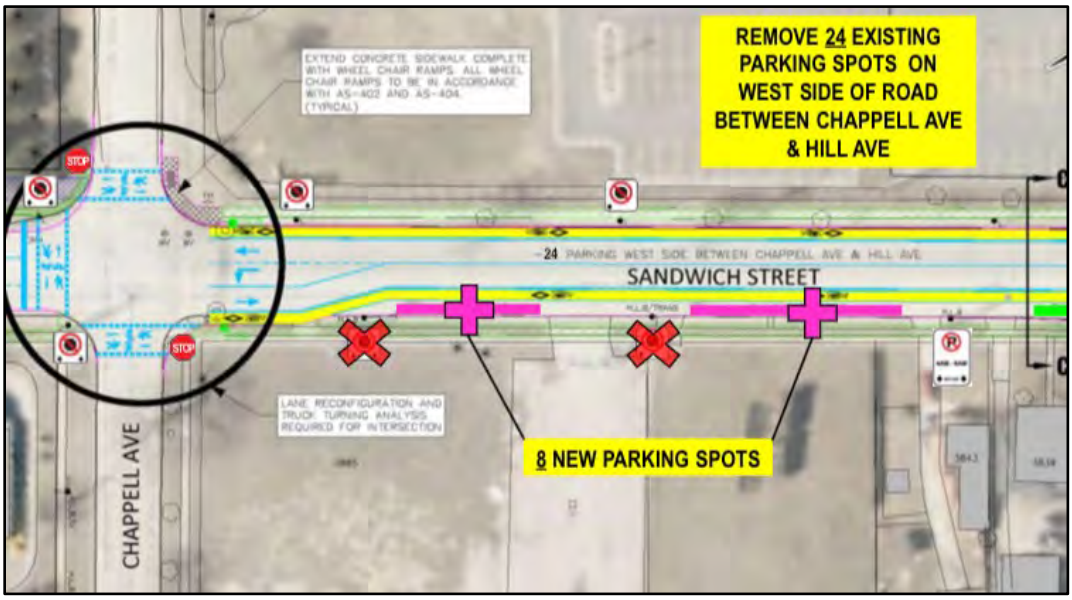


Figure 1b – Proposed Improvements

Sandwich Street is a two-lane urban north-south arterial roadway with posted speed limit of 50 km/h at the close proximity to the development. The road turns into Ojibway parkway 500m west of the development with a speed limit of 70km/h.

Chappell Street is an east-west two lane local roadway extending from Peter Street to Russell Street. It has a posted 50 km/h speed limit, with on-street parking permitted on both sides. It is stop controlled on its approach to the intersection with Sandwich Street.

The Site is in close proximity to major roadways, including Highway 3 to the northeast and Highway 401 to the south.

The Site has access to transit with the closest bus stop on Prince Road at Peter Street (Route 2).

The Site is located approximately 600 m from the Lou Romano Water Reclamation Plant.

2.2.7 Nearby Amenities

There are several schools nearby, including General Brock Public School and Marlborough Public School.

There are many parks and recreation opportunities in close proximity to the Site, including Mic Mac Park, Novelletto Rosati Sports and Recreation Complex and Black Oak Heritage Park.

There is nearby shopping in the form of plazas and malls as well as employment, places of worship and local/regional amenities.

2.3 Surrounding Land Uses

Overall, the Site is located within an existing mixed-use area.

North – The lands directly north of the Site are used for low density residential (see Photo 1 - North). Those dwellings are located along Sandwich Street.

Photo 1 - North

South – The lands directly south of the Site are used for low density residential (see Photo 2a and 2b - South). Those dwellings are located along Chappell Avenue. Tim Hortons is located to the west, at the corner.

Photo 2a - South

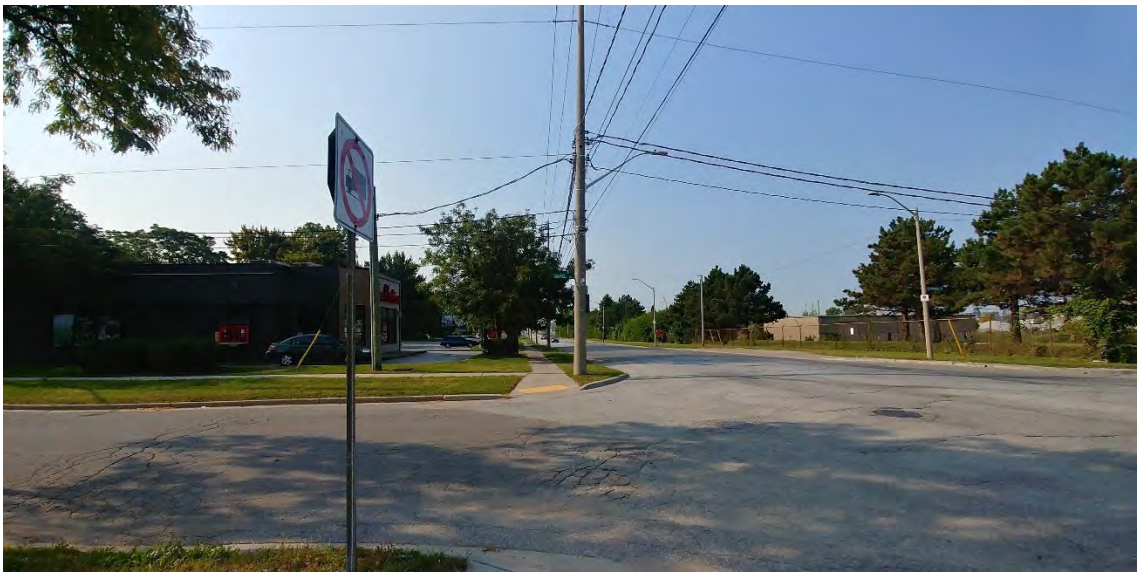


Photo 2b - South

East – The lands east of the Site are used for low density residential (see Photo 3 - East). Those dwellings back onto the Site and are located on Peter Street.

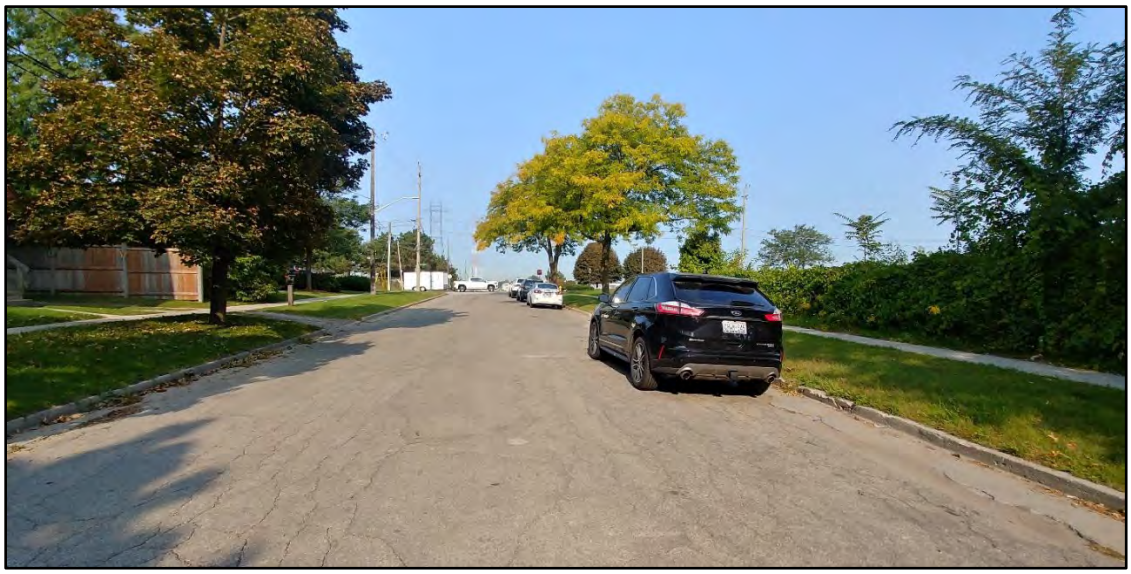


Photo 3 - East

West – The lands west of the Site are used for commercia/industrial (see Photo 4 - West). Those properties are located along Sandwich Street and across from the Site.

Photo 4 - West

3.0 DEVELOPMENT PROPOSAL

3.1 Proposal

The applicant proposes to develop the Site for mixed-use purposes.

The Site is in an area of transition whereby fewer industrial activities are occurring in the area, which is creating an attractive area for a small commercial node with residential uses.

Through the use of materials that play homage to the sandwich heritage conservation district, the proposal aims to build the link between the southern gateway and the established commercial core. Attention was given to the residential and commercial entrances to establish a pedestrian scale through architectural features and landscape interventions.

The intent is to construct a combined use building with commercial on the main floor and residential above. The proposed commercial will provide for employment opportunities.

The proposed residential use will provide an affordable housing choice with a target market for international commuters working in Michigan and living in Windsor as well as students attending the University of Windsor.

A Concept Plan has been prepared by BairdAE architect and engineering, dated May 25, 2022 (see Figure 2a – Concept Plan).

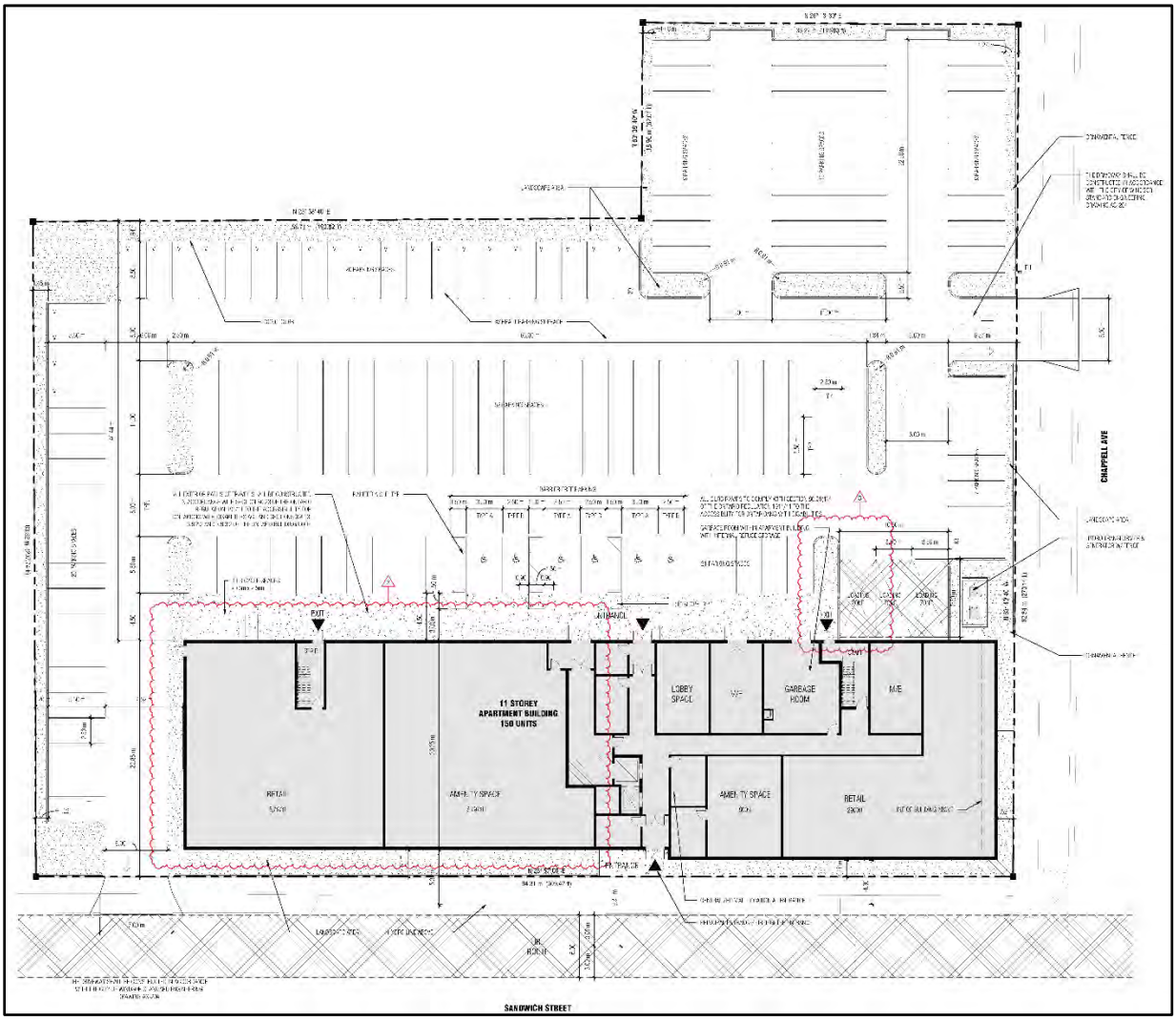


Figure 2a – Concept Plan

The proposed building will provide for 150 residential units with 70 single bedroom units and 80 double bedroom units on floors 2 to 11. There will be 15 units located on each floor. Unit sizes will range from 54.16 m2 to 98.1 m2.

Two retail spaces are provided for a total area of 622.17 m2. One space is proposed to be 352.75 m2, and the second is proposed to be 269.42 m2.

The total building area is proposed to be 1,622 m2 which will result in a proposed lot coverage of 24.23%. The proposed total net density is 224.21 units/ha. The proposed setback from Sandwich Street is 4.30 m and from Chappell Avenue is 1.52 m.

The building will be 11 storeys and 37 m in height and will face Sandwich Street (see Figure 2b – Elevation).

Figure 2b - Elevation

Entrances to the residential units will be from the east and west of the proposed building into a common hallway.

Both commercial spaces will have pedestrian entrances from the lobby in addition to access from Chappell Ave and the east side of the building and will be visible from the street level.

The lobby space, centralized mail, elevator, garbage room and the mechanical room will be located on the main floor.

Amenity space for the residential dwellings includes outdoor seating and a 1,294 m2 main floor common area. Private balconies will also be provided.

The Site will be landscaped with key features such as trees along the side of the building and buffering around the parking area.

A total of 3 loading spaces are proposed to be located on the southeast corner of the proposed building.

Two new accesses will be provided to the Site. The first access is located about 95 m north of the intersection of Sandwich Street West and Chappell Avenue and the second access is located 64m east of the intersection. The Chappell Avenue access will be 7.08 m wide and the Sandwich Street access will be 7 m wide.

Parking will be provided on-site, back from the street, with a total of 156 spaces to serve both the commercial and residential uses.

A total of 15 % of the parking spaces will be marked for visitor parking.

A total of 11 bicycle spaces are provided along the northeast corner of the proposed building.

3.2 Public Consultation Strategy

The Planning Act requires that the applicant submit a proposed strategy for public consultation with respect to an application as part of the complete application requirements.

As part of a public consultation strategy, the applicant proposes a virtual open house in addition to the required public meeting.

A summary of the open house has been provided as an addendum to this PRR.

4.0 PROPOSED APPLICATION & AMENDMENT

The proposed development requires an application for Official Plan Amendment (OPA) and an application for Zoning By-law Amendment (ZBA). The following explains the amendment and application.

4.1 Official Plan Amendment

A site specific Official Plan Amendment (OPA) is required in support of the proposed mixed-use development.

The OPA will change the land use designation from “Industrial” to site specific “Mixed Use” which is located on Schedule D: Land Use to permit a combined use building.

The OPA is detailed, and the justification is set out in Section 5.1.2 of this PRR.

4.2 Zoning By-Law Amendment

A site specific Zoning By-law Amendment (ZBA) is required in support of the proposed mixed-use development.

The zoning for the Site is proposed to be changed from Commercial District 2.1 (CD2.1), Manufacturing District 1.4 (MD1.4) and Development Reserve District 1.1 (DRD1.1) category to a site specific Commercial District 2.1 (CD2.1 - S.20(1)(XXX)) category as shown on Map 4 of the City of Windsor Zoning By-law (ZBL) to permit a combined use building.

Relief is also requested for certain provisions set out in the CD2.1 zone.

The ZBA is detailed, and the justification is set out in Section 5.1.3 of this PRR.

4.3 Other Application

Exemption from the provisions of Interim Control By-law 103/2020 is also requested.

Once the OPA and ZBA have been approved, the applicant will proceed with a Site Plan Control (SPC) Application which will set out the lighting, buffering, landscaping, signage, etc. The proposed development will be subject to a Development Agreement, which will include any required fees or securities if required.

An application for Plan of Condominium will be applied for after SPC approval in order to have rented and owned units. A building permit will be the final application.

4.4 Supporting Studies

The following supporting studies have been prepared to support the applications.

4.4.1 Urban Design

An Urban Design Brief (UDB) was prepared by BairdAE architecture and engineering, dated May 27, 2021.

The UDB is a tool to address policies set out in the OP and reinforce the ZBA through recommendations and include both 0 and 3885 Sandwich Street.

The UDB included an illustration of the building façade, building form and landscaping area.

It was concluded that;

- The proposal adheres to the design direction of Old Sandwich Town CIP and the OP.
- The proposal addressed site design and orientation, built form, public realm, landscape design, and architectural design and will be of high quality to meet the City of Windsor Standards.
- This project will be a missing link for Sandwich Town, linking and marking the arrival and exit of the neighbourhood.

A revised report was prepared, dated September 2, 2021, to address additional illustrations. Recommendations have been made, including scale, landscape features, setbacks, building orientation, design and the inclusion of retail.

4.4.2 Environmental Site Assessment

A Phase One Environmental Site Assessment (ESA) was completed by Wood Environment & Infrastructure Solutions, dated April 3, 2020.

The report evaluated known and possible environmental issues for properties located at 0 and 3885 Sandwich Street. The Phase One Assessment includes the 2 parcels of land.

Only 1 parcel, 3885 Sandwich Street, requires a Record of Site Condition (RSC) filing due to the change in use from its former commercial use to proposed residential use.

Based on the report, areas of potential environmental concern (APECs) were identified on 3885 Sandwich Street resulting from potentially contaminating activities (PCAs) associated with the possible infilling on the property with fill of unknown quality, the historic fire, and the various off-site current and historic industrial operations.

The report recommended that a Phase Two ESA on 3885 Sandwich Street is required to address these APECs and support an RSC filing.

The Phase Two ESA was completed on January 28, 2021.

Ontario Ministry of The Environment (MOE) has provided written acknowledgement that Record of Site Condition #228986 has been filed.

4.4.3 Noise and Vibration

An Acoustical Report was prepared by BairdAE architecture and engineering, dated June 21, 2021.

The study area included both 0 and 3885 Sandwich Street.

The study was based on an initial investigation; the primary noise affecting the development is from nearby industries as it pertains to rail noise and roadway traffic noise. The air traffic noise was not considered, as the development is located outside the zone of influence of local airports.

The report concluded that mitigation measures are required to bring residential units within the development into compliance with MOECC criteria. With the inclusion of these measures, MOECC noise criteria will be satisfied.

Recommendations included the following:

- The dwellings shall include warning clauses.
- All windows leading to sensitive living areas are to have a minimum sound transmission class (STC).
- All doors leading to sensitive living areas are to have a minimum sound transmission class (STC).
- All walls leading to sensitive living areas are to have a minimum sound transmission class (STC).
- Acoustic privacy between units in a multi-tenant building, the inter-unit wall, should meet or exceed STC-50. Wall separation between noisy spaces, such as refuse chutes or elevator shafts, and suites should meet or exceed STC-55.
- Warning clause for all units "Purchasers/tenants are advised that due to close proximity of the adjacent industries, noise from said industries may at times be audible."
- Prior to the issuance of building permits, it is recommended that an acoustical consultant review the sound transmission class (STC) for the proposed development's walls, windows and doors to ensure they conform to the recommendations outlined in this report.

It was concluded that the proposed development could, with the implementation of the recommendations, be designed to address impacts from surrounding noise sources.

The report was further updated, dated October 1, 2021, to include additional information regarding the MOECC D6 guidelines.

4.4.4 Geo-Technical Study

A Geo-Technical Study has been prepared by CT Soils and Materials Engineering Inc, Consulting Engineers, dated May 21, 2021.

The study area included both 0 and 3885 Sandwich Street.

The study is required due to the location of the nearby industrial and active salt solution mining operations.

The study provided recommendations for construction.

4.4.5 Functional Servicing Report

A Functional Servicing Report (FSR) was prepared by BairdAE architecture and engineering, dated October 8, 2020.

The study area included both 0 and 3885 Sandwich Street.

The report provided a review and identified servicing requirements for the proposed development.

The report concluded and recommended the following:

Sanitary – a new 200mm diameter sanitary service will be provided to the development from the existing municipal sewer from Chappell Avenue.

Watermain – one new 150mm diameter water service will be provided to the development from the existing 200mm watermain on Chappell Avenue. The water line will split into two at the eastern façade of the building for 150mm fire and 100mm diameter domestic service.

Storm – the post-development peak flows from all events from the Site will be controlled to the peak flow from target pre-development conditions. Whereas, during 100-year storm event, the maximum water depth is less than 300mm.

Stormwater quality and quantity are addressed using Armtec Defender water quality unit (FD5HC) and 150mm orifice pipe at MH 4.

Erosion and Sediment Control – control measures are to be implemented during construction, and detail will be provided in the tender documents.

4.4.6 Transportation Impact Study

A Traffic Impact Study (TIS) was prepared by BairdAE architecture and engineering.

The study area included both 0 and 3885 Sandwich Street.

A transportation analysis was completed to determine the existing and future operating conditions of intersection and individual turning movements.

The evaluation included the following:

- The proposed 11-storey high rise apartment building will have 150 units which will generate 1113 daily; 94 inbound traffic and 100 outbound traffic.
- It is assumed that the development will be completed by 2022.
- The background growth rate is considered in the analysis as it represents the worst-case scenario i.e. 3%.
- Under existing and future background conditions, the study area intersections operate at an acceptable level of service during morning and evening peaks. However, under 2032 existing conditions, the westbound turning lanes level of service is D. This delay is due to stop control and higher volumes on Sandwich Street. However, there is sufficient capacity available for this movement (v/c= 0.06), indicating sufficient gaps are available; hence no mitigation measures are required.
- Under the 2022 future post-development condition, the intersections are expected to operate at an acceptable level of service during peak hours.
- Under the 2027 and 2032 future post-development conditions, the intersection of Sandwich Street and Chappell Avenue are expected to operate at an acceptable level of service during peak hours. However, the westbound turning movement at the intersection is forecast to have longer delays i.e. LOS D in 2027 and LOS E in 2032. However, sufficient gaps are available to accommodate this movement. Hence no improvements are required.
- All other intersection operates at an acceptable level of service in 2022, 2027 and 2032 post-development conditions.
- The warrant for signalization is not required at the intersection of Sandwich Street and Chappell Avenue for the 2032 post-development condition. It is expected that the City will continue to monitor traffic at this location.
- An adequate sight line distance is provided for a safe departure from the development.

It is concluded that no mitigation measures or improvements are required.

4.4.7 Archaeological Assessment

A stage 1 and 2 archaeological assessment was prepared by Earthworks Archaeological Services Inc., dated April 15, 2020.

The study area included both 0 and 3885 Sandwich Street.

The location of the study area within 200 metres of historically mapped marshlands attached to the Detroit River suggests there is potential to locate Pre and Post Contact Indigenous archaeological resources.

The report concluded that the archaeological survey did not yield any evidence of archaeological material. As a result, no additional archaeological assessments are required.

The report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18, has been entered into the Ontario Public Register of Archaeological Reports.

4.4.8 Parking

A Parking Justification Report was prepared by BairdAE architect and engineering.

The study was prepared to determine the adequacy of the parking supply to meet the requirements of the proposed development.

It was concluded that the available existing and provided parking spaces are satisfactory to meet the City's by-law.

No further changes to parking spaces will be required.

5.0 PLANNING ANALYSIS

5.1 Policy and Regulatory Overview

5.1.1 Provincial Policy Statement (PPS), 2020

The Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development providing for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environments.

The PPS is issued under Section 3 of the Planning Act and came into effect on May 1, 2020. It applies to all land use planning matters considered after this date.

The PPS supports improved land use planning and management, which contributes to a more effective and efficient land use planning system.

The following provides a summary of the key policy considerations of the PPS as it relates to the proposed development.

PPS Policy #	Policy	Response
1.0	…..Ontario's long-term prosperity, environmental health and social well-being depend on wisely managing change and promoting efficient land use and development patterns…..	Windsor has directed growth where the Site is located which will contribute positively to promoting efficient land use and development patterns.
1.1.1	Healthy, liveable and safe communities are sustained by: a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term; b) accommodating an appropriate affordable and market-based range and mix	The proposed development is consistent with the policy to build strong, healthy and livable communities. It provides for employment opportunities and a new affordable housing choice. There are no environmental or public health and safety concerns as the area is established.

PPS Policy #	Policy	Response
	of residential types, employment, institutional, recreation, park and open space, and other uses to meet long-term needs; c) avoiding development and land use patterns which may cause environmental or public health and safety concerns; d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas; e) promoting…….cost-effective development patterns and standards to minimize land consumption and servicing costs; f) improving accessibility for persons with disabilities and older persons by addressing land use barriers which restrict their full participation in society; h) promoting development and land use patterns that conserve biodiversity.	The development pattern does not require expansion of the settlement area as it is considered infilling. The Site has access to full municipal services and is close to existing local parks, places of worship, and schools. Accessibility of units will be addressed at the time of the building permit. Public service facilities are available, such as local schools and transit. The development pattern is proposed to be an efficient use of the vacant property.
1.1.2	Sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to 25 years.	The proposed development will help Windsor meet the full range of current and future residential and commercial needs through intensification.

PPS Policy #	Policy	Response
	Within settlement areas, sufficient land shall be made available through intensification and redevelopment and, if necessary, designated growth areas.	The Site will provide for residential infilling within an existing settlement area in the form of a new affordable housing choice and employment opportunities.
1.1.3.1	Settlement areas shall be the focus of growth and development.	The proposal enhances the vitality of the municipality, as the proposal is within an existing settlement area.
1.1.3.2	Land use patterns within settlement areas shall be based on densities and a mix of land uses which: a) efficiently use land and resources; b) are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion; c) minimize negative impacts to air quality and climate change, and promote energy efficiency; d) prepare for the impacts of a changing climate; e) support active transportation;	The total density of the proposed development is considered appropriate as most of the existing area is a mix of uses. The Site offers an opportunity for intensification by creating a new mixed-use building using the vacant property. The design and style of building will blend well with the scale and massing of the existing surrounding area and indicated by the UDB illustration. Residents will have immediate access to shopping, employment, trails, active transportation, recreational areas and institutional uses. Transit is available for the area.

PPS Policy #	Policy	Response
	f) are transit-supportive, where transit is planned, exists or may be developed; and g) are freight-supportive.	The Site is located close to Highways 3 and 401.
1.1.3.3	Planning authorities shall identify appropriate locations and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options through intensification and redevelopment where this can be accommodated taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs.	The development is a Site that is physically suitable as it pertains to size and location. The Site is 6,694 m2 in area and is located on a corner lot. The Site is an irregular shaped lot. The intensification can be accommodated for the proposed mixed-use development as it is an appropriate use of a vacant parcel of land. The Site is level which is conducive to easy vehicular movements. Parking will be provided on-site, including space designated for visitors. Bicycle parking is also provided. Parking will be located back from the street, screened by an ornamental fence. There are existing on-street parking spaces on Chappell Street. The City of Windsor is proposing new bike lanes and parking spaces on the west side of Sandwich Street between Chappell Street and Hill Avenue.

PPS Policy #	Policy	Response
1.1.3.4	Appropriate development standards should be promoted which facilitate intensification, redevelopment and compact form, while avoiding or mitigating risks to public health and safety.	The proposed mixed-use building will be built with a high standard of construction, allowing seamless integration with the existing area. The building will face Sandwich Street with a view of the Detroit River. There will be no risks to the public as identified in the ESA and TIS.
1.1.3.5	Planning authorities shall establish and implement minimum targets for intensification and redevelopment within built-up areas, based on local conditions.	The City has established targets for intensification and redevelopment. The proposed development will assist in meeting those targets as the Site is located in an existing built-up area.
1.1.3.6	New development taking place in designated growth areas should occur adjacent to the existing built-up area and should have a compact form, mix of uses and densities that allow for the efficient use of land, infrastructure and public service facilities.	The proposed development does have a compact built form with commercial on the main floor and residential above. Parking will be located on-site. The proposed building size will allow for the efficient use of land, pedestrian and vehicle access, infrastructure and public services.
1.3.1 a) - Employment	Planning authorities shall promote economic development and competitiveness……	The proposed development offers 1,244.90 m2 of commercial retail space, which will help provide for employment opportunities.

PPS Policy #	Policy	Response
		The Site is in close proximity to nearby commercial uses, such as Tim Hortons, located to the south.
1.3.2.3	Within employment areas planned for industrial or manufacturing uses, planning authorities shall prohibit residential uses and prohibit or limit other sensitive land uses that are not ancillary to the primary employment uses in order to maintain land use compatibility.	An OPA and ZBA is proposed. The existing industrial uses are located on the west side of Sandwich Street. Sandwich Street creates an appropriate buffer. A Noise Study has been completed. The Site was previously used for commercial. The area is in transition. There is no longer a need for industrial uses in the area. The proposed development will be designed to blend well with the surroundings.
1.3.2.4 – Employment Land Conversion, Comprehensive Review	Planning authorities may permit conversion of lands within employment areas to non-employment uses through a comprehensive review, only where it has been demonstrated that the land is not required for employment purposes over the long term and that there is a need for the conversion.	The employment land conversion is not being considered as part of a comprehensive review. The employment land conversion is a privately initiated transition.
1.3.2.5 – Employment Land Conversion, Privately-Initiated	Notwithstanding policy 1.3.2.4, and until the official plan review or update in policy	It is proposed to convert the total area of the Site from industrial to mixed use with commercial and residential.

PPS Policy #	Policy	Response
	1.3.2.4 is undertaken and completed, lands within existing employment areas may be converted to a designation that permits non-employment uses provided the area has not been identified as provincially significant through a provincial plan exercise or as regionally significant by a regional economic development corporation working together with affected upper and single-tier municipalities and subject to the following:	Recent analysis indicates that there are vacant and viable employment lands throughout the City in addition to an oversupply of employment lands in the region. Also, there is a need for residential, as noted in the recent provincial legislation changes which support new housing choices.
	a) there is an identified need for the conversion and the land is not required for employment purposes over the long term;	The proposed redevelopment would not impact the supply of employment lands. The Site is no longer appropriate and desirable for industrial uses. Further, the proposed redevelopment will enhance the area. By keeping commercial on the main floor, no employment land opportunity is completely lost. The Site is not required or suitable for industrial uses. The Site is a small lot and in close proximity to nearby residential uses. There is an identified need for housing, based on market

PPS Policy #	Policy	Response
		potential and recent trends observed in the City. The ZBA proposed to change the zoning of the Site to a site specific commercial district, which will be constant with the OP. Commercial uses will be limited to what is appropriate for the main floor of the proposed combined use building. Section 1.1.4 of the Windsor OP does address Land Supply. Future Employment Area lands transferred from the Town of Tecumseh should be sufficient to accommodate growth through the 20-year planning period. The Site is in an area of transition.
	b) the proposed uses would not adversely affect the overall viability of the employment area; and	The proposed use as residential will not adversely affect the overall viability of the employment area. The Site has had a long-standing vacancy, and underutilization demonstrates that the lands are no longer appropriate and desirable for industrial uses. Any new employment lands would occur in nearby industrial areas, and the

PPS Policy #	Policy	Response
		commercial would occur in the nodes. Residential will provide for additional units required to meet the 25 year PPS land needs. The employment land conversion will have a minor impact on the overall vacant land inventory.
	c) existing or planned infrastructure and public service facilities are available to accommodate the proposed uses.	Infrastructure and public service facilities are available to accommodate the proposed uses. The proposed development has access to municipal services, which have been identified in the required support studies.
1.4.1	To provide for an appropriate range and mix of housing options and densities required to meet projected requirements of current and future residents of the regional market area, planning authorities shall: a) maintain at all times the ability to accommodate residential growth for a minimum of 15 years through residential intensification and redevelopment and, if necessary, lands which are designated and available for residential development; and b) maintain at all times where new development is to occur,	The proposed development will provide for a mixed-use opportunity in the existing built-up area. Municipal services are available, as set out in the servicing studies.

PPS Policy #	Policy	Response
	land with servicing capacity sufficient to provide at least a three-year supply of residential units available through lands suitably zoned to facilitate residential intensification and redevelopment, and land in draft approved and registered plans.	
1.4.3	Planning authorities shall provide for an appropriate range and mix of housing options and densities to meet projected market-based and affordable housing needs of current and future residents of the regional market area.	The proposed density of 150 residential units is compatible with the surrounding area and will provide intensification and infilling through the efficient use of a vacant Site. The UDB has illustrated nearby similar construction. The proposed density will have a positive impact on the area as it will blend well with the existing built form. The Site is close to nearby community amenities. There is suitable infrastructure.
1.6.1	Infrastructure and public service facilities shall be provided in an efficient manner that prepares for the impacts of a changing climate while accommodating projected needs.	The development can proceed on full municipal services. Electrical distribution will be determined through detailed design. Access to public transit is available.

PPS Policy #	Policy	Response
1.6.6.2	Municipal sewage services and municipal water services are the preferred form of servicing for settlement areas to support protection of the environment and minimize potential risks to human health and safety. Within settlement areas with existing municipal sewage services and municipal water services, intensification and redevelopment shall be promoted wherever feasible to optimize the use of the services.	The proposed development will be serviced by municipal sewer, water and storm, which is the preferred form of servicing for settlement areas.
1.6.6.7	Planning for stormwater management shall: a) be integrated with planning for sewage and water services and ensure that systems are optimized, feasible and financially viable over the long term; b) minimize, or, where possible, prevent increases in contaminant loads; c) minimize erosion and changes in water balance, and prepare for the impacts of a changing climate through the effective management of stormwater, including the use of green infrastructure; d) mitigate risks to human health, safety, property and the environment;	A FSR has been completed. There will be no negative impacts on the municipal system and will not add to the capacity in a significant way. The Site provides for drainage. An ESA has been completed. There will be no risk to health and safety.

PPS Policy #	Policy	Response
	e) maximize the extent and function of vegetative and pervious surfaces; and f) promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.	
1.6.7.1	Transportation systems should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.	The subject property is in close proximity to major roadways.
1.6.7.2	Efficient use should be made of existing and planned infrastructure, including through the use of transportation demand management strategies, where feasible.	The proposed development contributes to the City's requirements for development within a built-up area. The area is serviced by transit.
1.6.7.4	A land use pattern, density and mix of uses should be promoted that minimize the length and number of vehicle trips and support current and future use of transit and active transportation.	The proposed development contributes to the Municipality's requirement for infilling within a built-up area. The proposed density, scale, and building height will blend with the existing land use pattern.
2.1.1	Natural features and areas shall be protected for the long term.	There are no natural features that apply to this Site.

PPS Policy #	Policy	Response
2.2.1	Planning authorities shall protect, improve or restore the quality and quantity of water.	A FSR report has been prepared in support of the proposed development.
2.6.1	Significant built heritage resources and significant cultural heritage landscapes shall be conserved.	An Archaeological Assessment has been completed. There are no heritage resources that apply to this Site.
3.0	Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.	An Acoustical Report and ESA have been completed. There are no natural or human-made hazards.

Therefore, the proposed development is consistent with the PPS and the Province's vision for long-term prosperity and social well-being.

5.1.2 Official Plan (OP)

The City of Windsor Official Plan (OP) was adopted by Council on October 25, 1999, approved in part by the Ministry of Municipal Affairs and Housing (MMAH) on March 28, 2000, and the remainder approved by the Ontario Municipal Board (OMB) on November 1, 2002. Office consolidation version is dated September 7, 2012.

The OP implements the PPS and establishes a policy framework to guide land use planning decisions related to development and the provision of infrastructure and community services throughout the City.

The lands are designated "Industrial" according to Schedule "D" Land Use attached to the OP for the City of Windsor (see Figure 3 – City of Windsor OP, Schedule "D").

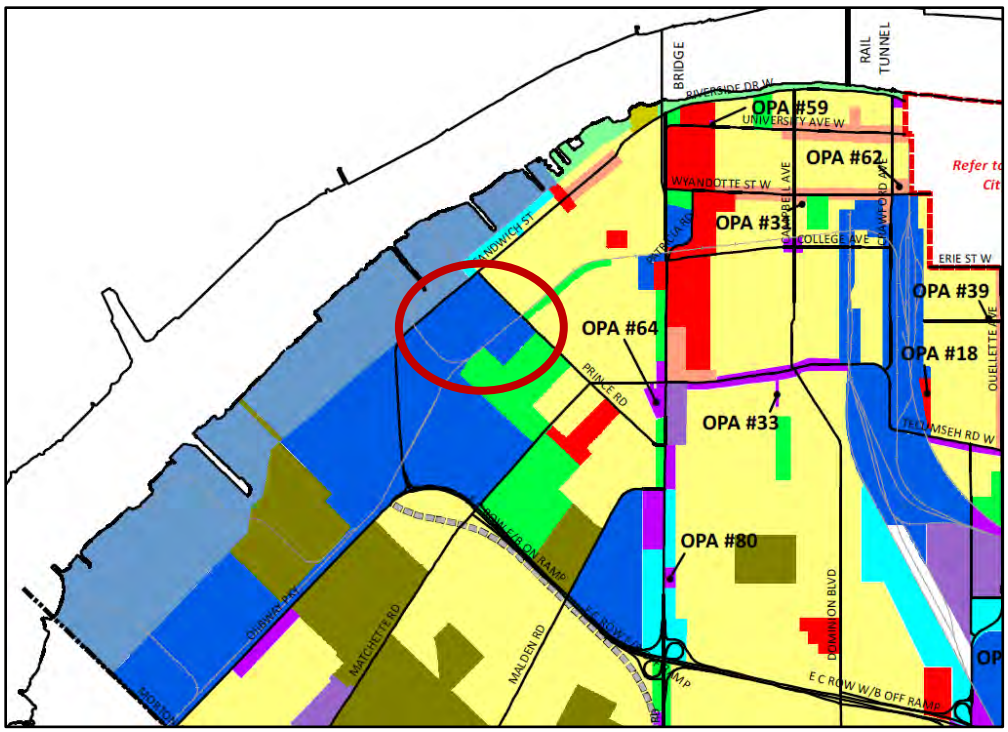


Figure 3 – City of Windsor OP, Schedule "D"

It is proposed to designate the Site to a site specific "Mixed Use" in order to permit a combined use building with commercial on the main floor and residential above.

The following provides a summary of the key policy considerations of the OP as it relates to the proposed development.

OP Policy #	Policy	Response
3.2 – Growth Concept	Mixed use developments will be encouraged with strong pedestrian orientations and to support public transit. This concept will enable Windsor to continue its growth and foster a vibrant economy, while ensuring a safe, caring and diverse community and a sustainable, healthy environment.	The proposed use is a mixed-use development with commercial on the main floor and residential above. Commercial uses will be limited to the type of uses that are appropriate for the main floor of the proposed building. The Site is located on a corner lot and will be oriented to provide for parking and pedestrian access.
3.2.1.2	Encouraging a range of housing types will ensure that	The proposed development supports one of the City's

OP Policy #	Policy	Response
	people have an opportunity to live in their neighbourhoods as they pass through the various stages of their lives.	overall development strategies of providing for a range of housing choices.
3.2.1.3	Newly developing areas will be planned to foster their own unique neighbourhood identities with a mixture of homes, amenities and services.	The Site is in an area of transition whereby fewer industrial activities are occurring in the area, which is creating an attractive area for a small commercial node with residential uses.
3.2.3.1	Windsor will work toward achieving a sustainable transportation system where all modes of transportation can play a more balanced role. The creation of mixed use and employment centres will allow businesses and services to be closer to homes and allow greater opportunities for walking, cycling and transit.	The intent is to construct an affordable housing choice with a target market for international commuters working in Michigan and living in Windsor as well as students attending the University of Windsor.
4.0	The implementing healthy community policies are interwoven throughout the remainder of the Plan, particularly within the Environment, Land Use, Infrastructure and Urban Design chapters, to ensure their consideration and application as a part of the planning process.	The proposed development will support the City's goal of promoting a healthy community (live, work and play). The proposed development is close to nearby transit, employment, shopping, local/regional amenities and parks/trails.
6.0 - Preamble	A healthy and livable city is one in which people can enjoy a vibrant economy and a sustainable healthy environment in safe, caring and diverse neighbourhoods. In order to ensure that Windsor is such a city, Council will manage development through an approach which balances environmental,	The proposed development supports the policy set out in the OP as it is suited for the residential and commercial needs of the City.

OP Policy #	Policy	Response
	social and economic considerations.	
6.1 - Goals	In keeping with the Strategic Directions, Council's land use goals are to achieve: 6.1.1 Safe, caring and diverse neighbourhoods. 6.1.3 Housing suited to the needs of Windsor's residents. 6.1.10 Pedestrian oriented clusters of residential, commercial, employment and institutional uses.	The proposed development supports the goals set out in the OP as it provides for infilling of affordable residential in an area of transition. The employment component will complement the creation of a new commercial node. The proposed development allows pedestrian level access.
6.2.1.2 – General Policies	For the purpose of this Plan, Development Profile refers to the height of a building or structure. Accordingly, the following Development Profiles apply to all land use designations on Schedule D: Land Use unless specifically provided elsewhere in this Plan: (a) Low Profile developments are buildings or structures generally no greater than three (3) storeys in height; (b) Medium Profile developments are buildings or structures generally no greater than six (6) storeys in height; and (c) High Profile developments are buildings or structures generally no greater than fourteen (14) storeys in height.	The proposed development is considered a high profile mixed use development as it is proposed to have 11 storeys constructed on the Site.
6.4 - Employment	Employment lands provide the main locations for business and industrial activities. In	The OPA will change the land use designation from "Industrial" to site specific

OP Policy #	Policy	Response
	order to strengthen Windsor's economy, meet the land and infrastructure needs of employment activities and address concerns over compatibility, employment land uses are provided under two designations on Schedule D as either Industrial or Business Park.	"Mixed Use" which is located on Schedule D: Land Use. By keeping commercial on the main floor, no employment land opportunity is lost. Commercial uses will be limited to the type of uses that are appropriate for the main floor of the proposed building. There is a need for residential in the area. The Site is not required or suitable for industrial. The ZBA proposed to change the zoning of the Site to a site specific commercial district, which will be constant with the OP. Section 1.1.4 of the Windsor OP does address Land Supply. Future Employment Area lands transferred from the Town of Tecumseh should be sufficient to accommodate growth through the 20-year planning period. Infrastructure and public service facilities are available to accommodate the proposed uses.
6.4.1.3 - Objectives	To ensure that employment uses are developed in a manner which are compatible with other land uses.	Commercial on the main floor will provide an expansion of the node at the corner of Sandwich South and Chappell Avenue. There is a Tim Hortons located on the southeast side.

OP Policy #	Policy	Response
		Residential is located on the north and east side of the Site. Industrial is located to the west of the Site, on the opposite side of Sandwich Street.
6.4.1.4	To accommodate a full range of employment activities in Windsor	The proposed development will provide for employment in the form of a 1,244.90 m2 retail space. The retail space will provide local convenience to the surrounding area.
6.4.1.6	To locate employment activities in areas which have sufficient and convenient access to all modes of transportation.	The proposed development will have on-site parking, bicycle parking, pedestrian friendly and close to transit.
6.4.1.8	To ensure that adequate infrastructure services are provided to employment areas.	The Site has access to full municipal services.
6.9 – Mixed Use Policies	The lands designated as "Mixed Use" on Schedule D: Land Use provide the main locations for compact clusters of commercial, office, institutional, open space and residential uses. These areas are intended to serve as the focal point for the surrounding neighbourhoods, community or region. As such, they will be designed with a pedestrian orientation and foster a distinctive and attractive area identity.	The existing designation is "Industrial". It is proposed to change the land use designation to "Mixed Use" to permit a combined use building. This is a unique area as it is in transition whereby fewer industrial activities are occurring in the area, which is creating an attractive area for a small commercial node with residential uses. There is a Tim Hortons located on the southeast side. Residential is located on the north and east side of the Site.

OP Policy #	Policy	Response
		Industrial is located to the west of the Site, on the opposite side of Sandwich Street. The result will be the creation of a new node.
6.9.1.1	To encourage multi-functional areas which integrate compatible commercial, institutional, open space and residential uses.	The proposed development will provide for residential and commercial uses. It will provide for convenience opportunities to the commercial, industrial and residential uses in the area. Commercial uses will be limited to the type of uses that are appropriate for the main floor of the proposed building.
6.9.1.2	To encourage a compact form of mixed use development.	It is proposed to add a combined use building for the site specific OPA.
6.9.2.1	Uses permitted in the Mixed Use land use designation include retail and service commercial establishments, offices, cultural, recreation and entertainment uses, and institutional, open space and residential uses, exclusive of small scale Low Profile residential development.	The proposed development will provide for residential and commercial uses.
6.9.2.3	Mixed Use development shall be located where: (a) there is access to a Controlled Access Highway, Class I or Class II Arterial Roads or Class I Collector Road; (b) full municipal physical services can be provided; (c) public transportation service can be provided; and (d) the surrounding development pattern is	The Site is located along Sandwich Street, has access to full municipal services and transit and is compatible with the area.

OP Policy #	Policy	Response
	compatible with Mixed Use development.	
6.9.2.5	The following guidelines shall be considered when evaluating the proposed design of a Mixed Use development: (a) the ability to achieve the associated policies as outlined in the Urban Design chapter of this Plan; (b) the mass, scale, orientation, form, and siting of the development achieves a compact urban form and a pedestrian friendly environment; (c) at least one building wall should be located on an exterior lot line and oriented to the street to afford direct sidewalk pedestrian access from the public right-of-way; (d) permanent loading, service and parking areas should be located so as not to significantly interrupt the pedestrian circulation or traffic flow on the public right-of-way or within a Mixed Use area; (e) mid-block vehicular access to properties is generally discouraged and is encouraged via a rear yard service road or alley; (f) parking areas shall be encouraged at the rear of buildings; (g) safe and convenient pedestrian access between buildings and public transportation stops, parking areas and other buildings and facilities should be provided;	An Urban Design Brief has been provided. The proposed combined use building has been designed to blend well with its surrounding. The building is proposed to be located close to the corner of the irregularly shaped lot. This will allow the parking to be located to the rear. The proposed development is compact and pedestrian-friendly. The Site is flat, making it conducive to vehicle access and maneuvering. The development will assist in creating a new identity for an area that is in transition.

OP Policy #	Policy	Response
	(h) the development is designed to foster distinctive and attractive area identity; (i) the public rights-of-way are designed to foster distinctive and attractive area identity and to provide for vehicle use, regular public transportation service as well as pedestrian and cycling travel; and (j) integration of the development with the surrounding uses to contribute to the unique character of the area.	
6.9.2.7	Council may establish off street parking standards to reflect public transportation supportive designs or shared parking arrangements in Mixed Use developments.	A reduction in parking is being requested. A Parking Study has been provided.
7.0	The provision of proper infrastructure provides a safe, healthy and efficient living environment. In order to accommodate transportation and physical service needs in Windsor, Council is committed to ensuring that infrastructure is provided in a sustainable, orderly and coordinated fashion.	The proposed development is close to nearby transit, off a major roadway and has access to full municipal services.
7.2.8.8	Council shall evaluate a proposed development adjacent to a Rail Corridor, in accordance with the following: (a) All proponents of a new development within 300 metres of a rail corridor, may be required to complete a noise study to support the proposal, and if the need for mitigation measures is determined by such study,	An Acoustical Report was prepared for this Site to address sensitive land uses. Recommendations were made to provide mitigation measures.

OP Policy #	Policy	Response
	shall identify and recommend appropriate mitigation measures, in accordance with the Procedures chapter of this Plan.	
8.3.2.2 – Design for People	Council will encourage buildings and spaces that establish a pedestrian scale by promoting: (a) the placement of continuous horizontal features on the first two storeys adjacent to the road; (b) the repetition of landscaping elements, such as trees, shrubs or paving modules; and (c) the use of familiar sized architectural elements such as doorways and windows.	An UDB has addressed these policies. Recommendations have been made, including scale, landscape features and the inclusion of retail. The proposed development allows pedestrian level access for both the commercial and residential uses.
8.5.2.5 - Landscaping	Council will encourage the use of landscaping to: (a) promote a human scale; (b) promote defined public spaces; (c) accentuate or screen adjacent building forms; (d) frame desired views or focal objects; (e) visually reinforce a location; (f) direct pedestrian movement; (g) demarcate various functions within a development; (h) provide seasonal variation in form, colour, texture and representation; (i) assist in energy conservation; and (j) mitigate the effects of inclement weather	An UDB has addressed these policies. Recommendations have been made, including scale, landscape features and the inclusion of retail. The landscaping area will visually reinforce the proposed development.
8.6.2.1 – Protection from Elements	Council may encourage design measures such as	An UDB has addressed these policies. A continuous canopy

OP Policy #	Policy	Response
	awnings, canopies, arcades, or recessed ground floor facades to offer pedestrian protection from inclement weather.	is proposed along Sandwich St. and Chappell Ave.
8.7.2.1 – Built Form (New Development)	Council will ensure that the design of new development: • is complementary to adjacent development in terms of its overall massing, orientation, setback and exterior design, particularly character, scale and appearance; • Provides links with pedestrian, cycle, public transportation and road networks; and • Maintains and enhances valued heritage resources and natural area features and functions. • Encourages the creation of attractive residential streetscapes through architectural design that reduces the visual dominance of front drive garages, consideration of rear lanes where appropriate, planting of street trees and incorporation of pedestrian scale amenities.	An UDB has addressed these policies. Recommendations have been made including scale, landscape features, setbacks, building orientation, design and the inclusion of retail.
8.7.2.2 (Redevelopment Areas)	Council will ensure that the design of extensive areas of redevelopment achieves the following: (a) provides a development pattern that support a range of uses and profiles; (b) defines the perimeter of such an area by a distinct edge which may be formed by roads, elements of the	An UDB has addressed these policies. Recommendations have been made, including scale, landscape features, setbacks, building orientation, design and the inclusion of retail.

OP Policy #	Policy	Response
	Greenway System or other linear elements; (c) contains activity centres or nodes which are designed to serve the area and which may be identified by one or more landmarks; (d) provides transportation links to adjacent areas; and (e) maintains and enhances valued historic development patterns or heritage resources. (f) is complementary to adjacent development in terms of overall massing, orientation, setback and exterior design, particularly character, scale and appearance.	
8.7.2.3	Council will ensure that proposed development within an established neighbourhood is designed to function as an integral and complementary part of that area's existing development pattern by having regard for: (a) massing; (b) building height; (c) architectural proportion; (d) volumes of defined space; (e) lot size; (f) position relative to the road; (g) building area to site area ratios; (h) the pattern, scale and character of existing development; and (i) exterior building appearance.	An UDB has addressed these policies. The proposed development will be a natural integration of the established neighbourhood to the east in addition to the commercial and industrial areas. Massing – the proposed building will be limited to 11 storeys which will blend well with the scale and massing of the existing surrounding area. This is accomplished through orientation, setback and design. Building height – the proposed building height is appropriate for this corner lot. Architectural proportion – the proposed visual effect of the

OP Policy #	Policy	Response
		relationship of the proposed development will blend well with the buildings in the immediate area as there are low profile homes. The proposed building will be located as far away from the existing homes as possible. Volume of defined space – the proposed design and layout of the development includes appropriate setbacks and lot coverage. The parking area will be constructed in according to City standards providing appropriate space. Lot size – the existing parcel is appropriate for the development. It allows for on-site parking and landscaping. Building area – appropriate lot coverage is proposed. The proposed building will not negatively impact the private use and enjoyment of area residents. Pattern, scale and character – the style of development will blend well with the scale and massing of the existing surrounding area. Exterior building appearance – the mixed-use building, will be designed professionally and aesthetically pleasing. The building will be located close to the intersection and will face Sandwich Street. Professional landscaping will

OP Policy #	Policy	Response
		screen the parking and frame the building.
8.7.2.4 – Transition in Building Heights	Council will ensure a transition among Very High, High, Medium and Low Profile developments through the application of such urban design measures as incremental changes in building height, massing, space separation or landscape buffer.	Recommendations in the UDB have been made, including scale, landscape features, setbacks, building orientation, design and the inclusion of retail.
8.7.2.6 – Street Facades	Council will encourage the buildings facades to be visually interesting through extensive use of street level entrances and windows. Functions which do not directly serve the public, such as loading bays and blank walls, should not be located directly facing the street.	An UDB has addressed these policies. The main pedestrian entrance faces Sandwich Street.
8.7.2.7 – Façade Setbacks	Council shall encourage all Medium, High and Very High Profile developments to setback additional storeys above the third (3) storey away from the road frontage to provide sunlight access, manage wind conditions and enhance the pedestrian scale.	An UDB has addressed these policies.
8.7.2.8 – Street Oriented Entrances	Council will ensure that main entrances to buildings are street oriented and clearly visible from principal pedestrian approaches.	An UDB has addressed these policies.
9.3.1.1 - Archaeological	For the purpose of this Plan, heritage resources include built heritage resources and cultural heritage landscapes that Council has identified as being important to the community.	An archaeological assessment was completed for this Site. No recommendations were made.

OP Policy #	Policy	Response
11.8 – Community Improvement	The Community Improvement provisions of the Planning Act allow municipalities to prepare community improvement plans for designated community improvement project areas that require community improvement as the result of age, dilapidation, overcrowding, faulty arrangement, unsuitability of buildings or for any other environmental, social or community economic development reason. Once a community improvement plan has been adopted by a municipality and has come into effect, the municipality may offer grants and loans in conformity with the community improvement plan, to registered owners, assessed owners and tenants of lands and buildings within the community improvement project area, and to any person to whom such an owner or tenant has assigned the right to receive a grant or loan, to pay for the whole or any part of the eligible costs of the community improvement plan. The municipality may also undertake a wide range of actions for the purpose of carrying out the community improvement plan. Community improvement plans may be used to revitalize existing planning districts, neighbourhoods, corridors or any other area identified as being in need of community	The proposal adheres to the design direction of Old Sandwich Town CIP. An UDB has been provided to illustrate how criteria have been met.

OP Policy #	Policy	Response
	improvement due to physical, environmental, economic or social conditions.	

Therefore, the proposed development conforms to the City of Windsor OP with the proposed site specific amendment.

5.1.3 Zoning By-law (ZBL)

The City of Windsor Zoning By-Law (ZBL) #8600 was passed by Council on July 8, 2002, and then a further Ontario Municipal Board (OMB) decision was issued on January 14, 2003.

A ZBL implements the PPS and the City OP by regulating the specific use of the property and provide for its day-to-day administration.

According to Map 4 attached to the ZBL the Site is currently zoned Commercial District 2.1 (CD2.1), Manufacturing District 1.4 (MD1.4) and Development Reserve District 1.1 (DRD1.1) category (see Figures 4 – City of Windsor Zoning Map 4).

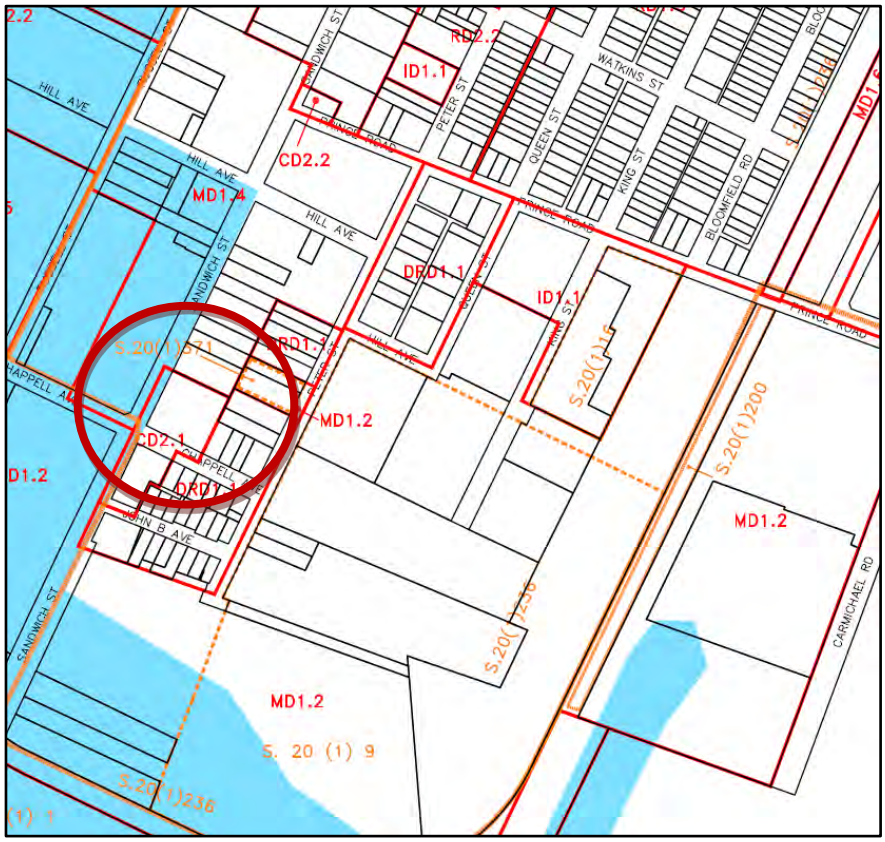


Figure 4 – City of Windsor Zoning Map 4

A site specific ZBA is required for the proposed development.

Permitted uses in the CD2.1 includes commercial uses.

The zoning for the Site is proposed to be changed to a site specific Commercial District 2.1 (CD2.1 - S.20(1)(XXX)) category as shown on Map 4 of the City ZBL to permit a combined use building.

"COMBINED USE BUILDING means a building having, as main uses, at least one dwelling unit and at least one non-residential use. If a Combined use Building is occupied in part by a Minor Commercial Centre or a Major Commercial Centre, the total required number of parking spaces is the sum of the required number of parking spaces for each Dwelling Unit and for the Minor Commercial Centre of a Major Commercial Centre."

A review of the CD2.1 zone provisions, as set out in Section 15.1.5 of the ZBL is as follows:

Zone Regulations	Required CD2.1 Zone	Proposed	Compliance and/or Relief Requested with Justification
Permitted Uses	Bakery Business Office Child Care Centre Commercial School Confectionery Food Outlet - Drive-Through Food Outlet - Take-Out Funeral Establishment Garden Centre Gas Bar Medical Office Micro-Brewery Parking Garage Personal Service Shop Place of Entertainment and Recreation Place of Worship Professional Studio Public Hall Public Parking Area Repair Shop – Light Restaurant Restaurant with Drive-Through Retail Store Temporary Outdoor Vendor's Site Tourist Home Veterinary Office Wholesale Store	Dwelling Units in a Combined Use Building Business Office Child Care Centre Commercial School Food Outlet - Take-Out Medical Office Personal Service Shop Place of Entertainment and Recreation Restaurant Retail Store Any use accessory to any of the preceding uses	Complies, subject to the ZBA request. Commercial uses can be limited to those uses listed that are appropriate for the main level of the proposed building. Residential units to be located above the commercial uses.

	Existing Automobile Repair Garage Existing Service Station Any use accessory to any of the preceding uses. An Outdoor Storage Yard is prohibited, save and except, in combination with the following main uses: Garden Centre, Temporary Outdoor Vendor's Site, Existing Automobile Repair Garage.		
Maximum Building Height	14.0 m	37 m	Relief required. The proposed height is appropriate for the Site. The Site is suitable for the scale and massing of the proposed building. The propose relief does not impact any of the abutttin properties.
Gross Floor Area – maximum	Bakery or Confectionary - 550.0 m2	352.75 m2 269.42 m2	Complies
Other	A Temporary Outdoor Vendor's Site is prohibited in a Business Improvement Area	N/A	N/A
Parking Spaces Required	**Combined Use Building – Dwelling Units, 1.25 for each dwelling unit:** 187.5 parking spaces required (rounded down = 187 parking spaces) **Retail:**	156 total parking spaces provided, for both the commercial and residential	Relief required. A decrease in the minimum parking space is required for the proposed combined use building for the residential and commercial uses.

	1 for each 22.5 m² GFA: 29.42 parking spaces required/based on 662.17 m2 (rounded down = 29 parking spaces) TOTAL 187 + 29 = 216		A total relief of 60 parking spaces (216 - 156 = 60) for both the commercial and residential uses. There are existing on-street parking spaces on Chappell Street. The City of Windsor is proposing new bike lanes and parking spaces on the west side of Sandwich Street between Chappell Street and Hill Avenue. Retail will comply. It is uncertain at this time what uses will include in the retail space. Parking will be located back from the street, screened by an ornamental fence. The Site has access to transit and is bike and pedestrian friendly. A Parking Study has been completed.
Visitor Parking (24.22.1)	15 percent of parking spaces marked 15% of 156 = 24 spaces	24	Complies
Bicycle Parking (24.30.1)	2 for the first 19 spaces plus 1 for each additional 20 parking spaces:	11 spaces provided	Complies

	2 + 6.85 = 8.85 spaces required (8 rounded down)		
Accessible Parking Spaces Required (24.24.1)	For 101 to 200 total number of Parking Spaces Type A - 1.5 percent of parking spaces Type B - 0.5 space plus 1.5 percent of parking spaces: 156*0.5%=0.78=157x1.5%=2.355 Total 6 required (3 Type A and 3 Type B)	6 spaces provided (3 Type A and 3 Type B)	Complies
Loading (24.40.1.5)	For a Combined Use Building with 9 or more dwelling units, the required number of loading spaces for the dwelling units shall be calculated using the gross floor area of that part of the building occupied by all the dwelling units 3 required	3 provided	Complies
Parking Area Separation (25.5.20)	Any other street - 3.00 m	TBD	Complies
	An interior lot line or alley - 0.90 m	TBD	Complies
	A building wall in which is located a main pedestrian entrance facing the parking area – 2.00 m	TBD	Complies
	A building wall containing a habitable room window or containing both a main pedestrian entrance and a habitable room window facing the parking area where the building is located on the same lot as the parking area – 4.50 m	TBD	Complies

Therefore, the proposed development will comply with all zone provisions set out in the CD2.1 Zone except for the following, which requires relief:

1. *Increase the required height from 14.0 m to 37 m.*
2. *Decrease the minimum parking space required from 216 spaces to 156 spaces.*

6.0 SUMMARY AND CONCLUSION

6.1 Context and Site Suitability Summary

6.1.1 Site Suitability

The Site is ideally suited for mixed-use development for the following reasons:

- The land area is sufficient to accommodate the proposed development with adequate buffering from abutting land uses,
- The Site is level which is conducive to easy vehicular movements,
- The Site will be able to accommodate municipal water, storm and sewer systems,
- The Site provides for drainage,
- There are no anticipated traffic concerns,
- There are no environmental concerns,
- There are no hazards, and
- The location of the proposed development is appropriate in that it will blend well with the surrounding area.

6.1.2 Compatibility of Design

The proposed development will be strategically located to provide efficient ease of the proposed new access into the parking areas.

The proposed development will be limited to an 11 storey, high profile neighbourhood development, which is a compatible density with the surrounding area.

The Site is capable of accommodating the proposed development in terms of scale, massing, height and siting. On-site parking and landscaping will be provided.

The proposal adheres to the design direction of Old Sandwich Town CIP.

6.1.3 Good Planning

The proposal represents good planning as it addresses the need for the City to provide infilling development, which contributes to affordability and intensification requirements set out in the PPS and the OP.

Mixed-use on the Site represents an efficient development pattern that optimizes the use of land. The Site currently has a vacant building and is underutilized.

The fact that the proposal is supported by provincial and municipal planning policy and the Site is suitable for the intended use on a number of criteria attests that the proposal represents good planning.

6.1.4 Natural Environment Impacts

The proposal does not have any negative natural environment impacts, as there are no natural heritage features on the Site.

6.1.5 Municipal Services Impacts

There will be no negative impacts on the municipal system as the mixed-use development will not add to the capacity in a significant way.

The topography, soil, and environmental characteristics of the Site are able to accommodate an appropriate development that will minimize adverse environmental impacts.

6.1.6 Social and/or Economic Conditions

The proposed development does not negatively affect the social environment as the Site is in close proximity to major transportation corridors, transit, open space and community amenities.

Infilling in an existing established neighbourhood contributes toward the goal of 'live, work and play' where citizens share a strong sense of belonging and a collective pride of place.

The proposed development promotes efficient development and land use pattern, which sustains the financial well-being of the municipality.

The proposal does not cause any public health and safety concerns. The proposal represents a cost effective development pattern that minimizes land consumption and servicing costs.

Based on the Site area, the proposed development will result in a total net density, which is appropriate for the neighbourhood.

There will be no urban sprawl as the proposed development is within the existing settlement area and is an ideal infilling opportunity.

6.2 Conclusion

The proposal to use the Site for mixed-use residential and commercial is appropriate and should be approved by the City of Windsor as it:

- is a site that is physically suitable;
- will not negatively impact the private use and enjoyment of area residents;
- will not have any negative natural environment impacts;
- will not have any negative archaeological impacts;
- is not anticipated to create any traffic issues;
- will not have any negative impacts on municipal services,
- will not have any negative social, environmental or economic impacts; and
- will have a positive impact on the City of Windsor.

In summary, for the above reasons, it would be appropriate for the City of Windsor to approve the OPA and ZBA to permit the proposed mixed-use development on the Site as it is appropriate for infilling and will offer an affordable housing choice and commercial space in an area of transition.

This PRR has shown that the proposed development is consistent with the PPS, conforms with the intent and purpose of the City of Windsor OP and represents good planning.

The report components for this PRR have set out the following, as required under the City of Windsor OP:

10.2.13.2 Where a Planning Rationale Report is required, such a study should:

(a) Include a description of the proposal and the approvals required;

(b) Describe the Site's previous development approval history;

(c) Describe major physical features or attributes of the Site including current land uses(s) and surrounding land uses, built form and contextual considerations;

(d) Describe whether the proposal is consistent with the provincial policy statements issued under the Planning Act;

(e) Describe the way in which relevant Official Plan policies will be addressed, including both general policies and site-specific land use designations and policies;

(f) Describe whether the proposal addresses the Community Strategic Plan;

(g) Describe the suitability of the Site and indicate reasons why the proposal is appropriate for this Site and will function well to meet the needs of the intended future users;

(h) Provide an analysis of the compatibility of the design and massing of the proposed developments and land use designations;

(i) Provide an analysis and opinion as to why the proposal represents good planning, including the details of any methods that are used to mitigate potential negative impacts;

(j) Describe the impact on the natural environment;

(k) Describe the impact on municipal services;

(l) Describe how the proposal will affect the social and/or economic conditions using demographic information and current trends; and,

(m) Describe areas of compliance and non-compliance with the Zoning By-law.

Planner's Certificate:

I hereby certify that this report was prepared by Tracey Pillon-Abbs, a Registered Professional Planner, within the meaning of the Ontario Professional Planners Institute Act, 1994.

Tracey Pillon-Abbs, RPP
Principal Planner

Appendix E--Excerpts from the Provincial Policy Statement 2020

1.1 Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns

1.1.1 Healthy, liveable and safe communities are sustained by:

a)promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;

b)accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

c)avoiding development and land use patterns which may cause environmental or public health and safety concerns;

e)promoting the integration of land use planning, growth management, *transit-supportive* development, *intensification* and *infrastructure* planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;

1.1.2 Sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to 25 years, informed by provincial guidelines. However, where an alternate time period has been established for specific areas of the Province as a result of a provincial planning exercise or a *provincial plan*, that time frame may be used for municipalities within the area.

1.1.3. Settlement Areas

Settlement areas are urban areas and rural settlement areas, and include cities, towns, villages and hamlets. Ontario's settlement areas vary significantly in terms of size, density, population, economic activity, diversity and intensity of land uses, service levels, and types of infrastructure available.

The vitality and regeneration of settlement areas is critical to the long-term economic prosperity of our communities. Development pressures and land use change will vary across Ontario. It is in the interest of all communities to use land and resources wisely, to promote efficient development patterns, protect resources, promote green spaces, ensure effective use of infrastructure and public service facilities and minimize unnecessary public expenditures.

1.1.3.1 *Settlement areas* shall be the focus of growth and development.

1.1.3.2 Land use patterns within *settlement areas* shall be based on densities and a mix of land uses which:

a)efficiently use land and resources;
b)are appropriate for, and efficiently use, the *infrastructure* and *public servic efacilities* which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;
c)minimize negative impacts to air quality and climate change, and promote energy efficiency;
d)prepare for the *impacts of a changing climate*;
e)support *active transportation*;
f)are *transit-supportive*, where transit is planned, exists or may be developed; and

1.1.3.3 Planning authorities shall identify appropriate locations and promote opportunities for *transit-supportive* development, accommodating a significant supply and range of *housing options* through *intensification* and *redevelopment* where this can be accommodated taking into account existing building stock or areas, including *brownfield sites*, and the availability of suitable existing or planned *infrastructure* and *public service facilities* required to accommodate projected needs.

1.1.3.4 Appropriate development standards should be promoted which facilitate *intensification*, *redevelopment* and compact form, while avoiding or mitigating risks to public health and safety.

1.1.3.5 Planning authorities shall establish and implement minimum targets for *intensification* and *redevelopment* within built-up areas, based on local conditions. However, where provincial targets are established through *provincial plans*, the provincial target shall represent the minimum target for affected areas.

1.1.3.6 New development taking place in *designated growth areas* should occur adjacent to the existing built-up area and should have a compact form, mix of uses and densities that allow for the efficient use of land, *infrastructure* and *public service facilities*.

1.3.2 Employment Areas

1.3.2.3 Within *employment areas* planned for industrial or manufacturing uses, planning authorities shall prohibit residential uses and prohibit or limit other *sensitive land uses* that are not ancillary to the primary employment uses in order to maintain land use compatibility. *Employment areas* planned for industrial or manufacturing uses should include an appropriate transition to adjacent non-*employment areas*.

1.3.2.4 Planning authorities may permit conversion of lands within *employment areas* to non-employment uses through a *comprehensive review*, only where it has been demonstrated that the land is not required for employment purposes over the long term and that there is a need for the conversion.

1.3.2.5 Notwithstanding policy 1.3.2.4, and until the official plan review or update in policy 1.3.2.4 is undertaken and completed, lands within existing *employment areas* may be converted to a designation that permits non-employment uses provided the area has not been identified as provincially significant through a provincial plan exercise or as regionally significant by a regional economic development corporation working together with affected upper and single-tier municipalities and subject to the following:

a) there is an identified need for the conversion and the land is not required for employment purposes over the long term;

b) the proposed uses would not adversely affect the overall viability of the *employment area*; and

c) existing or planned *infrastructure* and *public service facilities* are available to accommodate the proposed uses.

1.4 Housing

1.4.1 To provide for an appropriate range and mix of *housing options* and densities required to meet projected requirements of current and future residents of the *regional market area*, planning authorities shall:

a) maintain at all times the ability to accommodate residential growth for a minimum of 15 years through *residential intensification* and *redevelopment* and, if necessary, lands which are *designated and available* for residential development; and

b) maintain at all times where new development is to occur, land with servicing capacity sufficient to provide at least a three-year supply of residential units available through lands suitably zoned to facilitate *residential intensification* and *redevelopment*, and land in draft approved and registered plans.

1.4.3 Planning authorities shall provide for an appropriate range and mix of *housing options* and densities to meet projected market-based and affordable housing needs of current and future residents of the *regional market area* by:

b) permitting and facilitating:

1. all *housing options* required to meet the social, health, economic and well-being requirements of current and future residents, including *special needs* requirements and needs arising from demographic changes and employment opportunities; and

2. all types of *residential intensification*, including additional residential units, and *redevelopment* in accordance with policy 1.1.3.3;

c) directing the development of new housing towards locations where appropriate levels of *infrastructure* and *public service facilities* are or will be available to support current and projected needs;

d) promoting densities for new housing which efficiently use land, resources, *infrastructure* and *public service facilities*, and support the use of *active transportation* and transit in areas where it exists or is to be developed;

1.6 Infrastructure and Public Service Facilities

1.6.1 *Infrastructure* and *public service facilities* shall be provided in an efficient manner that prepares for the *impacts of a changing climate* while accommodating projected needs.

1.6.6 Sewage, Water and Stormwater

1.6.6.2 *Municipal sewage services* and *municipal water services* are the preferred form of servicing for *settlement areas* to support protection of the environment and minimize potential risks to human health and safety. Within *settlement areas* with existing *municipal sewage services* and *municipal water services*, *intensification* and *redevelopment* shall be promoted wherever feasible to optimize the use of the services.

1.6.6.7 Planning for stormwater management shall:

a) be integrated with planning for *sewage and water services* and ensure that systems are optimized, feasible and financially viable over the long term;

b) minimize, or, where possible, prevent increases in contaminant loads;

c) minimize erosion and changes in water balance, and prepare for the *impacts of a changing climate* through the effective management of stormwater, including the use of *green infrastructure*;

d) mitigate risks to human health, safety, property and the environment;

e) maximize the extent and function of vegetative and pervious surfaces; and

f) promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.

1.6.7.1 *Transportation systems* should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.

1.6.7.2 Efficient use should be made of existing and planned *infrastructure*, including through the use of *transportation demand management* strategies, where feasible.

1.6.7.4 A land use pattern, density and mix of uses should be promoted that minimize the length and number of vehicle trips and support current and future use of transit and *active transportation*.

3.0 Protecting Public Health and Safety

Ontario's long-term prosperity, environmental health and social well-being depend on reducing the potential for public cost or risk to Ontario's residents from natural or human-made hazards.

Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.

Mitigating potential risk to public health or safety or of property damage from natural hazards, including the risks that may be associated with the impacts of a changing climate, will require the Province, planning authorities, and conservation authorities to work together.

Appendix F -Excerpts from the City of Windsor Official Plan

3.2 Growth Concept

The 1996 Census population of Windsor was 197,695. Windsor‟s population is expected to increase by between 11,980 to 23,280 from 1996 to 2016. This growth and corresponding demographic changes, is projected to result in the need for an additional 10,950 dwelling units and create between 13,900 and 29,600 new jobs. This, in turn, will result in the projected development of between 390 to 476 hectares of residential lands and 243 to 514 hectares of employment and commercial lands.

The policies of this Plan are directed toward accommodating the projected growth through practical and efficient land use management strategies that promote a compact pattern of development and balanced transportation system. Compatible residential, commercial and employment growth will be directed to appropriate locations within existing and planned neighbourhoods to reduce development and infrastructure costs and provide opportunities to live, work and shop in City of Windsor Official Plan Volume I Development Strategy 3 - 3 close proximity.

Mixed use developments will be encouraged with strong pedestrian orientations and to support public transit. This concept will enable Windsor to continue its growth and foster a vibrant economy, while ensuring a safe, caring and diverse community and a sustainable, healthy environment.

In order to manage growth consistent with the community vision, the following key policy directions are provided for in the other chapters ofthis Plan.

3.2.1 Safe, Caring and Diverse Community

NEIGHBOURHOOD HOUSING VARIETY

3.2.1.2 Encouraging a range of housing types will ensure that people have an opportunity to live in their neighbourhoods as they pass through the various stages of their lives. Residents will have a voice in how this new housing fits within their neighbourhood. As the city grows, more housing opportunities will mean less sprawl onto agricultural and natural lands.

DISTINCTIVE NEIGHBOURHOOD CHARACTER

3.2.1.3 Windsor will keep much of what gives its existing neighbourhoods their character – trees and greenery, heritage structures and spaces, distinctive area identities, parks, and generally low profile development outside the City Centre. Around the neighbourhood centres, the existing character of the neighbourhood will be retained and enhanced. Newly developing

areas will be planned to foster their own unique neighbourhood identities with a mixture of homes, amenities and services.

3.2.3 Sustainable, Healthy Environment

TRANSPORTATION SYSTEM

3.2.3.1 Windsor will work toward achieving a sustainable transportation system where all modes of transportation can play a more balanced role. The creation of mixed use and employment centres will allow businesses and services to be closer to homes and allow greater opportunities for walking, cycling and transit.

6.1 Goals
In keeping with the Strategic Directions, Council's land use goals are to achieve:

NEIGHBOURHOODS
6.1.1--Safe, caring and diverse neighbourhoods.

RESIDENTIAL
6.1.3--Housing suited to the needs of Windsor's residents.

MIXED USE
6.1.10--Pedestrian oriented clusters of residential, commercial, employment and institutional uses.

COMPATIBLE DEVELOPMENT
6.4.1.3--To ensure that employment uses are developed in a manner which are compatible with other land uses.

RANGE OF USES
6.4.1.4--To accommodate a full range of employment activities in Windsor.

ACCESSIBLE
6.4.1.6--To locate employment activities in areas which have sufficient and convenient access to all modes of transportation.

INFRASTRUCTURE
6.4.1.8--To ensure that adequate infrastructure services are provided to employment areas.

6.4.3 Industrial Policies

The Industrial land use designation provides for a broad range of industrial uses which, because of their physical and operational characteristics, are more appropriately clustered together and separated from sensitive land uses. This designation is also applied to certain older industrial areas of Windsor where such a separation may not have been achieved.

PERMITTED USES

6.4.3.1

Uses permitted in the Industrial land use designation identified on Schedule D: Land Use include establishments which may exhibit any or all of the following characteristics:

(a) large physical size of site or facilities;

(b) outdoor storage of materials or products;

(c) large production volumes or large product size;

(d) frequent or continuous shipment of products and/or materials;

(e) long hours of production and shift operations;

(f) likelihood of nuisances, such as noise, odour, dust or vibration;

(g) multi-modal transportation facilities;

6.9 Mixed Use

The lands designated as “Mixed Use” on Schedule D: Land Use provide the main locations for compact clusters of commercial, office, institutional, open space and residential uses. These areas are intended to serve as the focal point for the surrounding neighbourhoods, community or region. As such, they will be designed with a pedestrian orientation and foster a distinctive and attractive area identity.

The following objectives and policies establish the framework for development decisions in Mixed Use areas.

6.9.1 Objectives

MULTI-FUNCTIONAL AREAS

6.9.1.1--To encourage multi-functional areas which integrate compatible commercial, institutional, open space and residential uses.

COMPACT FORM

6.9.1.2--To encourage a compact form of mixed use development.

6.9.2 Policies--PERMITTED USES

6.9.2.1--Uses permitted in the Mixed Use land use designation include retail and service commercial establishments, offices, cultural, recreation and entertainment uses, and institutional, open space and residential uses, exclusive of small scale Low Profile residential development.

LOCATIONAL CRITERIA

6.9.2.3-Mixed Use development shall be located where:

(a)there is access to a Controlled Access Highway, Class I or Class II Arterial Roads or Class I Collector Road;

(b)full municipal physical services can be provided;

(c)public transportation service can be provided; and

(d)the surrounding development pattern is compatible with Mixed Use development.

EVALUATION CRITERIA

6.9.2.4--At the time of submission, the proponent shall demonstrate to the satisfaction of the Municipality that a proposed Mixed Use development is:

(a) feasible having regard to the other provisions of this Plan, provincial legislation, policies and appropriate guidelines and support studies for uses:

(i) within or adjacent to any area identified on Schedule C: Development Constraint Areas and described in the Environment chapter of this Plan;

(ii) within a site of potential or known contamination;

(iii) where traffic generation and distribution is a provincial or municipal concern; and

(iv) adjacent to sensitive land uses and/or heritage resources.

(b) in keeping with the goals, objectives and policies of any secondary plan or guideline plan affecting the surrounding area;

(c) capable of being provided with full municipal physical services and emergency services;

(d) provided with adequate off street parking;

(e) pedestrian oriented;

(f) compatible with the surrounding area in terms of scale, massing, height, siting, orientation, setbacks, parking and landscaped areas; and

(g) acceptable in terms of the proposal's market impacts on other commercial areas (see Procedures chapter).

DESIGN GUIDELINES

6.9.2.5--The following guidelines shall be considered when evaluating the proposed design of a Mixed Use development:

(a) the ability to achieve the associated policies as outlined in the Urban Design chapter of this Plan;

(b) the mass, scale, orientation, form, and siting of the development achieves a compact urban form and a pedestrian friendly environment;

(c) at least one building wall should be located on an exterior lot line and oriented to the street to afford direct sidewalk pedestrian access from the public right-of-way;
(d) permanent loading, service and parking areas should be located so as not to significantly interrupt the pedestrian circulation or traffic flow on the public right-of-way or within a Mixed Use area;
(e) mid-block vehicular access to properties is generally discouraged and is encouraged via a rear yard service road or alley;
(f) parking areas shall be encouraged at the rear of buildings;
(g) safe and convenient pedestrian access between buildings and public transportation stops, parking areas and other buildings and facilities should be provided;
(h) the development is designed to foster distinctive and attractive area identity;
(i) the public rights-of-way are designed to foster distinctive and attractive area identity and to provide for vehicle use, regular public transportation service as well as pedestrian and cycling travel; and
(j) integration of the development with the surrounding uses to contribute to the unique character of the area.

DEVELOPMENT ADJACENT TO A CORRIDOR

7.2.8.8 Council shall evaluate a proposed development adjacent to a Rail Corridor, in accordance with the following:

(a) All proponents of a new development within 300 metres of a rail corridor, may be required to complete a noise study to support the proposal, and if the need for mitigation measures is determined by such study, shall identify and recommend appropriate mitigation measures, in accordance with the Procedures chapter of this Plan;

(b) All proponents of new development, located within 75 metres of a rail corridor, shall complete a vibration study to support the City of Windsor Official Plan Volume I Infrastructure 7 – 25 proposal, and if the need for mitigation measures is determined by such study, shall identify and recommend appropriate mitigation measures, in accordance with the Procedures chapter of this Plan;

EVALUATION CRITERIA
11.6.3.3 --When considering applications for Zoning By-law amendments, Council shall consider the policies of this Plan and will, without limiting the generality of the foregoing, consider such matters as the following:

(a) The relevant evaluation criteria contained in the Land Use Chapter of this Plan, Volume II: Secondary Plans & Special Policy Areas and other relevant standards and guidelines;

(b) Relevant support studies;

(c) The comments and recommendations from municipal staff and circularized agencies;

(d) Relevant provincial legislation, policies and appropriate guidelines; and

(e) The ramifications of the decision on the use of adjacent or similar lands.

Volume II, Part 1-Special Policy areas

1.7 Sandwich Street and Chappell Avenue (amended by OPA #4 – 05/03/2001)

SOUTHEAST CORNER
1.7.1 The property comprising Lot 28, south side of Sandwich Street and part of Lot 28 north side of Peter Street, Registered Plan 40, located on the southeast corner of Sandwich Street and Chappell Avenue is designated on Schedule A: Planning Districts and Policy Areas in Volume I – The Primary Plan

ADULT ENTERTAINMENT PARLOUR
PERMITTED
1.7.2 Notwithstanding Section 6.4.3.2 (c) of this Plan respecting Adult Entertainment Parlours in areas designated “Industrial”, the lands identified as 3885 Sandwich Street may be used for an Adult Entertainment Parlour.

18.4 MANUFACTURING DISTRICT 1.4 (MD1.4)

18.4.1 PERMITTED USES

Ambulance Service
Bakery
Business Office
Commercial School
Food Catering Service
Food Packaging Facility
Manufacturing Facility
Medical Appliance Facility
Medical Office
Micro-Brewery
Professional Studio
Research and Development Facility

Any of the following *Ancillary Uses*:

Child Care Centre
Club
Convenience Store
Food Convenience Store
Food Outlet - Drive-through
Food Outlet - Take-out
Gas Bar
Health Studio
Personal Service Shop
Restaurant
Restaurant with Drive-through
Veterinary Office
Warehouse
Wholesale Store

Any of the following *Existing Uses*:

Motor Vehicle Dealership
Sports Facility
Transport Terminal

Any use accessory to any of the above uses, including a *Retail Store*

18.4.3 PROHIBITED USES

Outdoor Storage Yard

18.4.5 PROVISIONS

.1	Lot Width – minimum	30.0 m
.4	Building Height – maximum	20.0 m
.5	Front Yard Depth – minimum	9.0 m
.6	Rear Yard Depth – minimum	
	From a *rear lot line* that abuts a *lot* on which a *dwelling* or *dwelling unit* is located	6.0 m
.7	Side Yard Width – minimum	
	From a *side lot line* that abuts a *lot* on which a *dwelling* or *dwelling unit* is located or from a *side lot* line that abuts a *street*	6.0 m
.8	Landscaped Open Space Yard – minimum	15.0% of *lot area*
.10	Gross Floor Area – *Retail Store* – maximum	20.0% of the *GFA* of the *main use*

.50 All activities or uses shall take place entirely within a fully enclosed *building*. This provision does not apply to the following activity or use: *child care centre*, *gas bar*, *loading space*, outdoor eating area, *parking area*, *parking space*, *sports facility*, or refuelling area.

SECTION 15 - COMMERCIAL DISTRICTS 2. (CD2.)

(B/L 8614 Jun 23/1986; B/L 11358 Mar 1/1993; B/L 11614 Nov1/1993; B/L 11922 Sep 23/1994; B/L 12602 Jun 17/1996; B/L 39-1998 Mar 10/1998; B/L 162-1998 Jun 24/1998; B/L 33-2001 Oct 23/2001, OMB Decision/Order No. 1716 Case No. PL010233; B/L 370-2001 Nov 15/2001; B/L 363-2002 Dec 31/2002; B/L 375-2004 Dec 21/2004; B/L 46-2005 Mar 23/2005; B/L 232-2006 Jun 18/2007; B/L 164-2010 Nov 17/2010; B/L 7-2018 Feb. 23/2018)
[ZNG/5271]

15.1 COMMERCIAL DISTRICT 2.1 (CD2.1)

15.1.1 PERMITTED USES

Bakery
Business Office
Child Care Centre
Commercial School
Confectionery
Food Outlet - Drive-Through
Food Outlet - Take-Out
Funeral Establishment
Garden Centre
Gas Bar
Medical Office
Micro-Brewery
Parking Garage
Personal Service Shop
Place of Entertainment and Recreation
Place of Worship
Professional Studio
Public Hall
Public Parking Area
Repair Shop – Light
Restaurant
Restaurant with Drive-Through
Retail Store
Temporary Outdoor Vendor's Site
Tourist Home
Veterinary Office
Wholesale Store

Existing Automobile Repair Garage
Existing Service Station

Any use accessory to any of the preceding uses. An *Outdoor Storage Yard* is prohibited, save and except, in combination with the following main uses: *Garden Centre, Temporary Outdoor Vendor's Site, Existing Automobile Repair Garage.*

15.1.5 PROVISIONS

.4	Building Height – maximum	14.0 m
.10	Gross Floor Area – maximum	
	Bakery or *Confectionary*	550.0 m^2

.26 A *Temporary Outdoor Vendor's Site* is prohibited in a *Business Improvement Area*.

SECTION 8 - DEVELOPMENT RESERVE DISTRICTS. 1 (DRD1.)

(ADDED by B/L 370-2001, Nov. 15/2001; AMENDED by B/L 168-2002, July 18/2002; B/L 164-2010, Nov. 17/2010; AMENDED by B/L 164-2017, Dec. 7/2017 [ZNG/5270] ; AMENDED by B/L 95-2018, Aug. 21/2018;

8.1 DEVELOPMENT RESERVE DISTRICT 1.1 (DRD1.1)

8.1.1 PERMITTED USES

Existing Dwelling

Any use accessory to an *Existing Dwelling*

8.1.5 PROVISIONS

.1	Lot Width – minimum	As Existing
.2	Lot Area – minimum	As Existing
.3	Lot Coverage – Total – maximum	45.0%
.4	Main Building Height – maximum	10.0 m
.5	Front Yard Depth – minimum	6.0 m
.6	Rear Yard Depth – minimum	7.50 m
.7	Side Yard Width – minimum	1.20 m

(AMENDED by B/L 95-2018, Aug. 21, 2018)

TABLE 24.20.5.1 - REQUIRED PARKING SPACES	
USE	**PARKING RATE - MINIMUM**
Adult Entertainment Parlour	1 for each 7.5 m² GFA
Art Gallery	1 for each 45 m² GFA
Automatic Car Wash	0
Automobile Repair Garage	1 for each 45 m² GFA
Automobile Sales Lot	1 for each 45 m² GFA
Bake Shop	1 for each 22.5 m² GFA
Bakery	1 for each 45m² GFA for the first 2,700 m² GFA and 1 for each additional 180 m²
Billiard Hall	1 for each 22.5 m² GFA
Bingo Hall	1 for each 22.5 m² GFA
Bowling Alley	4 per alley
Building Material Recycling Centre	1 for each 45 m² GFA
Business Office	1 for each 45 m² GFA
Church (including a Church Hall)	1 for each 5.5 m² GFA uses as a church, chapel or sanctuary AND 1 for each 36 m² GFA not used as a church, chapel or sanctuary
Club	1 for each 22.5 m² GFA
Coin Operated Car Wash	0
College Student Residence	1 for each 4 beds
Collision Shop	1 for each 45 m² GFA
Combined Use Building – Dwelling Units	1.25 for each dwelling unit
Commercial School	2.5 for each classroom or teaching area AND 1 for each 22.5 m² of GFA of cafeteria, auditorium, gymnasium and other area of assembly
Confectionary	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Confectioner's Shop	1 for each 22.5 m² GFA
Contractor's Office	1 for each 45 m² GFA used as a business office AND 1 for each 200 m² GFA used as a warehouse
Convenience Store	1 for each 22.5 m² GFA
Convent or Monastery	1 for each 4 beds
Correctional Facility	1 for each 2 beds
Day Nursery	1.5 for each classroom or teaching area
Double-duplex Dwelling	4
Drive-through Food Outlet	1 for each 22.5 m² GFA
Drive-through Restaurant	1 for each 7.5 m² GFA
Duplex Dwelling	2

TABLE 24.20.5.1 - REQUIRED PARKING SPACES	
USE	**PARKING RATE - MINIMUM**
Elementary School	1.5 for each classroom or teaching area
Entertainment Lounge	1 for each 7.5 m² GFA
Exhibition Hall	1 for each 36 m² GFA
Financial Office	1 for each 45 m² GFA
Food Convenience Store	1 for each 22.5 m² GFA
Fraternity or Sorority House	1 for each 4 beds
Funeral Home	1 for each 5.5 m² GFA used for a chapel, sanctuary or reposing room
Games Arcade	1 for each 22.5 m² GFA
Garden Centre	1 for each 22.5 m² GFA
Gas Bar	1 for each 45 m² GFA
General Salvage Operation	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Group Home	1
Health Studio	1 for each 36 m² GFA
Heavy Repair Shop	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Hospital	1 for each bed
Hotel	1 for each guest room AND 1 for each 22.5 m² GFA used for a restaurant, convention hall, meeting room and other places of assembly.
Library	1 for each 45 m² GFA
Light Repair Shop	1 for each 45 m² GFA
Lodging House	1 for each 6 beds
Major Commercial Centre (exclusive of a hotel or motel)	1 for each 22.5 m² GFA
Marina	0.5 for each 1 boat docking space AND 1 for each 1 boat anchorage space
Material Transfer Centre	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Medical Office	1 for each 13.5 m² GFA
Micro-brewery	1 for each 45 m² GFA
Minor Commercial Centre	1 for each 22.5 m² GFA and when the combined GFA of all restaurants and entertainment lounges Exceeds 30% of the GFA of the Centre, 1 for each 7.5 m² GFA of all restaurants and entertainment lounges in excess thereof
Mobile Home	1

TABLE 24.20.5.1 - REQUIRED PARKING SPACES	
USE	**PARKING RATE - MINIMUM**
Motel	1 for each guest room AND 1 for each 22.5² GFA used for a restaurant, convention hall, meeting room and other places of assembly
Motor Vehicle Dealership	1 for each 45 m² GFA
Motor Vehicle Salvage Operation	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Multiple Dwelling containing a maximum of 4 Dwelling units	1 for each dwelling unit
Multiple Dwelling containing a minimum of 5 Dwelling units	1.25 for each dwelling unit
Museum	1 for each 45 m² GFA
Outdoor Market	0
Pawnshop	1 for each 22.5 m² GFA
Personal Service Shop	1 for each 22.5 m² GFA
Pharmacy	1 for each 22.5 m² GFA
Place of Entertainment and Recreation	1 for each 36 m² GFA
Power Generation Plant	1 for each 200 m² GFA
Professional Studio	1 for each 45 m² GFA
Public Hall	1 for each 7.5 m² GFA
Residential Care Facility	1 for each 4 beds
Restaurant	1 for each 7.5 m² GFA
Retail Store	1 for each 22.5 m² GFA
Secondary School	1.5 for each classroom or teaching area AND 1 For each 22.5 m² of GFA of cafeteria , auditorium, gymnasium and other area of assembly
Self-storage Facility	2
Semi-Detached Dwelling	1 for each dwelling unit
Service Station	1 for each 45 m² GFA
Shelter	1 for each 6 beds
Single –unit Dwelling	1
Stacked Dwelling Unit	1 for each dwelling unit
Take-Out Food Outlet	1 for each 22.5 m² GFA
Temporary Outdoor Vendor's Site	0
Theatre	1 for each 6 seats
Tourist Home	1 for each guest room AND 1 for each 22.5 m² GFA used for a restaurant, convention hall, meeting room and other places of assembly

TABLE 24.20.5.1 - REQUIRED PARKING SPACES	
USE	**PARKING RATE - MINIMUM**
Townhome Dwelling having an attached garage or carport	1 for each dwelling unit
Townhome Dwelling without an attached garage or carport	1.25 for each dwelling unit
Transport Terminal	5 parking spaces, or 1 for each 45.0 m² GFA, whichever is greater
University Student Residence	1 for each 4 beds
Veterinary Clinic	1 for each 13.5 m² GFA
Veterinary Office	1 for each 13.5 m² GFA
Warehouse	1 for each 200 m² GFA
Wholesale Store	1 for each 45 m² GFA
Workshop	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
All other commercial uses not specifically listed	1 for each 36 m² GFA
All other industrial uses not specifically listed	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m² GFA

(AMENDED by B/L 144-2015, Nov. 6, 2015; B/L 169-2018, Dec. 19/2018)

24.24.1 REQUIRED ACCESSIBLE PARKING SPACES

.1 There shall be provided accessible parking spaces as shown in Table 24.24.1:

TABLE 24.24.1 – REQUIRED ACCESSIBLE PARKING SPACES

TOTAL NUMBER OF PARKING SPACES IN PARKING AREA	REQUIRED NUMBER OF ACCESSIBLE PARKING SPACES – MINIMUM	
	TYPE A	TYPE B
1 to 25	1 space	0
26 to 100	2 percent of parking spaces	2 percent of parking spaces
101 to 200	1.5 percent of parking spaces	0.5 space plus 1.5 percent of parking spaces
201 to 1,000	0.5 space plus 1 percent of parking spaces	1 space plus 1 percent of parking spaces
1,001 or more	5 spaces plus 0.5 percent of parking spaces	5.5 spaces plus 0.5 percent of parking spaces

.2 If the calculation of the number of required Type A and Type B accessible parking spaces results in a number containing a fraction, the number shall be rounded up to the nearest whole number:

COMMENTS

Canada Post

This development, as described, falls within our centralized mail policy.

I will specify the condition which I request to be added for Canada Post Corporation's purposes.

a) Canada Post's multi-unit policy, which requires that the owner/developer provide the centralized mail facility (front loading lockbox assembly or rear-loading mailroom [mandatory for 100 units or more]), at their own expense, will be in effect for buildings and complexes with a common lobby, common indoor or sheltered space.

Should the description of the project change, I would appreciate an update in order to assess the impact of the change on mail service.

If you have any questions or concerns regarding these conditions, please contact me. I appreciate the opportunity to comment on this project.

Enbridge – Windsor Mapping

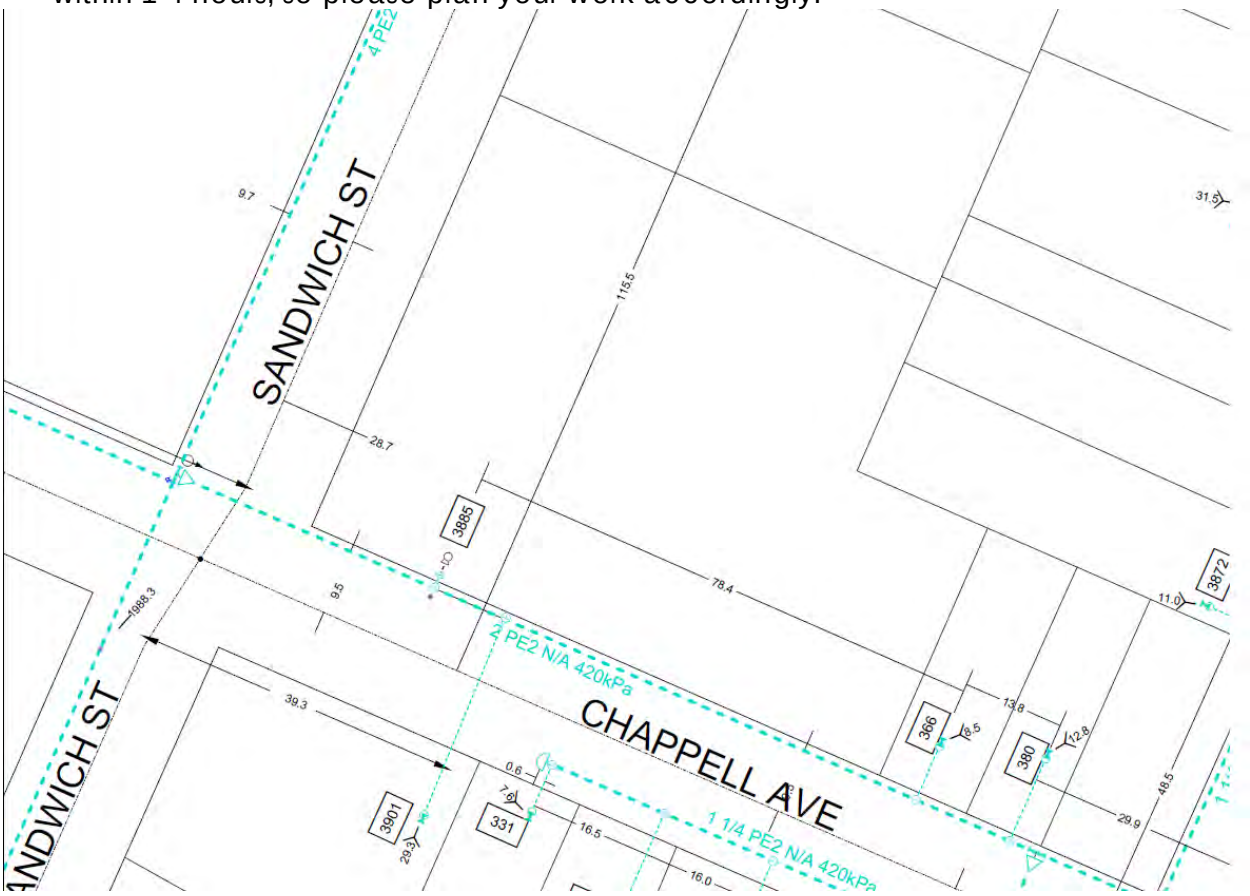
After reviewing the proposal liaison sheet and consulting our mapping system, please note that Enbridge Gas has active infrastructure along the north side of the right-of-way of Chappell Ave. A PDF drawing has been attached for reference.

Please Note:
1. The shown piping locations are approximate and for information purposes only
2. The drawings are not to scale
3. This drawing does not replace field locates. Please contact Ontario One Call for onsite locates prior to excavating, digging, etc

Enbridge Gas requires a minimum separation of 0.6m horizontal and 0.3m vertical from all of our plant less than NPS 16 and a minimum separation 1.0m horizontal and 0.6m vertical between any CER-regulated and vital pipelines. For all pipelines (including vital pipelines), when drilling parallel to the pipeline, a minimum horizontal clearance measured from the edge of the pipeline to the edge of the final bore hole of 1 m (3.3 ft) is required. Please ensure that this minimum separation requirement is maintained, and that the contractor obtains locates prior to performing any work and utilizes safe excavation practices while performing any work in the vicinity.

Also, please note the following should you find any abandoned infrastructure in the area:
- Any pipe that is excavated, please assume that it is live
- If during the course of any job, any pipe is found that is not on the locate sheet and is in conflict with your work, please call our emergency number (1-877-969-0999), and one of our Union Gas representatives will respond to determine if that plant is in fact live or dead

- Please note that our Enbridge Gas representative will respond to the live or dead call within 1-4 hours, so please plan your work accordingly.



<u>George Robinson – Site Plan Control</u>

Given the site location and proximity to Windsor Salt operations, we recommend getting someone internal to review their Geotechnical Study as part of the liason for the rezoning, rather than leaving that until SPC. Public Works or the Building Department may have capacity to do this. Recommend seeking clarification regarding the foundation type and strategy. i.e.: traditional piers/walls/footings, vs raft, vs pilings, etc.

Circulation to Windsor Salt on the OPA and ZBA should be considered.

See section 4.3.1 of the noise study report for a list of surrounding land uses that produce noise. In the context of the upcoming consultant's study on residential development and the RICBL, recommend reviewing suitability with management.

Site Plan Comments for report:
Pre-consultation review of the site plan application package is required prior to acceptance of an application for Site Plan Control, arrange consultation with a Site Plan Approval Officer. Contact George Robinson (grobinson@citywindsor.ca) or Jason Campigotto (jcampigotto@citywindsor.ca) with PDF copies of the plans to start

application process. Refer to Appendix 'B' of the Site Plan Approval Application for drawing information requirements.

Jason Scott – Transit Windsor

Transit Windsor has no objections to this development. The closest existing transit route to this property is the Crosstown 2. The closest existing bus stop to this property is located on Prince at Peter Southeast Corner. This bus stop is approximately 450 metres from this property falling outside of our 400 metre walking distance guideline to a bus stop. Our Council approved Transit Master Plan will introduce a new secondary route along Sandwich in the area of this development with a probable bus stop located on Sandwich at Chappell providing direct transit service for this development.

Rania Toufeili – Transportation Planning

This development is proposing a significant reduction in parking and no Parking Study was provided. I'm looking through my files and I don't think this application came through pre-submission.

Sometimes developers discuss parking in the TIS but they barely touched on it here. They should provide a Parking Study to justify the deficiency (PRR says its 85 spaces short). I'll include that a Parking Study is needed in my comments.

Amended Comments – April 5, 2022
The TIS is for the same proposal, and they assumed a conservative background growth so it would still be relevant. There are no additional comments for the TIS and it's acceptable.

However, as indicated before they will need parking study, the deficiency is very large.

- A parking study is required for this development for review due to the large deficiency with respect to Zoning By-Law 8600. The site plan does not indicate the correct deficiency value.

- A 4.6 meter corner cut-off is required at the corner of Sandwich Street and Chappell Avenue.

- Sandwich Street is classified as a Class II Arterial according to the Official Plan with a required right-pf-way width of 20.1 meters per Schedule X. The existing right-of-way width is sufficient and therefore no conveyance is required.

- Chappell Avenue is classified as a local road according to the Official Plan with a required right-of-way width of 20 meters. The existing right-of-way width is sufficient and therefore no conveyance in required.

- A TIS was submitted for review with this application. The TIS has been reviewed and indicates that the no off-site improvements are required to accommodate this development.

- All new accesses shall conform to the TAC Geometric Design Guide for Canadian Roads and the City of Windsor Standard Engineering Drawings.

- All exterior paths of travel must meet the requirements of the Accessibility for Ontarians with Disabilities Act (AODA).

Amended Comments – May 18th, 2022

A TIS memo and updated parking study are required for the current proposal at this development.

The following can be noted to help justify the parking deficiency through the parking study:

- Ideally, the deficiency should be minimized if possible. Parts of the commercial space can be converted to amenity space to help decrease the need for parking if that option is viable.
- Zoning by-law deficiency should be correctly identified. Currently the deficiency is 85 spaces under the last proposal, if the proposal changes that might decrease.
- The developer can speak to how parking will be managed on site and the different peak parking times for the different uses (residential peak parking is in the evening and commercial is typically weekends during the day). Parking requirements will vary throughout the day for the different parts of the development.
- ITE Parking Generation Guide can be used to justify what parking requirements could be for the proposed use. A rate of 1 space per dwelling for each residential unit can be used per ITE land use code 222.
- Mitigation options should be considered (increase in bicycle parking, transit options in the area, etc.)
- On street parking availability can be used to help justify the deficiency, this was identified in the previous parking study as well.
- The specific expected use for commercial can be identified at this point if it is known, some commercial types require less parking than others such as small shops in a strip plaza versus a food store.

Jose Mejalli – Assessment Management Officer

No objection to the construction of an 11 storey Combined Use Building with 150 residential units and 12 retail spaces and respect relief from the maximum building height, minimum amenity space, and minimum parking space provisions

ERCA

The following is provided as a result of our review of Zoning By-Law Amendment Z-028-21 ZNG6503 OPA153 OPA6504. The purpose of the ZBA and OPA application is to permit the construction of an 11 storey Combined Use Building with 150 residential units and 12 retail spaces. The applicant seeks relief from maximum building height, minimum amenity space, and minimum parking space provisions.

DELEGATED RESPONSIBILITY TO REPRESENT THE PROVINCIAL INTEREST IN NATURAL HAZARDS AND REGULATORY RESPONSIBILITIES ASSOCIATED WITH THE CONSERVATION AUTHORITIES ACT

The following comments reflect our role as representing the provincial interest in natural hazards as outlined by Section 3.1 of the Provincial Policy Statement of the *Planning Act* as well as our regulatory role as defined by Section 28 of the *Conservation Authorities Act*.

We have reviewed our floodline mapping for this area and it has been determined this site is not located within a regulated area that is under the jurisdiction of the ERCA (Section 28 of the *Conservation Authorities Act*). As a result, a permit is not required from ERCA for issues related to Section 28 of the *Conservation Authorities Act,* Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation under the *Conservations Authorities Act*, (Ontario Regulation No. 158/06).

The applicant will require a development review from the Essex Region Conservation Authority at the time of Site Plan Control.

Significant Groundwater Recharge Area (SGRA)

The property is located within a Significant Groundwater Recharge Area (SGRA). There are no associated Significant Drinking Water Threats (SDWTS) or policies with these areas because the municipal water treatment plant does not use groundwater as its supply. However, the proponent should consider the sensitive nature of this natural feature. These areas are at a greater risk for contamination from land use activities. Any future proposed activity on these properties at minimum should not result in increased risk of contamination of the recharge area.

WATERSHED BASED RESOURCE MANAGEMENT AGENCY

The following comments are provided in an advisory capacity as a public commenting body on matters related to watershed management.

SECTION 1.6.6.7 PPS, 2020 - Stormwater Management

We are concerned with the potential impact of the quality and quantity of runoff in the downstream watercourse due to future development of this site.

We recommend that the municipality ensure through the Site Plan Control process that the release rate for any future development is controlled to the capacity available in the existing storm sewers/drains. In addition, that stormwater quality and stormwater quantity are addressed up to and including the 1:100 year storm event and be in accordance with the guidance provided by the Stormwater Management Planning and Guidance Manual, prepared by the Ministry of the Environment (MOE, March 2003) and the Windsor-Essex Region Stormwater Management Standards Manual.

If this property is subject to Site Plan Control, we request to be included in the circulation of the Site Plan Control application. We reserve to comment further on storm water management concerns, until we have had an opportunity to review the specific details of the proposal through the site plan approval stage.

PLANNING ADVISORY SERVICE TO PLANNING AUTHORITIES - NATURAL HERITAGE POLICIES OF THE PPS, 2020

The following comments are provided from our perspective as an advisory service provider to the Planning Authority on matters related to natural heritage and natural heritage systems as outlined in Section 2.1 of the Provincial Policy Statement of the *Planning Act*. The comments in this section do not necessarily represent the provincial position and are advisory in nature for the consideration of the Planning Authority.

The subject property is not within or adjacent to any natural heritage feature that may meet the criteria for significance as defined by the PPS. Based on our review, we have no objection to the application with respect to the natural heritage policies of the PPS.

FINAL RECOMMENDATION

With the review of background information and aerial photograph, we advise that a stormwater management plan be completed to the satisfaction of the City of Windsor and the Essex Region Conservation Authority, at the time of Site Plan Control. The applicant will require a development review from the Essex Region Conservation Authority at the time of Site Plan Control.

Barbara Rusan – Building Department
The Building Code Act, Section 8.(1) requires that a building permit be issued by the Chief Building Official for construction or demolition of a building. The building permit review process occurs after a development application receives approval and once a building permit application has been submitted to the Building Department and deemed a complete application.

Due to the limited Ontario Building Code related information received, review of the proposed project for compliance to the Ontario Building Code has not yet been conducted.

It is strongly recommended that the owner and/or applicant contact the Building Department to determine building permit needs for the proposed project prior to building permit submission.

The City of Windsor Building Department can be reach by phoning 519-255-6267 or, through email at buildingdept@citywindsor.ca

In addition to the above this development would require a Record of Site Condition (i.e. proposed change to a more sensitive land use – residential from previous commercial use).

Frank Garardo – Policy & Special Studies

The proposed Official Plan and Zoning by-law amendments will allow a mixed use development with commercial uses on the main floor and dwelling units as an additional permitted use above commercial use(s) at 0 Sandwich Street and 3885 Sandwich Street (Plan 40 PT Lot 28 East Side; & Pt Lot 28 West Side; Corner).

The OPA will change the land use designation from "Industrial" to site specific "Industrial" to permit additional residential uses.

The subject property is designated as "Industrial" on Schedule D: Land use of the city of Windsor Official Plan.

The subject property is located in an area identified as regional employment on Schedule "J" of the City of Windsor Official Plan.

The subject property is identified on Schedule 'C-1' of the Official Plan as having High Archaeological Potential.

The subject property is identified on Schedule G: Civic image as a "Civic Way" in the City of Windsor Official Plan.

The subject property is located within the vicinity of railyards and corridors on Schedule F: of the City of Windsor Official Plan.

The subject property is located within the vicinity of "Pollution Control Plant" on Schedule C: Development Constraints in the City of Windsor Official Plan.

The proposal is located in an industrial area with nearby industrial and active salt solution mining operations.

Recommendations from the Noise and Vibration studies and Geotechnical studies should be applied.

Barry Horrobin – Police Services

The Windsor Police Service has no concerns or objections with the proposed Official Plan and Zoning By-law amendment to permit a multi-storey combined use building on the subject property. The proposed redevelopment will offer an injection of positive activity generation into a long vacant space that will be beneficial to the surrounding neighbourhood. In addition, a review of the draft site plan shows a layout that will facilitate proper emergency police response capability. We will provide more detailed comments that pertain to specific safety and security requirements for this development once the application reaches the site plan review stage.

Kristina Tang – Heritage Planner

Archaeological Assessment Report Entitled "Stage 1 &2 Archaeological Assessment 3885 Sandwich Street Part of Lots 27 &28 East of Sandwich Street and Part of Lot 28 West of Peter Street Registered Plan 40 Geographic Township of Sandwich City of Windsor Essex County", Dated Apr 15, 2020, Filed with MTCS Toronto Office on N/A, MTCS Project Information Form Number P321-0110-2020, MTCS File Number 0012209, has been entered into the Ontario Public Register of Archaeological Reports. Although the report recommends that no further archaeological assessment of the property is recommended, the applicant is still to note the following archaeological precautions:

1. Should archaeological resources be found during grading, construction or soil removal activities, all work in the area must stop immediately and the City's Planning & Building Department, the City's Manager of Culture and Events, and the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries must be notified and confirm satisfaction of any archaeological requirements before work can recommence.
2. In the event that human remains are encountered during grading, construction or soil removal activities, all work in that area must be stopped immediately and the site secured. The local police or coroner must be contacted to determine whether or not the skeletal remains are human, and whether the remains constitute a part of a crime scene. The Local police or coroner will then notify the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries and the Registrar at the Ministry of Government and Consumer Services if needed, and notification and satisfactory confirmation be given by the Ministry of Heritage, Sport, Tourism and Culture Industries.

Contacts:
Windsor Planning & Building Department:
519-255-6543 x6179, ktang@citywindsor.ca, planningdept@citywindsor.ca

Windsor Manager of Culture and Events:
Michelle Staadegaard, (O) 519-253-2300x2726, (C) 519-816-0711, mstaadegaard@citywindsor.ca

Ontario Ministry of Heritage, Sport, Tourism and Culture Industries Archaeology Programs Unit, 1-416-212-8886, Archaeology@ontario.ca

Windsor Police: 911

Ontario Ministry of Government & Consumer Services A/Registrar of Burial Sites, War Graves, Abandoned Cemeteries and Cemetery Closures, 1-416-212-7499, Crystal.Forrest@ontario.ca

In addition, there's a question I had below about Geotechnical. Who would be reviewing the Geotechnical from the City's side, are the construction vibrations reasonable and monitored for surrounding areas? There's a heritage property in the vicinity but some houses down so may/may not be impacted.

395 Chappell Ave House c1915 Regency Cottage; bellcast hipped roof Sandwich

Anne Marie Albidone – Environmental Services

No concerns

Stefan Fediuk – Landscape Architect

Pursuant to the application for a zoning amendment (Z 028-21 [ZNG-6503] & OPA 152 [OPA-6504) to permit the construction of an 11 storey Combined Use Building with 150 residential units and 12 retail spaces on the subject, please note no objections.

The applicant is also looking for relief from maximum building height, minimum amenity space, and minimum parking space provisions. Please note the following comments:

Zoning Provisions for Parking Setback:
The proposed zoning of CD2.2 does not regulate setbacks. Section 25 Parking Area General Provisions requires setbacks for parking areas from any street to be 3.0m minimum as a landscaped yard. Please include a site-specific zoning provision in conjunction with the amendment for change of permitted use, specifying a minimum 3.0 m landscape set back for parking areas in the Exterior Yard.

The Planning Rationale Report Identifies that there are a total of 157 parking spaces yet the Site plan identifies 185 spaces. As difference of 28 spaces. However, the PRR also indicates that the required number of spaces is 242 for the proposed site-specific CD2.2 Zoning.

Landscape Open Space provided is 877.56m2. It is also proposed Section 5.1.3 Zoning Bylaw (ZBL) of the PRR as part of calculations for relief of 864.1m2 for the Minimum Amenity Areas from 1,800m2. Interpretation that amenity areas include all landscape areas is incorrect. Areas of green space that are part of required landscape setbacks should not be part of this calculation. Per the Zoning Bylaw, *"Amenity Area" means a landscaped open space yard or a recreational facility as an accessory use to a dwelling or a dwelling unit located on the same lot therewith.* The landscape areas proposed on the site plan could not provide any recreational activity or accessory use that could be considered amenity space, therefore they cannot be considered as amenity space. In addition the PRR also suggests that private balconies attached to residential units be considered. As private spaces they are not open to the public and should not be considered as public amenity space. Based on that clarification, the requested site-specific relief is greater than proposed and should be identified as follows:

- Required: 1,800m2
- Proposed: 58.34m2
- Requested Relief: 1,741.66m2.

The PRR also suggests that the site is in close proximity to nearby parks. Per Discover Our Parks; the City of Windsor's Parks and Outdoor Recreation Master Plan, the standard of 0.8km (1.2miles) is considered a comfortable walking distance for pedestrians to public parks. The closest public park to the site is the college Avenue Bikeway at 0.826km from the site. Recent studies have concluded that aging populations, in urban areas are only willing to walk half that distance, making the proposed development more isolated from

public amenity spaces provide by the City. In addition, the parks sited by the PRR are farther yet with Mic Mac Park (including the Novelletto Complex) at 1.07km (1.53km) and Black Oak Heritage Park further yet at over 2km away.

Therefore the need for common amenity space at this site is extremely important and will need to be considered in the final development through the provision of outdoor open space, or interior or roof top common space amenity facilities for the proposed residential density.

Tree Preservation:
There is a remnant hedgerow of trees and scrub undergrowth running north-south along the back boundary line the site. For submission to Site Plan Review to assess the urban tree canopy loss and any potential for preservation a tree inventory identifying species, location, and condition of all trees on the subject lands and abutting municipal boulevards is required.

Parkland Dedication:
All requirements will be determined at the time a Site Plan application is received.

Adam Coates – Senior Urban Designer

- Encourage the applicant to increase the floor to floor height of the first floor in order to be complimentary to the traditional ground floor commercial volumes found in the adjacent Sandwich Heritage Conservation District. A minimum ground floor height of 14 feet is encouraged.
- Further exterior design opportunities will be explored during the Site Plan Control process, with respect to exterior materials, and demarcations.

Robert Perissinotti – Engineering & ROW

The subject lands are located at 0 Sandwich St and 3885 Sandwich St. The applicant is proposing to construct an 11 storey Combined use building with 150 residential units and 12 retail spaces. The lands are Industrial in the City of Windsor Official Plan, zoned Commercial District 2.1 (CD2.1), Development Reserve District 1.1 (DRD1.1), and Manufacturing District 1.4 (MD1.4) in Zoning By-law 8600. The applicant is requesting relief from maximum building height, minimum amenity spaces and minimum parking space provisions.

It should be noted that the listed property owner of 0 Sandwich Street and 3885 Sandwich Street currently differ. This area of Sandwich Street has planned future reconstruction project which will involve relining most of the sewers in the area, new curb and gutter, sidewalks, grade adjustments and a proposed new curb layout to accommodate parking along Sandwich St along the development site. The reconstruction timeline has yet to be solidified. Further impacts and requirements for the development as a result of the Sandwich St redevelopment will be addressed during the SPC process.

SEWERS – There is a 450mm vitrified clay combined sewer located in the Sandwich St right-of-way and a 250mm vitrified clay combined sewer located in the Chappel Avenue right-of-way. A sewer servicing study will be required for sanitary and storm. The proposed development includes a new parking area therefore storm water management and a site-grading plan will be required restricting storm water flow to pre-development conditions.

RIGHT-OF-WAY – Sandwich Street as Class 2 Arterial Road requiring a right-of-way width of 20.1m, the current right-of-way is sufficient and no conveyance is required at this time. Chappell Avenue as Local Road requiring a right-of-way width of 20.1m, the current right-of-way is sufficient and no conveyance is required at this time. The right-of-way along Sandwich Street is located within the ERCA regulated lands and consultation with Essex Region Conservation Authority will be required to determine requirements.

A 4.6 x 4.6 meter corner cut-off is required at the north-west corner of Sandwich Street and Chappell Avenue.

Driveways are to be constructed as per AS-204, complete with straight flares and no raised curbs within the right-of-way. Redundant curb cuts and sidewalks shall be removed and restored in accordance with City Standards to the satisfaction of the City Engineer. A Street Opening permit will be required for any work in the right-of-way.

In summary we have no objection to the proposed rezoning, subject to the following requirements (requirements will be enforced at the time of Site Plan Control):

Site Plan Control Agreement - The applicant enters into an agreement with the City of Windsor for all requirements under the General Provisions of the Site Plan Control Agreement for the Engineering Department.

Corner Cut-off – The owner agrees prior to the issuance of a construction permit, to gratuitously convey a 4.6m x 4.6m (15'x15') corner cut-off at the north-east intersection of Sandwich Street and Chappell Avenue in accordance with City of Windsor Standard Drawing AS-230.

Redundant Curb Cuts – The owner agrees to remove and reinstate any redundant curb cuts with full height curb and properly restore the area to the satisfaction of the City Engineer.

ERCA Requirements – The owner(s) further agrees to follow all drainage and flood proofing recommendations of the Essex Region Conservation Authority (ERCA) may have with respect to the subject land, based on final approval by the City Engineer. If applicable, the Owner will obtain all necessary permits from ERCA with respect to the drainage works on the subject lands.

Servicing Study – The owner agrees, at its own expense, to retain a Consulting Engineer to provide a detailed servicing study report on the impact of the increased flow to the existing municipal sewer systems, satisfactory in content to the City Engineer and prior to

the issuance of a construction permit. The study shall review the proposed impact and recommend mitigating measures and implementation of those measures.

Sanitary Sampling Manhole – The owner agrees for all non-residential uses, to install a sanitary sampling manhole accessible at the property line of the subject lands to the City Engineer at all times. The determination of the requirement or interpretation if a sampling manhole exists or exceptions to such, will be to the satisfaction of the City Engineer.

Greg Atkinson – Economic Development

The subject site is located within an Employment Area. The Planning Rationale Report does not address section 3.1.2 of the PPS, which applies to Employment Areas.

The proposed site specific Industrial OPA to permit a mixed use building is not supportable as it is not consistent with PPS policy 1.3.2.3:

> *"1.3.2.3 Within employment areas planned for industrial or manufacturing uses, planning authorities shall prohibit residential uses and prohibit or limit other sensitive land uses that are not ancillary to the primary employment uses in order to maintain land use compatibility."*

As required in the pre-submission letter (attached) any OPA to permit residential use is required to justify a conversion to non-employment use consistent with PPS policy 1.3.2.5:

> *"1.3.2.5 Notwithstanding policy 1.3.2.4, and until the official plan review or update in policy 1.3.2.4 is undertaken and completed, lands within existing employment areas may be converted to a designation that permits non-employment uses provided the area has not been identified as provincially significant through a provincial plan exercise or as regionally significant by a regional economic development corporation working together with affected upper and single-tier municipalities and subject to the following:*
>
> *a) there is an identified need for the conversion and the land is not required for employment purposes over the long term;*
> *b) the proposed uses would not adversely affect the overall viability of the employment area; and*
> *c) existing or planned infrastructure and public service facilities are available to accommodate the proposed uses."*

Section 5.1.2 of the Planning Rationale Report provides analysis with respect to section 6.4 of the Official Plan (Employment). The analysis states that: *"The proposed commercial space is a permitted use in the 'Industrial' designation. It is requested to allow a combined use building as a site specific permitted use to Section 6.4.3.2 – Ancillary Uses in the Industrial designation."*

The full range of commercial uses permitted in the CD2.2 District would not typically be permitted within an Industrial land use designation (e.g. business office is not a permitted use). The recommended zoning should be specific about what type and size of

commercial uses are permitted in conformity with the permitted uses in section 6.4.3.2 of the Official Plan. For example, Policy 6.4.3.2 b) permits convenience stores and restaurants provided that by their size the uses are designed to serve the employees in the Industrial area. 1,244.90 m^2 (13,399.99 sq. ft.) of commercial space is proposed. The typically size of a convenience retail store is approximately 3,000 sq. ft.

If the proposal includes all commercial uses within the CD2.2 zoning district with no maximum size—the appropriate commercial or mixed use land use designation should be applied.

Enwin

Hydro Engineering: No Objection provided adequate clearances are achieved and maintained, ENWIN has an existing overhead pole line along the west limit of the site with a 27600-volt primary high voltage, 600/347 volt – 3 phase secondary line and 120240-volt single phase secondary hydro distribution.

Prior to working in these areas, we would suggest notifying you contractor and referring to the Occupational Health and Safety Act and Regulations for Construction Projects to confirm clearance requirements during construction. Also, we suggest referring to the Ontario Building Code for permanent required clearances for New Building Construction.

Water Engineering :Water Engineering has no objections.

Zoning Coordinator

Most of the issues will be resolved with the rezoning. I've listed a few minor concerns below.

- Provide 4 type "B" accessible parking spaces
- Provide parking area separation dimensions
    - Parking area separation from an interior lot line should be 0.9m
- Provide 27 visitor parking spaces
- Confirm parking spaces adjacent to walls will be 3.5m in width
- Provide 3 loadings spaces

Let me know if you need anything else.

Regards,

Connor Cowan | Zoning Coordinator
Planning Department

APPENDIX I - Draft By-law Amendment

B Y - L A W N U M B E R -2022

A BY-LAW TO FURTHER AMEND BY-LAW NUMBER 8600
CITED AS THE "CITY OF WINDSOR ZONING BY-LAW"

Passed the day of , 2020.

WHEREAS it is deemed expedient to further amend By-law Number 8600 of the Council of The Corporation of the City of Windsor, cited as the "City of Windsor Zoning By-law" passed the 31st day of March, 1986, as heretofore amended:

THEREFORE the Council of The Corporation of the City of Windsor enacts as follows:

1. By-law Number 8600 is further amended by changing the Zoning District Maps or parts thereof referred to in Section 1, of the by-law and made part thereof, so that the zoning district symbol of the lands described in Column 3 shall be changed from that shown in Column 5 to that shown in Column 6:

1. Item Number	2. Zoning District Map Part	3. Lands Affected	4. Official Plan Amendment Number	5. Zoning Symbol	6. New Zoning Symbol
1	4	Part Lot 27, Registered Plan 40S (PIN 012580193), Lot 28 East Side, Registered Plan 40 (PIN 012580190), and Lot 28 West Side, Registered Plan 40, situated at the northeast corner of Sandwich Street and Chappell Avenue (known municipally as 0 and 3885 Sandwich Street; Roll # 050-170-09700 and 050-170-09800)	152	DRD1.1 CD2.1 MD1.4	CD2.1

2. That subsection 1 of Section 20, of said by-law, is amended by adding the following paragraph:

445. **NORTHEAST SIDE OF SANDWICH STREET AND CHAPPELL AVENUE**

For the lands comprising Part Lot 27, Registered Plan 40S; Lot 28 East Side on Registered Plan 40; and Lot 28 West Side, Registered Plan 40:

1. The following uses are prohibited:
   Bakery
   Food Outlet-Drive-Through
   Gas Bar
   Place of Entertainment and Recreation
   Public Hall
   Restaurant with Drive-through

2. A *Multiple Dwelling* and *Dwelling Units in a Combined Use Building* shall be additional permitted main uses and shall be subject to the following provisions:

   a) Main Building Height – maximum 37.0 m

   b) Amenity Area – Per Dwelling Unit – minimum 5.0 m^2

   c) For a *Combined Use Building*, all *dwelling units*, not including entrances thereto, are located above the non-residential uses

   d) Exposed flat concrete block walls or exposed flat concrete wall, whether painted or unpainted, are prohibited

   e) Required Number of Parking Spaces – minimum - 156

[ZDM 4; ZNG/6503]

3. The said by-law is further amended by changing the Zoning District Maps or parts thereof referred to in Section 1, of said by-law and made part thereof, so that the lands described in Column 3 are delineated by a broken line and further identified by the zoning symbol shown in Column 5:

1. Item Number	2. Zoning District Map Part	3. Lands Affected	4. Official Plan Amendment Number	5. Zoning Symbol
2	4	Part Lot 27, Registered Plan 40S (PIN 012580193), Lot 28 East Side, Registered Plan 40 (PIN 012580190), and Lot 28 West Side, Registered Plan 40, situated at the northeast corner of Sandwich Street and Chappell Avenue (known municipally as 0 and 3885 Sandwich Street; Roll # 050-170-09700 and 050-170-09800)	152	S.20(1)445

DREW DILKENS, MAYOR

CLERK

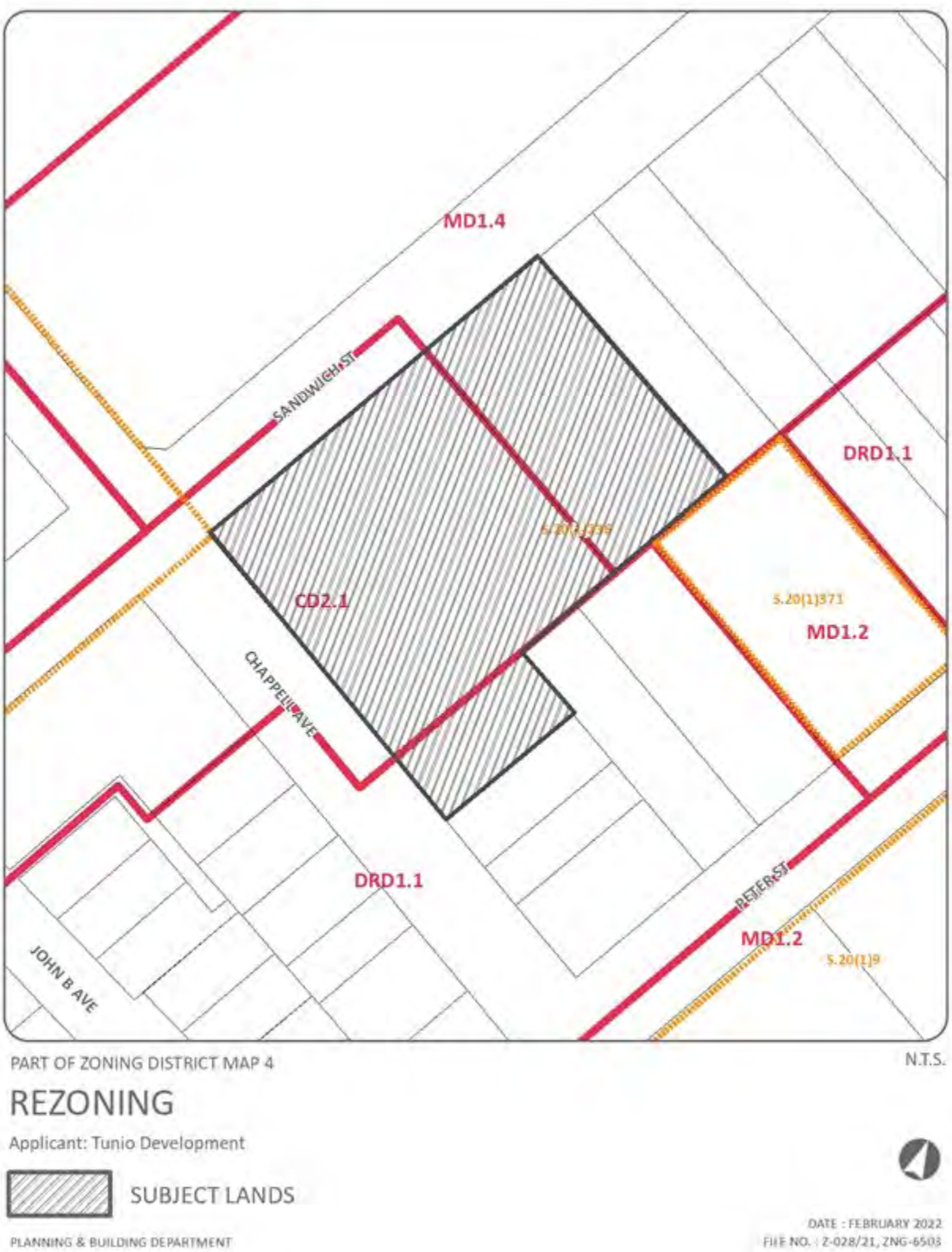
First Reading - , 2022
Second Reading - , 2022
Third Reading - , 2022

SCHEDULE 2

1. By-law _____ has the following purpose and effect:

   To amend the zoning of Part Lot 27, Registered Plan 40S (PIN 012580193), Lot 28 East Side, Registered Plan 40, and Lot 28 West Side, Registered Plan 40 (PIN 012580190), situated at the northeast corner of Sandwich Street and Chappell Avenue (known municipally as 0 and 3885 Sandwich Street; Roll # 050-170-09700 and 050-170-09800) from Development Reserve District 1.1 (DRD1.1), Commercial District 2.1 (CD2.1) and Manufacturing District 1.4 (MD1.4) to Commercial District 2.1 (CD2.1) and by adding the following site specific provision to allow a multiple dwelling and dwelling Units in a Combined Use Building as an additional permitted use subject to additional provisions.

2. Key map showing the location of the lands to which By-law _____applies.
   (See map following page.)



APPENDIX 'J'
ACOUSTICAL REPORT

ACOUSTICAL REPORT
MIXED USED DEVELOPMENT
3885 SANDWICH STREET
WINDSOR, ONTARIO

PROJECT NO. 20-028

DATED: OCOTOBER 1, 2021

BAIRD|AE
architecture + engineering
27 Princess St., Unit 102
Leamington, ON N8H 2X8
519.326.6161 TF 1.844.842.9188
bairdAE.ca

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APPENDICES

1. INTRODUCTION

Baird AE has been retained to conduct an acoustical study to examine the impacts of noise created by industries and road traffic on the new development in the City of Windsor. This report will recommend mitigation measures based on criteria set by Ministry of Environment and Climate Change (MOECC).

The subject land is approximately 0.669 hectares in size and are bounded by Sandwich Street to the west, Chappell Avenue to south, and existing residential development to the east and west. The site has driveway access from Sandwich Street which will be replaced with two new accesses, one from Sandwich Street and Chappell Avenue.

The development is mixed use building comprised of 150 residential units, retail space of 2900ft^2, parking lot and landscaping area. The building is 11 storey of 35m high with a total floor area of 1480.6m^2. As per City's mapping, the development area zone as residential and commercial. Refer to Appendix A for the development location, zone and site layout.

2. NOISE CRITERIA

The MOECC publication NPC-300 "Environmental Noise Guideline Stationery and Transportation Sources – Approval and Planning" was used in this noise study. Based on initial investigation, the primarily noise affecting the development is from nearby industries rail noise and roadway traffic noise. The air traffic noise was not considered, as the development is located outside the zone of influence of local airports.

MOECC publication NPC 300 provides noise levels resulting from transportation sources for both outdoor and indoor areas. Table 1 summarizes these limits.

Table 1 – MOECC Noise Level Criteria – Road and Rail

Type of Space	Type of Space	Sound Exposure Level	
		Road	Rail
Outdoor Living Area	0700-2300	55 dBA	
Living/Dining Room	0700 - 2300	45 dBA	40 dBA
	2300 - 0700	45 dBA	40 dBA
Sleeping Quarters	0700 - 2300	45 dBA	40 dBA
	2300 - 0700	40 dBA	35 dBA

MOECC Guidelines NPC-300 Section C3.2.3 – August 2013

It is noted that acoustical impacts from the railways include an additional 5.0 dBA to road noise. It has been identified that railways are located within the vicinity of the proposed development.

Following are the MOECC criteria set for transportation sources which include warning clauses and physical mitigation.

Table 2 – MOECC Noise Level Criteria – (Road)

Location	Time Period	Noise Levels Requirement
Outdoor - Living Areas	07:00 - 23:00	<55dBA – No Control
		55 to 60dBA – Physical Control or Type A Clause
		> 60dBA – Physical Control and Type B Clause
Outside - Living/dining Plane of Window	07:00 - 23:00	<55dBA – No Control
		55 to 65dBA – Forced Air and Type C Clause
		> 65dBA – Air Conditioner, Type D Clause and Building Components
Outside - Living/dining Plane of Window	23:00 to 07:00	<50dBA – No Control
		50 to 60dBA – Forced Air and Type C Clause
		> 60dBA – Air Conditioner, Type D Clause and Building Components

MOECC Guidelines NPC-300 Section C7.1.1 and C7.1.2 – August 2013

For this development, a "Class 4" area designation endorsed by City engineer department for stationary sources.

For Outdoor point of reception, Class 4 area has a 5dBA more relaxed criteria than a Class 1 area. For plane of windows, Class 4 area has a 10 dBA more relaxed criteria. Table 3 summarizes these limits.

Table 3 – MOECC Noise Level Criteria – Stationary (Class 4)

Time Period	Outdoor Points of Reception	Plane of Window
0700 - 1900	55 dBA	60 dBA
1900 - 2300	55 dBA	60 dBA
2300 - 0700	55 dBA	55 dBA

Source: MOECC publication NPC-300 "Sound level limits for Stationary Sources in Class 1 & 2 Areas (Rural)", Tables B-1, B-2; August 2013.

Table 2 describes indoor sound level limits that are used to calculate the Sound Transmission Class (STC) should outdoor sound level limits be triggered for building components.

As the site is relative to stationery and transportation noise, the mitigation measures shall be incorporated into the development through the use of acoustical barriers to protect the outdoor living areas using stationary MOECC noise level criteria (table 3), and improved building components such as door, windows and walls to protect the indoor living spaces using the MOECC rail noise criteria (table 2). These indoor and outdoor criteria represent the worst-case scenario.

3. EVALUATION OF SURROUNDING LAND USES

The surrounding industrial and commercial facilities are within close proximity of the development site and having the potential for air and noise impacts. In accordance with the "Compatibility between Industrial Facilities and Sensitive Land Uses", published by the Ontario Ministry of the Environment and Climate Change (MOECC) as Guideline D-6, the three classes according to their size, volume of operations, and nature of their emissions and defines sensitive land uses. These classes are provided below and definitions to illustrate three Industrial classes are provided in Appendix A.

Industrial Classification	Separation Distance (m)
Class I – Light Industrial	20
Class II – Medium Industrial	70
Class III – Heavy Industrial	300

Based on aerial mapping and site inspection, the nearby industrial and commercial facilities fall into all three industries classes. In order to mitigate noise and air potential, the following clause should be added to the lease agreement or deed.

> *"Purchasers/tenants are advised that sound levels due to the adjacent industry (facility) (utility) are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed."*

The proposed site is residential development; hence the development will not potentially impact the surrounding users. Additionally, rows of trees will be installed along the Sandwich Street to make it a buffer in order to meet the MOECC noise and dust criteria. Detail noise mitigation are provided in Section 4.2.1.

4. NOISE ENVIRONMENT

4.1 *Noise Monitoring*

The on-site noise source measurement was carried out in accordance with the MOECC publication NPC-103 Noise Measurements Procedures. Sound levels measurement were conducted at three locations (M1, M2 and M3 as shown in Figure 1) on Friday, September 2, 2020 for 1 hours at two locations (M1 and M2) and 20 mins at M3 location. The weather condition consisted of partially cloudy, temperature ranging between 12°C to 13°C, low winds (<15km/h), and relative humidity of 66%. Measurements were taken using a Extech Noise Meter model 407780A noise monitoring device. The sound levels were measured at a height of 1.5m above the ground. The noise equipment equipped with 1/1 octave and 1/3 octave band filters. The laboratory Certification of Calibration for the noise meters are provided in Appendix E. Tonal and impulsive noise characteristics were observed during the measurements.

The equivalent sound pressure level (Leq) at three monitoring locations were 70*dBA* at M1, *70dBA* at M2 and *60dBA* at M3. The maximum sound level at these locations were *80.5dBA* at M1, *80.0dBA* at M2 and *68dBA* at M3. Monitoring locations are shown in Appendix E, Figure 1.

The monitored noise level is higher than 60dBA during daytime. Hence, mitigation measures and building component are required.

4.2 *Transportation Source*

Traffic counts at intersections of Sandwich Street and Chappell Avenue were taken on July 21, 2020 by sub-consultant Pyramid. The traffic counts and other relevant data are included in Appendix A.

Sound level prediction software STAMSON 5.04, based on MOECC ORNAMENT (Ontario Road Noise Analysis Method for Environmental and Transportation, 1989) was used for estimate noise level from roadway traffic and rail. Further, MOECC requires that all traffic data be projected ten (10) years into the future from the date of construction such that the proposed mitigation will be relevant for future volumes. Traffic volumes along with other relevant traffic data utilized by STAMSON are summarized in Table 4.

Table 4 – Background Traffic Volumes (2020)

Item	Sandwich Street
Annual Average Daily Traffic	4,794 vpd
% Medium Trucks	2.5%
% Heavy Trucks	2.5%
Road Grade	< 2.0%
Speed Limit	50 km/h
Day/Night Percent Split	90% / 20%

One Canadian Pacific rail track is within vicinity of the development. This rail provides services to the nearby industries. The rail track revolves around development with 150m to 450m radii distance. The grade of rail track is level with the ground. There are two public grade crossings within study area.

Based on aerial mapping, the following information was assumed for modelling:

Number of freight trains between 0700 & 2300:	9
Number of freight trains between 2300 & 0700:	4
Average number of cars per train:	78
Maximum cars per train freight:	168
Number of Locomotives per train:	2 (4 max)
Maximum permissible train speed:	40mph for mainline, 25mph on lead

Using the above data in Stamson software, the daytime and nighttime free field limits were established. The noise level limits are shown in Figure 1 – Noise Information Plan and detail results are provided in Appendix A.

Based on free field analysis, the traffic noise from Sandwich Street and rail noise will have impact on the western facades of building as it is higher than 60dBA noise limits which will trigger for noise attenuation method. Further, mitigation measure such warning clause such as air conditioning and forced air heating are also required. Further analysis is required to compare predicted noise level with monitored noise level (see Section 3.1 for monitoring reading). Stamson output results are described in table below and details are provided in Appendix E.

Table 5 – Noise Results Comparison

Receiver Location	Monitoring Level Daytime (dBA)	Stamson Traffic Predicted Level (dBA)	
		Daytime	Nightime
Monitoring 1	70.5	62.1	58.8
Monitoring 2	70	62.1	58.8
Monitoring 3	60	45.6	45.6

Based on Table 5, the results from Stamson shows that the predicted noise level has difference of 12-15dBA at monitoring locations. This difference indicates noise levels are dominated by stationary sources. Stationary noise is further discussed in Section 3.3.

4.2.1 Mitigation Measures

Further, the predicted road noise level exceeds 60dBA during daytime at monitoring locations 1 and 2, hence, noise mitigation is required such as acoustical fence and noise clauses. Whereas, during the nightime, the noise level exceeds 45dBA MOECC requirement, therefore, assessment of glazing requirements is necessary to meet indoor sound level for buildings at all receiver locations.

The Type C warning clause is required to be included in all agreements of purchase and sale or lease and all rental agreements for the residential units facing Sandwich Street because noise level exceed 55dBA during daytime, or 50dBA during nighttime. This include:

- All units on western facade
- All units on southern facade
- All units on northern facade

Type 'C'
"This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

The Type D warning clause is required to be included in all agreements of purchase and sale or lease and all rental agreements for the residential units because noise level exceed 55dBA during daytime, or 60dBA during nighttime. This include:

- All units on western, northern and southern facade

Type 'D'
"This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

The balconies in the building are less than 4m in width hence there are no Outdoor Living Area in the development.

4.3 *Stationary Sources*

4.3.1 Surrounding land Uses

A review of all surrounding users was conducted and multiple properties were identified as being potential significant noise sources, namely:

- Vollmer Inc – to northwest of subject property: this development is particular is manufacturing company that produces construction products. The operational hours are 24 hours. The noise on this property includes loading and unloading of items. Idling of truck, lifting and lowering of machinery, and repair activities. Significant noise sources associated with the Vollmer Inc include:
    - Based on aerial photo (see Figure 3), the closet rooftop HVAC units are two (2) with assumed noise level of 75dBA. All HVAC units are 10.5m above the ground.
    - In the parking lot, trucks usually idle for security clearance at the gate. The assumed truck idling noise level is 75dBA.
    - The noise level at parking lot is assumed to be 65dBA.
    - The idling of trucks at the intersection of Sandwich Street and Chappell Avenue. The assumed noise level is 78dBA.
    - From the facility, impulsive sound such as metal on metal impact or hydraulic hammering can be heard. Hence for model, the impulsive sound is assumed to be 90dBA.
- Southwestern Manufacturing Inc – to north of subject property: this development is particular is heavy equipment manufacturing. All the manufacturing happened inside the warehouse. Noise on this property includes compressors, lifting and lowering of machinery, and repair activities. The operational hours are 24 hours. In addition, rooftop HVAC units exist on some of the property. These HVAC systems are located over 120m away at 10.5 above ground level from the subject property, and are relatively away from proposed buildings. Given separation distance, the HVAC

noise will not be an impact. However, the noise sources associated with the Southwestern Inc. include:

  - The noise level at for outdoor activities is assumed to be 70dBA.
  - Truck idling noise level is assumed to be 75dBA.

- Tim Horton – located to the south-west corner of the property. The operational hours are 24 hours. This facility includes two (2) rooftop HVAC units, drive through lane, and outdoor gathering area. The main source of noise from facility is HVAC, loading and unloading of garbage bin which occurred once in a week. The assumed noise level of HVAC unit is 75dBA and 10.5m above the ground level.

  All other surrounding industries which are more than 250m distance from the development.

- Construction of Gordie Howe Bridge which include equipment and metal noise.
- K-Scrape Plant mostly produces metal crush, clunk and bang noise, lifting and lowering of machinery, and repair activities.
- CBM and Windsor Salt produces noise of crane, heavy metal and truck noises.

4.3.2 Receiver Locations

The sample receiver locations were identified and are located at the worst-case locations (most exposed) for both day and night time noise.

For indoor living areas, the plane of window (POW) will be used to represent the worst case for both daytime and night time receivers.

The term "outdoor living area" (OLA) is used in reference to an outdoor patio, a backyard, a terrace, balconies or other area where passive recreation is expected to occur. The proposed dwelling units have balconies however balconies are less than four (4) meters deep hence as per MOECC publication, where the *depth is less than 4 meters the balcony is not considered as an OLA*.

Table 6 identifies the various receiver heights chosen as the "worst case" locations within the proposed development. These locations are shown in Appendix A, Figure 1.

Table 6 – Receiver Locations

Receiver Location	Height Above Grade (m)	Type	Represents
Ground Level	1.5m	Bedroom POW	North, South, East and West Façade
Level 2	4.8m		
Level 3	8.1m		
Level 5	14.7m		
Level 8	24.6m		
Level 11	34.5m		

4.3.3 Stationary Noise Level Results

The noise propagation analysis was completed using noise modelling program "iNoise", produced by DGMR Software to match the monitoring noise levels at monitoring locations M1, M2 and M3 from surrounding industrial sources. The iNoise program follows International Standards Organization (ISO) standards 9613 parts 1 and 2. The model is capable of incorporating various site features such as elevations, berms, absorptive grounds and barrier to accurately predict noise levels at specific receptors, pertaining to noise emission from sources. The model is considered conservative since as it represents atmospheric condition that promote propagation of sound from the source to the receiver.

The following assumptions were used in the modelling:

Reflections: A building reflection of 0.8 was assumed to be representative of the brick façade present for the surrounding building including the proposed building.

Ground Absorption & Topography: A ground absorption coefficient of 0 was used to represent the most reflective (i.e. pave surface) The area surrounding the monitoring location is characterized by generally flat. As such, topography was not incorporated int eh noise modelling.

All stationary sources noise levels are assumed as describe in Section 3.3 to approximate match the monitored noise level. Once noise level matches the monitoring location, the noise level at each subject receptor location (see Table 6) were obtained.

Overall unattenuated daytime and nighttime sound levels at the receiver locations are shown in Figure 3 and are describe in Table 7 and detail output results are provided in Appendix C.

Table 7 – Post Development Predicted Noise Levels

Location	Noise Level (dBA)				MOECC Criteria (dBA)		Meets MOECC
	Receiver 1	Receiver 2	Receiver 3	Receiver 4	Sta	Rail	
Level 1							
Daytime	72	72	67	56	60	40	No
Nighttime	72	72	67	56	55	35	No
Level 2							
Daytime	71	72	67	55	60	40	No
Nighttime	71	72	67	55	55	35	No
Level 3							
Daytime	71	72	67	55	60	40	No
Nighttime	71	72	67	55	55	35	No
Level 5							
Daytime	70	71	66	52	60	40	No
Nighttime	70	71	66	52	55	35	No
Level 8							
Daytime	68	70	66	55	60	40	No
Nighttime	68	70	66	55	55	35	No
Level 11							
Daytime	67	69	66	55	60	40	No
Nighttime	67	69	66	55	55	35	No

Based on predicted sound levels as shown in Figure 1 (Appendix A), the sensitive spaces (i.e., plane of windows) noise level is greater than stationary noise level criteria of 60dBA daytime and 55 dBA nighttime for receiver locations 1, 2 and 3. Therefore, mitigation measures are required such as special building components, warning clause and central air conditioning is required.

In order to calculate building component, the worst-case scenario i.e., MOECC criteria of rail noise is used to estimate the STC of building components.

5. MITIGATION MEASURES

Building Component

To calculate the required building components, the dimensions of the rooms and their wall/window/door sizes must be known. Table 8 summarizes the building component areas, Sound Transmission Class (STC) ratings and component type and detail calculations and floor plans are provided in Appendix D.

Table 8 – Required STC Values (Bedroom/Living)

Receiver 1 & 2					
Side	**BR/LR**	**COMPONENT**	**F AREA**	**W AREA**	**STC**
West Façade	Living	Window	15.6	1.7	35
	Living	Door	15.6	2.3	36
	Living	Wall	15.6	8.96	42
	Bed	Window	17.4	1.8	38
	Bed	Wall	17.4	6.66	43

Receiver 3					
Side	**BR/LR**	**COMPONENT**	**F AREA**	**W AREA**	**STC**
North & South Façade	Living	Window	15.6	1.7	33
	Living	Door	15.6	2.3	34
	Living	Wall	15.6	8.96	40
	Bed	Window	17.4	1.8	36
	Bed	Wall	17.4	6.66	41

Receiver 4					
Side	**BR/LR**	**COMPONENT**	**F AREA**	**W AREA**	**STC**
East Facade	Living	Window	15.6	1.7	21
	Living	Door	15.6	2.3	22
	Living	Wall	15.6	8.96	28
	Bed	Window	17.4	1.8	24
	Bed	Wall	17.4	6.66	29

Further, The Ontario Building Code (OBC) section 5.9.1 specifies the minimum required sound insulation characteristics for partitions in terms of Sound Transmission Class (STC) values. For acoustic privacy in a multi-tenant building between suites, the inter-unit wall should meet or exceed STC-50. Walls separating suites from noisy spaces, such as refuse chutes or elevator shafts, should meet or exceed STC-55. In addition, it is recommended

that the separation of suites from any amenity or commercial space for building component (floor/ceiling) construction also meet or exceed STC-55.

6. RECOMMENDATIONS

As demonstrated in this report, mitigation measures are required to bring residential units within the development into compliance with MOECC noise criteria, a "Class 4" area designation endorsed by City engineer department and Guidelines D-6 guidelines.

Further, the development is within the vicinity of railway line. The assessment of building components is based on the acoustical impacts from railways using "plane of windows" MOECC noise level criteria which is considered as worst-case scenario. With the inclusion of these measures, MOECC noise criteria will be satisfied.

Recommendation #1

Due to the exceedance of the MOECC criteria for daytime and night time acoustical levels from CP railway and Sandwich Street, the dwellings shall include warning clauses as describe in Section 3.2.1.

Recommendation #2 (Building Components)

Due to exposure to stationary noise, some units require special building components for areas of sensitive use (i.e. bedroom, living room, dining room, kitchen, etc.) and the following is required:

Window Requirements:

> All windows leading to sensitive living areas are to have a minimum sound transmission class (STC) as per Table 8 in order to meet the MOECC indoor noise level criteria.

Door Requirements:

> All doors leading to sensitive living areas are to have a minimum sound transmission class (STC) as per Table 8 in order to meet the MOECC indoor noise level criteria.

Wall Requirements:

All walls leading to sensitive living areas are to have a minimum sound transmission class (STC) as per Table 8. Also, acoustic privacy between units in a multi-tenant building, the inter-unit wall, should meet or exceed STC-50. Wall separation between noisy spaces, such as refuse chutes or elevator shafts, and suites should meet or exceed STC-55.

Further, these units shall include the following warning clause in purchase or lease agreements:

"Purchasers/tenants are advised that due to close proximity of the adjacent industries, noise from said industries may at times be audible."

Recommendation #3

Due to the exceedance of the MOECC Guideline D-6 dust and noise criteria of surrounding users, the units shall be provided with the following warning clause:

"Purchasers/tenants are advised that sound levels due to the adjacent industry facilities are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This building has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed."

Additionally, rows of trees will be installed along the Sandwich Street to make it a buffer in order to meet the MOECC noise and dust criteria.

Recommendation #4 (All units within the development)

Prior to the issuance of building permits it is recommended that an acoustical consultant review the sound transmission class (STC) for the proposed development's walls, windows and doors to ensure they conform to the recommendations outlined in this report.

7. SUMMARY

We conclude that this development with the implementation of the above-described mitigation measures meets the MOECC noise and D-6 guidelines.

If you have any questions or wish to discuss our findings, please advise us.

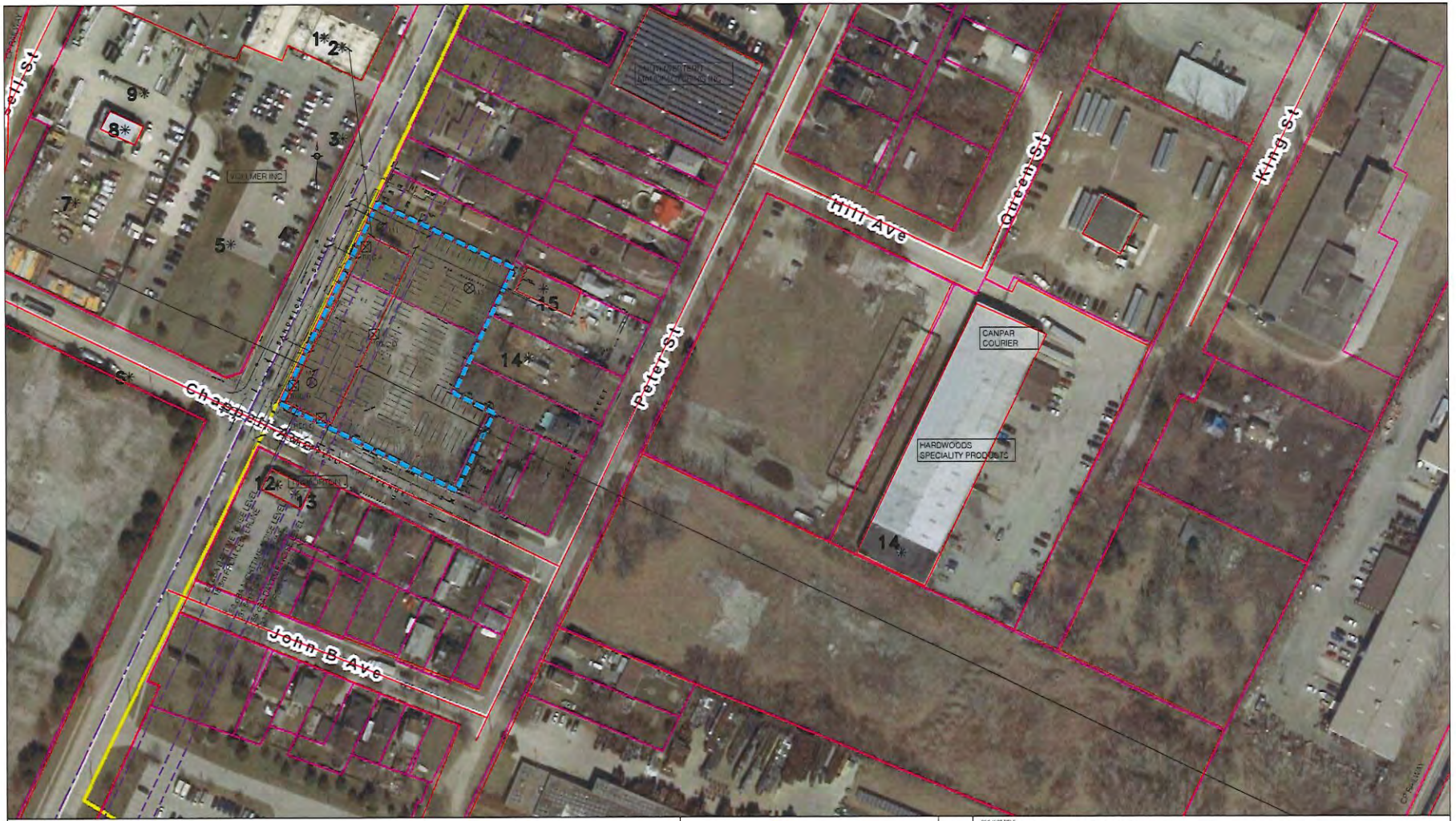
Yours truly,

BAIRD AE INC.
27 PRINCESS STREET, UNIT 102
LEAMINGTON, ONTARIO N8H 2X8

Shurjeel Tunio, P.Eng.
Senior Project Manager
Baird AE

Appendix A

NOISE INFORMATION PLAN
AND
BACKGROUND INFORMATION



LEGEND

- RECEIVER LOCATION
- HOUSE BOUNDARY
- NOISE CONTOUR
- MONITORING LOCATION [M1 Leq 70.5dBA] [M2 Leq 70.0dBA] [M3 LEQ 60.0DBA]
- STC 24 SEE TABLE 8 OF ACOUSTICAL REPORT
- SITE AREA

BAIRD|AE architecture + engineering

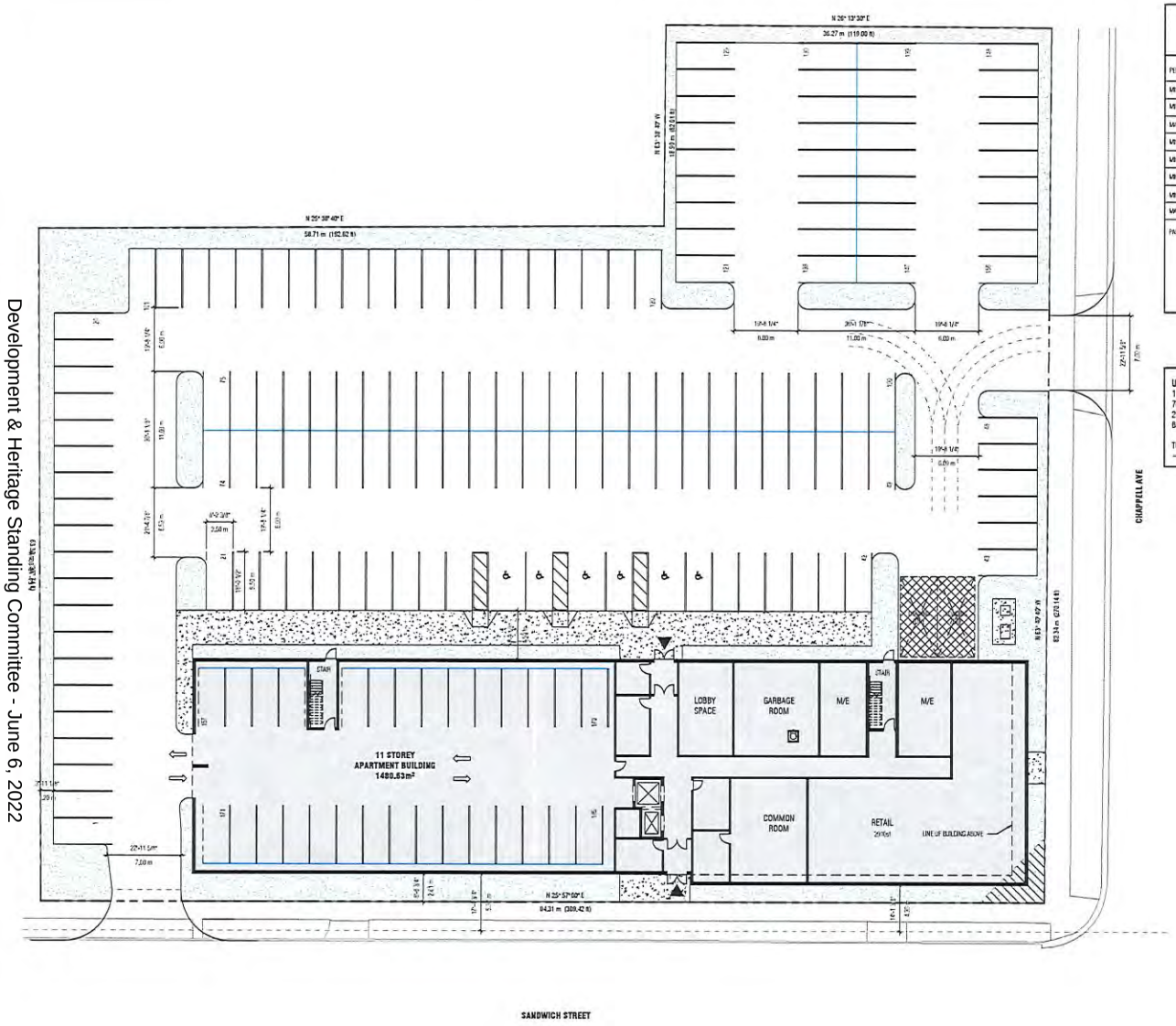
102 - 27 PRINCESS STREET LEAMINGTON, ONTARIO N8H 2X9 | 201 - 330 RICHMOND STREET, CHATHAM, ONTARIO N7M 1P7 | 1000 - 267 PELISSIER STREET, WINDSOR, ONTARIO N9A 4L4.

PROJECT TITLE: MIXED USED HIGH RISE DEVELOPMENT
JAMES SANDWICH STREET
WINDSOR, ON

SHEET TITLE: NOISE INFORMATION PLAN

DRAWN BY:	SCALE:	DATE:
S.T.	NTS	OCT 4, 2020
CHCK'D BY:	SHEET No. :	PROJECT No. :
ST.	1 OF 1	20-028


8
3
VOLLMER INC
7
5
4
M1
REC A
M3
15
REC D
14
M2
REC B
REC C
6
Chappell Ave
Peter St
12
TIM HORTON
13
LEGEND
RECEIVER LOCATION
MONITORING LOCATION [M1 Leq 70.5dBA] [M2 Leq 70.0dBA] [M3 LEQ 60.0DBA]
HOUSE BOUNDARY
STC 24
SEE TABLE 8 OF ACOUSTICAL REPORT
NOISE CONTOUR
SITE AREA
N
BAIRD|AE
architecture + engineering
102 - 27 PRINCESS STREET LEAMINGTON, ONTARIO N8H 2X9
201 - 330 RICHMOND STREET, CHATHAM, ONTARIO N7M 1P7
1000 - 267 PELISSIER STREET, WINDSOR, ONTARIO N9A 4K4
PROJECT TITLE:
MIXED USED HIGH RISE DEVELOPMENT
3065 SANDWICH STREET
WINDSOR, ON
SHEET TITLE:
NOISE INFORMATION PLAN 2
DRAWN BY: S.T.
SCALE: NTS
DATE: OCT 4, 2020
CHCK'D BY: ST.
SHEET No. : 2 OF 2
PROJECT No. : 20-028



SITE PLAN
1/16" = 1'-0"

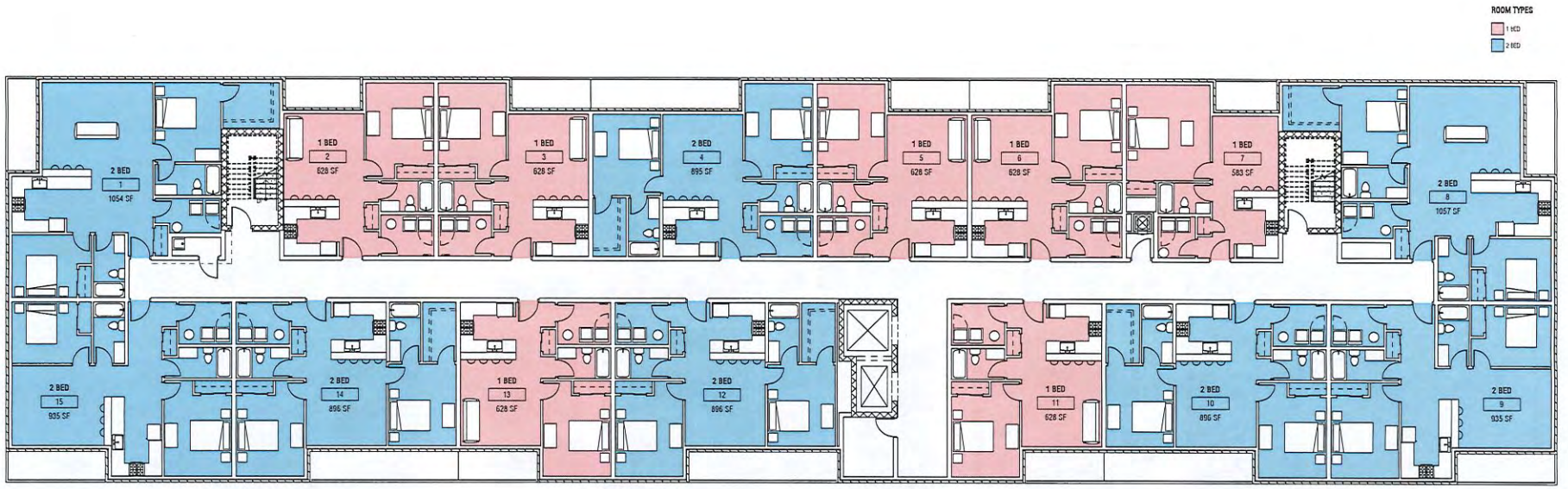
ZONING REGULATION COMMERCIAL DISTRICT 2.2 (CD2.2)	REQUIRED (CURRENT)	PROPOSED	COMPLIANCE AND OR RELIEF REQUESTED WITH JUSTIFICATION
PERMITTED USES	COMMERCIAL MAIN FLOOR WITH AFFORDABLE APARTMENTS ABOVE	COMMERCIAL MAIN FLOOR WITH AFFORDABLE APARTMENTS ABOVE	
MIN LOT AREA	N/A	6613.70m²	EXISTING
MIN LOT FRONTAGE	N/A	EXISTING	EXISTING
MAX LOT COVERAGE	N/A	22.11%	
MIN FRONT YARD DEPTH	N/A	2.59m	
MIN REAR YARD DEPTH	N/A	14.22m	
MIN INTERIOR SIDE YARD WIDTH	N/A	3.130m	
MIN LANDSCAPE OPEN SPACE	N/A	25%	
MAX BUILDING HEIGHT	14m	36m	RELIEF REQUIRED
PARKING	RESIDENTIAL 1.25 PER DWELLING UNIT = 188 PARKING SPACES REQUIRED RETAIL 1 PER 22.5m² GFA	RESIDENTIAL 1.15 PER DWELLING UNIT = 172 PARKING SPACES PROVIDED 150 UNITS TYPE A = 3 TYPE B = 3 (BARRIER FREE INCLUDED IN THE COUNT) RETAIL = 12 PROVIDED (2,000sf)	RELIEF REQUIRED

UNIT MIX
1 BED – 46%
70 UNITS
2 BED – 54%
80 UNITS

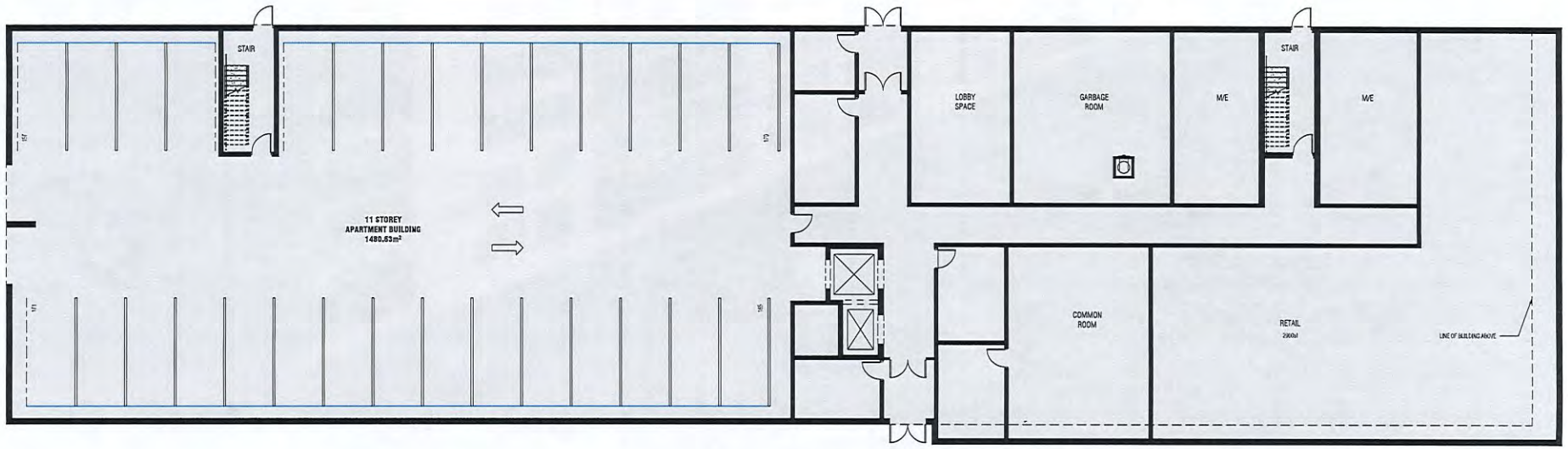
TOTAL UNITS
– 150

MIXED-USE DEVELOPMENT
APRIL 19, 2020

BAIRD|AE



2 TYPICAL FLOOR PLAN 2-11
1/8" = 1'-0"



1 GROUND FLOOR PLAN
1/8" = 1'-0"

MIXED-USE DEVELOPMENT

BAIRD|AE architecture + engineering

BAIRD|AE
architecture + engineering

EXT RENDER / SANDWICH DEVELOPMENT
/ JUL 19, 2020

BAIRD|AE
architecture + engineering

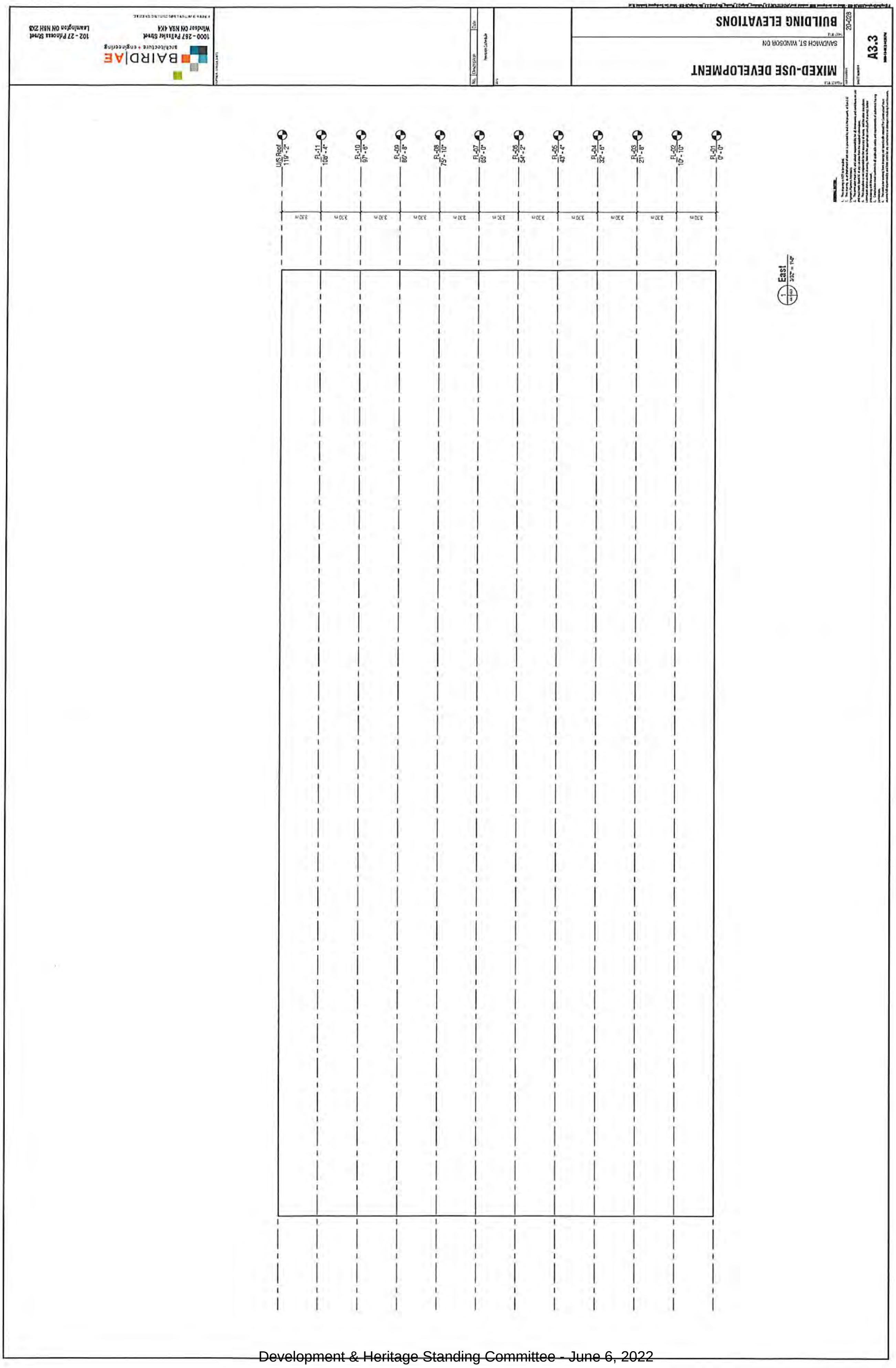
EXT RENDER / SANDWICH DEVELOPMENT
/ JUL 19, 2020

BAIRD|AE
architecture + engineering

EXT RENDER / SANDWICH DEVELOPMENT
/ JUL 19, 2020

MIXED-USE DEVELOPMENT
SANDWICH ST, WINDSOR ON
BUILDING ELEVATIONS
20-028
A3.1
No. Description Date
BAIRD|AE
architecture + engineering
1000 - 250 Pelissier Street
Windsor ON N9A 4K4
102 - 27 Princess Street
Leamington ON N8H 2X8
US Roof 119' - 2"
R+11 109' - 4"
R+10 97' - 6"
R+09 86' - 8"
R+08 75' - 10"
R+07 65' - 0"
R+06 54' - 2"
R+05 43' - 4"
R+04 32' - 6"
R+03 21' - 8"
R+02 10' - 10"
R+01 0' - 0"
330 in
South
3/32" = 1'-0"
North
3/32" = 1'-0"

MIXED-USE DEVELOPMENT
SANDWICH ST. WINDSOR ON
WEST ELEVATION
A3.2
BAIRD|AE
architecture + engineering
1000 - 287 Pelissier Street
Windsor ON N9A 4X6
102 - 27 Princess Street
Leamington ON N8H 2X8
West
1/32" = 1'-0"


BAIRD AE
architecture + engineering
1000 - 267 Pelissier Street
Windsor ON N9A 4K4
102 - 27 Princess Street
Leamington ON N8H 2X8
MIXED-USE DEVELOPMENT
SANDWICH ST, WINDSOR ON
BUILDING ELEVATIONS
20-028
A3.3
US Roof 119' - 2"
FL-11 108' - 4"
FL-10 97' - 6"
FL-09 86' - 8"
FL-08 75' - 10"
FL-07 65' - 0"
FL-06 54' - 2"
FL-05 43' - 4"
FL-04 32' - 6"
FL-03 21' - 8"
FL-02 10' - 10"
FL-01 0' - 0"
East
3/32" = 1'-0"

DEFINITIONS OF CLASSES FROM GUIDELINE – 6

CLASS I INDUSTRIAL FACILITY

A place of business for a small scale, self-contained plant or building which produces and/or stores a product which is contained in a package and has a low probability of fugitive emissions for any of the following: noise, odour, dust, and/or vibration. There are daytime operations only, with infrequent movement of products and/or heavy trucks and no outside storage.

CLASS II INDUSTRIAL FACILITY

A place of business for medium scale processing and manufacturing with outdoor storage of wastes or material (i.e. it has an open process) and/or there are periodic outputs of minor annoyance. There are occasional outputs of either point source or fugitive emissions of any of the following: noise, odour, dust, and/or vibration, and low probability of fugitive emissions. Shift operations are permitted and there is frequent movement of products and/or heavy trucks during daytime hours.

CLASSIIIINDUSTRIALFACILITY

A place of business for large scale manufacturing or processing, characterized by: large physical size, outside storage of raw and finished products, large production volumes and continuous movement of products and employees during daily shift operations. It has frequent outputs of major annoyance and there is a high probability of fugitive emissions.

Government of Canada / Gouvernement du Canada

Hourly Forecast - Windsor

Date/Time (EDT)	Temp. (°C)	Weather Conditions	Likelihood of precip ‡	Wind (km/h)
02 October 2020				
09:00	8	Mainly sunny	Nil	NW 15
10:00	9	Mainly sunny	Nil	NW 15
11:00	9	Mainly sunny	Nil	NW 15
12:00	10	Mainly sunny	Nil	NW 15
13:00	11	Mainly sunny	Nil	NW 15
14:00	12	Chance of showers	Low	NW 15
15:00	12	Chance of showers	Low	NW 15
16:00	13	Chance of showers	Low	NW 15
17:00	13	Chance of showers	Low	NW 15
18:00	12	Chance of showers	Low	NW 10
19:00	10	Chance of showers	Low	NW 10
20:00	9	Chance of showers	Low	NW 10
21:00	8	A few clouds	Nil	NW 10
22:00	7	A few clouds	Nil	NW 10
23:00	6	A few clouds	Nil	VR 5
03 October 2020				

Date/Time (EDT)	Temp. (°C)	Weather Conditions	Likelihood of precip ‡	Wind (km/h)
00:00	5	 A few clouds	Nil	VR 5
01:00	5	 A few clouds	Nil	VR 5
02:00	4	 Partly cloudy	Low	VR 5
03:00	3	 Partly cloudy	Low	VR 5
04:00	3	 Partly cloudy	Low	VR 5
05:00	2	 Partly cloudy	Low	VR 5
06:00	3	 Partly cloudy	Low	VR 5
07:00	3	 Mainly sunny	Low	VR 5
08:00	4	 Mainly sunny	Nil	VR 5

‡ Likelihood of Precipitation as described in the public forecast as a chance of measurable precipitation for a period of time.

Nil: 0%

Low: 40% or below

Medium: 60% or 70%

High: Above 70%

* Value not significant

How to Use

Date modified: 2020-10-02

Government of Canada / Gouvernement du Canada

Windsor Airport, Ontario

Latitude 42.28° N | Longitude 82.96° W

Past 24 Hour Conditions

Imperial units | Graphic

Date / Time (EDT)	Conditions	Temperature (°C)	Wind (km/h)	Relative humidity (%)	Dew point (°C)	Pressure (kPa)	Visibility (km)
02 October 2020							
08:00	Sunny	5 (5.0) ↓	WNW 13	84	3	101.9	16
07:00	Clear	5 (5.4)	WNW 13	87	3	101.8	16
06:00	Clear	6 (6.1)	WNW 15	87	4	101.8	16
05:00	Partly Cloudy	7 (7.2)	NW 22	83	5	101.7	16
04:00	Cloudy	8 (8.1)	NW 22 gust 35	86	6	101.7	16
03:00	Partly Cloudy	9 (8.7)	NW 17 gust 30	85	6	101.7	16

Date / Time (EDT)	Conditions	Temperature (°C)	Wind (km/h)	Relative humidity (%)	Dew point (°C)	Pressure (kPa)	Visibility (km)
02:00	Cloudy	10 (9.7)	NNW 21 gust 32	79	6	101.7	16
01:00	Light Rain	10 (9.7)	NNW 24 gust 33	85	7	101.6	16
00:00	Cloudy	10 (10.1)	NW 21	85	8	101.6	16
01 October 2020							
23:00	Cloudy	10 (10.4)	WNW 21	81	7	101.6	16
22:00	Mostly Cloudy	11 (10.6)	NW 13	78	7	101.5	16
21:00	Mostly Cloudy	9 (8.7)	WSW 11	85	6	101.5	16
20:00	Mostly Cloudy	9 (9.1)	W 11	81	6	101.4	16
19:00	Mainly Sunny	12 (11.8)	WNW 8	72	7	101.4	16
18:00	Mostly Cloudy	13 (13.0)	NNE 9	68	7	101.4	16

Date / Time (EDT)	Conditions	Temperature (°C)	Wind (km/h)	Relative humidity (%)	Dew point (°C)	Pressure (kPa)	Visibility (km)
17:00	 Mostly Cloudy	12 (12.4)	SW 11	77	9	101.3	16
16:00	 **Thunderstorm**	12 (12.3)	SW 30 gust 41	64	6	101.4	16
15:00	 Mostly Cloudy	17 (16.6) ↑	S 21 gust 32	48	6	101.2	16
14:00	 Partly Cloudy	17 (16.6) ↑	WSW 28 gust 41	51	7	101.2	16
13:00	n/a	16 (15.6)	SW 21 gust 32	60	8	101.3	16
12:00	 Mainly Sunny	15 (15.0)	W 22 gust 35	66	9	101.3	16
11:00	 Partly Cloudy	14 (13.5)	WSW 17 gust 30	74	9	101.3	16
10:00	 Mostly Cloudy	12 (11.5)	W 17	81	8	101.3	16
09:00	 Sunny	9 (9.4)	WSW 11	89	8	101.3	16
08:00	 Sunny	7 (6.7)	SW 9	97	6	101.2	16

▼ Legend

n/a: not available

This table displays weather elements available for this station

Highest temperature ↑

Lowest temperature ↓

Equal temperature values are all highlighted

This is an automated product, generated using preliminary data.

If you require additional historical weather information, please visit Climate website.

Date modified: 2020-10-02

Sandwich St @ Chappel Ave

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:15:00
To: 8:15:00

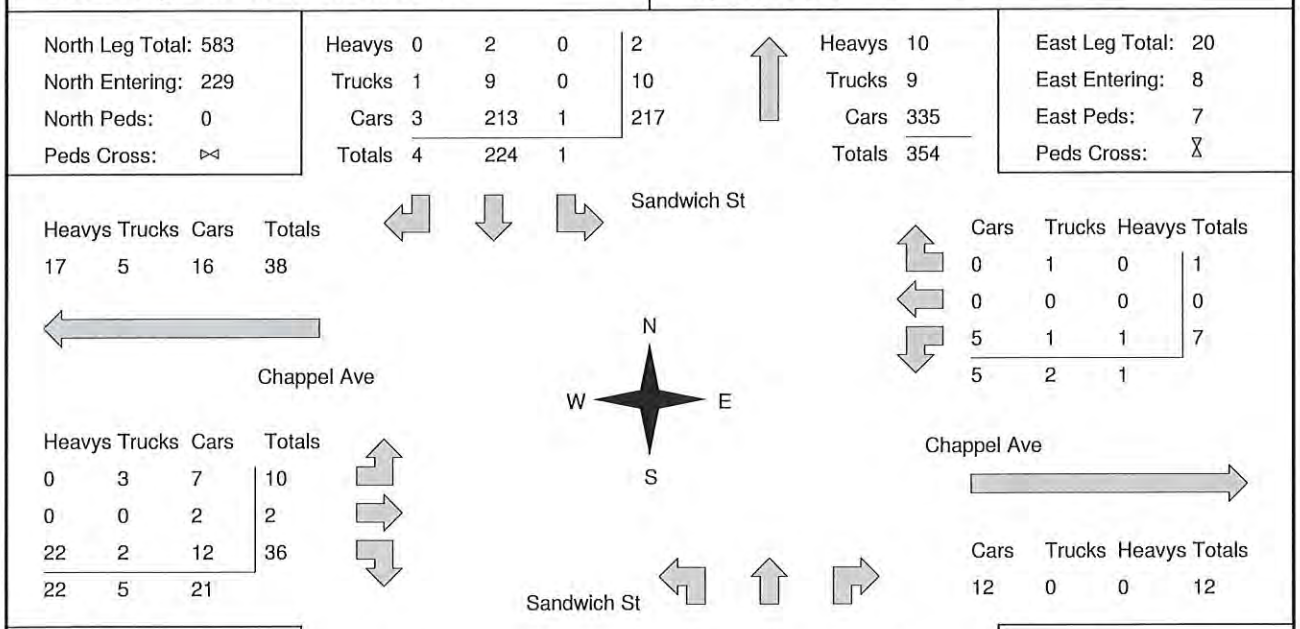
Municipality: Windsor
Site #: 0000000001
Intersection: Sandwich St & Chappel Ave
TFR File #: 1
Count date: 21-Jul-2020

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Non-Signalized Intersection ****

Major Road: Sandwich St runs N/S



Comments

Sandwich St @ Chappel Ave

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 14:00:00

One Hour Peak
From: 12:15:00
To: 13:15:00

Municipality: Windsor
Site #: 0000000001
Intersection: Sandwich St & Chappel Ave
TFR File #: 1
Count date: 21-Jul-2020

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

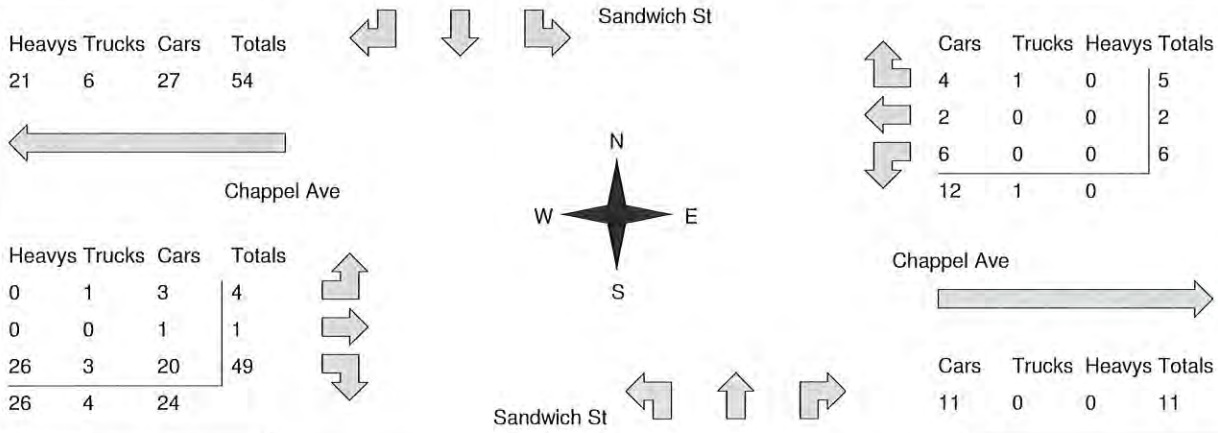
**** Non-Signalized Intersection ****

Major Road: Sandwich St runs N/S

North Leg Total: 526	Heavys	0	8	0	8
North Entering: 284	Trucks	3	7	0	10
North Peds: 1	Cars	10	251	5	266
Peds Cross: ⋈	Totals	13	266	5	

Heavys	5
Trucks	8
Cars	229
Totals	242

East Leg Total:	24
East Entering:	13
East Peds:	9
Peds Cross:	⧖



Peds Cross: ⧖	Cars	277	Cars	15	222	5	242
West Peds: 0	Trucks	10	Trucks	3	6	0	9
West Entering: 54	Heavys	34	Heavys	21	5	0	26
West Leg Total: 108	Totals	321	Totals	39	233	5	

Peds Cross:	⋈
South Peds:	5
South Entering:	277
South Leg Total:	598

Comments

Sandwich St @ Chappel Ave

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 15:15:00
To: 16:15:00

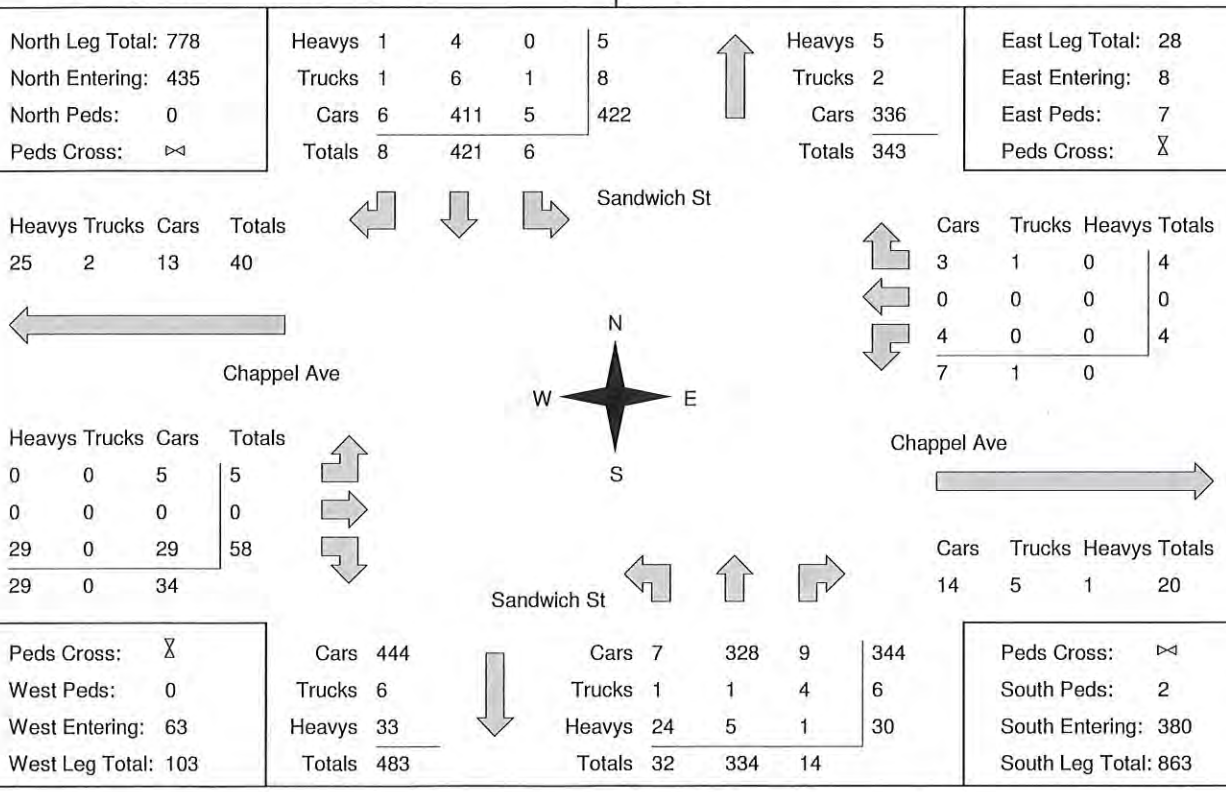
Municipality: Windsor
Site #: 0000000001
Intersection: Sandwich St & Chappel Ave
TFR File #: 1
Count date: 21-Jul-2020

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Non-Signalized Intersection ****

Major Road: Sandwich St runs N/S



Comments

Sandwich St @ Chappel Ave

Total Count Diagram

Municipality: Windsor
Site #: 0000000001
Intersection: Sandwich St & Chappel Ave
TFR File #: 1
Count date: 21-Jul-2020

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Non-Signalized Intersection ****

Major Road: Sandwich St runs N/S

North Leg Total: 4794
North Entering: 2445
North Peds: 3
Peds Cross: ⋈

Heavys	1	47	0	48
Trucks	10	45	2	57
Cars	42	2281	17	2340
Totals	53	2373	19	

Heavys	47	
Trucks	36	
Cars	2266	
Totals	2349	

East Leg Total: 146
East Entering: 68
East Peds: 57
Peds Cross: ⋈

Heavys	Trucks	Cars	Totals
140	24	118	282

Sandwich St

	Cars	Trucks	Heavys	Totals
	18	3	0	21
	3	1	0	4
	38	4	1	43
	59	8	1	

Chappel Ave

N
W E
S

Heavys	Trucks	Cars	Totals
3	7	36	46
0	0	6	6
146	12	130	288
149	19	172	

Chappel Ave

	Cars	Trucks	Heavys	Totals
	63	14	1	78

Sandwich St

Peds Cross: ⋈
West Peds: 9
West Entering: 340
West Leg Total: 622

Cars	2449			
Trucks	61			
Heavys	194			
Totals	2704			

Cars	73	2212	40	2325
Trucks	13	26	12	51
Heavys	139	44	1	184
Totals	225	2282	53	

Peds Cross: ⋈
South Peds: 17
South Entering: 2560
South Leg Total: 5264

Comments

PRINCIPAL MAIN LINE REQUIREMENTS

1. Berm, or combination berm and noise attenuation fence, having extensions or returns at the ends, to be erected on adjoining property, parallel to the railway right-of-way with construction according to the following:

   a) Minimum total height 5.5 metres above top-of-rail;
   b) Berm minimum height 2.5 metres and side slopes not steeper than 2.5 to 1.
   c) Fence, or wall, to be constructed without openings and of a durable material weighing not less than 20 kg. per square metre (4 lb/sq.ft.) of surface area.

   No part of the berm/noise barrier is to be constructed on railway property.

   A clause should be inserted in all offers of purchase and sale or lease, and be registered on title or included in the lease for each dwelling affected by any noise and vibration attenuation measures, advising that any berm, fencing, or vibration isolation features implemented are not to be tampered with or altered, and further that the owner shall have the sole responsibility for and shall maintain these features.

   Dwellings must be constructed such that the interior noise levels meet the criteria of the appropriate Ministry. A noise study should be carried out by a professional noise consultant to determine what impact, if any, railway noise would have on residents of proposed subdivisions and to recommend mitigation measures, if required. The Railway may consider other measures recommended by the study.

2. Setback of dwellings from the railway right-of-way to be a minimum of 30 metres. While no dwelling should be closer to the right-of-way than the specified setback, an unoccupied building, such as a garage, may be built closer. The 2.5 metre high earth berm adjacent to the right-of-way must be provided in all instances.

3. Ground vibration transmission to be estimated through site tests. If in excess of the acceptable levels, all dwellings within 75 metres of the nearest track should be protected. The measures employed may be:

   a) Support the building on rubber pads between the foundation and the occupied structure so that the maximum vertical natural frequency of the structure on the pads is 12 Hz;
   b) Insulate the building from the vibration originating at the railway tracks by an intervening discontinuity or by installing adequate insulation outside the building, protected from the compaction that would reduce its effectiveness so that vibration in the building became unacceptable; or
   c) Other suitable measures that will retain their effectiveness over time.

4. A clause should be inserted in all offers of purchase and sale or lease and in the title deed or lease of each dwelling within 300m of the railway right-of-way, warning prospective purchasers or tenants of the existence of the Railway's operating right-of-way; the possibility of alterations including the possibility that the Railway may expand its operations, which expansion may affect the living environment of the residents notwithstanding the inclusion of noise and vibration attenuating measures in the design of the subdivision and individual units, and that the Railway will not be responsible for complaints or claims arising from the use of its facilities and/or operations.

5. Any proposed alterations to the existing drainage pattern affecting railway property must receive prior concurrence from the Railway, and be substantiated by a drainage report to be reviewed by the Railway.

6. A 1.83 metre high chain link security fence be constructed and maintained along the common property line of the Railway and the development by the developer at his expense, and the developer is made aware of the necessity of including a covenant running with the lands, in all deeds, obliging the purchasers of the land to maintain the fence in a satisfactory condition at their expense.

7. Any proposed utilities under or over railway property to serve the development must be approved prior to their installation and be covered by the Railway's standard agreement.

Appendix B

STAMSON OUTPUT

```
STAMSON 5.0        NORMAL REPORT        Date: 08-09-2005 22:37:06
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: sandwich.te          Time Period: Day/Night 16/8 hours
Description: COMPARSION MONITORED AND MODEL - Monitoring Location 1 and 2

Rail data, segment # 1: CP RAILWAY (day/night)
-----------------------------------------------
Train            ! Trains      ! Trains      ! Speed !# loc !# Cars! Eng  !Cont
Type             ! (Left)      ! (Right)     !(km/h) !/Train!/Train! type !weld
-----------------+-------------+-------------+-------+------+------+------+----
  1. Freight     !   0.5/0.5   !   0.5/0.5   !  20.0 !  2.0 !168.0 !Diesel!  No

Data for Segment # 1: CP RAILWAY (day/night)
---------------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 151.00 / 151.00 m
Receiver height           :   1.50 / 4.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Whistle Angle             :     90 deg   Track 1
Reference angle           :   0.00

Results segment # 1: CP RAILWAY (day)
---------------------------------------

LOCOMOTIVE (0.00 + 53.23 + 0.00) = 53.23 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  63.26 -10.03   0.00   0.00   0.00   0.00  53.23
-------------------------------------------------------------------------

WHEEL (0.00 + 40.56 + 0.00) = 40.56 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  50.59 -10.03   0.00   0.00   0.00   0.00  40.56
-------------------------------------------------------------------------

LEFT WHISTLE (0.00 + 0.00 + 0.00) = 0.00 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
-------------------------------------------------------------------------

Segment Leq : 53.46 dBA

Total Leq All Segments: 53.46 dBA

Results segment # 1: CP RAILWAY (night)
-----------------------------------------

LOCOMOTIVE (0.00 + 56.24 + 0.00) = 56.24 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  66.27 -10.03   0.00   0.00   0.00   0.00  56.24
-------------------------------------------------------------------------

WHEEL (0.00 + 43.57 + 0.00) = 43.57 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  53.60 -10.03   0.00   0.00   0.00   0.00  43.57
-------------------------------------------------------------------------

LEFT WHISTLE (0.00 + 0.00 + 0.00) = 0.00 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
-------------------------------------------------------------------------

Segment Leq : 56.47 dBA
Total Leq All Segments: 56.47 dBA
```

```
Road data, segment # 1: Sandwich (day/night)
---------------------------------------------
Car traffic volume  :  6315/702   veh/TimePeriod  *
Medium truck volume :   166/18    veh/TimePeriod  *
Heavy truck volume  :   173/19    veh/TimePeriod  *
Posted speed limit  :    50 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

    24 hr Traffic Volume (AADT or SADT):   5186
    Percentage of Annual Growth        :   3.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.50
    Heavy Truck  % of Total Volume     :   2.60
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Sandwich (day/night)
------------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  15.00 / 15.00  m
Receiver height           :   1.50 / 4.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: Sandwich (day)
-----------------------------------

Source height = 1.27 m

ROAD (0.00 + 61.52 + 0.00) = 61.52 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.66  62.98   0.00   0.00  -1.46   0.00   0.00   0.00  61.52
-------------------------------------------------------------------------------

Segment Leq : 61.52 dBA

Total Leq All Segments: 61.52 dBA

Results segment # 1: Sandwich (night)
-------------------------------------

Source height = 1.27 m

ROAD (0.00 + 55.09 + 0.00) = 55.09 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.58  56.41   0.00   0.00  -1.31   0.00   0.00   0.00  55.09
-------------------------------------------------------------------------------

Segment Leq : 55.09 dBA

Total Leq All Segments: 55.09 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.15
                           (NIGHT): 58.84
```

```
STAMSON 5.0        NORMAL REPORT        Date: 08-09-2005 22:37:50
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: sandwich.te          Time Period: Day/Night 16/8 hours
Description: COMPARSION MONITORED AND MODEL - Monitoring Location 3

Rail data, segment # 1: CP RAILWAY (day/night)
-----------------------------------------------
Train            ! Trains      ! Trains      ! Speed !# loc !# Cars! Eng  !Cont
Type             ! (Left)      ! (Right)     !(km/h) !/Train!/Train! type !weld
-----------------+-------------+-------------+-------+------+------+------+----
  1. Freight     !   0.5/0.5   !   0.5/0.5   !  20.0 !  2.0 !168.0 !Diesel!  No

Data for Segment # 1: CP RAILWAY (day/night)
---------------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  : 211.00 / 211.00 m
Receiver height           :   1.50 / 4.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Whistle Angle             :     90 deg   Track 1
Reference angle           :   0.00

Results segment # 1: CP RAILWAY (day)
---------------------------------------

LOCOMOTIVE (0.00 + 51.78 + 0.00) = 51.78 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  63.26 -11.48   0.00   0.00   0.00   0.00  51.78
-------------------------------------------------------------------------

WHEEL (0.00 + 39.11 + 0.00) = 39.11 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  50.59 -11.48   0.00   0.00   0.00   0.00  39.11
-------------------------------------------------------------------------

LEFT WHISTLE (0.00 + 0.00 + 0.00) = 0.00 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
-------------------------------------------------------------------------

Segment Leq : 52.01 dBA

Total Leq All Segments: 52.01 dBA

Results segment # 1: CP RAILWAY (night)
-----------------------------------------

LOCOMOTIVE (0.00 + 54.79 + 0.00) = 54.79 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  66.27 -11.48   0.00   0.00   0.00   0.00  54.79
-------------------------------------------------------------------------

WHEEL (0.00 + 42.12 + 0.00) = 42.12 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
   -90     90   0.00  53.60 -11.48   0.00   0.00   0.00   0.00  42.12
-------------------------------------------------------------------------

LEFT WHISTLE (0.00 + 0.00 + 0.00) = 0.00 dBA
Angle1 Angle2  Alpha RefLeq  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------
-------------------------------------------------------------------------

Segment Leq : 55.02 dBA
Total Leq All Segments: 55.02 dBA
```

```
Road data, segment # 1: Sandwich (day/night)
---------------------------------------------
Car traffic volume  :  6315/702   veh/TimePeriod  *
Medium truck volume :   166/18    veh/TimePeriod  *
Heavy truck volume  :   173/19    veh/TimePeriod  *
Posted speed limit  :    50 km/h
Road gradient       :     0 %
Road pavement       :     1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

    24 hr Traffic Volume (AADT or SADT):   5186
    Percentage of Annual Growth        :   3.00
    Number of Years of Growth          :  12.00
    Medium Truck % of Total Volume     :   2.50
    Heavy Truck  % of Total Volume     :   2.60
    Day (16 hrs) % of Total Volume     :  90.00

Data for Segment # 1: Sandwich (day/night)
------------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      1       (Absorptive ground surface)
Receiver source distance  :  60.00 / 60.00  m
Receiver height           :   1.50 / 4.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: Sandwich (day)
-----------------------------------

Source height = 1.27 m

ROAD (0.00 + 51.53 + 0.00) = 51.53 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.66  62.98   0.00  -9.99  -1.46   0.00   0.00   0.00  51.53
-------------------------------------------------------------------------------

Segment Leq : 51.53 dBA

Total Leq All Segments: 51.53 dBA

Results segment # 1: Sandwich (night)
-------------------------------------

Source height = 1.27 m

ROAD (0.00 + 45.60 + 0.00) = 45.60 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.58  56.41   0.00  -9.49  -1.31   0.00   0.00   0.00  45.60
-------------------------------------------------------------------------------

Segment Leq : 45.60 dBA

Total Leq All Segments: 45.60 dBA


TOTAL Leq FROM ALL SOURCES (DAY): 54.79
                           (NIGHT): 55.49
```

Appendix C

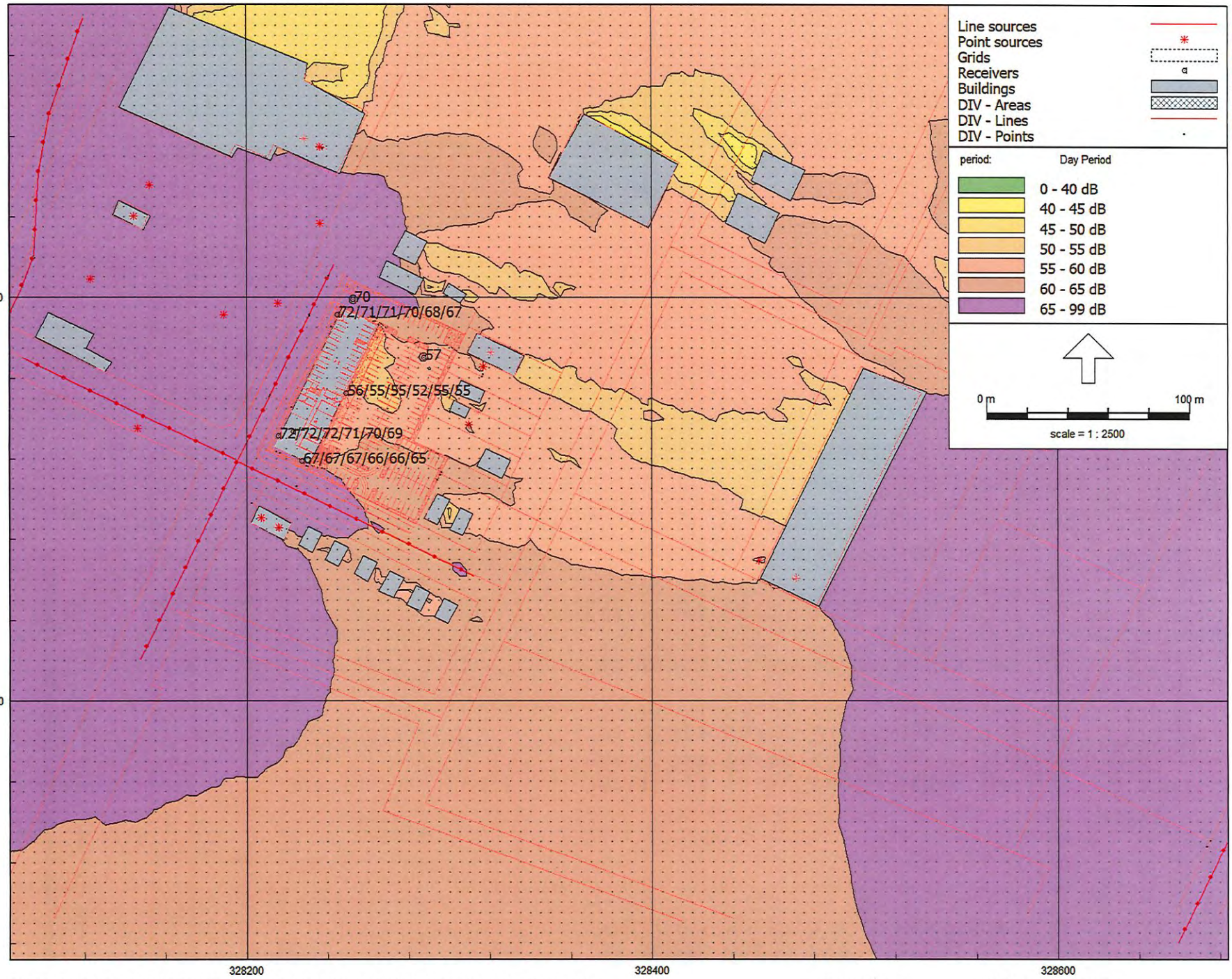
INOISE OUTPUT

initial model

6 Oct 2020, 13:21

Shurjeel Tunio - BairdAE

PRE-DEVELOPMENT CONDITION DAYTIME NOISE LEVEL



POST-DEVELOPMENT CONDITION DAYTIME NOISE LEVEL

FLOORS 1\2\3\5\8\11

NOISE LEVEL 72\72\72\71\70\69

Initial model
6 Oct 2020, 13:21

Shurjeel Tunio - BairdAE

Report: Table of Results
Model: initial model
LAeq: total results for receivers
Group: (main group)
Group Reduction: No

Name Receiver	Description	Height	Day	Evening	Night
M1_A		1.50	69.7	69.7	69.7
M2_A		1.50	--	--	--
M3_A		1.50	57.0	57.0	57.0
REC1_A		1.50	71.6	71.6	71.6
REC1_B		4.80	71.1	71.1	71.1
REC1_C		8.10	70.7	70.7	70.7
REC1_D		14.70	69.6	69.6	69.6
REC1_E		24.60	68.4	68.4	68.4
REC1_F		34.50	67.4	67.4	67.4
REC2_A		1.50	72.4	72.4	72.4
REC2_B		4.80	71.9	71.9	71.9
REC2_C		8.10	71.6	71.6	71.6
REC2_D		14.70	70.7	70.7	70.7
REC2_E		24.60	69.5	69.5	69.5
REC2_F		34.50	68.6	68.6	68.6
REC3_A		1.50	67.4	67.4	67.4
REC3_B		4.80	66.7	66.7	66.7
REC3_C		8.10	66.6	66.6	66.6
REC3_D		14.70	66.4	66.4	66.4
REC3_E		24.60	65.9	65.9	65.9
REC3_F		34.50	65.4	65.4	65.4
REC4_A		1.50	55.9	55.9	55.9
REC4_B		4.80	55.2	55.2	55.2
REC4_C		8.10	54.9	54.9	54.9
REC4_D		14.70	52.1	52.1	52.1
REC4_E		24.60	54.8	54.8	54.8
REC4_F		34.50	54.8	54.8	54.8

All shown dB values are A-weighted

Model: initial model
version of Area - Area
Group: (main group)
Listing of: Line sources, for method Industrial noise - ISO 9613.1/2 (1/3 Octave)

Name	Desc.	ISO H	ISO Terr.	HDef.	Weighting	Ca(D)	Ca(E)	Ca(N)	Max.dist.	No refl.	No building
Train-Nor		1.50	0.00	Relative	A	0.00	0.00	0.00	15.00	No	No
Train-West		1.50	0.00	Relative	A	0.00	0.00	0.00	15.00	No	No
Sandwich		1.50	0.00	Relative	A	0.00	0.00	0.00	15.00	No	No
Chappell-N		1.50	0.00	Relative	A	0.00	0.00	0.00	15.00	No	No
Chappell-S		1.50	0.00	Relative	A	0.00	0.00	0.00	15.00	No	No

Model: initial model
version of Area - Area
Group: (main group)
Listing of: Line sources, for method Industrial noise - ISO 9613.1/2 (1/3 Octave)

Name	LwM 315	LwM 400	LwM 500	LwM 630	LwM 800	LwM 1k	LwM 1.25k	LwM 1.6k	LwM 2k	LwM 2.5k	LwM 3.1k	LwM 4k
Train-Nor	--	--	--	--	--	--	95.00	--	--	--	--	--
Train-West	--	--	--	--	--	--	95.00	--	--	--	--	--
Sandwich	--	--	--	--	--	--	85.00	--	--	--	--	--
Chappell-N	--	--	--	--	--	--	78.00	--	--	--	--	--
Chappell-S	--	--	--	--	--	--	65.00	--	--	--	--	--

Model: initial model
version of Area - Area
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613.1/2 (1/3 Octave)

Name	Desc.	Height	Terrain L	HDef.	Type	DI	DI_Horz	DI_Vert	DI(0)	DI(10)	DI(20)	DI(30)
Ind-14		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
Ind-15		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
Truck-6		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
Park-5		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
Park-4		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
Park-3		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
HVAC-2		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
Truck-9		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
HVAC-8		10.00	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
Ind-7		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
Ind-11		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
Ind-10		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
HVAC-12		10.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
HVAC-13		10.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0
HVAC14		1.50	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0	0.0

Model: initial model
version of Area - Area
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613.1/2 (1/3 Octave)

Name	DI(170)	DI(180)	Ca(D)	Ca(E)	Ca(N)	Weighting	No refl.	No building	No ind.site	Lw 25	Lw 31	Lw 40
Ind-14	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
Ind-15	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
Truck-6	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
Park-5	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
Park-4	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
Park-3	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
HVAC-2	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
Truck-9	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
HVAC-8	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
Ind-7	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
Ind-11	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
Ind-10	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
HVAC-12	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
HVAC-13	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--
HVAC14	0.0	0.0	0.00	0.00	0.00	A	No	No	No	--	--	--

Model: initial model
version of Area - Area
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613.1/2 (1/3 Octave)

Name	Lw 1.25k	Lw 1.6k	Lw 2k	Lw 2.5k	Lw 3.1k	Lw 4k	Lw 5k	Lw 6.3k	Lw 8k	Lw 10k	Red 25	Red 31	Red 40
Ind-14	70.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
Ind-15	70.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
Truck-6	75.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
Park-5	65.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
Park-4	65.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
Park-3	65.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
HVAC-2	70.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
Truck-9	75.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
HVAC-8	75.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
Ind-7	80.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
Ind-11	90.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
Ind-10	90.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
HVAC-12	70.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
HVAC-13	70.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00
HVAC14	75.00	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00

Model: initial model
version of Area - Area
Group: (main group)
Listing of: Receivers, for method Industrial noise - ISO 9613.1/2 (1/3 Octave)

Name	Desc.	Terrain L	HDef.	Height A	Height B	Height C	Height D	Height E	Height F	Façade
M2		0.00	Relative	1.50	--	--	--	--	--	Yes
M1		0.00	Relative	1.50	--	--	--	--	--	Yes
M3		0.00	Relative	1.50	--	--	--	--	--	Yes
REC2		0.00	Relative	1.50	4.80	8.10	14.70	24.60	34.50	Yes
REC1		0.00	Relative	1.50	4.80	8.10	14.70	24.60	34.50	Yes
REC3		0.00	Relative	1.50	4.80	8.10	14.70	24.60	34.50	Yes
REC4		0.00	Relative	1.50	4.80	8.10	14.70	24.60	34.50	Yes

Appendix D

BUILDING COMPONENT

3885 Sandwich Street Development
Building Component Review

Receiver 1 & 2					
Receiver 1 & 2	**BR/LR**	**COMPONENT**	**F AREA**	**W AREA**	**STC**
W Façade	Living	Window	15.6	1.7	35
W Façade	Living	Door	15.6	2.3	36
W Façade	Living	Wall	15.6	8.96	42
W Façade	Bed	Window	17.4	1.8	38
W Façade	Bed	Wall	17.4	6.66	43

Receiver 3					
Receiver 3	**BR/LR**	**COMPONENT**	**F AREA**	**W AREA**	**STC**
NS Façade	Living	Window	15.6	1.7	33
NS Façade	Living	Door	15.6	2.3	34
NS Façade	Living	Wall	15.6	8.96	40
NS Façade	Bed	Window	17.4	1.8	36
NS Façade	Bed	Wall	17.4	6.66	41

Receiver 4					
Receiver 4	**BR/LR**	**COMPONENT**	**F AREA**	**W AREA**	**STC**
E Façade	Living	Window	15.6	1.7	21
E Façade	Living	Door	15.6	2.3	22
E Façade	Living	Wall	15.6	8.96	28
E Façade	Bed	Window	17.4	1.8	24
E Façade	Bed	Wall	17.4	6.66	29

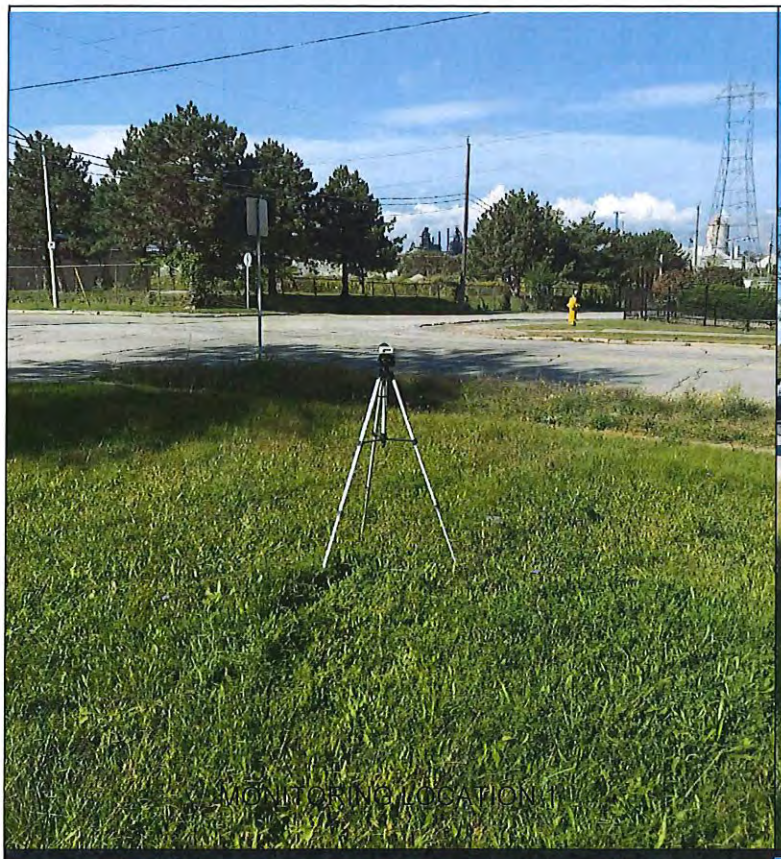
*NOTE: STC VALUES ARE BASED OFF A SOUND LEVEL OF RECEIVER LOCATIONS

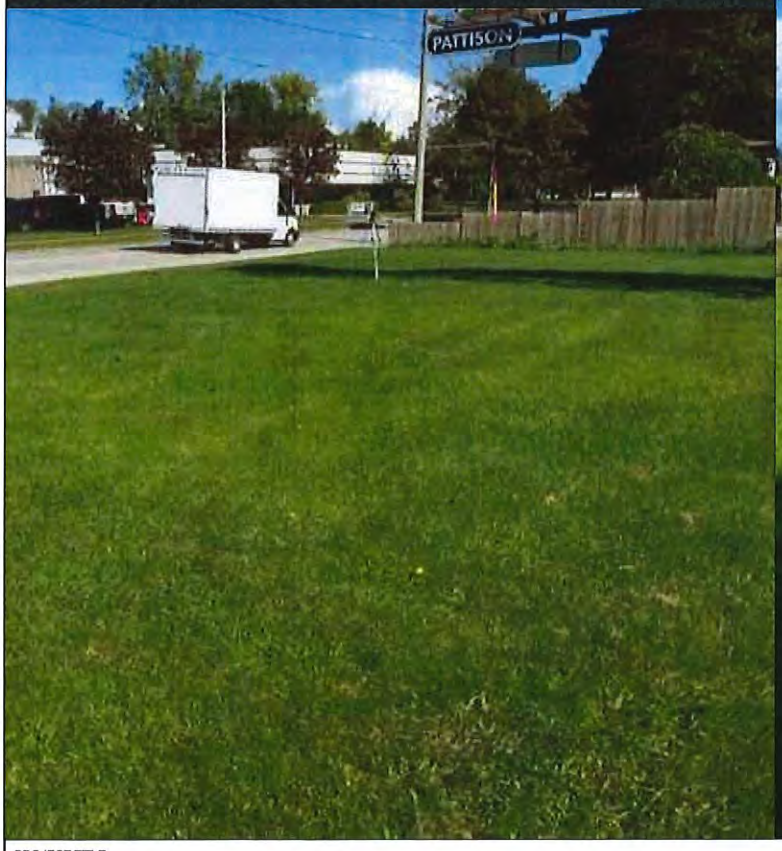
3885 SANDWICH STREET DEVELOPMENT WALL DOOR WINDOWS COMPONENT

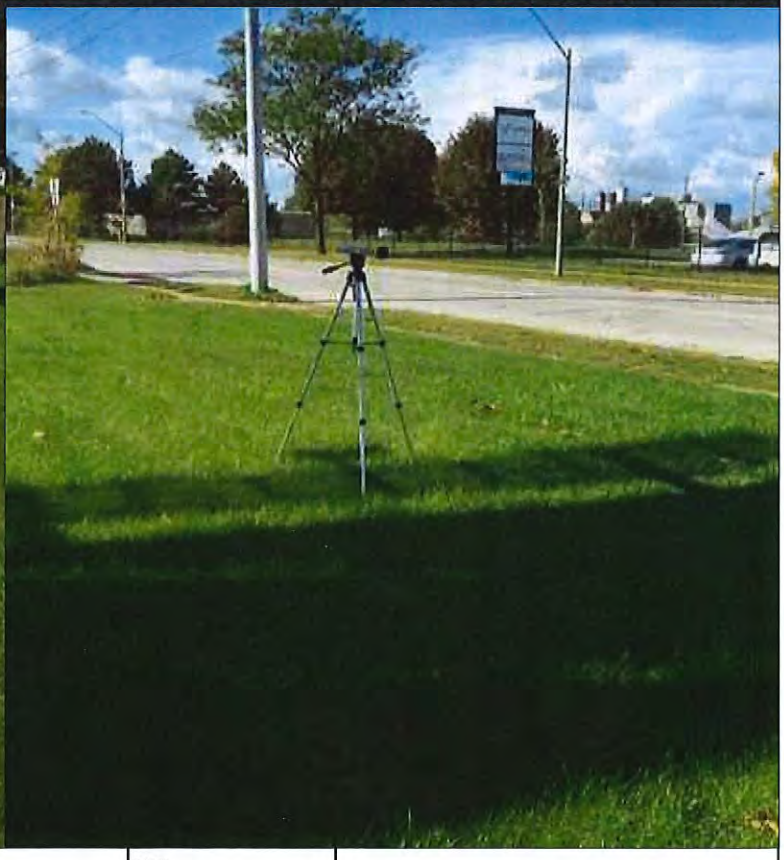
Receiver 1 & 2	BR/LR	dBA	STC	Noise Source	Indoor Quarters	Reflections	Indoor Sound Level	Sound Angle of Incidence	C1 from Table 7.7	Sum	Component	Floor Area	Component Area	Room Absorption Category	# of Components	Transmit %	C2 from Table. 7.8	Noise Spectrum Type	% Floor Area	C3 from Table 7.9	Component Category	C4 from Table 7.10
W Façade	Living	72	35	Rail	Living	3	40	0 to 90 degrees	0	35	Window	15.6	1.7	Very Absorptive	3	33.33333333	5	E - Road Traffic Sce	10.90	-11	c. Sealed thin winc	6
W Façade	Living	72	36	Rail	Living	3	40	0 to 90 degrees	0	35	Door	15.6	2.3	Very Absorptive	3	33.33333333	5	E - Road Traffic Sce	14.74	-10	c. Sealed thin winc	6
W Façade	Living	72	42	Rail	Living	3	40	0 to 90 degrees	0	35	Wall	15.6	8.96	Very Absorptive	3	33.33333333	5	E - Road Traffic Sce	57.44	-4	c. Sealed thin winc	6
W Façade	Bed	72	38	Rail	Sleeping	3	35	0 to 90 degrees	0	40	Window	17.4	1.8	Very Absorptive	2	50	3	E - Road Traffic Sce	10.34	-11	c. Sealed thin winc	6
W Façade	Bed	72	43	Rail	Sleeping	3	35	0 to 90 degrees	0	40	Wall	17.4	6.66	Very Absorptive	2	50	3	E - Road Traffic Sce	38.28	-6	c. Sealed thin winc	6
				Road	Sleeping			60 to 90 degrees			Window			Very Absorptive				E - Road Traffic Sce			c. Sealed thin wind	
Receiver 3	**BR/LR**	**dBA**	**STC**	**Noise Source**	**Indoor Quarters**	**Reflections**	**Indoor Sound Level**	**Sound Angle of Incidence**	**C1 from Table 7.7**	**Sum**	**Component**	**Floor Area**	**Component Area**	**Room Absorption Category**	**# of Components**	**Transmit %**	**C2 from Table. 7.8**	**Noise Spectrum Type**	**% Floor Area**	**C3 from Table 7.9**	**Component Category**	**C4 from Table 7.10**
NS Façade	Living	67	33	Rail	Living	3	40	60 to 90 degrees	3	33	Window	15.6	1.7	Very Absorptive	3	33.33333333	5	E - Road Traffic Sce	10.90	-11	c. Sealed thin winc	6
NS Façade	Living	67	34	Rail	Living	3	40	60 to 90 degrees	3	33	Door	15.6	2.3	Very Absorptive	3	33.33333333	5	E - Road Traffic Sce	14.74	-10	c. Sealed thin winc	6
NS Façade	Living	67	40	Rail	Living	3	40	60 to 90 degrees	3	33	Wall	15.6	8.96	Very Absorptive	3	33.33333333	5	E - Road Traffic Sce	57.44	-4	c. Sealed thin winc	6
NS Façade	Bed	67	36	Rail	Sleeping	3	35	60 to 90 degrees	3	38	Window	17.4	1.8	Very Absorptive	2	50	3	E - Road Traffic Sce	10.34	-11	c. Sealed thin winc	6
NS Façade	Bed	67	41	Rail	Sleeping	3	35	60 to 90 degrees	3	38	Wall	17.4	6.66	Very Absorptive	2	50	3	E - Road Traffic Sce	38.28	-6	c. Sealed thin winc	6
				Road	Sleeping			60 to 90 degrees			Door			Very Absorptive				E - Road Traffic Sce			c. Sealed thin wind	
Receiver 4	**BR/LR**	**dBA**	**STC**	**Noise Source**	**Indoor Quarters**	**Reflections**	**Indoor Sound Level**	**Sound Angle of Incidence**	**C1 from Table 7.7**	**Sum**	**Component**	**Floor Area**	**Component Area**	**Room Absorption Category**	**# of Components**	**Transmit %**	**C2 from Table. 7.8**	**Noise Spectrum Type**	**% Floor Area**	**C3 from Table 7.9**	**Component Category**	**C4 from Table 7.10**
E Façade	Living	55	21	Rail	Living	3	40	60 to 90 degrees	3	21	Window	15.6	1.7	Very Absorptive	3	33.33333333	5	E - Road Traffic Sce	10.90	-11	c. Sealed thin winc	6
E Façade	Living	55	22	Rail	Living	3	40	60 to 90 degrees	3	21	Window	15.6	2.3	Very Absorptive	3	33.33333333	5	E - Road Traffic Sce	14.74	-10	c. Sealed thin winc	6
E Façade	Living	55	28	Rail	Living	3	40	60 to 90 degrees	3	21	Window	15.6	8.96	Very Absorptive	3	33.33333333	5	E - Road Traffic Sce	57.44	-4	c. Sealed thin winc	6
E Façade	Bed	55	24	Rail	Sleeping	3	35	60 to 90 degrees	3	26	Window	17.4	1.8	Very Absorptive	2	50	3	E - Road Traffic Sce	10.34	-11	c. Sealed thin winc	6
E Façade	Bed	55	29	Rail	Sleeping	3	35	60 to 90 degrees	3	26	Window	17.4	6.66	Very Absorptive	2	50	3	E - Road Traffic Sce	38.28	-6	c. Sealed thin winc	6
				Road	Sleeping			0 to 90 degrees			Door			Hard				A - Large Aircraft La			c. Sealed thin wind	

Appendix E

NOISE MONITORING







PROJECT TITLE: HIGH RISE DEVELOPMENT 3885 SANDWICH STREET, WINDSOR ON	DATE: OCT 5, 2020 SCALE: NTS
SHEET TITLE: PHOTOS	PROJECT NO: 20-028 FIGURE NO: EXHIBIT 1

BAIRD|AE architecture + engineering

27 PRINCESS STREET, SUITE #102, LEAMINGTON, ONTARIO N5H 2X8

1000 - 267 PELISSIER STREET, WINDSOR, ONTARIO N9A 4K4.

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 80.5 - 2020/10/02 14:45:07
Level Range : 40-100
SEL : 105.6
Leq : 70.0

No.s	Date Time	(dB)				
1	2020-10-02 14:22:12	72.1	72.6	72.8	72.5	72.8
6	2020-10-02 14:22:17	72.5	71.6	71.7	71.1	69.3
11	2020-10-02 14:22:22	67.5	65.8	63.9	61.6	59.8
16	2020-10-02 14:22:27	58.9	58.9	58.1	57.9	57.7
21	2020-10-02 14:22:32	57.8	57.5	56.8	57.3	59.9
26	2020-10-02 14:22:37	62.4	65.7	66.8	65.8	65.4
31	2020-10-02 14:22:42	66.4	67.9	70.1	69.7	68.3
36	2020-10-02 14:22:47	68.4	69.7	72.3	73.4	72.7
41	2020-10-02 14:22:52	71.3	70.2	69.0	67.9	66.9
46	2020-10-02 14:22:57	65.9	66.1	66.6	68.3	68.5
51	2020-10-02 14:23:02	67.9	66.3	64.5	62.7	62.5
56	2020-10-02 14:23:07	64.8	66.3	65.7	63.8	61.3
61	2020-10-02 14:23:12	59.4	57.8	57.0	56.5	55.6
66	2020-10-02 14:23:17	55.1	55.0	55.6	55.8	55.3
71	2020-10-02 14:23:22	54.7	55.1	55.9	56.6	58.2
76	2020-10-02 14:23:27	59.8	61.7	66.4	67.7	67.7
81	2020-10-02 14:23:32	66.8	65.3	66.7	68.7	69.2
86	2020-10-02 14:23:37	68.7	67.6	65.8	65.2	66.2
91	2020-10-02 14:23:42	66.8	66.5	69.5	70.0	68.4
96	2020-10-02 14:23:47	66.6	65.6	65.7	66.6	67.0
101	2020-10-02 14:23:52	65.2	63.4	63.4	67.2	67.7
106	2020-10-02 14:23:57	65.8	63.2	61.1	59.1	62.0
111	2020-10-02 14:24:02	61.4	62.1	66.4	66.9	66.0
116	2020-10-02 14:24:07	64.2	62.0	60.8	59.7	58.9
121	2020-10-02 14:24:12	59.6	60.2	64.8	67.4	66.7
126	2020-10-02 14:24:17	65.2	64.5	62.4	61.8	61.4
131	2020-10-02 14:24:22	62.7	64.6	66.3	68.2	68.0
136	2020-10-02 14:24:27	67.7	66.6	65.2	63.7	63.1
141	2020-10-02 14:24:32	61.1	61.0	63.6	67.2	69.0
146	2020-10-02 14:24:37	67.3	66.1	67.8	70.1	69.7
151	2020-10-02 14:24:42	67.7	65.9	63.8	65.5	62.8
156	2020-10-02 14:24:47	60.1	59.7	61.3	66.2	67.8
161	2020-10-02 14:24:52	66.6	64.0	62.8	65.6	67.2
166	2020-10-02 14:24:57	67.6	65.9	63.5	62.8	61.9
171	2020-10-02 14:25:02	59.9	58.1	57.5	58.9	63.6
176	2020-10-02 14:25:07	67.8	68.6	67.7	65.5	64.4
181	2020-10-02 14:25:12	63.7	63.2	63.7	66.7	67.6
186	2020-10-02 14:25:17	66.2	64.1	62.8	64.5	67.4
191	2020-10-02 14:25:22	69.0	68.4	66.6	64.4	62.0
196	2020-10-02 14:25:27	60.5	60.1	59.3	58.9	58.8
201	2020-10-02 14:25:32	60.4	61.5	65.4	67.0	66.3
206	2020-10-02 14:25:37	64.5	62.6	62.0	62.2	64.5
211	2020-10-02 14:25:42	68.2	69.1	67.7	65.4	63.7
216	2020-10-02 14:25:47	64.5	66.1	67.8	68.2	67.1
221	2020-10-02 14:25:52	66.3	68.1	71.3	72.6	72.8
226	2020-10-02 14:25:57	71.9	70.6	69.5	68.9	67.3
231	2020-10-02 14:26:02	67.8	68.3	68.5	67.9	67.8
236	2020-10-02 14:26:07	69.8	69.9	68.5	66.0	63.7
241	2020-10-02 14:26:12	62.1	60.6	60.4	61.1	63.1
246	2020-10-02 14:26:17	67.0	69.5	69.7	68.5	67.9
251	2020-10-02 14:26:22	70.8	71.7	71.7	70.9	69.5
256	2020-10-02 14:26:27	68.0	66.4	64.9	66.4	67.2
261	2020-10-02 14:26:32	66.6	64.6	62.0	59.9	58.4
266	2020-10-02 14:26:37	58.6	57.6	56.5	56.1	58.2
271	2020-10-02 14:26:42	60.8	65.7	67.7	66.9	65.9
276	2020-10-02 14:26:47	67.2	66.7	65.0	62.7	61.6
281	2020-10-02 14:26:52	63.2	65.9	68.9	70.5	70.9
286	2020-10-02 14:26:57	71.5	70.8	70.5	69.9	69.2
291	2020-10-02 14:27:02	70.2	70.6	70.6	70.8	71.7
296	2020-10-02 14:27:07	72.0	71.9	71.2	69.1	66.9
301	2020-10-02 14:27:12	65.7	63.8	61.8	59.9	58.1
306	2020-10-02 14:27:17	56.9	56.2	55.7	55.2	54.8
311	2020-10-02 14:27:22	54.7	56.4	55.9	56.4	59.7
316	2020-10-02 14:27:27	64.4	68.7	70.3	70.2	71.1
321	2020-10-02 14:27:32	71.5	71.4	71.1	69.9	67.6
326	2020-10-02 14:27:37	65.3	63.9	63.1	65.3	66.9
331	2020-10-02 14:27:42	72.3	75.1	74.4	71.3	69.5
336	2020-10-02 14:27:47	68.8	67.7	68.2	68.4	69.1
341	2020-10-02 14:27:52	69.1	69.0	68.7	68.7	68.3
346	2020-10-02 14:27:57	66.8	65.0	64.8	66.8	68.3
351	2020-10-02 14:28:02	68.2	66.6	65.1	63.2	61.3
356	2020-10-02 14:28:07	62.0	60.0	59.4	60.7	63.1
361	2020-10-02 14:28:12	66.5	68.6	69.5	68.5	66.2
366	2020-10-02 14:28:17	63.9	64.2	67.7	70.1	69.3
371	2020-10-02 14:28:22	67.7	66.2	66.2	69.1	69.7
376	2020-10-02 14:28:27	67.9	67.5	68.5	68.1	65.9
381	2020-10-02 14:28:32	63.5	61.2	59.2	59.7	60.3
386	2020-10-02 14:28:37	61.8	61.5	59.3	60.4	59.1
391	2020-10-02 14:28:42	59.5	60.5	60.3	59.0	58.5
396	2020-10-02 14:28:47	61.6	67.9	69.9	68.3	65.7
401	2020-10-02 14:28:52	66.1	68.7	69.3	69.7	69.2
406	2020-10-02 14:28:57	69.9	71.2	70.1	68.7	67.0
411	2020-10-02 14:29:02	69.1	65.3	62.8	60.8	67.0
416	2020-10-02 14:29:07	66.0	64.3	64.6	67.9	68.2

421	2020-10-02	14:29:12	67.9	67.7	68.2	67.4	66.2
426	2020-10-02	14:29:17	68.2	68.8	67.3	65.1	64.6
431	2020-10-02	14:29:22	65.0	64.3	63.2	64.5	66.4
436	2020-10-02	14:29:27	65.5	63.4	62.0	62.7	66.4
441	2020-10-02	14:29:32	69.1	69.2	68.4	68.6	69.1
446	2020-10-02	14:29:37	68.2	66.3	64.0	65.8	65.4
451	2020-10-02	14:29:42	65.8	65.1	65.3	66.3	66.2
456	2020-10-02	14:29:47	64.0	61.8	60.1	58.2	57.1
461	2020-10-02	14:29:52	57.2	56.1	55.5	55.2	55.2
466	2020-10-02	14:29:57	55.1	55.2	54.8	54.8	55.8
471	2020-10-02	14:30:02	56.0	56.5	58.1	60.5	63.7
476	2020-10-02	14:30:07	67.4	69.9	70.3	70.0	70.8
481	2020-10-02	14:30:12	70.8	69.7	68.2	67.9	69.1
486	2020-10-02	14:30:17	73.3	76.4	76.6	74.6	72.5
491	2020-10-02	14:30:22	70.3	67.8	64.8	62.2	60.3
496	2020-10-02	14:30:27	59.4	59.3	61.4	63.8	67.6
501	2020-10-02	14:30:32	68.7	69.2	69.6	70.5	70.1
506	2020-10-02	14:30:37	68.4	65.4	63.1	61.9	60.3
511	2020-10-02	14:30:42	59.1	57.6	55.9	54.9	54.3
516	2020-10-02	14:30:47	54.1	54.2	53.9	54.1	55.0
521	2020-10-02	14:30:52	56.4	58.5	61.0	63.9	65.9
526	2020-10-02	14:30:57	67.3	66.8	64.7	63.1	62.7
531	2020-10-02	14:31:02	64.9	66.3	70.1	71.4	70.7
536	2020-10-02	14:31:07	68.8	67.3	65.7	63.8	65.5
541	2020-10-02	14:31:12	65.8	66.5	65.7	66.4	66.6
546	2020-10-02	14:31:17	67.5	66.8	65.8	67.0	67.8
551	2020-10-02	14:31:22	66.1	64.7	64.5	67.1	70.0
556	2020-10-02	14:31:27	71.3	71.8	70.8	68.3	65.3
561	2020-10-02	14:31:32	62.5	60.8	61.3	63.4	64.8
566	2020-10-02	14:31:37	64.0	62.3	61.4	59.3	57.6
571	2020-10-02	14:31:42	56.8	56.5	56.7	57.3	57.8
576	2020-10-02	14:31:47	58.4	60.8	63.1	64.5	64.9
581	2020-10-02	14:31:52	64.9	64.2	62.9	60.8	59.1
586	2020-10-02	14:31:57	58.6	61.4	62.9	65.7	66.2
591	2020-10-02	14:32:02	64.7	61.9	59.7	58.0	57.4
596	2020-10-02	14:32:07	61.1	60.8	62.5	65.9	68.6
601	2020-10-02	14:32:12	68.1	65.9	63.6	63.7	64.6
606	2020-10-02	14:32:17	64.0	63.6	64.0	65.6	67.7
611	2020-10-02	14:32:22	68.5	69.0	68.9	68.6	69.0
616	2020-10-02	14:32:27	69.4	70.2	69.8	69.8	69.5
621	2020-10-02	14:32:32	68.6	68.1	66.5	64.7	64.3
626	2020-10-02	14:32:37	65.8	68.6	70.7	71.3	69.7
631	2020-10-02	14:32:42	68.7	71.3	71.8	70.5	69.0
636	2020-10-02	14:32:47	69.0	69.1	69.1	68.1	69.7
641	2020-10-02	14:32:52	69.9	69.4	68.5	68.8	68.9
646	2020-10-02	14:32:57	68.9	68.6	70.0	71.0	70.9
651	2020-10-02	14:33:02	69.6	67.5	65.3	65.4	66.0
656	2020-10-02	14:33:07	66.9	65.9	63.6	61.7	61.7
661	2020-10-02	14:33:12	64.6	66.2	66.5	65.6	64.4
666	2020-10-02	14:33:17	65.7	67.0	65.5	63.4	61.6
671	2020-10-02	14:33:22	60.1	59.8	60.0	60.6	65.6
676	2020-10-02	14:33:27	70.3	71.1	68.5	65.5	62.8
681	2020-10-02	14:33:32	60.8	60.4	62.5	67.3	70.7
686	2020-10-02	14:33:37	69.7	67.0	65.5	67.4	69.2
691	2020-10-02	14:33:42	68.5	66.3	65.8	68.2	69.3
696	2020-10-02	14:33:47	67.4	65.5	65.7	66.6	65.8
701	2020-10-02	14:33:52	63.9	62.5	61.1	59.6	59.8
706	2020-10-02	14:33:57	64.2	68.0	69.6	70.6	70.4
711	2020-10-02	14:34:02	69.9	70.3	69.5	67.7	65.7
716	2020-10-02	14:34:07	64.1	63.3	63.8	65.5	66.7
721	2020-10-02	14:34:12	65.9	63.6	60.8	58.6	57.0
726	2020-10-02	14:34:17	55.9	55.7	55.3	55.1	55.9
731	2020-10-02	14:34:22	57.1	59.1	61.8	64.8	65.3
736	2020-10-02	14:34:27	65.5	66.8	67.6	67.6	68.2
741	2020-10-02	14:34:32	69.1	68.7	67.4	66.0	65.5
746	2020-10-02	14:34:37	66.0	66.6	68.6	68.3	66.9
751	2020-10-02	14:34:42	65.4	65.0	66.4	66.5	68.2
756	2020-10-02	14:34:47	70.0	69.5	68.1	66.4	66.9
761	2020-10-02	14:34:52	68.3	68.8	68.4	66.5	64.2
766	2020-10-02	14:34:57	61.7	59.2	57.8	57.2	57.1
771	2020-10-02	14:35:02	57.6	58.5	60.8	64.2	65.2
776	2020-10-02	14:35:07	64.6	63.4	61.9	61.7	64.8
781	2020-10-02	14:35:12	66.8	65.9	63.6	62.7	63.0
786	2020-10-02	14:35:17	65.2	68.0	68.3	68.6	71.3
791	2020-10-02	14:35:22	72.2	72.3	71.9	71.8	71.3
796	2020-10-02	14:35:27	70.8	71.2	71.3	71.8	71.7
801	2020-10-02	14:35:32	70.3	68.6	66.5	66.2	64.8
806	2020-10-02	14:35:37	63.9	62.8	61.6	60.8	60.8
811	2020-10-02	14:35:42	60.6	60.4	60.6	62.4	64.5
816	2020-10-02	14:35:47	69.4	72.3	73.3	71.3	69.4
821	2020-10-02	14:35:52	67.2	64.6	63.7	62.4	61.8
826	2020-10-02	14:35:57	61.3	60.6	61.7	64.7	65.2
831	2020-10-02	14:36:02	64.8	64.1	64.2	67.4	71.2
836	2020-10-02	14:36:07	72.7	72.0	69.4	66.9	64.4
841	2020-10-02	14:36:12	63.5	62.8	62.1	61.7	60.4
846	2020-10-02	14:36:17	60.7	62.6	65.3	67.3	67.4
851	2020-10-02	14:36:22	68.0	67.5	66.3	64.1	61.7
856	2020-10-02	14:36:27	60.3	59.1	60.8	64.2	65.1
861	2020-10-02	14:36:32	64.6	63.1	61.5	59.6	57.6
866	2020-10-02	14:36:37	55.9	54.5	57.8	59.9	57.2
871	2020-10-02	14:36:42	55.4	54.1	53.3	56.9	54.8
876	2020-10-02	14:36:47	53.7	52.8	52.3	53.0	52.7
881	2020-10-02	14:36:52	53.0	52.6	52.5	62.5	63.2
886	2020-10-02	14:36:57	60.7	61.8	64.1	67.5	67.3
891	2020-10-02	14:37:02	66.4	67.3	69.0	68.1	65.4
896	2020-10-02	14:37:07	63.2	62.8	65.2	69.2	70.1
901	2020-10-02	14:37:12	70.8	70.8	69.6	68.1	68.9
906	2020-10-02	14:37:17	70.2	71.2	71.9	71.6	71.5

911	2020-10-02	14:37:22	71.3	71.3	71.6	71.5	70.7
916	2020-10-02	14:37:27	69.5	70.2	70.7	71.1	70.5
921	2020-10-02	14:37:32	70.1	69.1	67.8	66.6	66.2
926	2020-10-02	14:37:37	66.2	67.2	69.6	70.0	70.5
931	2020-10-02	14:37:42	69.5	67.7	66.4	65.2	63.2
936	2020-10-02	14:37:47	61.3	63.2	63.9	66.3	66.7
941	2020-10-02	14:37:52	64.7	63.8	64.6	65.5	68.2
946	2020-10-02	14:37:57	71.9	74.2	75.0	73.5	70.7
951	2020-10-02	14:38:02	70.6	70.9	70.3	69.2	68.2
956	2020-10-02	14:38:07	67.4	66.7	66.7	67.6	68.6
961	2020-10-02	14:38:12	68.3	68.1	67.8	67.9	68.8
966	2020-10-02	14:38:17	68.6	68.3	67.8	66.7	66.5
971	2020-10-02	14:38:22	67.0	66.3	65.3	65.8	66.5
976	2020-10-02	14:38:27	67.1	66.4	65.4	63.4	61.2
981	2020-10-02	14:38:32	60.0	59.5	58.9	60.3	60.9
986	2020-10-02	14:38:37	61.7	64.2	68.0	72.3	73.2
991	2020-10-02	14:38:42	72.0	71.0	69.9	68.9	67.5
996	2020-10-02	14:38:47	65.2	63.5	64.6	66.8	67.5
1001	2020-10-02	14:38:52	66.9	65.8	64.1	63.2	62.0
1006	2020-10-02	14:38:57	60.7	59.8	58.9	57.1	55.8
1011	2020-10-02	14:39:02	56.2	61.4	59.1	57.0	54.9
1016	2020-10-02	14:39:07	53.9	53.2	54.7	53.8	54.0
1021	2020-10-02	14:39:12	53.9	53.8	53.8	54.4	55.6
1026	2020-10-02	14:39:17	59.5	60.4	61.0	63.0	65.6
1031	2020-10-02	14:39:22	67.5	69.7	70.7	70.5	69.1
1036	2020-10-02	14:39:27	67.8	68.7	68.9	67.4	65.7
1041	2020-10-02	14:39:32	66.3	67.0	66.9	66.6	66.5
1046	2020-10-02	14:39:37	69.2	70.1	71.1	71.4	71.7
1051	2020-10-02	14:39:42	71.7	70.4	69.0	67.7	66.8
1056	2020-10-02	14:39:47	65.2	64.3	63.9	61.5	59.6
1061	2020-10-02	14:39:52	58.2	58.1	59.3	64.8	68.8
1066	2020-10-02	14:39:57	69.1	67.8	66.0	64.6	63.6
1071	2020-10-02	14:40:02	65.3	65.7	67.6	69.9	69.5
1076	2020-10-02	14:40:07	67.5	65.3	65.2	67.5	71.6
1081	2020-10-02	14:40:12	71.9	69.5	66.5	63.7	61.7
1086	2020-10-02	14:40:17	61.1	62.3	64.7	65.0	65.6
1091	2020-10-02	14:40:22	66.8	66.7	64.7	62.9	60.8
1096	2020-10-02	14:40:27	59.1	57.6	57.2	57.4	57.9
1101	2020-10-02	14:40:32	61.2	61.5	62.5	64.9	68.4
1106	2020-10-02	14:40:37	69.1	69.6	68.4	67.3	67.3
1111	2020-10-02	14:40:42	65.6	63.7	62.1	62.2	63.3
1116	2020-10-02	14:40:47	65.1	68.7	70.3	71.0	70.2
1121	2020-10-02	14:40:52	69.2	68.5	67.6	66.0	65.7
1126	2020-10-02	14:40:57	66.0	65.5	66.7	67.4	67.8
1131	2020-10-02	14:41:02	66.7	66.0	63.1	61.3	60.0
1136	2020-10-02	14:41:07	60.2	60.8	59.7	58.8	57.8
1141	2020-10-02	14:41:12	56.1	55.8	55.9	56.0	54.8
1146	2020-10-02	14:41:17	54.1	54.7	58.1	59.7	57.9
1151	2020-10-02	14:41:22	56.1	55.2	56.9	58.1	59.7
1156	2020-10-02	14:41:27	61.7	63.2	67.5	69.2	69.1
1161	2020-10-02	14:41:32	67.5	65.6	64.1	62.0	60.7
1166	2020-10-02	14:41:37	58.9	57.9	56.5	56.3	57.2
1171	2020-10-02	14:41:42	58.5	61.2	64.6	68.1	72.4
1176	2020-10-02	14:41:47	74.9	76.2	74.6	71.8	70.4
1181	2020-10-02	14:41:52	69.3	69.8	69.4	70.4	71.3
1186	2020-10-02	14:41:57	71.4	70.2	68.4	68.6	69.7
1191	2020-10-02	14:42:02	69.8	70.1	70.0	70.1	70.8
1196	2020-10-02	14:42:07	71.2	71.7	71.7	71.6	72.1
1201	2020-10-02	14:42:12	71.4	70.0	68.0	66.5	64.8
1206	2020-10-02	14:42:17	63.7	65.4	68.0	69.1	70.0
1211	2020-10-02	14:42:22	70.0	69.5	70.6	69.3	67.1
1216	2020-10-02	14:42:27	65.9	66.8	66.9	64.8	63.2
1221	2020-10-02	14:42:32	61.1	58.8	57.4	56.4	55.8
1226	2020-10-02	14:42:37	54.7	59.3	57.2	55.7	54.4
1231	2020-10-02	14:42:42	53.9	55.6	56.4	57.0	59.8
1236	2020-10-02	14:42:47	61.9	66.9	69.2	68.7	68.1
1241	2020-10-02	14:42:52	67.9	67.6	68.3	67.6	65.2
1246	2020-10-02	14:42:57	63.1	61.8	60.4	59.8	59.4
1251	2020-10-02	14:43:02	57.7	58.3	60.7	63.7	67.3
1256	2020-10-02	14:43:07	67.1	66.4	68.5	68.8	67.7
1261	2020-10-02	14:43:12	67.8	69.2	68.7	68.0	69.2
1266	2020-10-02	14:43:17	70.2	70.4	70.4	70.5	70.2
1271	2020-10-02	14:43:22	70.0	70.3	70.7	70.1	70.1
1276	2020-10-02	14:43:27	70.6	72.0	72.6	73.1	73.0
1281	2020-10-02	14:43:32	71.9	70.3	69.5	68.7	67.4
1286	2020-10-02	14:43:37	65.8	63.8	62.5	62.4	63.3
1291	2020-10-02	14:43:42	62.8	62.4	61.5	63.6	65.0
1296	2020-10-02	14:43:47	64.6	63.4	65.0	66.9	68.3
1301	2020-10-02	14:43:52	66.6	63.7	61.0	59.1	58.5
1306	2020-10-02	14:43:57	58.6	59.5	59.9	61.4	63.4
1311	2020-10-02	14:44:02	65.8	67.8	69.2	69.9	69.0
1316	2020-10-02	14:44:07	66.8	64.4	62.1	59.9	58.3
1321	2020-10-02	14:44:12	57.5	58.1	59.5	61.2	64.9
1326	2020-10-02	14:44:17	68.5	70.6	71.3	72.4	73.0
1331	2020-10-02	14:44:22	72.2	70.7	70.7	71.5	71.5
1336	2020-10-02	14:44:27	70.0	68.4	66.6	64.6	65.3
1341	2020-10-02	14:44:32	69.1	69.6	69.5	68.3	66.3
1346	2020-10-02	14:44:37	65.8	67.5	68.5	67.2	65.4
1351	2020-10-02	14:44:42	65.4	66.4	69.5	69.2	68.1
1356	2020-10-02	14:44:47	67.4	68.7	69.2	68.8	66.9
1361	2020-10-02	14:44:52	64.3	64.7	65.0	67.9	70.8
1366	2020-10-02	14:44:57	71.1	69.7	67.4	65.1	64.8
1371	2020-10-02	14:45:02	66.2	68.4	70.1	74.3	77.7
1376	2020-10-02	14:45:07	80.5	78.7	75.2	72.6	70.8
1381	2020-10-02	14:45:12	68.4	66.1	64.8	63.2	65.1
1386	2020-10-02	14:45:17	67.8	68.3	67.3	66.3	67.7
1391	2020-10-02	14:45:22	69.9	70.6	70.0	68.2	66.1
1396	2020-10-02	14:45:27	66.9	67.9	67.4	67.8	67.8

1401	2020-10-02	14:45:32	70.9	70.6	68.1	65.4	62.7
1406	2020-10-02	14:45:37	61.0	59.9	58.9	60.0	63.3
1411	2020-10-02	14:45:42	67.0	72.2	72.5	71.8	70.9
1416	2020-10-02	14:45:47	70.9	70.8	70.4	69.7	68.7
1421	2020-10-02	14:45:52	68.1	67.4	67.5	67.9	68.4
1426	2020-10-02	14:45:57	68.6	69.0	68.9	68.9	70.5
1431	2020-10-02	14:46:02	72.5	74.7	75.1	75.2	74.4
1436	2020-10-02	14:46:07	72.9	71.8	71.1	70.8	70.3
1441	2020-10-02	14:46:12	70.2	70.6	70.1	69.1	67.3
1446	2020-10-02	14:46:17	65.8	64.2	62.0	59.7	58.6
1451	2020-10-02	14:46:22	57.6	56.4	56.2	55.5	55.0
1456	2020-10-02	14:46:27	54.4	53.8	54.1	53.7	52.5
1461	2020-10-02	14:46:32	51.9	51.2	50.9	50.6	50.7
1466	2020-10-02	14:46:37	50.4	52.5	52.2	52.0	52.3
1471	2020-10-02	14:46:42	54.2	53.7	52.9	53.1	53.6
1476	2020-10-02	14:46:47	54.0	55.0	57.5	59.0	61.8
1481	2020-10-02	14:46:52	65.5	65.8	63.6	60.8	58.7
1486	2020-10-02	14:46:57	57.7	57.4	59.5	62.9	67.5
1491	2020-10-02	14:47:02	70.7	70.1	67.6	65.0	63.3
1496	2020-10-02	14:47:07	63.7	65.7	66.1	65.9	64.0
1501	2020-10-02	14:47:12	62.1	60.1	58.9	57.8	57.3
1506	2020-10-02	14:47:17	56.3	55.1	55.8	60.1	59.1
1511	2020-10-02	14:47:22	57.5	56.0	54.4	55.1	55.6
1516	2020-10-02	14:47:27	57.0	60.0	64.9	67.7	66.5
1521	2020-10-02	14:47:32	63.7	61.3	60.4	63.3	66.4
1526	2020-10-02	14:47:37	68.5	69.7	68.7	67.1	64.6
1531	2020-10-02	14:47:42	62.7	61.8	63.9	67.2	67.3
1536	2020-10-02	14:47:47	66.2	64.3	62.5	62.7	64.9
1541	2020-10-02	14:47:52	68.6	70.3	70.9	71.2	70.1
1546	2020-10-02	14:47:57	67.9	66.3	64.8	64.1	66.8
1551	2020-10-02	14:48:02	68.5	68.8	69.0	68.6	67.7
1556	2020-10-02	14:48:07	67.6	67.9	67.9	66.3	64.1
1561	2020-10-02	14:48:12	64.2	67.5	69.8	69.5	68.1
1566	2020-10-02	14:48:17	65.9	65.4	62.1	58.9	56.9
1571	2020-10-02	14:48:22	55.5	55.5	56.1	57.1	58.6
1576	2020-10-02	14:48:27	59.8	60.5	62.7	65.6	69.9
1581	2020-10-02	14:48:32	73.2	73.3	71.7	71.4	71.5
1586	2020-10-02	14:48:37	70.9	69.7	69.1	70.3	71.1
1591	2020-10-02	14:48:42	70.8	70.2	70.0	69.8	68.5
1596	2020-10-02	14:48:47	67.6	67.8	67.5	66.1	68.3
1601	2020-10-02	14:48:52	70.4	70.9	70.9	70.7	71.6
1606	2020-10-02	14:48:57	71.8	70.3	68.1	66.5	66.3
1611	2020-10-02	14:49:02	68.6	69.5	68.5	66.3	63.8
1616	2020-10-02	14:49:07	62.5	63.5	66.4	69.0	70.3
1621	2020-10-02	14:49:12	70.9	70.5	69.5	67.8	65.4
1626	2020-10-02	14:49:17	63.9	64.6	67.2	67.8	67.8
1631	2020-10-02	14:49:22	67.1	67.3	67.6	65.5	63.3
1636	2020-10-02	14:49:27	62.4	62.8	65.6	69.5	75.3
1641	2020-10-02	14:49:32	77.8	78.0	76.4	73.9	71.7
1646	2020-10-02	14:49:37	69.2	67.1	66.5	67.7	67.5
1651	2020-10-02	14:49:42	65.5	63.9	62.1	60.9	61.5
1656	2020-10-02	14:49:47	61.6	61.0	60.1	59.2	58.8
1661	2020-10-02	14:49:52	59.2	61.8	65.7	66.5	64.9
1666	2020-10-02	14:49:57	62.6	61.3	64.9	68.6	69.1
1671	2020-10-02	14:50:02	68.3	67.7	66.4	64.0	61.4
1676	2020-10-02	14:50:07	58.9	57.4	55.6	54.2	53.7
1681	2020-10-02	14:50:12	53.5	54.1	56.0	59.0	61.6
1686	2020-10-02	14:50:17	65.4	67.2	69.4	69.6	69.2
1691	2020-10-02	14:50:22	69.8	70.5	69.5	68.5	67.2
1696	2020-10-02	14:50:27	68.0	70.2	70.5	69.4	67.3
1701	2020-10-02	14:50:32	65.2	62.7	62.6	64.9	67.6
1706	2020-10-02	14:50:37	68.1	69.2	69.5	69.3	68.1
1711	2020-10-02	14:50:42	65.7	63.5	61.6	59.8	58.3
1716	2020-10-02	14:50:47	56.5	55.2	54.5	56.6	59.2
1721	2020-10-02	14:50:52	60.2	63.3	65.0	64.2	62.1
1726	2020-10-02	14:50:57	59.4	57.2	55.4	53.9	53.2
1731	2020-10-02	14:51:02	52.8	53.8	54.4	53.8	53.5
1736	2020-10-02	14:51:07	54.8	54.1	53.9	54.8	55.0
1741	2020-10-02	14:51:12	57.2	57.0	58.0	59.8	64.2
1746	2020-10-02	14:51:17	68.0	70.1	70.8	69.5	68.2
1751	2020-10-02	14:51:22	68.6	68.5	68.4	68.3	69.4
1756	2020-10-02	14:51:27	68.3	68.0	68.2	69.5	69.5
1761	2020-10-02	14:51:32	68.6	69.7	70.0	69.7	68.4
1766	2020-10-02	14:51:37	68.4	68.7	68.0	67.9	68.7
1771	2020-10-02	14:51:42	69.9	70.9	70.0	66.9	64.1
1776	2020-10-02	14:51:47	62.6	61.4	61.4	60.5	59.6
1781	2020-10-02	14:51:52	58.1	56.8	55.8	55.7	58.4
1786	2020-10-02	14:51:57	61.5	65.3	67.7	66.9	64.9
1791	2020-10-02	14:52:02	63.5	64.0	64.9	65.3	64.4
1796	2020-10-02	14:52:07	62.8	63.4	65.4	65.4	63.8
1801	2020-10-02	14:52:12	61.5	59.4	58.3	58.5	58.5
1806	2020-10-02	14:52:17	57.3	56.4	55.3	54.3	54.0
1811	2020-10-02	14:52:22	53.9	55.5	55.8	58.9	60.9
1816	2020-10-02	14:52:27	61.5	61.5	64.8	68.6	69.5
1821	2020-10-02	14:52:32	68.7	68.0	69.4	70.2	71.9
1826	2020-10-02	14:52:37	72.4	72.3	72.3	71.6	70.6
1831	2020-10-02	14:52:42	69.1	68.9	69.7	68.2	68.2
1836	2020-10-02	14:52:47	68.9	69.5	70.3	70.8	70.6
1841	2020-10-02	14:52:52	69.7	69.3	69.0	67.1	65.3
1846	2020-10-02	14:52:57	63.9	62.9	61.6	62.0	65.5
1851	2020-10-02	14:53:02	68.0	68.6	69.0	69.4	69.3
1856	2020-10-02	14:53:07	68.2	66.1	63.8	61.4	59.9
1861	2020-10-02	14:53:12	59.1	61.0	63.2	66.8	69.3
1866	2020-10-02	14:53:17	68.7	65.9	62.8	60.2	58.4
1871	2020-10-02	14:53:22	57.2	58.4	58.2	57.5	58.6
1876	2020-10-02	14:53:27	59.6	61.6	65.8	66.8	65.4
1881	2020-10-02	14:53:32	63.4	61.4	59.7	58.1	57.1
1886	2020-10-02	14:53:37	58.7	59.3	59.3	57.1	58.2

1891	2020-10-02	14:53:42	58.8	60.0	60.1	59.8	61.9
1896	2020-10-02	14:53:47	65.2	68.7	71.2	71.5	70.7
1901	2020-10-02	14:53:52	69.6	69.0	68.7	67.8	65.6
1906	2020-10-02	14:53:57	63.7	61.5	59.4	59.4	59.8
1911	2020-10-02	14:54:02	59.7	61.3	65.7	68.3	69.0
1916	2020-10-02	14:54:07	67.5	65.8	65.0	62.3	59.3
1921	2020-10-02	14:54:12	57.5	56.6	55.5	55.5	55.5
1926	2020-10-02	14:54:17	55.5	56.4	57.9	62.1	65.6
1931	2020-10-02	14:54:22	67.7	70.6	72.3	71.1	67.7
1936	2020-10-02	14:54:27	64.6	61.9	59.1	57.5	55.5
1941	2020-10-02	14:54:32	54.5	53.9	55.2	56.7	57.4
1946	2020-10-02	14:54:37	60.4	63.4	69.1	70.3	68.3
1951	2020-10-02	14:54:42	65.9	66.3	69.7	72.3	72.7
1956	2020-10-02	14:54:47	73.7	74.6	73.2	71.8	69.9
1961	2020-10-02	14:54:52	69.3	70.0	70.8	70.5	68.9
1966	2020-10-02	14:54:57	67.0	65.6	65.1	63.1	62.5
1971	2020-10-02	14:55:02	60.5	59.1	58.3	57.1	56.0
1976	2020-10-02	14:55:07	56.1	55.2	54.8	55.0	55.0
1981	2020-10-02	14:55:12	55.1	56.4	60.5	64.9	67.7
1986	2020-10-02	14:55:17	68.4	68.7	67.3	64.9	64.0
1991	2020-10-02	14:55:22	65.2	68.9	70.3	70.2	69.9
1996	2020-10-02	14:55:27	69.1	67.3	67.0	68.0	67.5
2001	2020-10-02	14:55:32	65.3	62.7	60.2	58.7	58.0
2006	2020-10-02	14:55:37	56.8	56.4	57.9	59.7	60.6
2011	2020-10-02	14:55:42	63.2	68.7	70.2	70.1	69.7
2016	2020-10-02	14:55:47	67.8	65.3	63.5	63.0	63.4
2021	2020-10-02	14:55:52	60.3	57.9	56.0	55.0	54.2
2026	2020-10-02	14:55:57	52.8	52.4	52.3	52.7	53.2
2031	2020-10-02	14:56:02	53.2	52.8	53.7	54.8	56.0
2036	2020-10-02	14:56:07	55.7	55.7	56.8	57.2	58.9
2041	2020-10-02	14:56:12	59.9	61.0	65.0	68.0	68.8
2046	2020-10-02	14:56:17	70.3	72.3	74.6	76.8	76.7
2051	2020-10-02	14:56:22	76.5	73.2	69.8	66.4	68.3
2056	2020-10-02	14:56:27	67.7	67.1	66.1	65.0	64.0
2061	2020-10-02	14:56:32	61.9	60.0	59.2	57.5	55.8
2066	2020-10-02	14:56:37	55.6	56.4	57.4	59.9	66.0
2071	2020-10-02	14:56:42	68.6	69.4	67.5	65.2	62.9
2076	2020-10-02	14:56:47	62.1	62.6	63.0	61.3	59.4
2081	2020-10-02	14:56:52	58.0	56.6	55.6	56.0	60.8
2086	2020-10-02	14:56:57	65.3	68.2	67.8	68.1	68.9
2091	2020-10-02	14:57:02	68.2	66.0	63.5	61.1	59.2
2096	2020-10-02	14:57:07	57.2	59.4	62.4	65.4	66.3
2101	2020-10-02	14:57:12	64.6	61.8	59.3	57.9	58.3
2106	2020-10-02	14:57:17	58.3	60.9	65.2	67.6	68.0
2111	2020-10-02	14:57:22	68.6	69.5	71.2	72.2	71.6
2116	2020-10-02	14:57:27	70.8	70.0	68.3	66.0	63.8
2121	2020-10-02	14:57:32	62.8	62.4	60.9	59.0	58.6
2126	2020-10-02	14:57:37	57.8	59.4	62.2	63.2	62.1
2131	2020-10-02	14:57:42	64.2	66.8	68.2	67.6	66.4
2136	2020-10-02	14:57:47	66.9	68.1	66.9	65.9	66.2
2141	2020-10-02	14:57:52	66.5	67.0	67.7	67.8	67.7
2146	2020-10-02	14:57:57	66.7	65.7	66.0	65.9	65.8
2151	2020-10-02	14:58:02	65.5	65.8	67.1	67.8	67.2
2156	2020-10-02	14:58:07	65.5	66.2	67.2	67.0	65.5
2161	2020-10-02	14:58:12	63.2	61.9	63.3	66.2	67.6
2166	2020-10-02	14:58:17	68.6	69.1	69.3	69.8	70.0
2171	2020-10-02	14:58:22	69.7	68.7	67.5	68.4	68.3
2176	2020-10-02	14:58:27	67.2	65.0	62.9	61.5	59.7
2181	2020-10-02	14:58:32	58.6	60.1	59.4	57.5	56.6
2186	2020-10-02	14:58:37	55.5	55.3	54.6	54.1	53.7
2191	2020-10-02	14:58:42	53.3	52.9	53.6	54.6	53.8
2196	2020-10-02	14:58:47	54.8	55.3	58.7	60.0	61.3
2201	2020-10-02	14:58:52	62.5	66.4	68.8	69.5	70.0
2206	2020-10-02	14:58:57	70.4	70.4	68.9	66.6	65.1
2211	2020-10-02	14:59:02	63.8	63.7	63.0	61.0	62.3
2216	2020-10-02	14:59:07	61.2	58.8	58.7	59.4	60.8
2221	2020-10-02	14:59:12	63.2	67.2	70.9	71.2	70.0
2226	2020-10-02	14:59:17	67.8	65.4	66.0	68.2	67.3
2231	2020-10-02	14:59:22	64.9	62.4	60.3	61.1	63.5
2236	2020-10-02	14:59:27	67.5	68.3	68.6	69.8	69.4
2241	2020-10-02	14:59:32	67.5	65.6	66.2	68.6	69.7
2246	2020-10-02	14:59:37	69.9	68.8	67.0	65.0	63.6
2251	2020-10-02	14:59:42	62.8	61.9	64.1	65.5	67.2
2256	2020-10-02	14:59:47	68.3	68.1	69.9	72.1	71.9
2261	2020-10-02	14:59:52	70.1	69.7	69.3	72.0	71.4
2266	2020-10-02	14:59:57	69.7	69.3	68.7	68.7	69.8
2271	2020-10-02	15:00:02	70.4	70.1	70.0	70.2	70.4
2276	2020-10-02	15:00:07	69.7	69.4	71.9	73.3	72.0
2281	2020-10-02	15:00:12	70.0	68.6	68.4	67.5	65.3
2286	2020-10-02	15:00:17	63.4	61.8	60.3	59.1	58.6
2291	2020-10-02	15:00:22	58.1	58.6	60.0	63.1	64.1
2296	2020-10-02	15:00:27	62.7	60.5	58.7	58.5	59.8
2301	2020-10-02	15:00:32	63.1	63.8	62.5	61.9	61.7
2306	2020-10-02	15:00:37	62.3	63.4	65.3	66.7	65.6
2311	2020-10-02	15:00:42	63.3	61.4	61.8	61.8	65.0
2316	2020-10-02	15:00:47	67.5	68.0	68.3	68.7	68.0
2321	2020-10-02	15:00:52	65.8	64.0	63.7	62.4	60.5
2326	2020-10-02	15:00:57	58.4	57.6	59.7	61.7	63.5
2331	2020-10-02	15:01:02	66.9	69.9	70.6	70.1	67.9
2336	2020-10-02	15:01:07	65.3	63.1	61.4	60.6	61.2
2341	2020-10-02	15:01:12	60.7	61.9	63.5	66.2	71.9
2346	2020-10-02	15:01:17	74.1	74.7	73.4	71.3	69.8
2351	2020-10-02	15:01:22	69.2	69.5	70.5	70.9	70.5
2356	2020-10-02	15:01:27	70.6	71.1	70.8	71.1	70.3
2361	2020-10-02	15:01:32	68.3	65.9	64.9	66.5	67.6
2366	2020-10-02	15:01:37	65.7	63.1	62.1	65.9	68.9
2371	2020-10-02	15:01:42	69.5	69.4	70.9	69.9	68.0
2376	2020-10-02	15:01:47	65.5	65.3	66.3	67.0	69.5

2381	2020-10-02	15:01:52	70.3	68.9	66.8	65.0	63.3
2386	2020-10-02	15:01:57	62.5	62.7	63.4	67.0	70.5
2391	2020-10-02	15:02:02	72.2	72.1	71.1	69.9	69.9
2396	2020-10-02	15:02:07	70.0	70.4	70.0	70.1	71.0
2401	2020-10-02	15:02:12	74.8	79.5	77.2	75.0	73.3
2406	2020-10-02	15:02:17	70.7	69.6	70.1	69.9	70.5
2411	2020-10-02	15:02:22	70.8	70.9	71.3	70.8	69.3
2416	2020-10-02	15:02:27	68.6	68.5	68.3	68.2	68.2
2421	2020-10-02	15:02:32	68.7	69.6	69.3	68.6	67.4
2426	2020-10-02	15:02:37	65.9	64.2	62.2	59.9	58.5
2431	2020-10-02	15:02:42	57.2	56.6	55.8	55.3	54.9
2436	2020-10-02	15:02:47	55.1	54.5	54.8	54.2	52.9
2441	2020-10-02	15:02:52	52.0	51.3	51.3	50.8	50.4
2446	2020-10-02	15:02:57	50.0	50.1	51.2	51.9	51.8
2451	2020-10-02	15:03:02	51.7	51.7	51.8	51.4	51.2
2456	2020-10-02	15:03:07	51.5	51.9	51.8	51.9	51.8
2461	2020-10-02	15:03:12	52.8	54.6	56.3	58.8	62.2
2466	2020-10-02	15:03:17	64.4	63.1	61.8	61.6	63.6
2471	2020-10-02	15:03:22	66.6	67.3	68.2	68.4	67.2
2476	2020-10-02	15:03:27	64.7	62.7	64.0	66.3	70.0
2481	2020-10-02	15:03:32	70.7	70.2	70.8	71.6	71.1
2486	2020-10-02	15:03:37	70.2	69.6	70.6	72.4	71.9
2491	2020-10-02	15:03:42	69.9	70.3	69.7	68.3	66.1
2496	2020-10-02	15:03:47	64.1	61.9	60.1	58.8	62.1
2501	2020-10-02	15:03:52	64.0	67.2	68.3	65.9	63.3
2506	2020-10-02	15:03:57	60.9	58.8	58.6	58.8	59.3
2511	2020-10-02	15:04:02	62.3	66.8	68.9	70.3	70.4
2516	2020-10-02	15:04:07	69.4	67.6	64.7	62.5	61.7
2521	2020-10-02	15:04:12	64.2	66.6	68.0	69.0	70.4
2526	2020-10-02	15:04:17	71.9	72.0	70.7	69.7	70.6
2531	2020-10-02	15:04:22	71.0	71.6	72.1	71.5	71.3
2536	2020-10-02	15:04:27	72.5	73.4	72.1	71.0	69.6
2541	2020-10-02	15:04:32	67.8	66.5	67.7	69.4	69.2
2546	2020-10-02	15:04:37	68.8	67.5	65.8	64.1	62.4
2551	2020-10-02	15:04:42	62.7	63.2	63.9	67.1	69.8
2556	2020-10-02	15:04:47	69.5	68.4	66.6	66.4	64.8
2561	2020-10-02	15:04:52	65.2	66.8	67.5	65.7	63.2
2566	2020-10-02	15:04:57	61.0	59.2	57.6	56.1	55.8
2571	2020-10-02	15:05:02	55.3	56.4	58.8	63.0	65.6
2576	2020-10-02	15:05:07	64.9	63.0	62.0	64.2	66.8
2581	2020-10-02	15:05:12	67.2	66.3	64.4	62.2	60.6
2586	2020-10-02	15:05:17	59.3	60.3	63.3	66.6	67.1
2591	2020-10-02	15:05:22	65.4	62.5	60.5	58.5	56.7
2596	2020-10-02	15:05:27	55.5	55.1	55.1	56.2	56.7
2601	2020-10-02	15:05:32	57.5	58.3	59.5	61.3	64.6
2606	2020-10-02	15:05:37	67.4	69.1	68.4	68.1	66.3
2611	2020-10-02	15:05:42	67.4	70.9	70.6	68.2	65.6
2616	2020-10-02	15:05:47	62.7	60.1	59.8	59.3	57.6
2621	2020-10-02	15:05:52	57.2	57.4	63.7	63.1	61.7
2626	2020-10-02	15:05:57	62.2	64.4	67.6	67.7	66.7
2631	2020-10-02	15:06:02	66.3	68.6	69.2	69.0	67.8
2636	2020-10-02	15:06:07	66.8	64.6	62.7	60.0	57.6
2641	2020-10-02	15:06:12	55.9	55.7	55.1	54.9	55.0
2646	2020-10-02	15:06:17	56.3	57.0	57.9	58.8	59.8
2651	2020-10-02	15:06:22	62.7	67.2	68.9	69.3	67.9
2656	2020-10-02	15:06:27	65.5	63.8	63.2	64.2	67.6
2661	2020-10-02	15:06:32	69.2	67.8	65.8	64.9	67.3
2666	2020-10-02	15:06:37	68.7	68.8	67.6	65.7	63.7
2671	2020-10-02	15:06:42	62.7	62.3	65.4	67.1	68.1
2676	2020-10-02	15:06:47	68.0	66.9	65.5	67.5	68.0
2681	2020-10-02	15:06:52	66.2	66.1	65.9	66.2	64.7
2686	2020-10-02	15:06:57	63.1	62.5	61.1	58.8	57.6
2691	2020-10-02	15:07:02	57.7	57.8	59.1	60.5	64.9
2696	2020-10-02	15:07:07	67.8	67.7	65.3	63.5	61.0
2701	2020-10-02	15:07:12	59.1	56.8	55.5	56.1	55.5
2706	2020-10-02	15:07:17	55.3	56.3	57.6	60.9	65.6
2711	2020-10-02	15:07:22	67.2	67.1	65.3	62.4	60.8
2716	2020-10-02	15:07:27	59.4	58.0	56.2	54.9	54.6
2721	2020-10-02	15:07:32	54.9	54.8	56.0	57.4	60.8
2726	2020-10-02	15:07:37	64.3	66.2	66.2	64.2	62.2
2731	2020-10-02	15:07:42	61.3	60.1	61.3	64.1	64.4
2736	2020-10-02	15:07:47	63.5	61.8	60.4	60.0	60.7
2741	2020-10-02	15:07:52	62.7	64.3	65.2	65.8	67.1
2746	2020-10-02	15:07:57	67.6	67.4	67.8	68.1	67.1
2751	2020-10-02	15:08:02	65.2	63.5	63.4	64.0	66.8
2756	2020-10-02	15:08:07	69.7	71.1	70.6	70.7	70.3
2761	2020-10-02	15:08:12	70.1	70.6	69.9	69.0	68.5
2766	2020-10-02	15:08:17	69.7	70.2	70.1	69.5	69.6
2771	2020-10-02	15:08:22	69.8	68.7	67.7	65.9	64.5
2776	2020-10-02	15:08:27	64.8	64.1	63.4	63.7	67.5
2781	2020-10-02	15:08:32	70.3	70.5	69.1	66.4	63.1
2786	2020-10-02	15:08:37	60.1	57.5	55.8	55.1	53.9
2791	2020-10-02	15:08:42	53.6	54.1	55.8	60.8	66.6
2796	2020-10-02	15:08:47	70.3	72.0	72.0	71.6	71.3
2801	2020-10-02	15:08:52	70.2	69.3	69.5	69.5	68.6
2806	2020-10-02	15:08:57	66.7	64.8	64.1	64.4	66.3
2811	2020-10-02	15:09:02	68.6	69.4	68.7	68.7	69.2
2816	2020-10-02	15:09:07	70.9	71.2	70.9	70.9	70.6
2821	2020-10-02	15:09:12	68.7	68.7	69.3	69.7	70.0
2826	2020-10-02	15:09:17	69.8	68.9	68.6	70.2	72.3
2831	2020-10-02	15:09:22	73.3	71.4	70.0	70.3	70.1
2836	2020-10-02	15:09:27	70.6	70.2	70.3	71.3	72.3
2841	2020-10-02	15:09:32	72.7	73.6	73.6	73.3	72.5
2846	2020-10-02	15:09:37	71.5	69.9	68.5	66.5	64.9
2851	2020-10-02	15:09:42	63.3	61.4	60.1	59.4	58.4
2856	2020-10-02	15:09:47	57.3	56.1	55.6	55.6	55.0
2861	2020-10-02	15:09:52	55.5	56.6	58.2	59.6	61.0
2866	2020-10-02	15:09:57	61.7	66.9	70.0	70.4	69.6

2871	2020-10-02	15:10:02	69.8	68.9	66.3	63.4	60.5
2876	2020-10-02	15:10:07	58.5	57.6	57.3	56.8	57.7
2881	2020-10-02	15:10:12	58.4	59.0	62.4	66.0	68.5
2886	2020-10-02	15:10:17	68.7	67.9	67.0	69.3	69.4
2891	2020-10-02	15:10:22	68.1	65.9	63.5	60.7	58.9
2896	2020-10-02	15:10:27	58.6	59.8	62.0	65.1	65.9
2901	2020-10-02	15:10:32	64.7	62.9	60.6	58.9	59.2
2906	2020-10-02	15:10:37	60.1	63.2	66.2	67.1	66.7
2911	2020-10-02	15:10:42	66.4	68.8	73.0	73.9	73.4
2916	2020-10-02	15:10:47	71.2	69.8	68.4	67.8	67.3
2921	2020-10-02	15:10:52	69.8	70.3	70.5	69.6	69.1
2926	2020-10-02	15:10:57	67.7	66.6	66.6	66.7	66.4
2931	2020-10-02	15:11:02	65.1	64.3	64.5	66.3	67.0
2936	2020-10-02	15:11:07	67.3	68.1	68.3	68.5	67.5
2941	2020-10-02	15:11:12	66.4	66.2	67.2	68.5	69.0
2946	2020-10-02	15:11:17	68.9	69.6	70.7	73.1	73.6
2951	2020-10-02	15:11:22	73.8	73.5	73.3	73.9	74.0
2956	2020-10-02	15:11:27	72.9	71.7	70.9	70.4	70.2
2961	2020-10-02	15:11:32	70.3	70.5	70.3	69.7	68.8
2966	2020-10-02	15:11:37	68.1	67.8	67.9	67.6	67.3
2971	2020-10-02	15:11:42	67.4	68.1	68.8	68.9	68.1
2976	2020-10-02	15:11:47	66.9	65.9	64.9	64.5	64.0
2981	2020-10-02	15:11:52	63.9	63.0	63.6	65.8	66.6
2986	2020-10-02	15:11:57	65.9	63.9	62.9	61.8	60.5
2991	2020-10-02	15:12:02	60.8	63.6	67.2	68.1	66.8
2996	2020-10-02	15:12:07	64.4	63.2	63.8	66.6	69.9
3001	2020-10-02	15:12:12	70.0	68.4	65.6	64.0	62.9
3006	2020-10-02	15:12:17	61.9	61.5	59.9	59.3	58.6
3011	2020-10-02	15:12:22	57.5	57.1	58.4	62.5	65.9
3016	2020-10-02	15:12:27	67.6	68.7	68.6	69.4	71.6
3021	2020-10-02	15:12:32	73.3	73.5	72.2	69.8	67.1
3026	2020-10-02	15:12:37	64.5	62.7	63.4	63.6	65.1
3031	2020-10-02	15:12:42	68.2	70.1	71.4	70.4	70.5
3036	2020-10-02	15:12:47	69.7	70.5	71.2	71.3	71.1
3041	2020-10-02	15:12:52	69.2	67.0	66.0	66.4	68.3
3046	2020-10-02	15:12:57	69.2	69.6	71.1	70.5	68.9
3051	2020-10-02	15:13:02	67.7	67.4	69.5	69.6	67.7
3056	2020-10-02	15:13:07	65.2	64.7	63.8	63.9	66.9
3061	2020-10-02	15:13:12	70.7	70.4	69.8	71.0	70.6
3066	2020-10-02	15:13:17	71.3	71.5	70.6	68.7	67.5
3071	2020-10-02	15:13:22	67.4	67.5	65.5	65.8	65.9
3076	2020-10-02	15:13:27	65.7	65.0	63.1	61.0	59.1
3081	2020-10-02	15:13:32	56.5	54.5	53.5	53.9	56.4
3086	2020-10-02	15:13:37	58.8	62.8	67.9	67.9	67.2
3091	2020-10-02	15:13:42	65.4	62.6	59.9	58.0	57.2
3096	2020-10-02	15:13:47	59.1	64.6	66.4	64.7	62.1
3101	2020-10-02	15:13:52	60.2	60.5	61.2	65.4	66.4
3106	2020-10-02	15:13:57	64.1	62.3	62.5	63.5	65.4
3111	2020-10-02	15:14:02	66.5	66.7	66.5	65.6	64.5
3116	2020-10-02	15:14:07	62.8	61.1	59.6	59.3	60.8
3121	2020-10-02	15:14:12	64.9	68.1	70.3	70.4	70.0
3126	2020-10-02	15:14:17	69.8	69.2	68.2	66.9	66.3
3131	2020-10-02	15:14:22	65.3	66.8	68.3	68.2	66.8
3136	2020-10-02	15:14:27	64.6	63.5	62.4	62.8	66.0
3141	2020-10-02	15:14:32	68.7	69.5	67.5	65.0	63.6
3146	2020-10-02	15:14:37	61.7	61.3	62.4	64.6	68.5
3151	2020-10-02	15:14:42	71.0	70.3	67.8	65.7	64.1
3156	2020-10-02	15:14:47	62.9	61.0	60.0	60.1	61.6
3161	2020-10-02	15:14:52	65.2	65.9	64.6	64.8	66.8
3166	2020-10-02	15:14:57	67.3	66.5	67.6	67.8	66.8
3171	2020-10-02	15:15:02	65.2	63.2	61.2	59.7	58.4
3176	2020-10-02	15:15:07	59.5	60.9	65.3	67.0	68.6
3181	2020-10-02	15:15:12	68.6	66.9	65.6	66.1	67.1
3186	2020-10-02	15:15:17	66.0	65.9	68.0	68.0	66.3
3191	2020-10-02	15:15:22	63.9	61.9	60.6	59.0	57.9
3196	2020-10-02	15:15:27	57.3	56.9	56.0	55.3	56.0
3201	2020-10-02	15:15:32	59.7	63.8	68.1	68.5	68.7
3206	2020-10-02	15:15:37	70.6	71.5	72.0	72.2	71.5
3211	2020-10-02	15:15:42	69.3	67.3	65.5	66.4	69.4
3216	2020-10-02	15:15:47	70.6	70.0	69.3	68.9	68.8
3221	2020-10-02	15:15:52	69.9	68.8	67.3	67.5	69.0
3226	2020-10-02	15:15:57	70.0	69.9	68.5	66.2	64.1
3231	2020-10-02	15:16:02	61.9	60.2	59.1	61.0	62.4
3236	2020-10-02	15:16:07	65.5	68.3	68.5	67.7	69.3
3241	2020-10-02	15:16:12	70.4	70.6	71.6	72.0	71.4
3246	2020-10-02	15:16:17	70.3	70.5	70.1	70.0	69.4
3251	2020-10-02	15:16:22	69.7	69.5	70.7	71.8	72.7
3256	2020-10-02	15:16:27	73.8	73.6	72.3	70.1	67.5
3261	2020-10-02	15:16:32	65.6	64.0	64.3	66.9	68.0
3266	2020-10-02	15:16:37	67.9	68.4	69.8	70.0	69.8
3271	2020-10-02	15:16:42	68.6	67.2	65.0	62.4	60.4
3276	2020-10-02	15:16:47	59.2	60.4	61.3	65.1	67.5
3281	2020-10-02	15:16:52	68.0	66.4	66.3	68.0	69.0
3286	2020-10-02	15:16:57	70.2	70.1	69.4	68.8	68.0
3291	2020-10-02	15:17:02	67.2	64.8	62.2	61.2	60.8
3296	2020-10-02	15:17:07	62.5	64.7	65.6	67.6	68.8
3301	2020-10-02	15:17:12	67.9	67.0	69.5	70.4	71.0
3306	2020-10-02	15:17:17	70.6	70.2	69.2	67.2	65.8
3311	2020-10-02	15:17:22	63.8	62.0	60.9	63.4	65.8
3316	2020-10-02	15:17:27	71.3	69.7	67.2	64.3	61.3
3321	2020-10-02	15:17:32	58.7	57.7	60.1	59.9	61.3
3326	2020-10-02	15:17:37	62.4	61.2	60.5	61.2	61.8
3331	2020-10-02	15:17:42	65.1	66.6	68.0	70.7	71.7
3336	2020-10-02	15:17:47	70.9	69.0	67.1	65.2	64.2
3341	2020-10-02	15:17:52	64.8	66.7	69.3	70.3	70.8
3346	2020-10-02	15:17:57	69.9	69.3	70.0	69.6	67.5
3351	2020-10-02	15:18:02	66.8	66.4	65.0	62.2	59.2
3356	2020-10-02	15:18:07	56.8	55.2	54.4	53.4	53.5

3361	2020-10-02	15:18:12	54.1	55.1	59.2	62.7	68.6
3366	2020-10-02	15:18:17	69.4	68.4	65.9	64.1	61.8
3371	2020-10-02	15:18:22	59.3	56.6	54.5	53.3	52.7
3376	2020-10-02	15:18:27	53.3	57.3	61.3	65.9	69.4
3381	2020-10-02	15:18:32	68.9	70.5	71.7	72.6	71.8
3386	2020-10-02	15:18:37	70.1	69.5	69.6	69.1	68.7
3391	2020-10-02	15:18:42	67.9	66.1	63.6	62.8	64.7
3396	2020-10-02	15:18:47	67.9	69.8	71.3	72.3	73.4
3401	2020-10-02	15:18:52	73.2	72.9	71.7	70.6	69.7
3406	2020-10-02	15:18:57	69.5	68.8	69.1	70.7	71.4
3411	2020-10-02	15:19:02	73.2	74.5	74.1	72.9	71.6
3416	2020-10-02	15:19:07	69.4	67.6	66.3	68.3	70.1
3421	2020-10-02	15:19:12	69.6	70.0	70.9	70.7	70.5
3426	2020-10-02	15:19:17	70.1	69.4	68.6	67.7	66.8
3431	2020-10-02	15:19:22	66.9	68.2	68.2	67.3	65.5
3436	2020-10-02	15:19:27	63.9	61.9	60.5	59.0	59.9
3441	2020-10-02	15:19:32	58.5	58.8	60.9	66.2	69.6
3446	2020-10-02	15:19:37	69.9	69.1	66.8	64.6	62.9
3451	2020-10-02	15:19:42	63.4	66.7	68.1	67.5	68.4
3456	2020-10-02	15:19:47	69.8	71.4	71.2	70.3	69.3
3461	2020-10-02	15:19:52	69.2	71.1	72.3	72.4	72.4
3466	2020-10-02	15:19:57	71.7	70.4	68.6	67.4	65.7
3471	2020-10-02	15:20:02	63.7	63.4	64.4	66.0	66.9
3476	2020-10-02	15:20:07	66.9	66.3	66.5	67.2	66.8
3481	2020-10-02	15:20:12	66.4	68.6	69.7	69.3	67.9
3486	2020-10-02	15:20:17	65.9	66.1	67.8	67.7	66.1
3491	2020-10-02	15:20:22	65.6	66.8	67.7	68.4	69.6
3496	2020-10-02	15:20:27	70.3	69.9	67.7	65.3	63.2
3501	2020-10-02	15:20:32	61.3	58.6	57.9	58.8	62.6
3506	2020-10-02	15:20:37	65.7	66.2	67.2	68.4	67.9
3511	2020-10-02	15:20:42	65.6	62.8	61.4	60.8	62.8
3516	2020-10-02	15:20:47	66.4	70.6	70.6	69.4	68.6
3521	2020-10-02	15:20:52	69.4	69.7	68.4	67.9	69.0
3526	2020-10-02	15:20:57	69.5	69.8	69.0	67.7	67.1
3531	2020-10-02	15:21:02	66.4	64.5	62.2	60.5	61.5
3536	2020-10-02	15:21:07	64.8	68.9	71.2	71.6	71.0
3541	2020-10-02	15:21:12	69.2	67.0	64.8	63.1	61.6
3546	2020-10-02	15:21:17	60.6	61.6	63.5	63.7	66.5
3551	2020-10-02	15:21:22	69.3	70.3	68.7	66.5	64.3
3556	2020-10-02	15:21:27	61.8	59.9	59.2	60.1	60.7
3561	2020-10-02	15:21:32	62.1	63.4	63.4	61.7	59.6
3566	2020-10-02	15:21:37	58.3	57.1	56.9	59.7	62.6
3571	2020-10-02	15:21:42	65.7	68.2	69.2	68.4	66.2
3576	2020-10-02	15:21:47	63.4	61.0	60.1	60.1	63.0
3581	2020-10-02	15:21:52	67.0	67.5	65.4	62.7	61.0
3586	2020-10-02	15:21:57	60.2	59.4	58.8	58.4	59.3
3591	2020-10-02	15:22:02	61.8	65.2	67.3	69.0	70.5
3596	2020-10-02	15:22:07	70.8	70.0	69.9	71.0	71.5
3601	2020-10-02	15:22:12	71.4	71.1	69.2	67.0	64.6
3606	2020-10-02	15:22:17	62.6	62.8	64.6	66.0	65.5
3611	2020-10-02	15:22:22	63.7	62.8	61.4	60.4	59.8
3616	2020-10-02	15:22:27	60.8	63.7	68.2	71.0	71.9
3621	2020-10-02	15:22:32	71.5	70.1	68.1	66.3	64.6
3626	2020-10-02	15:22:37	62.1	61.0	59.3	57.4	56.0
3631	2020-10-02	15:22:42	54.8	55.0	56.3	58.0*	60.3*
3636	2020-10-02	15:22:47	62.5*	66.1*	69.5*	71.2*	70.0*
3641	2020-10-02	15:22:52	68.0*	65.7*	66.1	68.1	

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 80.1 - 2020/10/02 14:11:58
Level Range : 40-100
SEL : 105.6
Leq : 70.0

No.s	Date Time	(dB)				
1	2020-10-02 13:19:19	65.9	65.7	68.3	74.0	73.9
6	2020-10-02 13:19:24	74.4	72.7	71.6	69.8	69.3
11	2020-10-02 13:19:29	68.6	67.2	66.1	65.2	63.9
16	2020-10-02 13:19:34	62.9	62.7	62.8	62.3	60.7
21	2020-10-02 13:19:39	59.7	59.6	62.0	62.5	63.8
26	2020-10-02 13:19:44	65.6	69.8	68.1	66.8	66.2
31	2020-10-02 13:19:49	66.2	64.9	65.4	64.1	62.3
36	2020-10-02 13:19:54	61.9	62.6	60.6	58.5	58.1
41	2020-10-02 13:19:59	58.6	58.8	58.3	57.4	56.9
46	2020-10-02 13:20:04	55.8	55.4	55.1	56.2	56.1
51	2020-10-02 13:20:09	55.4	55.2	55.2	55.2	55.2
56	2020-10-02 13:20:14	55.3	55.3	56.6	57.9	58.2
61	2020-10-02 13:20:19	62.3	65.1	68.2	68.5	68.8
66	2020-10-02 13:20:24	70.3	70.1	69.8	70.7	71.0
71	2020-10-02 13:20:29	70.0	69.9	67.9	65.5	63.1
76	2020-10-02 13:20:34	60.9	59.1	58.4	57.7	58.1
81	2020-10-02 13:20:39	59.1	59.2	60.1	62.3	65.5
86	2020-10-02 13:20:44	69.3	69.3	68.1	65.7	63.7
91	2020-10-02 13:20:49	62.4	61.8	60.8	62.6	67.6
96	2020-10-02 13:20:54	68.8	70.7	68.5	67.2	67.7
101	2020-10-02 13:20:59	69.5	68.1	66.9	67.3	65.4
106	2020-10-02 13:21:04	64.6	64.7	65.9	67.7	69.4
111	2020-10-02 13:21:09	69.8	69.4	67.7	66.9	66.8
116	2020-10-02 13:21:14	66.1	66.5	66.6	65.4	65.9
121	2020-10-02 13:21:19	64.8	64.4	66.3	68.3	68.3
126	2020-10-02 13:21:24	67.7	67.1	69.1	69.5	69.6
131	2020-10-02 13:21:29	69.1	70.3	69.6	69.5	69.5
136	2020-10-02 13:21:34	68.0	66.1	64.3	64.1	64.3
141	2020-10-02 13:21:39	66.4	68.5	66.7	67.0	67.2
146	2020-10-02 13:21:44	67.8	66.8	66.9	67.5	67.5
151	2020-10-02 13:21:49	65.9	63.3	61.5	60.5	59.4
156	2020-10-02 13:21:54	60.6	59.0	58.3	57.2	57.3
161	2020-10-02 13:21:59	61.7	63.4	61.8	58.9	63.7
166	2020-10-02 13:22:04	60.3	58.1	58.2	61.8	64.1
171	2020-10-02 13:22:09	69.1	68.5	66.0	62.9	60.3
176	2020-10-02 13:22:14	57.8	55.8	55.1	58.0	56.5
181	2020-10-02 13:22:19	55.8	54.5	57.3	56.8	59.7
186	2020-10-02 13:22:24	62.1	64.2	66.3	63.8	61.4
191	2020-10-02 13:22:29	59.3	58.2	56.3	55.7	54.8
196	2020-10-02 13:22:34	55.2	55.3	55.0	54.6	54.6
201	2020-10-02 13:22:39	54.9	55.0	56.4	56.6	57.7
206	2020-10-02 13:22:44	57.3	57.9	59.1	59.9	62.4
211	2020-10-02 13:22:49	67.4	68.8	68.0	66.9	65.3
216	2020-10-02 13:22:54	66.7	67.6	69.3	69.4	68.3
221	2020-10-02 13:22:59	70.0	70.6	73.7	72.3	70.5
226	2020-10-02 13:23:04	73.9	72.3	70.4	67.9	67.7
231	2020-10-02 13:23:09	70.5	70.3	69.4	69.3	70.3
236	2020-10-02 13:23:14	68.8	67.8	67.8	70.2	69.1
241	2020-10-02 13:23:19	67.6	66.8	69.1	68.5	66.9
246	2020-10-02 13:23:24	66.9	66.4	64.8	63.3	62.7
251	2020-10-02 13:23:29	62.5	63.5	64.5	63.1	62.3
256	2020-10-02 13:23:34	62.2	62.0	65.3	65.6	65.1
261	2020-10-02 13:23:39	66.3	66.6	65.0	64.9	67.2
266	2020-10-02 13:23:44	67.4	68.0	68.9	68.1	66.4
271	2020-10-02 13:23:49	64.4	62.7	63.0	65.5	68.5
276	2020-10-02 13:23:54	68.2	66.3	63.9	61.9	60.2
281	2020-10-02 13:23:59	59.9	60.2	61.0	63.5	66.3
286	2020-10-02 13:24:04	66.5	64.8	63.1	61.0	59.5
291	2020-10-02 13:24:09	59.5	59.5	62.6	65.7	66.7
296	2020-10-02 13:24:14	68.2	66.0	63.6	61.4	60.0
301	2020-10-02 13:24:19	60.8	64.2	63.3	65.8	67.6
306	2020-10-02 13:24:24	67.1	65.7	62.7	60.5	59.3
311	2020-10-02 13:24:29	61.0	63.4	67.5	68.9	69.7
316	2020-10-02 13:24:34	68.2	66.4	64.4	62.3	60.2
321	2020-10-02 13:24:39	58.8	58.1	57.9	60.5	62.9
326	2020-10-02 13:24:44	65.8	65.7	64.4	62.8	60.8
331	2020-10-02 13:24:49	58.8	57.5	56.9	56.6	57.5
336	2020-10-02 13:24:54	59.4	62.4	67.4	70.9	73.5
341	2020-10-02 13:24:59	75.1	73.7	70.9	69.6	69.9
346	2020-10-02 13:25:04	69.8	69.7	69.7	69.8	69.6
351	2020-10-02 13:25:09	70.3	69.3	69.4	69.1	68.1
356	2020-10-02 13:25:14	65.7	64.3	63.4	64.1	66.3
361	2020-10-02 13:25:19	66.9	68.4	66.8	64.2	62.7
366	2020-10-02 13:25:24	62.0	62.4	61.5	62.7	64.1
371	2020-10-02 13:25:29	65.5	65.3	62.7	59.8	57.9
376	2020-10-02 13:25:34	56.7	55.2	54.2	53.9	56.3
381	2020-10-02 13:25:39	55.5	54.5	54.4	54.9	55.8
386	2020-10-02 13:25:44	58.2	60.8	63.4	68.0	68.5
391	2020-10-02 13:25:49	67.3	65.5	65.2	67.9	68.0
396	2020-10-02 13:25:54	67.5	68.2	68.7	67.3	65.4
401	2020-10-02 13:25:59	65.0	66.7	70.3	71.2	70.7
406	2020-10-02 13:26:04	70.5	69.4	70.2	71.2	69.4
411	2020-10-02 13:26:09	66.6	65.5	67.9	67.7	65.6
416	2020-10-02 13:26:14	63.2	61.0	59.1	58.1	56.8

421	2020-10-02	13:26:19	56.0	55.1	54.6	54.0	53.7
426	2020-10-02	13:26:24	53.5	60.2	57.5	55.3	54.6
431	2020-10-02	13:26:29	55.0	56.4	59.2	61.2	63.2
436	2020-10-02	13:26:34	63.9	64.1	63.7	63.0	61.6
441	2020-10-02	13:26:39	60.8	60.4	59.7	60.0	62.0
446	2020-10-02	13:26:44	67.4	70.3	70.9	69.4	70.3
451	2020-10-02	13:26:49	70.3	71.0	71.1	72.4	73.0
456	2020-10-02	13:26:54	72.1	70.7	69.6	70.1	68.7
461	2020-10-02	13:26:59	68.6	70.8	70.9	69.2	66.7
466	2020-10-02	13:27:04	64.5	62.9	60.5	59.1	57.8
471	2020-10-02	13:27:09	56.5	56.0	55.4	54.9	55.9
476	2020-10-02	13:27:14	57.3	59.7	62.6	64.6	67.8
481	2020-10-02	13:27:19	68.2	69.2	67.4	65.0	63.6
486	2020-10-02	13:27:24	65.3	67.7	70.0	73.3	71.6
491	2020-10-02	13:27:29	68.3	65.0	62.2	59.5	57.8
496	2020-10-02	13:27:34	56.7	56.4	57.6	57.7	56.8
501	2020-10-02	13:27:39	55.3	55.2	57.5	66.3	62.9
506	2020-10-02	13:27:44	59.8	57.4	57.1	57.9	60.0
511	2020-10-02	13:27:49	64.2	64.3	63.7	64.7	65.0
516	2020-10-02	13:27:54	65.0	66.4	67.7	66.3	65.1
521	2020-10-02	13:27:59	66.2	66.3	65.2	65.2	66.9
526	2020-10-02	13:28:04	67.4	65.6	63.3	62.2	62.8
531	2020-10-02	13:28:09	60.6	61.4	64.3	65.4	64.9
536	2020-10-02	13:28:14	63.1	61.7	60.8	63.0	67.6
541	2020-10-02	13:28:19	69.5	69.3	69.2	70.0	67.1
546	2020-10-02	13:28:24	63.9	61.2	58.9	57.8	58.3
551	2020-10-02	13:28:29	57.5	58.2	59.9	63.1	65.1
556	2020-10-02	13:28:34	65.1	64.0	64.2	62.5	60.0
561	2020-10-02	13:28:39	57.9	56.8	56.2	55.8	57.2
566	2020-10-02	13:28:44	59.5	61.6	65.1	69.8	69.1
571	2020-10-02	13:28:49	67.4	66.6	65.5	67.5	67.1
576	2020-10-02	13:28:54	66.1	65.5	65.1	66.4	66.9
581	2020-10-02	13:28:59	68.7	68.0	68.5	69.4	68.0
586	2020-10-02	13:29:04	67.2	66.6	66.0	65.4	66.0
591	2020-10-02	13:29:09	67.4	67.1	68.4	68.4	68.3
596	2020-10-02	13:29:14	69.9	72.7	75.5	75.1	73.6
601	2020-10-02	13:29:19	71.7	69.8	69.0	66.7	65.0
606	2020-10-02	13:29:24	65.7	67.2	67.9	67.2	65.7
611	2020-10-02	13:29:29	64.5	63.8	63.2	62.4	61.6
616	2020-10-02	13:29:34	62.3	63.5	64.8	63.9	63.7
621	2020-10-02	13:29:39	66.2	73.2	75.6	74.2	71.4
626	2020-10-02	13:29:44	69.6	68.3	67.4	67.4	68.0
631	2020-10-02	13:29:49	73.5	70.7	69.1	67.4	66.0
636	2020-10-02	13:29:54	66.1	67.8	66.4	65.3	63.6
641	2020-10-02	13:29:59	63.0	61.2	59.4	59.6	59.4
646	2020-10-02	13:30:04	60.9	61.5	63.5	64.4	63.4
651	2020-10-02	13:30:09	62.3	61.2	60.4	60.8	60.7
656	2020-10-02	13:30:14	61.6	60.9	59.9	60.4	64.9
661	2020-10-02	13:30:19	69.2	70.5	71.6	71.1	70.4
666	2020-10-02	13:30:24	69.2	68.0	68.4	68.0	66.4
671	2020-10-02	13:30:29	65.0	63.7	62.3	61.1	61.8
676	2020-10-02	13:30:34	62.3	63.9	67.0	67.4	65.8
681	2020-10-02	13:30:39	63.5	61.5	63.3	64.4	65.9
686	2020-10-02	13:30:44	65.8	63.0	60.8	58.6	58.5
691	2020-10-02	13:30:49	59.5	59.9	60.7	63.6	63.6
696	2020-10-02	13:30:54	62.1	63.2	64.4	66.4	69.5
701	2020-10-02	13:30:59	69.6	68.9	66.8	67.2	66.6
706	2020-10-02	13:31:04	65.5	66.6	66.9	66.2	65.4
711	2020-10-02	13:31:09	64.1	63.6	65.4	63.0	60.6
716	2020-10-02	13:31:14	59.2	59.0	59.0	58.3	57.6
721	2020-10-02	13:31:19	57.6	57.3	57.8	59.4	62.4
726	2020-10-02	13:31:24	63.9	65.5	65.2	66.1	67.4
731	2020-10-02	13:31:29	68.7	70.0	68.0	65.8	64.3
736	2020-10-02	13:31:34	62.7	60.9	59.9	60.2	60.4
741	2020-10-02	13:31:39	60.1	62.0	64.5	67.0	68.0
746	2020-10-02	13:31:44	68.4	68.7	69.3	68.6	68.2
751	2020-10-02	13:31:49	68.1	68.0	67.5	68.7	69.9
756	2020-10-02	13:31:54	71.1	70.4	69.7	68.0	65.5
761	2020-10-02	13:31:59	63.5	62.6	62.5	61.4	59.5
766	2020-10-02	13:32:04	58.6	57.4	57.4	58.7	56.8
771	2020-10-02	13:32:09	56.3	55.7	56.2	58.4	60.6
776	2020-10-02	13:32:14	61.7	64.5	63.9	62.7	60.7
781	2020-10-02	13:32:19	60.1	59.4	60.3	60.6	62.4
786	2020-10-02	13:32:24	65.7	69.0	68.5	68.2	67.9
791	2020-10-02	13:32:29	69.3	68.4	67.3	65.4	64.0
796	2020-10-02	13:32:34	64.2	63.3	64.4	67.7	70.7
801	2020-10-02	13:32:39	74.0	74.9	73.3	72.4	71.3
806	2020-10-02	13:32:44	70.8	69.5	68.2	67.0	66.3
811	2020-10-02	13:32:49	65.9	67.4	68.3	67.3	67.4
816	2020-10-02	13:32:54	68.1	68.8	69.0	68.0	67.8
821	2020-10-02	13:32:59	68.0	70.1	71.6	71.8	71.6
826	2020-10-02	13:33:04	69.5	68.1	67.9	67.8	66.6
831	2020-10-02	13:33:09	65.4	63.8	62.8	62.5	62.6
836	2020-10-02	13:33:14	63.8	64.4	65.9	66.7	67.0
841	2020-10-02	13:33:19	65.6	63.9	63.9	65.9	67.3
846	2020-10-02	13:33:24	68.2	67.5	65.4	63.6	61.8
851	2020-10-02	13:33:29	60.3	59.4	58.2	58.0	60.1
856	2020-10-02	13:33:34	63.4	66.1	67.7	66.9	64.9
861	2020-10-02	13:33:39	62.6	60.8	60.5	59.3	59.1
866	2020-10-02	13:33:44	59.8	63.4	67.1	68.2	67.7
871	2020-10-02	13:33:49	66.5	64.9	63.5	64.3	66.7
876	2020-10-02	13:33:54	69.8	70.3	69.7	71.7	70.3
881	2020-10-02	13:33:59	70.7	70.1	69.0	68.9	68.2
886	2020-10-02	13:34:04	68.6	69.7	70.8	70.6	68.3
891	2020-10-02	13:34:09	66.5	65.3	65.1	66.7	66.1
896	2020-10-02	13:34:14	66.4	66.2	66.9	67.0	67.5
901	2020-10-02	13:34:19	68.9	69.2	68.9	68.1	68.1
906	2020-10-02	13:34:24	67.4	65.8	65.4	66.8	68.1

911	2020-10-02	13:34:29	67.8	67.0	66.8	67.3	67.4
916	2020-10-02	13:34:34	68.2	69.0	68.2	68.2	67.9
921	2020-10-02	13:34:39	66.5	64.6	62.7	61.7	60.2
926	2020-10-02	13:34:44	59.1	58.9	58.4	57.5	56.7
931	2020-10-02	13:34:49	56.3	57.9	57.2	56.7	56.1
936	2020-10-02	13:34:54	57.2	57.2	57.1	56.6	56.4
941	2020-10-02	13:34:59	57.2	57.3	56.9	57.2	57.5
946	2020-10-02	13:35:04	58.0	58.1	58.2	59.8	60.3
951	2020-10-02	13:35:09	61.1	61.8	63.6	63.1	64.2
956	2020-10-02	13:35:14	67.4	69.9	70.0	74.0	74.9
961	2020-10-02	13:35:19	75.5	78.3	78.7	75.9	72.9
966	2020-10-02	13:35:24	70.3	67.5	65.0	62.5	61.8
971	2020-10-02	13:35:29	60.6	60.6	59.7	59.2	60.8
976	2020-10-02	13:35:34	59.6	59.4	59.5	58.9	58.3
981	2020-10-02	13:35:39	57.8	57.1	57.8	59.5	59.7
986	2020-10-02	13:35:44	61.2	61.3	60.1	60.4	61.0
991	2020-10-02	13:35:49	61.5	62.4	65.1	66.8	67.5
996	2020-10-02	13:35:54	68.4	69.5	68.3	66.5	66.4
1001	2020-10-02	13:35:59	67.1	70.0	71.1	69.9	68.5
1006	2020-10-02	13:36:04	68.0	67.2	67.9	68.8	69.1
1011	2020-10-02	13:36:09	70.2	71.5	73.1	73.1	74.8
1016	2020-10-02	13:36:14	76.1	76.4	74.9	73.2	72.9
1021	2020-10-02	13:36:19	74.7	74.7	73.8	74.8	73.7
1026	2020-10-02	13:36:24	70.7	69.2	69.4	68.2	66.6
1031	2020-10-02	13:36:29	65.0	64.6	63.7	67.8	68.0
1036	2020-10-02	13:36:34	68.2	68.9	68.6	67.0	64.7
1041	2020-10-02	13:36:39	62.1	59.7	59.7	59.8	58.0
1046	2020-10-02	13:36:44	58.0	57.7	56.9	56.9	58.0
1051	2020-10-02	13:36:49	60.3	69.0	70.9	69.1	66.8
1056	2020-10-02	13:36:54	64.8	64.1	65.4	65.2	64.8
1061	2020-10-02	13:36:59	63.4	61.1	60.5	61.5	59.6
1066	2020-10-02	13:37:04	64.7	63.6	60.6	58.3	57.3
1071	2020-10-02	13:37:09	57.5	56.4	57.5	59.1	58.1
1076	2020-10-02	13:37:14	59.5	61.3	62.8	66.3	67.5
1081	2020-10-02	13:37:19	67.7	66.8	65.0	63.4	62.8
1086	2020-10-02	13:37:24	64.3	65.9	68.8	67.9	65.9
1091	2020-10-02	13:37:29	63.3	63.6	61.4	62.1	61.5
1096	2020-10-02	13:37:34	60.6	61.3	61.3	61.6	60.8
1101	2020-10-02	13:37:39	60.6	59.9	59.5	60.0	61.2
1106	2020-10-02	13:37:44	61.8	65.7	71.3	74.8	72.4
1111	2020-10-02	13:37:49	69.1	66.3	64.0	61.4	59.3
1116	2020-10-02	13:37:54	58.6	58.6	60.2	63.8	68.2
1121	2020-10-02	13:37:59	73.4	72.9	70.6	68.6	67.5
1126	2020-10-02	13:38:04	65.9	64.6	63.0	61.7	61.2
1131	2020-10-02	13:38:09	60.1	59.2	58.6	58.4	58.2
1136	2020-10-02	13:38:14	58.6	58.8	58.8	58.9	59.7
1141	2020-10-02	13:38:19	59.6	60.1	60.7	62.1	63.6
1146	2020-10-02	13:38:24	66.0	68.4	68.6	68.0	67.7
1151	2020-10-02	13:38:29	65.6	65.0	67.7	69.8	72.7
1156	2020-10-02	13:38:34	72.7	71.7	71.2	69.4	67.5
1161	2020-10-02	13:38:39	66.4	66.3	66.5	67.6	67.1
1166	2020-10-02	13:38:44	67.1	68.4	66.5	64.4	62.7
1171	2020-10-02	13:38:49	61.0	60.7	64.4	62.7	60.7
1176	2020-10-02	13:38:54	60.0	60.4	60.2	62.9	65.1
1181	2020-10-02	13:38:59	66.6	65.7	63.6	63.0	64.9
1186	2020-10-02	13:39:04	63.2	65.0	66.0	66.5	66.0
1191	2020-10-02	13:39:09	64.3	64.8	66.8	68.3	70.5
1196	2020-10-02	13:39:14	73.5	73.6	72.3	70.9	69.0
1201	2020-10-02	13:39:19	67.1	65.9	64.5	63.2	62.6
1206	2020-10-02	13:39:24	62.8	61.2	59.5	58.7	57.9
1211	2020-10-02	13:39:29	57.7	57.6	58.5	58.5	60.0
1216	2020-10-02	13:39:34	60.1	59.9	59.4	59.4	60.0
1221	2020-10-02	13:39:39	60.1	60.0	60.5	60.2	59.8
1226	2020-10-02	13:39:44	60.5	62.8	65.0	69.8	70.1
1231	2020-10-02	13:39:49	68.8	66.9	65.3	64.9	65.0
1236	2020-10-02	13:39:54	67.3	67.5	67.6	68.0	69.0
1241	2020-10-02	13:39:59	67.1	65.7	65.0	68.3	67.6
1246	2020-10-02	13:40:04	65.7	68.0	70.5	70.7	71.0
1251	2020-10-02	13:40:09	71.5	71.4	70.8	69.3	67.1
1256	2020-10-02	13:40:14	65.1	62.8	60.8	60.0	64.0
1261	2020-10-02	13:40:19	66.5	65.4	64.7	66.6	67.2
1266	2020-10-02	13:40:24	68.2	67.6	68.0	68.7	69.0
1271	2020-10-02	13:40:29	67.2	65.4	63.5	61.8	60.8
1276	2020-10-02	13:40:34	61.1	64.0	64.3	64.5	65.6
1281	2020-10-02	13:40:39	64.1	66.2	66.8	65.2	65.3
1286	2020-10-02	13:40:44	66.4	68.7	67.5	67.7	67.9
1291	2020-10-02	13:40:49	69.5	69.7	69.9	73.2	75.8
1296	2020-10-02	13:40:54	74.6	72.1	71.5	71.5	70.8
1301	2020-10-02	13:40:59	69.7	67.6	65.8	64.6	64.3
1306	2020-10-02	13:41:04	64.7	65.4	64.5	66.0	63.7
1311	2020-10-02	13:41:09	62.1	60.5	58.6	57.3	56.9
1316	2020-10-02	13:41:14	56.7	56.4	55.4	55.0	55.0
1321	2020-10-02	13:41:19	55.5	56.0	56.3	56.5	56.9
1326	2020-10-02	13:41:24	57.5	61.1	64.3	69.5	69.9
1331	2020-10-02	13:41:29	68.2	67.1	69.7	69.9	68.9
1336	2020-10-02	13:41:34	69.4	67.2	65.0	63.3	62.3
1341	2020-10-02	13:41:39	61.0	59.9	59.1	60.8	60.8
1346	2020-10-02	13:41:44	60.1	59.8	62.3	64.6	65.5
1351	2020-10-02	13:41:49	65.4	64.0	65.3	67.3	66.9
1356	2020-10-02	13:41:54	64.8	63.8	63.9	64.8	65.7
1361	2020-10-02	13:41:59	65.9	65.7	64.9	63.4	62.1
1366	2020-10-02	13:42:04	61.3	61.6	62.3	64.0	65.2
1371	2020-10-02	13:42:09	67.5	67.2	64.3	62.2	61.8
1376	2020-10-02	13:42:14	60.7	59.0	58.4	58.5	57.9
1381	2020-10-02	13:42:19	56.6	56.3	57.0	58.1	58.9
1386	2020-10-02	13:42:24	60.7	61.1	59.9	59.4	59.0
1391	2020-10-02	13:42:29	59.7	60.0	60.6	60.3	61.0
1396	2020-10-02	13:42:34	61.3	62.8	65.2	67.1	68.9

1401	2020-10-02	13:42:39	70.3	70.9	71.1	70.3	71.3
1406	2020-10-02	13:42:44	70.7	69.5	67.7	66.7	66.2
1411	2020-10-02	13:42:49	66.1	67.5	67.2	66.6	66.9
1416	2020-10-02	13:42:54	68.4	68.0	67.0	66.1	66.2
1421	2020-10-02	13:42:59	67.3	68.5	69.0	69.5	70.5
1426	2020-10-02	13:43:04	71.2	71.6	71.8	71.3	70.9
1431	2020-10-02	13:43:09	70.5	69.4	68.0	65.9	64.4
1436	2020-10-02	13:43:14	62.9	61.8	62.3	63.6	65.8
1441	2020-10-02	13:43:19	68.8	70.3	72.2	72.1	69.7
1446	2020-10-02	13:43:24	67.5	67.0	67.6	67.6	68.4
1451	2020-10-02	13:43:29	69.3	70.5	70.4	70.9	71.2
1456	2020-10-02	13:43:34	71.3	68.9	67.5	66.0	64.4
1461	2020-10-02	13:43:39	63.5	65.1	66.8	69.2	70.6
1466	2020-10-02	13:43:44	70.5	70.4	70.4	70.9	69.7
1471	2020-10-02	13:43:49	68.3	68.5	69.4	70.0	69.9
1476	2020-10-02	13:43:54	68.6	70.0	69.3	68.6	69.1
1481	2020-10-02	13:43:59	68.0	69.9	68.9	68.8	69.1
1486	2020-10-02	13:44:04	68.9	68.1	65.8	64.8	62.8
1491	2020-10-02	13:44:09	60.9	58.9	58.6	59.2	59.4
1496	2020-10-02	13:44:14	58.4	57.3	57.5	58.5	60.3
1501	2020-10-02	13:44:19	63.4	68.2	73.0	72.8	73.0
1506	2020-10-02	13:44:24	72.9	70.2	67.5	67.3	65.9
1511	2020-10-02	13:44:29	64.6	63.2	63.4	63.3	62.6
1516	2020-10-02	13:44:34	63.0	62.9	65.4	67.0	68.6
1521	2020-10-02	13:44:39	68.2	66.7	65.5	64.7	62.8
1526	2020-10-02	13:44:44	61.2	60.3	61.1	61.0	63.9
1531	2020-10-02	13:44:49	65.2	67.5	66.8	64.5	62.1
1536	2020-10-02	13:44:54	60.0	59.3	60.4	61.3	62.2
1541	2020-10-02	13:44:59	61.0	60.2	61.3	63.5	67.5
1546	2020-10-02	13:45:04	69.6	69.7	67.7	65.7	65.9
1551	2020-10-02	13:45:09	65.8	65.8	65.3	65.5	64.9
1556	2020-10-02	13:45:14	64.4	63.1	62.1	62.1	63.3
1561	2020-10-02	13:45:19	64.4	66.7	66.4	65.9	67.5
1566	2020-10-02	13:45:24	67.2	66.7	67.3	67.0	67.9
1571	2020-10-02	13:45:29	69.5	70.4	70.9	70.9	71.2
1576	2020-10-02	13:45:34	70.3	69.1	67.9	67.5	69.3
1581	2020-10-02	13:45:39	69.9	69.6	70.0	70.3	69.9
1586	2020-10-02	13:45:44	71.0	72.3	71.2	69.9	70.1
1591	2020-10-02	13:45:49	71.4	71.6	72.1	71.6	71.4
1596	2020-10-02	13:45:54	70.1	70.1	69.8	68.0	67.3
1601	2020-10-02	13:45:59	67.5	67.8	66.3	64.3	62.4
1606	2020-10-02	13:46:04	60.8	59.7	59.5	59.9	60.3
1611	2020-10-02	13:46:09	59.7	60.5	60.5	60.0	59.5
1616	2020-10-02	13:46:14	63.5	63.2	65.9	67.8	68.9
1621	2020-10-02	13:46:19	69.2	68.4	67.1	65.1	62.6
1626	2020-10-02	13:46:24	62.4	64.7	65.0	66.2	64.0
1631	2020-10-02	13:46:29	61.7	59.9	60.0	59.7	58.8
1636	2020-10-02	13:46:34	57.8	57.7	56.9	56.8	58.6
1641	2020-10-02	13:46:39	60.0	65.9	65.8	64.0	61.7
1646	2020-10-02	13:46:44	59.8	58.8	58.9	62.4	65.4
1651	2020-10-02	13:46:49	68.3	67.6	66.4	66.4	67.7
1656	2020-10-02	13:46:54	68.4	67.5	65.7	63.8	61.2
1661	2020-10-02	13:46:59	59.0	57.9	57.5	56.9	55.6
1666	2020-10-02	13:47:04	55.2	54.3	54.1	54.0	55.1
1671	2020-10-02	13:47:09	56.9	59.3	61.1	61.7	63.1
1676	2020-10-02	13:47:14	63.7	65.0	65.5	66.5	66.1
1681	2020-10-02	13:47:19	68.1	68.9	69.1	68.6	68.9
1686	2020-10-02	13:47:24	69.9	69.3	70.3	70.4	69.4
1691	2020-10-02	13:47:29	68.4	66.6	66.6	67.2	68.1
1696	2020-10-02	13:47:34	68.5	70.3	70.5	70.2	70.4
1701	2020-10-02	13:47:39	69.9	69.2	68.8	67.0	65.6
1706	2020-10-02	13:47:44	65.2	67.0	69.6	69.7	70.3
1711	2020-10-02	13:47:49	68.2	65.9	63.6	61.6	60.7
1716	2020-10-02	13:47:54	58.5	56.8	55.3	54.8	54.8
1721	2020-10-02	13:47:59	55.7	57.7	60.1	63.3	65.1
1726	2020-10-02	13:48:04	65.7	63.7	65.9	67.3	69.1
1731	2020-10-02	13:48:09	67.2	64.9	63.3	61.9	61.4
1736	2020-10-02	13:48:14	63.5	66.2	66.2	64.2	62.2
1741	2020-10-02	13:48:19	60.4	58.6	57.1	56.2	55.2
1746	2020-10-02	13:48:24	54.4	54.4	54.8	54.6	54.9
1751	2020-10-02	13:48:29	55.6	58.4	57.9	59.4	61.7
1756	2020-10-02	13:48:34	66.3	67.1	66.2	64.5	62.1
1761	2020-10-02	13:48:39	59.6	57.4	55.8	54.7	53.6
1766	2020-10-02	13:48:44	53.1	52.7	51.9	51.5	51.3
1771	2020-10-02	13:48:49	51.5	51.8	51.7	51.6	51.8
1776	2020-10-02	13:48:54	51.4	51.9	51.6	52.5	53.3
1781	2020-10-02	13:48:59	52.9	52.5	52.3	53.0	52.9
1786	2020-10-02	13:49:04	53.7	54.9	56.1	57.7	61.6
1791	2020-10-02	13:49:09	63.2	64.9	65.1	66.7	67.6
1796	2020-10-02	13:49:14	69.4	70.7	70.6	68.8	66.8
1801	2020-10-02	13:49:19	65.8	66.4	67.9	67.9	68.5
1806	2020-10-02	13:49:24	68.0	66.7	66.1	67.0	67.8
1811	2020-10-02	13:49:29	68.5	69.1	69.1	67.1	66.2
1816	2020-10-02	13:49:34	65.6	66.4	66.1	68.4	68.6
1821	2020-10-02	13:49:39	67.5	66.6	67.8	68.6	70.8
1826	2020-10-02	13:49:44	72.7	75.0	75.2	73.4	71.9
1831	2020-10-02	13:49:49	71.3	70.7	70.7	71.5	70.7
1836	2020-10-02	13:49:54	70.6	71.6	69.9	69.5	71.3
1841	2020-10-02	13:49:59	72.3	71.2	69.4	68.9	67.9
1846	2020-10-02	13:50:04	66.7	66.4	66.5	66.0	66.1
1851	2020-10-02	13:50:09	66.8	64.7	63.8	64.1	64.8
1856	2020-10-02	13:50:14	65.7	67.0	68.5	68.2	68.5
1861	2020-10-02	13:50:19	68.5	68.1	67.9	67.2	66.9
1866	2020-10-02	13:50:24	66.6	65.3	63.3	61.8	61.9
1871	2020-10-02	13:50:29	62.9	62.3	61.7	63.1	63.9
1876	2020-10-02	13:50:34	63.9	62.1	61.4	61.2	62.0
1881	2020-10-02	13:50:39	64.6	66.9	67.7	66.1	63.8
1886	2020-10-02	13:50:44	61.8	61.2	60.5	60.6	60.2

1891	2020-10-02	13:50:49	59.8	60.0	61.4	61.3	61.2
1896	2020-10-02	13:50:54	62.5	64.0	65.4	65.5	64.3
1901	2020-10-02	13:50:59	63.7	64.4	64.4	65.0	66.4
1906	2020-10-02	13:51:04	66.8	73.3	70.1	67.6	73.7
1911	2020-10-02	13:51:09	70.3	68.6	68.2	67.9	66.6
1916	2020-10-02	13:51:14	66.2	66.6	68.8	68.7	68.3
1921	2020-10-02	13:51:19	67.0	65.0	63.0	63.2	63.9
1926	2020-10-02	13:51:24	62.6	63.4	64.7	67.5	68.5
1931	2020-10-02	13:51:29	69.6	69.0	68.1	67.6	69.4
1936	2020-10-02	13:51:34	69.3	68.4	69.1	71.0	72.9
1941	2020-10-02	13:51:39	71.5	69.0	68.0	68.9	69.9
1946	2020-10-02	13:51:44	70.3	69.6	67.6	67.3	67.9
1951	2020-10-02	13:51:49	68.6	67.6	66.2	66.3	66.7
1956	2020-10-02	13:51:54	67.7	66.4	66.4	65.0	63.4
1961	2020-10-02	13:51:59	62.8	63.6	64.7	66.8	68.9
1966	2020-10-02	13:52:04	70.5	72.4	72.5	71.7	71.2
1971	2020-10-02	13:52:09	70.5	69.7	69.3	69.0	69.2
1976	2020-10-02	13:52:14	69.9	70.8	69.9	69.4	69.1
1981	2020-10-02	13:52:19	68.5	68.7	69.1	68.7	69.1
1986	2020-10-02	13:52:24	70.0	69.5	69.8	69.0	69.2
1991	2020-10-02	13:52:29	69.1	68.8	68.5	67.7	68.3
1996	2020-10-02	13:52:34	68.4	68.9	68.5	69.3	68.3
2001	2020-10-02	13:52:39	68.8	68.9	69.4	71.6	73.1
2006	2020-10-02	13:52:44	72.8	70.3	68.4	67.0	66.3
2011	2020-10-02	13:52:49	66.7	65.0	64.2	63.5	62.6
2016	2020-10-02	13:52:54	62.4	63.5	65.0	64.3	64.3
2021	2020-10-02	13:52:59	64.0	62.8	62.1	64.3	66.2
2026	2020-10-02	13:53:04	68.8	72.1	72.5	72.9	71.0
2031	2020-10-02	13:53:09	68.8	66.1	63.2	61.0	60.8
2036	2020-10-02	13:53:14	60.6	60.3	61.7	62.9	62.8
2041	2020-10-02	13:53:19	61.9	62.0	60.5	60.3	59.0
2046	2020-10-02	13:53:24	57.7	56.6	55.1	54.5	54.4
2051	2020-10-02	13:53:29	54.1	53.9	53.7	54.0	54.5
2056	2020-10-02	13:53:34	55.6	55.6	55.7	56.0	55.9
2061	2020-10-02	13:53:39	56.3	56.1	57.6	59.8	61.0
2066	2020-10-02	13:53:44	60.8	60.5	59.8	59.4	60.4
2071	2020-10-02	13:53:49	59.5	58.6	58.9	58.8	59.5
2076	2020-10-02	13:53:54	61.2	62.7	63.4	64.1	65.0
2081	2020-10-02	13:53:59	65.5	66.8	66.2	65.7	65.5
2086	2020-10-02	13:54:04	64.4	64.4	64.1	63.1	61.7
2091	2020-10-02	13:54:09	62.0	61.2	61.7	63.7	65.9
2096	2020-10-02	13:54:14	67.4	67.7	67.7	67.1	66.2
2101	2020-10-02	13:54:19	65.5	66.5	64.5	69.1	67.7
2106	2020-10-02	13:54:24	66.4	67.5	67.2	67.2	66.6
2111	2020-10-02	13:54:29	64.2	62.1	62.0	61.9	63.3
2116	2020-10-02	13:54:34	64.5	65.6	65.9	67.1	66.0
2121	2020-10-02	13:54:39	65.8	68.1	70.0	70.5	70.6
2126	2020-10-02	13:54:44	70.0	70.8	71.1	70.0	69.6
2131	2020-10-02	13:54:49	69.3	68.6	68.4	68.5	67.8
2136	2020-10-02	13:54:54	67.6	66.6	65.3	66.2	66.7
2141	2020-10-02	13:54:59	64.6	62.8	62.1	63.2	64.1
2146	2020-10-02	13:55:04	63.6	63.0	62.1	60.6	59.7
2151	2020-10-02	13:55:09	60.5	63.3	64.8	64.3	62.7
2156	2020-10-02	13:55:14	61.4	62.5	64.0	66.3	67.1
2161	2020-10-02	13:55:19	69.1	69.3	69.8	70.2	69.5
2166	2020-10-02	13:55:24	69.4	70.2	69.6	68.4	66.4
2171	2020-10-02	13:55:29	65.2	64.3	63.8	65.2	65.8
2176	2020-10-02	13:55:34	64.4	63.4	62.8	64.1	64.0
2181	2020-10-02	13:55:39	63.0	62.5	62.8	62.7	62.0
2186	2020-10-02	13:55:44	61.4	64.5	66.0	68.5	67.0
2191	2020-10-02	13:55:49	65.8	63.4	65.4	63.1	59.9
2196	2020-10-02	13:55:54	58.5	58.6	61.3	62.9	63.0
2201	2020-10-02	13:55:59	63.9	63.5	61.5	60.0	58.2
2206	2020-10-02	13:56:04	58.2	58.7	59.6	59.2	58.1
2211	2020-10-02	13:56:09	58.1	59.8	63.5	67.8	67.8
2216	2020-10-02	13:56:14	66.4	64.5	62.3	60.8	60.5
2221	2020-10-02	13:56:19	59.8	60.5	64.0	67.7	69.3
2226	2020-10-02	13:56:24	69.7	71.5	71.5	70.8	70.1
2231	2020-10-02	13:56:29	68.8	69.2	67.9	65.6	65.1
2236	2020-10-02	13:56:34	64.5	65.9	69.2	67.8	66.4
2241	2020-10-02	13:56:39	64.4	62.4	61.1	61.6	63.6
2246	2020-10-02	13:56:44	66.7	66.7	65.1	63.1	61.2
2251	2020-10-02	13:56:49	59.7	59.0	58.4	57.0	55.9
2256	2020-10-02	13:56:54	55.6	55.6	56.9	58.4	60.1
2261	2020-10-02	13:56:59	67.4	67.8	68.6	66.2	64.1
2266	2020-10-02	13:57:04	62.8	63.5	66.4	68.6	70.5
2271	2020-10-02	13:57:09	70.6	69.0	66.3	63.8	62.3
2276	2020-10-02	13:57:14	60.6	59.3	58.2	58.4	60.3
2281	2020-10-02	13:57:19	62.3	67.3	68.5	69.5	66.6
2286	2020-10-02	13:57:24	64.2	62.2	60.4	58.9	58.9
2291	2020-10-02	13:57:29	58.5	59.2	60.6	62.8	67.7
2296	2020-10-02	13:57:34	69.2	69.7	68.8	67.6	65.7
2301	2020-10-02	13:57:39	63.8	62.1	60.5	59.0	57.7
2306	2020-10-02	13:57:44	56.6	56.1	55.5	55.4	55.7
2311	2020-10-02	13:57:49	56.0	55.5	55.5	55.2	55.5
2316	2020-10-02	13:57:54	56.3	56.9	57.1	58.7	61.4
2321	2020-10-02	13:57:59	65.5	65.3	66.0	68.3	68.8
2326	2020-10-02	13:58:04	67.6	66.3	66.9	69.2	70.1
2331	2020-10-02	13:58:09	69.6	67.0	64.7	62.9	61.2
2336	2020-10-02	13:58:14	60.8	59.7	59.2	59.3	59.9
2341	2020-10-02	13:58:19	61.8	64.6	67.0	67.3	65.6
2346	2020-10-02	13:58:24	63.6	62.0	60.5	59.9	59.3
2351	2020-10-02	13:58:29	58.7	58.1	57.6	59.1	57.8
2356	2020-10-02	13:58:34	57.6	58.7	60.0	60.7	60.8
2361	2020-10-02	13:58:39	60.5	60.4	60.8	61.9	62.3
2366	2020-10-02	13:58:44	65.0	65.0	65.4	66.6	67.6
2371	2020-10-02	13:58:49	69.0	67.7	67.4	67.6	67.4
2376	2020-10-02	13:58:54	67.8	66.5	65.8	66.4	64.8

2381	2020-10-02	13:58:59	62.3	60.7	59.3	58.9	59.8
2386	2020-10-02	13:59:04	61.3	63.7	65.5	66.8	65.8
2391	2020-10-02	13:59:09	64.6	63.0	63.8	66.2	68.9
2396	2020-10-02	13:59:14	68.6	66.3	67.3	67.2	64.6
2401	2020-10-02	13:59:19	62.2	61.1	61.5	63.9	67.4
2406	2020-10-02	13:59:24	69.2	67.2	64.2	61.3	59.0
2411	2020-10-02	13:59:29	59.0	61.6	63.1	65.5	64.3
2416	2020-10-02	13:59:34	62.5	61.9	64.1	67.7	69.3
2421	2020-10-02	13:59:39	69.5	67.0	65.6	66.5	66.7
2426	2020-10-02	13:59:44	67.7	67.0	68.6	69.5	70.7
2431	2020-10-02	13:59:49	71.5	72.8	72.2	71.5	70.2
2436	2020-10-02	13:59:54	69.5	70.1	69.5	70.7	71.9
2441	2020-10-02	13:59:59	72.1	72.6	73.1	71.7	69.5
2446	2020-10-02	14:00:04	67.4	66.8	65.8	66.4	68.4
2451	2020-10-02	14:00:09	68.5	67.6	66.4	64.2	62.1
2456	2020-10-02	14:00:14	60.4	59.4	59.3	60.2	61.5
2461	2020-10-02	14:00:19	61.6	62.2	63.0	63.0	62.3
2466	2020-10-02	14:00:24	63.8	65.1	65.4	67.0	69.3
2471	2020-10-02	14:00:29	68.4	66.7	65.3	65.3	65.8
2476	2020-10-02	14:00:34	68.0	69.5	68.3	66.0	63.6
2481	2020-10-02	14:00:39	61.3	59.7	58.4	59.5	61.5
2486	2020-10-02	14:00:44	63.1	66.3	66.6	68.4	66.8
2491	2020-10-02	14:00:49	64.7	65.1	67.5	69.4	69.0
2496	2020-10-02	14:00:54	67.8	65.6	63.4	62.2	61.4
2501	2020-10-02	14:00:59	59.2	58.2	57.3	57.8	58.4
2506	2020-10-02	14:01:04	57.9	57.9	60.1	63.1	66.2
2511	2020-10-02	14:01:09	66.8	65.9	64.2	63.9	67.9
2516	2020-10-02	14:01:14	69.8	68.6	68.4	68.6	67.5
2521	2020-10-02	14:01:19	65.0	63.7	62.3	62.0	63.0
2526	2020-10-02	14:01:24	64.2	68.2	66.9	63.5	60.6
2531	2020-10-02	14:01:29	58.1	56.1	53.9	54.0	59.1
2536	2020-10-02	14:01:34	62.8	66.7	70.9	72.6	76.4
2541	2020-10-02	14:01:39	74.5	70.9	67.7	64.9	63.0
2546	2020-10-02	14:01:44	63.6	62.8	64.3	67.4	71.0
2551	2020-10-02	14:01:49	73.0	71.8	70.6	70.7	69.5
2556	2020-10-02	14:01:54	68.9	66.9	65.7	63.9	62.0
2561	2020-10-02	14:01:59	59.9	59.3	61.0	61.9	66.2
2566	2020-10-02	14:02:04	66.8	66.8	66.9	67.2	67.6
2571	2020-10-02	14:02:09	66.8	65.0	64.5	64.9	66.1
2576	2020-10-02	14:02:14	69.1	72.0	72.4	71.1	68.6
2581	2020-10-02	14:02:19	66.6	64.1	61.8	60.1	60.1
2586	2020-10-02	14:02:24	60.4	60.5	59.3	59.0	59.7
2591	2020-10-02	14:02:29	60.9	62.3	65.2	65.6	66.0
2596	2020-10-02	14:02:34	64.3	62.0	59.3	57.3	56.8
2601	2020-10-02	14:02:39	56.7	58.0	59.7	62.0	65.9
2606	2020-10-02	14:02:44	66.0	65.2	63.6	61.9	60.4
2611	2020-10-02	14:02:49	60.7	60.7	62.7	65.8	65.9
2616	2020-10-02	14:02:54	64.1	62.9	63.3	66.0	66.5
2621	2020-10-02	14:02:59	67.2	68.1	67.7	66.1	65.8
2626	2020-10-02	14:03:04	67.3	68.5	69.9	68.4	68.1
2631	2020-10-02	14:03:09	69.3	69.8	69.1	68.0	65.9
2636	2020-10-02	14:03:14	63.9	62.7	61.1	59.9	60.5
2641	2020-10-02	14:03:19	60.0	59.5	58.4	57.4	58.4
2646	2020-10-02	14:03:24	59.9	62.7	64.7	64.4	65.6
2651	2020-10-02	14:03:29	66.6	65.5	63.3	62.3	62.9
2656	2020-10-02	14:03:34	62.1	60.9	59.9	60.3	61.9
2661	2020-10-02	14:03:39	66.1	67.7	69.6	67.0	64.1
2666	2020-10-02	14:03:44	61.6	60.5	60.7	62.3	64.5
2671	2020-10-02	14:03:49	65.8	66.6	65.5	65.0	66.2
2676	2020-10-02	14:03:54	67.3	68.9	68.5	66.8	65.0
2681	2020-10-02	14:03:59	64.0	63.2	63.5	64.4	66.6
2686	2020-10-02	14:04:04	67.3	68.5	72.6	69.5	67.3
2691	2020-10-02	14:04:09	65.5	68.7	71.6	70.5	70.9
2696	2020-10-02	14:04:14	74.0	72.8	71.6	72.3	72.2
2701	2020-10-02	14:04:19	71.3	72.2	71.1	72.6	72.5
2706	2020-10-02	14:04:24	71.4	70.3	69.4	70.2	69.9
2711	2020-10-02	14:04:29	70.3	69.8	70.1	71.2	70.1
2716	2020-10-02	14:04:34	70.9	72.6	72.8	72.6	72.8
2721	2020-10-02	14:04:39	72.3	72.3	70.7	68.9	68.2
2726	2020-10-02	14:04:44	68.9	67.0	64.8	62.8	61.7
2731	2020-10-02	14:04:49	61.6	63.0	63.1	64.1	64.5
2736	2020-10-02	14:04:54	62.6	61.3	62.0	62.4	61.1
2741	2020-10-02	14:04:59	60.7	61.3	61.5	61.8	62.1
2746	2020-10-02	14:05:04	61.3	61.7	62.0	62.0	63.3
2751	2020-10-02	14:05:09	64.5	66.0	67.5	68.2	67.0
2756	2020-10-02	14:05:14	66.7	70.0	69.5	67.4	65.8
2761	2020-10-02	14:05:19	67.4	66.2	67.6	68.3	69.5
2766	2020-10-02	14:05:24	69.1	69.1	69.2	68.7	67.0
2771	2020-10-02	14:05:29	64.8	63.4	62.4	62.9	63.7
2776	2020-10-02	14:05:34	64.8	63.9	63.6	64.3	66.8
2781	2020-10-02	14:05:39	68.1	67.1	65.1	63.3	62.6
2786	2020-10-02	14:05:44	62.5	61.4	62.9	64.9	66.5
2791	2020-10-02	14:05:49	69.7	69.3	67.4	65.3	63.3
2796	2020-10-02	14:05:54	62.3	62.3	61.5	60.9	62.3
2801	2020-10-02	14:05:59	63.9	67.5	68.0	69.7	69.8
2806	2020-10-02	14:06:04	70.8	69.6	67.9	67.6	67.1
2811	2020-10-02	14:06:09	67.1	69.2	68.7	66.9	64.6
2816	2020-10-02	14:06:14	62.5	61.5	61.7	63.3	65.8
2821	2020-10-02	14:06:19	67.8	67.4	66.2	66.0	65.5
2826	2020-10-02	14:06:24	65.3	65.8	67.0	68.2	68.6
2831	2020-10-02	14:06:29	67.8	68.7	68.0	68.4	69.4
2836	2020-10-02	14:06:34	70.3	71.1	71.3	71.3	70.7
2841	2020-10-02	14:06:39	70.3	70.7	70.5	70.2	69.5
2846	2020-10-02	14:06:44	70.0	68.8	69.7	68.9	68.7
2851	2020-10-02	14:06:49	67.4	66.4	65.5	66.1	68.1
2856	2020-10-02	14:06:54	71.4	72.5	73.2	73.2	71.9
2861	2020-10-02	14:06:59	69.2	67.5	66.4	66.1	65.3
2866	2020-10-02	14:07:04	65.1	65.8	68.2	69.3	69.9

2871	2020-10-02	14:07:09	69.5	68.3	67.3	67.4	67.4
2876	2020-10-02	14:07:14	67.7	67.3	65.4	64.3	63.7
2881	2020-10-02	14:07:19	64.9	66.1	69.1	69.3	68.8
2886	2020-10-02	14:07:24	69.0	69.2	69.8	68.8	67.0
2891	2020-10-02	14:07:29	66.2	66.8	69.5	74.2	73.9
2896	2020-10-02	14:07:34	72.3	70.0	68.3	67.5	67.8
2901	2020-10-02	14:07:39	67.8	69.3	71.1	71.7	71.8
2906	2020-10-02	14:07:44	69.4	68.3	67.5	67.1	65.6
2911	2020-10-02	14:07:49	63.1	61.8	61.6	61.0	61.8
2916	2020-10-02	14:07:54	64.3	62.6	62.0	62.5	63.5
2921	2020-10-02	14:07:59	66.7	66.8	66.9	67.4	68.3
2926	2020-10-02	14:08:04	67.9	66.2	64.7	62.7	60.5
2931	2020-10-02	14:08:09	58.7	60.5	60.1	59.0	58.0
2936	2020-10-02	14:08:14	57.6	59.1	59.4	61.4	62.4
2941	2020-10-02	14:08:19	64.9	69.1	69.1	67.5	66.2
2946	2020-10-02	14:08:24	66.0	67.3	67.4	66.3	65.6
2951	2020-10-02	14:08:29	65.7	65.7	65.0	63.7	63.2
2956	2020-10-02	14:08:34	63.3	65.1	67.2	70.6	72.1
2961	2020-10-02	14:08:39	71.9	71.6	72.2	71.9	71.0
2966	2020-10-02	14:08:44	70.7	70.9	70.9	71.2	71.7
2971	2020-10-02	14:08:49	72.3	72.1	71.9	71.6	70.5
2976	2020-10-02	14:08:54	70.0	68.6	67.6	67.9	68.6
2981	2020-10-02	14:08:59	69.2	70.6	69.5	70.2	70.5
2986	2020-10-02	14:09:04	70.7	70.0	68.0	66.2	64.7
2991	2020-10-02	14:09:09	63.1	61.8	62.2	61.6	60.1
2996	2020-10-02	14:09:14	59.3	58.9	58.5	58.5	57.6
3001	2020-10-02	14:09:19	58.1	58.8	58.9	59.4	61.9
3006	2020-10-02	14:09:24	64.2	66.3	65.6	64.7	64.1
3011	2020-10-02	14:09:29	65.0	67.4	66.5	65.4	63.8
3016	2020-10-02	14:09:34	64.2	65.0	66.4	65.7	64.2
3021	2020-10-02	14:09:39	62.2	60.1	58.5	58.6	57.8
3026	2020-10-02	14:09:44	56.8	55.9	55.6	56.9	57.1
3031	2020-10-02	14:09:49	56.2	55.9	55.5	55.1	55.1
3036	2020-10-02	14:09:54	55.5	55.6	55.5	55.6	56.2
3041	2020-10-02	14:09:59	57.0	59.0	59.8	61.0	62.1
3046	2020-10-02	14:10:04	60.6	60.2	60.5	63.7	66.0
3051	2020-10-02	14:10:09	69.0	68.4	66.5	64.2	62.8
3056	2020-10-02	14:10:14	61.1	60.4	59.4	59.5	60.5
3061	2020-10-02	14:10:19	61.1	62.1	63.7	67.5	69.3
3066	2020-10-02	14:10:24	71.1	73.7	76.0	78.6	79.2
3071	2020-10-02	14:10:29	77.8	75.4	72.6	69.9	67.5
3076	2020-10-02	14:10:34	65.2	63.0	61.4	60.2	61.2
3081	2020-10-02	14:10:39	63.0	64.2	66.2	69.6	69.9
3086	2020-10-02	14:10:44	71.6	71.3	70.3	69.7	70.3
3091	2020-10-02	14:10:49	72.2	72.9	73.0	72.7	72.5
3096	2020-10-02	14:10:54	71.8	72.0	74.7	74.8	74.6
3101	2020-10-02	14:10:59	72.1	69.1	68.5	68.2	68.9
3106	2020-10-02	14:11:04	68.7	69.0	70.1	70.9	71.2
3111	2020-10-02	14:11:09	69.4	68.5	68.7	70.3	71.1
3116	2020-10-02	14:11:14	72.2	71.7	70.6	69.9	68.3
3121	2020-10-02	14:11:19	68.0	68.1	68.5	66.7	65.6
3126	2020-10-02	14:11:24	63.8	61.6	60.8	60.1	59.8
3131	2020-10-02	14:11:29	59.9	63.3	62.9	62.8	62.9
3136	2020-10-02	14:11:34	62.9	64.1	63.1	61.7	61.3
3141	2020-10-02	14:11:39	61.5	61.6	61.4	61.6	61.1
3146	2020-10-02	14:11:44	60.8	61.1	60.4	60.1	61.0
3151	2020-10-02	14:11:49	66.4	66.6	67.9	70.2	69.1
3156	2020-10-02	14:11:54	69.3	71.3	74.3	76.1	79.6
3161	2020-10-02	14:11:59	76.8	74.0	71.9	69.5	67.4
3166	2020-10-02	14:12:04	65.8	65.2	65.6	66.8	67.2
3171	2020-10-02	14:12:09	66.7	66.1	65.9	64.5	64.7
3176	2020-10-02	14:12:14	63.6	63.3	63.6	63.5	63.8
3181	2020-10-02	14:12:19	64.1	65.3	66.2	67.8	67.7
3186	2020-10-02	14:12:24	67.2	67.8	68.7	68.0	68.0
3191	2020-10-02	14:12:29	69.2	69.2	70.0	71.0	71.3
3196	2020-10-02	14:12:34	69.6	69.5	73.4	75.3	72.8
3201	2020-10-02	14:12:39	70.4	69.1	69.5	68.7	67.3
3206	2020-10-02	14:12:44	67.5	67.9	68.3	69.0	69.0
3211	2020-10-02	14:12:49	69.3	68.6	67.7	67.1	66.5
3216	2020-10-02	14:12:54	67.7	67.9	69.2	69.5	68.3
3221	2020-10-02	14:12:59	69.4	68.7	68.1	70.1	69.7
3226	2020-10-02	14:13:04	69.7	69.8	71.3	72.1	70.4
3231	2020-10-02	14:13:09	68.1	66.3	64.6	63.7	65.8
3236	2020-10-02	14:13:14	66.1	68.3	69.2	69.4	69.5
3241	2020-10-02	14:13:19	68.1	66.8	65.5	64.9	64.2
3246	2020-10-02	14:13:24	64.8	65.5	68.3	66.8	65.5
3251	2020-10-02	14:13:29	65.4	64.8	64.8	65.0	65.7
3256	2020-10-02	14:13:34	65.9	68.1	69.3	69.5	68.5
3261	2020-10-02	14:13:39	66.7	65.3	65.4	66.1	69.0
3266	2020-10-02	14:13:44	70.4	70.1	69.8	69.7	68.0
3271	2020-10-02	14:13:49	68.7	68.2	66.8	66.9	66.9
3276	2020-10-02	14:13:54	67.8	68.9	70.2	70.1	68.9
3281	2020-10-02	14:13:59	68.2	68.9	68.7	69.2	69.5
3286	2020-10-02	14:14:04	68.2	67.9	68.1	68.7	69.3
3291	2020-10-02	14:14:09	70.3	72.2	75.6	74.7	73.1
3296	2020-10-02	14:14:14	71.7	70.3	68.5	66.8	66.8
3301	2020-10-02	14:14:19	66.2	66.5	64.7	63.5	62.2
3306	2020-10-02	14:14:24	60.8	59.3	58.1	57.0	63.7
3311	2020-10-02	14:14:29	60.7	59.0	57.3	55.9	55.6
3316	2020-10-02	14:14:34	56.0	58.0	57.5	57.1	56.8
3321	2020-10-02	14:14:39	59.9	59.5	57.3	55.8	55.0
3326	2020-10-02	14:14:44	55.4	57.2	60.2	62.8	65.2
3331	2020-10-02	14:14:49	65.6	67.2	66.5	65.1	63.4
3336	2020-10-02	14:14:54	63.1	64.9	64.3	62.9	61.4
3341	2020-10-02	14:14:59	60.4	58.9	58.5	58.0	57.1
3346	2020-10-02	14:15:04	56.9	55.6	55.4	57.0	58.6
3351	2020-10-02	14:15:09	59.0	58.1	57.9	58.1	57.6
3356	2020-10-02	14:15:14	57.0	57.9	58.5	62.1	66.3

3361	2020-10-02	14:15:19	69.0	69.2	69.9	68.6	67.1
3366	2020-10-02	14:15:24	65.6	63.6	62.2	61.9	63.5
3371	2020-10-02	14:15:29	65.5	69.7	69.9	71.1	70.6
3376	2020-10-02	14:15:34	71.9	71.8	72.5	73.1	72.6
3381	2020-10-02	14:15:39	71.0	69.7	69.3	67.4	67.0
3386	2020-10-02	14:15:44	68.0	69.8	70.0	70.9	71.4
3391	2020-10-02	14:15:49	72.0	71.2	70.6	70.7	69.2
3396	2020-10-02	14:15:54	69.1	69.7	67.5	66.5	64.6
3401	2020-10-02	14:15:59	62.5	60.8	59.4	58.2	59.5
3406	2020-10-02	14:16:04	59.4	62.1	66.6	66.3	64.6
3411	2020-10-02	14:16:09	62.9	61.5	60.2	58.1	56.9
3416	2020-10-02	14:16:14	56.3	56.6	57.5	58.9	62.7
3421	2020-10-02	14:16:19	64.6	67.8	69.6	69.5	68.5
3426	2020-10-02	14:16:24	66.9	67.3	67.8	66.7	65.9
3431	2020-10-02	14:16:29	65.0	66.5	67.2	67.6	66.7
3436	2020-10-02	14:16:34	66.8	67.5	66.7	65.0	63.1
3441	2020-10-02	14:16:39	60.8	59.4	59.1	60.5	60.5
3446	2020-10-02	14:16:44	63.7	67.3	69.3	71.2	71.6
3451	2020-10-02	14:16:49	71.6	68.9	66.1	63.6	62.7
3456	2020-10-02	14:16:54	63.8	66.1	68.0	66.6	66.3
3461	2020-10-02	14:16:59	67.8	69.5	68.3	66.7	64.7
3466	2020-10-02	14:17:04	63.7	63.5	66.0	68.1	67.2
3471	2020-10-02	14:17:09	66.3	66.9	67.1	70.0	69.3
3476	2020-10-02	14:17:14	67.8	67.5	68.4	67.9	69.2
3481	2020-10-02	14:17:19	67.6	66.5	65.5	63.6	63.6
3486	2020-10-02	14:17:24	64.2	64.0	64.1	64.0	63.1
3491	2020-10-02	14:17:29	64.1	66.1	67.7	68.3	67.2
3496	2020-10-02	14:17:34	65.5	65.7	66.4	65.9	66.7
3501	2020-10-02	14:17:39	66.6	67.5	67.9	68.7	70.2
3506	2020-10-02	14:17:44	72.6	71.8	71.8	69.9	69.6
3511	2020-10-02	14:17:49	67.8	65.5	64.4	64.6	66.0
3516	2020-10-02	14:17:54	67.0	68.9	70.0	69.5	67.2
3521	2020-10-02	14:17:59	65.1	63.6	63.1	62.5	61.6
3526	2020-10-02	14:18:04	61.3	61.3	60.9	62.0	64.3
3531	2020-10-02	14:18:09	65.7	67.8	68.2	69.0	70.3
3536	2020-10-02	14:18:14	70.6	68.9	68.2	68.4	69.6
3541	2020-10-02	14:18:19	69.5	67.2	65.7	65.4	67.9
3546	2020-10-02	14:18:24	71.9	71.5	69.7	67.7	65.6
3551	2020-10-02	14:18:29	64.4	62.9	62.6	63.3	62.8
3556	2020-10-02	14:18:34	63.0	66.3	67.3	67.1	66.2
3561	2020-10-02	14:18:39	64.0	62.7	62.2	64.1	66.1
3566	2020-10-02	14:18:44	67.2	66.6	66.8	66.9	66.5
3571	2020-10-02	14:18:49	66.3	67.5	67.9	69.3	70.0
3576	2020-10-02	14:18:54	69.2	70.1	70.1	69.2	68.5
3581	2020-10-02	14:18:59	67.8	67.7	66.3	64.9	64.7
3586	2020-10-02	14:19:04	66.7	67.5	68.7	68.7	65.9
3591	2020-10-02	14:19:09	66.7	66.6	65.3	64.3	65.0
3596	2020-10-02	14:19:14	64.6	64.7	67.4	67.2	66.8
3601	2020-10-02	14:19:19	66.0	64.1	64.7	66.0	67.2
3606	2020-10-02	14:19:24	67.7	67.7	68.1	66.0	64.0
3611	2020-10-02	14:19:29	64.2	64.4	63.7	63.3	63.1
3616	2020-10-02	14:19:34	65.3	67.1	66.2	65.4	63.4
3621	2020-10-02	14:19:39	61.9	61.6	64.1	66.0	66.8
3626	2020-10-02	14:19:44	68.4	69.2	69.0	67.7	68.1
3631	2020-10-02	14:19:49	68.6	70.4	71.0	71.6	70.8
3636	2020-10-02	14:19:54	70.2	68.6	70.2	71.6	72.6
3641	2020-10-02	14:19:59	71.5	71.6	71.7	70.9	70.9
3646	2020-10-02	14:20:04	70.9	70.6	71.6	71.0	71.2
3651	2020-10-02	14:20:09	69.9	71.1	69.8	69.2	68.9
3656	2020-10-02	14:20:14	68.2	69.0	69.2	70.2	70.9
3661	2020-10-02	14:20:19	71.4	71.0	70.2	69.2	68.0
3666	2020-10-02	14:20:24	66.3	65.0	63.7	62.3	61.4
3671	2020-10-02	14:20:29	59.8	58.7	59.0	58.8	60.6
3676	2020-10-02	14:20:34	62.5	64.7	66.1*	65.5*	64.4*
3681	2020-10-02	14:20:39	62.2*	59.7*	58.0*	57.7*	57.2
3686	2020-10-02	14:20:44	57.3				

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 68.5 - 2020/10/02 15:43:01
Level Range : 40-100
SEL : 89.0
Leq : 58.4

No.s	Date Time	(dB)				
1	2020-10-02 15:24:35	58.3	58.5	57.5	57.1	58.4
6	2020-10-02 15:24:40	59.0	58.4	58.7	60.2	62.2
11	2020-10-02 15:24:45	61.5	60.5	60.6	60.8	61.0
16	2020-10-02 15:24:50	61.0	60.8	60.7	60.5	60.6
21	2020-10-02 15:24:55	60.5	60.3	59.5	58.9	58.1
26	2020-10-02 15:25:00	57.0	56.5	57.2	57.4	57.2
31	2020-10-02 15:25:05	57.4	57.8	58.5	59.7	60.7
36	2020-10-02 15:25:10	63.1	62.5	61.2	60.1	58.9
41	2020-10-02 15:25:15	58.4	57.9	58.0	57.1	56.3
46	2020-10-02 15:25:20	55.2	54.4	54.1	53.8	53.5
51	2020-10-02 15:25:25	54.6	54.2	54.5	55.0	55.2
56	2020-10-02 15:25:30	56.6	56.5	56.2	57.1	57.1
61	2020-10-02 15:25:35	58.0	58.4	58.6	58.8	59.1
66	2020-10-02 15:25:40	59.8	59.1	59.0	59.9	58.7
71	2020-10-02 15:25:45	59.1	57.6	56.7	56.0	57.9
76	2020-10-02 15:25:50	60.5	58.0	56.3	55.9	55.2
81	2020-10-02 15:25:55	53.9	53.7	55.1	55.1	55.5
86	2020-10-02 15:26:00	56.2	54.7	53.9	53.4	53.0
91	2020-10-02 15:26:05	53.0	54.2	54.9	55.2	56.0
96	2020-10-02 15:26:10	56.9	57.3	57.9	58.0	57.6
101	2020-10-02 15:26:15	57.9	57.8	57.6	55.9	54.4
106	2020-10-02 15:26:20	53.9	54.2	56.1	56.5	56.3
111	2020-10-02 15:26:25	56.2	55.8	55.2	54.4	53.5
116	2020-10-02 15:26:30	52.7	52.5	52.6	54.4	53.0
121	2020-10-02 15:26:35	51.7	51.8	51.9	51.2	50.8
126	2020-10-02 15:26:40	52.8	53.7	53.7	53.9	55.3
131	2020-10-02 15:26:45	57.4	57.4	56.2	57.3	58.3
136	2020-10-02 15:26:50	58.3	57.4	56.0	55.0	54.1
141	2020-10-02 15:26:55	53.6	53.1	53.4	53.7	53.9
146	2020-10-02 15:27:00	53.9	55.0	54.9	55.8	56.2
151	2020-10-02 15:27:05	56.9	56.5	57.3	59.3	57.8
156	2020-10-02 15:27:10	57.4	57.2	56.7	58.4	59.8
161	2020-10-02 15:27:15	57.9	56.7	56.4	55.7	55.0
166	2020-10-02 15:27:20	54.9	54.8	55.4	55.3	56.3
171	2020-10-02 15:27:25	54.9	57.1	57.0	55.4	53.7
176	2020-10-02 15:27:30	52.7	52.5	52.5	53.4	55.0
181	2020-10-02 15:27:35	57.7	58.9	59.7	60.4	61.4
186	2020-10-02 15:27:40	61.1	61.0	61.4	61.4	61.2
191	2020-10-02 15:27:45	61.1	60.9	60.1	60.7	60.8
196	2020-10-02 15:27:50	61.8	62.5	62.2	62.0	60.4
201	2020-10-02 15:27:55	59.3	58.5	57.3	56.9	56.8
206	2020-10-02 15:28:00	56.3	56.0	55.7	56.4	57.1
211	2020-10-02 15:28:05	56.7	56.1	56.9	57.8	57.5
216	2020-10-02 15:28:10	57.4	57.7	57.6	56.7	55.9
221	2020-10-02 15:28:15	55.0	55.5	56.3	57.3	57.0
226	2020-10-02 15:28:20	58.1	59.5	60.6	61.8	63.1
231	2020-10-02 15:28:25	64.0	63.3	61.6	60.2	59.3
236	2020-10-02 15:28:30	59.0	59.0	58.1	57.4	57.4
241	2020-10-02 15:28:35	58.3	59.0	59.3	59.8	61.2
246	2020-10-02 15:28:40	63.2	64.4	66.4	67.5	67.9
251	2020-10-02 15:28:45	67.4	67.4	65.3	64.0	63.7
256	2020-10-02 15:28:50	62.6	62.6	61.6	61.3	60.9
261	2020-10-02 15:28:55	60.4	59.6	59.3	58.8	57.9
266	2020-10-02 15:29:00	57.0	56.5	56.2	56.4	56.8
271	2020-10-02 15:29:05	56.9	57.1	56.4	55.2	55.2
276	2020-10-02 15:29:10	57.5	58.1	56.8	54.9	53.8
281	2020-10-02 15:29:15	53.2	52.6	52.7	53.3	55.0
286	2020-10-02 15:29:20	56.3	56.8	57.2	56.9	58.0
291	2020-10-02 15:29:25	58.9	58.4	56.9	55.9	55.3
296	2020-10-02 15:29:30	55.7	57.0	57.3	55.7	53.8
301	2020-10-02 15:29:35	52.7	53.4	55.7	54.8	54.0
306	2020-10-02 15:29:40	53.3	53.1	53.2	53.4	54.4
311	2020-10-02 15:29:45	56.3	57.3	59.4	58.7	59.0
316	2020-10-02 15:29:50	60.8	60.8	60.4	60.1	60.1
321	2020-10-02 15:29:55	60.6	60.2	60.4	60.8	61.2
326	2020-10-02 15:30:00	61.3	60.6	60.5	60.8	60.4
331	2020-10-02 15:30:05	59.7	59.1	59.0	58.4	57.3
336	2020-10-02 15:30:10	56.2	55.4	55.2	56.3	57.0
341	2020-10-02 15:30:15	58.4	59.6	60.3	59.2	57.9
346	2020-10-02 15:30:20	57.2	58.1	57.9	58.4	57.7
351	2020-10-02 15:30:25	57.9	57.9	56.8	55.4	54.7
356	2020-10-02 15:30:30	54.3	54.0	53.2	52.1	52.0
361	2020-10-02 15:30:35	52.0	52.6	52.9	53.2	54.8
366	2020-10-02 15:30:40	55.5	55.0	55.9	56.7	57.5
371	2020-10-02 15:30:45	59.0	59.9	60.0	59.1	59.1
376	2020-10-02 15:30:50	59.2	59.5	59.0	60.5	61.8
381	2020-10-02 15:30:55	62.1	61.7	61.4	60.9	60.1
386	2020-10-02 15:31:00	59.1	58.3	58.2	57.9	57.5
391	2020-10-02 15:31:05	57.2	57.7	58.3	59.3	58.5
396	2020-10-02 15:31:10	58.2	57.4	56.9	56.8	56.3
401	2020-10-02 15:31:15	55.9	55.9	55.5	56.1	60.1
406	2020-10-02 15:31:20	58.1	56.6	55.4	55.2	54.6
411	2020-10-02 15:31:25	56.4	56.5	57.4	58.0	57.9
416	2020-10-02 15:31:30	57.3	57.4	57.0	55.9	54.9

421	2020-10-02	15:31:35	55.2	54.6	54.7	54.9	57.9
426	2020-10-02	15:31:40	56.4	55.8	55.8	55.5	56.5
431	2020-10-02	15:31:45	56.9	58.9	58.9	58.9	61.0
436	2020-10-02	15:31:50	62.0	61.2	60.7	61.3	61.0
441	2020-10-02	15:31:55	59.9	60.0	60.1	59.0	58.2
446	2020-10-02	15:32:00	58.4	59.5	59.3	59.7	59.8
451	2020-10-02	15:32:05	60.1	59.9	60.6	61.5	61.8
456	2020-10-02	15:32:10	61.8	61.1	60.6	60.5	60.3
461	2020-10-02	15:32:15	60.3	60.0	60.6	60.4	59.5
466	2020-10-02	15:32:20	59.8	59.5	59.3	59.2	59.4
471	2020-10-02	15:32:25	59.2	58.6	58.0	57.5	57.2
476	2020-10-02	15:32:30	56.7	56.6	56.6	55.1	54.1
481	2020-10-02	15:32:35	54.3	56.3	55.9	55.9	55.9
486	2020-10-02	15:32:40	55.2	55.8	56.1	55.5	55.1
491	2020-10-02	15:32:45	55.9	57.3	56.8	57.0	56.2
496	2020-10-02	15:32:50	55.4	55.9	56.8	56.4	57.8
501	2020-10-02	15:32:55	56.6	56.2	56.8	55.4	53.8
506	2020-10-02	15:33:00	53.0	52.9	52.4	51.9	51.9
511	2020-10-02	15:33:05	52.8	53.5	54.5	54.4	54.9
516	2020-10-02	15:33:10	55.5	54.6	54.0	54.3	53.6
521	2020-10-02	15:33:15	53.5	53.9	55.1	55.6	54.9
526	2020-10-02	15:33:20	54.3	53.6	54.8	55.1	55.9
531	2020-10-02	15:33:25	57.0	58.8	60.0	58.1	57.4
536	2020-10-02	15:33:30	56.4	55.7	56.4	56.7	56.4
541	2020-10-02	15:33:35	56.0	55.5	55.2	56.2	55.1
546	2020-10-02	15:33:40	54.7	54.8	56.3	57.0	57.8
551	2020-10-02	15:33:45	58.7	58.2	57.5	56.9	55.5
556	2020-10-02	15:33:50	54.2	53.7	53.9	54.3	54.1
561	2020-10-02	15:33:55	54.4	54.2	55.3	54.8	54.5
566	2020-10-02	15:34:00	54.6	56.6	58.2	57.2	56.7
571	2020-10-02	15:34:05	56.6	56.2	56.7	57.6	58.4
576	2020-10-02	15:34:10	59.0	59.8	60.2	59.7	58.8
581	2020-10-02	15:34:15	57.2	56.2	55.3	55.8	57.2
586	2020-10-02	15:34:20	56.5	56.4	57.1	56.5	56.9
591	2020-10-02	15:34:25	55.8	54.9	54.0	53.5	53.7
596	2020-10-02	15:34:30	55.9	57.0	57.8	59.9	59.5
601	2020-10-02	15:34:35	58.5	58.4	59.6	61.5	61.3
606	2020-10-02	15:34:40	62.9	63.0	62.3	62.3	62.6
611	2020-10-02	15:34:45	62.7	62.5	62.3	62.7	63.3
616	2020-10-02	15:34:50	61.8	60.7	61.5	60.2	59.2
621	2020-10-02	15:34:55	58.8	58.6	58.6	59.3	59.2
626	2020-10-02	15:35:00	59.5	59.2	58.8	58.6	58.0
631	2020-10-02	15:35:05	57.1	56.8	56.8	56.5	57.1
636	2020-10-02	15:35:10	56.9	56.9	56.8	57.0	56.8
641	2020-10-02	15:35:15	56.8	56.0	56.1	55.2	55.5
646	2020-10-02	15:35:20	56.9	56.5	56.7	57.4	58.3
651	2020-10-02	15:35:25	59.7	60.0	59.9	60.9	60.8
656	2020-10-02	15:35:30	60.5	60.6	63.0	63.0	62.9
661	2020-10-02	15:35:35	62.7	62.0	61.3	60.1	60.2
666	2020-10-02	15:35:40	59.7	58.4	57.2	57.0	56.2
671	2020-10-02	15:35:45	55.7	55.4	55.5	54.6	54.1
676	2020-10-02	15:35:50	54.5	56.1	56.7	57.3	57.2
681	2020-10-02	15:35:55	58.2	59.0	58.2	58.2	58.6
686	2020-10-02	15:36:00	58.9	59.1	59.2	57.6	56.5
691	2020-10-02	15:36:05	57.6	59.0	59.2	59.7	60.1
696	2020-10-02	15:36:10	59.3	58.2	56.5	55.1	54.5
701	2020-10-02	15:36:15	54.8	55.4	55.3	55.8	55.5
706	2020-10-02	15:36:20	55.0	54.9	56.1	56.5	57.6
711	2020-10-02	15:36:25	57.6	58.4	59.1	59.9	60.3
716	2020-10-02	15:36:30	60.6	60.9	60.6	60.7	61.5
721	2020-10-02	15:36:35	61.1	61.1	60.8	61.4	61.6
726	2020-10-02	15:36:40	61.7	61.1	60.7	60.2	59.5
731	2020-10-02	15:36:45	59.4	59.2	58.5	59.0	59.5
736	2020-10-02	15:36:50	60.0	59.6	59.6	60.3	60.8
741	2020-10-02	15:36:55	60.4	60.0	59.0	58.4	59.3
746	2020-10-02	15:37:00	59.4	59.3	59.1	59.6	60.3
751	2020-10-02	15:37:05	59.3	58.3	57.6	57.3	56.0
756	2020-10-02	15:37:10	55.2	55.4	55.4	56.8	57.5
761	2020-10-02	15:37:15	57.4	57.5	58.1	58.1	57.4
766	2020-10-02	15:37:20	55.9	54.7	53.6	53.4	53.7
771	2020-10-02	15:37:25	52.6	52.1	51.5	51.0	52.1
776	2020-10-02	15:37:30	52.0	51.9	52.7	53.1	54.0
781	2020-10-02	15:37:35	55.1	55.1	56.7	55.8	54.0
786	2020-10-02	15:37:40	53.2	53.2	53.7	55.7	56.7
791	2020-10-02	15:37:45	59.2	58.7	58.8	58.4	58.3
796	2020-10-02	15:37:50	58.4	57.7	57.3	58.1	57.8
801	2020-10-02	15:37:55	58.1	57.8	57.3	57.3	57.8
806	2020-10-02	15:38:00	57.0	56.2	55.5	56.7	57.3
811	2020-10-02	15:38:05	55.6	54.0	53.0	52.2	52.7
816	2020-10-02	15:38:10	55.5	57.3	56.2	54.7	53.7
821	2020-10-02	15:38:15	52.8	52.2	51.9	51.7	51.7
826	2020-10-02	15:38:20	51.9	52.4	56.0	58.0	56.7
831	2020-10-02	15:38:25	56.3	55.4	56.0	55.4	55.5
836	2020-10-02	15:38:30	56.5	56.1	55.0	54.6	53.8
841	2020-10-02	15:38:35	54.6	56.1	56.8	58.3	59.3
846	2020-10-02	15:38:40	60.1	60.5	60.0	60.0	60.7
851	2020-10-02	15:38:45	62.1	62.1	61.5	60.4	59.9
856	2020-10-02	15:38:50	58.5	56.8	56.0	56.0	56.4
861	2020-10-02	15:38:55	57.9	58.3	57.8	58.0	57.8
866	2020-10-02	15:39:00	58.4	57.5	56.5	55.4	55.7
871	2020-10-02	15:39:05	57.5	56.9	57.0	56.9	56.1
876	2020-10-02	15:39:10	55.0	54.1	54.3	53.9	54.5
881	2020-10-02	15:39:15	54.6	54.9	56.2	55.9	55.9
886	2020-10-02	15:39:20	54.8	54.5	54.0	54.0	58.6
891	2020-10-02	15:39:25	59.0	58.8	58.0	57.6	57.0
896	2020-10-02	15:39:30	57.8	59.0	59.4	58.4	57.0
901	2020-10-02	15:39:35	57.1	57.2	56.9	56.6	55.9
906	2020-10-02	15:39:40	55.6	55.5	55.4	57.0	58.6

911	2020-10-02	15:39:45	59.3	59.0	59.0	59.2	58.5
916	2020-10-02	15:39:50	57.5	56.8	55.9	55.5	55.4
921	2020-10-02	15:39:55	57.7	58.5	58.3	58.9	59.7
926	2020-10-02	15:40:00	59.3	58.0	57.8	57.8	58.0
931	2020-10-02	15:40:05	59.1	58.6	58.3	58.1	58.1
936	2020-10-02	15:40:10	58.3	60.3	62.5	61.5	59.0
941	2020-10-02	15:40:15	57.1	55.8	54.9	54.3	54.4
946	2020-10-02	15:40:20	55.3	56.5	57.0	56.6	55.9
951	2020-10-02	15:40:25	56.1	55.7	55.5	56.5	57.5
956	2020-10-02	15:40:30	58.9	59.1	61.0	60.5	59.8
961	2020-10-02	15:40:35	60.1	59.8	59.3	59.4	59.6
966	2020-10-02	15:40:40	59.5	58.6	58.4	58.1	57.9
971	2020-10-02	15:40:45	59.3	60.1	60.2	59.8	60.5
976	2020-10-02	15:40:50	61.5	60.4	59.9	60.6	61.1
981	2020-10-02	15:40:55	59.3	58.1	56.7	56.2	55.2
986	2020-10-02	15:41:00	54.8	58.7	58.9	62.1	62.4
991	2020-10-02	15:41:05	62.0	61.1	58.7	57.3	56.3
996	2020-10-02	15:41:10	55.3	54.5	55.7	55.9	56.1
1001	2020-10-02	15:41:15	55.4	56.0	56.7	56.4	55.9
1006	2020-10-02	15:41:20	57.2	57.9	57.0	57.1	56.5
1011	2020-10-02	15:41:25	58.1	58.9	58.2	57.5	58.2
1016	2020-10-02	15:41:30	59.2	58.0	56.9	58.2	57.2
1021	2020-10-02	15:41:35	55.9	57.7	56.1	56.3	54.1
1026	2020-10-02	15:41:40	52.7	52.5	52.9	52.6	51.9
1031	2020-10-02	15:41:45	55.0	53.3	52.6	52.6	53.8
1036	2020-10-02	15:41:50	53.8	53.1	52.2	51.5	51.8
1041	2020-10-02	15:41:55	53.1	55.3	56.6	55.3	54.2
1046	2020-10-02	15:42:00	53.3	53.3	53.3	53.3	54.8
1051	2020-10-02	15:42:05	58.3	58.5	57.7	57.9	59.4
1056	2020-10-02	15:42:10	58.7	57.6	58.2	58.1	58.5
1061	2020-10-02	15:42:15	58.9	59.9	59.6	59.0	58.3
1066	2020-10-02	15:42:20	58.2	59.4	60.4	59.2	60.0
1071	2020-10-02	15:42:25	60.8	60.9	60.0	59.7	60.5
1076	2020-10-02	15:42:30	60.0	60.1	60.7	61.7	61.8
1081	2020-10-02	15:42:35	61.1	60.8	61.5	60.5	59.6
1086	2020-10-02	15:42:40	59.8	59.7	59.1	59.3	58.0
1091	2020-10-02	15:42:45	57.9	55.8	54.9	54.2	54.6
1096	2020-10-02	15:42:50	55.1	57.0	57.8	57.7	58.6
1101	2020-10-02	15:42:55	60.2	62.9	65.8	68.3	68.3
1106	2020-10-02	15:43:00	68.4	68.5	67.6	66.2	64.2
1111	2020-10-02	15:43:05	61.9	59.8	58.7	58.0	57.6
1116	2020-10-02	15:43:10	57.6	58.2	58.6	57.6	56.4
1121	2020-10-02	15:43:15	55.9	55.9	55.0	56.5	56.8
1126	2020-10-02	15:43:20	56.3	55.9	56.0	55.6	55.1
1131	2020-10-02	15:43:25	54.9	56.0	57.3	56.6	56.0
1136	2020-10-02	15:43:30	55.9	55.4	56.5	57.8	57.8
1141	2020-10-02	15:43:35	60.5	60.6	58.1	56.2	54.8
1146	2020-10-02	15:43:40	53.4	52.9	53.7	53.3	55.5
1151	2020-10-02	15:43:45	58.8	57.4	56.0	55.3	54.3
1156	2020-10-02	15:43:50	53.1	52.6	52.9	53.7	52.9
1161	2020-10-02	15:43:55	52.6	52.8	54.3	55.5	56.5
1166	2020-10-02	15:44:00	57.9	60.2*	59.8*	59.6*	59.4*
1171	2020-10-02	15:44:05	58.8*	58.8*	59.2*	59.4*	59.2*
1176	2020-10-02	15:44:10	60.8*	61.7*	61.0	60.8	

APPENDIX 'K'

FUNCTIONAL SERVICING REPORT

FUNCTIONAL SERVICING REPORT
MIXED USED DEVELOPMENT
3885 SANDWICH STREET
WINDSOR, ONTARIO

PROJECT NO. 20-028

DATED: OCTOBER 8, 2020

FUNCF BAIRD|AE architecture + engineering
27 Princess St., Unit 102
Leamington, ON N8H 2X8
519.326.6161 TF 1.844.842.9188
bairdAE.ca

TABLE OF CONTENT

TABLES

APPENDICES

1. INTRODUCTION

BairdAE was retained to prepare functional servicing report to review and identified servicing requirement for the proposed condominium development in 3885 Sandwich Street, Windsor. This report will be supporting document for the required site plan application.

The proposed development will consist of upto 150 residential units with a density of 3.5 people per dwelling. The density will have equivalent population of 525 people. The proposed development concepts are provided in Appendix A.

2. EXISTING CONDITIONS

2.1 Description of Study Area

The subject land is approximately 0.669 hectares in size and are bounded by Sandwich Street to the west, Chappell Avenue to south, and existing residential development to the east and west. The site has driveway access from Sandwich Street which will be replaced with two new accesses, one from Sandwich Street and Chappell Avenue.

2.2 Topography and Drainage

Referring to Figure 1, the property is undeveloped and the flow from site sheet drains to the west and north, and then routed to Crawford Avenue storm sewer.

Based on the geotechnical report prepared by Soil and material Engineering Inc. dated November 2, 2018, the soil is silty clay with groundwater table 4±m from existing grade and finished floor elevation is set at 185.4m.

The soil maps provided by ERCA suggests that the soil in the site area is Brookston Clay Loam. In terms of hydrological soil groups, Brookston Clay is considered to be in the 'D" group. A CN value of 84 was used for stormwater management modelling of clay soil.

2.3 Infrastructure

Storm and Sanitary Sewer

- The current use of land is vacant land hence the pre-development population density was not analyzed for sanitary.
- An existing 450mm combine storm and sanitary sewer is located within the Sandwich Street centerline. And an existing 250mm combine storm and sanitary sewer system within Chappell Avenue centerline.
- A 2400 trunk sewer pipe is located on the Chappell Avenue right-of-way.
- The municipal 450mm combine sewer having 0.5% slope and have capacity of approximately 201 liters per second.

Watermain

The existing watermain runs along Wyandotte Street and Crawford Avenue. The following are the findings:

- An existing 200mm watermains are located within right-of-way of Sandwich Street. Also, a 150mm watermain runs eastern side of Chappell Avenue.
- A 50mm service line is provided to property from the Sandwich Street.
- Two existing hydrants are located approximately 6m south and west of the development property line.
- Given the large diameter (200mm) of the municipal watermains, capacity should not be of the issue.

3. PROPOSED CONDITIONS

The future development will consist of new 6-storey high-rise building, asphalt area, grass area and parking area. The proposed building will have 69 1-bed and 78 2-bed units stacked at the maximum height of 18m.

4.4 Infrastructure

Storm Sewer

The storm servicing was analyzed as per criteria set by the City. Findings are summarized below and detail calculations are provided in Appendix B:

- The proposed minor storm outlet for the development of 150mm pipe is connected to the combined storm and sanitary sewer system on Sandwich Street.
- The post development peak flow for all events from the development will be controlled to 2-year pre-development conditions. Detailed calculations are provided in Stormwater Management section.
- Major storm flow will be contained in parking lot and grass area. Hence, the existing municipal sewers will not be adversely affected.

Sanitary Sewer

The sanitary servicing will be provided from Chappell Avenue. Design and analyzed was completed as per criteria set by the City. Findings are summarized below and detail calculations are provided in Appendix B:

- The projected post-development equivalent population based on type of development flow shall be 525 people in accordance with the City of Windsor Design Manual.
- Based on population density, infiltration allowance, the proposed peak sanitary discharge flow is estimated as 0.010m/s (10.11l/s).

- To facilitate development of the condominium, a new 200mm diameter sanitary servicing connected will be provided from southwest corner of proposed building to the existing combined storm and sanitary sewer system located on the allowance of Sandwich Street. The designed sanitary servicing scheme has been illustrated in Appendix D.

- The proposed sewer will have 0.41% slope and have capacity of approximately 21 liters per second.

Watermain

In order to serve the proposed development for domestic and fire water supply requirements, this development proposes to provide 150mm watermain from Chappell Avenue.

- The proposed watermain will spilt into two at the western side of building to service 150mm fire and 100mm domestic.

- The static pressure on the nearest hydrant on Sandwich Street to the development assumed tobe 50-60 psi. Pressure test in progress and detail will be provided.

- An existing 50mm service line will be abandoned.

4. STORMWATER MANAGEMENT

The stormwater management criteria for this development are in compliance with the requirements of the City of Windsor and the Essex Region Stormwater Management Standards Manual:

- Stormwater quantity controls are required for the site to control the proposed conditions peak flows from the site to the existing condition levels for 2, 5 and 100 year storm events which include the stress test flow.
- Water quality control are to be provided for the site to a "Normal Protection level' as per MOE (2003) guidelines.

4.5 Storm Quantity Control

Referring to Figure 2, the study area will have 11-storey high-rise building, landscape area and new asphalt parking lot. Water quantity is addressed through parking lot storage and quality control is provided using Goss Gully Traps.

For areas 201, the 100-year rainfall flow will be storage in parking lot and allowable flow will be directed to Sandwich Street storm sewer through orifice pipe.

The 24-hour storm duration derived from Environment Canada website were used for the stormwater management modelling. The total depth of rainfall for the modelled storms are indicated in Table 1.

Table 1: Rainfall Intensity

Return Period	Storm Duration	Rainfall Depth
2 Year	24 hour	53.4 mm
5 Year	24 hour	68.0 mm
100 year	24 Hour	107.90 mm
100 year (Stress Test)	24 Hour	150.00 mm

The existing and proposed conditions have been modeled using Hydraflow Hydrographs Extension for Civil 3D. The program computes runoff hydragraph using the SCS (Soil Conversation Service) 24-hour storms.

Based on soil condition, the Hydrologic soil group fall into category 'C'. For the modelling, the CN value of 98 is used for impervious area, paved roads and roof area. The modelling variable are summarized in Table 2.

Table 2: Hydrograph Modelling Variables

Catchment ID	Description	Area (ha)	Gradient	Coefficient /Curve No
PRE-DEVELOPMENT CONDITION				
101	Drain to Sandwich St	0.669ha	0.3	C 0.5
POST DEVELOPMENT CONDITION				
201	Building/ Driveway/grass areas	0.669ha	0.3	CN 95

For area 201, the storage will be provided in the parking lot, and control will be provided through orifice pipes. The existing and proposed peak flows from the site are summarized on Table 3, and the modelling output is included in Appendix C.

Table 3: Peak Discharges

Return Event	Pre-Condition Flow (m^3/s)	Total Post Condition Flow (m^3/s)
2 Year	0.057	0.058
5 Year	**0.065* (0.075-0.01)**	0.058
100 Year	0.122	0.065
100 Year (Stress Test)	0.122 (100-yr)	0.066

Note: * Allowable Release Rate = 5-yr release rate – sanitary release rate = 0.075-0.01 = 0.065m^3/s

As indicted in Table 3, the proposed design results are no increase in the 5-year peak flow.

The parking lot ponding characteristic is provided in Table 4.

Table 4: Ponding Characteristic

Return Period	Area 201	Depth (m)	Elevation (m)*	Storage Volume (m^3)
5 Year	Area 201	2.06	180.72	69.8
100 Year	Area 201	2.13	180.79	164
100 Year (Stress Test)	Area 201	2.17	180.83	276

Note: Maximum pond elevation 180.85; Bottom of Pond 178.66; Maximum capacity 309m^3

All minor and major flow will be controlled to the 5-year predevelopment condition (0.06m^3/s) using the proposed 148mm diameter orifice plate. The 100-year water level set at 180.79m throughout the development, hence, maximum ponding within development is 190mm which is lower than allowable ponding i.e. 300mm.

The building floor elevation is 181.133m therefore no surface water will enter into ground parking under the building.

4.6 Storm Quality Control

The site will have Armtec Defender water quality unit (FD5HC) which is sufficient enough to remove long term suspended solids removal requirement. Based on results, the unit will have removal efficiency of 74.4% of the suspended. This exceed Normal long-term suspended solids removal requirement (70 percent TSS removal efficient for 85 percent of annual flow). Details of unit are provided in Appendix D.

5. Erosion and Sediment Control

The erosion and sediment control measures for the site will be indicated on the tender documents, and include the following:

- Silt fence is to be erected before grading begins on the property to protect downstream areas from migration of sediment in overland flow;
- Filter fabric will be placed over the drainage grates; and
- All disturbed areas will be stabilized by restoration of vegetative ground cover as soon as possible.

Additional erosion and sediment control notes will be provided on the tender documents.

6. CONCLUSION

This functional servicing report is to be read in conjunction with the submission material. The report presents municipal servicing details, proposed servicing and stormwater management plan for the proposed High-Rise Condominium development in the City of Windsor.

Furthermore, the report demonstrates that approximate stormwater management measure will be provided to satisfy water quality treatment and quantity attenuation criteria. The sanitary service and water supply for the proposed development through existing infrastructure along Sandwich Street and Chappell Avenue.

Based on our investigation, we conclude and recommend the following:

Sanitary – a new 200mm diameter sanitary service will be provided to the development from the existing municipal sewer from Chappell Avenue.

Watermain – one new 150mm diameter water service will be provided to the development from the existing 200mm watermain on Chappell Avenue. The water line will split into two at the eastern façade of building for 150mm fire and 100mm diameter domestic service.

Storm – the post-development peak flows from all events from the site will be controlled to the peak flow from target pre-development conditions. Whereas, during 100-year storm event the maximum water depth is less than 300mm.

Stormwater quality and quantity is addressed using Armtec Defender water quality unit (FD5HC) and 150mm orifice pipe at MH 4.

Erosion and Sediment Control – control measures are to be implemented during construction and detail will be provided in the tender documents.

We trust the foregoing is satisfactory, and will allow you to review and approve the functional servicing report and engineering drawings for this development. If you have any questions or require additional information please do not hesitate to contact the undersigned at your convenience.

All of which is respectfully submitted.

BAIRD AE INC.
27 PRINCESS STREET, UNIT 102
LEAMINGTON, ONTARIO N8H 2X8

Shurjeel Tunio, P.Eng.
Senior Project Manager
Baird AE

Appendix A

BACKGROUND INFORMATION

ERCA Public Internet Mapping

Essex Region Conservation Authority

Public Interactive Mapping

Legend

- Parcel Fabric - City
- Parcel Fabric - County

Essex Soils

- B-s
- B.L.
- Bc
- Bcl
- Bel
- Bes
- Bg
- Bg-s
- C-s
- Cac
- Cacl
- Cc
- Cdl
- Es
- Fl
- Fsl
- Gs
- Hl
- Hs
- Jc
- M
- Ma
- P-r
- Pc
- Pcl
- Pl
- Ps
- Tfs

Location

ERCA Geomatics THIS MAP HAS BEEN PRODUCED BY THE GENERAL PUBLIC AND NOT BY QUALIFIED ERCA STAFF.

Notes

0 49.37 98.7

Meters

1: 2,221 9/28/2020

LEGEND

623.20	EXISTING GRADE
623.20	PROPOSED GRADE
	EXISTING PROPERTY LINES
	DRAINAGE AREA BOUNDARY
	EXISTING STORM SANITARY
	EXISTING WATERMAIN
101 / 0.2 | 0.6ha	CATCHMENT / AERA (ha) / COEFFICENT
	DRAINAGE ARROW

N

DATE	REVISIONS

SHURJEEL TUNIO, P.ENG

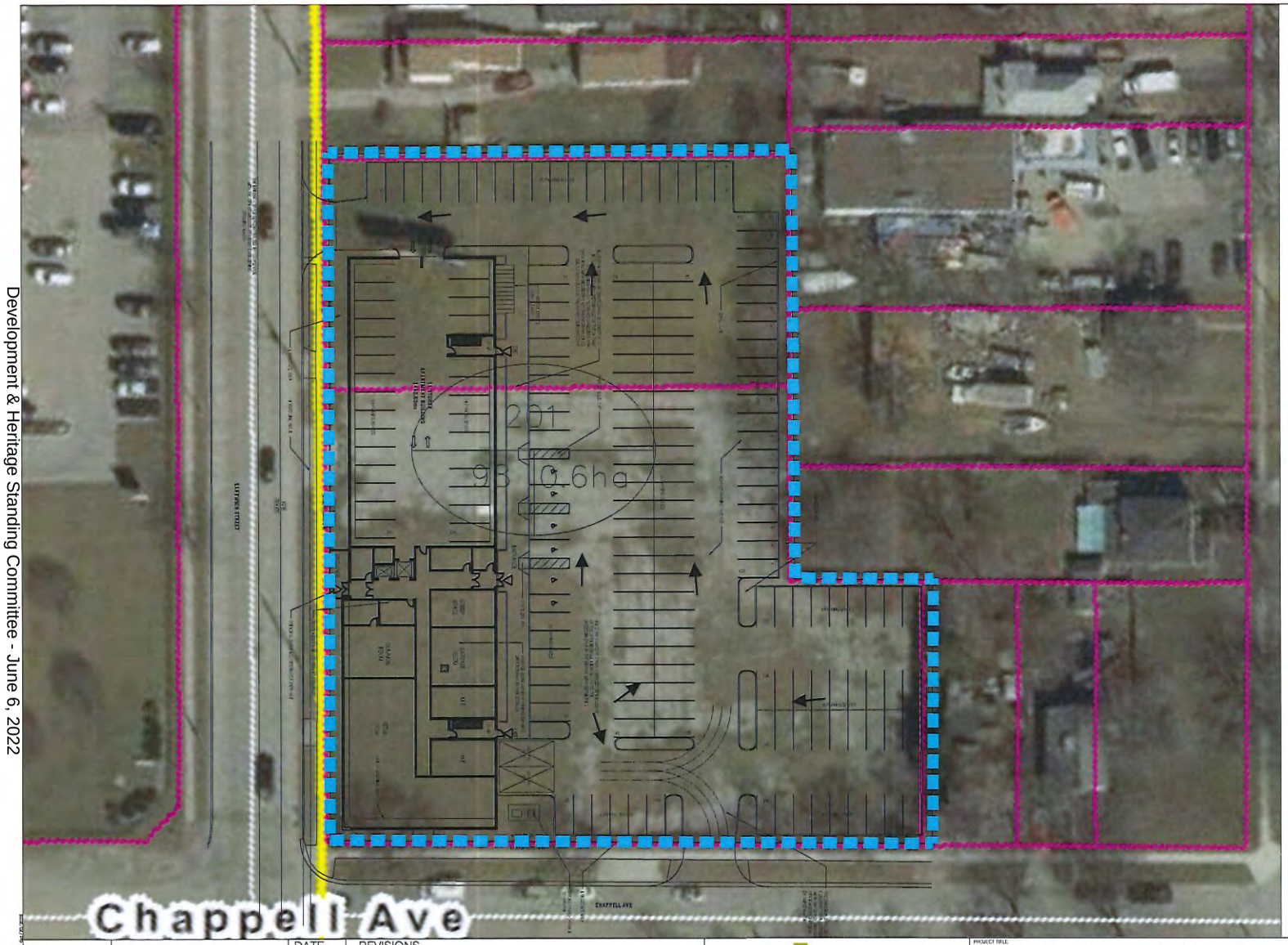
BAIRD|AE architecture + engineering

PROJECT TITLE: MIXED USE DEVELOPMENT
3885 SANDWICH STREET, WINDSOR

SHEET TITLE: PRE-DEVELOPMENT CONDITION

DATE:
SCALE: 1:200
DRAWN BY: S.T.
CHECKED BY: S.T.

PROJECT NO: 20-028
SHEET NO: 1



LEGEND

- 623.20 EXISTING GRADE
- 623.20 PROPOSED GRADE
- EXISTING PROPERTY LINES
- DRAINAGE AREA BOUNDARY
- EXISTING STORM SANITARY
- EXISTING WATERMAIN
- 201 / 0.85 0.6ha — CATCHMENT / AERA (ha) / CURVE NO
- DRAINAGE ARROW

N

SHURJEEL TUNIO, P.ENG

DATE: _____

DATE	REVISIONS

BAIRD|AE architecture + engineering

PROJECT TITLE: MIXED USE DEVELOPMENT
3885 SANDWICH STREET, WINDSOR

SHEET TITLE: POST-DEVELOPMENT CONDITION

DATE:

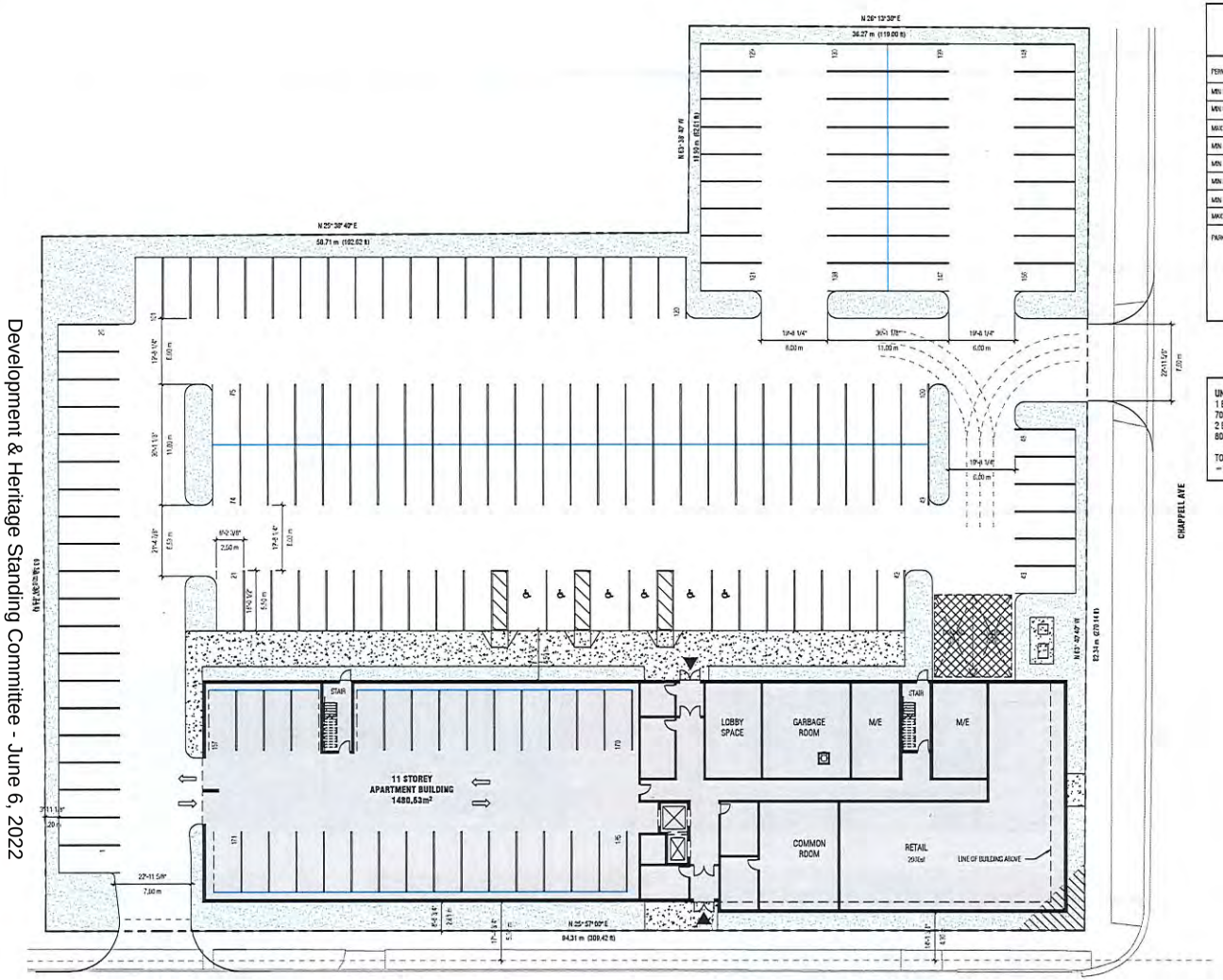
SCALE: 1:200

DRAWN BY: S.T

CHECKED BY: S.T.

PROJECT NO: 20-028

SHEET NO: 2



ZONING REGULATION COMMERCIAL DISTRICT 2.2 (CD2.2)	REQUIRED (CURRENT)	PROPOSED	COMPLIANCE AND OR RELIEF REQUESTED WITH JUSTIFICATION
PERMITTED USES	COMMERCIAL MAIN FLOOR WITH AFFORDABLE APARTMENTS ABOVE	COMMERCIAL MAIN FLOOR WITH AFFORDABLE APARTMENTS ABOVE	
MIN LOT AREA	N/A	6630.70m²	EXISTING
MIN LOT FRONTAGE	N/A	EXISTING	EXISTING
MAX LOT COVERAGE	N/A	22.11%	
MIN FRONT YARD DEPTH	N/A	2.97m	
MIN REAR YARD DEPTH	N/A	14.22m	
MIN INTERIOR SIDE YARD WIDTH	N/A	3.123m	
MIN LANDSCAPE OPEN SPACE	N/A	25%	
MAX BUILDING HEIGHT	14m	36m	RELIEF REQUIRED
PARKING	RESIDENTIAL 1.25 PER DWELLING UNIT = 188 PARKING SPACES REQUIRED RETAIL 1 PER 20.5m² GFA	RESIDENTIAL 1.15 PER DWELLING UNIT = 173 PARKING SPACES PROVIDED 150 UNITS TYPE A = 3 TYPE B = 3 (BARRIER FREE INCLUDED IN THE COUNT) RETAIL = 12 PROVIDED (2.5/93m)	RELIEF REQUIRED

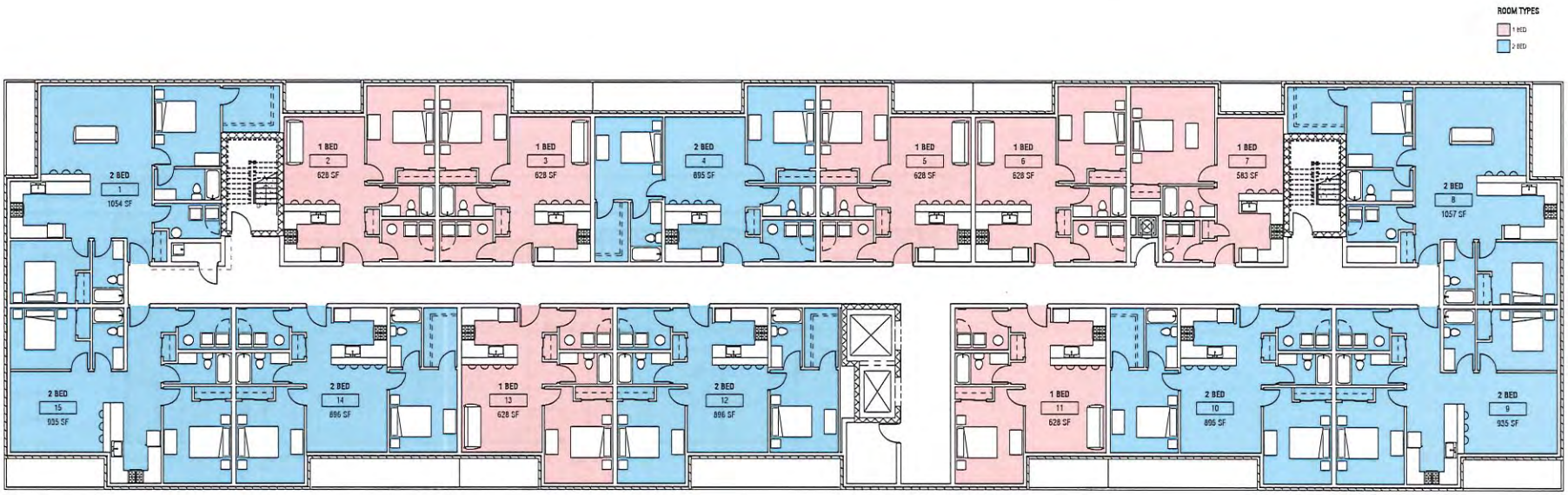
UNIT MIX
1 BED = 46%
70 UNITS
2 BED = 54%
80 UNITS

TOTAL UNITS
=150

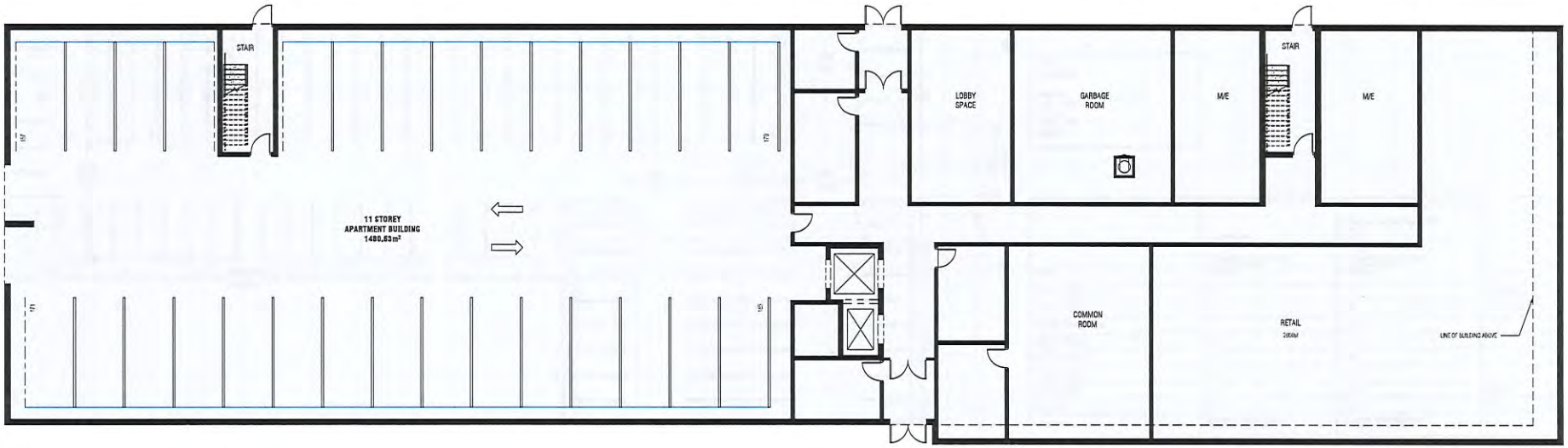
SITE PLAN
1/16" = 1'-0"

MIXED-USE DEVELOPMENT
APRIL 15, 2020

BAIRDAE architecture + engineering



2 TYPICAL FLOOR PLAN 2-11
1/8" = 1'-0"



1 GROUND FLOOR PLAN
1/8" = 1'-0"

MIXED-USE DEVELOPMENT

BAIRD|AE

idf_v2-3_2014_12_21_613_ON_6139525_WINDSOR_A
Environment Canada/Environnement Canada

Short Duration Rainfall Intensity-Duration-Frequency Data
Données sur l'intensité, la durée et la fréquence des chutes de pluie de courte durée

Gumbel - Method of moments/Méthode des moments

2014/12/21

==========

WINDSOR A ON 6139525

Latitude: 42 17'N Longitude: 82 58'W Elevation/Altitude: 189 m

Years/Années : 1946 - 2007 # Years/Années : 60

==========

****

Table 1 : Annual Maximum (mm)/Maximum annuel (mm)

****

Year Année	5 min	10 min	15 min	30 min	1 h	2 h	6 h	12 h	24 h
1946	10.7	14.2	15.0	22.6	29.0	42.7	46.2	49.3	54.9
1947	9.7	18.8	23.4	27.9	37.8	38.1	54.4	61.0	71.4
1948	7.1	7.9	9.9	11.7	15.0	16.0	30.7	40.1	44.2
1949	11.9	19.3	22.4	29.0	47.0	51.8	54.1	57.9	71.6
1951	5.8	8.9	13.2	18.5	26.9	34.3	38.1	44.7	53.8
1952	7.4	13.2	15.0	19.0	30.7	37.1	43.9	46.7	47.0
1953	20.1	20.8	21.1	32.5	40.6	51.1	52.3	54.9	55.1
1954	8.9	13.7	16.0	20.6	24.6	27.4	52.1	66.3	67.3
1955	8.4	9.4	12.4	18.8	21.3	34.0	41.7	41.9	60.2
1956	8.4	11.7	12.2	15.5	23.4	30.7	35.6	39.9	44.2
1957	10.9	19.8	26.7	46.5	52.8	57.4	96.8	100.3	100.3
1958	7.9	11.7	11.9	15.0	23.1	29.5	35.1	38.9	40.4
1959	11.7	16.3	17.5	21.3	21.6	34.0	40.6	60.5	65.5
1960	7.6	10.7	12.4	16.8	29.5	34.5	36.6	43.9	54.4
1961	11.7	17.3	22.6	35.8	38.1	43.2	43.2	43.2	45.7
1962	14.0	21.8	24.4	34.0	54.6	64.3	64.8	64.8	64.8
1963	13.0	20.1	27.2	40.9	43.9	45.0	45.0	45.0	56.9
1964	13.2	17.5	22.4	27.2	27.2	28.7	33.5	36.6	39.4
1965	7.9	12.7	13.7	15.7	22.6	27.2	32.8	55.1	58.9
1966	14.5	18.8	23.1	32.5	33.0	47.0	57.1	64.5	67.3

1967	13.7	20.1	21.8	24.9	26.4	26.4	41.1	62.2	72.6
1968	10.2	15.2	17.5	25.9	36.8	38.1	60.2	77.2	78.2
1969	11.2	19.0	20.8	27.7	27.7	36.1	57.1	57.1	57.1
1970	9.4	12.2	16.5	17.0	22.6	29.5	29.7	36.6	39.6
1971	9.4	17.8	25.7	35.1	35.1	35.1	43.9	43.9	43.9
1972	9.9	12.2	14.5	19.6	25.9	28.7	31.0	31.2	39.1
1973	12.7	18.0	22.6	27.9	30.0	30.2	33.5	37.8	40.4
1974	15.0	26.2	39.4	41.1	45.0	49.5	49.8	49.8	49.8
1975	8.4	14.2	21.1	24.9	25.1	31.7	40.6	44.7	52.8
1976	9.1	13.2	14.0	16.5	22.9	27.4	34.3	35.3	40.4
1977	7.1	10.9	14.0	16.5	25.4	29.2	29.2	31.7	41.4
1978	8.8	10.5	11.8	20.4	21.1	21.1	22.5	28.6	31.0
1979	10.4	16.6	24.9	32.0	48.3	52.6	55.3	60.8	61.2
1980	14.1	17.2	25.0	35.6	45.3	45.6	46.3	79.8	80.0
1981	-99.9	16.7	23.3	26.0	32.0	45.6	77.3	81.7	92.3
1982	7.7	10.7	13.2	18.9	27.3	28.3	28.3	40.4	49.9
1983	15.0	16.5	22.1	32.3	38.7	45.4	62.1	62.1	82.0
1984	6.0	8.8	11.3	17.5	17.7	21.0	32.6	34.9	37.2
1985	11.2	13.3	13.9	18.7	24.6	39.6	58.4	59.2	59.2
1986	8.0	12.7	18.0	19.4	20.7	32.0	37.7	47.7	88.6
1987	11.9	16.5	19.8	24.5	29.9	36.1	39.1	41.6	52.8
1988	7.0	8.8	12.5	12.7	12.9	14.4	28.0	32.3	33.0
1989	7.4	11.9	17.5	21.2	27.0	36.3	48.3	61.7	71.8
1990	11.4	16.0	18.8	20.5	22.4	26.4	41.9	52.2	70.6
1991	5.6	9.6	12.9	25.7	37.2	40.5	40.5	40.7	43.2
1992	6.5	9.8	12.0	16.9	25.7	29.8	34.4	34.4	45.8
1993	7.0	9.6	10.5	11.2	17.2	23.9	28.7	30.6	44.7
1994	8.3	11.3	14.6	23.8	30.0	43.2	51.3	51.5	80.7
1995	9.7	17.2	24.3	40.5	56.7	58.9	63.0	63.0	63.6
1996	13.5	15.4	16.8	18.7	18.7	19.1	40.2	40.4	46.3
1997	7.9	11.5	15.6	17.5	21.8	30.6	38.2	39.9	41.7
1998	7.3	12.7	13.9	15.7	16.4	26.8	31.4	36.2	57.4
1999	9.3	13.3	16.5	20.8	21.0	22.2	23.4	24.8	29.8
2000	7.6	11.2	13.1	20.4	26.4	31.0	51.8	89.0	94.6
2001	6.1	10.2	12.2	12.8	14.3	17.2	24.1	38.1	48.4
2002	6.9	9.1	10.8	14.4	17.2	17.4	29.6	31.7	43.2
2003	7.2	10.0	12.2	14.4	14.8	14.8	22.7	33.5	34.6
2004	13.3	15.7	18.6	20.4	22.1	33.2	35.8	37.3	53.7
2005	10.5	16.9	24.0	25.8	26.0	26.0	29.8	30.6	41.2
2006	10.6	18.3	23.6	26.6	35.7	51.3	53.1	53.3	66.9
2007	8.0	15.1	18.7	30.9	48.6	48.8	50.4	55.8	57.6
# Yrs. Années	60	61	61	61	61	61	61	61	61
Mean Moyenne	9.9	14.4	17.9	23.5	29.2	34.7	42.8	48.8	56.1
Std. Dev. Écart-type	2.9	4.0	5.6	8.1	10.6	11.4	13.8	15.7	16.5

Skew. Dissymétrie	0.96	0.47	0.99	0.81	0.85	0.42	1.23	1.07	0.74
Kurtosis	4.27	2.90	4.84	3.21	3.19	2.88	5.84	4.28	3.13

*-99.9 Indicates Missing Data/Données manquantes

Warning: annual maximum amount greater than 100-yr return period amount
Avertissement : la quantité maximale annuelle excède la quantité pour une période de retour de 100 ans

Year/Année	Duration/Durée	Data/Données	100-yr/ans
1953	5 min	20.1	18.9
1957	6 h	96.8	86.2
1957	12 h	100.3	98.0
1974	15 min	39.4	35.6

****

Table 2a : Return Period Rainfall Amounts (mm)
Quantité de pluie (mm) par période de retour

****

Duration/Durée	2 yr/ans	5 yr/ans	10 yr/ans	25 yr/ans	50 yr/ans	100 yr/ans	#Years Années
5 min	9.4	11.9	13.6	15.8	17.4	18.9	60
10 min	13.7	17.2	19.5	22.5	24.6	26.8	61
15 min	17.0	22.0	25.3	29.5	32.5	35.6	61
30 min	22.2	29.4	34.1	40.1	44.6	49.0	61
1 h	27.5	36.9	43.1	50.9	56.7	62.5	61
2 h	32.8	42.9	49.6	58.1	64.3	70.6	61
6 h	40.5	52.8	60.8	71.1	78.6	86.2	61
12 h	46.2	60.1	69.2	80.8	89.4	98.0	61
24 h	53.4	68.0	77.6	89.8	98.9	107.9	61

****

Table 2b :

Return Period Rainfall Rates (mm/h) - 95% Confidence limits
Intensité de la pluie (mm/h) par période de retour - Limites de confiance de 95%

****

Duration/Durée	2 yr/ans	5 yr/ans	10 yr/ans	25 yr/ans	50 yr/ans	100 yr/ans	#Years Années
5 min	112.5	143.2	163.5	189.2	208.2	227.1	60
	+/- 8.1	+/- 13.6	+/- 18.3	+/- 24.7	+/- 29.6	+/- 34.5	60
10 min	82.3	103.3	117.3	134.8	147.9	160.8	61

idf_v2-3_2014_12_21_613_ON_6139525_WINDSOR_A

	+/-	5.5	+/-	9.2	+/-	12.5	+/-	16.8	+/-	20.1	+/-	23.4	61
15 min		68.0		87.9		101.1		117.8		130.2		142.5	61
	+/-	5.2	+/-	8.8	+/-	11.8	+/-	16.0	+/-	19.1	+/-	22.2	61
30 min		44.4		58.7		68.2		80.2		89.1		98.0	61
	+/-	3.7	+/-	6.3	+/-	8.5	+/-	11.5	+/-	13.7	+/-	16.0	61
1 h		27.5		36.9		43.1		50.9		56.7		62.5	61
	+/-	2.4	+/-	4.1	+/-	5.6	+/-	7.5	+/-	9.0	+/-	10.4	61
2 h		16.4		21.5		24.8		29.0		32.2		35.3	61
	+/-	1.3	+/-	2.2	+/-	3.0	+/-	4.0	+/-	4.8	+/-	5.6	61
6 h		6.8		8.8		10.1		11.8		13.1		14.4	61
	+/-	0.5	+/-	0.9	+/-	1.2	+/-	1.6	+/-	1.9	+/-	2.3	61
12 h		3.9		5.0		5.8		6.7		7.5		8.2	61
	+/-	0.3	+/-	0.5	+/-	0.7	+/-	0.9	+/-	1.1	+/-	1.3	61
24 h		2.2		2.8		3.2		3.7		4.1		4.5	61
	+/-	0.2	+/-	0.3	+/-	0.4	+/-	0.5	+/-	0.6	+/-	0.7	61

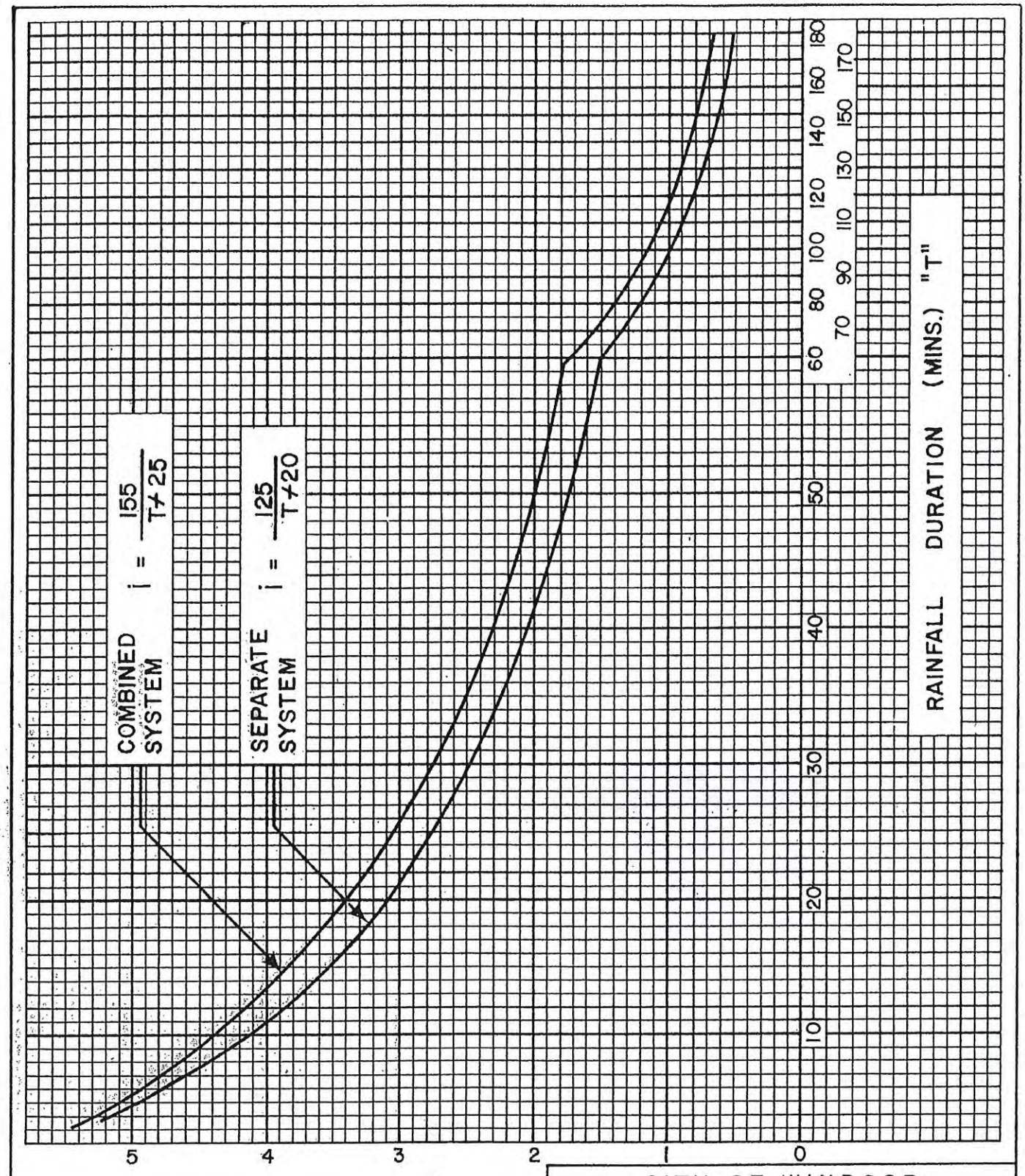
****

Table 3 : Interpolation Equation / Équation d'interpolation: R = A*T^B

R = Interpolated Rainfall rate (mm/h)/Intensité interpolée de la pluie (mm/h)
RR = Rainfall rate (mm/h) / Intensité de la pluie (mm/h)
T = Rainfall duration (h) / Durée de la pluie (h)

****

Statistics/Statistiques	2 yr/ans	5 yr/ans	10 yr/ans	25 yr/ans	50 yr/ans	100 yr/ans
Mean of RR/Moyenne de RR	40.4	52.0	59.7	69.4	76.6	83.7
Std. Dev. /Écart-type (RR)	39.4	49.9	56.9	65.8	72.3	78.9
Std. Error/Erreur-type	10.8	15.0	17.8	21.3	24.0	26.6
Coefficient (A)	24.0	31.0	35.7	41.7	46.0	50.4
Exponent/Exposant (B)	-0.710	-0.709	-0.708	-0.707	-0.707	-0.706
Mean % Error/% erreur moyenne	9.9	11.4	12.0	12.6	13.0	13.3



CITY OF WINDSOR
DEPARTMENT OF PUBLIC WORKS

RAINFALL INTENSITY CURVE

DR'N BY : E.STERGIOU	DATE : JUNE 11 / 1975
REVISION :	CH'KD BY : SFA
CH'KD BY : BM	PASSED BY :
H Sayne COMMISSIONER OF WORKS	AS-105

Appendix B

STORM AND SANITARY DESIGN SHEET

Hydraflow Table of Contents

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Thursday, 10 / 8 / 2020

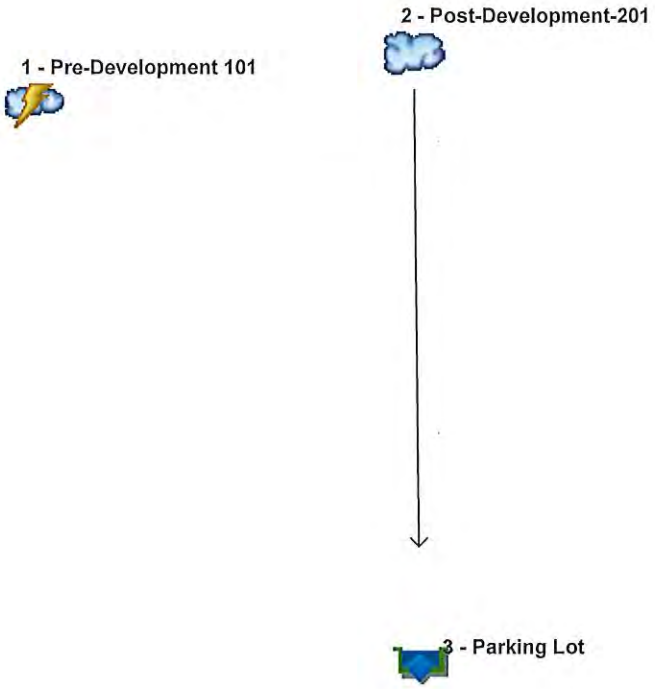
Hydraflow Table of Contents

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Thursday, 10 / 8 / 2020

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cms)	Time interval (min)	Time to Peak (min)	Hyd. volume (cum)	Inflow hyd(s)	Maximum elevation (m)	Total strge used (cum)	Hydrograph Description
1	Rational	0.057	1	17	58.5	------	------	------	Pre-Development 101
2	SCS Runoff	0.103	2	720	277.0	------	------	------	Post-Development-201
3	Reservoir	0.064	2	728	277.0	2	180.66	1,477	Parking Lot

Hydrograph Report

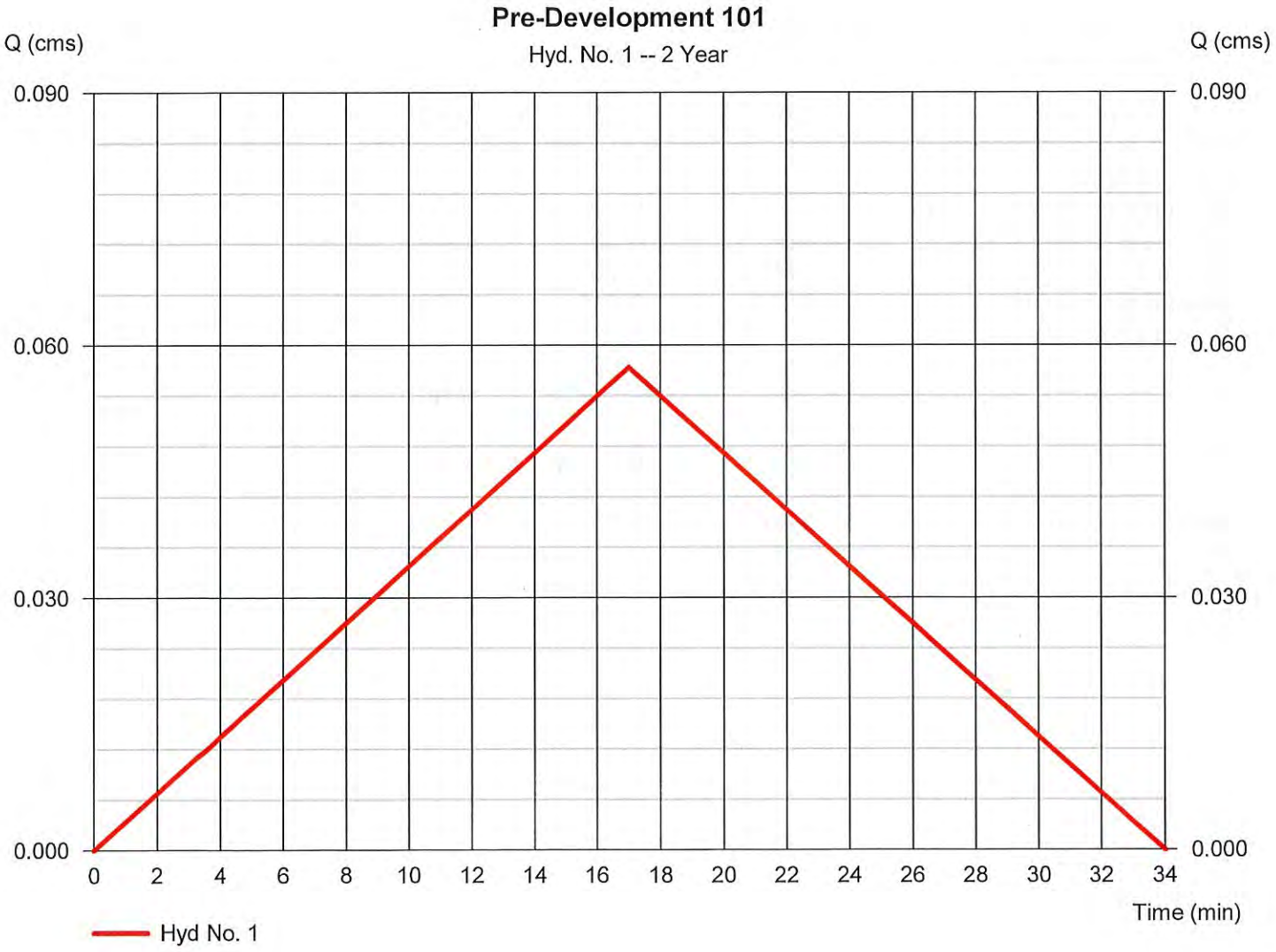
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Thursday, 10 / 8 / 2020

Hyd. No. 1

Pre-Development 101

Hydrograph type	= Rational	Peak discharge	= 0.057 cms
Storm frequency	= 2 yrs	Time to peak	= 17 min
Time interval	= 1 min	Hyd. volume	= 58.5 cum
Drainage area	= 0.670 hectare	Runoff coeff.	= 0.49*
Intensity	= 63.452 mm/hr	Tc by TR55	= 17.00 min
IDF Curve	= Windsor A 2007.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.320 x 0.70) + (0.350 x 0.30)] / 0.670



TR55 Tc Worksheet

Hyd. No. 1

Pre-Development 101

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.026		0.011		0.011		
Flow length (m)	= 91.0		0.0		0.0		
Two-year 24-hr precip. (mm)	= 53.40		0.00		0.00		
Land slope (%)	= 0.30		0.00		0.00		
Travel Time (min)	**= 15.24**	**+**	**0.00**	**+**	**0.00**	**=**	**15.24**
Shallow Concentrated Flow							
Flow length (m)	= 34.00		0.00		0.00		
Watercourse slope (%)	= 0.30		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (m/s)	=0.34		0.00		0.00		
Travel Time (min)	**= 1.67**	**+**	**0.00**	**+**	**0.00**	**=**	**1.67**
Channel Flow							
X sectional flow area (sqm)	= 0.00		0.00		0.00		
Wetted perimeter (m)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (m/s)	=0.00						
			0.00				
					0.00		
Flow length (m)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... 17.00 min

Hydrograph Report

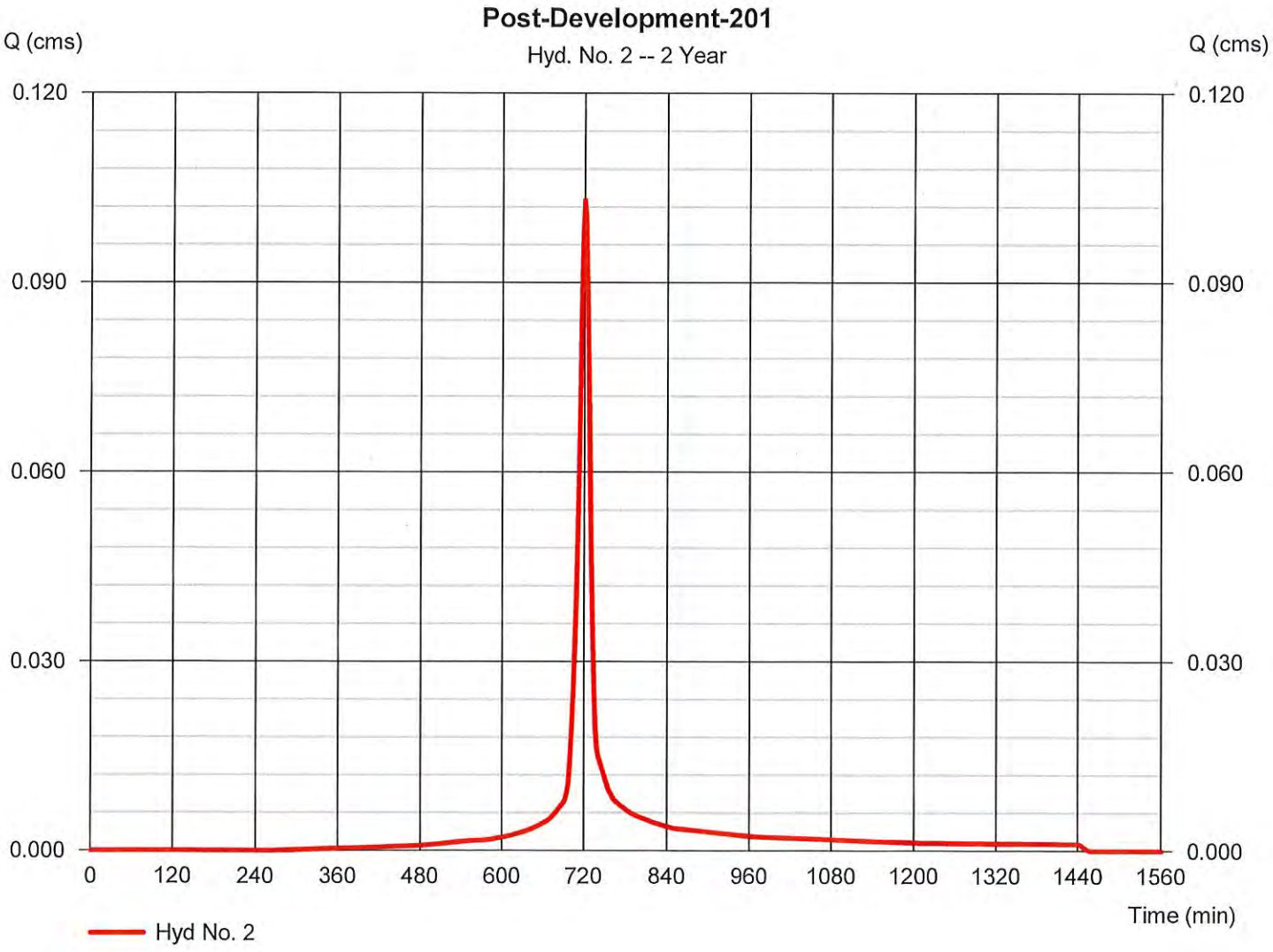
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Thursday, 10 / 8 / 2020

Hyd. No. 2

Post-Development-201

Hydrograph type	= SCS Runoff	Peak discharge	= 0.103 cms
Storm frequency	= 2 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 277.0 cum
Drainage area	= 0.669 hectare	Curve number	= 95*
Basin Slope	= 0.0 %	Hydraulic length	= 0 m
Tc method	= User	Time of conc. (Tc)	= 11.62 min
Total precip.	= 53.40 mm	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.120 x 80) + (0.507 x 98)] / 0.669



Hydrograph Report

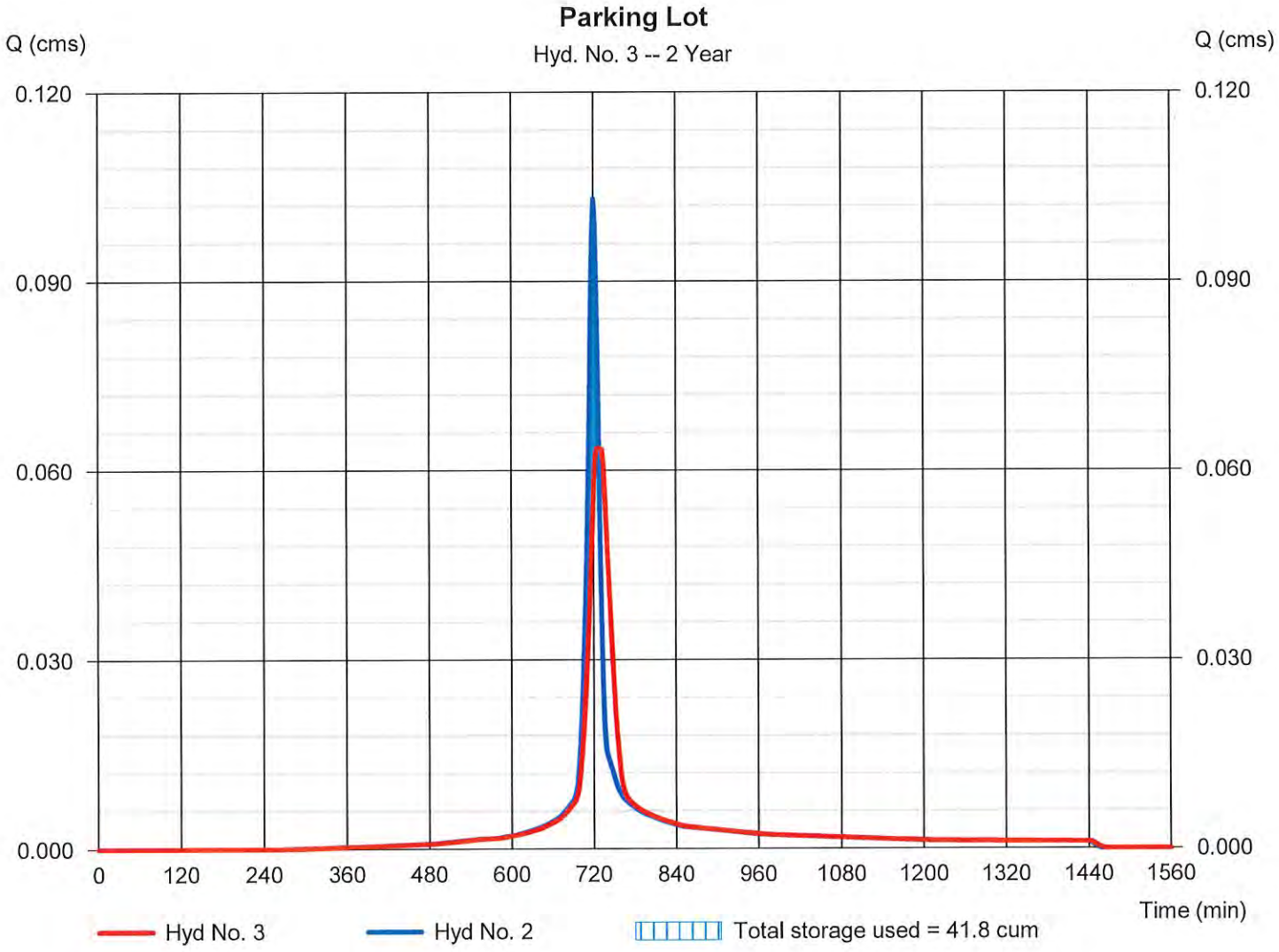
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Thursday, 10 / 8 / 2020

Hyd. No. 3

Parking Lot

Hydrograph type	= Reservoir	Peak discharge	= 0.064 cms
Storm frequency	= 2 yrs	Time to peak	= 728 min
Time interval	= 2 min	Hyd. volume	= 277.0 cum
Inflow hyd. No.	= 2 - Post-Development-201	Max. Elevation	= 180.66 m
Reservoir name	= Parking Lot	Max. Storage	= 41.8 cum

Storage Indication method used.



Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Thursday, 10 / 8 / 2020

Pond No. 1 - Parking Lot

Pond Data

Pond storage is based on user-defined values.

Stage / Storage Table

Stage (m)	Elevation (m)	Contour area (sqm)	Incr. Storage (cum)	Total storage (cum)
0.00	178.66	n/a	0.0	0.0
1.94	180.60	n/a	35.4	35.4
1.99	180.65	n/a	1.6	37.0
2.04	180.70	n/a	17.7	54.7
2.09	180.75	n/a	45.8	100.6
2.14	180.80	n/a	89.2	189.7
2.19	180.85	n/a	153.0	342.8

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (mm)	= 148.00	0.00	0.00	0.00
Span (mm)	= 148.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (m)	= 178.660	0.000	0.000	0.000
Length (m)	= 0.000	0.000	0.000	0.000
Slope (%)	= 1.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

(by Wet area)

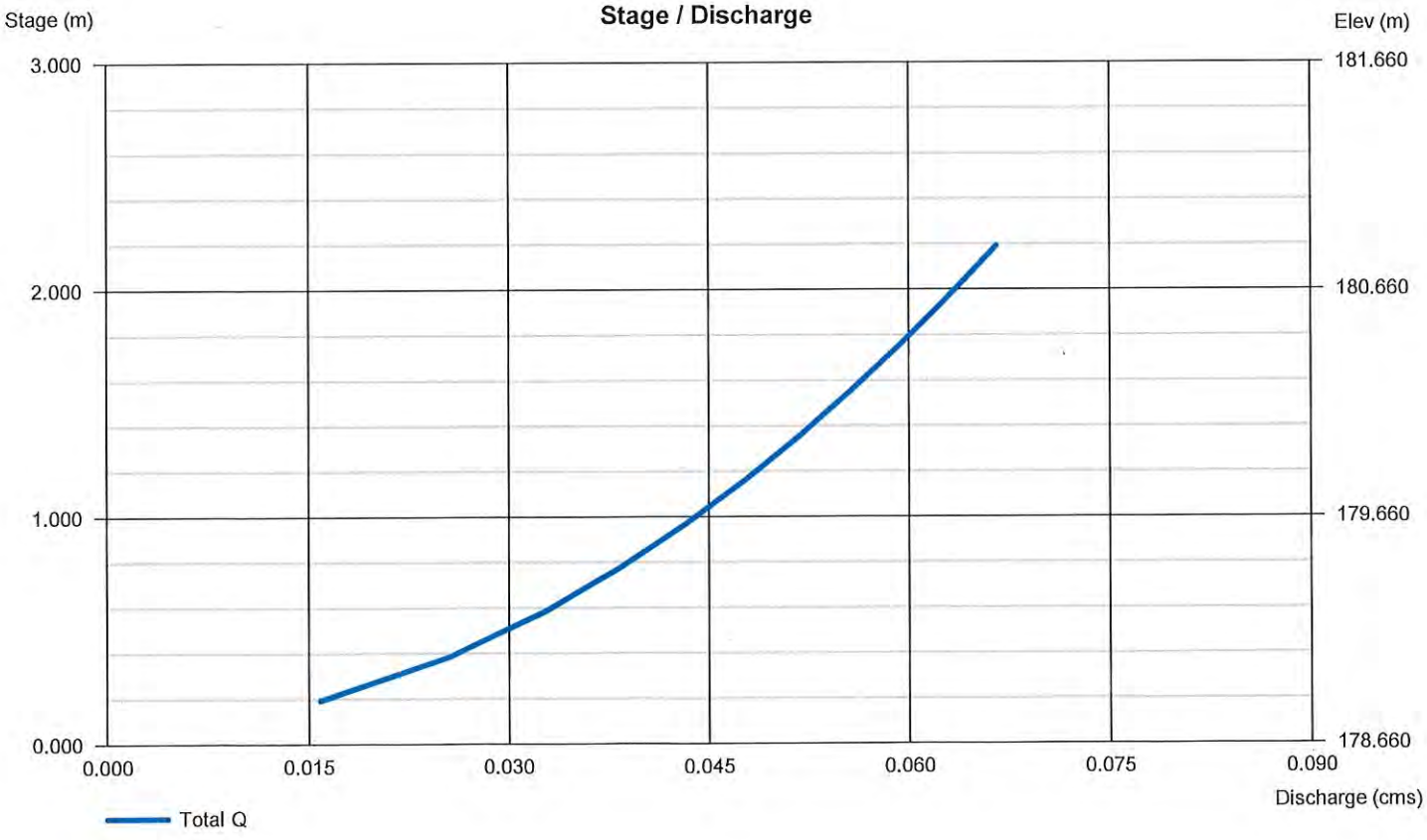
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (m)	= 0.000	0.000	0.000	0.000
Crest El. (m)	= 0.000	0.000	0.000	0.000
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(cm/hr) = 0.000

TW Elev. (m) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cms)	Time interval (min)	Time to Peak (min)	Hyd. volume (cum)	Inflow hyd(s)	Maximum elevation (m)	Total strge used (cum)	Hydrograph Description
1	Rational	0.075	1	17	76.2	------	------	------	Pre-Development 101
2	SCS Runoff	0.137	2	720	374.1	------	------	------	Post-Development-201
3	Reservoir	0.064	2	730	374.1	2	180.72	2,466	Parking Lot

Hydrograph Report

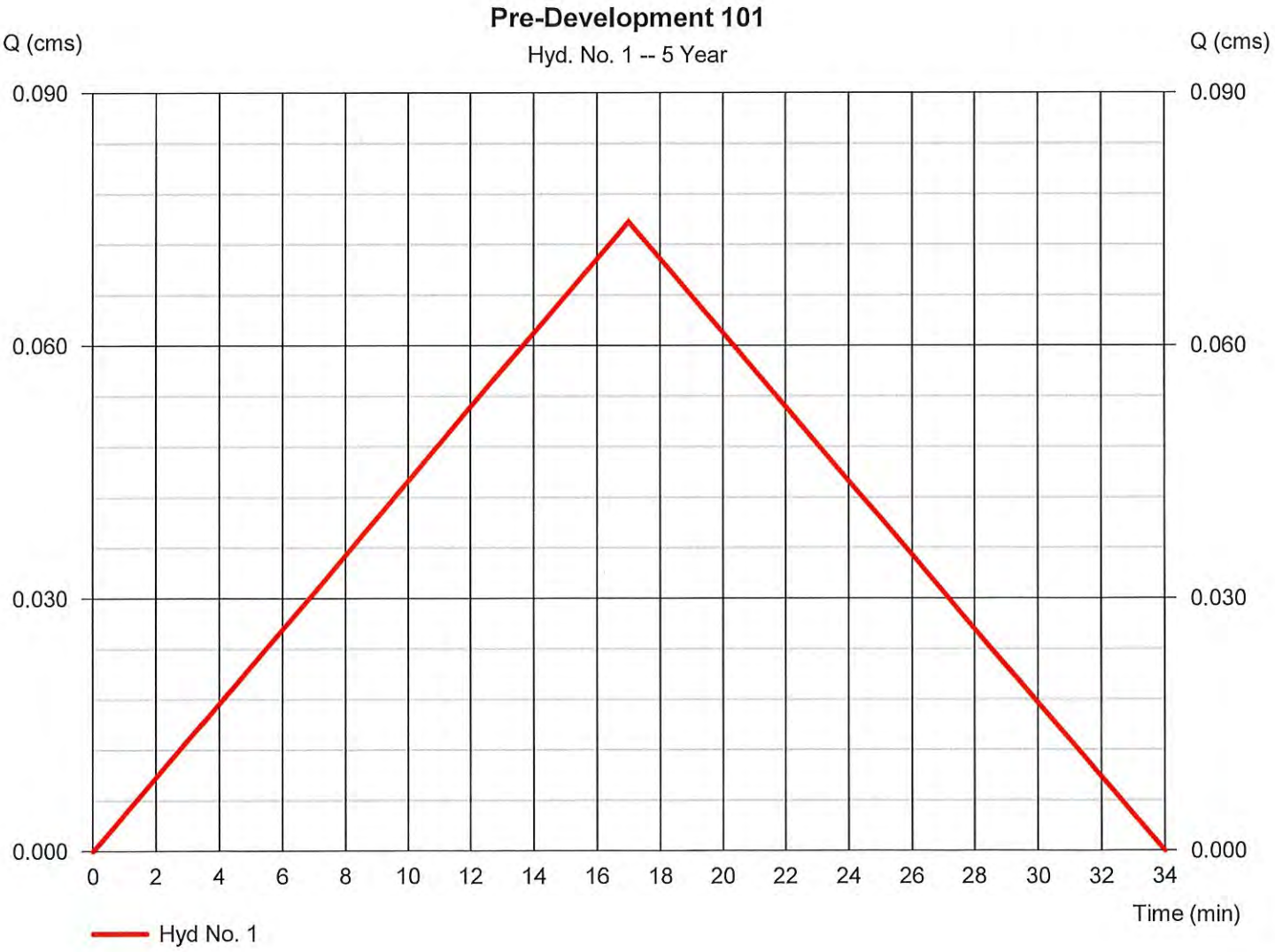
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Thursday, 10 / 8 / 2020

Hyd. No. 1

Pre-Development 101

Hydrograph type	= Rational	Peak discharge	= 0.075 cms
Storm frequency	= 5 yrs	Time to peak	= 17 min
Time interval	= 1 min	Hyd. volume	= 76.2 cum
Drainage area	= 0.670 hectare	Runoff coeff.	= 0.49*
Intensity	= 82.621 mm/hr	Tc by TR55	= 17.00 min
IDF Curve	= Windsor A 2007.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.320 x 0.70) + (0.350 x 0.30)] / 0.670



Hydrograph Report

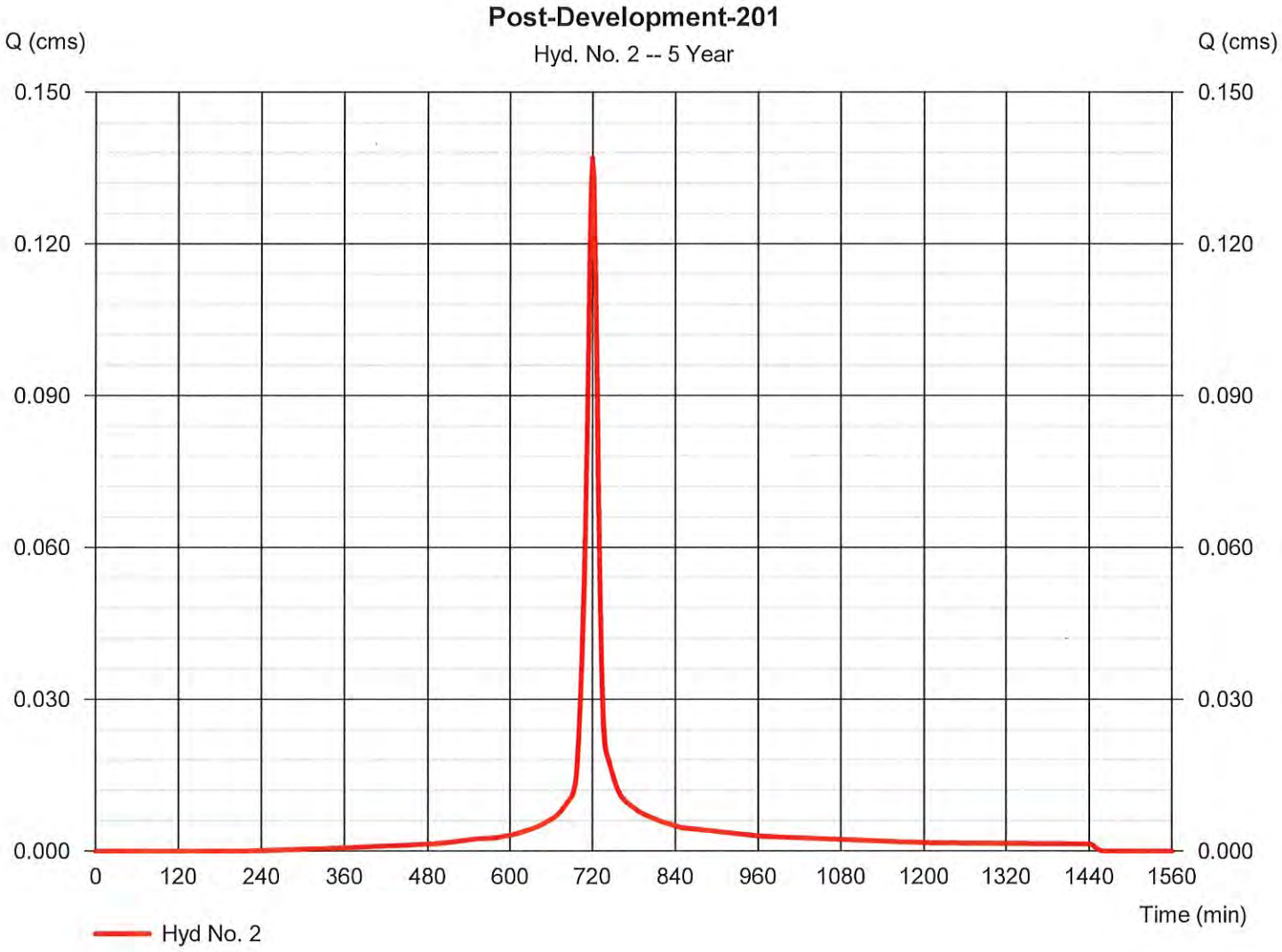
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Thursday, 10 / 8 / 2020

Hyd. No. 2

Post-Development-201

Hydrograph type	= SCS Runoff	Peak discharge	= 0.137 cms
Storm frequency	= 5 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 374.1 cum
Drainage area	= 0.669 hectare	Curve number	= 95*
Basin Slope	= 0.0 %	Hydraulic length	= 0 m
Tc method	= User	Time of conc. (Tc)	= 11.62 min
Total precip.	= 68.00 mm	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.120 x 80) + (0.507 x 98)] / 0.669



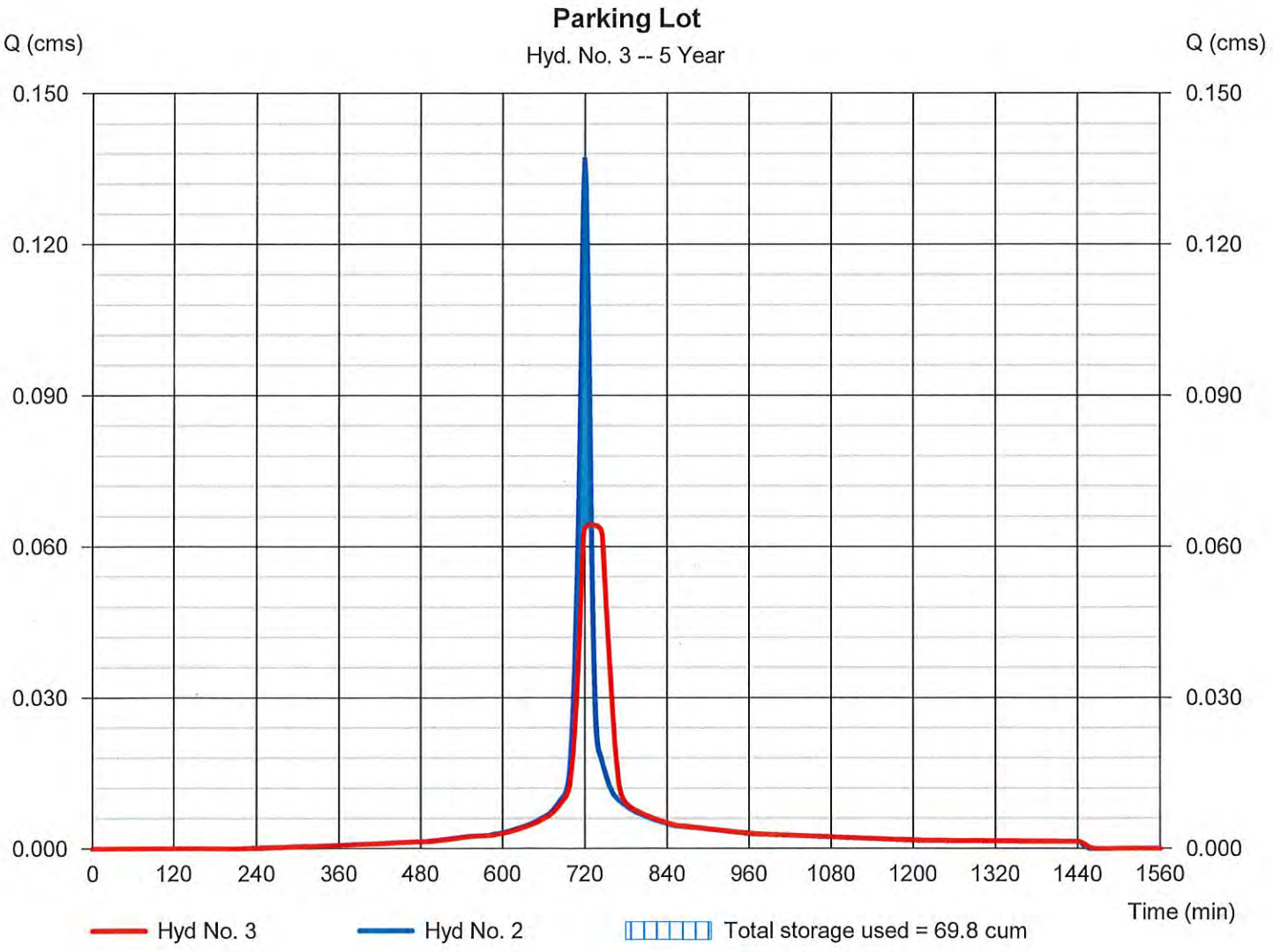
Hydrograph Report

Hyd. No. 3

Parking Lot

Hydrograph type	= Reservoir	Peak discharge	= 0.064 cms
Storm frequency	= 5 yrs	Time to peak	= 730 min
Time interval	= 2 min	Hyd. volume	= 374.1 cum
Inflow hyd. No.	= 2 - Post-Development-201	Max. Elevation	= 180.72 m
Reservoir name	= Parking Lot	Max. Storage	= 69.8 cum

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

Hyd. No.	Hydrograph type (origin)	Peak flow (cms)	Time interval (min)	Time to Peak (min)	Hyd. volume (cum)	Inflow hyd(s)	Maximum elevation (m)	Total strge used (cum)	Hydrograph Description
1	Rational	0.122	1	17	124.3	------	------	------	Pre-Development 101
2	SCS Runoff	0.229	2	720	644.1	------	------	------	Post-Development-201
3	Reservoir	0.065	2	732	644.1	2	180.79	5,801	Parking Lot

Hydrograph Report

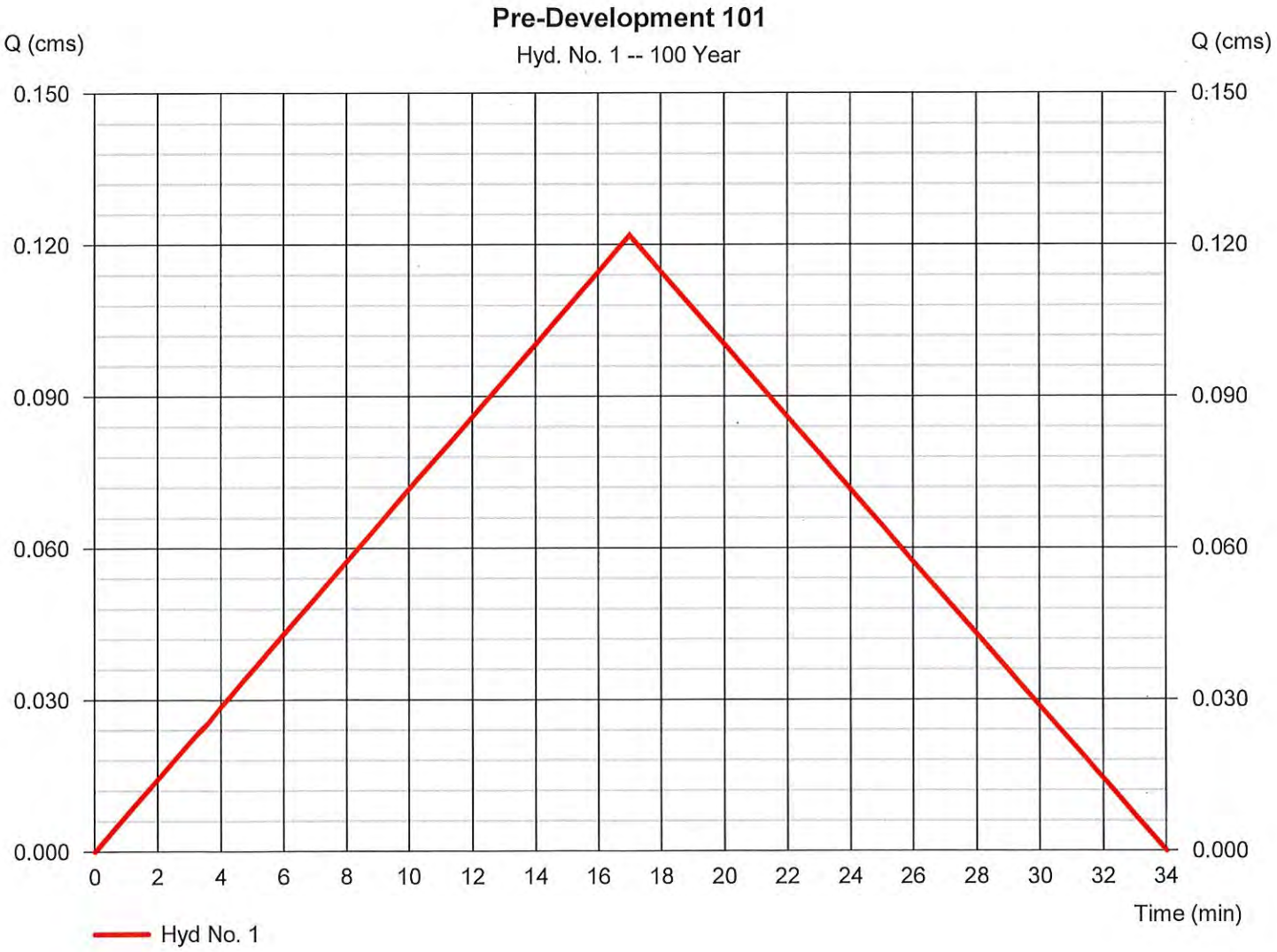
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Thursday, 10 / 8 / 2020

Hyd. No. 1

Pre-Development 101

Hydrograph type	= Rational	Peak discharge	= 0.122 cms
Storm frequency	= 100 yrs	Time to peak	= 17 min
Time interval	= 1 min	Hyd. volume	= 124.3 cum
Drainage area	= 0.670 hectare	Runoff coeff.	= 0.49*
Intensity	= 134.791 mm/hr	Tc by TR55	= 17.00 min
IDF Curve	= Windsor A 2007.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.320 x 0.70) + (0.350 x 0.30)] / 0.670



Hydrograph Report

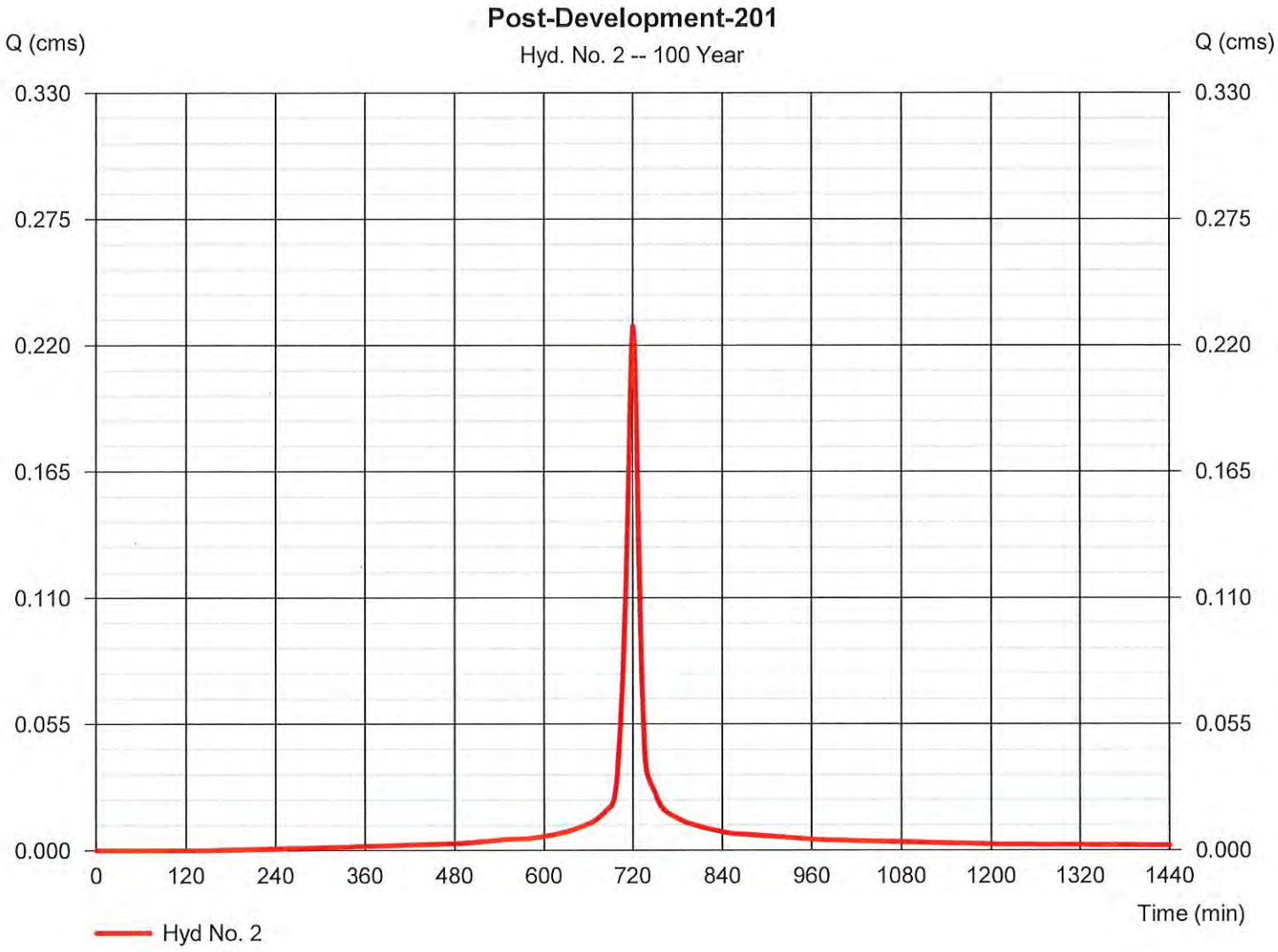
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Thursday, 10 / 8 / 2020

Hyd. No. 2

Post-Development-201

Hydrograph type	= SCS Runoff	Peak discharge	= 0.229 cms
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 644.1 cum
Drainage area	= 0.669 hectare	Curve number	= 95*
Basin Slope	= 0.0 %	Hydraulic length	= 0 m
Tc method	= User	Time of conc. (Tc)	= 11.62 min
Total precip.	= 107.90 mm	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.120 x 80) + (0.507 x 98)] / 0.669



Hydrograph Report

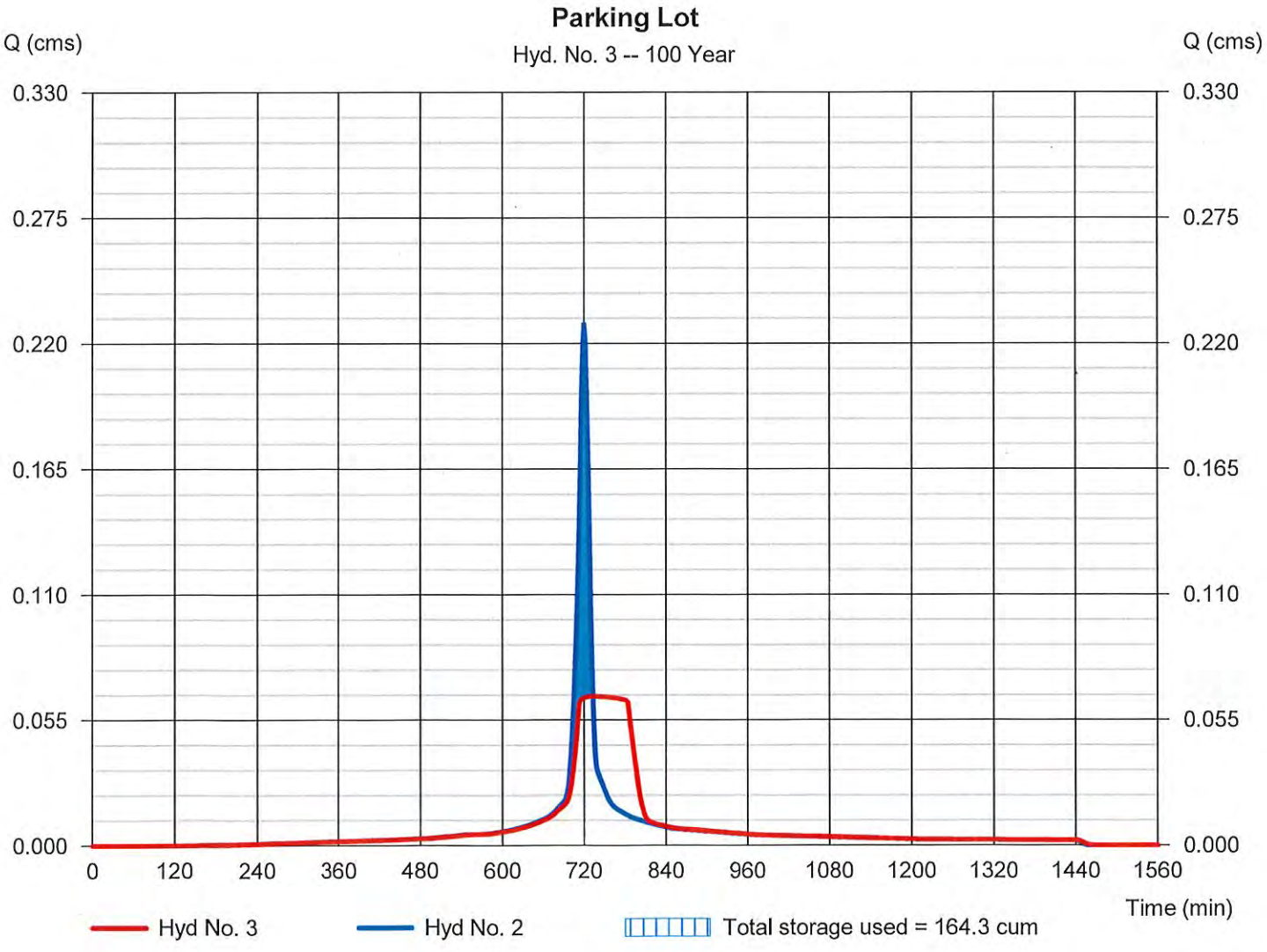
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Thursday, 10 / 8 / 2020

Hyd. No. 3

Parking Lot

Hydrograph type	= Reservoir	Peak discharge	= 0.065 cms
Storm frequency	= 100 yrs	Time to peak	= 732 min
Time interval	= 2 min	Hyd. volume	= 644.1 cum
Inflow hyd. No.	= 2 - Post-Development-201	Max. Elevation	= 180.79 m
Reservoir name	= Parking Lot	Max. Storage	= 164.3 cum

Storage Indication method used.



Hydraflow Rainfall Report

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	0.0000	0.0000	0.0000	--------
2	85.4000	17.7800	2.0777	--------
3	0.0000	0.0000	0.0000	--------
5	125.9000	22.3520	2.1285	--------
10	151.1000	24.1300	2.1463	--------
25	185.1000	25.9080	2.1641	--------
50	211.4000	26.9240	2.1793	--------
100	237.5000	27.9400	2.1869	--------

File name: Windsor A 2007.IDF

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (mm/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0	0	0	0	0	0	0	0	0	0	0	0
2	112	84	68	58	50	45	40	37	34	31	29	27
3	0	0	0	0	0	0	0	0	0	0	0	0
5	140	108	88	75	66	59	53	48	45	41	39	36
10	158	123	101	87	76	68	61	56	52	48	45	42
25	182	143	118	101	89	80	72	66	61	56	53	49
50	200	158	131	112	99	88	80	73	67	62	58	55
100	218	173	144	123	109	97	88	80	74	69	64	60

Tc = time in minutes. Values may exceed 60.

Precip. file name: C:\Users\NMrad\Documents\NM\Hydrograph\ERCA-24hr & Chicago 4hr.pcp

Storm Distribution	Rainfall Precipitation Table (mm)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0	53	0	68	78	90	99	108
SCS 6-Hr	0	0	0	0	0	0	0	0
Huff-1st	0	0	0	0	0	0	0	0
Huff-2nd	0	0	0	0	0	0	0	0
Huff-3rd	0	0	0	0	0	0	0	0
Huff-4th	0	0	0	0	0	0	0	0
Huff-Indy	0	0	0	0	0	0	0	0
Custom	0	0	0	0	0	0	0	0

STRESS TEST HYDROGRAPH RESULTS

Hydrograph Report

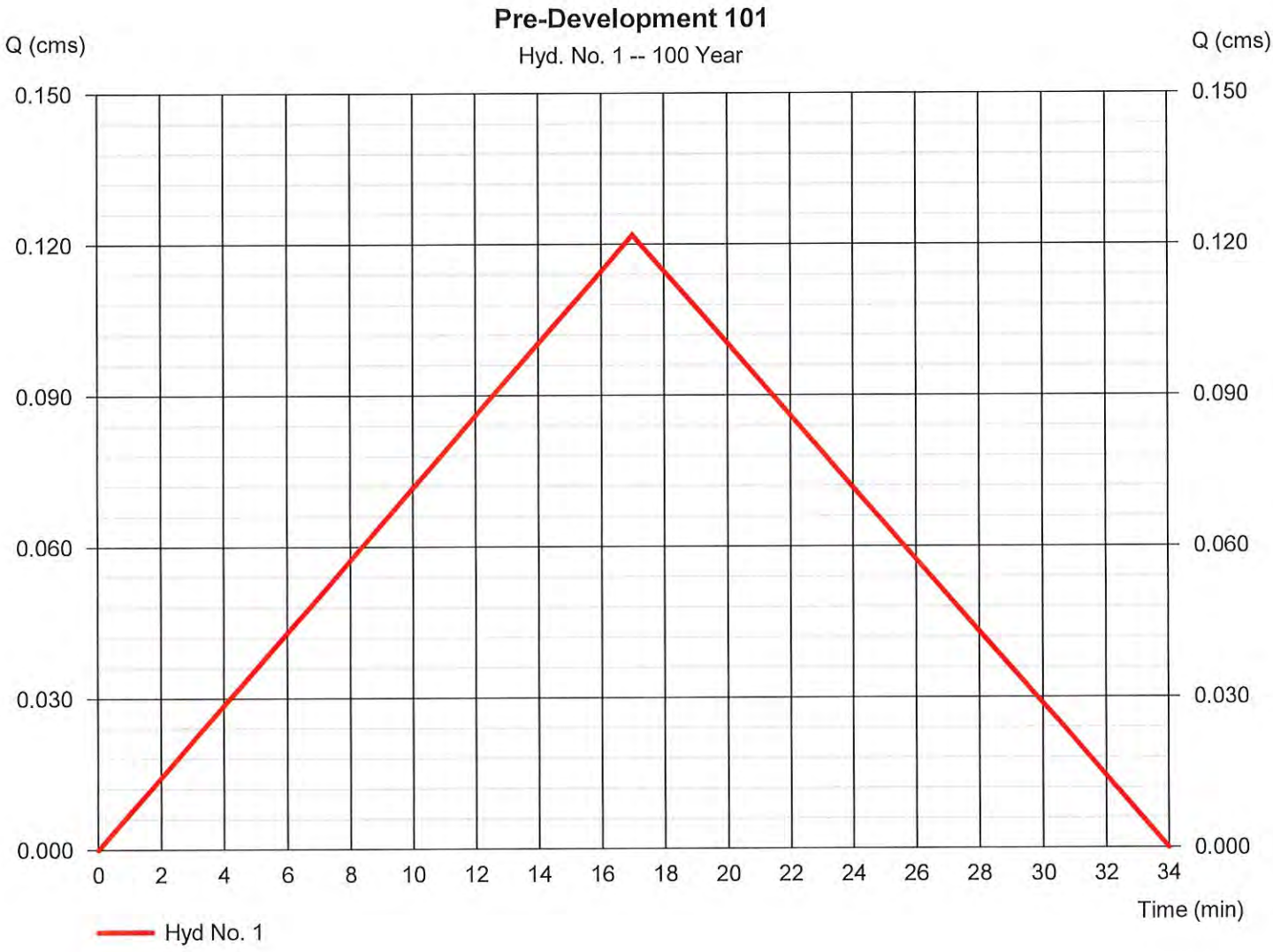
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Thursday, 10 / 8 / 2020

Hyd. No. 1

Pre-Development 101

Hydrograph type	= Rational	Peak discharge	= 0.122 cms
Storm frequency	= 100 yrs	Time to peak	= 17 min
Time interval	= 1 min	Hyd. volume	= 124.3 cum
Drainage area	= 0.670 hectare	Runoff coeff.	= 0.49*
Intensity	= 134.791 mm/hr	Tc by TR55	= 17.00 min
IDF Curve	= Windsor A 2007.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.320 x 0.70) + (0.350 x 0.30)] / 0.670



Hydrograph Report

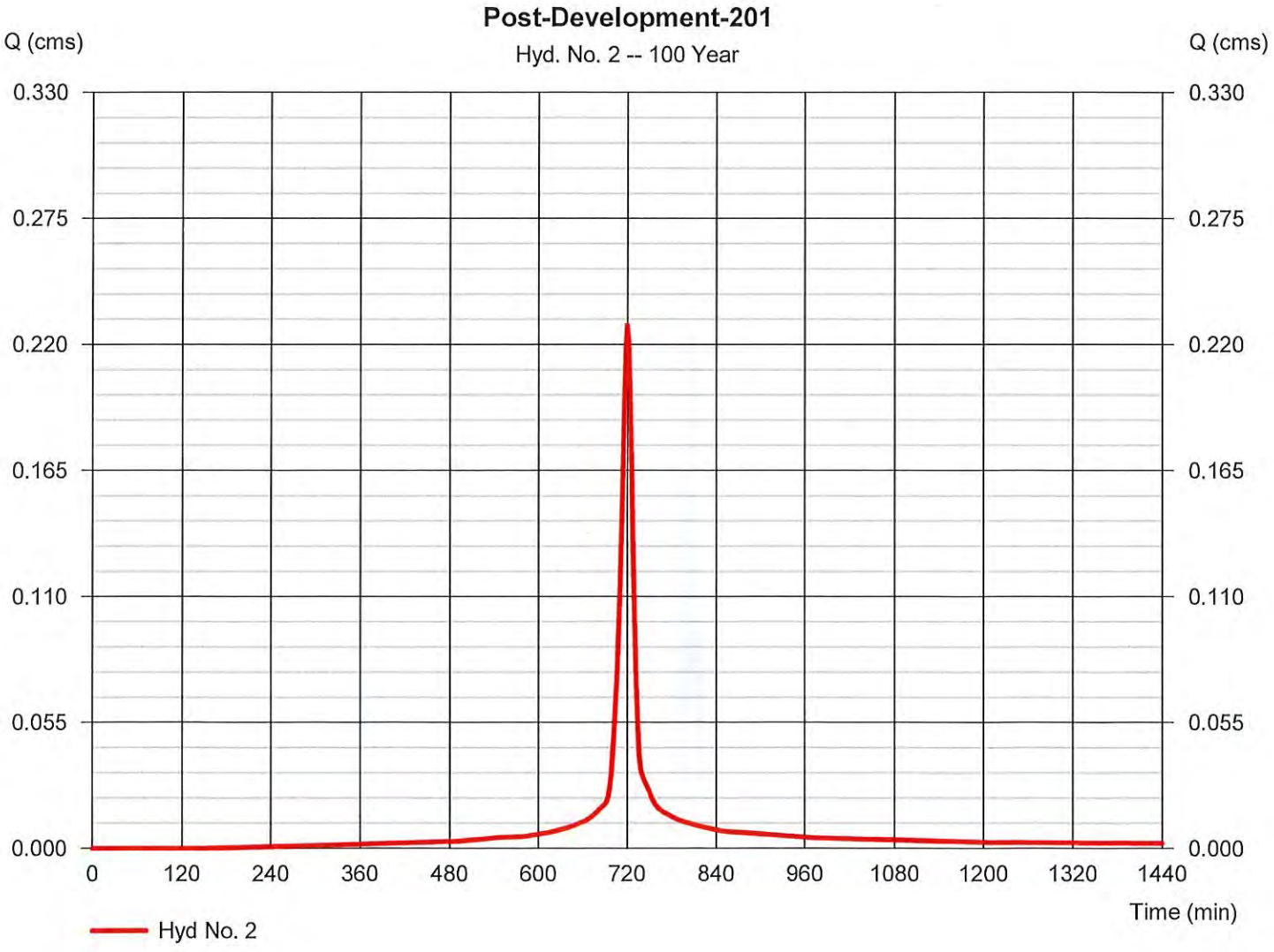
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Thursday, 10 / 8 / 2020

Hyd. No. 2

Post-Development-201

Hydrograph type	= SCS Runoff	Peak discharge	= 0.229 cms
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 644.1 cum
Drainage area	= 0.669 hectare	Curve number	= 95*
Basin Slope	= 0.0 %	Hydraulic length	= 0 m
Tc method	= User	Time of conc. (Tc)	= 11.62 min
Total precip.	= 150.00 mm	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.120 x 80) + (0.507 x 98)] / 0.669



Hydrograph Report

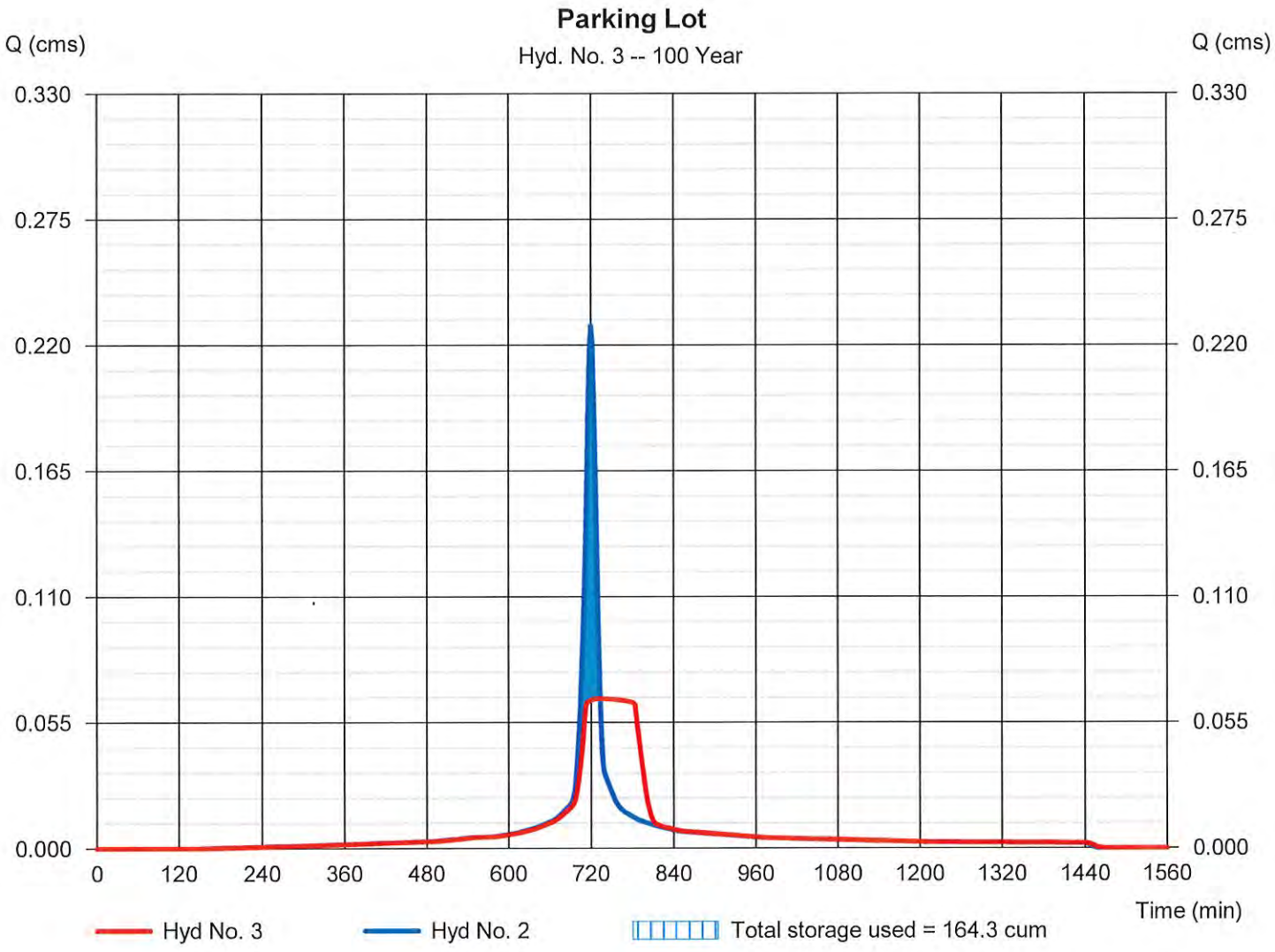
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Thursday, 10 / 8 / 2020

Hyd. No. 3

Parking Lot

Hydrograph type	= Reservoir	Peak discharge	= 0.065 cms
Storm frequency	= 100 yrs	Time to peak	= 732 min
Time interval	= 2 min	Hyd. volume	= 644.1 cum
Inflow hyd. No.	= 2 - Post-Development-201	Max. Elevation	= 180.79 m
Reservoir name	= Parking Lot	Max. Storage	= 164.3 cum

Storage Indication method used.



3885 SANDWICH STREET, WINDSOR
SANITARY SEWER DESIGN SHEET (Ultimate D.A Design)

DESIGN CRITERIA

RESIDENTIAL	3.5	People/Lot	AVERAGE DAILY PER CAPITA FLOW	420 L/cap/day	
COMMERCIAL	30.5	People/Ha.	PEAK EXTRANEOUS FLOW	0.2095 L/ha/s	
INDUSTRIAL	35	People/Ha.	HARMON'S PEAK FACTOR	1+14/(4+(P/1000)^0.5)	
INSTITUTIONAL	22	People/Ha.	VELOCITY RANGE	0.6 m/s to 3 m/s	
SCHOOL	15	People/Ha.	MINIMUM PIPE SIZE	200 mm	

Project : 20-028
Client :

LOCATION																								
STREET OR EASEMENT	Area Included	From Node	To Node	DESIGN AREA SERVED (ha) INCREMENT	DESIGN AREA SERVED (ha) TOTAL	LOTS	DESIGN POPULATION (PERSONS) INCREMENT	DESIGN POPULATION (PERSONS) TOTAL	PEAK FACTOR	MAXIMUM FLOW INFILTRATION (L/s)	MAXIMUM FLOW SEWAGE (L/S)	MAXIMUM FLOW TOTAL SEWAGE AND INFILTRATION (L/s)	SEWER DATA Dia. (m) Actual	Dia. (mm)	Type	Manning's "n"	Slope (%)	Length (m)	Capacity (L/s)	Velocity (m/s)	Ratio (%)	PROFILE Upstream Elevation Invert (m)	PROFILE Upstream Elevation Ground (m)	PROFILE Downstream Elevation Invert (m)	PROFILE Downstream Elevation Ground (m)	Average Cover (m)
SANDWICH	A1	SAN CLEAN OUT 1	SAN CLEAN OUT 2	0.669	0.669	1	525	525	4	0.140	10.11	10.25	0.200	200	PVC	0.013	0.40%	9.73	20.746	0.66	49.43	178.300		178.261		
SANDWICH	–	SAN CLEAN OUT 2	TIE-IN	0.000	0.000	1	525	525	4	0.000	10.11	10.11	0.200	200	PVC	0.013	0.41%	22.87	21.004	0.67	48.16	178.212		178.118		

TOTAL POPULATION CALCULATION = 150 UNITS * 3.5 = 525

BAIRD|AE architecture + engineering

Date:	October 7, 2020
Design By:	GOWTHAM SIVAKUMAR
PROJECT NO:	
20-028	3885 SANDWICH STREET, WINDSOR
Checked and Stamped:	SHURJEEL TUNIO

MIXED USE DEVELOPMENT

STORM SEWER DESIGN SHEET (5-YEAR EVENT, Computed Tc)

LOCATION				AREA (ha)				FLOW							SEWER DATA								PROFILE	
Area ID	Area Included	From Node	To Node	C= 0.95	C= 0.20	C=	C=	Indiv 2.78 AC	Accum 5 2.78AC	Time of Conc.	Design Storm	Rainfall Intensity	Peak Flow (L/sec)	Qtotal (L/s)	Dia. (m) Actual	Dia. (mm)	Type	Slope (%)	Length (m)	Capacity (L/s)	Velocity (m/s)	Flow Time (min)	Ratio Q/Q full	Upstream Elevation Invert (m)	Downstream Elevation Invert (m)
FHC APARTMENTS																								
A1	BUILDING AND PARKING LOT	CB #10	MH #2	0.198				0.52	0.52	10.00	5	107.72	56.33	56.33	0.300	300	PVC	0.35	27.78	57.2	0.80	0.58	99%	179.155	179.058
A2	BUILDING AND PARKING LOT	MH #2	MH# 3	0.381				1.01	1.53	10.58	5	105.01	160.58	160.58	0.450	450	PVC	0.35	64.80	168.5	1.06	1.02	95%	179.058	178.831
A1	BUILDING AND PARKING LOT	MH# 3	MH# 4	0.090				0.24	1.77	11.60	5	100.60	177.74	177.74	0.450	450	PVC	0.40	42.80	180.2	1.13	0.63	99%	178.831	178.660
A1		MH# 4	EXISING COMBINED	0.000				0.00	1.77	12.23	5	98.07	173.27	173.27	0.450	450	PVC	1.00	7.00	284.9	1.79	0.07	61%	178.660	178.590

Q = 2.78 AIR, where
Q= Peak Flow in Litres per Second (l/s)
A= Area in hectares (ha)
I= Rainfall Intensity (mm/hr)
R= Runoff Coefficient

1) Windsor Rainfall-Intensity Curve
2) Min Pipe Velocity = 0.8 m/s
3) Max pipe Velocity = 3.0 m/s
4) Tc =10 min (BASED ON 3.2.2.6 WERSMSM)

Intensity = I= a / (T+b)^c

A= 1259
B= 8.8
C= 0.838

BAIRD|AE architecture + engineering

Consultant: Baird AE - Architects & Engineers		
Date:	October 8, 2020	
Design	Peter Sarkis	
Project No:	Dwg. Reference:	Stamped:
20-028	Mixed use Devlopment	NADIM MRAD

TABLE 1: STORAGE AVAILABILITY

MH/CB Storage

MH/CB #	Lid Elev. (m)	Invert Elev. (m)	Depth (m)	Section Area (m^2)	Volume (m^3)		
MH 2	181.12	179.19	1.93	1.13	2.18		
MH 3	180.75	178.89	1.86	1.13	2.10		
MH 4	180.74	178.69	2.05	1.13	2.32		
CB x 10	181.00	179.17	1.20	0.36	4.32		
					Available MH/CB Storage:	**10.9**	m^3

Pipe Storage

MH/CB #		Length	Dia.	Area	Volume		
From	To	(m)	(mm)	(m^2)	(m^3)		
MH 2	MH 4	77.0	200	0.0314	2.4		
MH 3	MH 4	27.8	375	0.1104	3.1		
MH 4	MH D	107.6	450	0.1590	17.1		
					Available Pipe Storage:	**22.6**	m^3
				4.05	**Total Available Storage:**	**33.5**	m^3

2020-10-08

Appendix C

HYDROGRAPH MODEL OUTPUT

Appendix D

STORMWATER QUALITY UNIT AND GRADING PLAN

Hydro First Defense® - HC

Water Quality Flow Rate Worksheet

Rev. 9.5

Hydro International

Project Name:	**3885 SANDWICH STREET**	*Report Date:*	Paste
Street:	**3885 SANDWICH STREET**	*City:*	**WINDSOR**
Province:	**ONTARIO**	*Country:*	**CANADA**
Designer:	**G.S.**	*email:*	

Treatment Parameters:

Structure ID:	MH#4	
TSS Goal:	70	% Removal
TSS Particle Size:	Fine	
Water Quality Flow:	60	L/s
Peak Storm Flow:	60	L/s
Peak Storm Return:	100	yrs

RESULTS SUMMARY

Model	TSS
FD-3HC	57.2%
FD-4HC	68.5%
FD-5HC	**74.4%**
FD-6HC	77.9%
FD-8HC	81.5%

Performance Statement:

The Hydro International stormwater treatment system, model FD-5HC, achieves the water quality objective of 74.4% TSS using Fine particle size distribution, providing continuous treatment positive removal for the water quality flow of 60 L/s.

Model Specification:

Selected Model:	FD-5HC	
Diameter:	1500	mm
Design WQ Flow:	60.00	L/s
No Bypass Flow:	42.00	L/s
Peak Flow Capacity:	566.00	L/s
Sediment Storage:	0.84	m^3
Oil Storeage:	1136.00	L

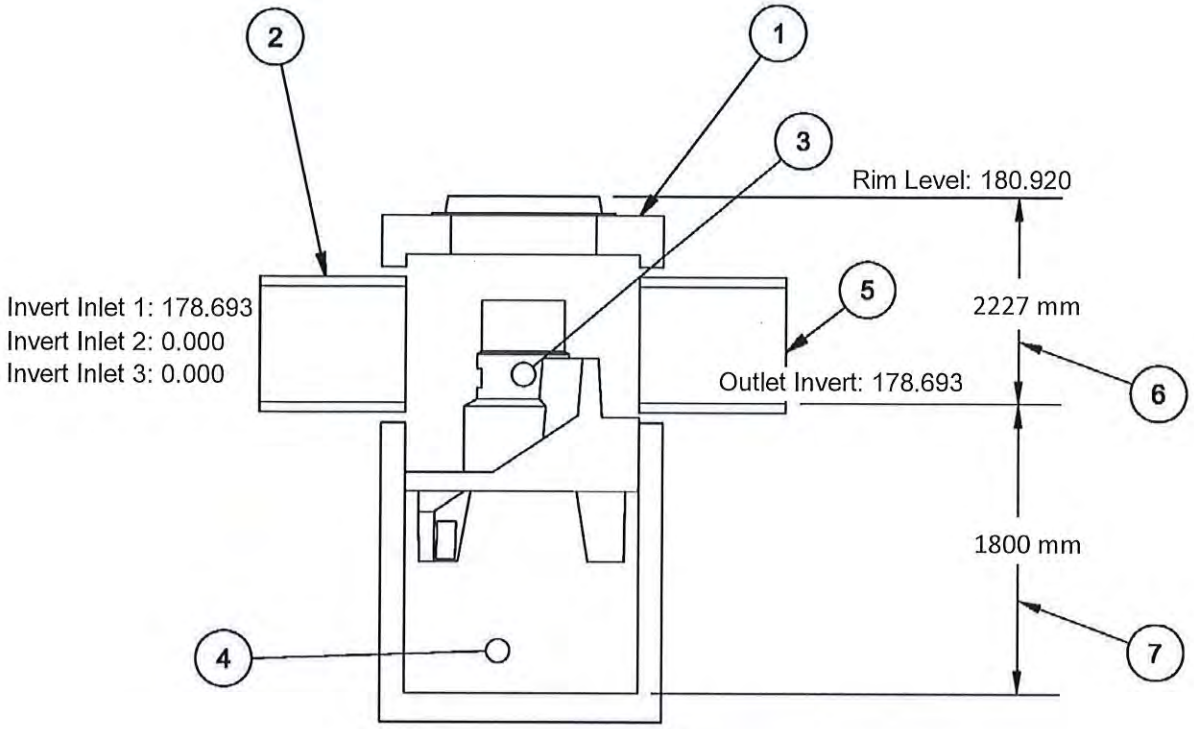
Installation Configuration:

Placement:	Offline		
Outlet Pipe Size:	300	mm	*OK*
Inlet Pipe 1 Size:	450	mm	*OK*
Inlet Pipe 2 Size:	0	mm	*OK*
Inlet Pipe 3 Size:	0	mm	*OK*
Rim Level:	180.920	m	Calc Invs.
Outlet Pipe Invert:	178.693	m	*OK*
Invert Pipe 1:	178.693	m	*OK*
Invert Pipe 2:	0.000	m	*Inlet below outlet will reduce treatment capacity*
Invert Pipe 3:	0.000	m	*Inlet below outlet will reduce treatment capacity*

Designer Notes:

Hydro First Defense® - HC

FD-5HC

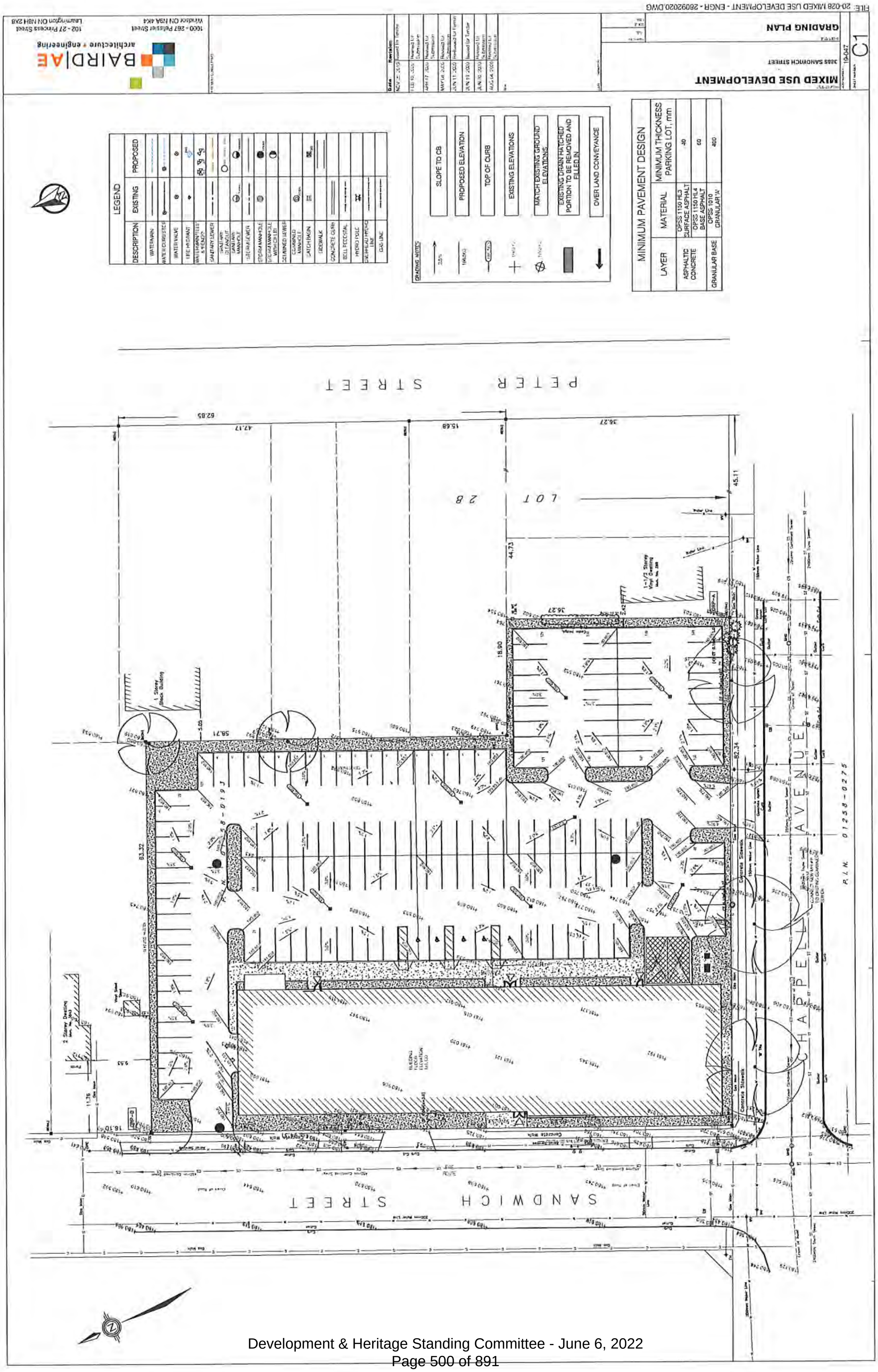


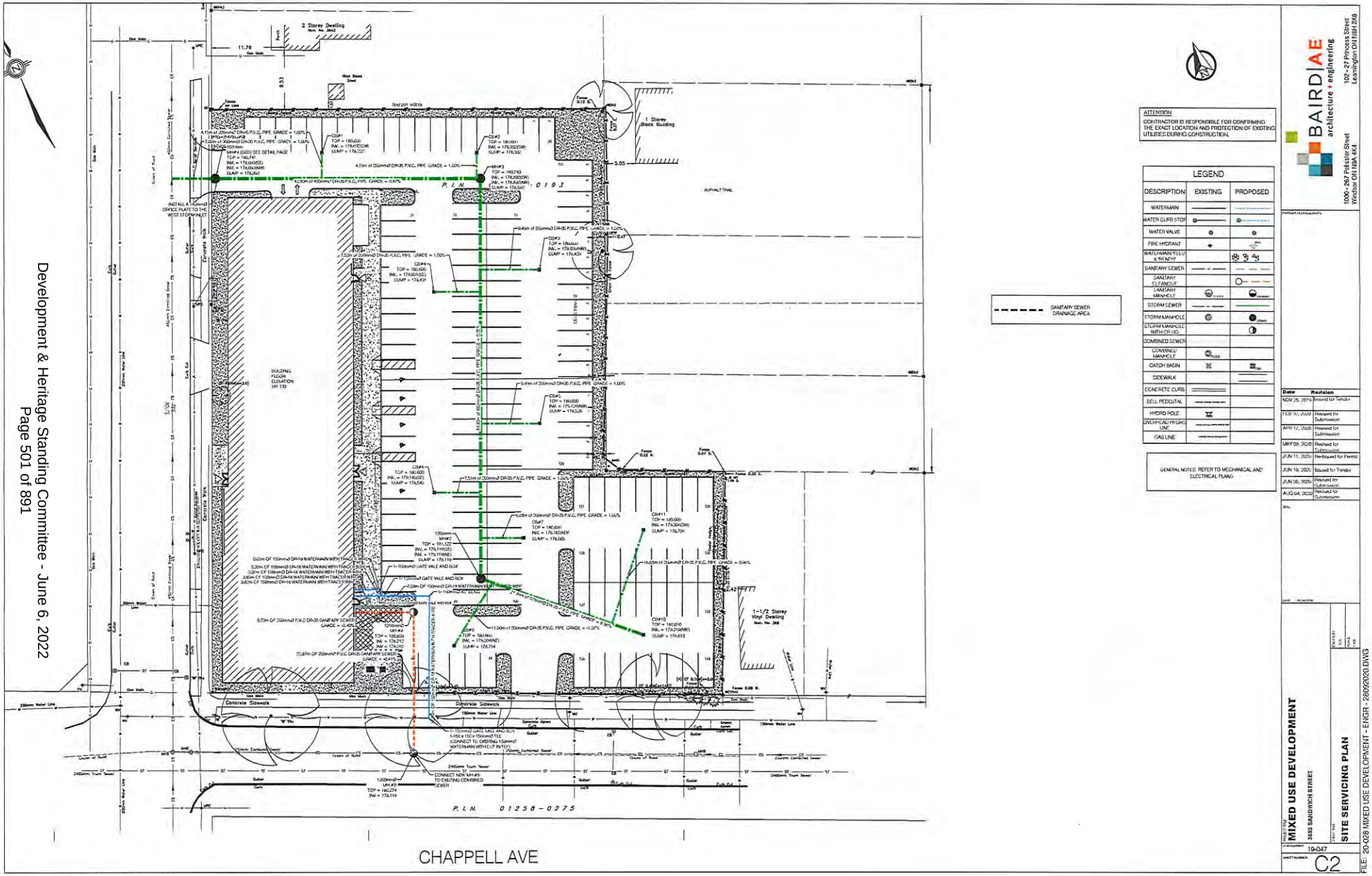
FD-5HC Specification

1	Vortex Chamber Diameter	1500 mm
2	Inlet Pipe Diameter	450 mm
3	Oil Storage Capacity	1136 L
4	Min. Provided Sediment Storage Capacity	0.84 m^3
5	Outlet Pipe Diameter	300 mm
6	Rim to Invert	2227 mm
7	Invert to Sump	1800 mm
	Total Depth	**4027 mm**

All drawing elevations are metres.

Designer Notes:


MIXED USE DEVELOPMENT
3685 SANDWICH STREET
GRADING PLAN
C1
19-047
FILE: 20-028 MIXED USE DEVELOPMENT - ENGR - 2609202020.DWG
BAIRD|AE
architecture + engineering
1000 - 267 Pelissier Street
Windsor ON N9A 4K4
102 - 27 Princess Street
Leamington ON N8H 2X8
LEGEND
DESCRIPTION
EXISTING
PROPOSED
GRADING NOTES
SLOPE TO CB
PROPOSED ELEVATION
TOP OF CURB
EXISTING ELEVATIONS
MATCH EXISTING GROUND ELEVATIONS
EXISTING DRAIN HATCHED PORTION TO BE REMOVED AND FILLED IN
OVER LAND CONVEYANCE
MINIMUM PAVEMENT DESIGN
LAYER
MATERIAL
MINIMUM THICKNESS PARKING LOT, mm
ASPHALTIC CONCRETE
OPSS 1150 HL3 SURFACE ASPHALT
OPSS 1150 HL4 BASE ASPHALT
GRANULAR BASE
OPSS 1010 GRANULAR 'A'
400
PETER STREET
LOT 28
SANDWICH STREET
CHAPPELL AVENUE
P.I.N. 01258-0275
Concrete Sidewalk



BAIRD|AE architecture + engineering
102 - 267 Pelissier Street
Windsor ON N9A 4K4
Leamington ON N8H 2X8

Date	Revision
NOV 25, 2019	Issued for Tender
FEB 10, 2020	Revised for Submission
APR 17, 2020	Revised for Submission
MAY 08, 2020	Revised for Submission
JUN 11, 2020	Re-Issued for Permit
JUN 19, 2020	Issued for Tender
JUN 26, 2020	Revised for Submission
AUG 04, 2020	Revised for Submission

PROJECT TITLE: **MIXED USE DEVELOPMENT**
3535 SANDWICH STREET

SHEET TITLE: **SITE SERVICING PLAN**

JOB NUMBER: 19-047
SHEET NUMBER: C2

FILE: 20-028 MIXED USE DEVELOPMENT - ENGR - 28092020.DWG

MIXED USE DEVELOPMENT
3585 SANDWICH STREET
STANDARD DETAILS
C3
19-047
BAIRD|AE
architecture + engineering
1000 - 287 Pelissier Street
Windsor ON N9A 4K4
102 - 27 Pinnacle Street
Leamington ON N8H 2X8
FILE: 20-028 MIXED USE DEVELOPMENT - ENGR - 28092020.DWG
STANDARD TRENCH BACKFILL DETAILS
CONCRETE SIDEWALK
OPSD 310.010
CONCRETE BARRIER CURB
OPSD 600.110
SEWER SERVICE CONNECTIONS FOR MAIN PIPE SEWER
OPSD 1006.010
PRECAST CONCRETE CATCH BASIN
OPSD 705.010
WATERMAIN FLUSHING AND TESTING PROCEDURE DRAWING IN SCALEVARD
CITY OF WINDSOR
COMMERCIAL DRIVE - CONCRETE
Hydro International
Hydro First Defense* - HC

BAIRD|AE
architecture + engineering

MIX USE DEVELOPMENT - URBAN DESIGN BRIEF

3885 Sandwich St. Windsor, ON N9C 1C2

TABLE OF CONTENTS

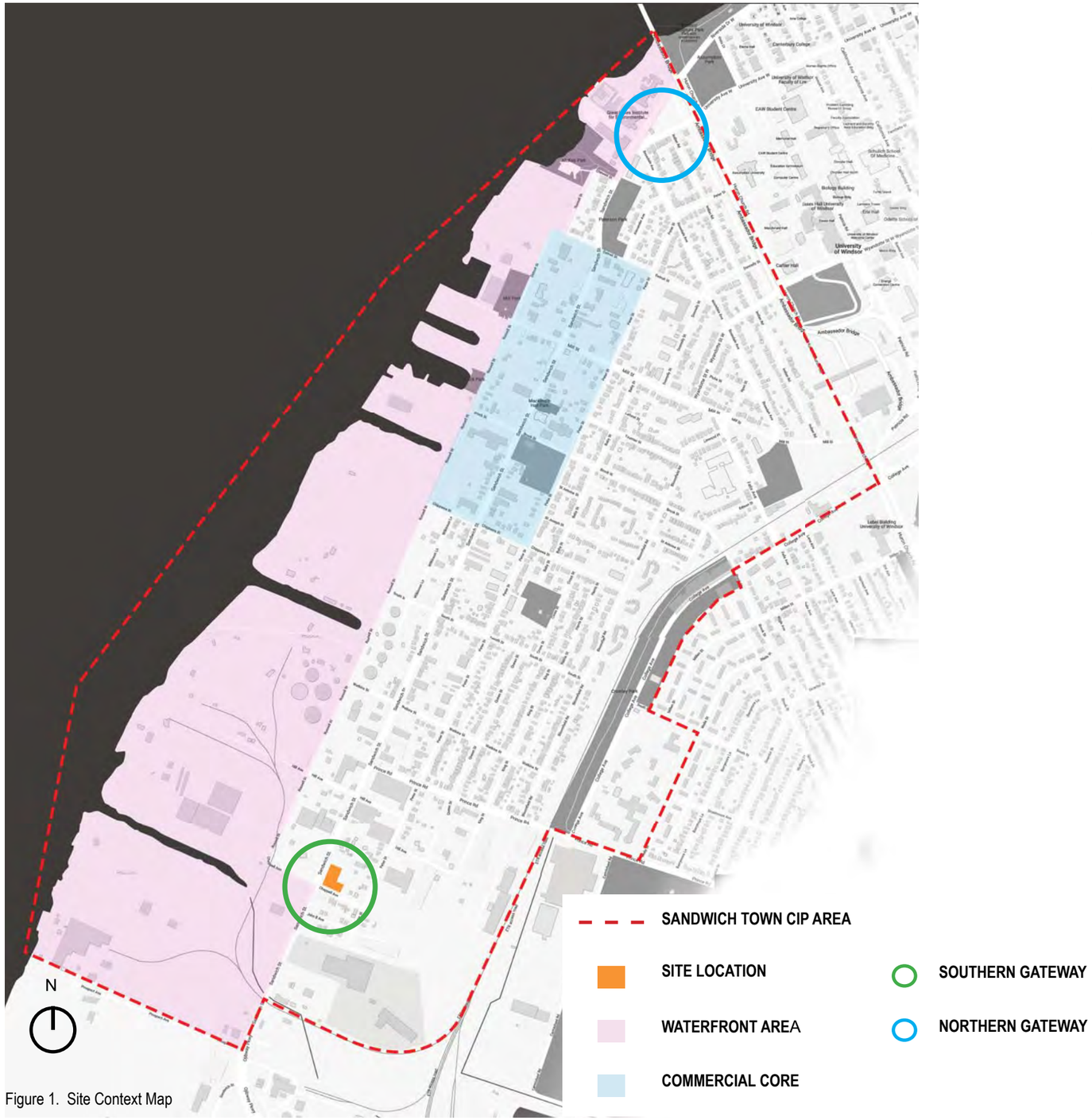


Figure 1. Site Context Map

SITE INTRODUCTION

THE PROPOSED DEVELOPMENT IS SITUATED AT SOUTHERN EDGE OF THE SANDWICH TOWN COMMUNITY IMPROVEMENT PLAN AREA AT THE INTERSECTION OF SANDWICH STREET AND CHAPPELL AVE. THIS 11 STOREY RESIDENTIAL BUILDING WILL ACCOMMODATE COMMERCIAL SPACE ON THE FIRST FLOOR AND FRAME THE SOUTHERN GATEWAY OF SANDWICH TOWN WITH AN IMPROVED PEDESTRIAN FRIENDLY PRESENCE.

THROUGH THE USE OF MATERIALS THAT PLAY HOMAGE TO THE SANDWICH HERITAGE CONSERVATION DISTRICT, THE PROPOSAL AIMS TO BUILD THE LINK BETWEEN THE SOUTHERN GATEWAY AND THE ESTABLISHED COMMERCIAL CORE. ATTENTION WAS GIVEN TO THE RESIDENTIAL AND COMMERCIAL ENTRANCES TO ESTABLISH A PEDESTRIAN SCALE THROUGH ARCHITECTURAL FEATURES AND LANDSCAPE INTERVENTIONS.

LANDSCAPING TO CREATE ATTRACTICE RESIDENTIAL STREETSCAPES

PARKING/ BUILDING FUNCTIONS TO BE LOCATED IN REAR TO MAXIMIZE BUILDING STREET PRESENCE.

COMMERCIAL SPACE LOCATED ALONG SANDWICH ST. AND CHAPPELL AVE. TO ENCOURAGE PEDESTRIAN ACCESS AND VISIBILITY FROM STREET LEVEL

BUILDING POSITIONED TO HAVE A POSITIVE RELATIONSHIP TO ROAD/ EXISTING BUILDINGS ON SANDWICH ST

Figure 2. Site Plan

GUIDANCE

Olde Sandwich Towne Community Improvement Plan

6.2.1 Appearance and Community Image

- Improve the visual and perceived appearance and community image of OST.
- Improve the appearance of the gateways into OST with street furnishings, lighting, signage and ornamental plantings.
- Create a pedestrian friendly environment along Sandwich Street.
- Ensure consistency in building mass, treatment and promotion of building use along the Sandwich streetscape.
- Establish a consistent street edge along Sandwich Street and introduce new activity to the street.
- Promote visual interest, walkability and sense of place for visitors.
- Install iconic pieces of public art that help to tell a story, provide visual interest, and create landmarks in OST.

6.2.3 Commercial Development and Business Attraction

- Attract a diverse range of retail businesses and cultural activities to OST.
- Improve the overall image and ability to attract new businesses to the commercial core of OST.
- Improve the appearance and image of industrial properties on the Waterfront.

6.2.3 Commercial Development and Business Attraction

- Attract a diverse range of retail businesses and cultural activities to OST.
- Improve the overall image and ability to attract new businesses to the commercial core of OST.
- Improve the appearance and image of industrial properties on the Waterfront.

City Of Windsor Official Plan

2.5.5.2 Mixed Use Policies

- To encourage multi-functional areas which integrate compatible commercial,institutional, open space and residential uses.
- To encourage a compact form of mixed use development. declining or obsolete industrial areas;
- To provide opportunities to create and maintain special area identities and focal points within Windsor.
- To provide public places for strolling, recreation, conversation and entertainment.
- To increase the use of walking, cycling and public transportation within the designated Mixed Use area by fostering a strong live-work-shopping-recreation relationship.

Policy 11.8.2.2

- Residential areas where the housing stock is in need of maintenance, rehabilitation and/or repair;
- Declining commercial or mixed use areas where there are a number of vacant or underutilized properties;
- Declining or obsolete industrial areas;
- Areas in which there are land use conflicts as a result of incompatible uses;
- Areas that have deficient municipal services such as parks, sewers and roads; and
- Areas that have the potential to be new employment areas.

RESPONSE

The proposed development signify the Southern gateway into old sandwich town (OST). Through its architectural articulation and a materiality that plays homage to the brick buildings of the OST commercial core, the proposed development establishes a link to the more developed North OST. This link is further developed by allocating over 5000sf of retail space along Sandwich St. and Chappell, there activating the pedestrian realm and creating a vibrant neighborhood. The proposal presents a visual and perceived improvement to the pedestrian scale of the Southern gateway into OST.

Figure 4. Figure ground

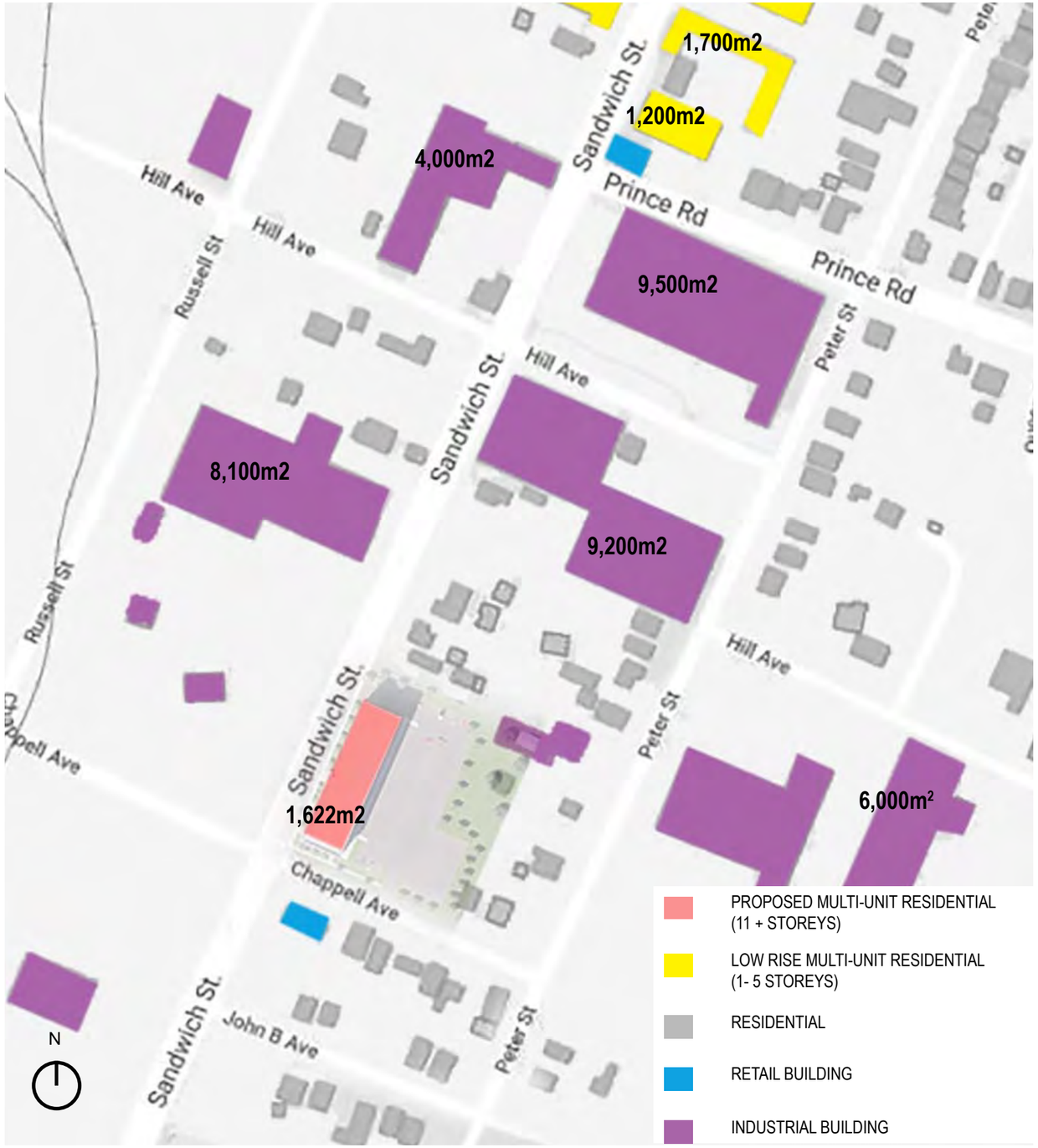


Figure 5. Site Massing Area Map

GUIDANCE

City of Windsor Official Plan

8.2.2.5 Built Form

Council will ensure that the design of new development:

- is complementary to adjacent development in terms of its overall massing, orientation, setback and exterior design, particularly character, scale and appearance;
- Provides links with pedestrian, cycle, public transportation and road networks; and
- Maintains and enhances valued heritage resources and natural area features and functions.
- Encourages the creation of attractive residential streetscapes through architectural design that reduces the visual dominance of front drive garages, consideration of rear lanes where appropriate, planting of street trees and incorporation of pedestrian scale amenities.

8.2.2.5 Built Form

- Council will ensure that the design of extensive areas of redevelopment achieves the following:
- provides a development pattern that support a range of uses and profiles;
- defines the perimeter of such an area by a distinct edge which may be formed by roads, elements of the Greenway System or other linear elements;
- contains activity centres or nodes which are designed to serve the area and which may be identified by one or more landmarks;
- provides transportation links to adjacent areas; and
- maintains and enhances valued historic development patterns or heritage resources.
- is complementary to adjacent development in terms of overall massing, orientation, setback and exterior design, particularly character, scale and appearance.

RESPONSE

The proposed development is contextually located in a predominantly Industrial district at the South end of the Sandwich CIP area. It occupies a significantly smaller massing footprint to its surrounding built industrial context. Although the proposed development is taller than the surrounding context it establishes an improved pedestrian scale through attractive architectural and landscape features, and also improves and activates the pedestrian realm by allocating retail along Sandwich st. and Chappell Ave. The proposed development built form will provide the missing link of sandwich town and create a new visual landmark.

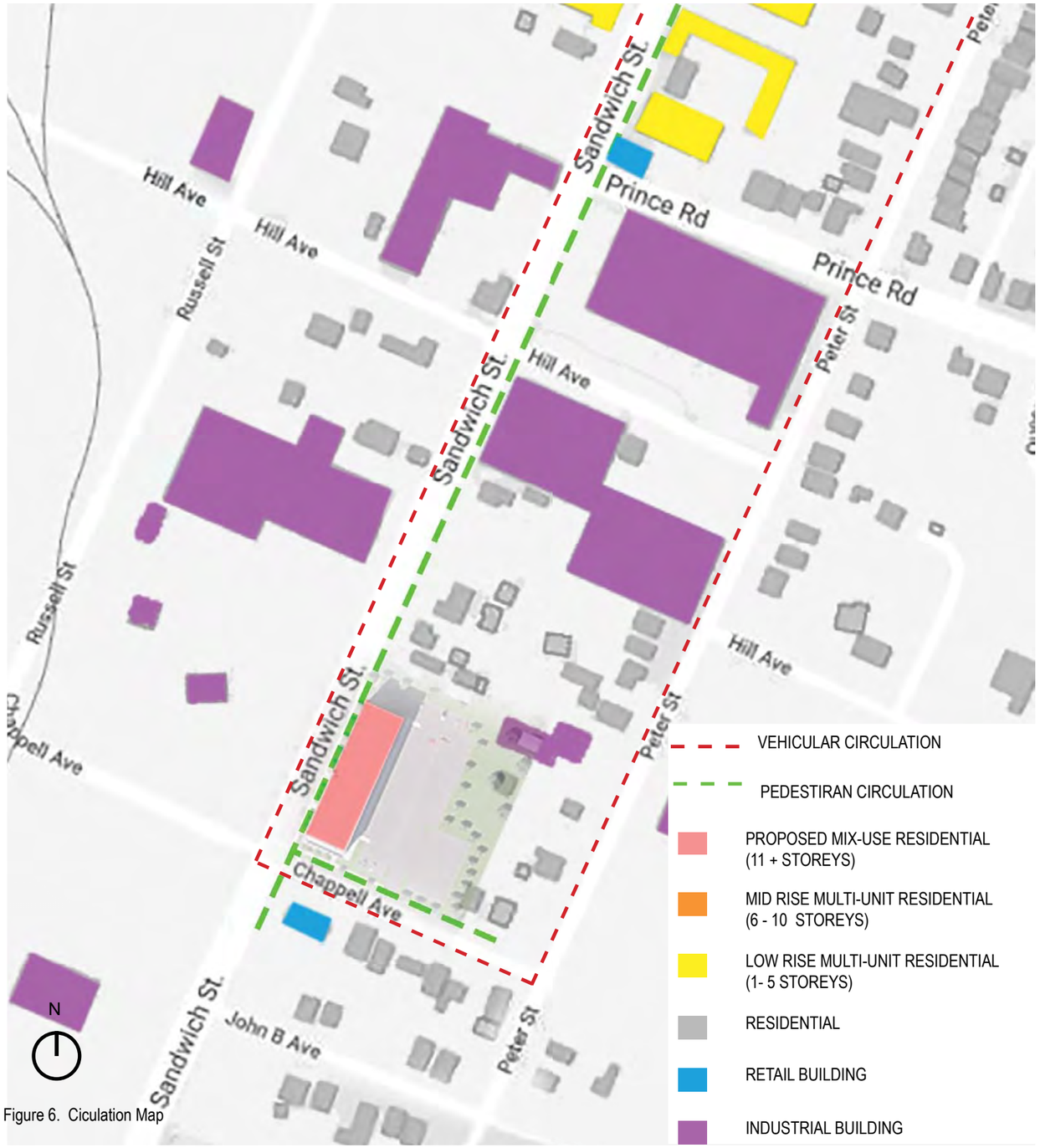


Figure 6. Ciculation Map

GUIDANCE

City of Windsor Official Plan

Policy 8.2.2.5 Gateways
Building entrances should be welldefined and accessible to pedestrians and the handicapped persons with disabilities.
- provide a sense of welcome and arrival;
- assist in orientation;
- create a memorable image; and
- contribute to the social, cultural, historic orthematic character of the area being defined

Policy 8.2.2.7
Council will ensure that a proposed development or infrastructure
undertaking enhances the image of Windsor, its districts and/or its neighbourhoods by complementing and contributing to:
- the activity of the area together with the character, scale, appearance and design features of existing buildings
- the landmarks in the area;
- the consistency and continuity of the area with its surroundings;
- linkages within, to and from the area.

Policy 8.4.1.1
To integrate barrier-free pedestrian routes in the design of urban spaces.

RESPONSE

The proposed development will be a landmark project that will establish the Southern Gateway into the Old Sandwich Town (OST). It will activate and improve the pedestrain realm through the addition of retail along Sandwich St. and Chappell Ave. The landscaping features along Sandwich St. will promote pedestrian circulation and create an overall welcoming and memorable image of the Southern gateway into the OST.

VISUAL MARKERS FOR FACADE CHANGES IN MATERIAL OR SCALE

REPETITIVE FACADE DESIGN ELEMENTS

VISUALLY INTERESTING LANDSCAPE AREAS AND ELEMENTS

STRATEGICALLY PEDESTRIAN SITE SEATING TO PROMOTE PEDESTRIAN USE AND MOVEMENT

BUILDING FACADE/ BUILDING FORM

- STREET LEVEL ENTRANCES AND WINDOWS
- USE OF INCREMENTAL CHANGES TO FACADE AND LANDSCAPE BUFFER
- HAVE REGARD TO DEFINED SPACE, POSITION TO ROAD
- PROVIDE LINKS FOR PEDESTRIAN, CYCLE, AND PUBLIC TRANSPORT.
- REPETITIVE BUILDING FEATURES AND FAMILIAR SIZED DESIGN ELEMENTS
- BUILDING TO CREATE A SENSE OF PLACE IN NEIGHBOURHOOD/ ENHANCE EXISTING NEIGHBOURHOOD WITH NEW TYPOLOGY

LANDSCAPING AREA

- PROMOTE AND DEFINE PUBLIC SPACE
- VISUALLY REINFORCE THE DEVELOPMENT
- DIRECT MOVEMENT FROM STREET TO SITE
- PROVIDE SEASONAL COLOUR, TEXTURE AND FORM
- PEDESTRIAN FRIENDLY AMENITIES

Figure 3. Site Section

LANDSCAPE AREA	EXISTING SIDEWALK		VEHICLE PARKING	BIKE LANE	SANDWICH ST

BAIRD|AE architecture + engineering

SITE CIRCULATION / MIXED USE DEVELOPMENT

3885 SANDWICH ST
/ SEP 2, 2021

GUIDANCE

City of Windsor Official Plan

Policy 8.3.2.2
Council will encourage buildings and spaces that establish a pedestrian scale by promoting:
- the placement of continuous horizontal features on the first two storeys adjacent to the road;
- the repetition of landscaping elements, such as trees, shrubs or paving modules; and
- the use of familiar sized architectural elements such as doorways and windows.

Policy 8.7.1.1
To achieve a varied development pattern which supports and enhances the urban experience.

Policy 8.7.1.2
To achieve a complementary design relationship between new and existing development,while accommodating an evolution of urban design styles.

Policy 8.7.1.3
To maximize the variety and visual appeal of building architecture.

Policy 8.7.1.4
To integrate art and landscaping with the built form.

Policy 8.7.1.5
To enhance the unique character of a district, neighborhood, prominent building or grouping of buildings.

Policy 8.7.1.6
To ensure that signs respect and enhance the character of the area in which they are located.

Policy 8.7.1.7
To achieve external building designs that reflect high standards of character, appearance, design and sustainable design features.

Policy 8.7.2.1
Council will ensure that the design of new development:
- is complementary to adjacent development in terms of its overall massing, orientation, setback and exterior design, particularly character, scale and appearance;
- provides links with pedestrian, cycle, public transportation and road networks.
- maintains and enhances valued heritage resources and natural area features and functions.
- Encourages the creation of attractive residential streetscapes through architectural design that reduces the visual dominance of front drive garages, consideration of rear lanes where appropriate, planting of street trees and incorporation of pedestrian scale amenities.

GUIDANCE

City of Windsor Official Plan

Landscaping 8.5.2.5
Council will encourage the use of landscaping to:
- Promote a human scale;
- promote defined public spaces;
- accentuate or screen adjacent building forms;
- frame desired views or focal objects;
- visually reinforce a location;
- direct pedestrian movement;
- demarcate various functions within a development;
- provide seasonal variation in form, colour, texture and representation;
- assist in energy conservation; and
- mitigate the effects of inclement weather.

Protection from Elements 8.6.2.1
Council may encourage design measures such as awnings, canopies, arcades, or recessed ground floor facades to offer pedestrian protection from inclement weather

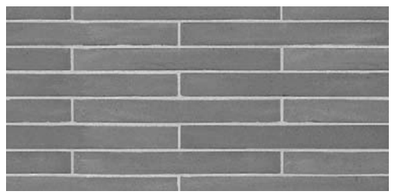
Policy 8.7.2.3
Council will ensure that proposed development within an established neighborhood is designed to function as an integral and complementary part of that area's existing development
- pattern by having regard for:
- massing;
- building height;
- architectural proportion;
- volumes of defined space;
- lot size;
- position relative to the road; and
- building area to site area ratios.
- the pattern, scale and character of existing development; and,
- exterior building appearance

Policy 8.7.2.5
Council will require new development to support the creation of continuous building facades along Mainstreets through the street level presence of:
- community facilities, retail shops, and other frequently visited uses; and
- architectural features and elements which can be experienced by pedestrians.

Policy 8.7.2.6
Council will encourage the buildings facades to be visually interesting through extensive use of street level entrances and windows. Functions which do not directly serve the public, such as loading bays and blank walls, should not be located directly facing the street.

Figure 7. Perspective

PRIMARY BRICK 1



PRIMARY BRICK 2

METAL ACCENT

GUIDANCE

City of Windsor Official Plan

Objective 8.8.1.1 To use public space to enhance the image of Windsor.

Objective 8.8.1.2 To clearly define the boundaries and edges of public space and their access points to form an identifiable, safe and inviting space.

Objective 8.8.1.3 To create a variety of public spaces which accommodate a broad range of activities and encourage year round use.

Policy 8.8.2.1 For the purpose of this Plan, public space includes all lands within public rights-of-way, open space areas, elements of the Green way System and other privately owned areas intended for public use.

Policy 8.8.2.2 Council will promote the design of public spaces to define and complement the image of Windsor and its neighborhoods.

Policy 8.8.2.6 Council will promote the creation of public spaces which accommodate a range of human social contact, from individual contemplation and private conversations to group activities and festivities

Policy 8.8.2.7 Council will ensure that spaces which are privately-owned but publicly accessible, such as plazas, landscaped setbacks, or courtyards, support the function and enhance the appearance of the streetscape.

Policy 8.9.2.1 Council may identify views and vistas which:
- contribute to the image of Windsor;
- provide orientation for residents and visitors; and
- foster a sense of anticipation and arrival.

Policy 8.9.2.7 Council will promote the use of framing elements to enhance significant views and vistas in Windsor and will consider the installation of landscaping elements and light standards; the siting, profile and massing of a proposed development; and the location of infrastructure and other urban elements in the implementation of this policy.

Policy 8.9.2.9 Council will ensure that the transportation system is designed and laid out to provide the best vantage points for significant views and vistas.

Policy 8.11.2.10 Council will promote the development of Mainstreets at the locations identified on Schedule G: Civic Image. Such Mainstreets will be designed to:
- promote a diverse mixture of commercial, residential and other appropriate land uses along the road;
- encourage pedestrian activity and movement along the streetscape; and
- provide and/or enhance the unique character of the surrounding neighborhood.

Policy 8.11.2.14 Council will promote the designation of cycling routes and segregation of movement by design features such as distinctive surface treatments, painted lines and symbols subject to appropriate design and engineering guidelines.

Policy 8.11.2.15 Council will ensure the ease of orientation along the pedestrian and cycle networks through the provision of signs, route maps and key views.

Policy 8.11.2.16 Council will consider the use of gateways, signs, decorative sidewalks, sculpture and other features at points along roads and/or routes where it is appropriate to emphasize the entrances to the city or its neighborhoods.

Policy 8.11.2.17 Council will ensure that seating along roads is provided as required and is designed to:
- provide comfort for pedestrians at waiting areas, bus stops and near public facilities and institutions;
- support activities along the road in commercial or mixed use areas;
- support conversation and social interaction through the appropriate location and orientation of seating;
- provide a degree of protection from inclement weather;
- provide seating surfaces in proportion to the intensity of activities and the size of the space; and
- encourage an active street-life in all seasons.

Policy 8.11.2.18 Council may support sidewalk cafes subject to appropriate design guidelines.

Policy 8.11.2.19 Council will encourage the partial screening of surface parking lots through the use of low fences, walls, berms and other landscape elements, and through the location of lots away from street view, while still permitting views for orientation and safety

Policy 8.11.2.21 Council will encourage parking lots that avoid large expanses fronting the road

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Figure 8. Perspective

Based on urban the urban study review, it is in our opinion that the proposal adheres to the design direction of Old Sandwich Town Community Improvement Plan and the City of Windsor Official Plan.

The proposal addressed site design and orientation, built form, public realm, landscape design, architectural design and will be of high quality to meet the City of Windsor Standards.

This project will be a missing link for Sandwich Town, linking and marking the arrival and exit of the neighbourhood.

SOIL & MATERIALS ENGINEERING INC.
CONSULTING ENGINEERS

Report on

Geotechnical Investigation for the

Proposed 11-Storey Multi-Use Development

3885 Sandwich Street, Windsor, Ontario

Report Issued to

Tunio Developments Inc.
2089 Osbond Road
Innisfil, ON L9S 0A9

Attention: Khurram Tunio
khurramtunio@yahoo.com

Date of Report

May 21, 2021

Job No.

20G085
Rev.: 00

Distribution of Report

1 e-copy – Tunio Developments Inc.
1 e-copy – Baird AE

EXECUTIVE SUMMARY

In accordance with the request and authorization from Mr. Khurram Tunio, representing Tunio Developments Inc., Soil & Materials Engineering Inc. completed a geotechnical investigation for the proposed 11-storey multi-use building development on 3885 Sandwich Street, Windsor, Ontario.

The geotechnical investigation includes seven conventional augered and sampled testholes and two specialty Marchetti-type flat plate dilatometer (DMT) probe tests. Subsequent lab testing on the samples obtained during the investigation was completed. Based on the results of the geotechnical investigation, Soil & Materials Engineering Inc. offers the following conclusions regarding the geotechnical recommendations:

- Ultimate Limit States Factored Bearing Resistance for Isolated square footings depending on depth of placement, capacity ranging from 90 kPa to 120 kPa. Continuous strip footings similarly varying with depth 75 to 105 kPa.
- Serviceability Limit States Unfactored Geotechnical Resistance for Isolated square footings depending on depth of placement, allowable stress ranging from 60 kPa to 80 kPa. Continuous strip footings similarly varying with depth 50 kPa to 60 kPa. These limits ensure less than 25 mm of settlement, for limited size footings.
- Alternative foundation considerations both intermediate and deep
- Floor slab-on-grade design and exterior pavement design recommendations
- Excavation recommendations that include safe side walls from the bottom at a minimum gradient of 1H:1V commencing 1.2m from the base of the excavation in accordance with Provincial Regulations, after dewatering, if excavations are less than 3 metres deep.
- Pavement construction
- A class “E” site classification for seismic site response.

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1.0 INTRODUCTION

Mr. Khurram Tunio, representing Tunio Developments Inc., authorized Soil & Materials Engineering Inc. to complete a Geotechnical Investigation for the proposed 11-storey multi-use building development located at 3885 Sandwich Street, Windsor, Ontario. The area of development is a currently a vacant grassland.

The scope of work is to carry out a geotechnical investigation for project design purposes and to prepare a geotechnical report based on soil borings and laboratory testing.

This report discusses the results of our investigation with respect to the proposed development. The results of the fieldwork and laboratory testing programs were used to determine the relevant soil and groundwater parameters at this site. The recommendations contained in this report refer to the geotechnical aspect of the soil conditions encountered in the exploratory holes.

This report has been prepared using Systeme Internationale (S.I.) metric units. Field and laboratory testing has been completed in general accordance with the applicable American Society for Testing and Materials (ASTM) standards. The engineering principles applied in the development of the recommendations herein are in general accordance with the Canadian Foundation Engineering Manual 4th Edition, 2007 (CFEM), National Building Code of Canada, 2006 (NBC), and Canadian Highway Bridge Design Code (CSA-S6-06).

2.0 INVESTIGATIVE PROGRAM

The field work portion of the geotechnical investigation consisted of ten augered and sampled testholes; conventional testholes (Testhole 2, and P1 through P5, & TW Sample), and two Specialty Marchetti-type flat blade dilatometer probes (1-DMT and 3-DMT) completed in accordance with ASTM D6635 at the approximate locations indicated on the Site Maps (Drawing 1 and 2). Testholes P01 through P06 were denoted for the use of pavement construction, testholes 1-3 were used for foundation design (shallow, intermediate, and deep). The advancement of the testholes was facilitated with a truck-mounted power auger machine owned and operated by C.T. Soil & Materials Testing Inc. The truck-mounted drill unit is equipped with hollow stem augers, solid stem augers, and conventional soil and rock sampling tools. The testholes were completed during the period of December 2020 and February 2021 under the direction of a geotechnical engineer. The testhole information from the geotechnical investigation is presented in graphical form in the Log of Testholes (Drawings 3 through 12). A summary of the Testholes for the geotechnical investigation are shown in the following table.

TABLE 1: Depth of Testholes

Testhole	Depth (m)
1-DMT	34.15 + 2.05 of Bedrock
2	15.25
3-DMT	29
P1 through P6	2
TW- Sample	10.65

Soil samples were retrieved at frequent intervals of depth using the Standard Penetration Test Method (ASTM D1586). To assess the in-situ soil strength, field vane tests were conducted where applicable in accordance with ASTM D2573 as well as through the DMT probe. Relatively undisturbed sample was obtained at selective depth using a thin-walled sampler (Shelby tube). The retained soil samples were field logged, placed in suitable containers and transported to our laboratory for further

detailed examination and testing. Coring was completed in accordance with ASTM D2113, recorded on the logs, and presented on testhole 1-DMT (Drawing 3).

Testhole 1-DMT was advanced through the soil column and into the bedrock. Casing was set into the rock and the testholes were further advanced by continuous diamond core sampling (Nx size). Upon retrieval of individual run of the core barrel, the rock core was logged and placed in wooden core boxes for detailed examination and testing in the laboratory. Field Rock Quality Designation (RQD) was determined on each sample run.

The testhole locations were staked out in the field by Soil & Materials Engineering Inc. A level survey was completed in order to relate the testholes to a common datum. The site benchmark used for this geotechnical investigation is the top of fire hydrant on the north side of Chappell Avenue as indicated on the site maps (Drawings 1 and 2). The benchmark was given an assigned elevation of El. 181.25 metres. The depths and elevations presented in this report were derived for the sole benefit of the geotechnical analysis and stratigraphic evaluation by the geotechnical engineer. The depths and elevations presented in this report should not be used by others, for any other purpose.

The laboratory testing included a detailed visual and tactile examination of the retrieved samples along with soil moisture content, unit weight determinations, consolidation testing in accordance with ASTM D2435 (Drawing 13), and plasticity index in accordance with ASTM D4318 (Drawing 14) on selected soil samples. The soil moisture content and unit weight results are presented on the Testhole Logs (Drawings 3 through 12). Laboratory or field pocket penetrometer results to assess undrained shear strength were taken on selected samples and plotted on the enclosed logs.

3.0 SITE AND SUBSURFACE CONDITIONS

The new 11-storey development will be located within a vacant rectangular piece of grassland located on 3885 Sandwich Street, Windsor, Ontario, east corner of the Chappell Avenue and Sandwich Street intersection. The new development will consist of an 11-storey mixed use rectangular building and the bulk of the property is flat and generally level with grade changes of ±0.5 metres.

3.1 Geological Condition

The site is located within the western part of an extensive clay plain formation (Essex Clay Plain) characterized by fairly uniform geologic features. Standing between the basins of Lake Erie and Lake St. Clair, the surface is, essentially, a till plain overlying middle Devonian sedimentary rocks (limestone and shale). Limestone underlies most of the Essex County area; shale beneath the northern and eastern portion of Windsor. The thickness of the soil overburden in the general area is approximately 35 metres. We reached bedrock at this site at 34 metres.

At various sites in the region, gas and/or oil pockets, and/or artesian sulphur water are encountered near or immediately below the bedrock surface.

No major faults or dislocations due to the breaking of the Palaeozoic bedrock are reported in South-western Ontario.

3.2 Soil Condition

The stratigraphic and interpreted boundaries in the testholes were obtained from 38 mm diameter samples retrieved from 165 mm diameter auger holes. The soil undrained shear strength consistency, as provided on the enclosed Testhole Logs (Drawings 3 through 12), are based on "N"-values determined from the Standard Penetration Test Method (ASTM D1586), reactions to the DMT (ASTM D6635), and field vane shear tests (ASTM D2573) results, as well as visual and tactile examination of the soil samples.

3.2.1 Pavement Composition

At ground surface testholes 2, P1, P2, P4, and P5 encountered an initial surface asphalt layer of 50 mm, few of the testholes were followed closely by gravel fill, 150 mm to 250 mm below ground surface.

3.2.2 Fill

At ground surface and below the above pavement composition, the testholes encountered a heterogeneous mixture of black organic sandy topsoil, clay, glass, sand, gravel, brick, and cinder within various testholes. The fill varies in depth from 0.35 m to 1.05 m.

3.2.3 Sand

Below the topsoil, the site is underlain by fine to medium grained sand, silt content varies within testholes. The deposit encountered in Testhole 2 consists of medium-grained sand, brown colour, is in a general “compact” state, and terminates at 3.05 metres below grade.

3.2.3.1 Sand with Silt

Sand with silt is encountered in testholes P1, P3 and P6 terminating at the depth of the testholes, 1.95 metres below grade. The sand with silt is dry, fine to medium grained, brown in colour, and has a “loose” to “compact” compactness condition.

3.2.3.2 Silty Sand

Silty Sand is encountered in most of the investigated testholes. The silty sand is fine to medium grained sand with silt and varies between 1.95 metres and 2.3 metres below grade. The deposit of fine-grained sandy silt is brown in colour, and is generally found to be in a “loose” to “compact” state.

3.2.4 Varved Clay

Beneath the non-cohesive sand deposit, the testholes encountered cohesive clay varved with silt and fine sand laminations. The varved clay is grey in colour and has a “soft” undrained shear strength consistency. The cohesive soil is present to a depth of 20 metres below grade, the undrained shear strength increases to “firm” below 12.0 metres of depth.

3.2.5 Silty Clay

The varved clay is underlain by grey silty clay containing embedded sand and gravel. The structure and texture of the deposit has glacio-fluvial characteristics. The undrained shear strength is

greater than the overlying varved deposit, having a “stiff” undrained shear strength, somewhat decreasing with increased depth. The depth extent of the silty clay was found to extend from 20 metres until 30 metres below grade.

3.2.6 Sand and Silt Lenses

Within the major silty clay stratum, non-cohesive, water bearing lenses of gravel, sand and silt can be found. Such lenses were observed in some of the retained samples.

3.2.7 Abladed Till

Beneath the non-cohesive soil, the testholes interpreted an encountered a stratum of abladed till (hardpan). The abladed till has a soil matrix composed of “hard” silty fine sand with clay and frequent occurrences of embedded cobbles, boulders and limestone ledge-rock.

3.2.8 Limestone (Bedrock)

Testhole 1-DMT was advanced into the underling sound bedrock. Sound bedrock (free of underlying soil) was encountered at 34 metres below ground surface.

The bedrock was sampled using an Nx size diamond core barrel. Core recovery was 100% in the sound bedrock. Rock Quality Designation (RQD) was determined to be 100%. The rock is limestone to dolomitic limestone with frequent light to medium hydrocarbon staining, occasional distinct styollitic bedding and occasional porous zones. The sub-horizontal fracturing follows planes of weakness. Fracture location and frequency are mapped on the enclosed Log of Testholes. Bedrock core photos can be found in Appendix ‘B’

3.3 Groundwater

The groundwater level and the depth that the testhole remained open when measured after the completion of drilling is recorded on the enclosed Log of Testholes.

Free flowing groundwater was flowing in through the sand layer 3 metres below ground surface. Additionally, water level was recorded at 2.75 metres after 24 hours upon completion. Inferred water levels are also plotted on the enclosed Testhole Logs (Drawings 3 through 12), although water levels can be as high as ground surface at various times of the year.

The long-term lowest level of the groundwater at this site is generally associated with the interface of the brown and grey silty clay soil, the grey colour indicating permanently saturated conditions. Therefore, based on the testhole information, it appears that the long-term lowest level of groundwater level is located approximately 3.1 metres below existing grades.

Perched water may be encountered in the surficial topsoil and fill materials at wetter times of the year. Perched groundwater conditions result from the fill materials or soil fissures having the capacity to temporarily store water from rain and snow melt before it percolates to the long-term level of the groundwater table.

4.0 DISCUSSION AND RECOMMENDATIONS

Tunio Developments Inc. is proposing to develop an 11-storey multi-use development on 3885 Sandwich Street, Windsor, Ontario. The existing property is currently a vacant grassland undeveloped, with past development as revealed during the investigation. The building is basementless at the time of this report with 11 stories above grade, however, recent findings in this report may lead to alternative considerations. Beyond the building footprint the property will be used for car parking, as shown on the site maps (Drawings 1 and 2).

4.1 Foundations

The exploratory testholes completed at this site reveal variable shallow subsurface conditions in terms of soil composition and compactness condition or shear strength consistency. Below the fill, the site is characterized by “loose” to “compact” non-cohesive sand layer to a depth of 3.05 metres below grade. Beneath the sand, “soft” to “firm” varved clay is encountered to a depth of 20.0 metres followed by “stiff” silty clay containing embedded sand and gravel to a depth of 30 metres below grade. Presumably following the silty clay, albladed till can be found overlaying the bedrock to a depth of 34 metres below grade, the depth extent of the investigation. The water table at the time of the investigation was measured to be 2.75 metres below grade at the time of the fieldwork portion of the geotechnical investigation.

The bearing capacity of shallow foundations was therefore calculated for this report based on the presence of a non-cohesive soil, overlying “soft” varved marginally over-consolidated cohesive soil. (i.e. two layer or three-layer soil model). The following subsections presents geotechnical resistance referenced to the ultimate limit states and the serviceability limit states for conventional shallow spread foundations at this site

4.1.1 Ultimate Limit States

The factored net geotechnical resistance at ultimate limit states (geotechnical resistance factor, Φ, of 0.5) that may be used for conventional spread footing foundations are presented below.

TABLE 2: U.L.S Factored Bearing Resistance

Depth (m)	Factored Geotechnical Resistance, ΦR, at U.L.S. (kPa)*	
	Isolated Square	Continuous Strip
u/s fill/topsoil to El. 178	120	105
El. 177.5 to El. 176	90	75

* Some locations may require increased footing width (lower bearing pressure) in order to achieve the stipulated performance criteria.

The above factored geotechnical resistance at ultimate limit states incorporates 0.50 as an applied resistance factor, Φ, to the ultimate geotechnical resistance. These values are net of the lowest surcharge pressure on the soil surrounding the footing.

4.1.2 Serviceability Limit States

For geotechnical calculation purposes, the gross bearing pressure at serviceability limit states has been taken for that pressure to generate 30 mm of total settlement beneath the footing, thereby generally assuring less than 25 mm differential settlement between any two foundation units. The composition of the unfactored loads to generate the calculated settlement will be dependent on the long-term sustained loading conditions which will include 100% of the dead loads and likely only a portion of the live loads and no component for transient loads such as wind or earthquake.

Geotechnical resistance at serviceability limit states that may be used for conventional spread footing foundations less than 3 metres (isolated square) and 2.0 m (continuous strip) are presented below.

TABLE 3: Geotechnical Resistance (Unfactored) at S.L.S.

Depth (m)	Geotechnical Resistance at S.L.S. (kPa)	
	Isolated Square	Continuous Strip
u/s fill/topsoil to El. 178	80	70
El. 177.5 to El. 176	60	50

* Some locations may require increased footing width (lower bearing pressure) in order to achieve the stipulated performance criteria.

Foundations exceeding the above design chart or maximum footing width may be feasible; however, a detailed geo-structural interaction analysis must be completed for proper evaluation.

4.1.3 Alternate Intermediate Foundation Considerations

Sections 4.1.1 and 4.1.2 present the foundation requirements for foundations placed on native soil at this site and may not have the capacity needed for the structural design. As a result, consideration should be given to alternate foundation systems such as drilled caisson foundations and intermediate depth rammed aggregate piers foundations. These will strengthen and give a better ULS, but it will not help with settlement (SLS).

4.1.3.1 Drilled Pier Foundations

Conventional drilled pier concrete foundations can provide high load capacities. Drilled pier foundations are well suited for end-bearing into rock or dense till and have been successfully used in stiff clays, as is the case for this site. We do not recommend advancing caisson foundations to the sandy gravel due to the documented presence of pressurized natural gas at this site.

For a drilled pier foundation with a minimum diameter of 0.75 metres and a maximum diameter of 1.2 metres, socketed into the “stiff” silty clay a minimum of four times the caisson diameter (3 metres, terminating at a depth of approximately 12 metres), the net allowable end-bearing capacity is calculated as 250 kPa.

Drilled pier foundations must be spaced at a distance greater than three times the caisson diameter. If placed within three times the caisson diameter, a capacity reduction will occur due to the group effect. A closely spaced pile group can act as a “block” whereby the soil between adjacent piles is dragged down between them, shaft resistance develops around the perimeter of the group only, and end-resistance develops under the whole of the pile-soil block.

For successful installation and result, the bottom of the excavation must be properly cleaned to avoid large settlements. Once the excavation has completed and verification of a clean auger base, concrete must be placed during one continuous operation to avoid soil cuttings in suspension to settle to the top of the concrete resulting in a defect. Pumping is the best method for concrete placement, although a tremie may be used with adequate safeguards. With either method, the concrete placement must be fast and continuous.

Free-falling concrete must be placed through a central chute, making it fan down the centre of the hole, well clear of the walls of the shaft. This results in adequate compaction below the upper 1.5 m. Vibration of the concrete in the upper 1.5 m is required to produce uniform strength concrete. Concrete slumps designed equal or exceeding 120 mm must not be vibrated but gently rodded.

If Drilled Pier foundations are selected, we recommend Soil & materials Engineering Inc be retained to complete an analysis provided that the building loads become known.

4.1.3.2 Helical Pier Foundations

Helical pier foundations are not recommended for this site due to the shear strength of the soil leading to a unpractical and uneconomical design. The helical piers would be taken to bedrock, at this time we recommend driven piles over helical piers. If helical piers wish to be considered, we recommend contacting PURCKA Geo-Structural Engineers for additional assessment for the design and installation of helical piles and micropiles..

4.1.3.3 Rammed Aggregate Piers

Rammed aggregate piers within the existing fill materials are an appropriate technology to improve stiffness and support as well as provide to all conventional spread footing foundations. The displacement process allows for installation with no spoils and eliminates the need for casing. Its performance and cost-effective qualities make it ideal for soils for that are subject to caving.

We recommend contacting a proprietary contractor (such as Geopier or similar) for design and implementation of intermediate-depth foundations. Soil & Materials Engineering Inc. can finalize contract with the Rammed Aggregate Pier designer.

4.1.4 Reinforced Concrete Raft Foundation

If a reinforced concrete raft foundation is a considerable design, a full basement should be considered. PURCKA Geo-Structural Engineers Inc. should be retained to complete a finite element analysis (FEA) once building loads are determined.

4.1.5 Deep Foundation Considerations

Driven piles have also been considered for this project. Alternate types of driven piles may be considered, however the resistance factors assumed in the geotechnical design may be affected, and therefore Soil & Materials Engineering Inc. should be contacted to review alternate proposals prior to implementation.

Shaft resistance is only mobilized when the driven pile end-bears in a soil stratum that offers resistance equal to or less than the overlying strata. In cases where piles are driven to rock or unyielding till, the load capacity must be supported by driving resistance and load tests.

We recommend that the tips of piles penetrating the sandy gravel layer and bearing on limestone to be Type I reinforced according to Ontario Provincial Standard Drawing (OPSD) 3000.100, revision 2. Splices should be completed in accordance with OPSD 3000.150, revision 1 provided the dynamic impedance of the pile is not changed at the splice section (in order to keep-valid the Pile Driver Analyzer (PDA) testing).

Soil and Materials Engineering Inc. has selected an HP310x110 (typical) that conform to CAN/CSA G40.20/G40.21, Grade 350W for the subject of this analysis. The selected HP would be driven to “dense” sand till at this site, 34.0 metres below grade and will mobilize an Ultimate Capacity of 1500 kN. This Ultimate capacity was calculated using GRLweap, an engineering software that analyzes pile drivability in current site soil conditions. The factored ULS axial geotechnical resistance is anticipated to be 540 kN. This capacity can be verified in the field with a combination of inspection blow counts (Hiley Formula) correlated to a sufficient number of PDA field tests. Verification of that capacity, however, would require sufficient field testing to ensure capacity availability. If, however, the geotechnical resistance factor, Φ, is to be increased beyond 0.5 and it is structurally permitted, then the following Code requirements must be considered.

According to Table 8.2 of the CFEM we extract the permissible geotechnical resistance factors:

a. Deep Foundations – Static Analysis for Compression, Φ = 0.4
b. Deep Foundations – Dynamic Analysis for Compression, Φ = 0.4
c. Deep Foundations – Field-measured Dynamic Test (PDA), Φ = 0.5
d. Deep Foundations – Field static load test, Φ = 0.6

Using the Canadian Highway Design Bridge Code, the same geotechnical resistance factors for a typical understanding can be used, in combination with a ULS and SLS consequence factor. The consequence level for this project would be considered high, therefore ψ = 0.9.

Given the potential for a “false set”, we recommend increasing the PDA testing frequency from 2% to 10% of all the piles.

We recommend that the geotechnical consultant provide continuous inspection during installation of all driven piles, including dynamic measurements using the PDA. We recommend that a minimum of one full-scale static load test be completed prior to installation of production piles, and that dynamic measurements and analysis be completed during installation of the test pile to verify driving requirements for the production piles.

Immediately upon completion of pile driving, the elevation of the top of pile must be measured though survey means. If subsequent piling of the pile in a pile group results in a vertical upward movement greater than 3 mm of a previously driven pile, then the affected pile must be retapped.

4.1.6 Foundation Design (General)

All the factored geotechnical resistance bearing pressures at ultimate limit states incorporate a factor, Φ, of 0.5 against shear failure of the underlying soil strata (in accordance with the Canadian Foundation Design Manual, 4th Edition and Ontario Building Code (2012)). The expected total and differential settlements for footings constructed as outlined previously will be 20 mm and 25 mm, respectively.

The settlement of such foundations must be assessed in conjunction with the existing overburden pressure, foundation size and construction procedure. The existing grade should not be adjusted positively greater than 300 mm over current conditions without an impact assessment on projected settlements.

Some continuous footings or isolated square footings may be designed to be constructed at different elevations in the soil. In this case, dewatering to a level of 600 mm deeper than the intended excavation will be required along with sloping the footings such that the soil slope is cut no steeper than 2.5H:1V with a maximum slope height of one metre. Successive sloped sections must have a crest-toe separation of greater than 1.5 metres.

We recommend all soil bearing surfaces be inspected and approved by the Geotechnical Consultant to confirm that the soil exposed corresponds with the testhole observations and the design assumptions of the soil consistency. All exterior footings constructed adjacent to unheated areas must have a minimum of 1.2 metres of soil cover, or synthetic insulation of equal thermal value for protection against frost heave.

The native sand and clay at this site is sensitive and is subject to disturbance when exposed to construction traffic and adverse weather conditions. We therefore recommend placing a thin mat of lean concrete (mud mat) on the bearing surface immediately after inspection and approval in order to preserve its integrity.

If dewatering prior to construction is ineffectual, then it may be possible to construct foundations using the “dig-and-pour” method wherein concrete is placed immediately behind the footing excavation. We recommend full time inspection and verification by the geotechnical consultant if the dig-and-pour method is selected. A site coordination meeting prior to foundation excavation should be held with the geotechnical consultant present.

4.2 Floor Slab-on-Grade

The existing organic soil and fill materials must be removed from beneath the floor slab areas. Immediately following excavation to final subgrade level for the proposed floor, we recommend placement of the approved granular under floor fill in order to avoid deterioration of the soil surface caused by construction traffic and adverse weather conditions.

The exposed subgrade should be proof rolled in the presence of the Geotechnical Consultant. Any "soft" areas encountered during proof-rolling and inspection must be subexcavated and replaced with approved fill such as Granular "B Type II" (OPSS 1010) and compacted to at least 98% of its Standard Proctor maximum dry density. Fill used to raise the grade of the floor slab should be constructed similarly.

Presuming a service loading condition of less than 15 kPa, immediately beneath the floor slab, we recommend placing a minimum of 300 mm of Granular "A" (OPSS 1010) compacted to 100% of its Standard Proctor maximum dry density to provide uniform and adequate subgrade bearing surface. The 300 mm granular “A” (OPSS 1010) should be underlain by a woven geotextile, Mirafi HP270, or a product of equal performance. The slab construction should incorporate a capillary break consisting of 100 mm of clearstone gravel (Granular “O”, OPSS 1010) if the top of the floor slab will not be located above the general area grade. Heavier loaded floor slabs should be specifically reviewed by this office.

An appropriately placed vapour retarder is recommended beneath all slabs on grade constructions that include moisture sensitive floorings or areas requiring humidity control.

4.2.1 Floor Slab-on-Raft

We recommend placing a granular drainage layer covered with a vapour retarder on the raft slab and cast a floor slab on the granular base. The granular base must incorporate drainage with a suitable outlet.

4.3 Lateral Soil Pressures

Elevator shaft will be incorporated under the building, the backfill material should be a free draining granular material, such as Granular "B Type I" (OPSS 1010). The native site soil is not suitable for use as backfill against the retaining walls. Due to the relatively impermeable nature of the native silty clay and the presence of near-surface fill deposits, the granular backfill will tend to accumulate water. To provide drainage around the walls, a perimeter and subfloor drainage system should be installed at the footing level and suitably outletted.

The following unfactored soil parameters can be used to calculate the lateral earth pressure against the basement walls incorporating a drained backfill.

$$P_h = K (\gamma h + q)$$

where: P_h = the horizontal earth pressure at depth, h (kN/m^2)
K = the coefficient of earth pressure (at rest)
= 0.4 for compacted Granular "B Type I" backfill
γ = the unit weight of backfill
= 19.4 kN/m^3 for imported Granular "B Type I" fill
h = the depth below ground surface (m)
q = the surcharge load, including live and transient loads (kN/m^2)

The above pressures are applicable only if free draining granular fill is placed against the damp-proofed or water proofed walls with an appropriate perimeter drainage system at the footing level.

4.4 Excavation and Construction

Excavations through the surficial fill materials and native sandy silt to the depth of the prevailing groundwater table at approximately 0.75 metres below existing grades should have side walls safely sloped at a minimum gradient of 1H:1V in accordance with Ontario Provincial Regulations (O. Reg.213/91, s. 234(1)). Side slopes cut at a steeper rate than this will require field assessment by the Geotechnical Consultant.

Excavations below a depth of 2.75 metres will encounter fully saturated conditions and will require dewatering to ensure stable side slope and excavation base. Dewatering should be completed prior to excavation.

If vertical walls are intended, excavations below a depth of 1.2 metres should be shored. The temporary shoring design can be completed by PURCKA Geo-Structural Engineers Inc. once project geometry is established.

Due to past developments on site, we anticipate encounters of relict farm-related drainage or foundation features at various locations across the site. We recommend all foundations, subgrades, and trench side walls to be inspected by this office at the time of excavation.

4.5 Pavement Construction

The fill and topsoil along with any other unsuitable materials should be completely stripped for the pavement subgrade. After stripping operations have been completed the exposed subgrade materials should be proof rolled in the presence of the geotechnical consultant. Excavations for subgrade within some areas may require additional fill removal if particularly incompetent. The exposed subgrade should be proof rolled, in the presence of the Geotechnical Consultant, to verify the general competency of the subgrade. General fill material required to raise the general subgrade can be composed of Granular “B Type I” (OPSS 1010) compacted to 98% of its Standard Proctor maximum dry density.

Once the subgrade has been proof-rolled and shaped to promote drainage (minimum 2% rate), the pavement materials can be placed on the approved subgrade. Back-of-curb subgrade drainage and catch basin stub-drains (2.5 metres long, keyed into the subgrade, and radiating in all four directions) are recommended for all pavements.

Table 4, below, addresses the recommended pavement composition for this project.

TABLE 4: Pavement Structure Recommendation

Thickness of Pavement (mm)		
Material	**Parking**	**Driveways/Truck**
HL-3 (OPSS 1150)	40	50
HL-4 (OPSS 1150)	50	60
Granular “A’ (OPSS 1010)	150	150
Granular ‘B Type II’ (OPSS 1010)	200	300
Geotextile (Mirafi HP370, or equal)	One layer	One layer

The granular base should be compacted to 100% of its Standard Proctor maximum dry density in lift thicknesses commensurate with the employed compaction equipment. All asphalt concrete should be placed in accordance with the Ontario Provincial Standards and compacted to 92% of the Marshall maximum theoretical density.

In areas of tight turning radii or standing loaded trucks, consideration should be given to the use of Portland cement concrete pavement comprised of 200 mm of CSA A23.1 concrete (5% to 8% air content for 20 mm nominal aggregate with a maximum water-cement ratio of 0.45) on 350 mm of Granular “A” (OPSS 1010) compacted to 100% of its Standard Proctor maximum dry density.

4.6 Seismic Site Classification

The Ontario Building Code allows the site to be classified based on the weighted average shear strength or standard penetration resistance profile within the upper 30 metres of the soil column. Based on investigations at testholes for this site investigation terminating at a depth of 35 metres, we recommend the site to receive a Class “E” classification for seismic site response resulting from the weighted average shear strength and standard penetration resistance profile of the cohesive and non-cohesive soils encountered below the testhole depths. Further investigation may suggest otherwise.

5.0 CLOSURE

This report presents our interpretation of factual information obtained from the investigation and is intended for the use of the design engineer. Where comments are made related to construction, they are provided only in order to highlight aspects of construction that could affect the design of the project.

The number of boreholes required to determine the localized underground conditions between testholes affecting construction would be much greater than has been carried out for design purposes.

Further examination and investigation should be carried out in order to verify the adequacy of the information for construction that may affect the contractor with regards to construction techniques, schedule, equipment capabilities, cost sequencing, etc. This report addresses the geotechnical aspects of the subsurface conditions at the site pertinent to the proposed project only.

All testholes were tightly backfilled at completion. The Owner retains responsibility for future maintenance and pedestrian safety of the property.

It is beyond the scope of this investigation and report to address any issues related to health or environmental aspects of the proposed works.

Should local site conditions differ materially from that contained in this report, contact this office immediately for guidance. Do not hesitate to contact us should questions arise concerning the contents of this report. We would be pleased to meet with you at your convenience.

Regards,
Soil & Materials Engineering Inc.

B.Purcka, EIT
Geotechnical Engineering Division

T. O'Dwyer, P.Eng.
Consulting Engineer

Drawings/Enclosures

SITE MAP

LEGEND:

- Test Hole
- Monitoring Well
- Test Well
- DMT
- Inclinometer
- Test Pit

CT Soil & Materials Testing Inc
2000 Legacy Park Dr
Windsor, ON N8W 5S6
Telephone: (519) 966-8863
Fax: (519) 966-8870

Project: 11-Storey Mixed Development

Location: 3885 Sandwich Street, Windsor, ON

Number: 20G085

Notes:

Testhole Locations

Client:
Tunio Developments Inc.

DRAWING
1

CT SITE PLAN LANDSCAPE 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

SITE MAP

LEGEND:

- Test Hole
- Monitoring Well
- Test Well
- DMT
- Inclinometer
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Location: 3885 Sandwich Street, Windsor, ON

Number: 20G085

Notes:

Testhole Locations

Client:
Tunio Developments Inc.

DRAWING
2

CT SITE PLAN LANDSCAPE 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

SITE MAP

LEGEND:

- Soil Boring
- Monitoring Well
- Test Well
- DMT
- Inclinometer
- Test Pit

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Location: 3885 Sandwich Street, Windsor, ON
Number: 20G085

Notes:

Testhole Locations

DRAWING

2A

CT SITE PLAN PORTRAIT 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **1-DMT**

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **83 mm I.D. H/S Auger**
Size: **165 mm O.D.**
Date: **2/22/2021** TO **2/24/2021**

SOIL LITHOLOGY

EL/DPT (m) | DESCRIPTION *DMT* | DEPTH (m) | SYMBOL

Ground Elev: **180.85** m

Drill to 0.4 m

0.40 / 180.45 — Commence Marchetti-type Flat Plate Dilatometer (DMT)

DMT Interpretation, non-cohesive sand and silt layer "loose" to "compact"

4.20 / 176.65 — DMT Interpretation, silty clay (CL-ML) Su = 30 kPa

SAMPLE

SAMP ID | TYPE | N-VALUE

SHEAR STR.(kPa)

DILATOMETER: Su● M(bars)▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150

PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

1336, 414, 429, 629, 240, 211, 701, 1054, 740, 990, 203, 203

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)

Wp W Wl
10 20 30

WELL: No Well DATA

ELEV. (m): 180, 179, 178, 177, 176, 175, 174

REMARKS & GRAIN SIZE DISTRIBUTION %

GR SA SI CL

Date: Feburary 22, 2021
DMT until 30.80 m
Method: Static Thrust
Size: 96 mm x 15 mm

Date: Feburary 23
Drill hole to 34.0
Method: 3-1/4 HSA
Size: 83 mm ID & 165 mm OD

Inferred water level at 2.75 m

CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

REVIEWING PROFESSIONAL:
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Size: **165 mm O.D.**
Date: **2/22/2021** TO **2/24/2021**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION	DEPTH (m)	SYMBOL
	DMT	7.0	DMT
		7.5	DMT
		8.0	DMT
		8.5	DMT
		9.0	DMT
		9.5	DMT
		10.0	DMT
		10.5	DMT
		11.0	DMT
11.20 / 169.65	DMT Interpretation, silty clay (CL-ML) Su = 40 kPa	11.5	DMT
		12.0	DMT
		12.5	DMT
		13.0	DMT
		13.5	DMT

SAMPLE: SAMP ID | TYPE | N-VALUE

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA

ELEV. (m)
173
172
171
170
169
168

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL

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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **1-DMT**

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **83 mm I.D. H/S Auger**
Size: **165 mm O.D.**
Date: **2/22/2021** TO **2/24/2021**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION	DEPTH (m)	SYMBOL
14.00 / 166.85	DMT Interpretation, silty clay (CL-ML) Su = 50 kPa	14.0	DMT
		14.5	DMT
		15.0	DMT
		15.5	DMT
		16.0	DMT
		16.5	DMT
		17.0	DMT
		17.5	DMT
		18.0	DMT
		18.5	DMT
		19.0	DMT
		19.5	DMT
		20.0	DMT
		20.5	DMT

SAMPLE: SAMP ID | TYPE | N-VALUE

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA

ELEV. (m)
167
166
165
164
163
162
161

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL

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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

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EQUIPMENT DATA
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Size: **165 mm O.D.**
Date: **2/22/2021** TO **2/24/2021**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION	DEPTH (m)	SYMBOL
20.60			
160.25	DMT Interpretation, silty clay (CL-ML) Su = 60 kPa		
		21.0	
		21.5	
22.00			
158.85	DMT Interpretation, silty clay (CL-ML) Su = 65 kPa	22.0	
		22.5	
		23.0	
		23.5	
		24.0	
		24.5	
		25.0	
		25.5	
		26.0	
		26.5	
		27.0	

SAMPLE: SAMP ID | TYPE | N-VALUE

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA

ELEV. (m)
160 159 158 157 156 155 154

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL

CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

REVIEWING PROFESSIONAL:
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Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **83 mm I.D. H/S Auger**
Size: **165 mm O.D.**
Date: **2/22/2021** TO **2/24/2021**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION	DEPTH (m)	SYMBOL
28.00 / 152.85	DMT Interpretation, silty clay (CL-ML) Su = 75 kPa	27.5 – 28.5	CLAY
30.00 / 150.85	DMT Interpretation, silty clay (CL-ML) Su = 90 kPa	28.5 – 30.5	CLAY
30.80 / 150.05	Till layer Inferred - albladed till, with rock and sand dense End of DMT, start drilling to rock	30.5 – 34.0	TILL
34.00 / 146.85	**LIMESTONE** - drill auger	34.0	BEDROCK
34.15 / 146.70	head 0.15 m into rock		

SAMPLE: SAMP ID | TYPE | N-VALUE

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60
530

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA

ELEV. (m): 153 | 152 | 151 | 150 | 149 | 148 | 147

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL

Feb 23, 2021 end of day, 34.0 m hole filled with gel

REVIEWING PROFESSIONAL:
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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **1-DMT**

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **83 mm I.D. H/S Auger**
Size: **165 mm O.D.**
Date: **2/22/2021** TO **2/24/2021**

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE	SHEAR STR.(kPa) / PENETR. RESISTANCE	BULK UNIT WGHT (kN/m3)	WATER CONTENT (%) Wp W Wl	WELL DATA	ELEV. (m)	REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL
	LIMESTONE - sound, hard, slightly weathered, light grey, amorphous natural fracture	34.5					DILATOMETER: Su● M(bars)▼ FIELD VANE: Peak × Rem. ⊗ LAB TEST: Unc. ■ P.P. □ (50 100 150) PENETR. RESISTANCE DMT Phi(◆) ◆ STANDARD ● DYN.CONE ○ (20 40 60)		(10 20 30)		146	Start Feb 24, 2021 sand flowing in augers before coring Method: Nx Diamond Core Barrel Size: OD: 72 mm RQD = 100 %
		35.0		Run 1	NX							
		35.5									145	out of water & core barrel plugged
36.20 144.65	End of testhole	36.0										
		36.5									144	
		37.0										
		37.5									143	
		38.0										
		38.5									142	
		39.0										
		39.5									141	
		40.0										
		40.5									140	
		41.0										

REVIEWING PROFESSIONAL:
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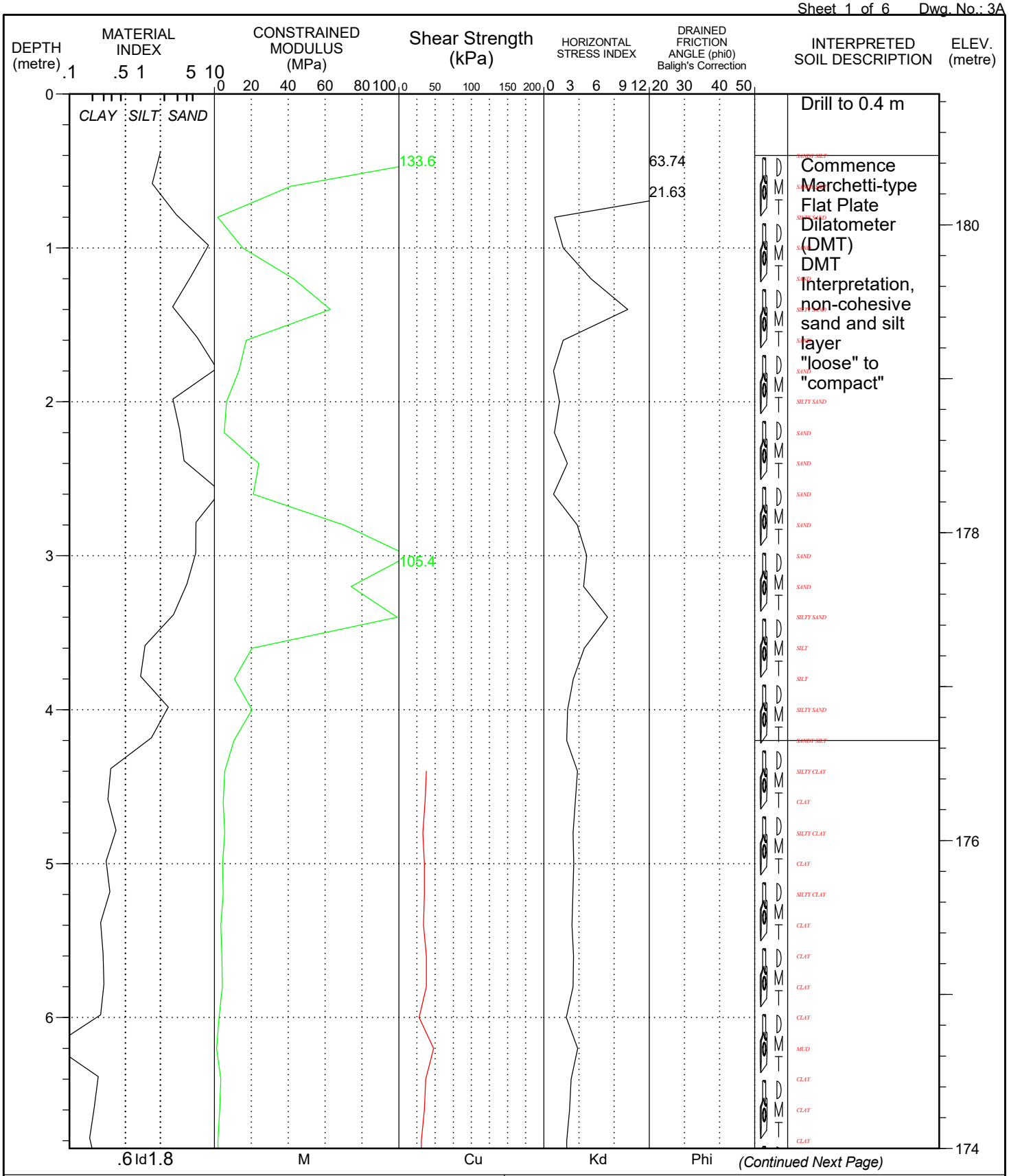

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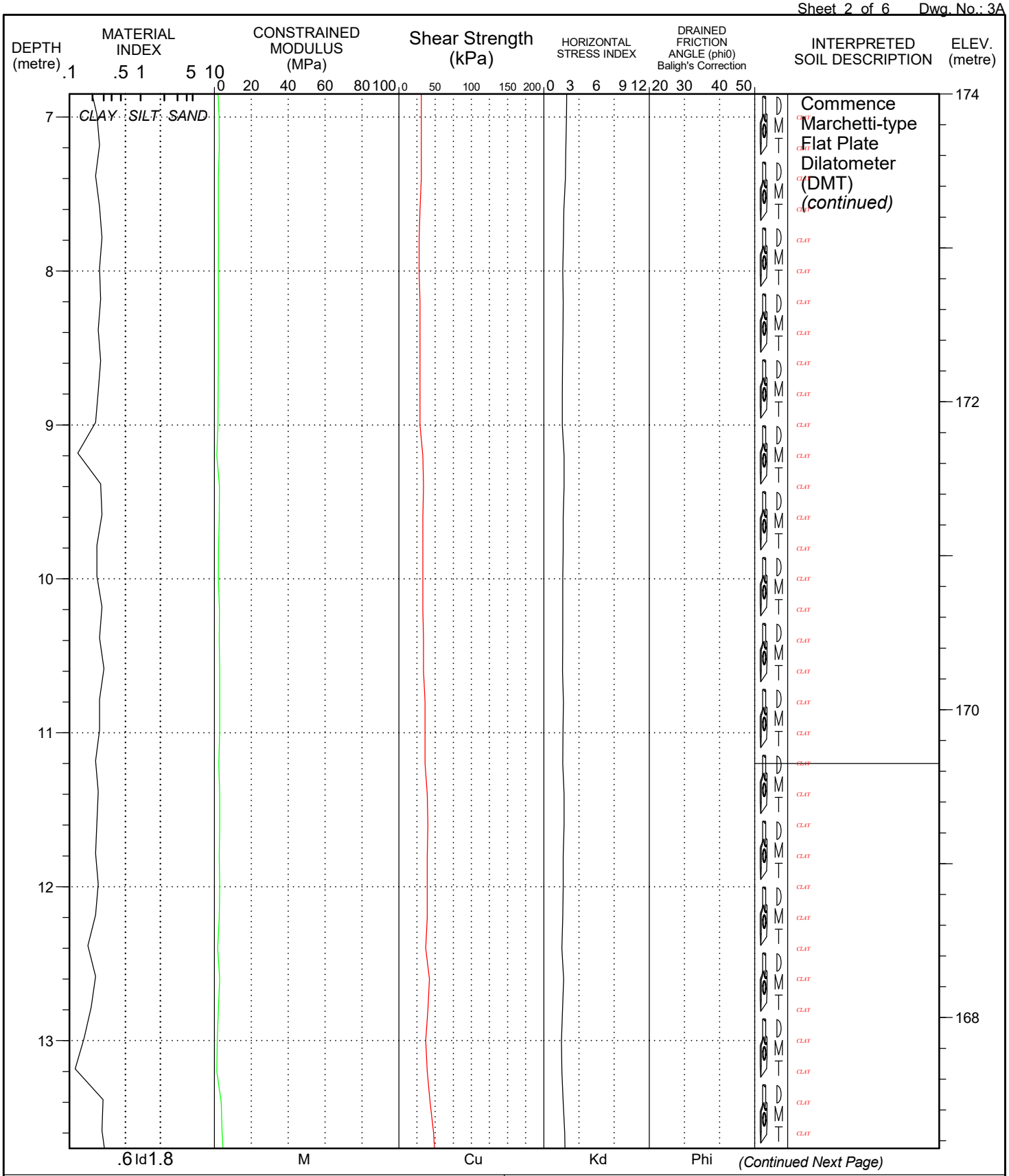
LOG OF 1-DMT

11-Storey Mixed Development
3885 Sandwich Street, Windsor, ON

PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
20G085	B. Purcka, B.A.Sc., EIT	2/22/2021

CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



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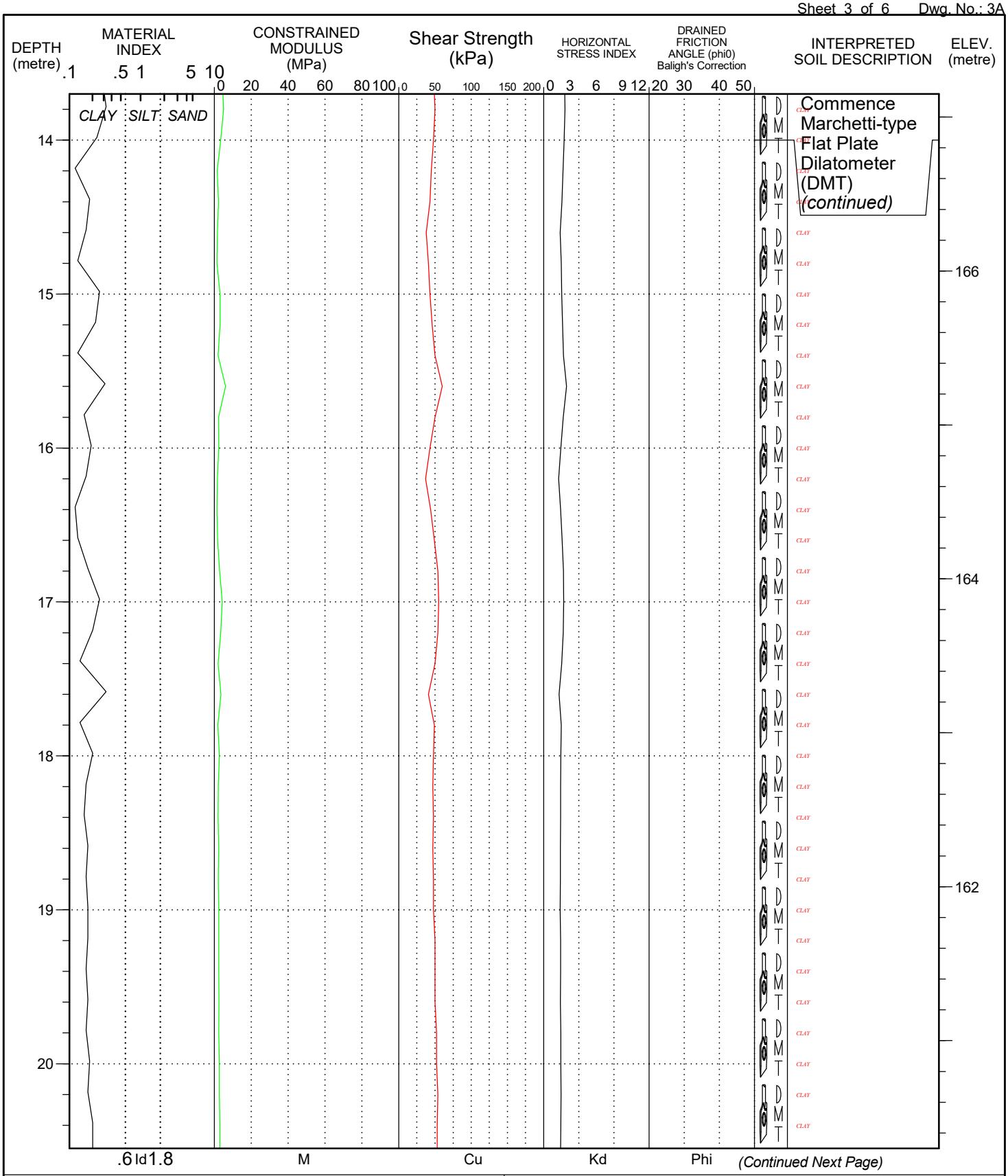
LOG OF 1-DMT

11-Storey Mixed Development
3885 Sandwich Street, Windsor, ON

PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
20G085	B. Purcka, B.A.Sc., EIT	2/22/2021

CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



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LOG OF 1-DMT

11-Storey Mixed Development
3885 Sandwich Street, Windsor, ON

PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
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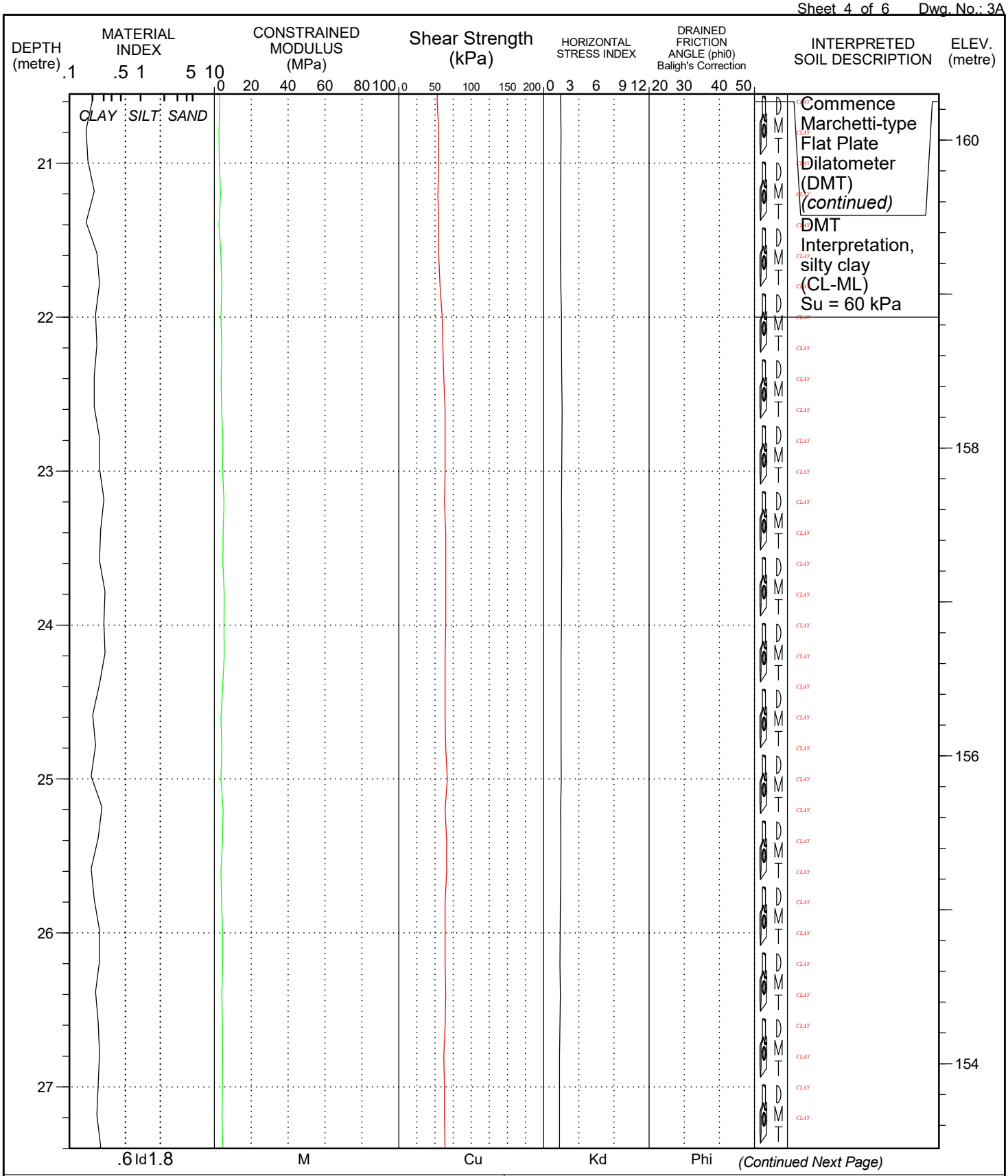
CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



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LOG OF 1-DMT

11-Storey Mixed Development
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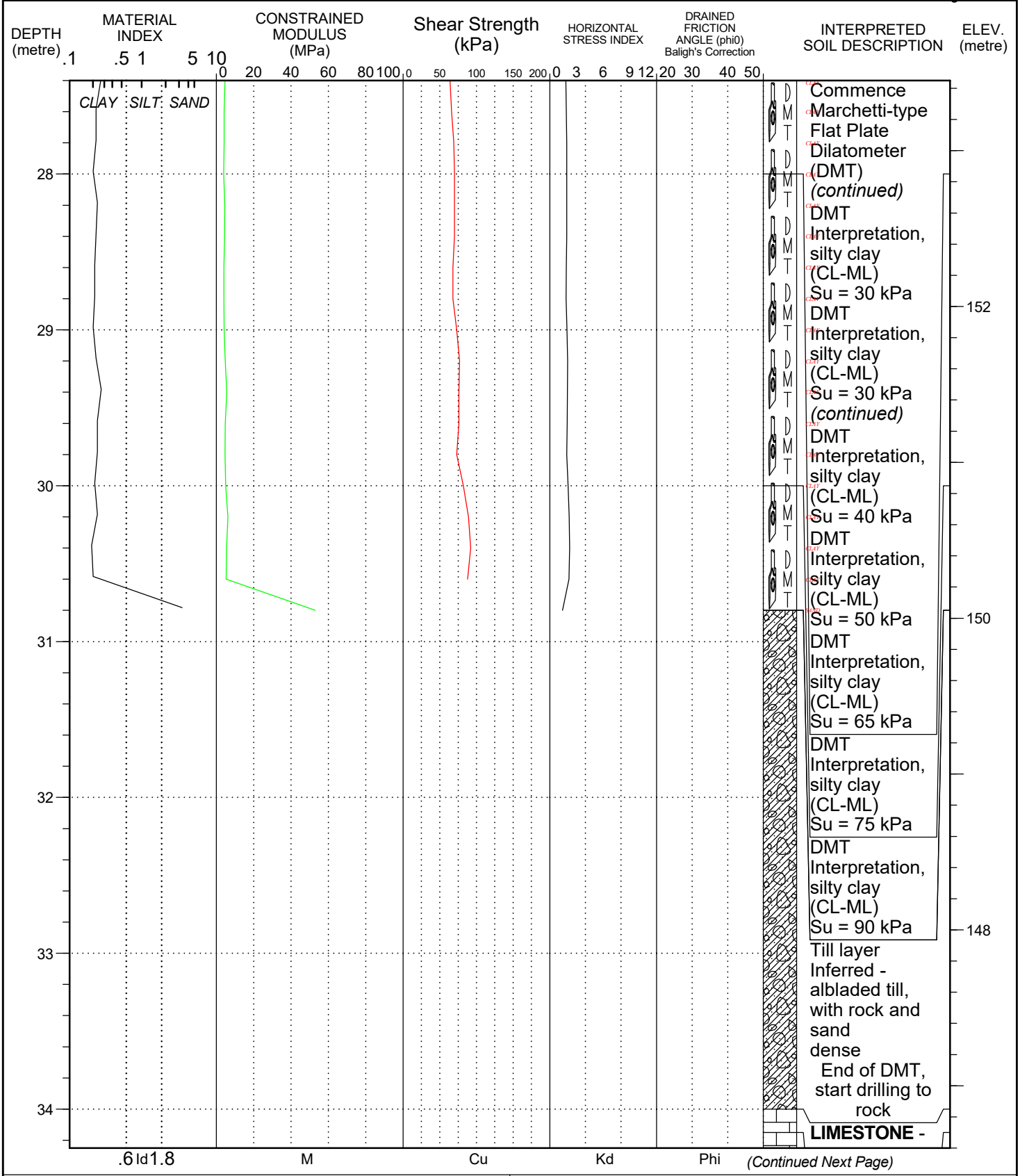
PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
20G085	B. Purcka, B.A.Sc., EIT	2/22/2021

CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



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LOG OF 1-DMT

11-Storey Mixed Development
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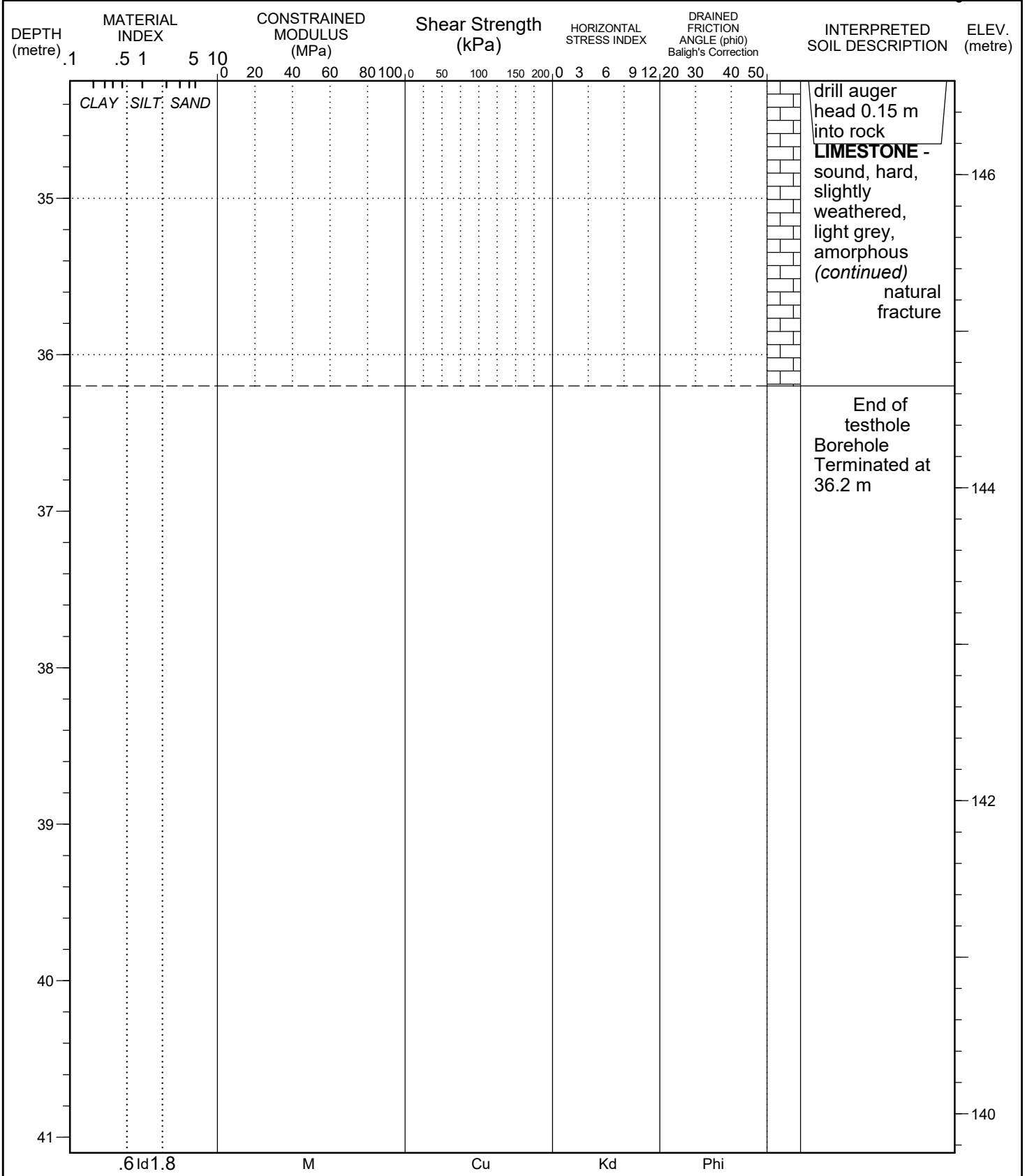
CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



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LOG OF 1-DMT

11-Storey Mixed Development
3885 Sandwich Street, Windsor, ON

PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
20G085	B. Purcka, B.A.Sc., EIT	2/22/2021

CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **2**

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **83 mm I.D. H/S Auger**
Size: **165 mm O.D.**
Date: **12/22/2020** TO **12/22/2020**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE
0.05 / 180.50	**ASPHALTIC CONCRETE** - 50mm					
0.15 / 180.40	**GRAVEL (GW)** - well graded					
	SILTY SAND (SM) - medium grained with gravel					
	brown	0.5		0.5	SPT	9
	loose	1.0		2.5	SPT	4
		1.5		5.0	SPT	5
		2.0				
2.30 / 178.25	**SAND (SP)** - wet, medium grained sand	2.5		7.5	SPT	9
	brown					
	compact	3.0				
3.05 / 177.50	**SILT & CLAY** - lacustrine clay, varved with alternative layers of silt and pink clay pockets & embedded sand and gravel			10.0	SPT	4
	stiff	3.5		11.5	VN	
		4.0		12.5	SPT	3
		4.5		15.0	SPT	3
	grey	5.0				
	firm	5.5				
		6.0		20.0	SPT	
	soft	6.5		21.5	VN	

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL: No Well DATA

ELEV. (m): 180, 179, 178, 177, 176, 175, 174

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL

Water level 2.75m after 1 day upon completion

S= 2.8

S= 4.0

REVIEWING PROFESSIONAL:
B. Purcka, B.A.Sc., EIT
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Size: **165 mm O.D.**
Date: **12/22/2020** TO **12/22/2020**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE
	SILT & CLAY - lacustrine clay, varved with alternative layers of silt and pink clay pockets & embedded sand and gravel	7.0				
		7.5		25.0	SPT	2
		8.0				
	grey	8.5				
		9.0				
	soft	9.5		30.0	SPT	2
				31.5	VN	
		10.0				
		10.5		35.0	SPT	2
		11.0				
		11.5				
		12.0				
	firm	12.5		40.0	SPT	3
				41.5	VN	
		13.0				
		13.5				

SHEAR STR.(kPa)
DILATOMETER: Su● M(bars)▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

25 (15)
30 (15)

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA

ELEV. (m)	REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL
173	
172	
171	S= 1.7
170	
169	
168	S= 2.0
167	

REVIEWING PROFESSIONAL:
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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **83 mm I.D. H/S Auger**
Size: **165 mm O.D.**
Date: **12/22/2020** TO **12/22/2020**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE
	SILT & CLAY - lacustrine clay, varved with alternative layers of silt and pink clay pockets & embedded sand and gravel	14.0		45.0	SPT	1
	grey	14.5				
	firm	15.0				
		15.5		50.0	SPT	4
				51.5	VN	
15.85						
164.70	End of Testhole	16.0				
		16.5				
		17.0				
		17.5				
		18.0				
		18.5				
		19.0				
		19.5				
		20.0				
		20.5				

SHEAR STR.(kPa)
DILATOMETER: Su● M(bars)▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA

ELEV. (m)	REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL
166	
165	S= 1.4
	Water running in from upper sand layer upon completion
164	
163	
162	
161	
160	

CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

REVIEWING PROFESSIONAL:
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C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **Direct Push**
Size: **96 mm x 15 mm**
Date: **12/23/2021** TO **12/23/2021**

SOIL LITHOLOGY

DESCRIPTION *DMT*

Ground Elev: **180.75** m

EL/DPT (m) | DEPTH (m) | SYMBOL | SAMPLE: SAMP ID, TYPE, N-VALUE | SHEAR STR.(kPa) | BULK UNIT WGHT (kN/m3) | WATER CONTENT (%) | WELL | ELEV. (m) | REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL: No Well DATA

Commence Marchetti-type Flat Plate Dilatometer (DMT)

DMT Interpretation, non-cohesive sand layer phi = 28 degrees

1.50 / 179.25 — DMT Interpretation, non-cohesive silty sand layer phi = 36 degrees

2.50 / 178.25 — DMT Interpretation, non-cohesive sand layer phi = 33 degrees

4.00 / 176.75 — DMT Interpretation, silty clay (CL-ML) Su = 25 kPa

DEPTH (m)	ELEV. (m)	BULK UNIT WGHT (kN/m3)	REMARKS
0.5	180	249	
1.0			
1.5	179	421	
2.0		268	
		266	
2.5		345	
		1274	
3.0	178	952	Inferred water level at 2.75 m
		1159	
3.5		528	
		228	
4.0	177		
4.5			
5.0	176		
5.5			
6.0	175		
6.5			
	174		

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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **3-DMT**

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **Direct Push**
Size: **96 mm x 15 mm**
Date: **12/23/2021** TO **12/23/2021**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION	DEPTH (m)	SYMBOL
	SILTY CLAY	7.0	DMT
	SILTY CLAY	7.5	DMT
	SILTY CLAY	8.0	DMT
	SILTY CLAY	8.5	DMT
	SILTY CLAY	9.0	DMT
	SILTY CLAY	9.5	DMT
	SILTY CLAY	10.0	DMT
	SILTY CLAY	10.5	DMT
	SILTY CLAY	11.0	DMT
	SILTY CLAY	11.5	DMT
	SILTY CLAY	12.0	DMT
12.50 168.25	DMT Interpretation, silty clay (CL-ML) Su = 40 kPa	12.5	DMT
	CLAY	13.0	DMT
	CLAY	13.5	DMT

SAMPLE: SAMP ID | TYPE | N-VALUE

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA

ELEV. (m)
173
172
171
170
169
168

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL

REVIEWING PROFESSIONAL:
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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **3-DMT**

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **Direct Push**
Size: **96 mm x 15 mm**
Date: **12/23/2021** TO **12/23/2021**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION	DEPTH (m)	SYMBOL
	DMT	14.0	DMT
	CLAY	14.5	DMT
	CLAY	15.0	DMT
	CLAY	15.5	DMT
	CLAY	16.0	DMT
	CLAY	16.5	DMT
	SILTY CLAY	17.0	DMT
	CLAY	17.5	DMT
	CLAY	18.0	DMT
	CLAY	18.5	DMT
	CLAY	19.0	DMT
	CLAY	19.5	DMT
	CLAY	20.0	DMT
20.50	CLAY	20.5	DMT

SAMPLE: SAMP ID | TYPE | N-VALUE

SHEAR STR.(kPa)
DILATOMETER: Su● M(bars)▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA

ELEV. (m)
167
166
165
164
163
162
161

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL

CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

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JOB No: **20G085**

TESTHOLE No. **3-DMT**

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **Direct Push**
Size: **96 mm x 15 mm**
Date: **12/23/2021** TO **12/23/2021**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL
160.25	DMT Interpretation, silty clay (CL-ML) Su = 50 kPa		
24.50 156.25	DMT Interpretation, silty clay (CL-ML) Su = 60 kPa		

SAMPLE: SAMP ID | TYPE | N-VALUE

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(♦) ◆
STANDARD ● DYN.CONE ○
20 40 60

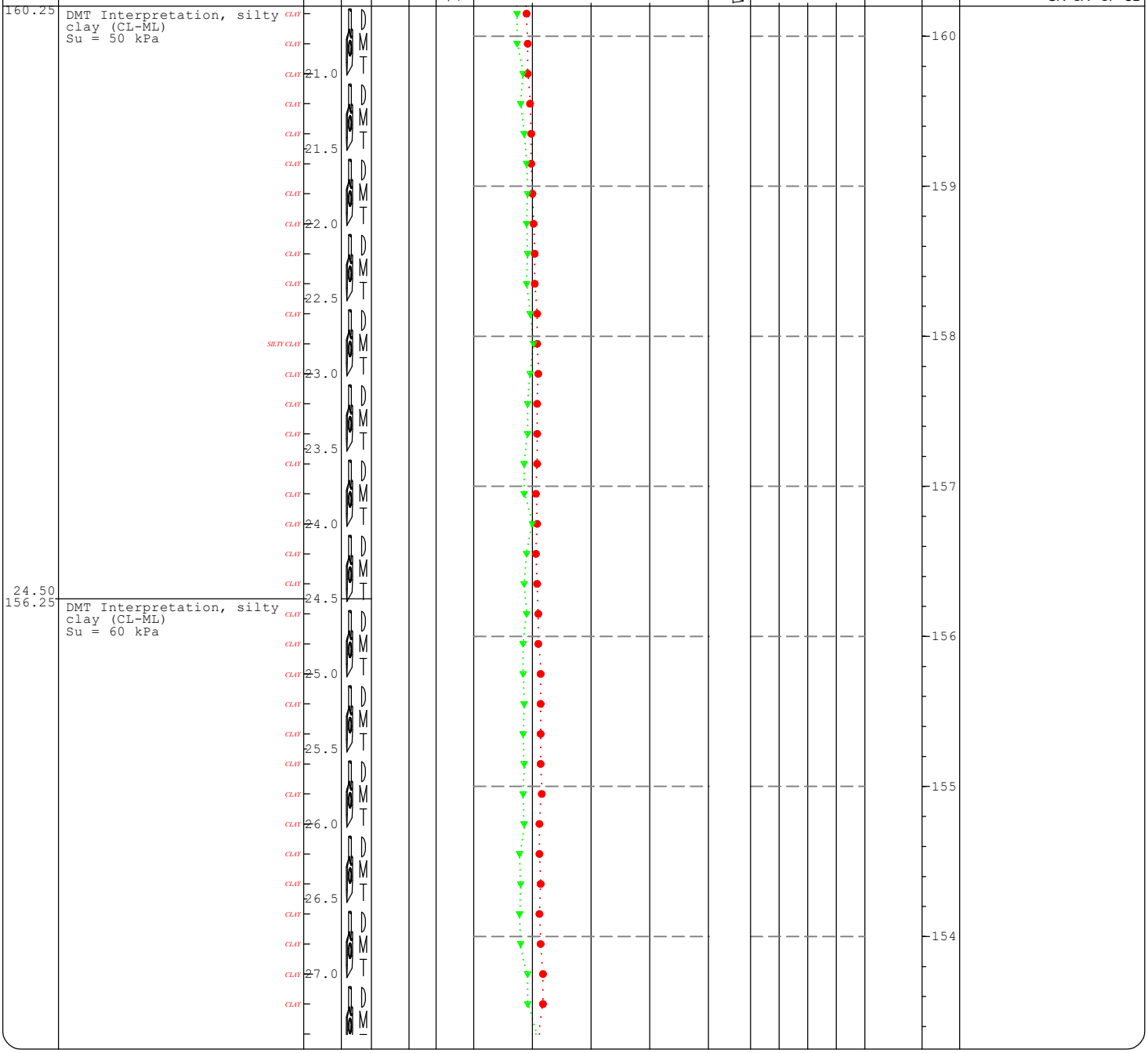
BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA

ELEV. (m)

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL



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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **3-DMT**

Dwg. No.: 5
Sheet 5 of 5

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **Direct Push**
Size: **96 mm x 15 mm**
Date: **12/23/2021** TO **12/23/2021**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE	BULK UNIT WGHT (kN/m3)	WELL DATA	ELEV. (m)	REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL
	DMT	27.5	DMT						153	
	CLAY	28.0	DMT							
	CLAY	28.5	DMT							
28.80	CLAY									
151.95	End of DMT	29.0							152	
		29.5							151	
		30.0								
		30.5							150	
		31.0								
		31.5							149	
		32.0								
		32.5							148	
		33.0								
		33.5							147	
		34.0								

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

WATER CONTENT (%)
Wp W Wl
10 20 30

REVIEWING PROFESSIONAL:
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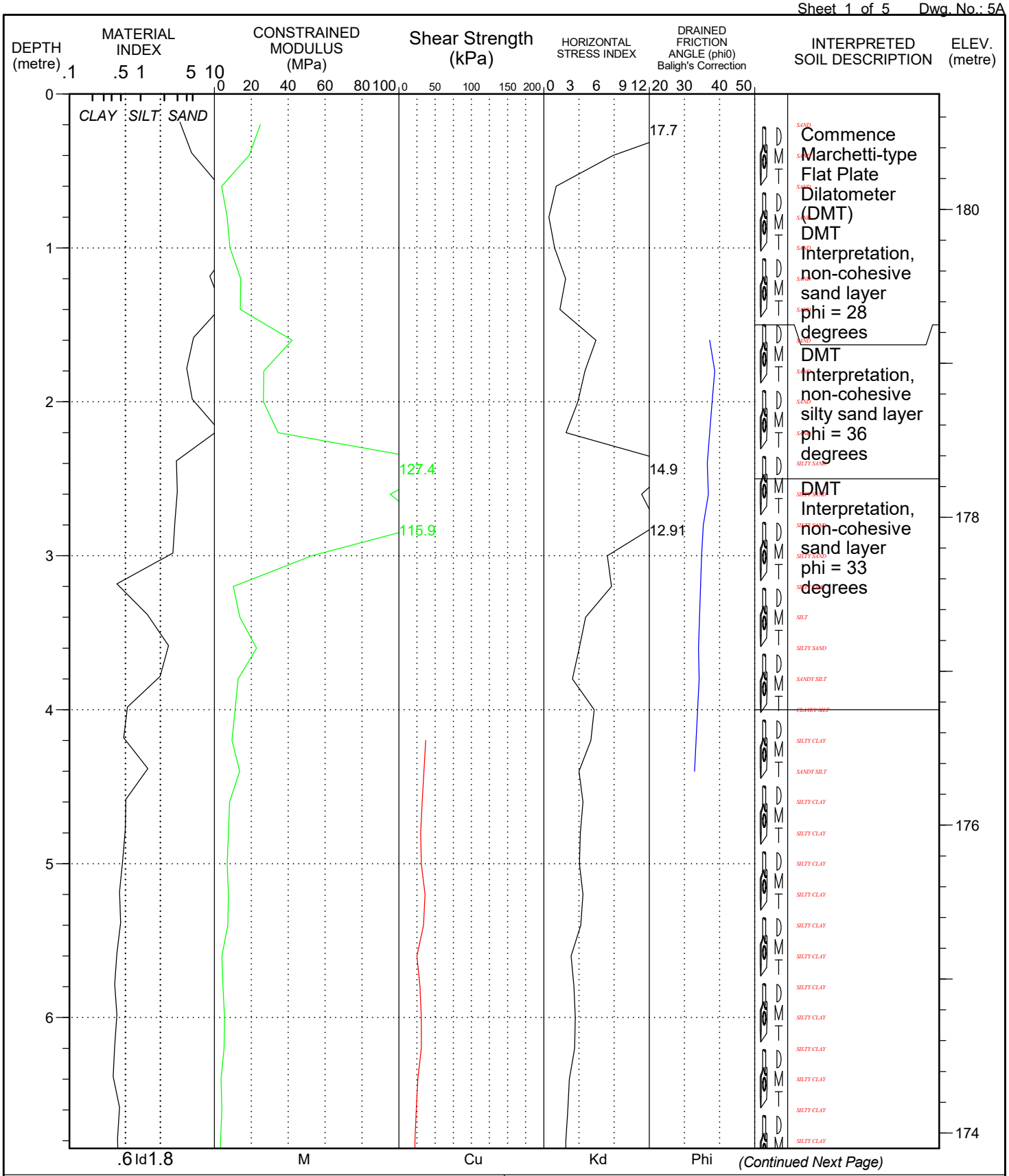

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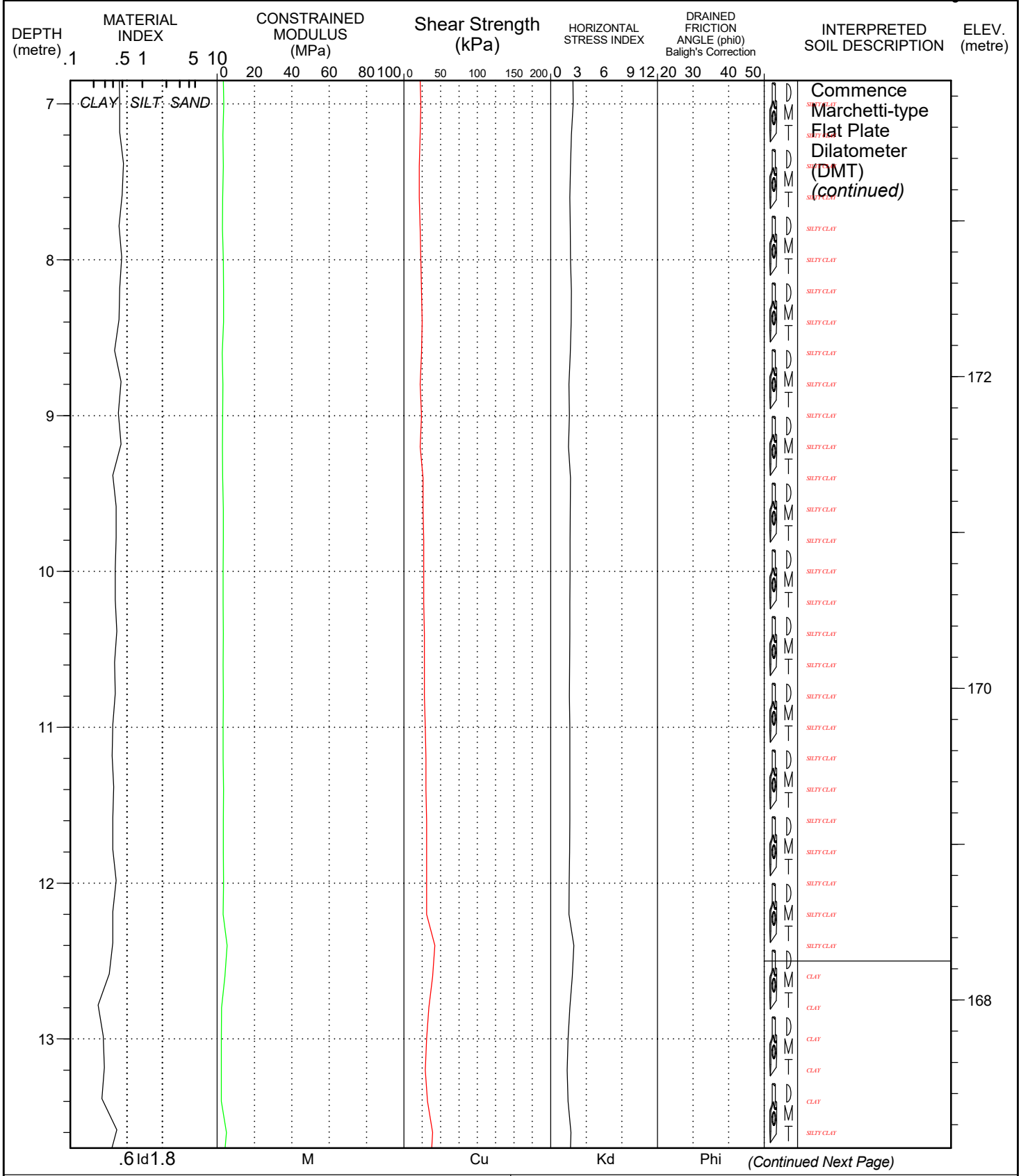
LOG OF 3-DMT

11-Storey Mixed Development
3885 Sandwich Street, Windsor, ON

PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
20G085	B. Purcka, B.A.Sc., EIT	12/23/2021

CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



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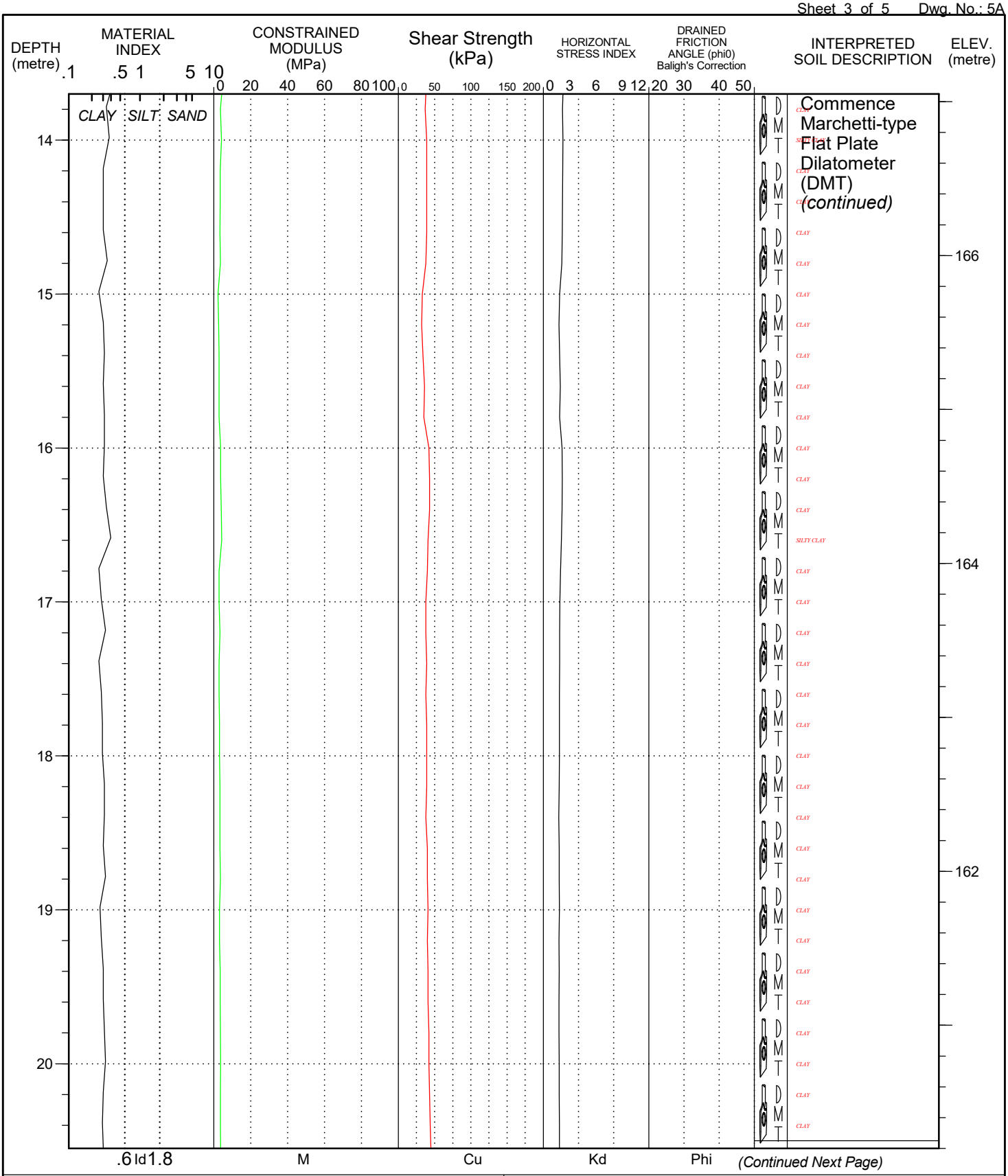
LOG OF 3-DMT

11-Storey Mixed Development
3885 Sandwich Street, Windsor, ON

PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
20G085	B. Purcka, B.A.Sc., EIT	12/23/2021

CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



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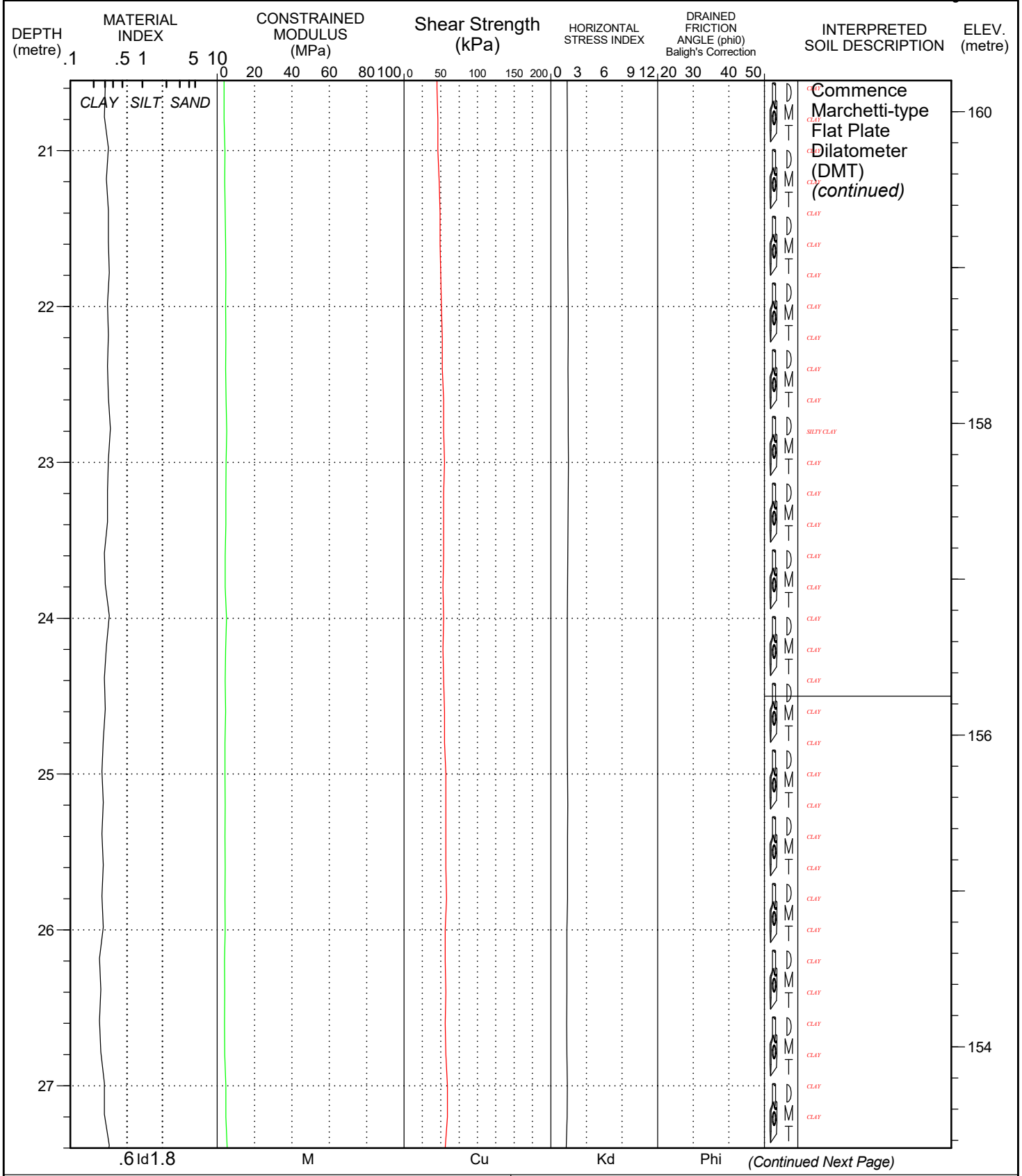
LOG OF 3-DMT

11-Storey Mixed Development
3885 Sandwich Street, Windsor, ON

PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
20G085	B. Purcka, B.A.Sc., EIT	12/23/2021

CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



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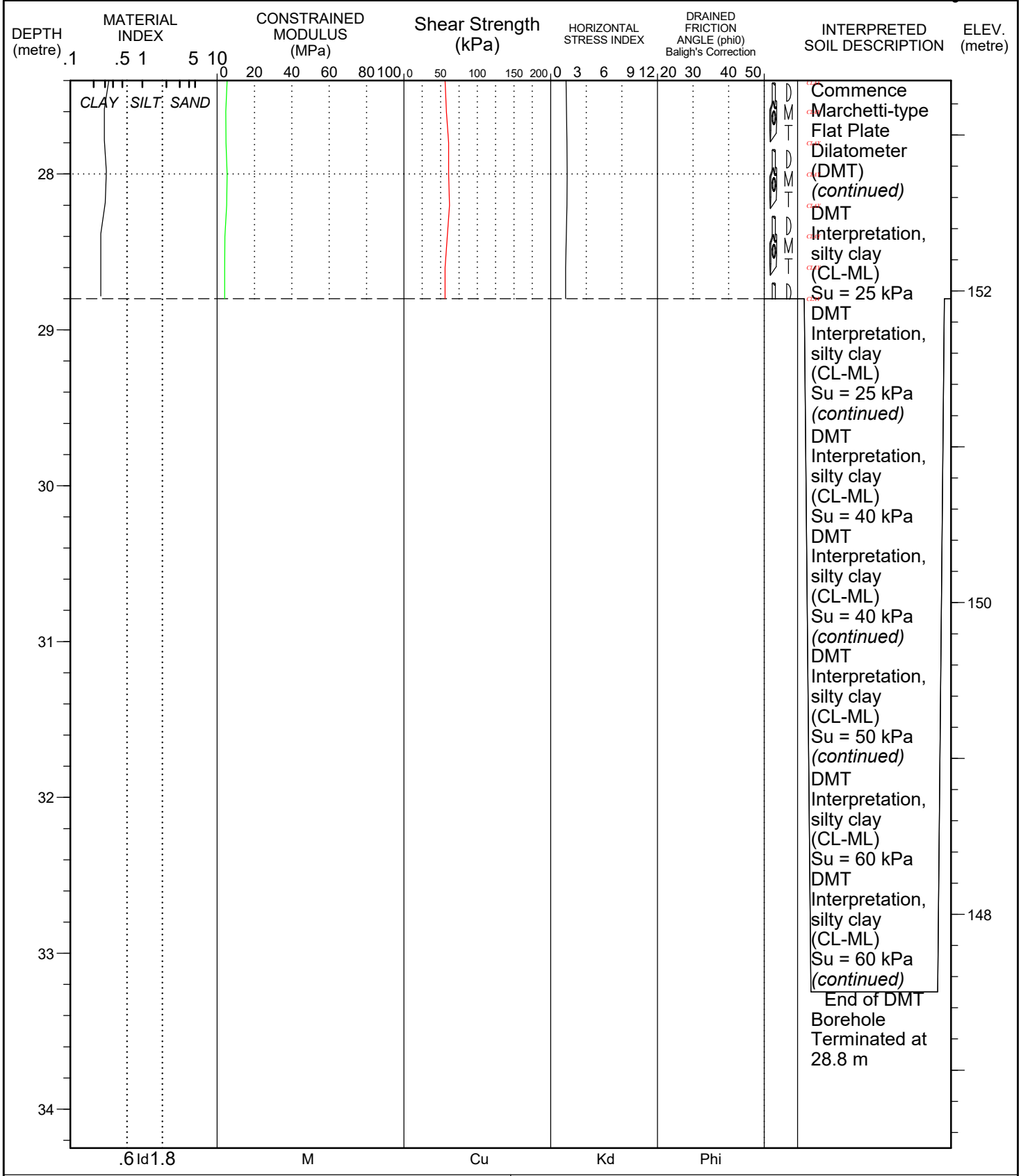
LOG OF 3-DMT

11-Storey Mixed Development
3885 Sandwich Street, Windsor, ON

PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
20G085	B. Purcka, B.A.Sc., EIT	12/23/2021

CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



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LOG OF 3-DMT

11-Storey Mixed Development
3885 Sandwich Street, Windsor, ON

PROJECT NO.:	REVIEWED BY:	DATE ADVANCED:
20G085	B. Purcka, B.A.Sc., EIT	12/23/2021

CT DMT LOG 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **P1**

Dwg. No.: 6
Sheet 1 of 1

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **S/S Auger**
Size: **115 mm O.D.**
Date: **12/22/2020** TO **12/22/2020**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE
0.05 / 180.05	**ASPHALTIC CONCRETE** - 50mm					
	FILL - heterogeneous mixture consisting gravel, topsoil, sand, glass and brick pieces, dry to moist	0.5		0.5	SPT	6
1.05 / 179.05	**SAND WITH SILT (SP-SM)** - damp medium grained sand with silt brown compact	1.0		2.5	SPT	8
		1.5		5.0	SPT	16
1.95 / 178.15	End of Testhole	2.0				

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL: No Well DATA

ELEV. (m)	REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL
180	
179	
178	Testhole open and dry upon completion
177	
176	
175	
174	

REVIEWING PROFESSIONAL:
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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **P2**

Dwg. No.: 7
Sheet 1 of 1

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **S/S Auger**
Size: **115 mm O.D.**
Date: **12/22/2020** TO **12/22/2020**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE
0.05 / 180.35	**ASPHALTIC CONCRETE** - 50mm					
	FILL - mixed fill consisting topsoil and gravel					
0.45 / 179.95	**SILTY SAND (SM)** - damp medium grained sand with gravel and silt	0.5		0.0	SPT	6
	loose	1.0		2.5	SPT	6
	brown	1.5				
	compact			5.0	SPT	12
1.95 / 178.45	End of Testhole	2.0				

Ground Elev: **180.40** m

SHEAR STR.(kPa)
DILATOMETER: Su● M(bars)▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL: No Well DATA

ELEV. (m): 180, 179, 178, 177, 176, 175, 174

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL

Testhole open and dry upon completion

REVIEWING PROFESSIONAL:
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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **P3**

Dwg. No.: 8
Sheet 1 of 1

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **S/S Auger**
Size: **115 mm O.D.**
Date: **12/22/2020** TO **12/22/2020**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE
	Ground Elev: **180.55** m					
	FILL - heterogeneous mixture of topsoil, gravel. cinders and brick pieces			0.0	SPT	11
0.60 / 179.95	**SAND WITH SILT (SP-SM)** - damp fine to medium grained sand with silt brown compact	0.5 1.0 1.5		2.0	SPT	10
				5.0	SPT	16
1.95 / 178.60	End of Testhole	2.0				

SHEAR STR.(kPa)
DILATOMETER: Su ● M(bars) ▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL: No Well DATA

ELEV. (m)	REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL
180	
179	
178	Testhole open and dry upon completion
177	
176	
175	
174	

REVIEWING PROFESSIONAL:
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Soil & Materials Engineering Inc.

C.T. SOIL & MATERIALS TESTING INC.
2000 Legacy Park Drive
WINDSOR, ONTARIO, N8W 5S6
ph. (519) 966-8863, fx. (519) 966-8870
email ctsoil @ ctsoil.com

CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **P4**

Dwg. No.: 9
Sheet 1 of 1

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **S/S Auger**
Size: **115 mm O.D.**
Date: **12/22/2020** TO **12/22/2020**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE
0.05 / 180.50	**ASPHALTIC CONCRETE** - 50mm					
0.20 / 180.35	**GRAVEL (GW)** - well graded					
	FILL - heterogeneous mix of topsoil and gravelly sand	0.5		0.5	SPT	7
0.90 / 179.65	**SILTY SAND (SM)** - damp medium to coarse grained with gravel	1.0		2.5	SPT	5
	brown loose	1.5		5.0	SPT	8
1.95 / 178.60	End of Testhole	2.0				

SHEAR STR.(kPa)
DILATOMETER: Su● M(bars)▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL: No Well DATA

ELEV. (m): 180, 179, 178, 177, 176, 175, 174

REMARKS & GRAIN SIZE DISTRIBUTION %
GR SA SI CL

Testhole open and dry upon completion

REVIEWING PROFESSIONAL:
B. Purcka, B.A.Sc., EIT
Soil & Materials Engineering Inc.

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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **P5**

Dwg. No.: 10
Sheet 1 of 1

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **S/S Auger**
Size: **115 mm O.D.**
Date: **12/22/2020** TO **12/22/2020**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE
0.05	**ASPHALTIC CONCRETE** - 50mm					
180.60	**GRAVEL (GW)** - well graded					
0.25						
180.40	**FILL** - heterogeneous mix of topsoil, gravel and concrete	0.5		0.5	SPT	13
0.75						
179.90	**SILTY SAND (SM)** - dry fine to medium grained silty sand with gravel, loose, brown	1.0		2.5	SPT	4
		1.5				
	compact			5.0	SPT	10
1.95						
178.70	End of Testhole	2.0				

Ground Elev: **180.65** m

SHEAR STR.(kPa)
DILATOMETER: Su● M(bars)▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL DATA: No Well

ELEV. (m): 180, 179, 178, 177, 176, 175, 174

REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL

Testhole open and dry upon completion

REVIEWING PROFESSIONAL:
B. Purcka, B.A.Sc., EIT
Soil & Materials Engineering Inc.

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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **P6**

Dwg. No.: 11
Sheet 1 of 1

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **S/S Auger**
Size: **115 mm O.D.**
Date: **12/22/2020** TO **12/22/2020**

SOIL LITHOLOGY

EL/DPT (m)	DESCRIPTION *DMT*	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE
	Ground Elev: **180.65** m					
0.35 / 180.30	**FILL** - heterogeneous mixture of topsoil, gravel. cinders and brick pieces			0.0	SPT	5
	SAND WITH SILT (SP-SM) - damp fine to medium grained silty sand with gravel	0.5				
	loose	1.0		2.0	SPT	3
	brown					
		1.5				
	compact			5.0	SPT	12
1.95 / 178.70	End of Testhole	2.0				
		2.5				
		3.0				
		3.5				
		4.0				
		4.5				
		5.0				
		5.5				
		6.0				
		6.5				

SHEAR STR.(kPa)
DILATOMETER: Su● M(bars)▼
FIELD VANE: Peak × Rem. ⊗
LAB TEST: Unc. ■ P.P. □
50 100 150
PENETR. RESISTANCE DMT Phi(◆) ◆
STANDARD ● DYN.CONE ○
20 40 60

BULK UNIT WGHT (kN/m3)

WATER CONTENT (%)
Wp W Wl
10 20 30

WELL: No Well DATA

ELEV. (m)	REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL
180	
179	
	Testhole open and dry upon completion
178	
177	
176	
175	
174	

REVIEWING PROFESSIONAL:
B. Purcka, B.A.Sc., EIT
Soil & Materials Engineering Inc.

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CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

JOB No: **20G085**

TESTHOLE No. **TW Sample**

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **83 mm I.D. H/S Auger**
Size: **165 mm O.D.**
Date: **2/26/2021** TO **2/26/2021**

EL/DPT (m)	DESCRIPTION *DMT*	DEPTH (m)	SYMBOL	SAMPLE: SAMP ID	SAMPLE: TYPE	SAMPLE: N-VALUE	SHEAR STR.(kPa) / PENETR. RESISTANCE	BULK UNIT WGHT (kN/m3)	WATER CONTENT (%)	WELL	ELEV. (m)	REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL
	Ground Elev: m						DILATOMETER: Su● M(bars)▼ FIELD VANE: Peak × Rem. ⊗ LAB TEST: Unc. ■ P.P. □ (50 100 150) PENETR. RESISTANCE DMT Phi(◆) ◆ STANDARD ● DYN.CONE ○ (20 40 60)		Wp W Wl (10 20 30)	No Well		
	Drill to 10.65 m	0.5										
		1.0										
		1.5										
		2.0										
		2.5										
		3.0										
		3.5										
		4.0										
		4.5										
		5.0										
		5.5										
		6.0										
		6.5										

CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

REVIEWING PROFESSIONAL:
B. Purcka, B.A.Sc., EIT
Soil & Materials Engineering Inc.

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JOB No: **20G085**

TESTHOLE No. **TW Sample**

Dwg. No.: 12
Sheet 2 of 2

C.T. SOIL & MATERIALS TESTING INC.
WINDSOR ONTARIO

Client: **Tunio Developments Inc.**

Project: **11-Storey Mixed Development**

Location: **3885 Sandwich Street, Windsor, ON**

EQUIPMENT DATA
Machine: **Diedrich D50 Truck**
Method: **83 mm I.D. H/S Auger**
Size: **165 mm O.D.**
Date: **2/26/2021** TO **2/26/2021**

EL/DPT (m)	DESCRIPTION (DMT)	DEPTH (m)	SYMBOL	SAMP ID	TYPE	N-VALUE	SHEAR STR.(kPa) / PENETR. RESISTANCE	BULK UNIT WGHT (kN/m3)	WATER CONTENT (%) Wp W Wl	WELL DATA	ELEV. (m)	REMARKS & GRAIN SIZE DISTRIBUTION % GR SA SI CL
10.65	**SILTY CLAY** - with embedded sand and gravel grey firm	10.5		35.0	TW			19.0				Consolidation Test was completed at 10.65 m
11.40	End of Testhole	11.5		37.0	VN	15	30					S= 2.0

DILATOMETER: Su● M(bars)▼ FIELD VANE: Peak × Rem. ⊗ LAB TEST: Unc. ■ P.P. □ (50 100 150)
PENETR. RESISTANCE DMT Phi(◆) ◆ STANDARD ● DYN.CONE ○ (20 40 60)
WATER CONTENT (%) (10 20 30)

REVIEWING PROFESSIONAL:
B. Purcka, B.A.Sc., EIT
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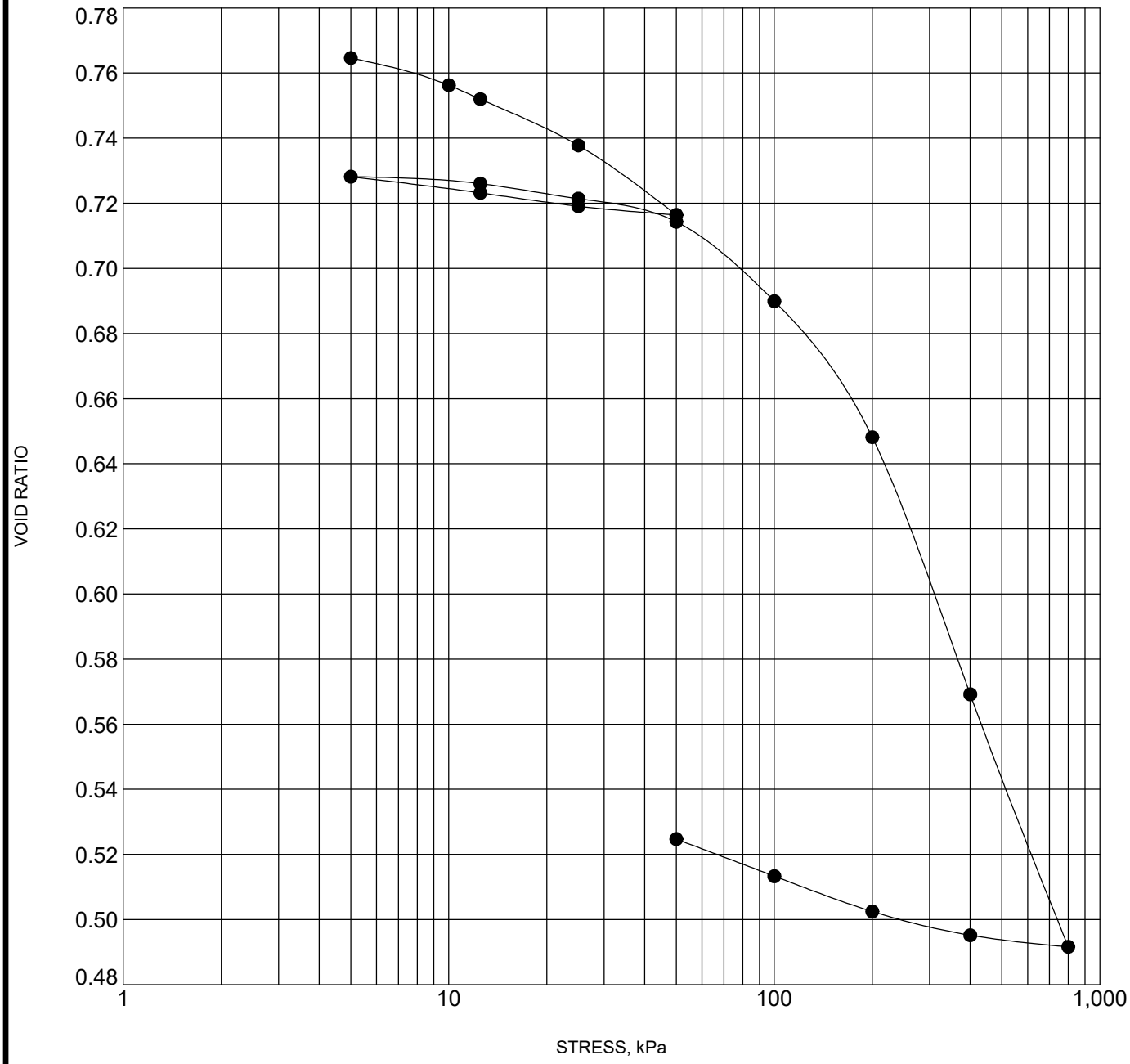
CTMET 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21



Specimen Identification		Classification	γ_d	MC%
● **TW Sample 10.65**		**SILTY CLAY (CL-ML)**	**14.9**	**27**

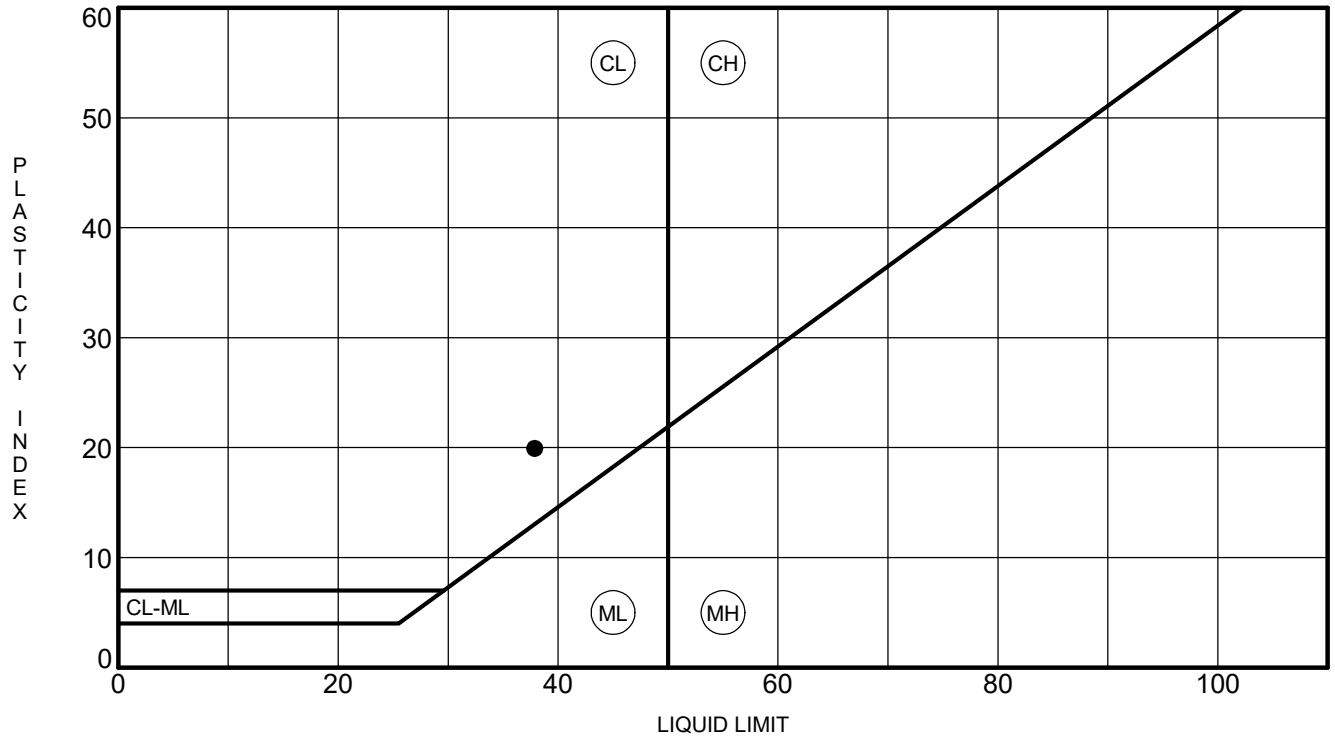
CT Soil & Materials Testing Inc
2000 Legacy Park Dr
Windsor, ON N8W 5S6
Telephone: (519) 966-8863
Fax: (519) 966-8870

CONSOLIDATION TEST

Project: 11-Storey Mixed Development
Location: 3885 Sandwich Street, Windsor, ON
Number: 20G085

Drawing 1

CAN_CONSOL_VOID_RATIO_20G085.GPJ_BETA.TOM.20200121.GDT_5/21/21



	Specimen Identification		LL	PL	PI	Fines	Classification
●	**TW Sample**	**10.65**	**38**	**18**	**20**		**SILTY CLAY (CL-ML)**

CT Soil & Materials Testing Inc
2000 Legacy Park Dr
Windsor, ON N8W 5S6
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ATTERBERG LIMITS' RESULTS

Project: 11-Storey Mixed Development
Location: 3885 Sandwich Street, Windsor, ON
Number: 20G085

Drawing 1

CAN_ATTERBERG_LIMITS 20G085.GPJ BETA.TOM.20200121.GDT 5/21/21

APPENDIX A

PURCKA Geo-Structural Preliminary Settlements Analysis

PURCKA
GEO-STRUCTURAL
ENGINEERS INC.

Settlement Analysis for Typical Shallow Spread Strip Footings Based on SME data from DMT (20G085)

DMT Settlements v. 1.0.1.16

Enclosures

Report – pages 1 though 3
Typical Strip Footing – pages 4 through 6
Typical Square Footing – pages 7 through 9

PURCKA
GEO-STRUCTURAL
ENGINEERS INC.

May 21, 2021

Ref No. 2021-010

Soil & Materials Engineering Inc.

Attention: Tom O'Dwyer, P.Eng., P.E.
Consulting Engineer
todwyer@ctsoil.com

Re: **Preliminary Geo-Structural Interaction and Settlement Analysis for the Proposed 11-Storey Development, 3885 Sandwich Street, Windsor, Ontario**

In accordance with the request and authorization from Tom O'Dwyer, P.Eng. representing Soil & Materials Engineering Inc. (C.T. Soil), Purcka Geo-Structural Engineers Inc. completed a preliminary geo-structural interaction for the settlement of the proposed exterior strip and square footings for the proposed 11-Storey Development located at 3885 Sandwich Street, Windsor, Ontario.

Purcka Geo-Structural assumed conventional shallow spread (strip) foundations will be constructed at the subject project and isolated squares for column loads. The strip footings are assumed to be at each exterior wall and at each interior corridor wall. The building loads were not provided at the time of this analysis and have been assumed since this is a preliminary analysis. Once actual structural loading and footing sizes are determined, Purcka Geo-Structural Engineers Inc. should be contacted for a refined analysis. Note that 100% of the dead load and 75% of the live load are generally used in a settlement analysis on cohesive soil. It was assumed that the four load bearing walls, two exterior walls and two corridor walls, run lengthwise along the building with each totaling 66 metres.

Exterior Wall - 2	D_L= undefined kN/m	L_L= undefined kN/m
Corridor Wall - 2	D_L= undefined kN/m	L_L= undefined kN/m

Soil conditions were provided to Purcka GSE by Soil & Materials Engineering Inc. Ref. 20G085 report dated April 10, 2021. Relevant subsurface data was collected using a speciality Marchetti-type flat plate dilatometer performed on December 23, 2020 and February 26, 2021. Based on the site map (SME

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Windsor, ON N8W 5S6
Ph. (519) 963-9375 E-mail: info@purckagroup.com

Drawings 1 and 2) provided by Soil & Materials Engineering Inc., 1-DMT and 3-DMT were selected as representational data used for the analysis (SME Drawing No.3 and No.5), attached.

The preliminary settlement analysis was completed using DMT Settlements (SMDT) v 1.0.1.16 with the following assumptions.

- The loading is uniform along the entire wall foundation, a uniform long term sustained pressure of 70 kPa acting on a 1.2 m wide strip footing (this assumption is sufficient for a preliminary analysis).
- A uniform long term sustained pressure of 80 kPa acting on a 3 m square footing (this assumption is sufficient for a preliminary analysis).
- The soil conditions provided by Soil & Materials Engineering Inc. are correct and reliable for use by Purcka GSE.

The settlement calculation report is attached on pages 4 through 9 and discussed in greater detail. The following is intended as a brief summary of the results.

	Below the Centre	**Below the Corner**	**Below the Long Side**	**Below the Short Side**
Strip Settlement, **S**	32 mm	18 mm	31 mm	19 mm
Squares Settlement, **S**	33 mm	23 mm	Same as short	27 mm

The above settlements are assumed to occur beneath a flexible foundation. Once the Structural Engineer has determined foundation reactions and size, the results should be provided to Purcka Geo-Structural Engineers Inc for a refined analysis using Finite Element Analysis FEA program, Sigma/W, for anticipated performance.

We trust this preliminary report is presented in a manner suitable for your review and evaluation. If questions arise concerning our findings, opinions, or any other aspect of the subject project, do not hesitate to contact us.

Regards,
Purcka Geo-Structural Engineers Inc.

T.O'Dwyer, P.Eng., P.E.
Consulting Engineer

B. Purcka, EIT
Director

Settlements Calculation

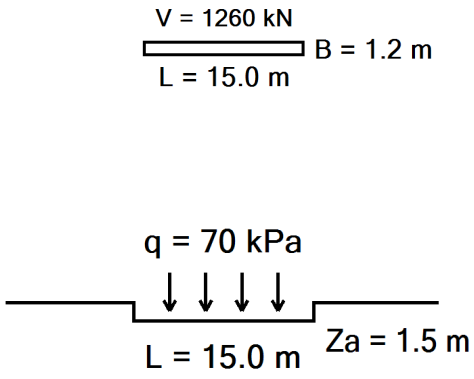
Purcka Geo-Structural Engineer

2021-010 / SME 20G085

Soil & Material Engineering Inc

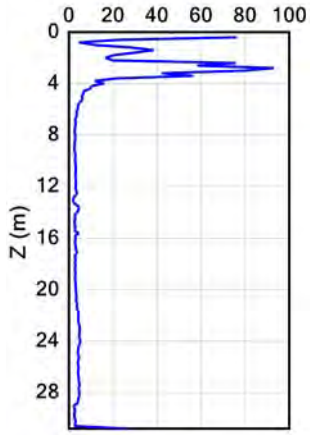
3885 Sandwich St.

LOAD DESCRIPTION



CONSTRAINED MODULUS M (MPa)

(manual profile input)



CALCULATION OPTIONS

Lower limit of Constrained Modulus assigned in the calculation	0.70 MPa
Thickness of calculation layer	0.20 m
End of Calculation	at end of assigned profile

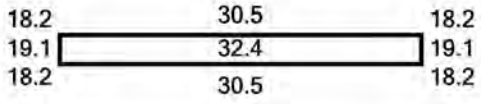
SETTLEMENTS CALCULATION

(one-dimensional conventional method)

$$S = \sum \frac{\Delta\sigma_v}{M} \Delta z$$

Calculation Point	Settlements	Z Stop
	[mm]	[m]
below the center	32.4	30.70
below the corner	18.2	30.70
below the median point of short side	19.1	30.70
below the median point of long side	30.5	30.70

Settlements [mm]

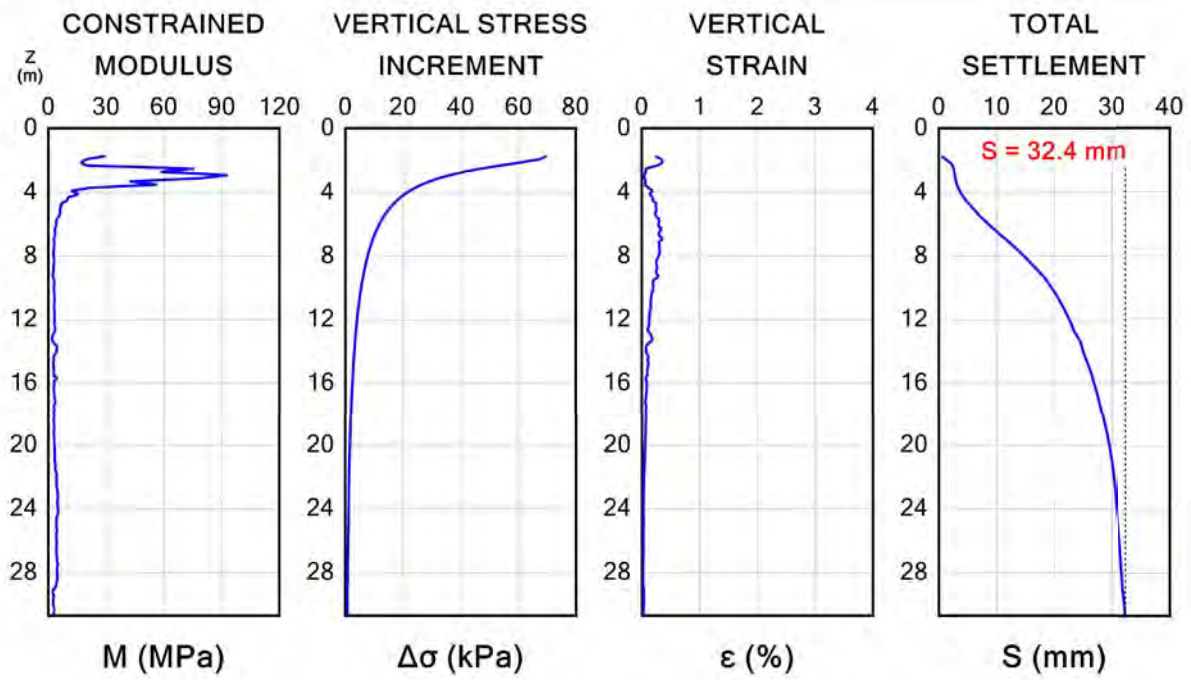


The calculated settlements are obtained using the interpretation formulae and the calculation method recommended in the TC16 DMT Report(2001). It is the designer's responsability to use alternative procedures if considered preferable.

SETTLEMENTS CALCULATION - below the center

Purcka Geo-Structural Engineer | 2021-010 / SME 20G085

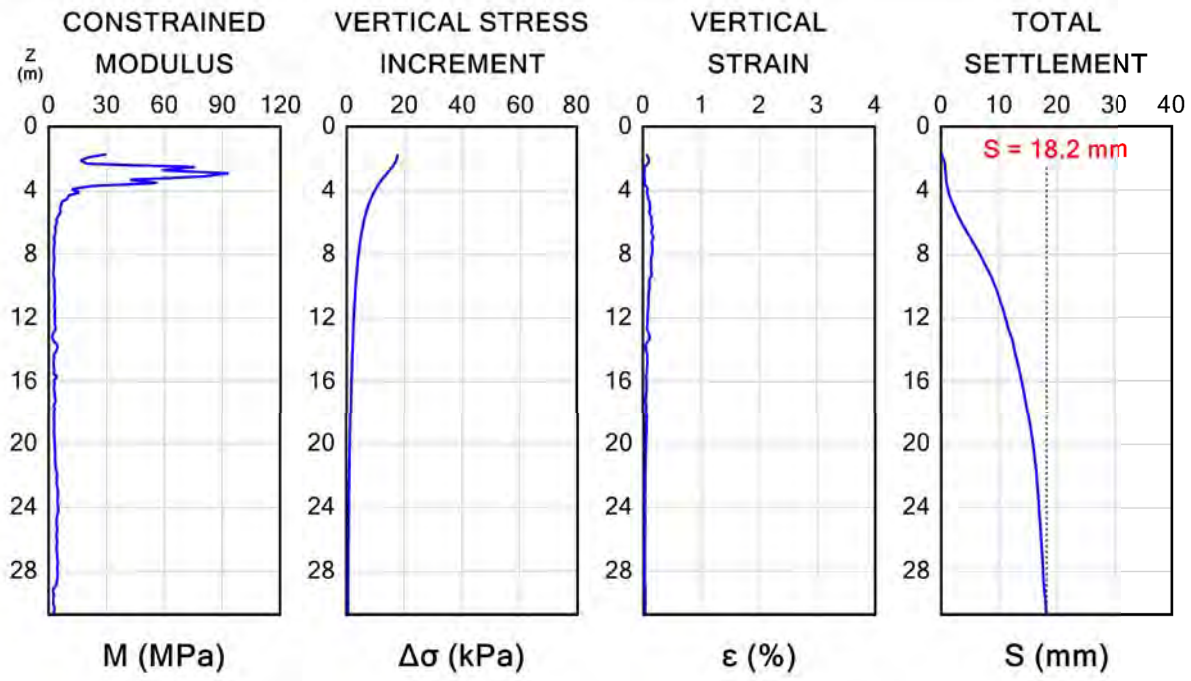
Soil & Material Engineering Inc | 3885 Sandwich St.



SETTLEMENTS CALCULATION - below the corner

Purcka Geo-Structural Engineer | 2021-010 / SME 20G085

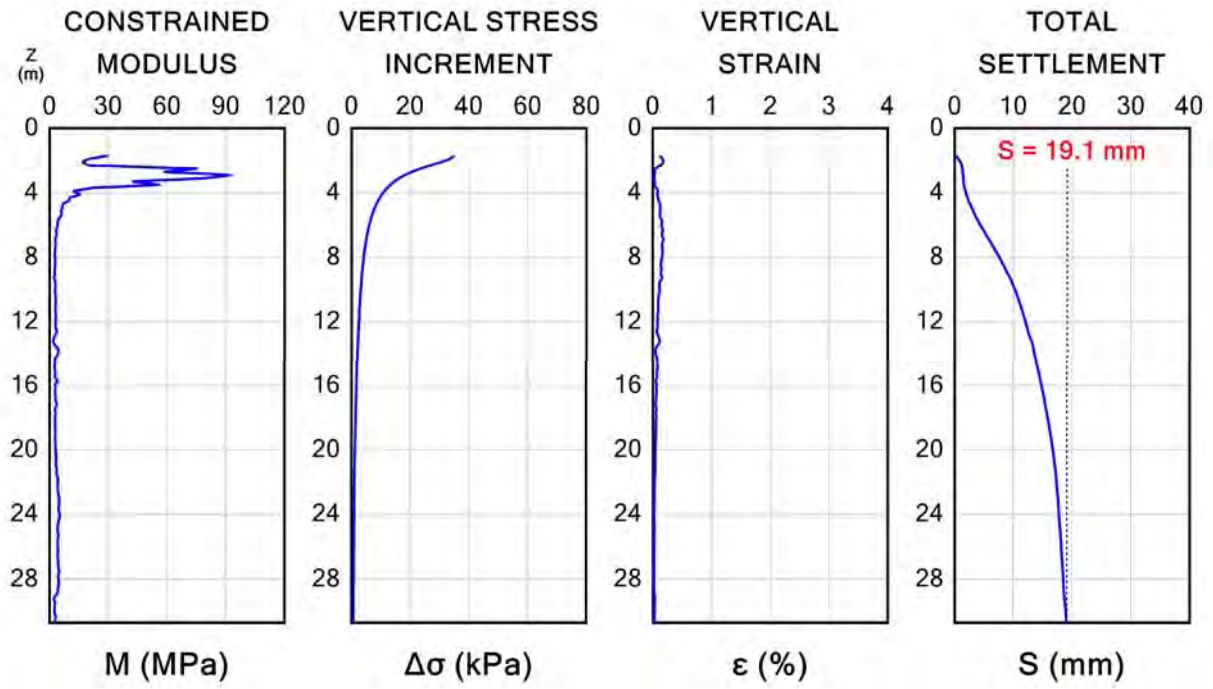
Soil & Material Engineering Inc | 3885 Sandwich St.



SETTLEMENTS CALCULATION - below the median point of short side

Purcka Geo-Structural Engineer | 2021-010 / SME 20G085

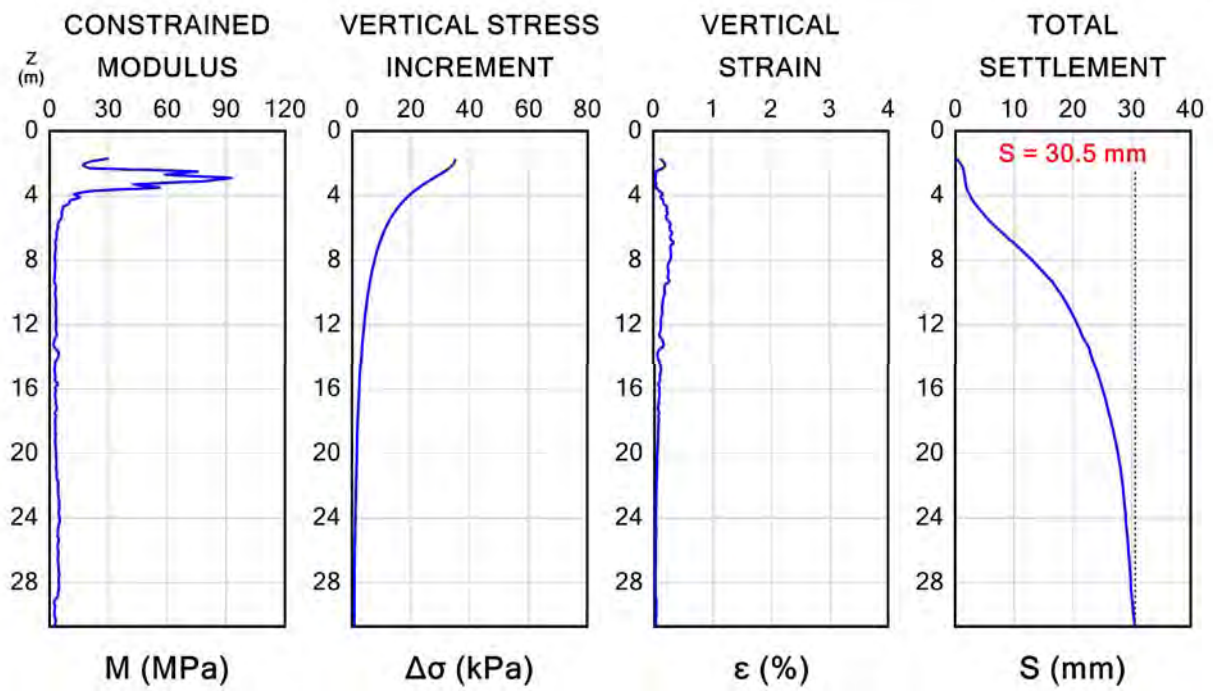
Soil & Material Engineering Inc | 3885 Sandwich St.



SETTLEMENTS CALCULATION - below the median point of long side

Purcka Geo-Structural Engineer | 2021-010 / SME 20G085

Soil & Material Engineering Inc | 3885 Sandwich St.



Settlements Calculation

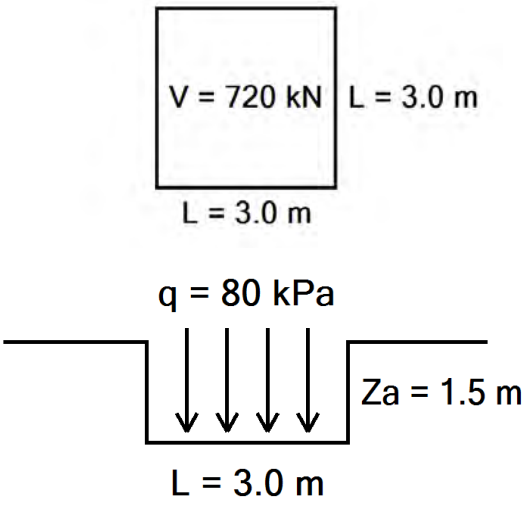
Purcka Geo-Structural Engineer

2021-010 / SME 20G085

Soil & Material Engineering Inc

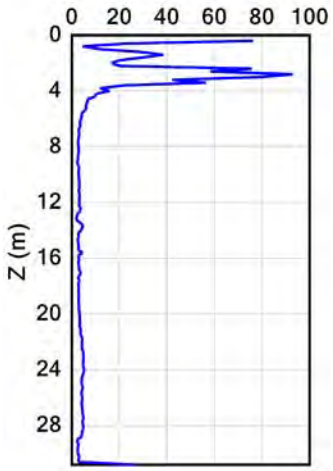
3885 Sandwich St.

LOAD DESCRIPTION



CONSTRAINED MODULUS M (MPa)

(manual profile input)



CALCULATION OPTIONS

Lower limit of Constrained Modulus assigned in the calculation	0.70 MPa
Thickness of calculation layer	0.20 m
End of Calculation	at end of assigned profile

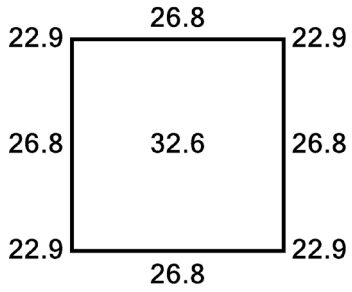
SETTLEMENTS CALCULATION

(one-dimensional conventional method)

$$S = \sum \frac{\Delta\sigma_v}{M} \Delta z$$

Calculation Point	Settlements	Z Stop
	[mm]	[m]
below the center	32.6	30.70
below the corner	22.9	30.70
below the median point of the side	26.8	30.70

Settlements [mm]

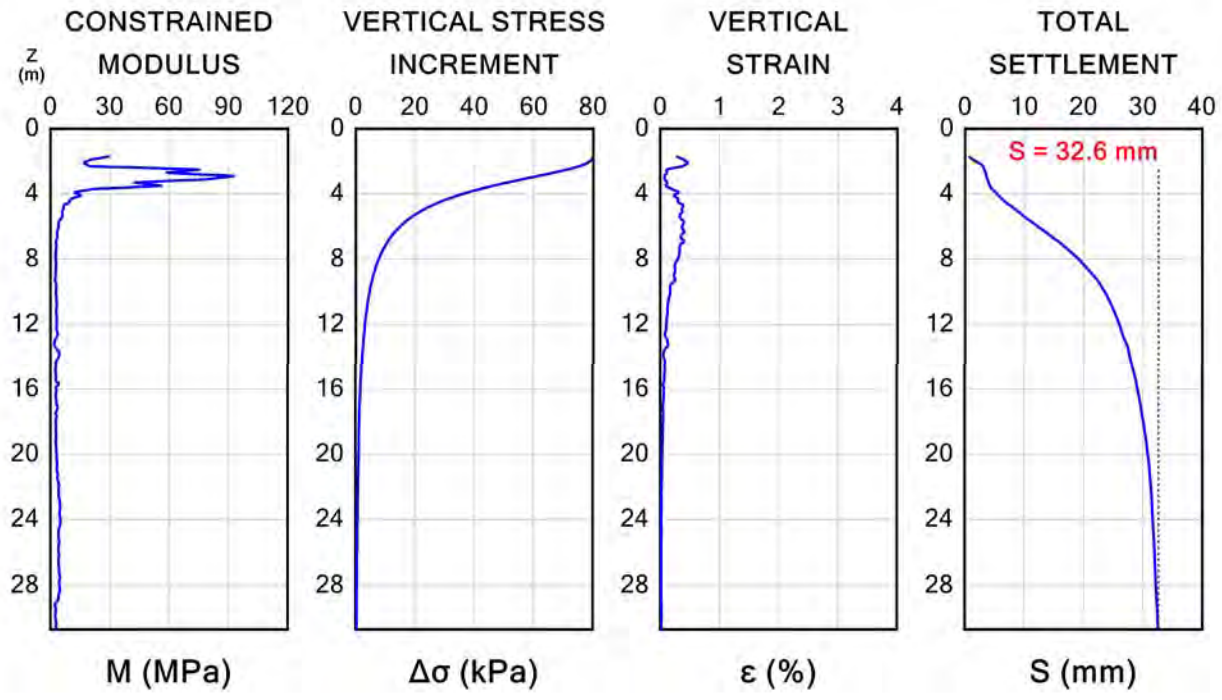


The calculated settlements are obtained using the interpretation formulae and the calculation method recommended in the TC16 DMT Report(2001). It is the designer's responsability to use alternative procedures if considered preferable.

SETTLEMENTS CALCULATION - below the center

Purcka Geo-Structural Engineer | 2021-010 / SME 20G085

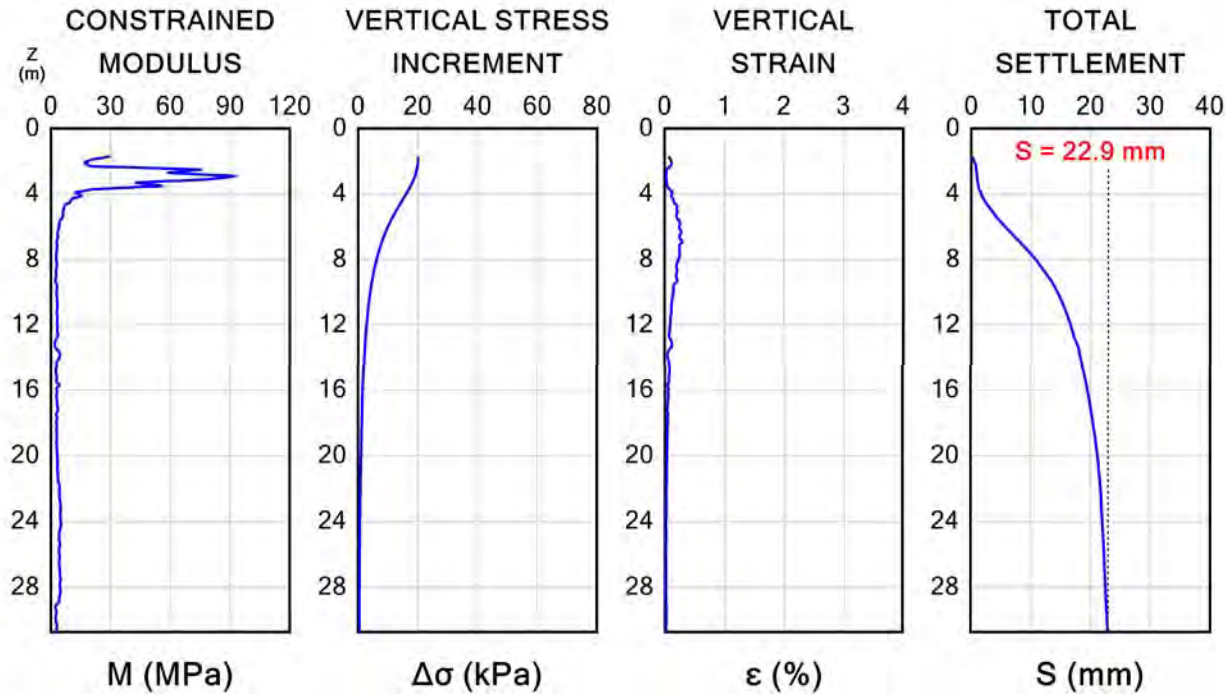
Soil & Material Engineering Inc | 3885 Sandwich St.



SETTLEMENTS CALCULATION - below the corner

Purcka Geo-Structural Engineer | 2021-010 / SME 20G085

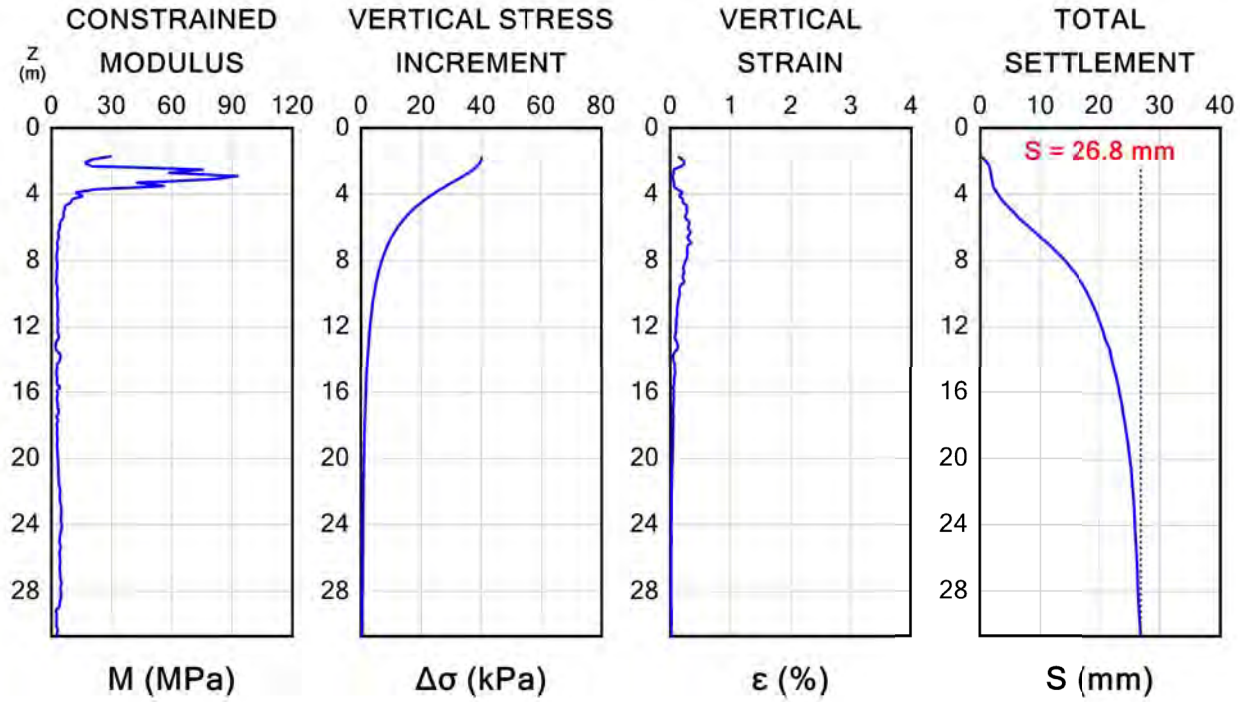
Soil & Material Engineering Inc | 3885 Sandwich St.



SETTLEMENTS CALCULATION - below the median point of the side

Purcka Geo-Structural Engineer | 2021-010 / SME 20G085

Soil & Material Engineering Inc | 3885 Sandwich St.



APPENDIX B

Bedrock Cores

Photo Taken: February 24, 2021

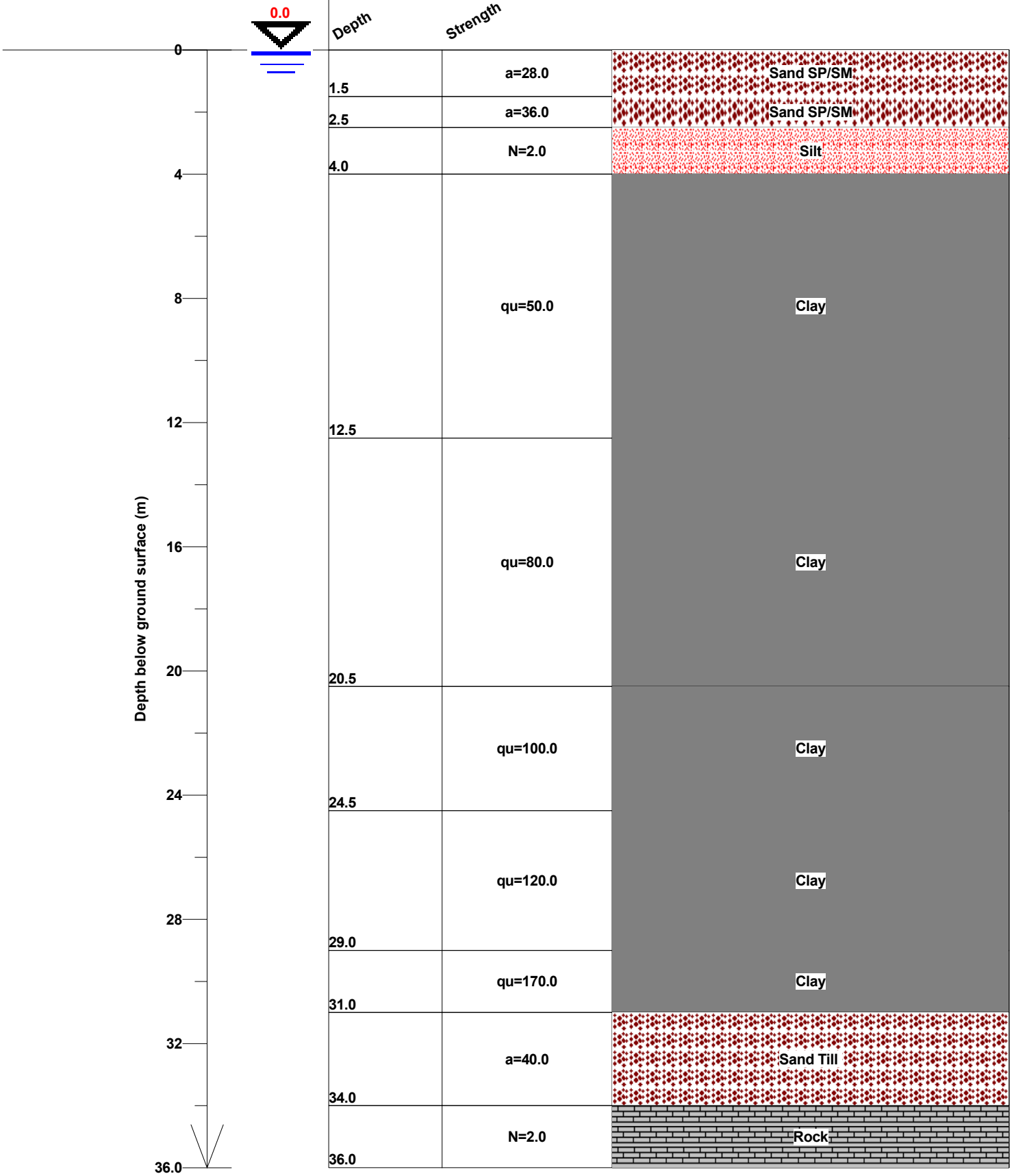
Figure 1: Site Photo of Cores (1-DMT) Run 1: 34.15 m to 36.2 m

Figure 1: Site Photo of Cores (1-DMT) Run 1: 34.15 m to 36.2 m

APPENDIX C

WEAP Analysis Using Geotechnical Subsurface Data

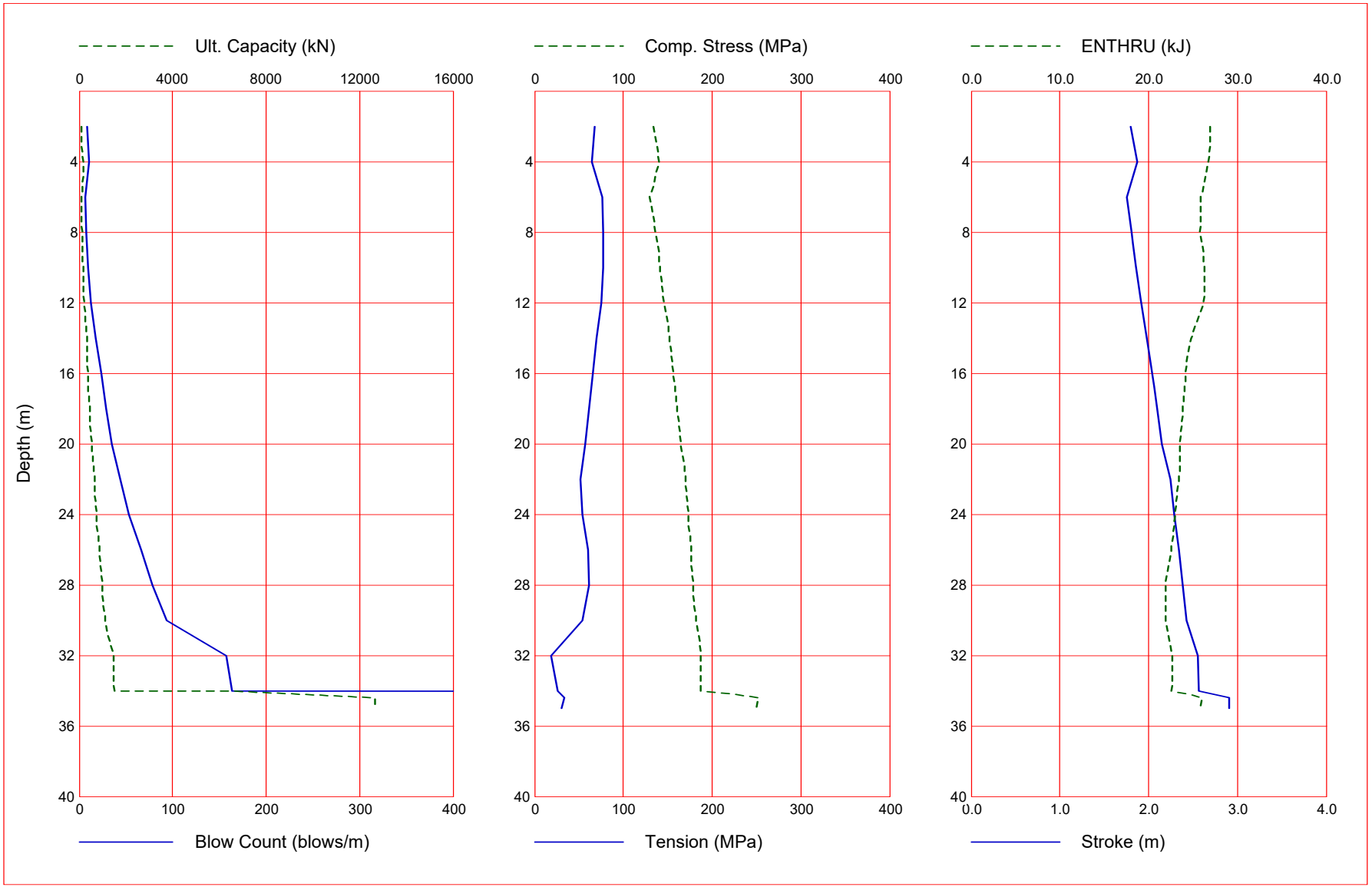
Drawing 1: Soil Profile for Driveability Analysis
Drawing 2: Driveability Graph
Drawing 3: Driveability Table


0.0
Depth
Strength
0
1.5
a=28.0
Sand SP/SM
2.5
a=36.0
Sand SP/SM
4.0
N=2.0
Silt
12.5
qu=50.0
Clay
20.5
qu=80.0
Clay
24.5
qu=100.0
Clay
29.0
qu=120.0
Clay
31.0
qu=170.0
Clay
34.0
a=40.0
Sand Till
36.0
N=2.0
Rock
Depth below ground surface (m)
4
8
12
16
20
24
28
32
36.0

Soil & Material Engineering Inc
11 Storey Development

2021 Apr 08
GRLWEAP Version 2010

Gain/Loss 1 at Shaft and Toe 0.833 / 1.000



Soil & Material Engineering Inc 2021 Apr 08
11 Storey Development GRLWEAP Version 2010

Gain/Loss 1 at Shaft and Toe 0.833 / 1.000

Depth m	Ultimate Capacity kN	Friction kN	End Bearing kN	Blow Count blows/m	Comp. Stress MPa	Tension Stress MPa	Stroke m	ENTHRU kJ
2.0	113.8	7.8	106.0	8.5	134.143	-67.304	1.80	26.9
4.0	169.4	35.9	133.4	10.7	140.626	-64.135	1.87	26.7
6.0	100.6	79.1	21.5	6.9	129.319	-75.879	1.75	25.9
8.0	145.9	124.5	21.5	8.1	136.311	-77.550	1.81	25.8
10.0	193.4	171.9	21.5	9.9	140.950	-77.133	1.86	26.3
12.0	242.9	221.4	21.5	12.5	145.354	-75.235	1.91	26.2
14.0	326.4	292.1	34.4	18.0	151.717	-69.445	1.98	24.8
16.0	403.7	369.3	34.4	23.6	156.391	-65.373	2.04	24.2
18.0	480.9	446.6	34.4	29.1	160.590	-61.655	2.10	23.8
20.0	558.2	523.8	34.4	35.4	164.480	-57.516	2.15	23.5
22.0	657.4	614.4	43.0	43.7	169.892	-52.040	2.24	23.4
24.0	752.4	709.5	43.0	52.8	173.251	-53.485	2.29	23.0
26.0	868.1	816.5	51.6	66.0	176.671	-59.972	2.34	22.6
28.0	979.2	927.6	51.6	78.5	178.366	-61.843	2.38	21.9
30.0	1126.8	1053.8	73.0	93.6	181.340	-53.433	2.43	21.9
32.0	1472.8	1142.6	330.2	157.8	187.529	-18.506	2.55	22.7
34.0	1517.5	1187.3	330.2	163.6	187.539	-25.947	2.57	22.6
34.4	12644.9	1187.3	11457.6	9999.0	251.759	-33.496	2.91	26.0
35.0	12644.9	1187.3	11457.6	9999.0	250.398	-30.811	2.91	25.8

Refusal occurred; no driving time output possible

PARKING JUSTIFICATION REPORT
MIXED USED DEVELOPMENT
3885 SANDWICH STREET

WINDSOR, ONTARIO

PROJECT NO. 20-028

DATED: MAY 25, 2022

BAIRD|AE
architecture + engineering
27 Princess St., Unit 102
Leamington, ON N8H 2X8
519.326.6161 TF 1.844.842.9188
bairdAE.ca

TABLE OF CONTENT

TABLES

FIGURES

APPENDIX

1. INTRODUCTION

1.1 Background

Baird AE has been retained to prepare a Parking Study in support of the site plan application for the proposed mix-use high-rise development on Sandwich Street in City of Windsor. The land is currently zoned as Commercial District (CD) per the City of Windsor's planning department.

The purpose of the study is to determine the adequacy of parking supply to meet the requirements of the proposed development. The site currently consists of grass and gravel section.

The proposed development location is shown in Exhibit 1 below.

Exhibit 1 - Location Plan

1.2 Development Proposal

The development is 0.67ha in size which will consist of new high-rise building with retail section on ground floor, parking spaces and landscape area. The site is bounded by Chappell Avenue to the south, Sandwich Street to the west, and residential development to the north and east.

The new building is 11-Storey high consist of parking space and retail store of 6697 ft^2 (622.17m2) in size on ground floor and 150 residential units with 70 single bedrooms units and 80 double bedroom units on all other floors.

2.0 EXISTING CONDITIONS

2.1 Road Network Characteristics

The existing road network and lane configuration are described in Table 1. To avoid confusion in the road network direction, it is assumed that Sandwich Street runs in an east-west fashion.

Table 1: Roadway

Component	Sandwich Street	Chappell Avenue
Direction	East-West	North-South
Speed limits	50 km/h	50 km/h
Cycling Facilities	No	No
On-Street Parking	No	Yes

The subject development is located in the western part of the city with transit services within the study area. These transit buses provide residents and visitors to travel to/from urban center and then to all parts of the city.

2.2 Existing Parking Areas

As shown in City of Windsor parking map (Appendix A), a substantial amount of existing parking is located within the vicinity of the development. Chappell Avenue is two-way streets with an urban cross-section and on-street parking is allowed on one side with no restriction at all times. Whereas, no on-street parking is available on Sandwich Street.

Based on aerial image, approximately 12 stalls are available at Chappell Avenue for resident and visitor use. Exhibit 2 shows the location of the parking.

Exhibit 2 – Parking Stalls

2.3 Future Parking Areas

Based on City of Windsor reconstruction plan of Sandwich Street, approximately 8 new stalls will be available on Sandwich Street in front of development. Exhibit 3 shows the location of the parking.

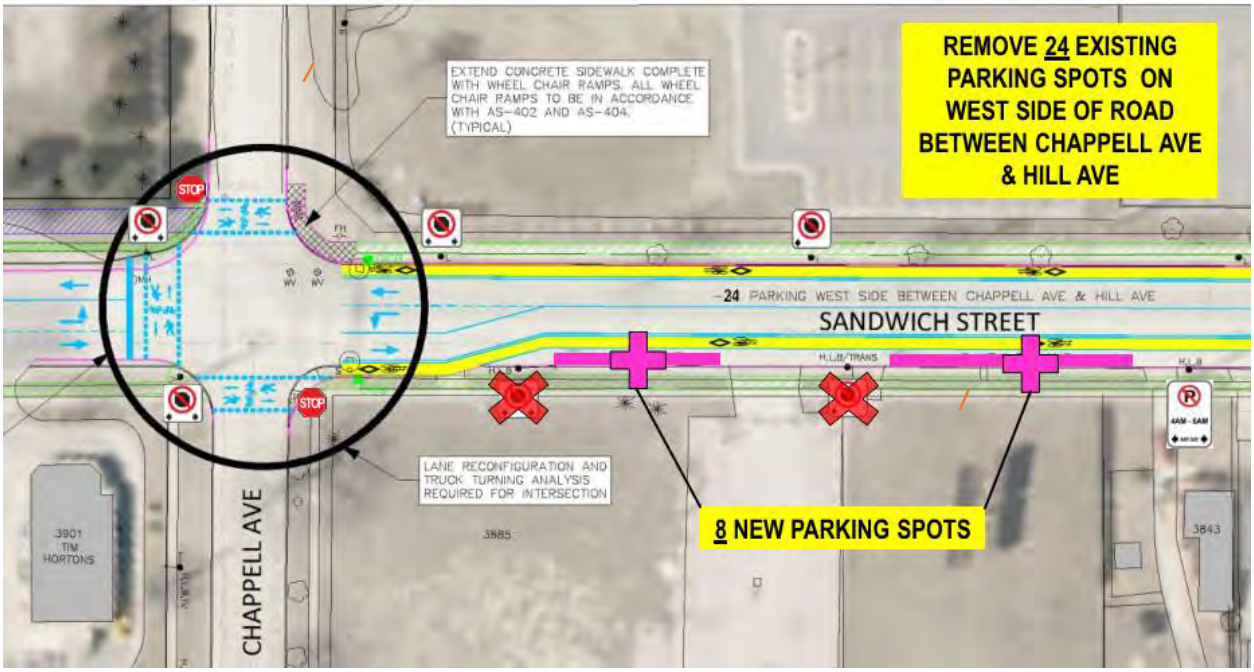


Exhibit 3 – Future Parking Stalls

3.0 PROPOSED CONDITION

The proposed development will include new 11-storey apartment building, retail store of 2900 ft^2 on ground floor, asphalt parking area and landscape area. The following table provides the breakdown of provided parking spaces in site plan. A detailed site plan is provided in the Appendix A.

Table 2: Parking Spaces and Location

No	Description	Area / Units	Proposed Spaces	Lost Space	Location
1	Resident Parking	150	134	None	surface
2	Retail parking	6.6k sq.ft	22	None	surface
Total Spaces			156		

3.1 City of Windsor By-law Section 8600-CD 2.1

The proposed development falls within the City of Windsor Zoning By-Law 8600-CD2.1 (Zone Map 4) Commercial District.

As outlined in the City of Windsor by-law (table 24.20.5.1), the parking requirement for combine use building is 1.25 space per 1 dwelling. Further, the convenient store required 1 space for 22.5 sq.m. The required number of parking spaces for the development is provided in the Table 3 and details are provided in Appendix B.

Table 3: Minimum Parking Requirement (By-Law)

Land use	Levels	Parking Rate	Area / Units	Parking Required	Parking Available	Surplus /Deficit
Multi-Storey **Resident**	10 Levels	1.25 space per 1 dwelling	150	187	156	(60)
Retail Store	1 level	1 Space per 22.5 m^2	6,697sq.ft.	29		
Total				216		

The total required parking spaces is 216 spaces based on the City's By-Law standards and assumptions. There is a deficit of 60 spaces. Additional street paring is available on the street of Sandwich Street and Chappell Avenue. To be conservative, street parking is not

considered to meet the parking requirements. A parking relief is requested for the development based on City of Windsor by-law amendment (130-2017) which states 1 space for each dwelling unit.

The City of Windsor Transportation Demand Management (TDM) strategies for a safe, secure, green, innovative and integrated transportation system which promote transit and bicycle network facilities. Deficit in parking spaces will encourage resident and visitors to use bicycles and transit as other mode of transportation.

3.0 CONCLUSION

In conclusion, the development promotes City of Windsor TDM strategies that increase the capacity of our existing transportation system. Hence, the development encourages more people to use bicycles and transit system. Therefore, we believe the available existing and provided parking spaces are satisfactory to meet the City's by-law. Further, the development meet ITE parking requirement.

We, therefore, anticipate no further changes to parking spaces will be required.

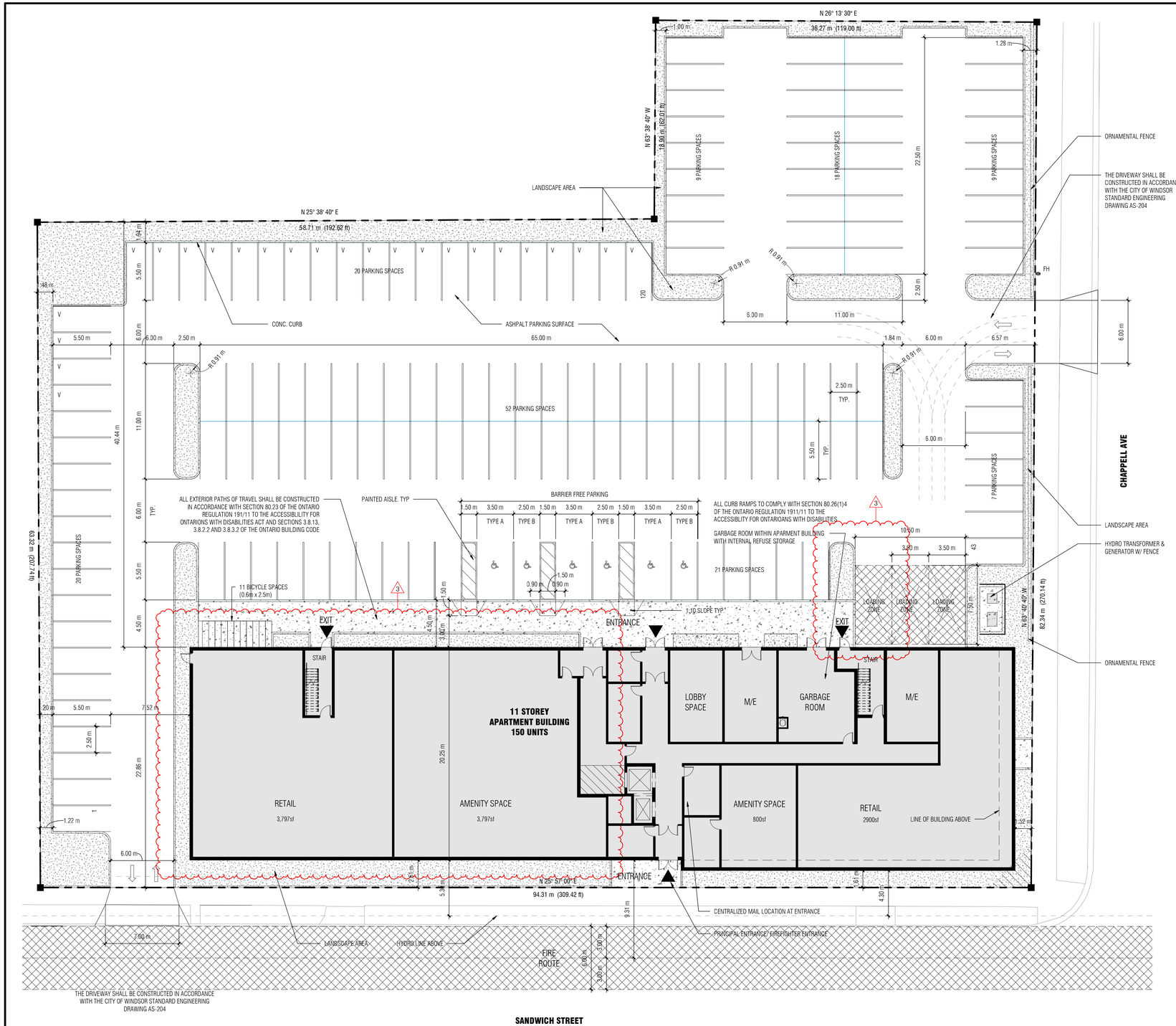
All of which is respectfully submitted.

BAIRD AE INC.
27 PRINCESS STREET, UNIT 102
LEAMINGTON, ONTARIO N8H 2X8

Shurjeel Tunio, P.Eng.
Senior Project Manager
Baird AE

Appendix A

SITE PLAN AND BACKGROUND INFORMATION



SITE DATA MATRIX						OBC REFERENCE
PROJECT DESCRIPTION: 11 STOREY MULTI UNIT RESIDENTIAL BUILDING 150 RESIDENTIAL UNITS		☒ NEW ☐ ADDITION ☐ ALTERATION ☐ CHANGE OF USE				☒ PART 3 ☐ PART 9 ☐ PART 11
ZONING DESIGNATION:		CD2.1				
MAJOR OCCUPANCY:		RESIDENTIAL				
BUILDING CLASSIFICATION:		GROUP C				
SITE AREA		**BUILDING AREA**		**GROSS AREA**		
EXISTING:	6,694m²	EXISTING:	N/A	EXISTING:	N/A	
PROPOSED:	6,694m²	PROPOSED:	1,622m²	PROPOSED:	19,122.04m²	
TOTAL:	6,694m²	TOTAL:	1,622m²	TOTAL:	19,122.04m²	
LOT COVERAGE		**MINUMUM LOT WIDTH**		**BUILDING HEIGHT**		
MAXIMUM:	N/A	REQUIRED:	N/A	MAXIMUM:	14m	
PROVIDED:	1,623m²	PROVIDED:	94.8m	PROVIDED:	37m	
MINIMUM FRONT YARD DEPTH		**MINIMUM REAR YARD DEPTH**		**MINIMUM SIDE YARD DEPTH**		
MAXIMUM:	N/A	REQUIRED:	N/A	MAXIMUM:	N/A	
PROVIDED:	1.61m	PROVIDED:	40.44m	PROVIDED:	1.52m	
PARKING		**BICYCLE SPACES**		**LOADING SPACES**		
USE CLASSIFICATION		EXISTING:	0	EXISTING:	0	
EXISTING:	0	PROPOSED:	11	PROPOSED:	3	
PROPOSED:	156 (6 BF, 3 TYPE A & 3 TYPE B) 1.04 RATIO	REQUIRED:	11	REQUIRED:	3	
REQUIRED:	188 (6 BF, 3 TYPE A & 3 TYPE B) 1.25 RATIO	TOTAL:	11	TOTAL:	3	
TOTAL:	156 (6 BF, 3 TYPE A & 3 TYPE B) 1.04 RATIO					
LANDSCAPE AREA		**AMENITY SPACE**		**SCREENING FENCE LENGTH**		
EXISTING:	N/A	REQUIRED:	900m2	EXISTING:	N/A	
PROPOSED:	868m²	PROPOSED:	1294m2	PROPOSED:	N/A	
TOTAL:	868.56m²	TOTAL:	N/A	TOTAL:	N/A	

NOTE:

1. ALL EXTERIOR PATHS OF TRAVEL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 80.23 OF ONTARIO REGULATIO 191/11 TO THE ACCESSIBILITY FOR ONTARIONS WITH DISABILITIES ACT AND SECTIONS 3.8.1.3 AND 3.8.3.2 OF THE ONTARIO BUILDING CODE

2. ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 80.26(1) OF THE ONTARIO REGULATION 191/11 TO THE ACCESSIBILITY FOR ONTARIOANS WITH DISABILITIES ACT AND SECTION 3.8.3.18 OF THE ONTARIO BUILDING CODE.

SITE PLAN
1/16" = 1'-0"

GENERAL NOTES::

1. This drawing is NOT to be scaled.
2. This drawing, as an instrument of service, is provided by and is the property of Baird AE Engineers Planners Architects
3. The contractor must verify and accept responsibility for all dimensions and conditions on site and must notify Baird AE of any variation from the supplied information.
4. This discipline is not responsible for the accuracy of survey, and the other disciplines information shown on this drawing. Refer to the appropriate consultant's drawings before proceeding with the work.
5. Construction must conform to all applicable codes and requirements of authorities having jurisdiction.
6. The contractor working from drawings not specifically marked 'For Construction' must assume full responsibility and bear costs for any corrections or damages resulting from his work.

BAIRD|AE architecture + engineering
102 - 27 Princess Street
Leamington ON N8H 2X8
1000 - 267 Pelissier Street
Windsor ON N9A 4K4
A DIVISION OF MATTHEW J. BAIRD CONSULTING SERVICES INC.
PARTNER / CONSULTANTS

No.	Description	Date
3	SITE REVISIONS 2	22.05.25
2	SITE REVISIONS	21.06.06
1	ISSUED FOR OPA/ZBA/SPC	20.11.09

Revision Schedule

SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
PAUL WEIDL
LICENCE
7289

PROJECT TITLE
MIXED-USE DEVELOPMENT
SANDWICH ST, WINDSOR ON

SHEET TITLE
SITE PLAN

JOB NUMBER 20-028

SHEET NUMBER
SP-1

2022-05-25 3:23:07 PM

20-028 - Mixed Use Development Sandwich St_detailed.vt

BAIRD|AE
architecture + engineering

EXT RENDER / SANDWICH DEVELOPMENT

/ JUL 19, 2020

BAIRD|AE
architecture + engineering

EXT RENDER / SANDWICH DEVELOPMENT

/ JUL 19, 2020

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architecture + engineering

EXT RENDER / SANDWICH DEVELOPMENT

/ JUL 19, 2020

Zoning District Map 4

LEGEND:

- Zone Boundary[1]
- Specific Zoning Exemptions[2]
- Specific Zoning Regulation [5]
- Specific Temporary Zoning Exemptions[3]
- Registered Plan Parcel Limits
- Ownership Parcel Limits
- Municipal Boundary Line
- Inland Watercourse Flood Prone Area[4]
- Detroit River/Lake St.Clair Flood Prone Area[4]

NOTES:

1. Each Zoning District symbol corresponds to a zoning district set out in the text of By-law 8600 (i.e. CD1.1 - Commercial District 1.1.)

DRD 1_	- Development Reserve District	- See Section 8
GD1_	- Green District	- See Section 9
RD1_	- Residential Districts (Low Density)	- See Section 10
RD2_	- Residential Districts (Medium Density)	- See Section 11
RD3_	- Residential Districts (High Density)	- See Section 12
ID1_	- Institutional District	- See Section 13
CD1_	- Commercial Districts (Neighbourhood)	- See Section 14
CD2_	- Commercial Districts (General)	- See Section 15
CD3_	- Commercial Districts (Major)	- See Section 16
CD4_	- Commercial Districts (Highway/Restricted Use)	- See Section 17
MD1_	-Industrial District (Light/Business Park)	-See Section 18
MD2_	-Industrial District (Heavy)	-See Section 19

An H symbol preceding the zoning district symbol represents a hold on the issuance of a building permit until specific development preconditions have been satisfied. Subsection 5.4 specifies the uses permitted until such time as the H symbol is removed by an amending by-law approved by Council.

2. See Subsection 20(1) and the relevant clause for the specific specdall provisions.

3. See Subsection 20(2) and the relevant clause for the specific specdall provisions.

4. Represents the approximate limits of land subject of potential flooding along the Detroit River, Lake St. Clair and inland watercourses as determined by the Essex Region Conservation Authority (ERCA). Within these areas, buildings or structures are generally restricted and possibly prohibited. Application for building permits will be referred to ERCA for its review and the issuance of permits prior to the issuance of any building permit by the City of Windsor.

5. See Subsection 20(3) and the relevant clause for the specific specdall provisions.

REVISIONS

DATE:	BY-LAW #	DATE:	BY-LAW #
06/05/04	42-2004	01/18/21	3-2021
10/05/04	27-2004	08/31/21	123-2021
10/05/04	107-2003	12/07/21	176-2021
07/06/04	109-2004	12/15/21	144-2021
07/06/03	330-2003	12/15/21	138-2021
02/11/04	348-2004		
25/11/04	361-2004		
21/02/05	2-2005		
21/03/05	25-2005		
01/03/05	47-2005		
18/04/05	71-2005		
20/04/05	75-2005		
24/04/05	313-2004		
06/07/05	121-2005		
26/05/05	130-2005		
08/08/05	171-2005		
08/08/05	194-2005		
13/10/05	239-2005		
24/10/05	225-2005		
Revised:	OMB File 1695		
13/05/06	B/L# 327, 200		
30/07/06	110-2006		
14/08/06	147-2006		
21/08/06	146-2006		
23/10/06	178-2006		
13/11/06	184-2006		
04/09/07	214-2006		
06/06/08	60-2008		
06/06/08	85-2008		
31/12/08	198-2008		
16/03/09	160-2007		
11/02/10	162-2009		
11/02/10	10-2010		
22/10/10	146-2010		
14/03/11	20-2011		
14/03/11	27-2011		
23/03/11	28-2011		
30/03/11	65-2011		
08/04/11	71-2011		
08/23/11	80-2011		
28/12/07	233-2007		
13/06/06	324-2004		
22/11/11	132-2011		
22/12/11	208-2011		
10/01/12	209-2011		
06/06/12	52-2012		
28/09/12	126-2012		
30/10/12	30-2009		
30/10/12	24-2009		
07/11/12	164-2012		
09/05/13	67-2013		
21/05/13	56-2013		
08/10/13	159-2013		
22/10/13	154-2013		
22/10/13	167-2013		
13/03/14	16-2014		
09/06/14	76-2014		
13/08/14	114-2014		
27/08/14	101-2013		
25/06/15	67-2015		
29/07/15	B/L 8600 1.20.30.5		
02/08/16	1-2016		
07/05/17	56-2017		
07/05/17	63-2017		
08/23/17	108-2017		
08/23/17	110-2017		
08/23/17	117-2017		
05/24/18	177-2017		
06/19/18	63-2018		
09/04/18	120-2018		
03/01/19	169-2018		
06/25/19	64-2019		
11/01/19	97-2019		
12/18/19	120-2019		
12/18/19	128-2019		
09/23/20	111-2020		
09/25/20	110-2020		
10/06/20	122-2020		
12/01/20	146-2020		
01/27/20	170-2020		

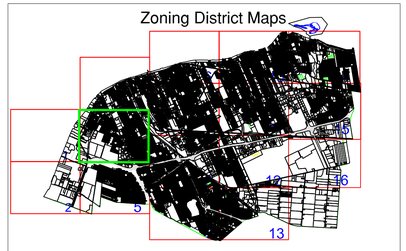
PROPOSED DEVELOPMENT

This forms Part of Schedule 'A'.

City of Windsor Zoning By-law 8600

Scale 1:6000

Zoning District Maps



Zoning District Map 4

My School Neighbourhood

Legend

Schools
- Elementary School
- Elementary and Secondary
- Secondary School

Crossing Guard Locations

School Parking Special Zones
- Bus Bay
- Kiss and Ride
- School Bus Loading Zone

School Parking Limits
- No Parking At All Times
- No Parking With Exception
- Residential On Street Permit Park
- No Stopping At All Times
- No Stopping or Parking with Exce
- No Restriction At All Times
- Limited Parking Restrictions
- Street Meter Parking
- Parking With Exception
- Alternate Side No Parking At All T
- Limited Alternate Side No Parking
- Residential Alternate On Street P

Kiss And Ride Zones

5 Minute Walking Buffer

Windsor Aerial 2019
- Red: Band_1
- Green: Band_2
- Blue: Band_3

1: 3,733

Notes

189.6 0 94.82 189.6 Meters

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

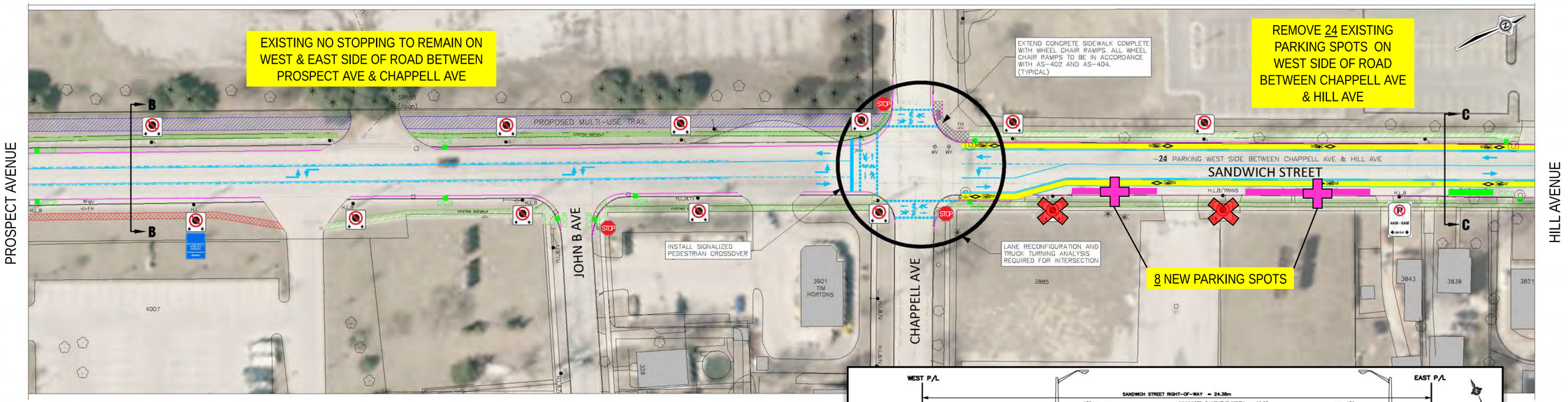
THIS MAP IS NOT TO BE USED FOR NAVIGATION

Sandwich Street Reconstruction

Proposed Bike Lanes & Multi-use Trails for Sandwich Street

THE CITY OF WINDSOR
ONTARIO, CANADA

LEGEND
- EXISTING PARKING TO REMAIN
- EXISTING PARKING TO BE REMOVED
- NO PARKING
- NEW PARKING

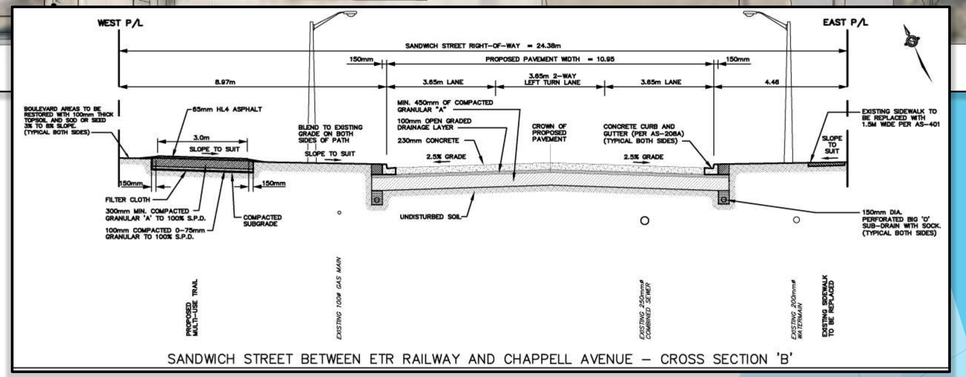


Chappell Avenue and Hill Avenue

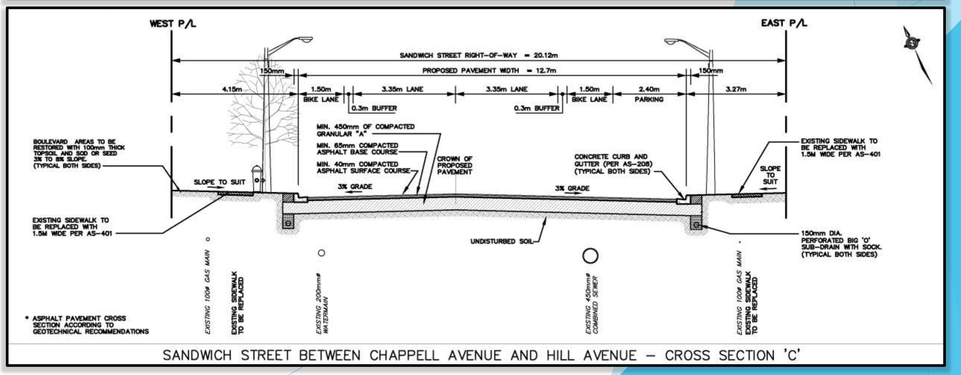
39 – 24 = 15 EXISTING PARKING SPOTS TO REMAIN & 8 NEW PARKING SPOTS ADDED

LEGEND

- L● – LIGHT STANDARD
- – TREE
- – SHRUB
- H● – HYDRO POLE
- H/L/TV ● – TV POLE WITH TELECOMMUNICATIONS
- – GAS LINE
- MH○ – MAINTENANCE HOLE (PRIVATE)
- ● – MUNICIPAL MAINTENANCE HOLE
- – MUNICIPAL SEWERS (SANITARY, STORM AND COMBNED)
- – EXISTING CURBLINE
- – PROPOSED CURBLINE
- – STORM OUTLET
- – WATER MAIN
- WV⊗ – WATER VALVE
- – FIRE HYDRANT
- – EXISTING CATCHBASIN TO BE REMOVED
- □ – EXISTING CATCHBASIN
- CICB■ – PROPOSED CURB INLET CATCHBASIN
- – PROPOSED PAVEMENT MARKINGS
- – PROPOSED BIKE LANE (1.5m)
- – PROPOSED BIKE LANE WITH BUFFER (2.0m)
- – PROPOSED SIDEWALK (1.5m)
- – PROPOSED MULTI-USE TRAIL (3.0m)
- – REMOVE & REPLACE EXISTING SIDEWALKS
- – REMOVE EXISTING SIDEWALKS



SANDWICH STREET BETWEEN ETR RAILWAY AND CHAPPELL AVENUE – CROSS SECTION 'B'



SANDWICH STREET BETWEEN CHAPPELL AVENUE AND HILL AVENUE – CROSS SECTION 'C'

Appendix B

BY-LAW AND ITE PARKING GENERATION

(AMENDED by B/L 130-2017, Sept. 28, 2017)

.1 Excluding lands in the *Central Business District*, for lands in any *Business Improvement Area* and for all lands within a *Commercial District* located:

.1 on the north and south side of Wyandotte Street West between Dougall Avenue and Patricia Road;

.2 on the north and south side of University Avenue between Dougall Avenue and Randolph Avenue;

.3 on the north and south side of Tecumseh Road East between Forest Avenue and Chilver Road, Cadillac Street and Larkin Road, and Westcott Road and Rossini Boulevard;

.4 on the east and west side of Ouellette Avenue between Giles Boulevard and Tecumseh Road;

for an existing *building*, the required minimum number of *parking spaces* shall be as shown opposite the respective use in Table 24.20.3.1:

TABLE 24.20.3.1 – REQUIRED PARKING SPACES
BUSINESS IMPROVEMENT AREAS & OTHER DEFINED AREAS

USE	PARKING RATE – MINIMUM
Bake Shop	0
Business Office	0
Convenience Store	0
Food Convenience Store	0
Food Outlet – Take-out	0
Medical Office	1 for each 27 m² GFA
Pawnshop	0
Personal Service Shop	0
Pharmacy	0
Professional Studio	0
Repair Shop – Light	0
Restaurant	None for the first 90 m² GFA AND 1 for each additional 15 m² GFA
Retail Store	0
Veterinary Office	1 for each 27 m² GFA
All other uses not listed above	Section 24.20.5 shall apply

24.20.5 REQUIRED PARKING SPACES –ALL OTHER AREAS AND USES NOT LISTED IN TABLES 24.20.1.1 AND 24.20.3.1

.1 The required minimum number of parking spaces shall be as shown opposite the respective use as shown in Table 24.20.5.1:

TABLE 24.20.5.1 - REQUIRED PARKING SPACES

USE	PARKING RATE - MINIMUM
Adult Entertainment Parlour	1 for each 7.5 m² GFA
Art Gallery	1 for each 45 m² GFA
Automatic Car Wash	0
Automobile Repair Garage	1 for each 45 m² GFA
Automobile Sales Lot	1 for each 45 m² GFA
Bake Shop	1 for each 22.5 m² GFA
Bakery	1 for each 45m² GFA for the first 2,700 m² GFA and 1 for each additional 180 m²
Billiard Hall	1 for each 22.5 m² GFA
Bingo Hall	1 for each 22.5 m² GFA
Bowling Alley	4 per alley
Building Material Recycling Centre	1 for each 45 m² GFA
Business Office	1 for each 45 m² GFA
Church (including a Church Hall)	1 for each 5.5 m² GFA uses as a church, chapel or sanctuary AND 1 for each 36 m² GFA not used as a church, chapel or sanctuary
Club	1 for each 22.5 m² GFA
Coin Operated Car Wash	0
College Student Residence	1 for each 4 beds
Collision Shop	1 for each 45 m² GFA
Combined Use Building – Dwelling Units	1.25 for each dwelling unit
Commercial School	2.5 for each classroom or teaching area AND 1 for each 22.5 m² of GFA of cafeteria, auditorium, gymnasium and other area of assembly
Confectionary	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Confectioner's Shop	1 for each 22.5 m² GFA
Contractor's Office	1 for each 45 m² GFA used as a business office AND 1 for each 200 m² GFA used as a warehouse
Convenience Store	1 for each 22.5 m² GFA
Convent or Monastery	1 for each 4 beds
Correctional Facility	1 for each 2 beds
Day Nursery	1.5 for each classroom or teaching area
Double-duplex Dwelling	4
Drive-through Food Outlet	1 for each 22.5 m² GFA
Drive-through Restaurant	1 for each 7.5 m² GFA
Duplex Dwelling	2

TABLE 24.20.5.1 - REQUIRED PARKING SPACES

USE	PARKING RATE - MINIMUM

Elementary School	1.5 for each classroom or teaching area
Entertainment Lounge	1 for each 7.5 m² GFA
Exhibition Hall	1 for each 36 m² GFA
Financial Office	1 for each 45 m² GFA
Food Convenience Store	1 for each 22.5 m² GFA
Fraternity or Sorority House	1 for each 4 beds
Funeral Home	1 for each 5.5 m² GFA used for a chapel, sanctuary or reposing room
Games Arcade	1 for each 22.5 m² GFA
Garden Centre	1 for each 22.5 m² GFA
Gas Bar	1 for each 45 m² GFA
General Salvage Operation	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Group Home	1
Health Studio	1 for each 36 m² GFA
Heavy Repair Shop	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Hospital	1 for each bed
Hotel	1 for each guest room AND 1 for each 22.5 m² GFA used for a restaurant, convention hall, meeting room and other places of assembly.
Library	1 for each 45 m² GFA
Light Repair Shop	1 for each 45 m² GFA
Lodging House	1 for each 6 beds
Major Commercial Centre (exclusive of a hotel or motel)	1 for each 22.5 m² GFA
Marina	0.5 for each 1 boat docking space AND 1 for each 1 boar anchorage space
Material Transfer Centre	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Medical Office	1 for each 13.5 m² GFA
Micro-brewery	1 for each 45 m² GFA
Minor Commercial Centre	1 for each 22.5 m² GFA and when the combined GFA of all restaurants and entertainment lounges Exceeds 30% of the GFA of the Centre, 1 for each 7.5 m² GFA of all restaurants and entertainment lounges in excess thereof
Mobile Home	1

TABLE 24.20.5.1 - REQUIRED PARKING SPACES

USE	PARKING RATE - MINIMUM

Motel	1 for each guest room AND 1 for each 22.5² GFA used for a restaurant, convention hall, meeting room and other places of assembly
Motor Vehicle Dealership	1 for each 45 m² GFA
Motor Vehicle Salvage Operation	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
Multiple Dwelling containing a maximum of 4 Dwelling units	1 for each dwelling unit
Multiple Dwelling containing a minimun of 5 Dwelling units	1.25 for each dwelling unit
Museum	1 for each 45 m² GFA
Outdoor Market	0
Pawnshop	1 for each 22.5 m² GFA
Personal Service Shop	1 for each 22.5 m² GFA
Pharmacy	1 for each 22.5 m² GFA
Place of Entertainment and Recreation	1 for each 36 m² GFA
Power Generation Plant	1 for each 200 m² GFA
Professional Studio	1 for each 45 m² GFA
Public Hall	1 for each 7.5 m² GFA
Residential Care Facility	1 for each 4 beds
Restaurant	1 for each 7.5 m² GFA
Retail Store	1 for each 22.5 m² GFA
Secondary School	1.5 for each classroom or teaching area AND 1 For each 22.5 m² of GFA of cafeteria , auditorium, gymnasium and other area of assembly
Self-storage Facility	2
Semi-Detached Dwelling	1 for each dwelling unit
Service Station	1 for each 45 m² GFA
Shelter	1 for each 6 beds
Single –unit Dwelling	1
Stacked Dwelling Unit	1 for each dwelling unit
Take-Out Food Outlet	1 for each 22.5 m² GFA
Temporary Outdoor Vendor’s Site	0
Theatre	1 for each 6 seats
Tourist Home	1 for each guest room AND 1 for each 22.5 m² GFA used for a restaurant, convention hall, meeting room and other places of assembly

TABLE 24.20.5.1 - REQUIRED PARKING SPACES

USE	PARKING RATE - MINIMUM

Townhome Dwelling having an attached garage or carport	1 for each dwelling unit
Townhome Dwelling without an attached garage or carport	1.25 for each dwelling unit
Transport Terminal	5 parking spaces, or 1 for each 45.0 m² GFA, whichever is greater
University Student Residence	1 for each 4 beds
Veterinary Clinic	1 for each 13.5 m² GFA
Veterinary Office	1 for each 13.5 m² GFA
Warehouse	1 for each 200 m² GFA
Wholesale Store	1 for each 45 m² GFA
Workshop	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m²
All other commercial uses not specifically listed	1 for each 36 m² GFA
All other industrial uses not specifically listed	1 for each 45 m² GFA for the first 2,700 m² GFA AND 1 for each additional 180 m² GFA

(AMENDED by B/L 144-2015, Nov. 6, 2015; B/L 169-2018, Dec. 19/2018)

24.20.7 CALCULATION OF REQUIRED PARKING SPACES

.1 The required number of parking spaces for each use listed in Tables 24.20.1.1, 24.20.3.1 and 24.20.5.1 is calculated as follows:

.1 The gross floor area of that part of a building designed and used for a parking area, parking space, visitor parking space, accessible parking space, bicycle parking space, loading space, automatic car wash or coin-operated car wash is not included in the calculation of required number of vehicle parking spaces.

.2 If a parking rate is expressed as a ratio of parking spaces to the gross floor area, the parking space requirement for a use is to be calculated by dividing the applicable gross floor area of the use by the applicable parking rate.

.3 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, but in no case may there be less than one parking space, except when the parking rate is zero.

.4 If a building is occupied or proposed to be occupied by more than one main use, the required parking for each main use is calculated on the basis of the percentage of gross floor area devoted to that use plus the equivalent percentage of any common areas and shared accessory uses in the building.

.5 If a Combined use Building is occupied in part by a Minor Commercial Centre or a Major Commercial Centre, the total required number of parking spaces is the sum of the required number of parking spaces for each Dwelling Unit and for the Minor Commercial Centre of a Major

Commercial Centre.

24.20.10 SIZE OF PARKING SPACE

.1 Each parking space shall have a minimum length of 5.5 metres and a minimum width of 2.5 metres, except where one side of the parking space is flanked by a wall or fence, each parking space shall have a minimum length of 5.5 metres and a minimum width of 3.5 metres.

24.22 VISITOR PARKING SPACE PROVISIONS

24.22.1 REQUIRED VISITOR PARKING SPACES

.1 For a Townhome Dwelling without an attached garage or carport, Multiple Dwelling with a minimum of five dwelling units, or Dwelling Units in a Combined Use Building, a minimum of 15 percent of parking spaces shall be marked as visitor parking.

.5 If the calculation of the number of visitor parking spaces results in a number containing a fraction, the number shall be rounded DOWN to the nearest whole number, but in no case shall there be less than one visitor parking space and one required parking space.

24.22.10 SIZE OF VISITIOR PARKING SPACE

.1 Each visitor parking space shall have a minimum length of 5.5 metres and a minimum width of 2.5 metres, except where one side of the parking space is flanked by a wall or fence, each visitor parking space shall have a minimum length of 5.5 metres and a minimum width of 3.5 metres.

24.24 ACCESSIBLE PARKING SPACE PROVISIONS [ZNG/4046]

(AMENDED by B/L 48-2014, April 15, 2014)

24.24.1 REQUIRED ACCESSIBLE PARKING SPACES

.1 There shall be provided accessible parking spaces as shown in Table 24.24.1:

TABLE 24.24.1 – REQUIRED ACCESSIBLE PARKING SPACES

TOTAL NUMBER OF PARKING SPACES IN PARKING AREA	REQUIRED NUMBER OF ACCESSIBLE PARKING SPACES – MINIMUM	
	TYPE A	TYPE B
1 to 25	1 space	0
26 to 100	2 percent of parking spaces	2 percent of parking spaces
101 to 200	1.5 percent of parking spaces	0.5 space plus 1.5 percent of parking spaces
201 to 1,000	0.5 space plus 1 percent of parking spaces	1 space plus 1 percent of parking spaces
1,001 or more	5 spaces plus 0.5 percent of parking spaces	5.5 spaces plus 0.5 percent of parking spaces

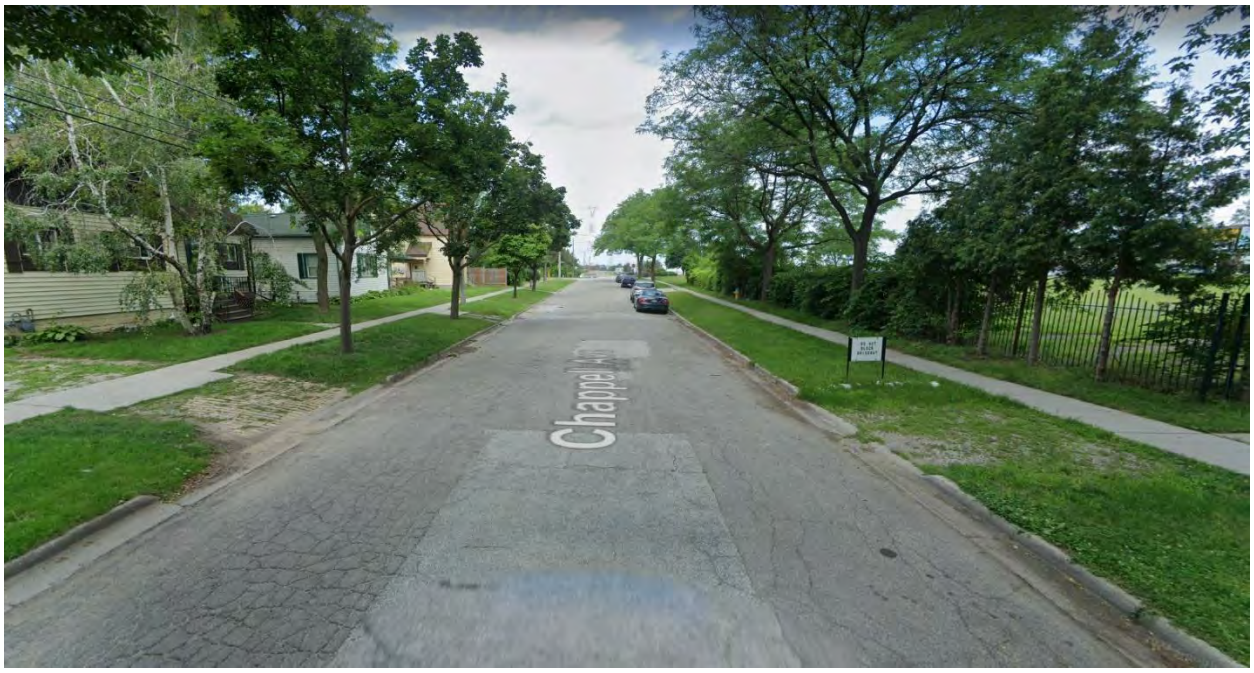
.2 If the calculation of the number of required Type A and Type B accessible parking spaces results in a number containing a fraction, the number shall be rounded up to the nearest whole number:

Appendix C

PHOTOS

Looking East from Sandwich to Chappell Ave

Looking West from Sandwich to Chappell Ave



Looking North from Chappell Ave to Sandwich

TRAFFIC IMPACT STUDY
MIXED USED DEVELOPMENT

3885 SANDWICH STREET
WINDSOR, ONTARIO

PROJECT NO. 20-028

DATED: MAY 26, 2022

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FIGURES

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APPENDICES

1.0 INTRODUCTION

1.1 Background

BairdAE has been retained to prepare a Traffic Impact Assessment in support of proposed 11-storey apartment building on 3885 Sandwich Street, Windsor. The building will house new 150 residential units with 70 single bedroom units and 80 double bedroom units, and retail store on ground floor with total enclosed space of 6697ft^2. The site is bounded by Chappell Avenue to the south, Sandwich Street to the west, and residential development to the north and east.

Two new accesses will be provided to the site as shown in Exhibit 1. The first access is located about 95m north of intersection of Sandwich Street W and Chappell Avenue and second access is located 64m east of intersection. The development is expected to be completed in 2022.

The traffic flow from development is predicted to produce 1295 daily vehicles, 122 morning vehicles and 111 evening peak vehicles.

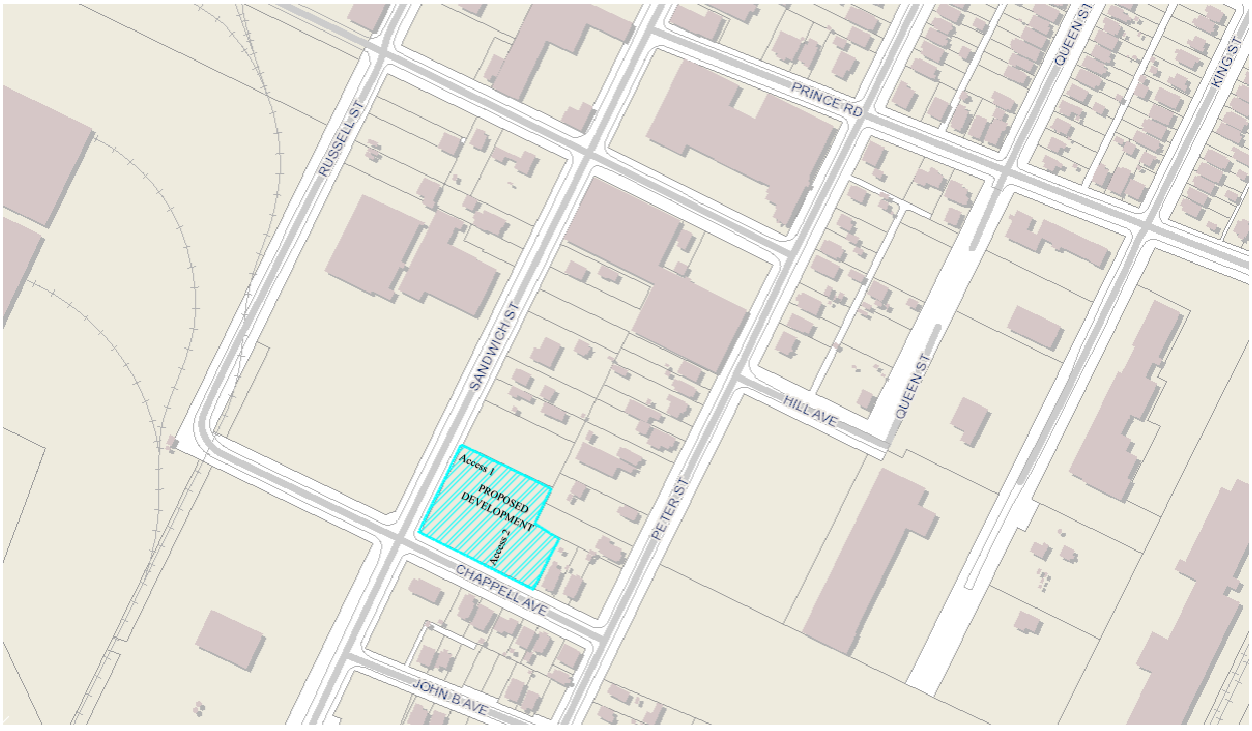

Exhibit 1 - Location Plan

1.2 Proposed Development

As illustrated in site plan (Appendix D), the development site is approximately 0.67ha which will consist of new building with 150 units, retail section of 6697 ft^2 in size, parking spaces and landscape area. The development will have 188 parking spaces for residence and visitors. Two full accesses will be provided to access the site. the first access is located about 95m north of intersection of Sandwich Street W and Chappell Avenue and second access is located 64m east of intersection.

1.3 Scope

It is anticipated that the proposed development construction will begin in 2027 and as a result following future horizon periods (conditions) are established as part of this study:

- Existing Condition 2020; and
- 2022 Future Condition
- 2027 Future Condition
- 2032 Future Condition – 10-year horizon

The study has considered impacts of site generated traffic at the followings intersections:

- Sandwich Street and Chappell Avenue
- Sandwich Street and Access Road 1
- Chappell Avenue and Access Road 2

1.4 Analysis Methodology

A transportation analysis was completed to determine the existing and future operation conditions of intersection and individual turning movements. The operational analyses were primarily based on procedures set out in the Highway Capacity Manual (2010) with the assistance of Synchro 10. Several performance measures are used in the analysis of signalized and unsignalized intersections including the following:

- Level of Service (LOS) – a measure of the average vehicle delay experienced by the motorists attempting to travel through the intersection. LOS is measured from “A” to “F” with peak hour LOS in the “A” to “D” range being considered acceptable by most and a LOS of F representing unacceptable delays;
- Delay – the additional travel time experienced by a driver compared to free-flow conditions; and
- Queue Lengths – the Synchro Software measures both the 50th percentile and 95th percentile maximum queue lengths. The 50th percentile queue (the median) is the

maximum back of queue length during a typical traffic cycle. The 95th percentile queue is the maximum back of queue length during a typical traffic cycle with 95th percentile traffic volumes. The 95th percentile queue measures the queue length that 95 percent of the sample lies below. The 95th percentile critical queue lengths were identified for movements where the queue surpassed the estimated length of the storage bay.

Taken together, these measures provide an indication of delay and the number of vehicles that can be accommodated through an intersection.

2.0 EXISTING CONDITION

2.1 Road Network Characteristics

The existing road network, lane configuration and existing traffic control for the study area are shown in Exhibit 2 and the details are described below:

Sandwich Street is the two-lane urban north-south arterial roadway with posted speed limit of 50 km/h at the close proximity to the development. The road turn into Ojibway parkway 500m west of the development with speed limit of 70km/h.

Crawford Street is a east-west two lane local roadway extending from Peter Street to Russell Street. It has a posted 50 km/h speed limit, with on-street parking permitted on both sides. It is stop controlled on its approach to the intersection with Sandwich Street.

2.2 Key Existing Intersection

The intersection of Sandwich Street with Chappell Avenue is 4-leg unsignalized intersection. There is one lane in each direction at the intersection. No exclusive turning lanes are provided at the intersection. Intersection is controlled by STOP sign on Chappell Avenue.

2.3 Existing Traffic Volumes

Recent traffic count and signal timing data was obtained from the City of Windsor for the intersection of Sandwich Street and Chappell Avenue. The existing traffic volumes and other relevant data are included in Appendix A.

3.0 FUTURE CONDITION

3.1 Growth Rate

The growth rate information was obtained from Windsor Area Long Range Transportation Study (WALTS) traffic growth chart. Based on chart, 20-year traffic growth (2.17 traffic volume 1997 and 2.22 traffic volume 2017) is approximately 1.1%, hence a conservative growth rate of 3% per year was assumed to reflect growth in background traffic volumes. The projected traffic volumes are provided in Appendix B.

3.2 Future Background Development

The site is located at urban area and busiest intersection, it is almost impossible to ignore future potential development. The existing surrounding users include industries, restaurant and local residences. Based on site visit, there are no new development taking place within site vicinity hence therefore we assumed no major residential/commercial/industrial development is taking place.

4.0 DEVELOPMENT TRAFFIC

This section will describe the development accesses, trip generation, trip distribution and ultimate peak hour traffic.

4.1 Description of Project

As shown in site plan (see appendix D), the proposed development consists of 150 units with 70 single bedroom units and 80 double bedroom units with total enclosed space of 1480.6m^2. Sight triangle at the southwest corner of the development is provided to improve sight lines for drivers at the intersection. It is assumed that the development will be constructed by 2022 (addition of 1295 Daily; 105 inbound traffic and 128 outbound traffic).

4.2 Development Access

The proposed site accesses are provided from Sandwich Street and Chappell Avenue. The future access roads will be T-leg intersections. All approaches at the intersection will have one left-though-right share lane as shown in Exhibit 2 in Appendix B.

4.3 Trip Generation

The number of vehicle trips anticipated to be generated by the proposed development was calculated based on trip generation rates published by The Institution of Transportation Engineers (ITE) Trip Generation 9th Edition. Higher ITE Code 220 (Apartment) and ITE Code 826 (Retail) were used to estimate generated trips.

Description of Land use, ITE codes, unit sizes, trip generation rate and trip generation for daily and peak hours are provided in Table 1. Appendix B provides detailed calculations and all relevant charts.

Table 1: Trip Generation

Use	ITE	Units	AADT	Trip Generated			
				AM Hour		PM Hour	
				In	Out	In	Out
Apartment	220	150	998	15	61	60	33
Retail Center	826	6.69 kft^2	297	22	24	8	10
Total			1295	37	85	68	43

There will be street parking on the Sandwich Street, hence, retail store traffic will not have significant impact on development's accesses. However, for modelling purpose, the retail traffic is added for worst case scenario.

4.4 Trip Distribution and Assignment

Given that site's highly urban location (proximity to a mix of residential, industrial, commercial and employments uses), the trips distribution is based on shortest route to reach arterial route E.C. Row Expressway. It is assumed that the 61 percent of volume generated from development will travel to/from south of Sandwich Street and 39 percent from/to north of Sandwich Street. At the intersection of Sandwich Street with Chappell Street, the traffic trip will be distributed similar to existing traffic movement. The site development traffic distribution is shown Table 2 and also provided in Figure 1.2, Figure 2.2, Figure 3.2 and Figure 4.2 (see Appendix B).

It is also assumed that the 60 percent of development traffic is from/to Access Road 1 and 40 percent from/to Access Road 2.

Table 2: Trip Distribution

From/To Sandwich Street	Distribution
North	39%
South	61%
Total	100%

4.5 Future Condition

Development traffic volumes were added to the forecasted (2022, 2027 and 2032) background traffic volumes to obtain corresponding total traffic volumes at intersections. The projected total future volumes are provided in Figure 1.3, Figure 2.3, Figure 3.3 and Figure 4.3 (see Appendix B).

5.0 INTERSECTION OPERATIONS

The existing (2020) and forecasted 2022, 2027 and 2032 traffic volumes for the study intersections are evaluated using the Synchro/Sim Traffic software version 10 which automates the procedures contained in the Highway Capacity Manual 2010.

The existing and future peak hours analysis results are included in tables 3-6 and corresponding worksheets are included in Appendix C.

Table 3: Background Conditions – Level of Service

Sandwich St and Chappell Ave Intersection	A.M. Peak Hour			P.M. Peak Hour		
	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)
2018						
EB LTR	B	0.1	12.6	B	0.14	13.9
WB LTR	C	0.03	17.0	C	0.03	17.5
NB LTR	A	0.04	1.1	A	0.04	1.3
SB LTR	A	0.0	0.0	A	0.01	0.2
Overall LOS	**A**			**A**		
2022						
EB LTR	B	0.1	12.6	B	0.16	14.4
WB LTR	C	0.03	17.3	C	0.03	18.6
NB LTR	A	0.0	1.2	A	0.05	1.4
SB LTR	A	0.0	0.0	A	0.01	0.2

Overall LOS	**A**			**A**		
2027						
EB LTR	B	0.13	13.5	C	0.21	16.5
WB LTR	C	0.04	20.1	C	0.05	22.6
NB LTR	A	0.05	1.4	A	0.06	1.6
SB LTR	A	0.0	0.0	A	0.01	0.2
Overall LOS	**A**			**B**		
2032						
EB LTR	B	0.16	14.9	C	0.27	19.0
WB LTR	C	0.06	23.8	**D**	**0.06**	**28.2**
NB LTR	A	0.06	1.5	A	0.07	1.9
SB LTR	A	0.0	0.0	A	0.01	0.2
Overall LOS	**B**			**B**		

Note: NB – Northbound SB – Southbound EB – Eastbound WB – Westbound; LTR – Left/Through/Right turn

Table 4: 2022 Conditions – Level of Service

Intersection	**A.M. Peak Hour**			**P.M. Peak Hour**		
	LOS	**v/c**	**Delay (sec)**	**LOS**	**v/c**	**Delay (sec)**
Sandwich Street and Chappell Avenue (Unsignalized)						
EB LTR	B	0.12	14.1	B	0.16	14.9
WB LTR	C	0.14	18.9	C	0.11	22.8
NB LTR	A	0.04	1.2	A	0.05	1.4
SB LTR	A	0.01	0.4	A	0.02	0.5
Overall LOS	**A**			**A**		
Sandwich Street and Access 1 (Unsignalized)						
WB LTR	B	0.12	14.2	C	0.08	16.1
NB LTR	A	0.26	0.0	A	0.25	0.0
SB LTR	A	0.01	0.3	A	0.01	0.4
Overall LOS	**A**			**A**		
Chappell Avenue and Access 2 (Unsignalized)						
EB LTR	A	0.01	3.7	A	0.02	3.9
WB LTR	A	0.01	0.0	A	0.01	0.0
SB LTR	A	0.04	8.7	A	0.02	8.7
Overall LOS	**A**			**A**		

Table 5: 2027 Conditions – Level of Service

Intersection	**A.M. Peak Hour**			**P.M. Peak Hour**		
	LOS	**v/c**	**Delay (sec)**	**LOS**	**v/c**	**Delay (sec)**
Sandwich Street and Chappell Avenue (Unsignalized)						
EB LTR	C	0.15	15.3	C	0.22	17.3
WB LTR	C	0.17	22.5	**D**	**0.15**	**28.9**
NB LTR	A	0.05	1.3	A	0.06	1.6

SB LTR	A	0.01	0.4	A	0.02	0.5
Overall LOS	**A**			**B**		
Sandwich Street and Access 1 (Unsignalized)						
WB LTR	B	0.14	15.5	C	0.09	18.2
NB LTR	A	0.29	0.0	A	0.29	0.0
SB LTR	A	0.0	0.3	A	0.01	0.4
Overall LOS	**A**			**A**		
Chappell Avenue and Access 2 (Unsignalized)						
EB LTR	A	0.01	3.4	A	0.02	3.7
WB LTR	A	0.01	0.0	A	0.01	0.0
SB LTR	A	0.04	8.7	A	0.02	8.7
Overall LOS	**A**			**A**		

Table 6: 2032 Conditions – Level of Service

Intersection	**A.M. Peak Hour**			**P.M. Peak Hour**		
	LOS	**v/c**	**Delay (sec)**	**LOS**	**v/c**	**Delay (sec)**
Sandwich Street and Chappell Avenue (Unsignalized)						
EB LTR	C	0.20	17.4	C	0.28	20.2
WB LTR	D	0.21	27.2	**E**	**0.20**	**38.2**
NB LTR	A	0.05	1.4	A	0.07	1.9
SB LTR	A	0.01	0.4	A	0.02	0.5
Overall LOS	**B**			**B**		
Sandwich Street and Access 1 (Unsignalized)						
WB LTR	C	0.16	17.0	C	0.11	20.7
NB LTR	A	0.32	0.0	A	0.32	0.0
SB LTR	A	0.0	0.3	A	0.01	0.4
Overall LOS	**A**			**A**		
Chappell Avenue and Access 2 (Unsignalized)						
EB LTR	A	0.01	3.3	A	0.02	3.5
WB LTR	A	0.01	0.0	A	0.01	0.0
SB LTR	A	0.04	8.8	A	0.02	8.7
Overall LOS	**A**			**A**		

Under 2022, 2027 and 2032 background condition, the Sandwich Street and Chappell Avenue intersection is projected to operate at an overall acceptable LOS during peak hours. Under 2032 existing condition delay is observed long delay for westbound turning vehicles during pm peak. However, sufficient capacity remains for this movement (v/c= 0.06) indicating sufficient gaps are available hence no mitigation measures are required.

Under 2022 post development conditions, the intersections analyzed are expected to operate at acceptable level of service during peak hours.

Under 2027 and 2032 post development conditions, the intersections analyzed are expected to operate at acceptable level of service during peak hours. However, the intersection of Sandwich Street with Chappell Avenue evening condition westbound turning vehicles observes higher delay. The level of service for westbound deteriorate from LOS D in 2027 to LOS E in 2032. However, sufficient capacity to remain (v/c = 38.4) indicating enough queuing storage is available. Also, the westbound right turning vehicles are less than 60 vph. Hence, no turning lanes are required. Signal warrant analysis was conducted for this intersection.

Average queuing at the sites accesses to be minimal for all future conditions, hence, this reinforce the condition that dedicated turning lanes are not required.

5.1 Signal Warrant

Transportation Association of Canada (TAC) traffic signal procedure requires 100 warrant points to trigger signal at the intersection. Using 2032 projected evening traffic volumes, the 86 warrants points indicate that traffic signal is not warranted. Details calculations are provided in Appendix D.

6.0 CONCLUSION AND RECOMMENDATION

Utilizing the morning and evening traffic data, the operating conditions were evaluated for 2020, 2022, 2027 and 2032 traffic conditions. The findings from these evaluations are summarized below.

- The proposed 11-storey mix-use high rise apartment building will have 150 units and 6697 ft^2 retail space on ground floor which will generated approximately 1295 daily; 105 inbound traffic and 128 outbound traffic.

- Based on conversation with client, the development construction will begin in 2022.

- The background growth rate is considered in the analysis as it represents worst case scenario i.e. 3%.

- Under existing and future background conditions, the study area intersections operate at acceptable level of service during morning and evening peak. However, under 2032 existing condition, the westbound turning lanes level of service is D. This delay is due to stop control and higher volumes on the Sandwich Street. However, there is sufficient capacity available for this movement (v/c= 0.06) indicating sufficient gaps are available hence no mitigation measures are required

- Under the 2022 future post-development condition, the intersections are expected to operate at acceptable level of service during peak hours.

- Under the 2027 and 2032 future post-development condition, the intersection of Sandwich Street and Chappell Avenue are expected to operate at acceptable level of service during peak hours. However, the westbound turning movement at the intersection is forecast to have longer delays i.e. LOS D in 2027 and LOS E in 2032. However, sufficient gaps are available to accommodate this movement. Hence no improvements are required.

- All other intersection operates at acceptable level of service in 2022, 2027 and 2032 post-development conditions.

- The warrant for signalization is not required at the intersection of Sandwich Street and Chappell Avenue for 2032 post-development condition. It is expected that the City will continue monitor traffic at this location.

- An adequate sight line distance is provided for safe departure from the development.

7.0 CLOSURE

The information contained in this report is prepared for mixed use High-Rise Development in City of Windsor for future discussion regarding potential traffic impact on Sandwich Street, Chappell Avenue and access roads.

We trust that the above meets with your purpose. Should you have any questions, please do not hesitate to contact the undersigned. All of which is respectfully submitted.

All of which is respectfully submitted.

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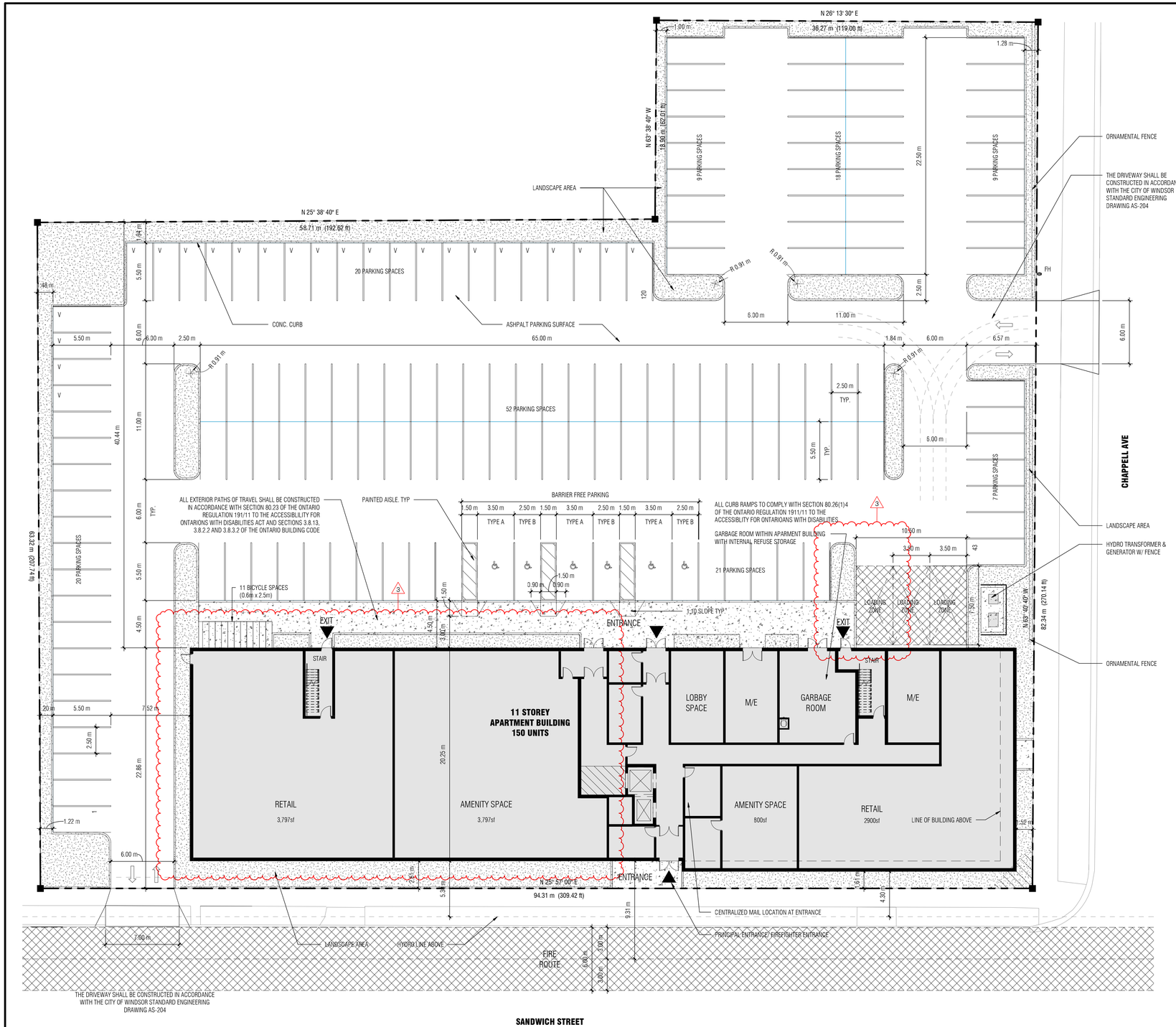
Shurjeel Tunio, P.Eng.
Senior Project Manager
Baird AE

Appendix A

BACKGROUND TRAFFIC DATA AND OTHER RELATED INFORMATION



1 A3 | SP-1 **SITE PLAN**
1/16" = 1'-0"

SITE DATA MATRIX						OBC REFERENCE
PROJECT DESCRIPTION: 11 STOREY MULTI UNIT RESIDENTIAL BUILDING 150 RESIDENTIAL UNITS			☒ NEW ☐ ADDITION ☐ ALTERATION ☐ CHANGE OF USE			☒ PART 3 ☐ PART 9 ☐ PART 11
ZONING DESIGNATION:		CD2.1				
MAJOR OCCUPANCY:		RESIDENTIAL				
BUILDING CLASSIFICATION:		GROUP C				
SITE AREA		**BUILDING AREA**		**GROSS AREA**		
EXISTING:	6,694m²	EXISTING:	N/A	EXISTING:	N/A	
PROPOSED:	6,694m²	PROPOSED:	1,622m²	PROPOSED:	19,122.04m²	
TOTAL:	6,694m²	TOTAL:	1,622m²	TOTAL:	19,122.04m²	
LOT COVERAGE		**MINUMUM LOT WIDTH**		**BUILDING HEIGHT**		
MAXIMUM:	N/A	REQUIRED:	N/A	MAXIMUM:	14m	
PROVIDED:	1,623m²	PROVIDED:	94.8m	PROVIDED:	37m	
MINIMUM FRONT YARD DEPTH		**MINIMUM REAR YARD DEPTH**		**MINIMUM SIDE YARD DEPTH**		
MAXIMUM:	N/A	REQUIRED:	N/A	MAXIMUM:	N/A	
PROVIDED:	1.61m	PROVIDED:	40.44m	PROVIDED:	1.52m	
PARKING		**BICYCLE SPACES**		**LOADING SPACES**		
USE CLASSIFICATION		EXISTING:	0	EXISTING:	0	
EXISTING:	0	PROPOSED:	11	PROPOSED:	3	
PROPOSED:	156 (6 BF, 3 TYPE A & 3 TYPE B) 1.04 RATIO	REQUIRED:	11	REQUIRED:	3	
REQUIRED:	188 (6 BF, 3 TYPE A & 3 TYPE B) 1.25 RATIO	TOTAL:	11	TOTAL:	3	
TOTAL:	156 (6 BF, 3 TYPE A & 3 TYPE B) 1.04 RATIO					
LANDSCAPE AREA		**AMENITY SPACE**		**SCREENING FENCE LENGTH**		
EXISTING:	N/A	REQUIRED:	900m2	EXISTING:	N/A	
PROPOSED:	868m²	PROPOSED:	1294m2	PROPOSED:	N/A	
TOTAL:	868.56m²	TOTAL:	N/A	TOTAL:	N/A	

NOTE:

1. ALL EXTERIOR PATHS OF TRAVEL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 80.23 OF ONTARIO REGULATIO 191/11 TO THE ACCESSIBILITY FOR ONTARIONS WITH DISABILITIES ACT AND SECTIONS 3.8.1.3 AND 3.8.3.2 OF THE ONTARIO BUILDING CODE

2. ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 80.26(1) OF THE ONTARIO REGULATION 191/11 TO THE ACCESSIBILITY FOR ONTARIOANS WITH DISABILITIES ACT AND SECTION 3.8.3.18 OF THE ONTARIO BUILDING CODE.

GENERAL NOTES::

1. This drawing is NOT to be scaled.
2. This drawing, as an instrument of service, is provided by and is the property of Baird AE Engineers Planners Architects
3. The contractor must verify and accept responsibility for all dimensions and conditions on site and must notify Baird AE of any variation from the supplied information.
4. This discipline is not responsible for the accuracy of survey, and the other disciplines information shown on this drawing. Refer to the appropriate consultant's drawings before proceeding with the work.
5. Construction must conform to all applicable codes and requirements of authorities having jurisdiction.
6. The contractor working from drawings not specifically marked 'For Construction' must assume full responsibility and bear costs for any corrections or damages resulting from his work.

BAIRD|AE architecture + engineering
1000 - 267 Pelissier Street
Windsor ON N9A 4K4
A DIVISION OF MATTHEW J. BAIRD CONSULTING SERVICES INC.
PARTNER / CONSULTANTS
102 - 27 Princess Street
Leamington ON N8H 2X8

No.	Description	Date
3	SITE REVISIONS 2	22.05.25
2	SITE REVISIONS	21.06.06
1	ISSUED FOR OPA/ZBA/SPC	20.11.09

Revision Schedule

SEAL

ONTARIO ASSOCIATION OF ARCHITECTS
PAUL WEIDL
LICENCE
7289

PROJECT TITLE **MIXED-USE DEVELOPMENT**
SANDWICH ST, WINDSOR ON
SHEET TITLE **SITE PLAN**

JOB NUMBER 20-028

SHEET NUMBER **SP-1**

2022-05-25 3:23:07 PM

20-028 - Mixed Use Development Submission_R_abbotsford

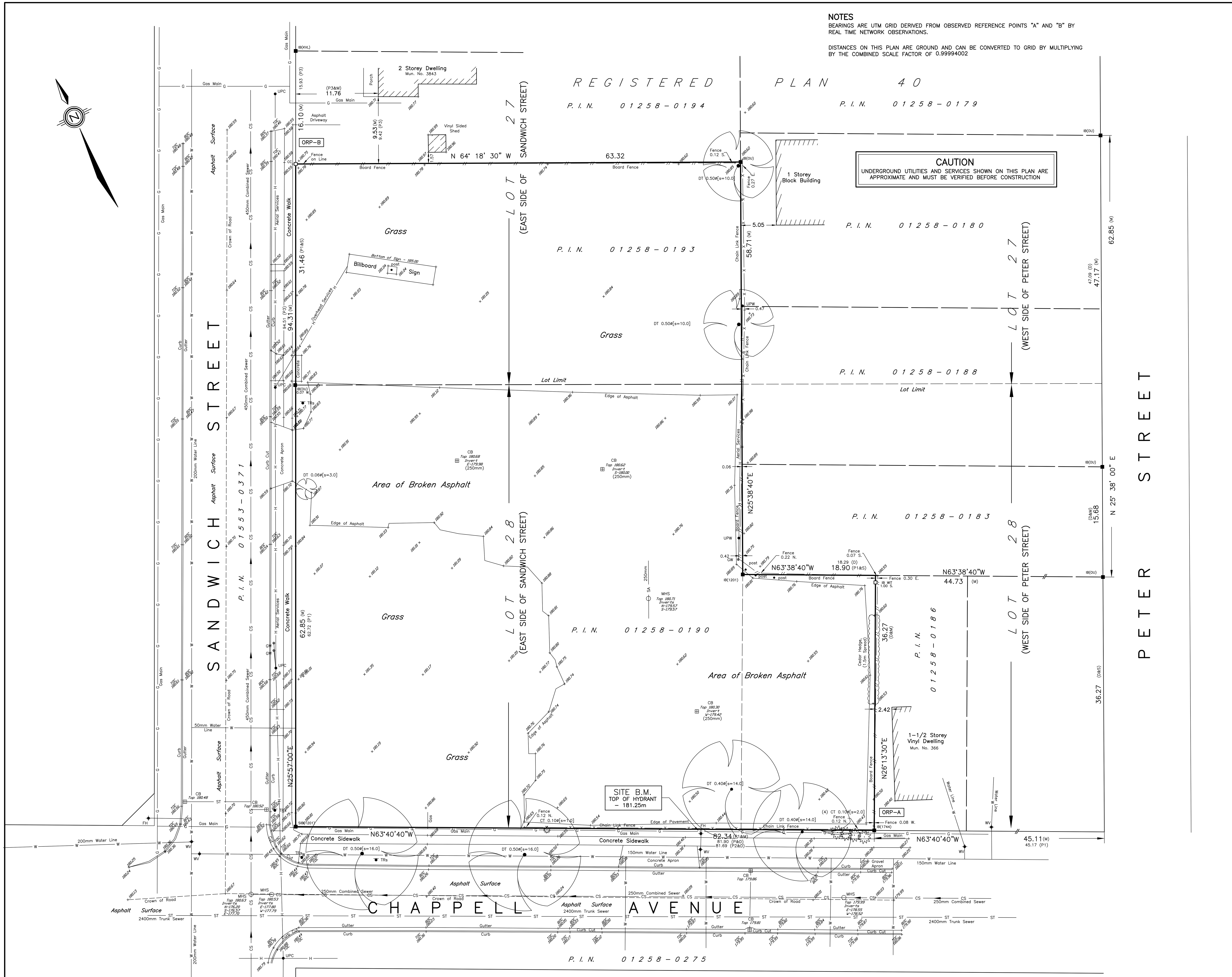
NOTES

BEARINGS ARE UTM GRID DERIVED FROM OBSERVED REFERENCE POINTS "A" AND "B" BY REAL TIME NETWORK OBSERVATIONS.

DISTANCES ON THIS PLAN ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99994002

CAUTION

UNDERGROUND UTILITIES AND SERVICES SHOWN ON THIS PLAN ARE APPROXIMATE AND MUST BE VERIFIED BEFORE CONSTRUCTION



TOPOGRAPHIC SURVEY

OF

PART OF LOTS 27 and 28,

(EAST SIDE OF SANDWICH STREET)

AND

PART OF LOT 28,

(WEST SIDE OF PETER STREET)

REGISTERED PLAN 40

IN THE

CITY OF WINDSOR
COUNTY OF ESSEX, ONTARIO

SCALE = 1:250

0 2.50 5.00 10.00 15.00 25.00 METRES

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR
In accordance with Regulation 1026, Section 29 (3)

"METRIC" DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

LEGEND

ALL MONUMENTS SHOWN THUSLY □ ARE IRON BARS (IB) UNLESS OTHERWISE NOTED.

SIB	DENOTES 25mm X 25mm X 1.22m STANDARD IRON BAR
SSIB	DENOTES 25mm X 25mm X 0.61m SHORT STANDARD IRON BAR
IB	DENOTES 16mm X 16mm X 0.61m IRON BAR
IB ø	DENOTES 19mm diameter X 0.61m ROUND IRON BAR
CC	DENOTES CUT-CROSS
CP	DENOTES 5mm X 50mm STEEL PIN
■	DENOTES SURVEY MONUMENT FOUND
□	DENOTES SURVEY MONUMENT SET AND MARKED 1744
WIT.	DENOTES WITNESS
⊥	DENOTES PERPENDICULAR
(S)	DENOTES SET
(M)	DENOTES MEASURED
(D)	DENOTES DEED
ORP	DENOTES OBSERVED REFERENCE POINT
(S/P)	DENOTES SET PROPORTIONALLY
(OU)	DENOTES ORIGIN UNKNOWN
(P)	DENOTES REGISTERED PLAN 40
(P1)	DENOTES UNDATED PLAN OF SURVEY OF THE SUBJECT PROPERTY BY (1201)
(P2)	DENOTES PLAN OF SURVEY BY (1194) DATED NOVEMBER 30, 1978.
(P3)	DENOTES PLAN OF SURVEY BY (KVL) DATED NOVEMBER 4, 1988.
(P4)	DENOTES PLAN OF SURVEY BY (KVL) DATED JUNE 20, 1975
(1744)	DENOTES VERHAEGEN STUBBERFIELD HARTLEY BREWER BEZAIRE INC., O.L.S.
(1194)	DENOTES JOHN B. SMEETON INC., O.L.S.
(1201)	DENOTES CLARKE SURVEYORS INC., O.L.S.
(KVL)	DENOTES VERHAEGEN AND BEZAIRE LIMITED, O.L.S.
MHS	DENOTES SEWER MANHOLE
CB	DENOTES CATCH BASIN
LSc	DENOTES LIGHT STANDARD CONCRETE
LSs	DENOTES LIGHT STANDARD STEEL
LSw	DENOTES LIGHT STANDARD WOOD
UPc	DENOTES UTILITY POLE CONCRETE
UPs	DENOTES UTILITY POLE STEEL
UPw	DENOTES UTILITY POLE WOOD
GP	DENOTES GUY POLE
GW	DENOTES GUY WIRE
TOC	DENOTES TOP OF CURB
BOC	DENOTES BOTTOM OF CURB
FH	DENOTES FIRE HYDRANT
WM	DENOTES WATER METER
WVS	DENOTES WATER VALVE (Service)
WVM	DENOTES WATER VALVE (Main)
GM	DENOTES GAS METER
GV	DENOTES GAS VALVE
PedCTV	DENOTES CABLE TV PEDESTAL
TRs	DENOTES TRAFFIC SIGN
S	DENOTES SHRUB
SC	DENOTES SEWER CLEANOUT
INV	DENOTES INVERT
Bol	DENOTES BOLLARD

DECIDUOUS AND CONIFEROUS TREES ARE DENOTED DT AND CT RESPECTIVELY. A PREFIX TO THE DESCRIPTION DESIGNATES THE NUMBER OF TREE TRUNKS WHEN TREES ARE CLUMPED TOGETHER AND A SUFFIX DENOTES THE TREE DIAMETER OR (NTS) NOT TO SCALE.

—— G —— (pipe size) —— G ——	DENOTES GAS LINE
—— H —— H —— H ——	DENOTES OVERHEAD HYDRO LINE
—— CS —— (pipe size) —— CS ——	DENOTES COMBINED SEWER
—— SA —— (pipe size) —— SA ——	DENOTES SANITARY SEWER
—— ST —— (pipe size) —— ST ——	DENOTES STORM SEWER
—— W —— (pipe size) —— W ——	DENOTES WATER LINE

UNDERGROUND CABLE, HYDRO OR TELEPHONE LINES ARE PREFIXED WITH THE LETTER "u"
(CABLE = uC HYDRO = uH TELEPHONE = uT)

INTEGRATION DATA

COORDINATES ARE DERIVED FROM GRID OBSERVATIONS USING THE CAN-NET NETWORK SERVICE AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) NAD83 (CSRS) (2010.0).
COORDINATE VALUES ARE TO AN URBAN ACCURACY IN ACCORDANCE WITH SECTION 14(2) O.REG 216/10

POINT ID	NORTHING	EASTING
ORP-A	N4683887.90	E328283.37
ORP-B	N4684009.21	E328250.83

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

ELEVATIONS

ELEVATIONS SHOWN ON THIS PLAN ARE IN METRES C.G.V.D. 28 (H.T.V. 2.0)

BENCH MARK

BENCH MARK 3026 ELEVATION 177.126m

BRICK BUILDING, (Mun. No. 4027 SANDWICH ST. W.) 18.3m NORTHEAST OF RAILWAY CROSSING. TABLET IN SOUTHEAST CONCRETE FOUNDATION WALL, 0.30m FROM SOUTHWEST CORNER AND 0.85m BELOW BRICK.

SITE BENCH MARK

ELEVATION 181.25m

TOP OF FIRE HYDRANT ALONG NORTH SIDE OF CHAPPELL STREET, (SEE PLAN).

AREA

0.6697 Hectares, (1.655 Acres).

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THIS SURVEY WAS COMPLETED ON THE **24th** DAY OF **MARCH, 2020.**

DATE **MARCH 26, 2020**

ANDREW S. MANTHA
ONTARIO LAND SURVEYOR
for VERHAEGEN · STUBBERFIELD · HARTLEY BREWER · BEZAIRE INC.

VERHAEGEN LAND SURVEYORS
A DIVISION OF J.D. BARNES LTD.
SURVEYING MAPPING GIS
944 OTTAWA STREET, WINDSOR, ON, N8X 2E1
T: (519) 258-1772 F: (519) 258-1791 www.jdbarnes.com

DRAWN BY:	CHECKED BY:	REFERENCE NO.:
A.S.M.	A.S.M.	20-47-541-00
FILE: 20-47-541-00.dwg	E-40-2 (E/S SANDWICH)	CAD Date: March 27, 2020 4:40 PM CAD File: 20-47-541-00.dwg

89cm x 58cm (0.5 m²) 35.0"w x 23.0"h (5.6 ft²)

Sandwich St @ Chappel Ave

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:15:00
To: 8:15:00

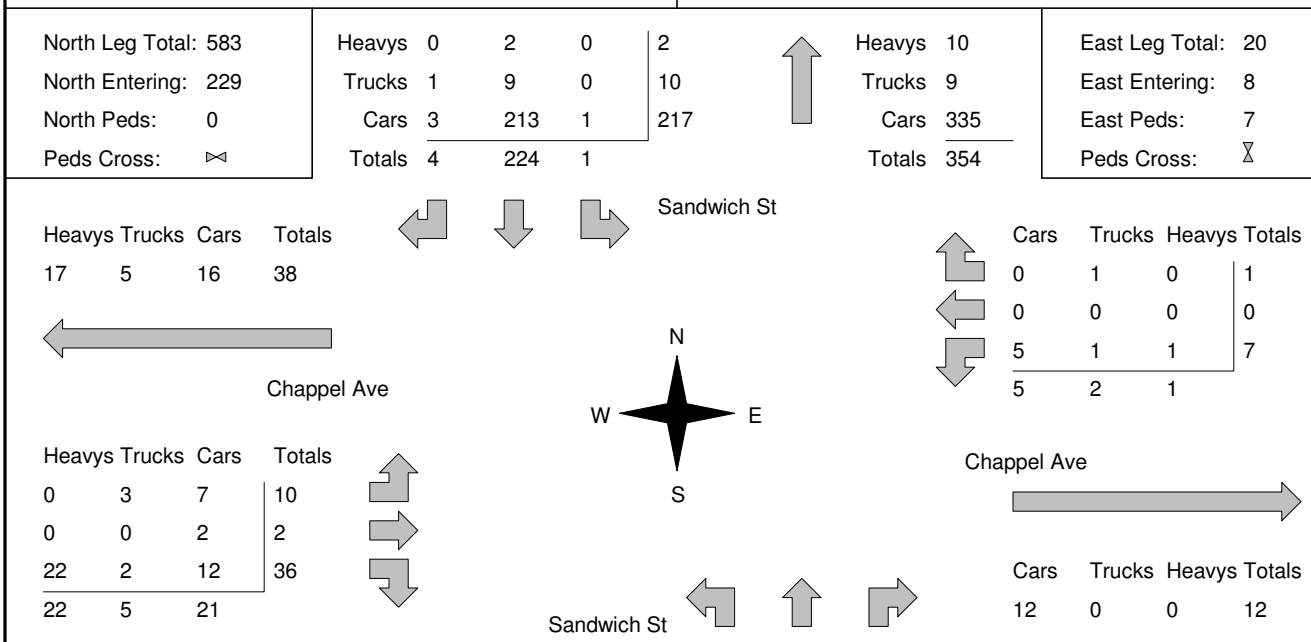
Municipality: Windsor
Site #: 0000000001
Intersection: Sandwich St & Chappel Ave
TFR File #: 1
Count date: 21-Jul-2020

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Non-Signalized Intersection ****

Major Road: Sandwich St runs N/S



Comments

Sandwich St @ Chappel Ave

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 14:00:00

One Hour Peak
From: 12:15:00
To: 13:15:00

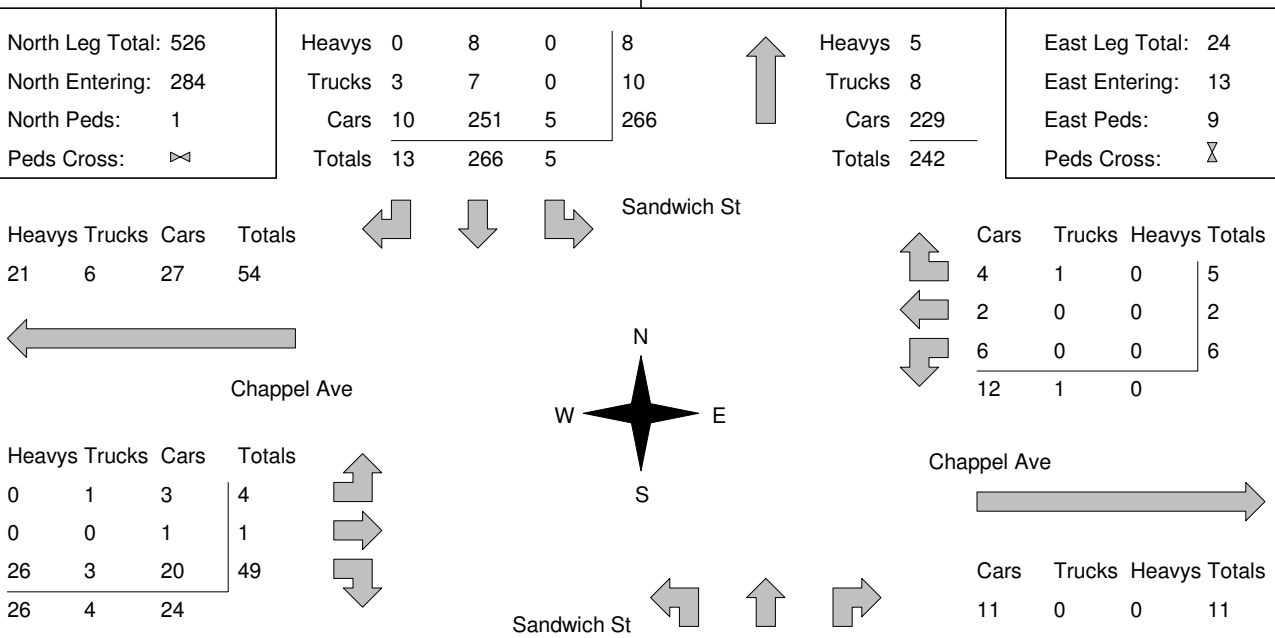
Municipality: Windsor
Site #: 0000000001
Intersection: Sandwich St & Chappel Ave
TFR File #: 1
Count date: 21-Jul-2020

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Non-Signalized Intersection ****

Major Road: Sandwich St runs N/S



Comments

Sandwich St @ Chappel Ave

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 15:15:00
To: 16:15:00

Municipality: Windsor
Site #: 0000000001
Intersection: Sandwich St & Chappel Ave
TFR File #: 1
Count date: 21-Jul-2020

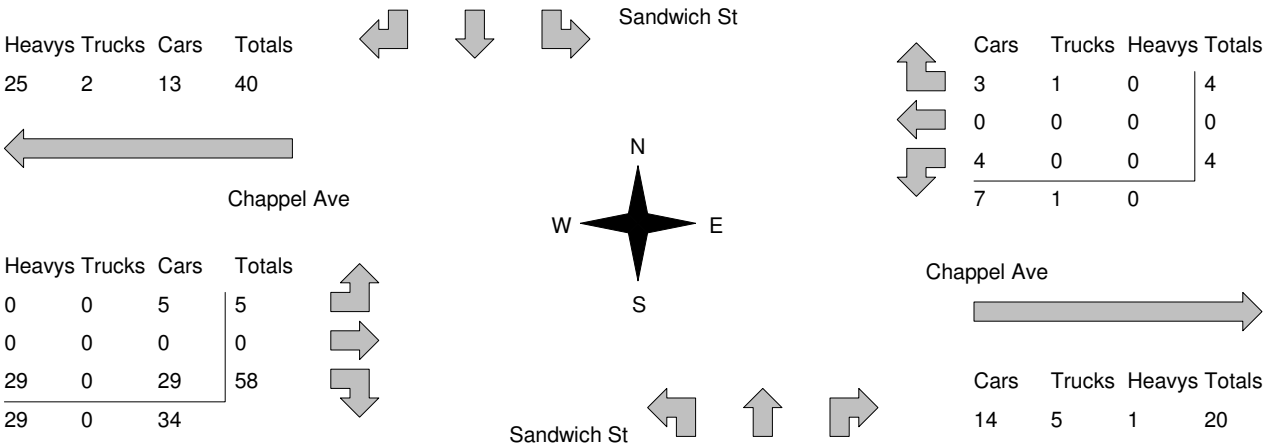
Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Non-Signalized Intersection ****

Major Road: Sandwich St runs N/S

North Leg Total:	778			
North Entering:	435			
North Peds:	0			
Peds Cross:	⋈			
Heavys	1	4	0	5
Trucks	1	6	1	8
Cars	6	411	5	422
Totals	8	421	6	
Heavys	5			
Trucks	2			
Cars	336			
Totals	343			
East Leg Total:	28			
East Entering:	8			
East Peds:	7			
Peds Cross:	⧖			



Peds Cross:	⧖			
West Peds:	0			
West Entering:	63			
West Leg Total:	103			
Cars	444			
Trucks	6			
Heavys	33			
Totals	483			
Cars	7	328	9	344
Trucks	1	1	4	6
Heavys	24	5	1	30
Totals	32	334	14	
Peds Cross:	⋈			
South Peds:	2			
South Entering:	380			
South Leg Total:	863			

Comments

Sandwich St @ Chappel Ave

Total Count Diagram

Municipality: Windsor
Site #: 0000000001
Intersection: Sandwich St & Chappel Ave
TFR File #: 1
Count date: 21-Jul-2020

Weather conditions:
Clear/Dry

Person(s) who counted:
Cam

**** Non-Signalized Intersection ****

Major Road: Sandwich St runs N/S

North Leg Total:	4794			
North Entering:	2445			
North Peds:	3			
Peds Cross:	⋈			
Heavys	1	47	0	48
Trucks	10	45	2	57
Cars	42	2281	17	2340
Totals	53	2373	19	
Heavys	47			
Trucks	36			
Cars	2266			
Totals	2349			
East Leg Total:	146			
East Entering:	68			
East Peds:	57			
Peds Cross:	⧖			

Sandwich St

Heavys	Trucks	Cars	Totals
140	24	118	282

Cars	Trucks	Heavys	Totals
18	3	0	21
3	1	0	4
38	4	1	43
59	8	1	

Chappel Ave

N
W E
S

Heavys	Trucks	Cars	Totals
3	7	36	46
0	0	6	6
146	12	130	288
149	19	172	

Chappel Ave

Cars	Trucks	Heavys	Totals
63	14	1	78

Sandwich St

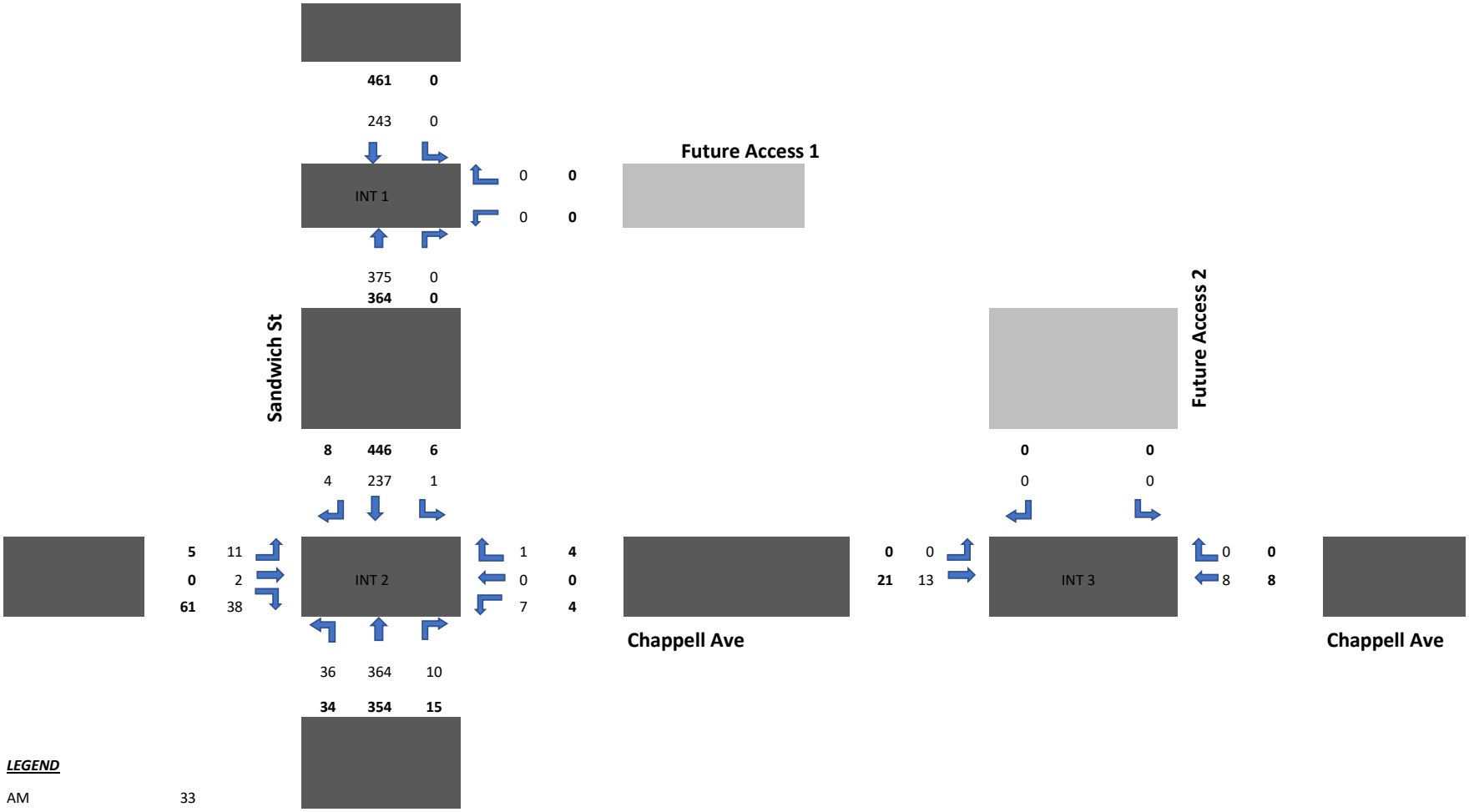
Peds Cross:	⧖			
West Peds:	9			
West Entering:	340			
West Leg Total:	622			
Cars	2449			
Trucks	61			
Heavys	194			
Totals	2704			
Cars	73	2212	40	2325
Trucks	13	26	12	51
Heavys	139	44	1	184
Totals	225	2282	53	
Peds Cross:	⋈			
South Peds:	17			
South Entering:	2560			
South Leg Total:	5264			

Comments

Appendix B

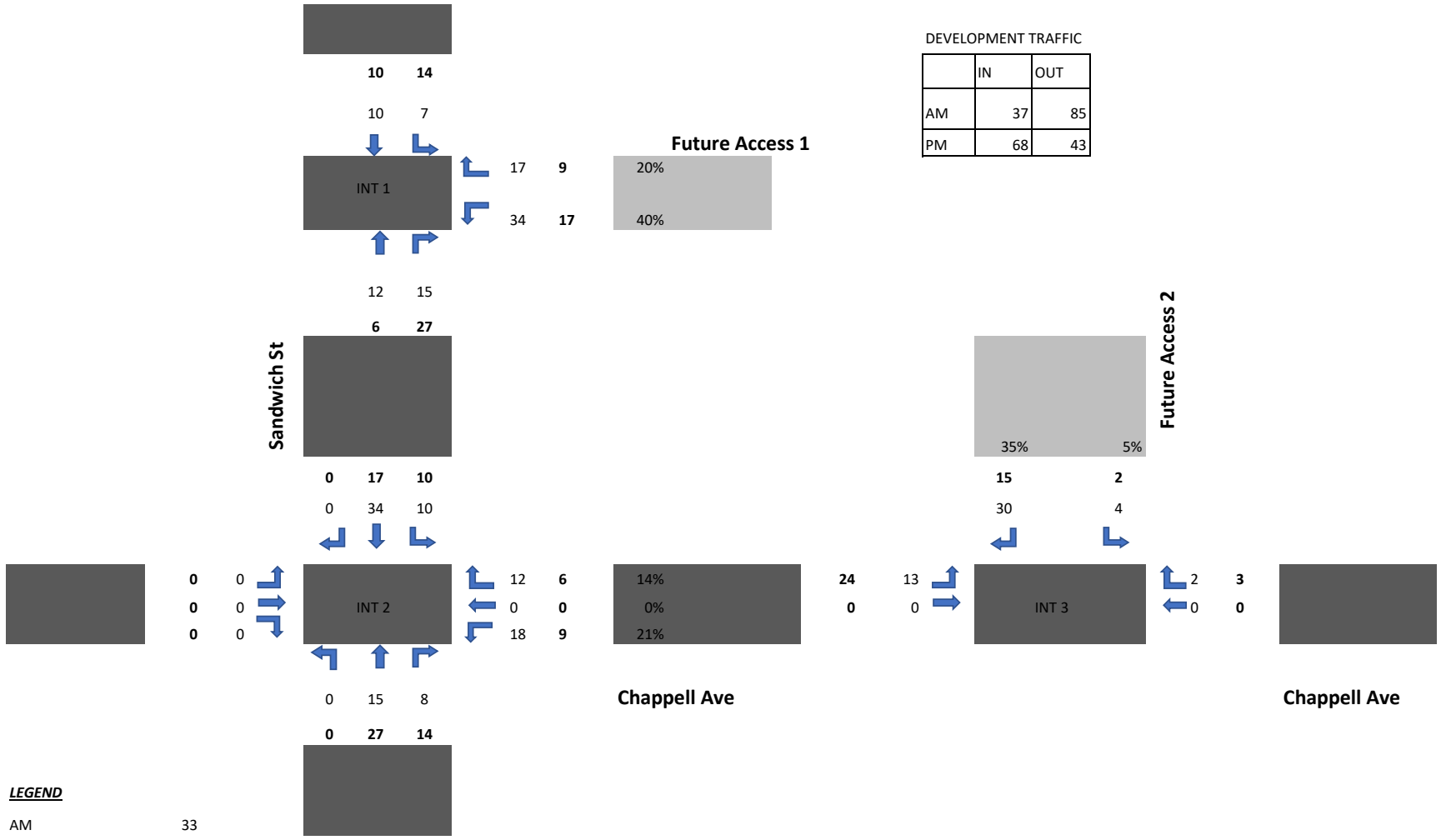
FUTURE TRAFFIC, DEVELOPMENT TRAFFIC AND TOTAL TRAFFIC VOLUMES

MIXED USE HIGH-RISE BUILDING



PROPJECT NAME	3885 Sandwich Street, Windsor		DATE: 26-May-22
SHEET TITLE	2022 BACKGROUND TRAFFIC	BAIRD|AE architecture + engineering	PROJECT NO: 20-028
			FIGURE NO: Figure 1.1

MIXED USE HIGH-RISE BUILDING

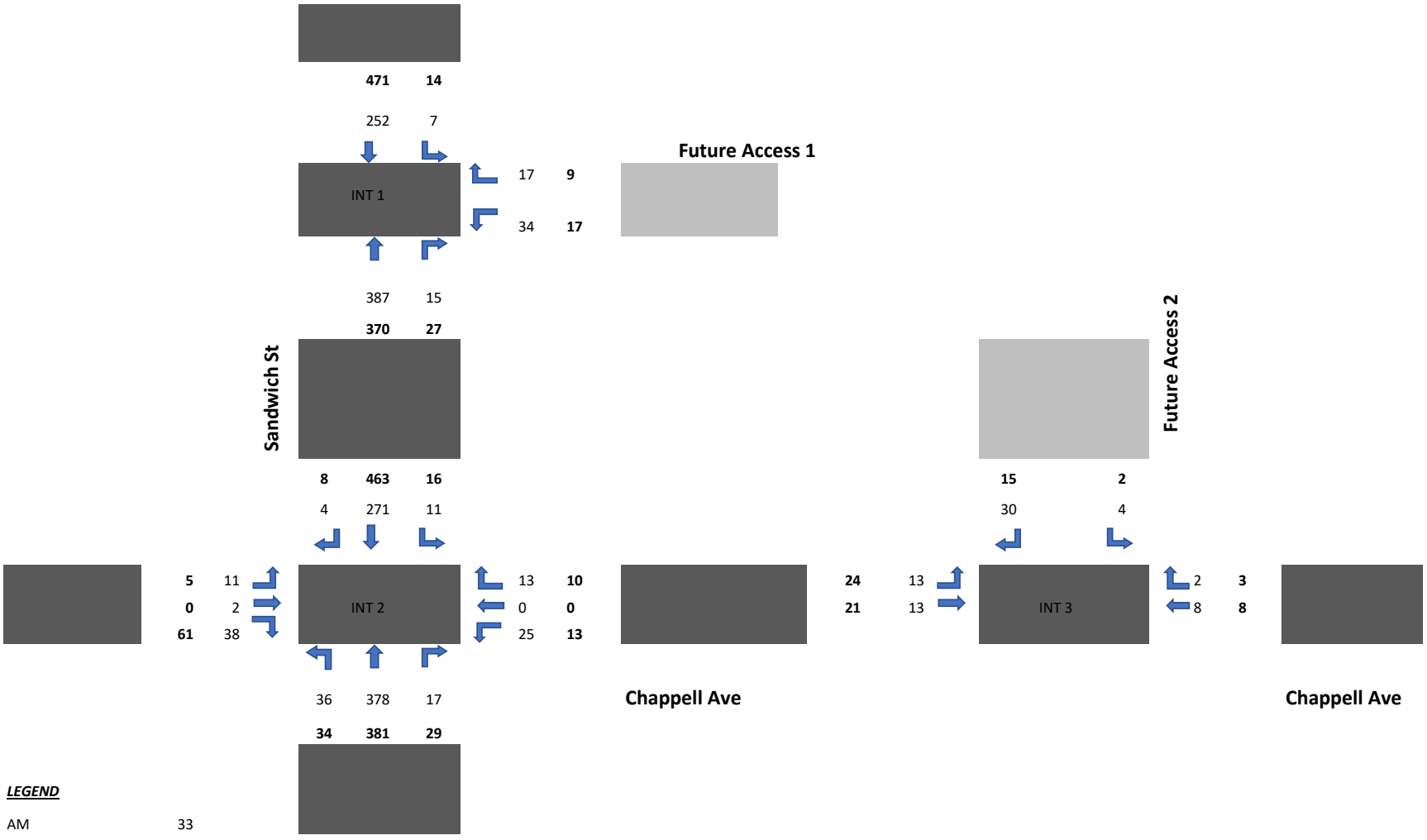


PROPJECT NAME	3885 Sandwich Street, Windsor
SHEET TITLE	2022 DEVELOPMENT TRAFFIC

BAIRD|AE architecture + engineering

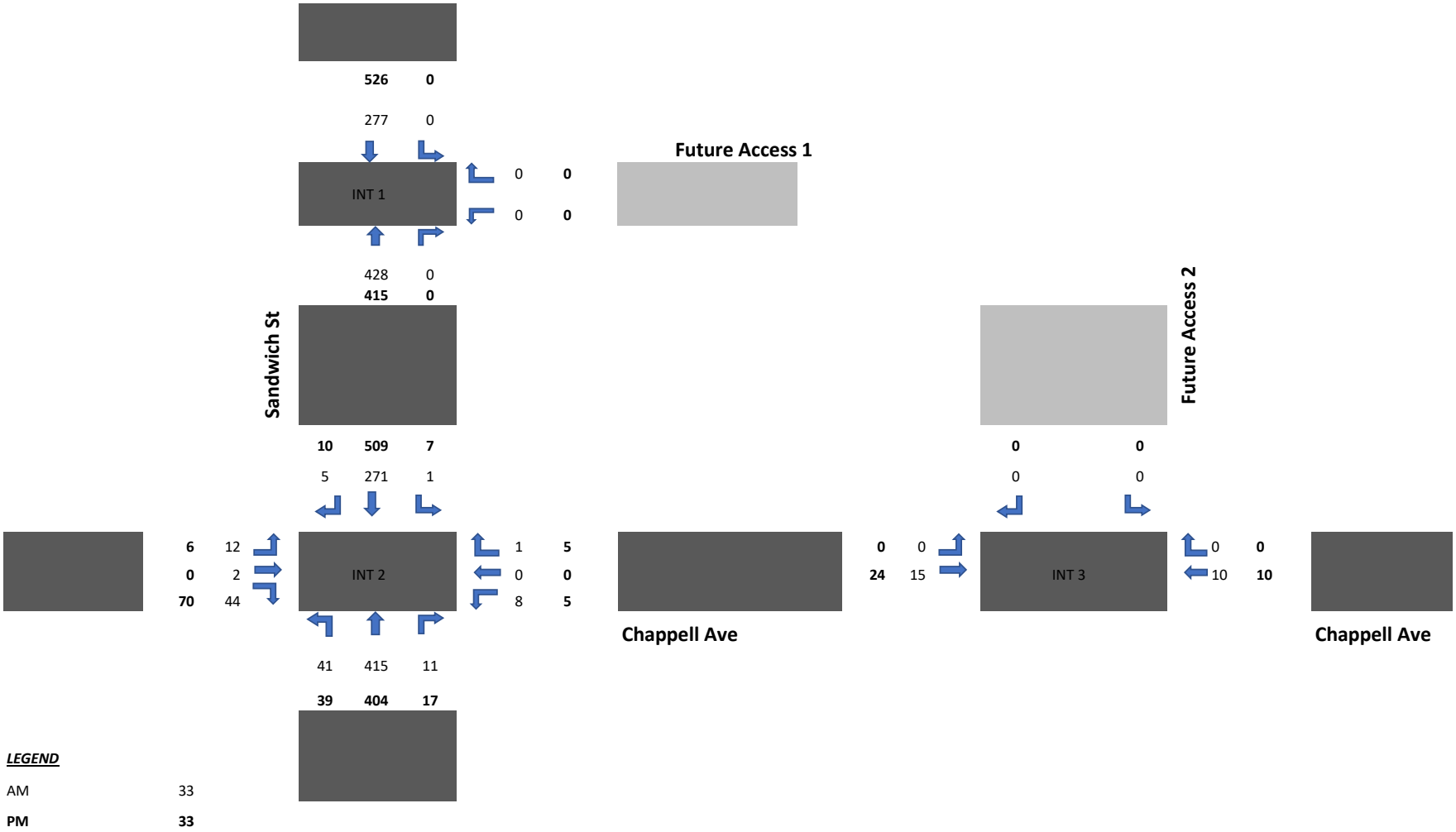
DATE:	26-May-22
PROJECT NO:	20-028
FIGURE NO:	Figure 1.2

MIXED USE HIGH-RISE BUILDING



PROPJECT NAME	3885 Sandwich Street, Windsor		DATE: 26-May-22
SHEET TITLE	2022 TOTAL TRAFFIC	BAIRD|AE architecture + engineering	PROJECT NO: 20-028
			FIGURE NO: Figure 1.3

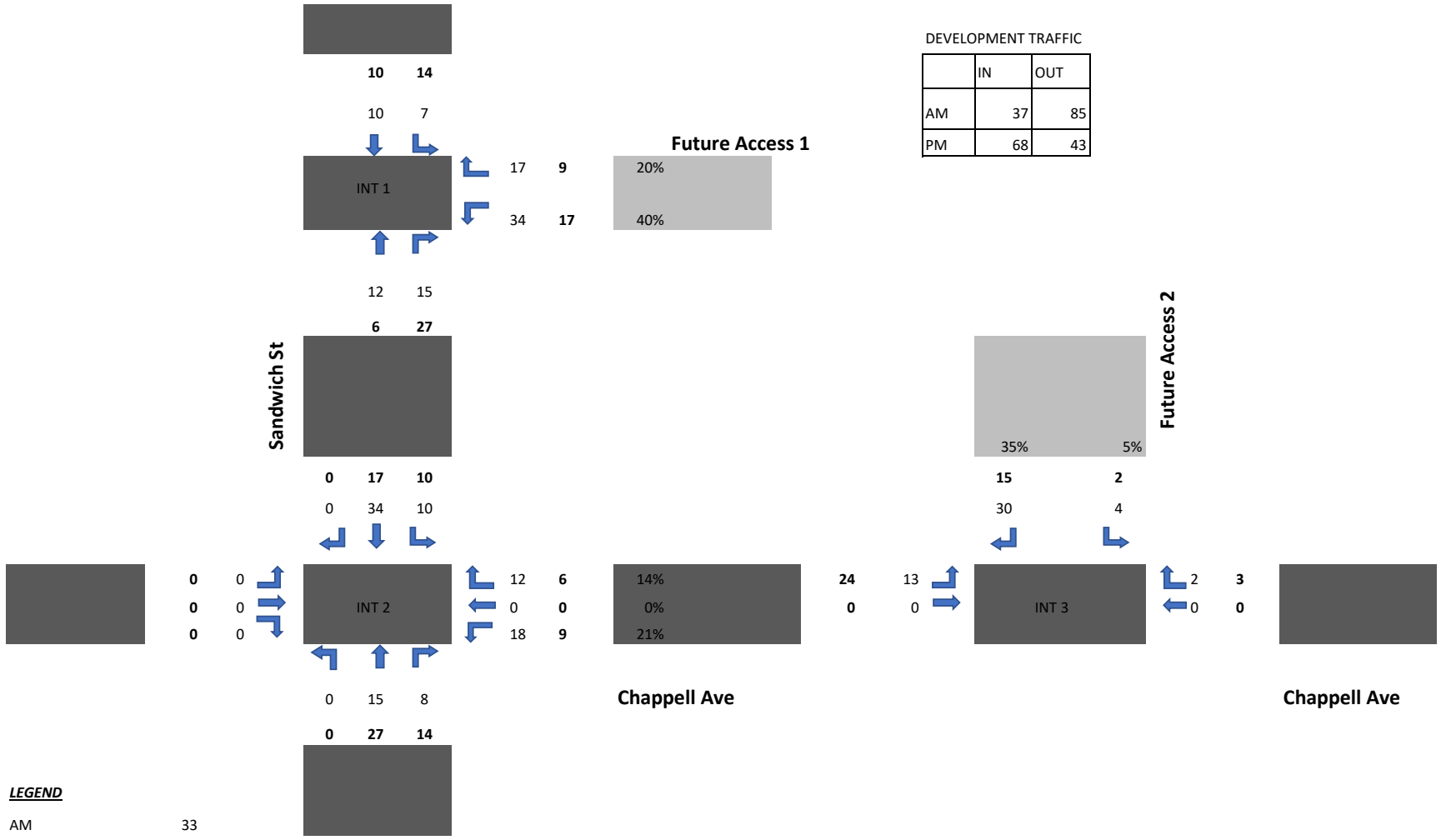
MIXED USE HIGH-RISE BUILDING



PROPJECT NAME	3885 Sandwich Street, Windsor	DATE:	26-May-22
SHEET TITLE	2027 BACKGROUND TRAFFIC	PROJECT NO:	20-028
		FIGURE NO:	Figure 2.1

BAIRD|AE architecture + engineering

MIXED USE HIGH-RISE BUILDING



PROPJECT NAME	3885 Sandwich Street, Windsor
SHEET TITLE	2027 DEVELOPMENT TRAFFIC

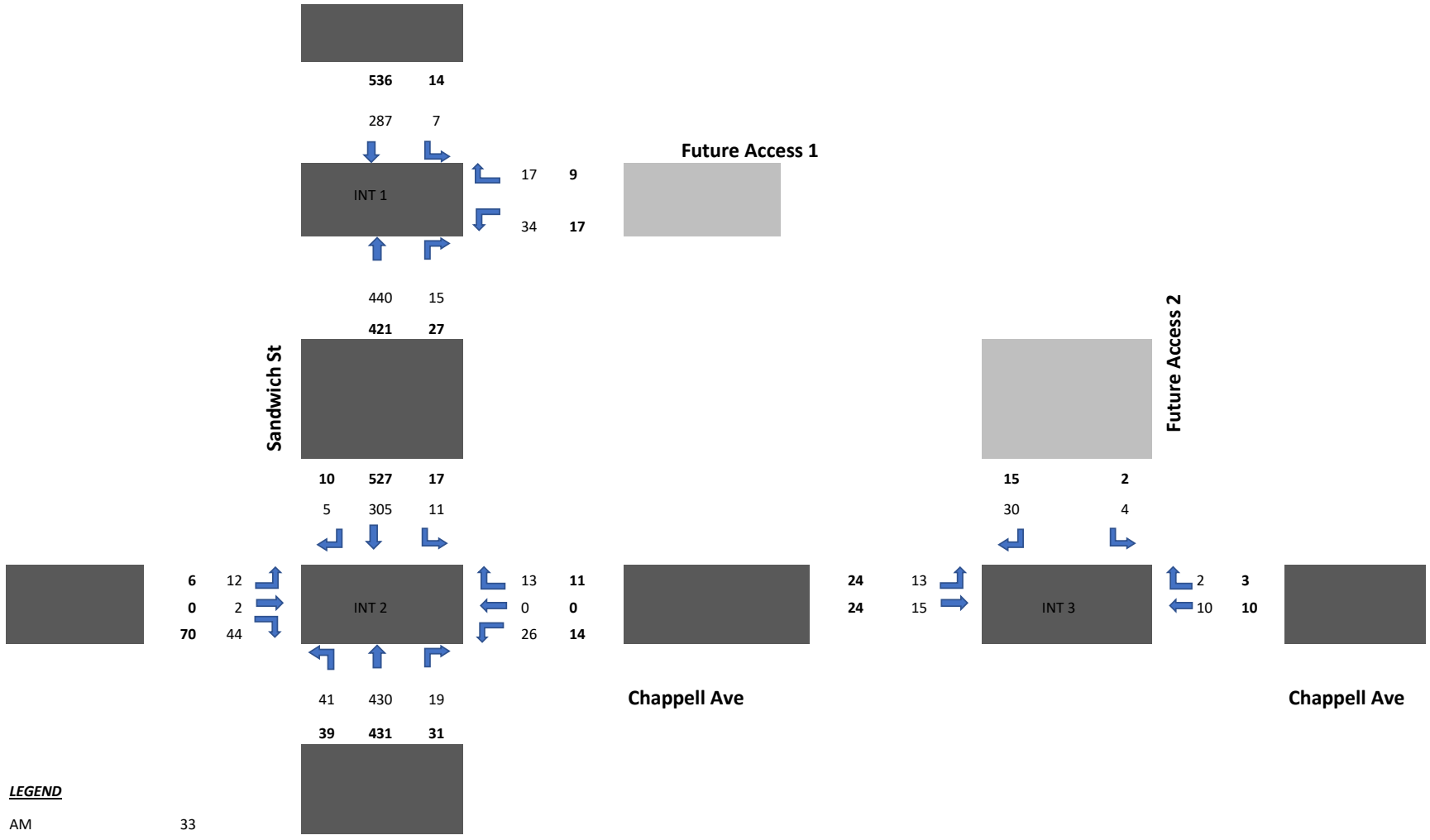
BAIRD|AE architecture + engineering

27 PRINCESS STREET, SUITE #102 LEAMINGTON, ONTARIO N8H 2X8

1000 - 267 PELISSIER STREET, WINDSOR, ONTARIO N9A 4K4

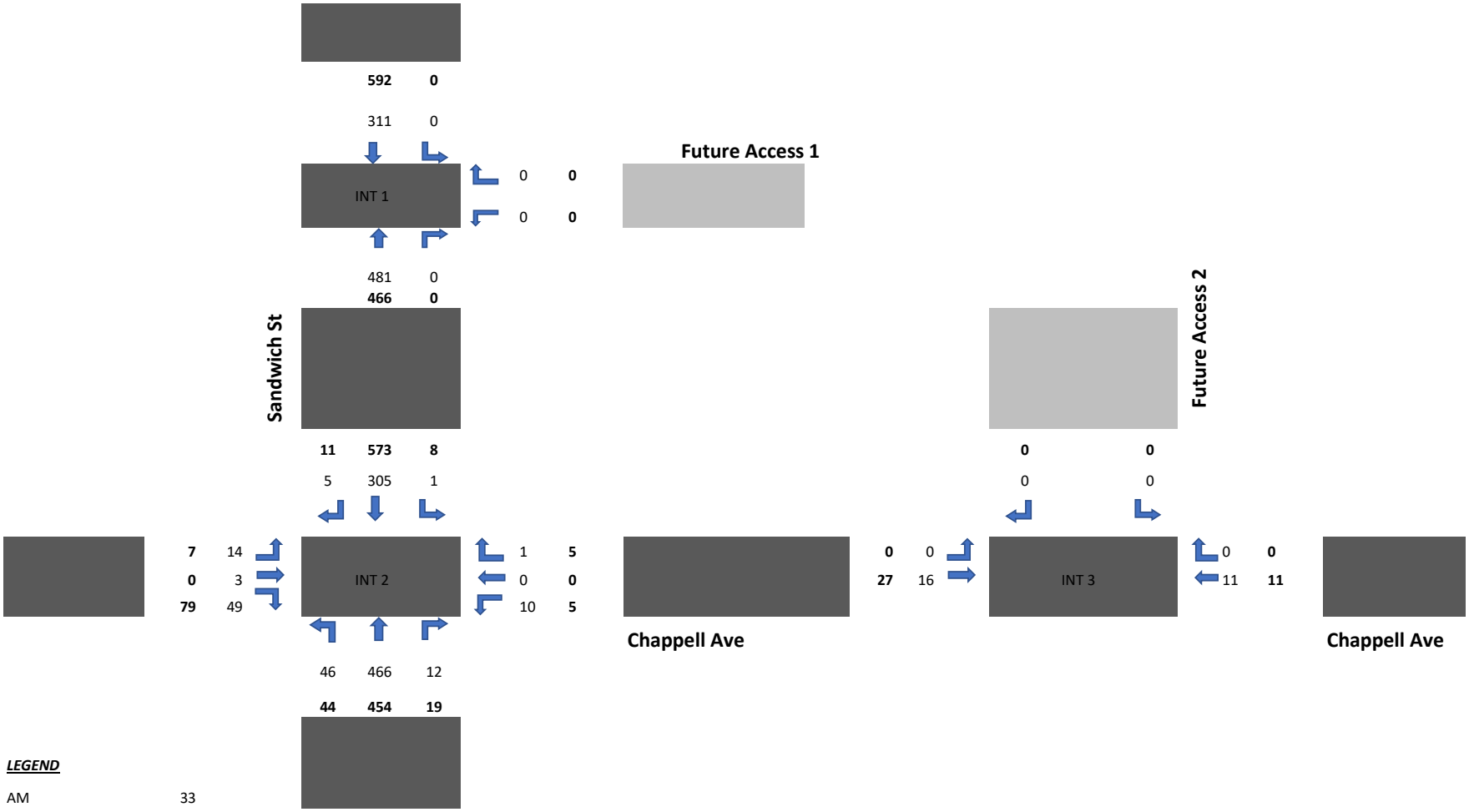
DATE:	26-May-22
PROJECT NO:	20-028
FIGURE NO:	Figure 2.2

MIXED USE HIGH-RISE BUILDING



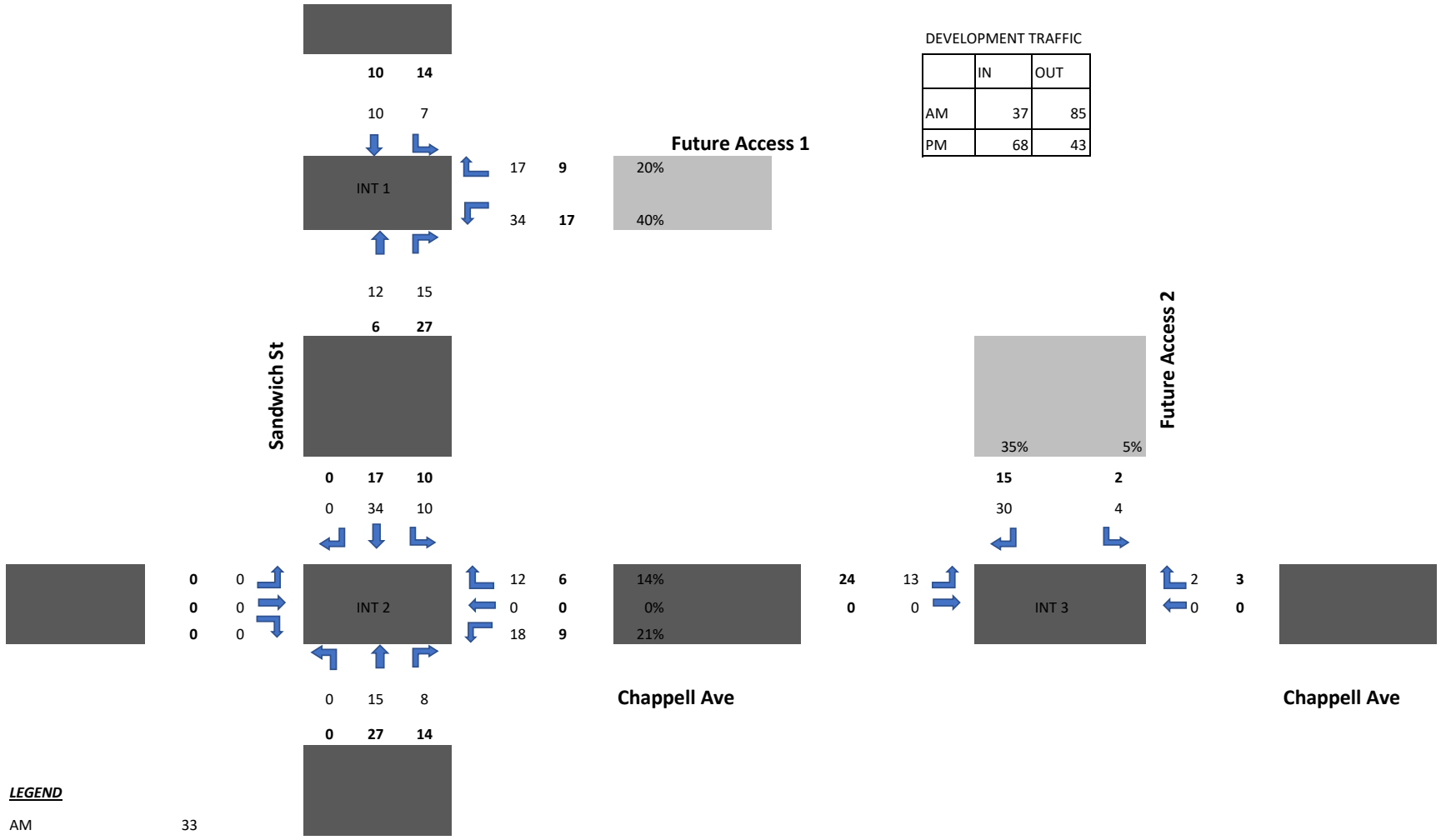
PROPJECT NAME	3885 Sandwich Street, Windsor		DATE: 26-May-22
SHEET TITLE	2027 TOTAL TRAFFIC	BAIRD|AE architecture + engineering	PROJECT NO: 20-028
			FIGURE NO: Figure 2.3

MIXED USE HIGH-RISE BUILDING



PROPJECT NAME	3885 Sandwich Street, Windsor		DATE: 26-May-22
SHEET TITLE	2032 BACKGROUND TRAFFIC	BAIRD|AE architecture + engineering	PROJECT NO: 20-028
			FIGURE NO: Figure 3.1

MIXED USE HIGH-RISE BUILDING

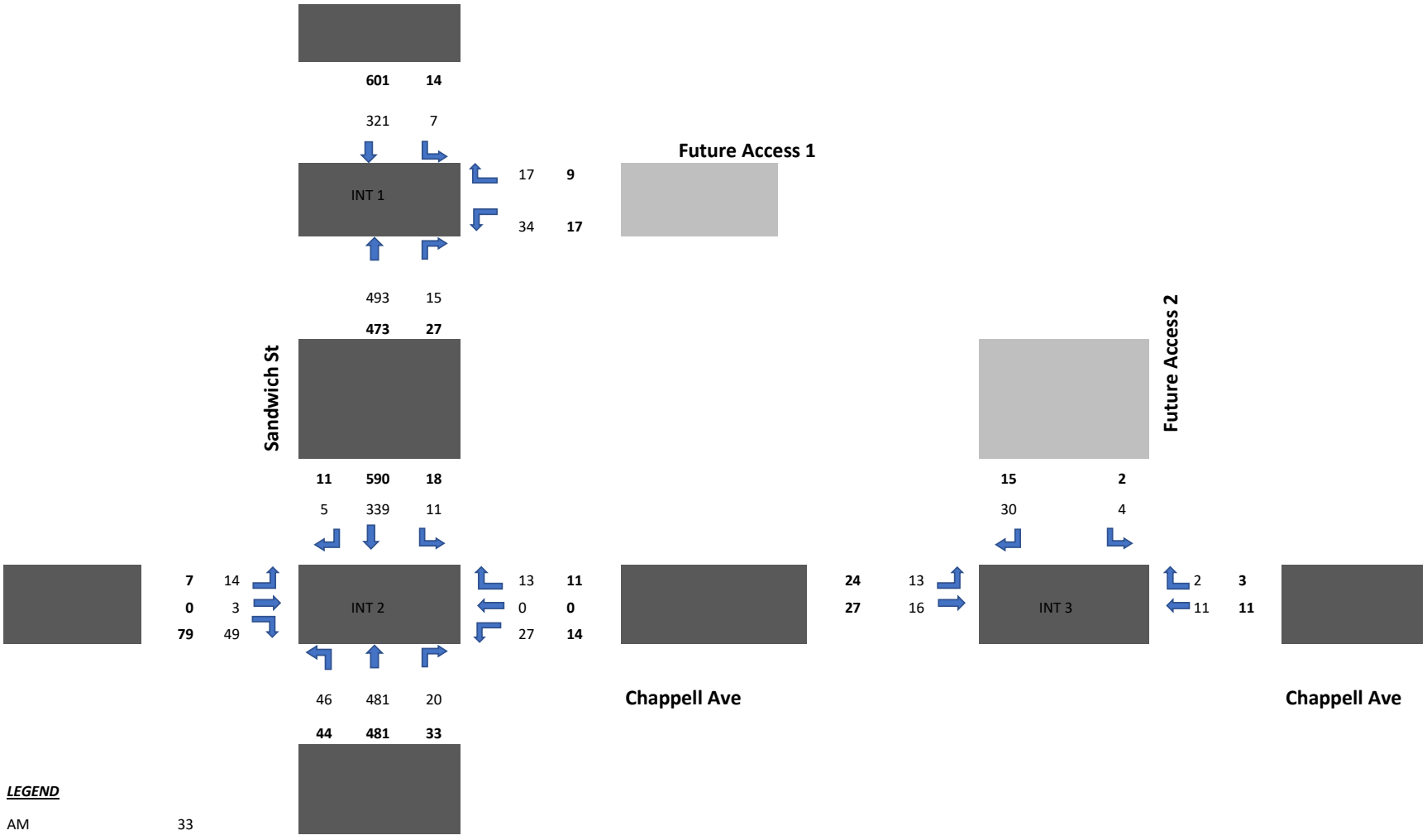


PROPJECT NAME	3885 Sandwich Street, Windsor
SHEET TITLE	2032 DEVELOPMENT TRAFFIC

BAIRD|AE architecture + engineering

DATE:	26-May-22
PROJECT NO:	20-028
FIGURE NO:	Figure 3.2

MIXED USE HIGH-RISE BUILDING



PROPJECT NAME	3885 Sandwich Street, Windsor		DATE: 26-May-22
SHEET TITLE	2032 TOTAL TRAFFIC	BAIRD|AE architecture + engineering	PROJECT NO: 20-028
			FIGURE NO: Figure 3.3

Appendix C

CAPACITY ANALYSIS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	2	38	7	0	1	36	364	10	1	237	4
Future Volume (Veh/h)	11	2	38	7	0	1	36	364	10	1	237	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	2	41	8	0	1	39	396	11	1	258	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	742	747	260	784	744	402	262			407		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	742	747	260	784	744	402	262			407		
tC, single (s)	7.1	6.5	6.7	7.1	6.5	6.5	4.9			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.5	4.0	3.5	2.9			2.3		
p0 queue free %	96	99	94	97	100	100	96			100		
cM capacity (veh/h)	323	330	675	284	331	602	965			1080		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	55	9	446	263
Volume Left	12	8	39	1
Volume Right	41	1	11	4
cSH	529	301	965	1080
Volume to Capacity	0.10	0.03	0.04	0.00
Queue Length 95th (m)	2.8	0.7	1.0	0.0
Control Delay (s)	12.6	17.3	1.2	0.0
Lane LOS	B	C	A	A
Approach Delay (s)	12.6	17.3	1.2	0.0
Approach LOS	B	C		

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	47.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	2	38	22	0	11	36	373	15	10	265	4
Future Volume (Veh/h)	11	2	38	22	0	11	36	373	15	10	265	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	2	41	24	0	12	39	405	16	11	288	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	815	811	290	845	805	413	292			421		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	815	811	290	845	805	413	292			421		
tC, single (s)	7.4	6.5	6.8	7.2	6.5	6.2	4.7			4.1		
tC, 2 stage (s)												
tF (s)	3.8	4.0	3.8	3.6	4.0	3.3	2.8			2.2		
p0 queue free %	95	99	93	90	100	98	96			99		
cM capacity (veh/h)	251	300	628	241	303	643	993			1149		

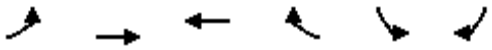
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	55	36	460	303
Volume Left	12	24	39	11
Volume Right	41	12	16	4
cSH	460	305	993	1149
Volume to Capacity	0.12	0.12	0.04	0.01
Queue Length 95th (m)	3.2	3.2	1.0	0.2
Control Delay (s)	13.9	18.4	1.2	0.4
Lane LOS	B	C	A	A
Approach Delay (s)	13.9	18.4	1.2	0.4
Approach LOS	B	C		

Intersection Summary				
Average Delay	2.4			
Intersection Capacity Utilization	47.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	28	14	385	10	5	252
Future Volume (Veh/h)	28	14	385	10	5	252
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	15	418	11	5	274
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	708	424			429	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	708	424			429	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	98			100	
cM capacity (veh/h)	400	630			1141	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	45	429	279
Volume Left	30	0	5
Volume Right	15	11	0
cSH	455	1700	1141
Volume to Capacity	0.10	0.25	0.00
Queue Length 95th (m)	2.6	0.0	0.1
Control Delay (s)	13.8	0.0	0.2
Lane LOS	B		A
Approach Delay (s)	13.8	0.0	0.2
Approach LOS	B		

Intersection Summary			
Average Delay		0.9	
Intersection Capacity Utilization		30.9%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	13	8	1	4	25
Future Volume (Veh/h)	8	13	8	1	4	25
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	14	9	1	4	27
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	10				42	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	10				42	10
tC, single (s)	4.1				6.5	6.5
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.5
p0 queue free %	99				100	97
cM capacity (veh/h)	1610				954	1009

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	23	10	31
Volume Left	9	0	4
Volume Right	0	1	27
cSH	1610	1700	1001
Volume to Capacity	0.01	0.01	0.03
Queue Length 95th (m)	0.1	0.0	0.8
Control Delay (s)	2.9	0.0	8.7
Lane LOS	A		A
Approach Delay (s)	2.9	0.0	8.7
Approach LOS			A

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	17.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	61	4	0	4	34	354	15	6	446	8
Future Volume (Veh/h)	5	0	61	4	0	4	34	354	15	6	446	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	0	66	4	0	4	37	385	16	7	485	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	974	978	490	1036	975	393	494			401		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	974	978	490	1036	975	393	494			401		
tC, single (s)	7.1	6.5	6.7	7.1	6.5	6.5	4.9			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.5	4.0	3.5	2.9			2.3		
p0 queue free %	98	100	87	98	100	99	95			99		
cM capacity (veh/h)	222	239	493	175	240	608	770			1086		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	71	8	438	501
Volume Left	5	4	37	7
Volume Right	66	4	16	9
cSH	454	272	770	1086
Volume to Capacity	0.16	0.03	0.05	0.01
Queue Length 95th (m)	4.4	0.7	1.2	0.2
Control Delay (s)	14.4	18.6	1.4	0.2
Lane LOS	B	C	A	A
Approach Delay (s)	14.4	18.6	1.4	0.2
Approach LOS	B	C		

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	51.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	61	12	0	9	34	379	28	15	461	8
Future Volume (Veh/h)	5	0	61	12	0	9	34	379	28	15	461	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	0	66	13	0	10	37	412	30	16	501	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1048	1054	506	1104	1043	427	510			442		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1048	1054	506	1104	1043	427	510			442		
tC, single (s)	7.1	6.5	6.7	7.1	6.5	6.5	4.9			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.5	4.0	3.5	2.9			2.3		
p0 queue free %	97	100	86	92	100	98	95			98		
cM capacity (veh/h)	194	213	482	156	217	581	758			1048		

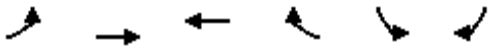
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	71	23	479	526
Volume Left	5	13	37	16
Volume Right	66	10	30	9
cSH	436	229	758	1048
Volume to Capacity	0.16	0.10	0.05	0.02
Queue Length 95th (m)	4.6	2.6	1.2	0.4
Control Delay (s)	14.8	22.5	1.4	0.4
Lane LOS	B	C	A	A
Approach Delay (s)	14.8	22.5	1.4	0.4
Approach LOS	B	C		

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	48.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	15	7	369	25	13	470
Future Volume (Veh/h)	15	7	369	25	13	470
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	8	401	27	14	511
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	954	414			428	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	954	414			428	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	99			99	
cM capacity (veh/h)	284	638			1142	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	428	525
Volume Left	16	0	14
Volume Right	8	27	0
cSH	348	1700	1142
Volume to Capacity	0.07	0.25	0.01
Queue Length 95th (m)	1.8	0.0	0.3
Control Delay (s)	16.1	0.0	0.4
Lane LOS	C		A
Approach Delay (s)	16.1	0.0	0.4
Approach LOS	C		

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	21	8	3	2	13
Future Volume (Veh/h)	22	21	8	3	2	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	23	9	3	2	14
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	12				82	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	12				82	10
tC, single (s)	4.1				6.5	6.5
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.5
p0 queue free %	99				100	99
cM capacity (veh/h)	1607				897	1007

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	47	12	16
Volume Left	24	0	2
Volume Right	0	3	14
cSH	1607	1700	992
Volume to Capacity	0.01	0.01	0.02
Queue Length 95th (m)	0.4	0.0	0.4
Control Delay (s)	3.8	0.0	8.7
Lane LOS	A		A
Approach Delay (s)	3.8	0.0	8.7
Approach LOS			A

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	2	44	8	0	1	41	415	11	1	271	5
Future Volume (Veh/h)	12	2	44	8	0	1	41	415	11	1	271	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	2	48	9	0	1	45	451	12	1	295	5
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	848	852	298	896	849	457	300			463		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	848	852	298	896	849	457	300			463		
tC, single (s)	7.1	6.5	6.7	7.1	6.5	6.5	4.9			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.5	4.0	3.5	2.9			2.3		
p0 queue free %	95	99	93	96	100	100	95			100		
cM capacity (veh/h)	273	284	642	233	285	559	930			1029		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	63	10	508	301
Volume Left	13	9	45	1
Volume Right	48	1	12	5
cSH	486	248	930	1029
Volume to Capacity	0.13	0.04	0.05	0.00
Queue Length 95th (m)	3.5	1.0	1.2	0.0
Control Delay (s)	13.5	20.1	1.4	0.0
Lane LOS	B	C	A	A
Approach Delay (s)	13.5	20.1	1.4	0.0
Approach LOS	B	C		

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	52.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	2	38	25	0	13	36	378	17	11	271	4
Future Volume (Veh/h)	11	2	38	25	0	13	36	378	17	11	271	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	2	41	27	0	14	39	411	18	12	295	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	833	828	297	861	821	420	299			429		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	833	828	297	861	821	420	299			429		
tC, single (s)	7.4	6.5	6.8	7.2	6.5	6.2	4.7			4.1		
tC, 2 stage (s)												
tF (s)	3.8	4.0	3.8	3.6	4.0	3.3	2.8			2.2		
p0 queue free %	95	99	93	89	100	98	96			99		
cM capacity (veh/h)	243	293	622	235	296	638	987			1141		

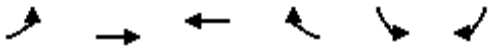
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	55	41	468	311
Volume Left	12	27	39	12
Volume Right	41	14	18	4
cSH	451	300	987	1141
Volume to Capacity	0.12	0.14	0.04	0.01
Queue Length 95th (m)	3.3	3.8	1.0	0.3
Control Delay (s)	14.1	18.9	1.2	0.4
Lane LOS	B	C	A	A
Approach Delay (s)	14.1	18.9	1.2	0.4
Approach LOS	B	C		

Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	47.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	17	387	15	7	252
Future Volume (Veh/h)	34	17	387	15	7	252
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	18	421	16	8	274
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	719	429			437	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	719	429			437	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	97			99	
cM capacity (veh/h)	392	626			1134	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	55	437	282
Volume Left	37	0	8
Volume Right	18	16	0
cSH	447	1700	1134
Volume to Capacity	0.12	0.26	0.01
Queue Length 95th (m)	3.3	0.0	0.2
Control Delay (s)	14.2	0.0	0.3
Lane LOS	B		A
Approach Delay (s)	14.2	0.0	0.3
Approach LOS	B		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	31.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	13	8	2	4	30
Future Volume (Veh/h)	13	13	8	2	4	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	14	9	2	4	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	11				52	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	11				52	10
tC, single (s)	4.1				6.5	6.5
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.5
p0 queue free %	99				100	97
cM capacity (veh/h)	1608				938	1008

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	28	11	37
Volume Left	14	0	4
Volume Right	0	2	33
cSH	1608	1700	1000
Volume to Capacity	0.01	0.01	0.04
Queue Length 95th (m)	0.2	0.0	0.9
Control Delay (s)	3.7	0.0	8.7
Lane LOS	A		A
Approach Delay (s)	3.7	0.0	8.7
Approach LOS			A

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	61	13	0	10	34	381	29	16	463	8
Future Volume (Veh/h)	5	0	61	13	0	10	34	381	29	16	463	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	0	66	14	0	11	37	414	32	17	503	9
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1056	1062	508	1112	1050	430	512			446		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1056	1062	508	1112	1050	430	512			446		
tC, single (s)	7.1	6.5	6.7	7.1	6.5	6.5	4.9			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.5	4.0	3.5	2.9			2.3		
p0 queue free %	97	100	86	91	100	98	95			98		
cM capacity (veh/h)	191	211	481	154	214	579	756			1044		

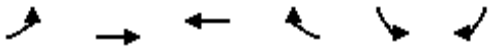
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	71	25	483	529
Volume Left	5	14	37	17
Volume Right	66	11	32	9
cSH	434	228	756	1044
Volume to Capacity	0.16	0.11	0.05	0.02
Queue Length 95th (m)	4.6	2.9	1.2	0.4
Control Delay (s)	14.9	22.8	1.4	0.5
Lane LOS	B	C	A	A
Approach Delay (s)	14.9	22.8	1.4	0.5
Approach LOS	B	C		

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	48.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	17	9	370	27	14	471
Future Volume (Veh/h)	17	9	370	27	14	471
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	10	402	29	15	512
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	958	416			431	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	958	416			431	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	98			99	
cM capacity (veh/h)	282	636			1139	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	431	527
Volume Left	18	0	15
Volume Right	10	29	0
cSH	352	1700	1139
Volume to Capacity	0.08	0.25	0.01
Queue Length 95th (m)	2.1	0.0	0.3
Control Delay (s)	16.1	0.0	0.4
Lane LOS	C		A
Approach Delay (s)	16.1	0.0	0.4
Approach LOS	C		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	21	8	3	2	15
Future Volume (Veh/h)	24	21	8	3	2	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	23	9	3	2	16
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	12				86	10
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	12				86	10
tC, single (s)	4.1				6.5	6.5
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.5
p0 queue free %	98				100	98
cM capacity (veh/h)	1607				891	1007

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	49	12	18
Volume Left	26	0	2
Volume Right	0	3	16
cSH	1607	1700	993
Volume to Capacity	0.02	0.01	0.02
Queue Length 95th (m)	0.4	0.0	0.4
Control Delay (s)	3.9	0.0	8.7
Lane LOS	A		A
Approach Delay (s)	3.9	0.0	8.7
Approach LOS			A

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	19.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	2	44	26	0	13	41	430	19	11	305	5
Future Volume (Veh/h)	12	2	44	26	0	13	41	430	19	11	305	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	2	48	28	0	14	45	467	21	12	332	5
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	940	936	334	975	928	478	337			488		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	940	936	334	975	928	478	337			488		
tC, single (s)	7.4	6.5	6.8	7.2	6.5	6.2	4.7			4.1		
tC, 2 stage (s)												
tF (s)	3.8	4.0	3.8	3.6	4.0	3.3	2.8			2.2		
p0 queue free %	94	99	92	85	100	98	95			99		
cM capacity (veh/h)	203	252	591	192	254	592	952			1086		

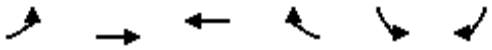
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	63	42	533	349
Volume Left	13	28	45	12
Volume Right	48	14	21	5
cSH	411	247	952	1086
Volume to Capacity	0.15	0.17	0.05	0.01
Queue Length 95th (m)	4.3	4.8	1.2	0.3
Control Delay (s)	15.3	22.5	1.3	0.4
Lane LOS	C	C	A	A
Approach Delay (s)	15.3	22.5	1.3	0.4
Approach LOS	C	C		

Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	53.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	17	440	15	7	287
Future Volume (Veh/h)	34	17	440	15	7	287
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	18	478	16	8	312
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	814	486			494	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	814	486			494	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	97			99	
cM capacity (veh/h)	345	581			1080	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	55	494	320
Volume Left	37	0	8
Volume Right	18	16	0
cSH	398	1700	1080
Volume to Capacity	0.14	0.29	0.01
Queue Length 95th (m)	3.8	0.0	0.2
Control Delay (s)	15.5	0.0	0.3
Lane LOS	C		A
Approach Delay (s)	15.5	0.0	0.3
Approach LOS	C		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	15	10	2	4	30
Future Volume (Veh/h)	13	15	10	2	4	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	16	11	2	4	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	13				56	12
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	13				56	12
tC, single (s)	4.1				6.5	6.5
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.5
p0 queue free %	99				100	97
cM capacity (veh/h)	1606				933	1005

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	30	13	37
Volume Left	14	0	4
Volume Right	0	2	33
cSH	1606	1700	997
Volume to Capacity	0.01	0.01	0.04
Queue Length 95th (m)	0.2	0.0	0.9
Control Delay (s)	3.4	0.0	8.7
Lane LOS	A		A
Approach Delay (s)	3.4	0.0	8.7
Approach LOS			A

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	18.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	70	14	0	11	39	431	31	17	527	10
Future Volume (Veh/h)	6	0	70	14	0	11	39	431	31	17	527	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	0	76	15	0	12	42	468	34	18	573	11
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1196	1200	578	1260	1189	485	584			502		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1196	1200	578	1260	1189	485	584			502		
tC, single (s)	7.1	6.5	6.7	7.1	6.5	6.5	4.9			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.5	4.0	3.5	2.9			2.3		
p0 queue free %	95	100	83	87	100	98	94			98		
cM capacity (veh/h)	152	172	436	116	175	538	705			994		

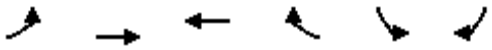
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	83	27	544	602
Volume Left	7	15	42	18
Volume Right	76	12	34	11
cSH	376	178	705	994
Volume to Capacity	0.22	0.15	0.06	0.02
Queue Length 95th (m)	6.6	4.2	1.5	0.4
Control Delay (s)	17.3	28.9	1.6	0.5
Lane LOS	C	D	A	A
Approach Delay (s)	17.3	28.9	1.6	0.5
Approach LOS	C	D		

Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	54.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	17	9	421	27	14	536
Future Volume (Veh/h)	17	9	421	27	14	536
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	10	458	29	15	583
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1086	472			487	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1086	472			487	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	98			99	
cM capacity (veh/h)	236	592			1086	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	487	598
Volume Left	18	0	15
Volume Right	10	29	0
cSH	301	1700	1086
Volume to Capacity	0.09	0.29	0.01
Queue Length 95th (m)	2.4	0.0	0.3
Control Delay (s)	18.2	0.0	0.4
Lane LOS	C		A
Approach Delay (s)	18.2	0.0	0.4
Approach LOS	C		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	49.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	24	10	3	2	15
Future Volume (Veh/h)	24	24	10	3	2	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	26	11	3	2	16
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	14				90	12
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	14				90	12
tC, single (s)	4.1				6.5	6.5
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.5
p0 queue free %	98				100	98
cM capacity (veh/h)	1604				886	1005

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	52	14	18
Volume Left	26	0	2
Volume Right	0	3	16
cSH	1604	1700	990
Volume to Capacity	0.02	0.01	0.02
Queue Length 95th (m)	0.4	0.0	0.4
Control Delay (s)	3.7	0.0	8.7
Lane LOS	A		A
Approach Delay (s)	3.7	0.0	8.7
Approach LOS			A

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	3	49	27	0	13	46	481	20	11	339	5
Future Volume (Veh/h)	14	3	49	27	0	13	46	481	20	11	339	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	3	53	29	0	14	50	523	22	12	368	5
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1042	1040	370	1083	1031	534	373			545		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1042	1040	370	1083	1031	534	373			545		
tC, single (s)	7.4	6.5	6.8	7.2	6.5	6.2	4.7			4.1		
tC, 2 stage (s)												
tF (s)	3.8	4.0	3.8	3.6	4.0	3.3	2.8			2.2		
p0 queue free %	91	99	91	82	100	97	95			99		
cM capacity (veh/h)	170	217	562	157	220	550	920			1034		

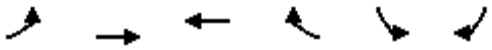
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	71	43	595	385
Volume Left	15	29	50	12
Volume Right	53	14	22	5
cSH	362	205	920	1034
Volume to Capacity	0.20	0.21	0.05	0.01
Queue Length 95th (m)	5.7	6.1	1.4	0.3
Control Delay (s)	17.4	27.2	1.4	0.4
Lane LOS	C	D	A	A
Approach Delay (s)	17.4	27.2	1.4	0.4
Approach LOS	C	D		

Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	59.8%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	17	493	15	7	321
Future Volume (Veh/h)	34	17	493	15	7	321
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	18	536	16	8	349
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	909	544			552	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	909	544			552	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	97			99	
cM capacity (veh/h)	303	539			1028	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	55	552	357
Volume Left	37	0	8
Volume Right	18	16	0
cSH	354	1700	1028
Volume to Capacity	0.16	0.32	0.01
Queue Length 95th (m)	4.4	0.0	0.2
Control Delay (s)	17.0	0.0	0.3
Lane LOS	C		A
Approach Delay (s)	17.0	0.0	0.3
Approach LOS	C		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	16	11	2	4	30
Future Volume (Veh/h)	13	16	11	2	4	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	17	12	2	4	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	14				58	13
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	14				58	13
tC, single (s)	4.1				6.5	6.5
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.5
p0 queue free %	99				100	97
cM capacity (veh/h)	1604				931	1004

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	31	14	37
Volume Left	14	0	4
Volume Right	0	2	33
cSH	1604	1700	996
Volume to Capacity	0.01	0.01	0.04
Queue Length 95th (m)	0.2	0.0	0.9
Control Delay (s)	3.3	0.0	8.8
Lane LOS	A		A
Approach Delay (s)	3.3	0.0	8.8
Approach LOS			A

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	18.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	79	14	0	11	44	481	33	18	590	11
Future Volume (Veh/h)	7	0	79	14	0	11	44	481	33	18	590	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	0	86	15	0	12	48	523	36	20	641	12
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1336	1342	647	1410	1330	541	653			559		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1336	1342	647	1410	1330	541	653			559		
tC, single (s)	7.1	6.5	6.7	7.1	6.5	6.5	4.9			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.8	3.5	4.0	3.5	2.9			2.3		
p0 queue free %	93	100	78	82	100	98	93			98		
cM capacity (veh/h)	120	139	396	85	142	499	658			946		

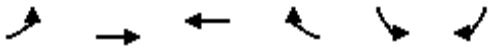
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	94	27	607	673
Volume Left	8	15	48	20
Volume Right	86	12	36	12
cSH	331	135	658	946
Volume to Capacity	0.28	0.20	0.07	0.02
Queue Length 95th (m)	9.2	5.7	1.9	0.5
Control Delay (s)	20.2	38.2	2.0	0.6
Lane LOS	C	E	A	A
Approach Delay (s)	20.2	38.2	2.0	0.6
Approach LOS	C	E		

Intersection Summary				
Average Delay	3.2			
Intersection Capacity Utilization	60.1%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	17	9	473	27	14	601
Future Volume (Veh/h)	17	9	473	27	14	601
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	10	514	29	15	653
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1212	528			543	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1212	528			543	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	98			99	
cM capacity (veh/h)	198	550			1036	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	543	668
Volume Left	18	0	15
Volume Right	10	29	0
cSH	257	1700	1036
Volume to Capacity	0.11	0.32	0.01
Queue Length 95th (m)	2.9	0.0	0.4
Control Delay (s)	20.7	0.0	0.4
Lane LOS	C		A
Approach Delay (s)	20.7	0.0	0.4
Approach LOS	C		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		



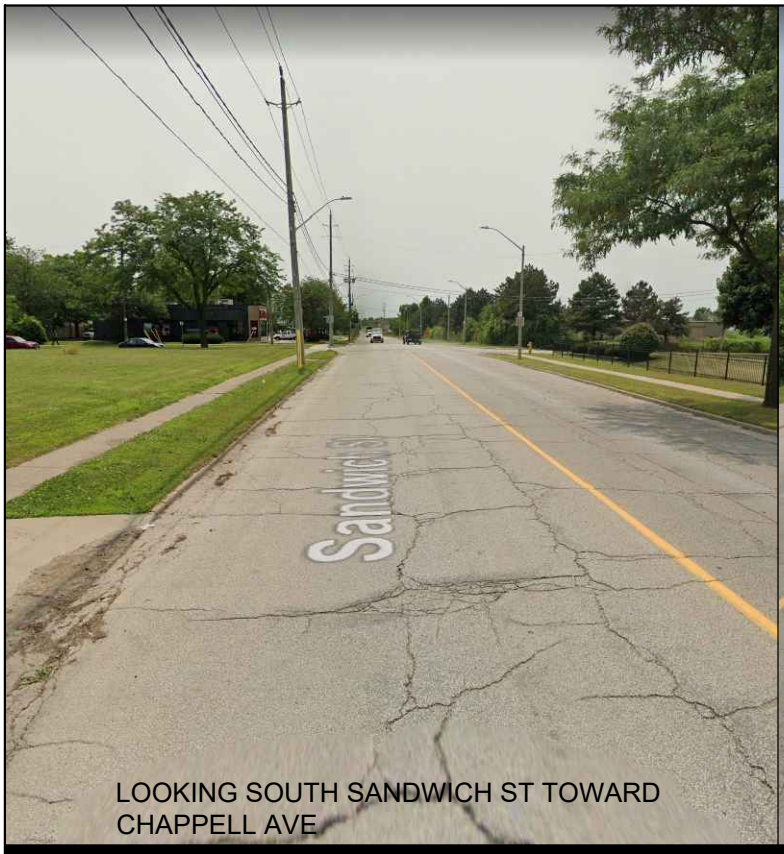
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	27	11	3	2	15
Future Volume (Veh/h)	24	27	11	3	2	15
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	29	12	3	2	16
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	15				94	14
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	15				94	14
tC, single (s)	4.1				6.5	6.5
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.5
p0 queue free %	98				100	98
cM capacity (veh/h)	1603				881	1003

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	55	15	18
Volume Left	26	0	2
Volume Right	0	3	16
cSH	1603	1700	988
Volume to Capacity	0.02	0.01	0.02
Queue Length 95th (m)	0.4	0.0	0.4
Control Delay (s)	3.5	0.0	8.7
Lane LOS	A		A
Approach Delay (s)	3.5	0.0	8.7
Approach LOS			A

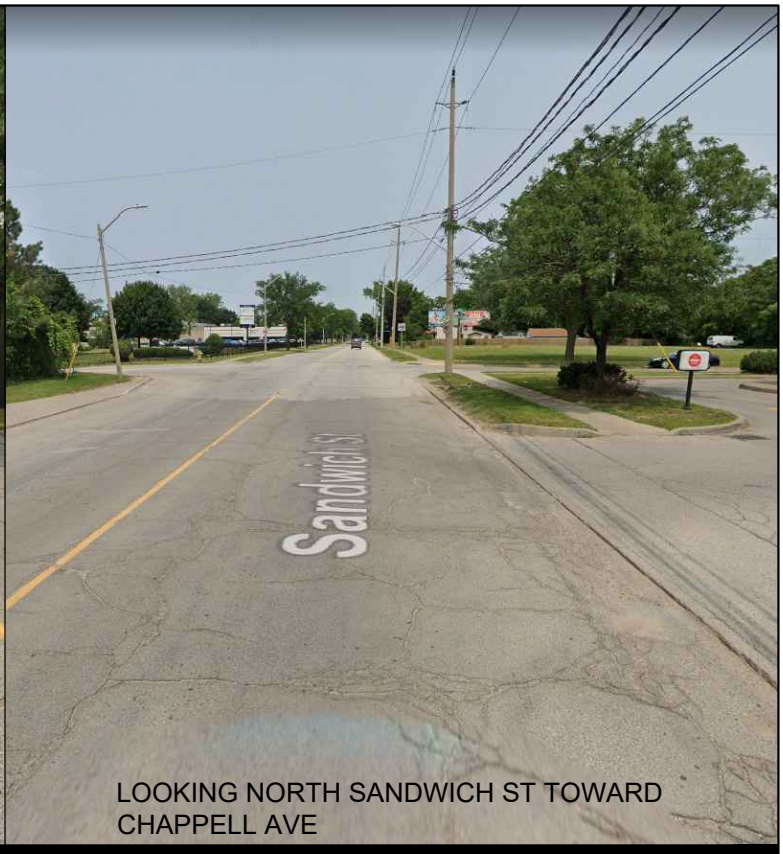
Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	19.4%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix D

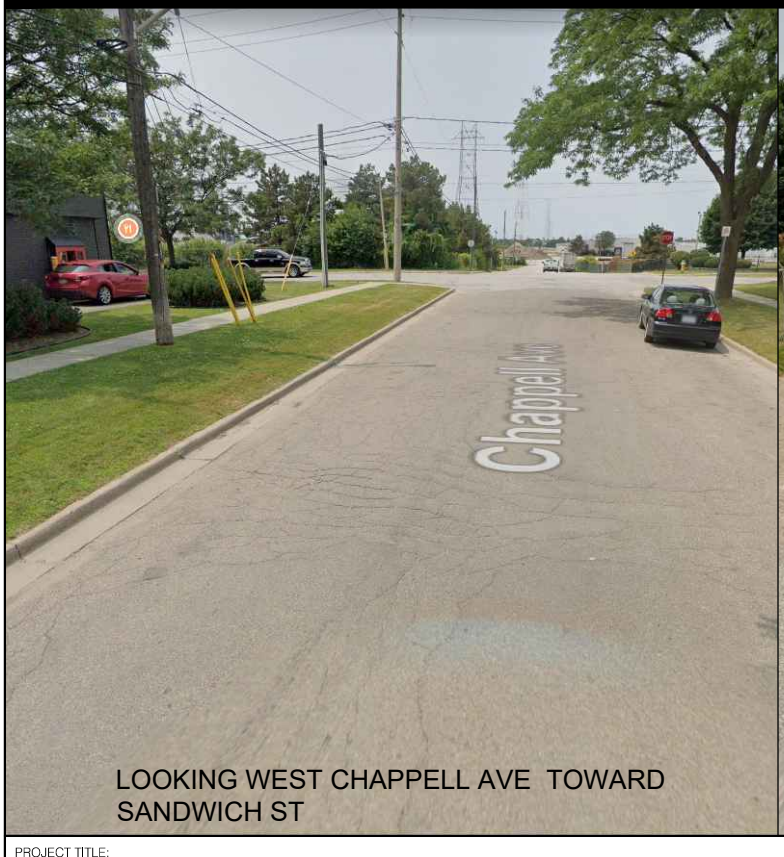
SITE PLANS, WARRANTS AND PHOTOS



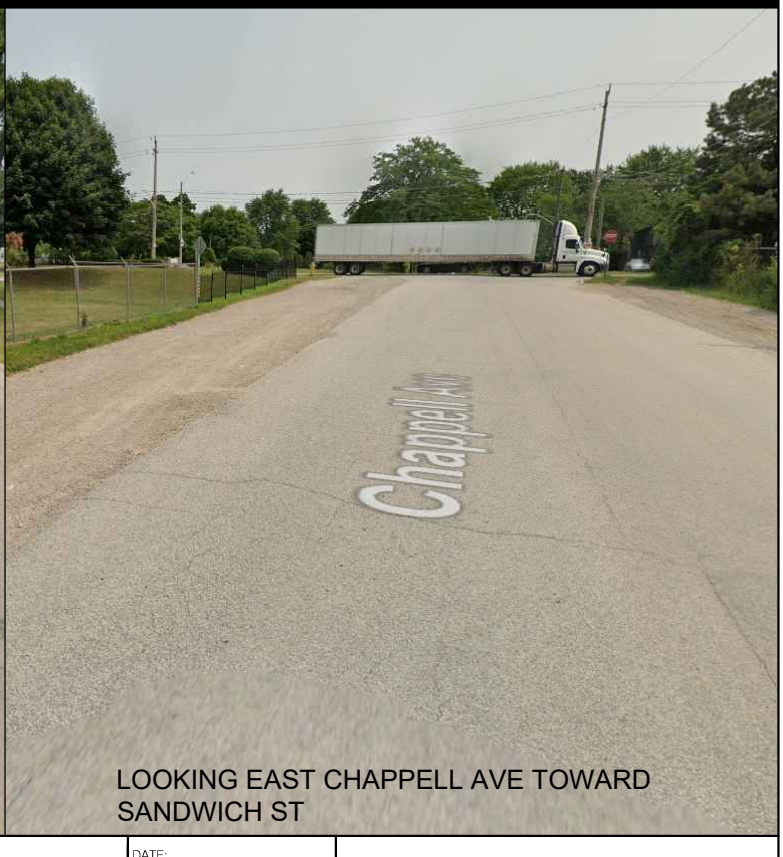
LOOKING SOUTH SANDWICH ST TOWARD CHAPPELL AVE



LOOKING NORTH SANDWICH ST TOWARD CHAPPELL AVE



LOOKING WEST CHAPPELL AVE TOWARD SANDWICH ST



LOOKING EAST CHAPPELL AVE TOWARD SANDWICH ST

PROJECT TITLE:

HIGH RISE DEVELOPMENT
3885 SANDWICH STREET, WINDSOR ON

DATE: OCT 5, 2020

SCALE: NTS

PROJECT NO: 20-028

FIGURE NO: EXHIBIT 3

SHEET TITLE:

PHOTOS

BAIRD|AE architecture + engineering

27 PRINCESS STREET, SUITE #102
LEAMINGTON, ONTARIO
N8H 2X8

1000 - 267 PELISSIER STREET,
WINDSOR, ONTARIO
N9A 4K4.

Canadian Traffic Signal Warrant Analysis

Main Street — **Sandwch Street - 2032 Post Development**

Side Street — **Chappell Ave - 2032 Post Development**

Date: May 26, 2022

City: City of Windsor

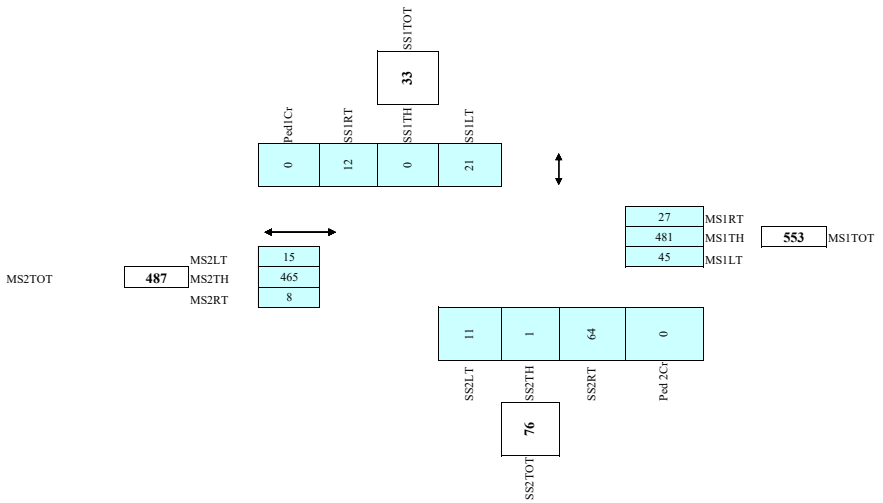
MainStreet1Lanes	(#)	1	Distance to next signal	(m)	550
MainStreet2Lanes	(#)	1	Elementary School	(y/n)	n
MainStreet LT Lanes	(#)	0	Senior's Complex	(y/n)	n
SideStreet1Lanes	(#)	1	Pathway to School	(y/n)	n
SideStreet2Lanes	(#)	1	Metro Area Population	(#)	1,000
MainStreetSpeedLimit	(km/h)	50	Side Street Bus Route	(y/n)	n
MainStreetTrucks/Buses	(%)	5.0%	Side Street Trucks	(%)	5.0%
Refuge Width on Median	(m)	0.0	T or 1-Way Intersection	(y/n)	n
			Central Business District	(y/n)	n

Vm =	**1,040**	(MainSt Vol Total)	Cs =	**1.005**	(Int SpacingFactor)
Vs =	**76**	(SideSt Vol Highest)	Cmt =	**1.000**	(MainStTruckFactor)
Pc =	**0**	Peds Crossing Main	Cv =	**1.000**	(SpeedFactor)
K1 =	**1,100**	veh/veh const	Cp =	**1.200**	(PopDemoFactor)
K2 =	**2,000**	veh/ped const	Csb =	**1.000**	(SideStBusFactor)
L =	**2.0**	TotalMainStLanes	Cst =	**1.000**	(SideStTruckFactor)
F =	**1.000**	(PedDemoFactor)	Vmx =	**553**	(MainStHighest)
Vm1 =	**1,040**	(MainStVeh-Veh#)	Vm2 =	**1,040**	(MainStVeh-Ped#)
Cvp =	**1.206**	(product of Cs,Cmt,Cv,Cp)	Cbt =	**1.000**	(maximum of Csb,Cst)
Ct1 =	**1.000**	T Int / one way Factor			

	MS1LT	MS1TH	MS1RT	MS2LT	MS2TH	MS2RT	SS1LT	SS1TH	SS1RT	SS2LT	SS2TH	SS2RT	PedC1	PedC2
7:00 - 8:00	46	481	20	11	339	5	27	0	13	14	2	49	0	0
8:00 - 9:00	46	481	20	11	339	5	27	0	13	14	2	49	0	0
11:00 - 12:00	46	481	20	11	339	5	27	0	13	14	2	49	0	0
12:00 - 13:00	44	481	33	18	590	11	14	0	11	7	0	79	0	0
16:00 - 17:00	44	481	33	18	590	11	14	0	11	7	0	79	0	0
17:00 - 18:00	44	481	33	18	590	11	14	0	11	7	0	79	0	0
Average	45	481	27	15	465	8	21	0	12	11	1	64	0	0

***** Enter the hourly turning movement counts averaged over the peak six hours of a typical week day**

***** Enter the peak pedestrian volume crossing the main street averaged over the same hours**



W = [Ct1xCbt(Vm1 x Vs)/K1 + (F(Vm2 x Pc)L)/K2] x Cvp

W = **86** **86** **0**

NOT Warranted ***Veh*** ***Ped***

Roadway, Vehicle and Pedestrian Factors			Range			
			Min	@	Max	@
Cs =	(Int SpacingFactor)		0.90	<200 m	1.10	isolated
Cmt =	(MainStTruckFactor)		1.00	<5%	1.15	>20%
Cv =	(SpeedFactor)		1.00	<60 km/h	1.10	>80 km/h
Cp =	(PopDemoFactor)		1.00	>250,000	1.20	<10,000
Csb =	(SideStBusFactor)		1.00	no	1.05	yes
Cst =	(SideStTruckFactor)		1.00	<10%	1.05	>10%
F =	(Ped DemoFactor)					
	(max of)	Elementary School	1.20			
		Seniors Complex	1.10			
		Path to School	1.10			

Explanation of Factors:

Cbt = 1.05 if the side street either is a bus route, or has more than 10% trucks, otherwise = 1.00.
(it is assumed that these two factors only affect the side street vehicles trying to cross the main street, not the pedestrians)

Ci = the product of the other 4 geographic factors
(Cs = intersection spacing, Cmt = main street truck, Cv = Speed, Cp = Population)

Vm1 = the main street volume - either the total of the two approaches or the highest single approach
(if the median is >=10.0 metres) (averaged over 6 peak hours)

Vm2 = the main street volume - either the total of the two approaches or the highest single approach
(if the median is >=6.0 metres) (averaged over 6 peak hours)

Vs = the highest side street approach volume (averaged over 6 peak hours)
*** note: it has been determined that Vs must be > 75 for signals to be considered ***

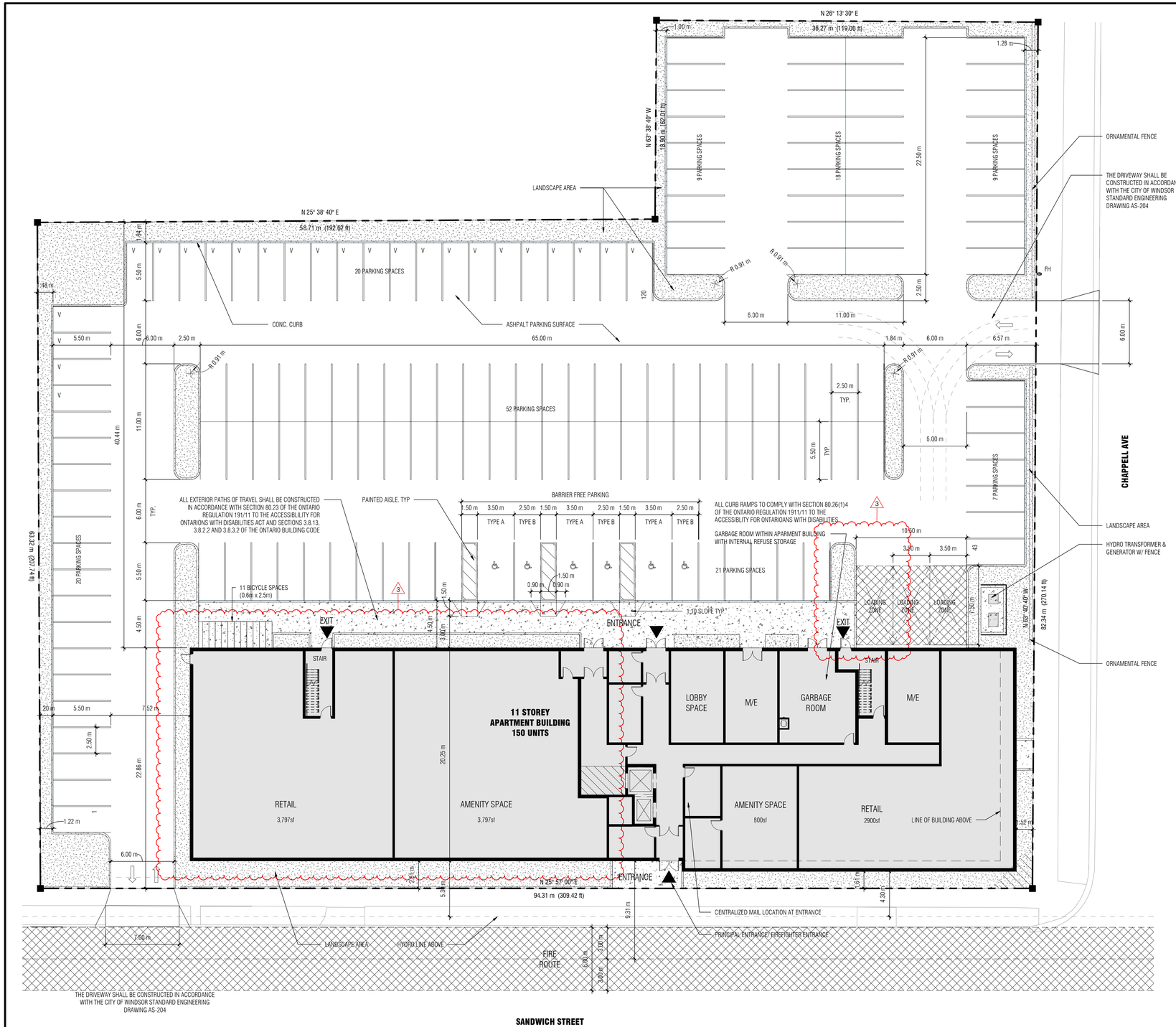
F = Pedestrian demographic factor - the maximum of the 3 individual pedestrian demographic factors

Pc = the total pedestrian volume crossing the mainstreet
(averaged over 6 peak hours)

L = number of lanes that the pedestrians have to cross
(only half the street if the median is >=5.0 metres)

Kv = Vehicle - Vehicle denominator constant
(Kv = 1,100 if L<=3, Kv = 1,400 if L >3)

Kp = Vehicle - Pedestrian denominator constant
(Kp = 2,000 if L<=3, Kp = 5,000 if L >3)



SITE DATA MATRIX						OBC REFERENCE
PROJECT DESCRIPTION: 11 STOREY MULTI UNIT RESIDENTIAL BUILDING 150 RESIDENTIAL UNITS		☒ NEW ☐ ADDITION ☐ ALTERATION ☐ CHANGE OF USE				☒ PART 3 ☐ PART 9 ☐ PART 11
ZONING DESIGNATION:		CD2.1				
MAJOR OCCUPANCY:		RESIDENTIAL				
BUILDING CLASSIFICATION:		GROUP C				
SITE AREA		**BUILDING AREA**		**GROSS AREA**		
EXISTING:	6,694m²	EXISTING:	N/A	EXISTING:	N/A	
PROPOSED:	6,694m²	PROPOSED:	1,622m²	PROPOSED:	19,122.04m²	
TOTAL:	6,694m²	TOTAL:	1,622m²	TOTAL:	19,122.04m²	
LOT COVERAGE		**MINUMUM LOT WIDTH**		**BUILDING HEIGHT**		
MAXIMUM:	N/A	REQUIRED:	N/A	MAXIMUM:	14m	
PROVIDED:	1,623m²	PROVIDED:	94.8m	PROVIDED:	37m	
MINIMUM FRONT YARD DEPTH		**MINIMUM REAR YARD DEPTH**		**MINIMUM SIDE YARD DEPTH**		
MAXIMUM:	N/A	REQUIRED:	N/A	MAXIMUM:	N/A	
PROVIDED:	1.61m	PROVIDED:	40.44m	PROVIDED:	1.52m	
PARKING		**BICYCLE SPACES**		**LOADING SPACES**		
USE CLASSIFICATION		EXISTING:	0	EXISTING:	0	
EXISTING:	0	PROPOSED:	11	PROPOSED:	3	
PROPOSED:	156 (6 BF, 3 TYPE A & 3 TYPE B) 1.04 RATIO	REQUIRED:	11	REQUIRED:	3	
REQUIRED:	188 (6 BF, 3 TYPE A & 3 TYPE B) 1.25 RATIO	TOTAL:	11	TOTAL:	3	
TOTAL:	156 (6 BF, 3 TYPE A & 3 TYPE B) 1.04 RATIO					
LANDSCAPE AREA		**AMENITY SPACE**		**SCREENING FENCE LENGTH**		
EXISTING:	N/A	REQUIRED:	900m2	EXISTING:	N/A	
PROPOSED:	868m²	PROPOSED:	1294m2	PROPOSED:	N/A	
TOTAL:	868.56m²	TOTAL:	N/A	TOTAL:	N/A	

NOTE:

1. ALL EXTERIOR PATHS OF TRAVEL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 80.23 OF ONTARIO REGULATIO 191/11 TO THE ACCESSIBILITY FOR ONTARIONS WITH DISABILITIES ACT AND SECTIONS 3.8.1.3 AND 3.8.3.2 OF THE ONTARIO BUILDING CODE

2. ALL CURB RAMPS SHALL BE CONSTRUCTURED IN ACCORDANCE WITH SECTION 80.26(1) OF THE ONTARIO REGULATION 191/11 TO THE ACCESSIBILITY FOR ONTARIOANS WITH DSIABILITIES ACT AND SECTION 3.8.3.18 OF THE ONTARIO BUILDING CODE.

1 A3 | SP-1 **SITE PLAN** 1/16" = 1'-0"

GENERAL NOTES::

1. This drawing is NOT to be scaled.
2. This drawing, as an instrument of service, is provided by and is the property of Baird AE Engineers Planners Architects
3. The contractor must verify and accept responsibility for all dimensions and conditions on site and must notify Baird AE of any variation from the supplied information.
4. This discipline is not responsible for the accuracy of survey, and the other disciplines information shown on this drawing. Refer to the appropriate consultant's drawings before proceeding with the work.
5. Construction must conform to all applicable codes and requirements of authorities having jurisdiction.
6. The contractor working from drawings not specifically marked 'For Construction' must assume full responsibility and bear costs for any corrections or damages resulting from his work.

BAIRD|AE architecture + engineering
102 - 27 Princess Street
Leamington ON N8H 2X8
1000 - 267 Pelissier Street
Windsor ON N9A 4K4
A DIVISION OF MATTHEW J. BAIRD CONSULTING SERVICES INC.
PARTNER / CONSULTANTS

No.	Description	Date
3	SITE REVISIONS 2	22.05.25
2	SITE REVISIONS	21.06.06
1	ISSUED FOR OPA/ZBA/SPC	20.11.09

Revision Schedule

SEAL

ONTARIO ASSOCIATION OF ARCHITECTS PAUL WEIDL LICENCE 7289

PROJECT TITLE **MIXED-USE DEVELOPMENT**

SANDWICH ST, WINDSOR ON

SHEET TITLE **SITE PLAN**

JOB NUMBER 20-028

SHEET NUMBER **SP-1**

2022-05-25 3:23:07 PM

20-028 - Mixed Use Development Submission_R_detailed.vt

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 55/2022

Subject: Draft Plan of Condominium with Exemption under Section 9(3) of the Condominium Act – St. Clair Rhodes Development – 233 Watson Avenue – Ward 6

Reference:

Date to Council: June 6, 2022
Author: Jim Abbs
Senior Planner - Subdivisions
519 255 6543 x6317
jabbs@citywindsor.ca

Planning & Building Services
Report Date: May 5, 2022
Clerk's File #: Z/14381

To: Mayor and Members of City Council

Recommendation:

THAT the application of St. Clair Rhodes Development for an exemption under Section 9(3) of the Condominium Act for approval of a plan of condominium (Standard Condominium), comprised of a total of 24 dwelling units, as shown on the attached Map No. CDM-001/22-1 and CDM-001/22-2 on a parcel legally described as; Part of Lot 129, Concession 1,and Part of Closed Alley, Registered Plan 895; more particularly described as Parts 1 to 4, 12R-25008; City of Windsor; located at 233 Watson Avenue **BE APPROVED** for a period of three (3) years.

Executive Summary:

N/A

Background:

Application Information:

Location: West side of Watson Avenue, South of Riverside Drive

Ward: 6 **Planning District:** 19- Riverside **ZDM:** 10

Applicant: St. Clair Rhodes Development (Sheila Luno)

Proposal:

The applicant is applying for an exemption under Section 9(3) of *the Condominium Act* for approval of a plan of condominium for in an existing Building to create 24 dwelling units.

The subject site has received Site Plan Approval (File AMT-008/20) registered as instrument CE966039, on September 29, 2020 which permitted a total of 24 dwelling units within newly constructed building. The Site Plan agreement covers a range of municipal and agency requirements to be completed by the owner including items such as the provision of landscaping, parking, parkland conveyance, levies and lighting, all required prior to the issuance of a construction permit.

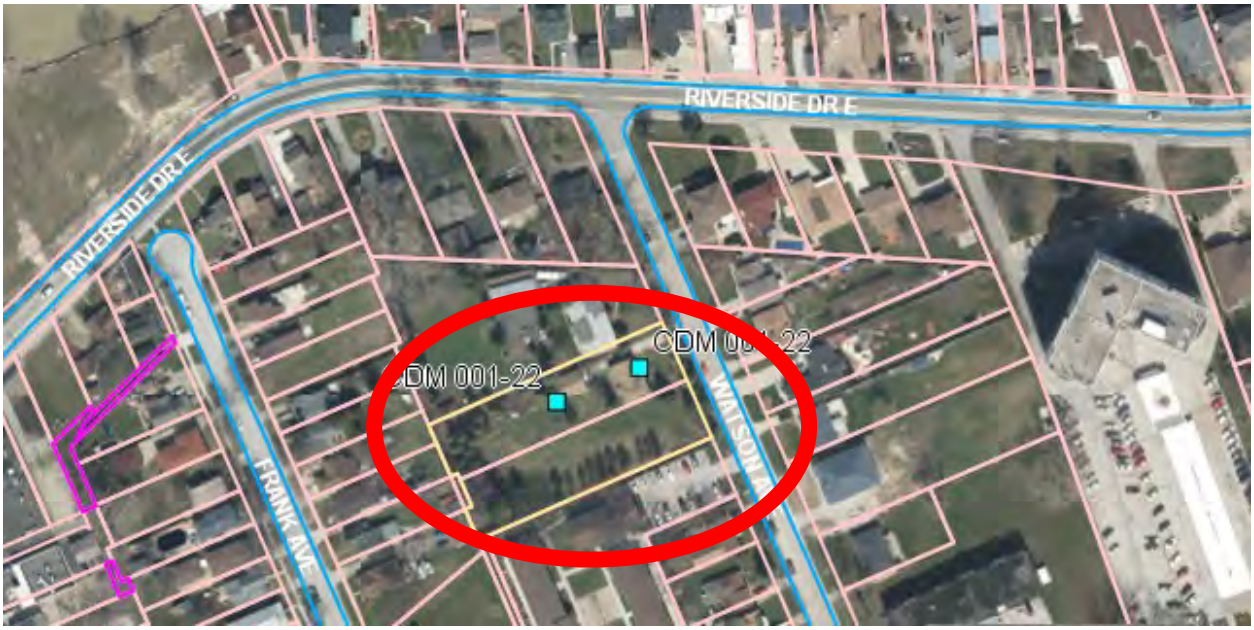
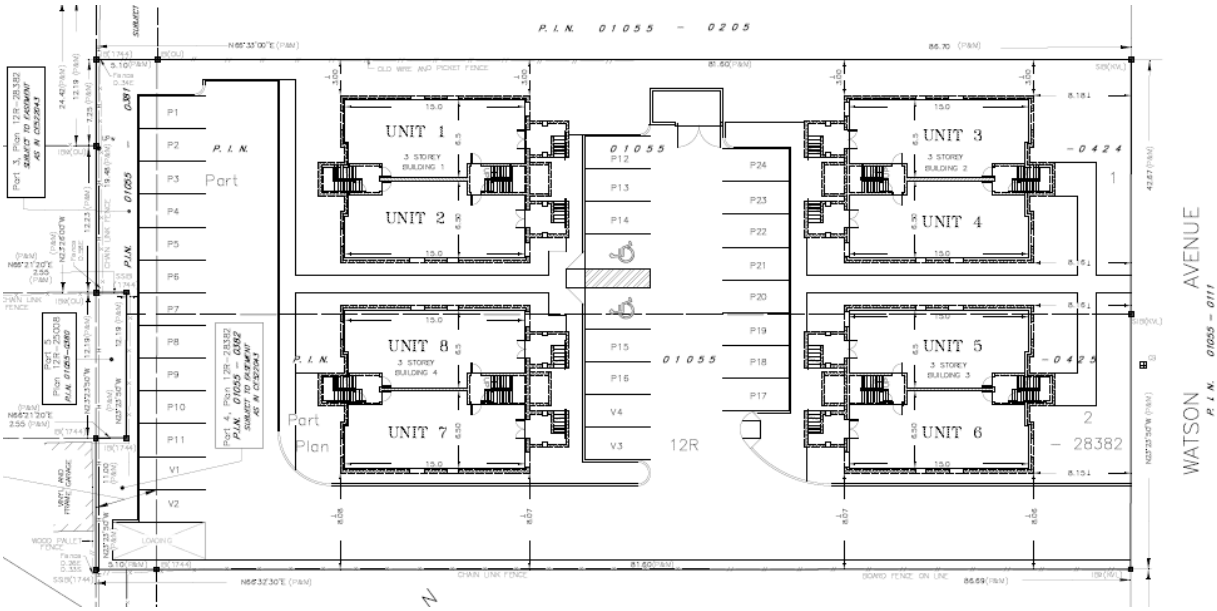
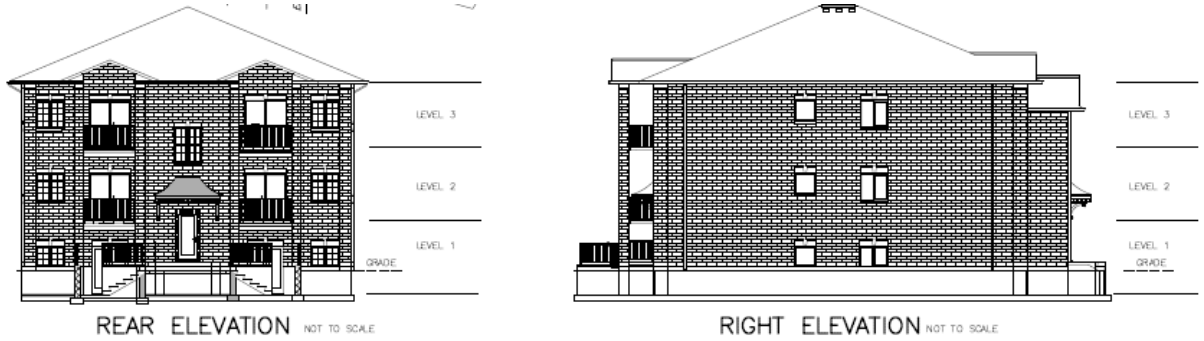


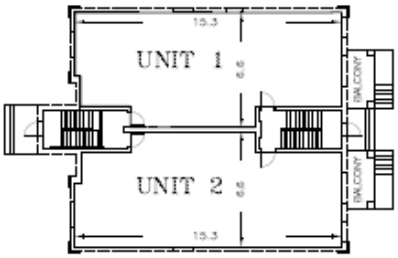
Figure 1: Location Map

Plan of Condominium:

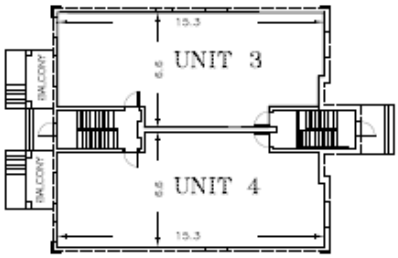




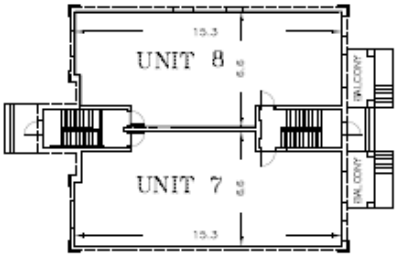
CDM-006/21-1



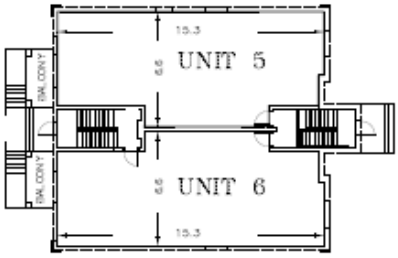
UNITS 1 and 2
LEVEL 2
BUILDING 1



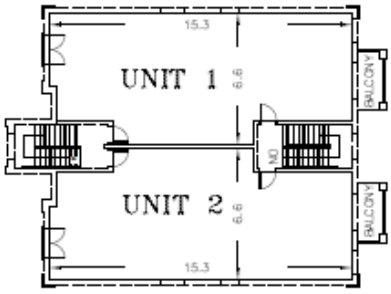
UNITS 3 and 4
LEVEL 2
BUILDING 2



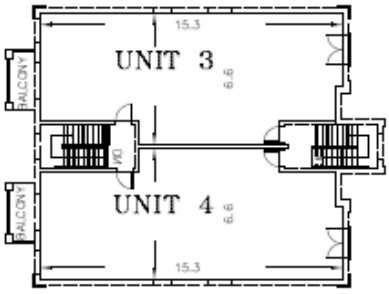
UNITS 7 & 8
LEVEL 2
BUILDING 4



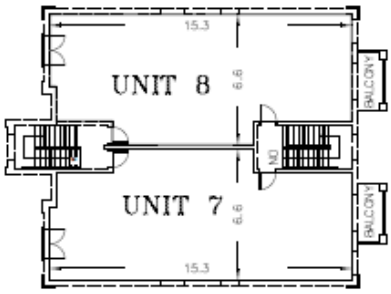
UNITS 5 and 6
LEVEL 2
BUILDING 3



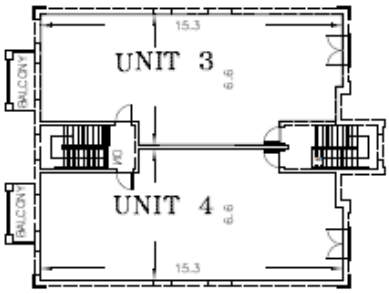
UNITS 1 and 2
LEVEL 3
BUILDING 1



UNITS 3 and 4
LEVEL 3
BUILDING 2



UNITS 7 & 8
LEVEL 3
BUILDING 4



UNITS 5 and 6
LEVEL 3
BUILDING 3

CDM-001/22-2

Site Information:

OFFICIAL PLAN	ZONING	CURRENT USE	PREVIOUS USE
Residential (Schedule D-Land Use)	Residential District 3.1 (RD3.1)	Multiple Dwelling (Under Construction)	Single Detached Dwelling/Vacant Parcel
LOT WIDTH	**LOT DEPTH**	**AREA**	**SHAPE**
47.2m	86.7m	3686 m^2	rectangular
All measurements are for the entire parcel and are approximate.			

Neighbourhood Characteristics:

The surrounding land uses consist of a mix of residential uses including single detached, double duplex and townhome dwellings.

Watson Avenue is a Local Road. Public transit is available via the Crosstown 2, on Riverside Drive.

Discussion:

Planning Analysis:

Statutory Regulations:

Under Section 9 of the Condominium Act, an owner may request approval of a plan of condominium subject to Section 51 of the Planning Act (subdivisions). As such, the usual approval process for plans of subdivision is invoked, i.e. review by municipal and provincial agencies, public notification, draft plan approval, a condominium agreement and final registration.

The Condominium Act also provides that owners can be exempted from the above mentioned Planning Act provision if the approval authority (i.e. the City of Windsor) is of the opinion that "such exemption is appropriate in the circumstances". The reasons for exemptions are not specified, but usually applicants can be exempted if the following conditions are satisfied:

(i) that all municipal requirements and conditions have been addressed (for example by an approved application for rezoning and/or site plan control); and

(ii) that the building(s) is suitable for a condominium by virtue of design and amenities.

The proposed condominium complies with the above conditions.

Official Plan:

The subject property is designated “Residential” on Schedule D of the City of Windsor Official Plan. The designation is intended to accommodate residential uses. The proposed development conforms with this policy.

The City of Windsor has policies in the Official Plan for approval of a plan of condominium with exemption under Section 9 of the Condominium Act. Applications for exemptions may be considered by Council if:

(a) a residential building is constructed or a building permit for its construction has been issued;

(b) the development has received site plan control approval; and

(c) the development (new proposed units) do not contain any occupied residential rental units.

The proposed condominium complies with the above conditions.

Zoning By-Law

The property is zoned Residential District (RD) 3.1. The proposed development is permitted under the RD3.1 category. Building permits have been issued and construction of the building is nearing completion.

Risk Analysis:

N/A

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

N/A

Consultations:

Municipal and agency requirements have been addressed and implemented through the site plan control approval process, and the registration of a site plan agreement. (File AMT-008/20) registered as instrument CE966039, on September 29, 2020)

Public Notice:

No public notification is required where exemptions are requested and the development is properly zoned for the permitted use. Nevertheless, notice was mailed to all property owners within 120 metres (400 feet) and notice was also given in the Windsor Star.

Conclusion:

The application has been processed and evaluated with regard to both the Planning Act and the Condominium Act, as well as the City of Windsor Official Plan. It conforms to the City of Windsor Official Plan and complies with the zoning regulations contained in Bylaw 8600. Municipal requirements regarding this development have been addressed in the site plan control agreement. The draft plan of condominium is consistent with the approved site plan (File AMT-008/20 registered as instrument CE966039, on September 29, 2020)

It is recommended that this application for approval be exempted from Section 51 of the Planning Act (per Section 9(3) of the Condominium Act). This means that the owner can proceed directly to registration following submission of an approved final plan of condominium.

Planning Act Matters:

I concur with the above comments and opinion of the Registered Professional Planner.

Michael Cooke MCIP RPP, Manager of Planning Policy/Deputy City Planner

Thom Hunt, City Planner

I am not a registered Planner and have reviewed as a Corporate Team Leader

JP SAH

Approvals:

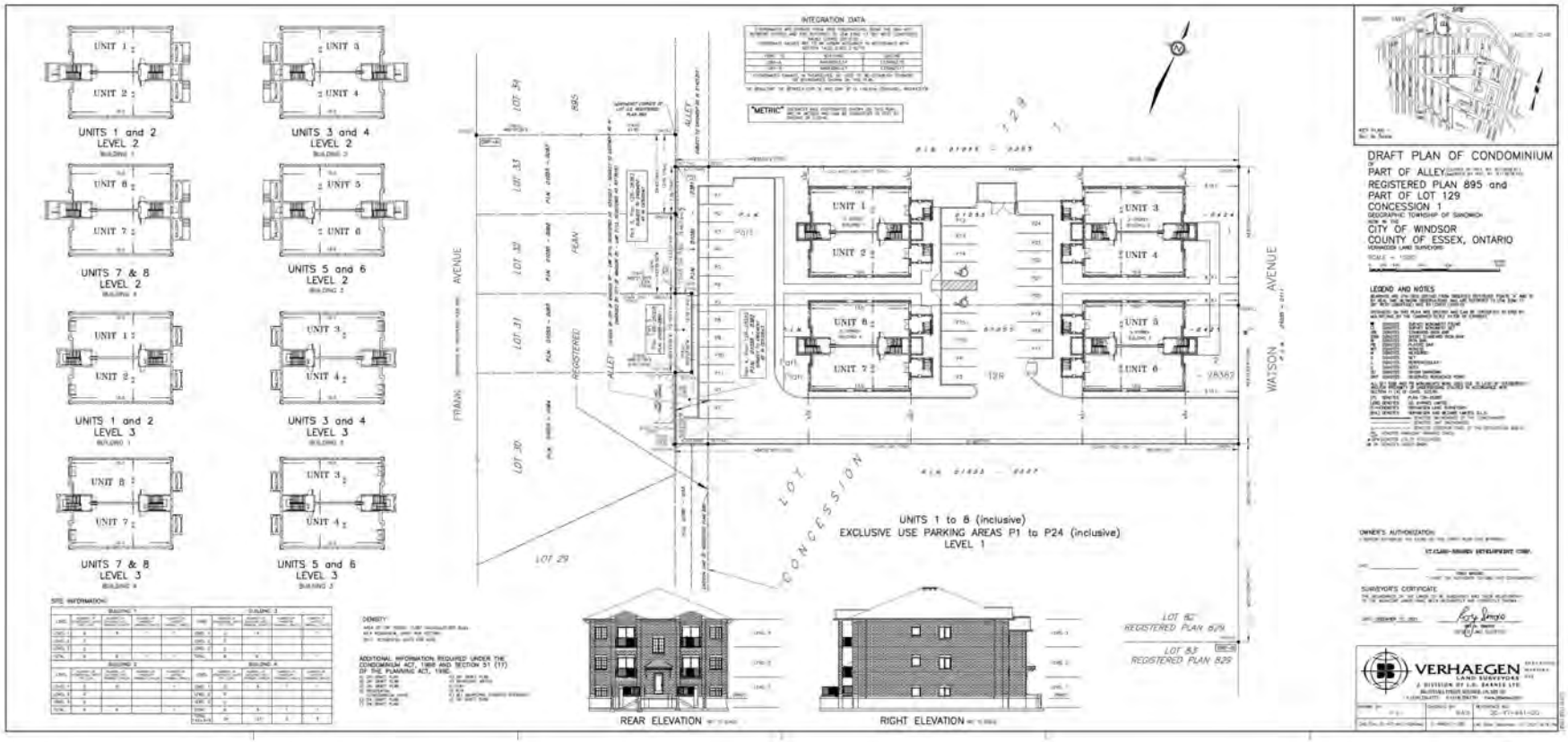
Name	Title
Michael Cooke	Manager of Planning Policy/Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner of Economic Development and Innovation
Shelby Askin Hager	Acting Chief Administrative Officer

Notifications:

Name	Address	Email
St. Clair-Rhodes Development Corp. (Sheila Luno)	3235 Electricity Drive Windsor ON N8W 5J1	sheila@midsouth.ca
McTague Law Firm LLP (Brian Chillman)	455 Pelissier Street Windsor ON N9A 6Z9	bchillman@mctaguelaw.com

Appendices:

1 Proposed Draft Plan of Condominium
2 12R-25008


UNITS 1 and 2
LEVEL 2
UNITS 3 and 4
LEVEL 2
UNITS 7 & 8
LEVEL 2
UNITS 5 and 6
LEVEL 2
UNITS 1 and 2
LEVEL 3
UNITS 3 and 4
LEVEL 3
UNITS 7 & 8
LEVEL 3
UNITS 5 and 6
LEVEL 3
INTEGRATION DATA
METRIC
FRANK AVENUE
WATSON AVENUE
ALLEY
REGISTERED PLAN 895
LOT 34
LOT 33
LOT 32
LOT 31
LOT 30
LOT 29
LOT CONCESSION
UNITS 1 to 8 (inclusive)
EXCLUSIVE USE PARKING AREAS P1 to P24 (inclusive)
LEVEL 1
LOT 82
REGISTERED PLAN 609
LOT 83
REGISTERED PLAN 825
REAR ELEVATION
RIGHT ELEVATION
DRAFT PLAN OF CONDOMINIUM
OF
PART OF ALLEY
REGISTERED PLAN 895 and
PART OF LOT 129
CONCESSION 1
GEOGRAPHIC TOWNSHIP OF SANDWICH
NOW IN THE
CITY OF WINDSOR
COUNTY OF ESSEX, ONTARIO
LEGEND AND NOTES
OWNER'S AUTHORIZATION:
SURVEYOR'S CERTIFICATE
VERHAEGEN
LAND SURVEYORS

PARTS SCHEDULE

PART	AREA	DESCRIPTION	P.I.N.
1	0.430 Acres	PART OF LOT 129, CONCESSION 1	ALL OF 01055–0187
2	0.430 Acres		
3	0.026 Acres	PART OF ALLEY , REGISTERED PLAN 895 (CLOSED BY INST. No. R361023) (AMENDED BY INST. No. R373616)	ALL OF 01055–0152
4	0.020 Acres		
5	0.008 Acres		

PARTS 1 AND 2 – COMPRISE ALL OF P.I.N. 01055–0187
PARTS 3, 4 AND 5 – COMPRISE ALL OF P.I.N. 01055–0152

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.

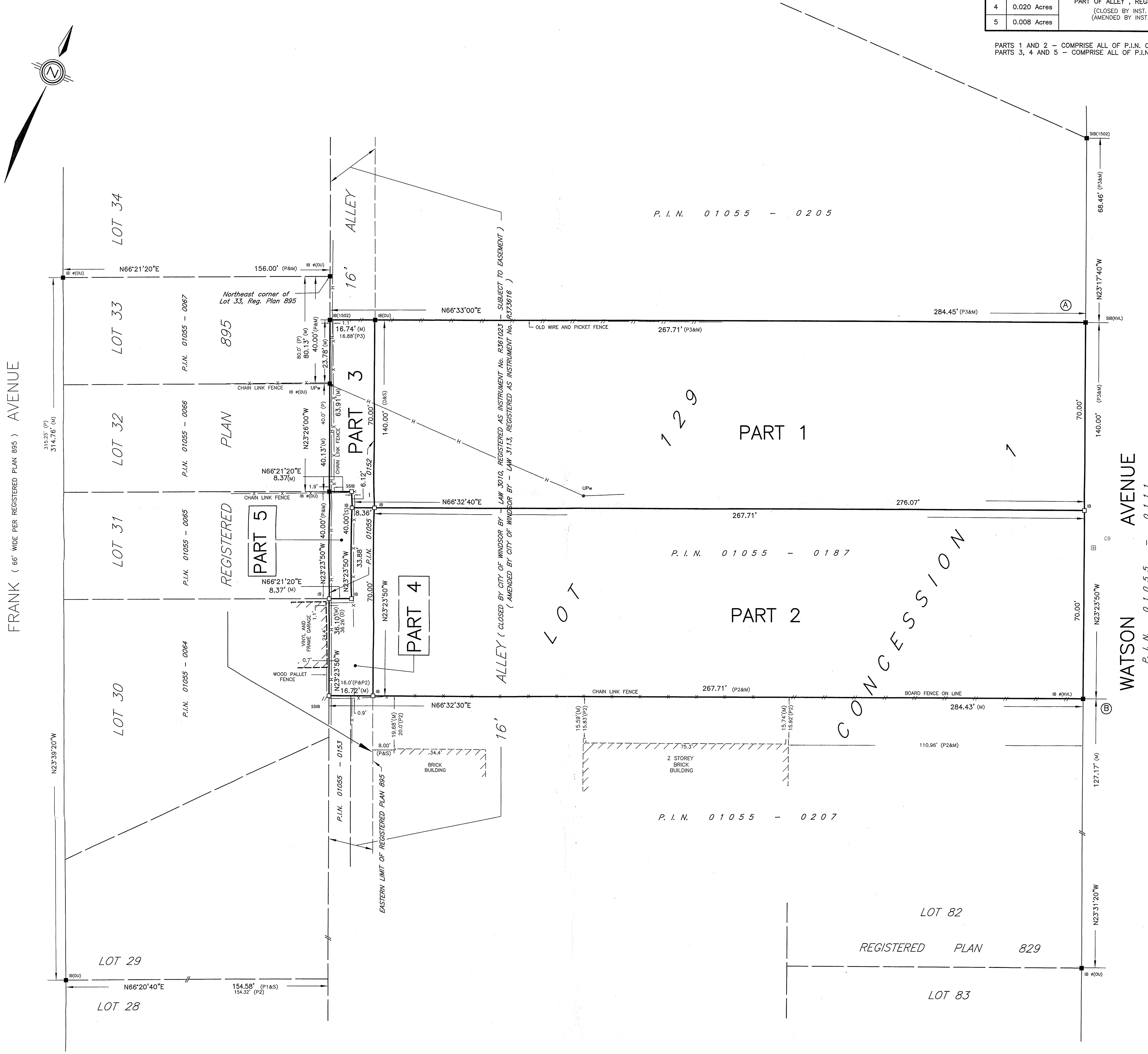
DATE FEBRUARY 16, 2012

Roy Simone
ROY A. SIMONE
ONTARIO LAND SURVEYOR

PLAN 12R–25008
RECEIVED AND DEPOSITED

DATE 2012 FEB 21

BARBARA CAIRA
REPRESENTATIVE FOR LAND REGISTRAR FOR THE LAND TITLES DIVISION OF ESSEX (12)



PLAN OF SURVEY
OF
PART OF ALLEY (CLOSED BY INST. No. R361023) (AMENDED BY INST. No. R373616)
REGISTERED PLAN 895 AND
PART OF LOT 129
CONCESSION 1
GEOGRAPHIC TOWNSHIP OF SANDWICH
NOW IN THE
CITY OF WINDSOR
COUNTY OF ESSEX, ONTARIO
VERHAEGEN • STUBBERFIELD • HARTLEY • BREWER • BEZAIRE INC.

SCALE : 1"=20'

"IMPERIAL" DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN FEET AND CAN BE CONVERTED TO METRES BY MULTIPLYING BY 0.3048

LEGEND AND NOTES

BEARINGS ARE UTM GRID, DERIVED FROM SIMULTANEOUS GPS OBSERVATIONS ON MONUMENTS "A" AND "B", SHOWN HEREON, HAVING A GRID BEARING OF N23°23'50"W NAD83 (CSRS) (1997.0) AND ARE REFERRED TO THE CENTRAL MERIDIAN OF UTM ZONE 17 (81° WEST LONGITUDE).

DISTANCES ON THIS PLAN ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99989349

SIB DENOTES 1" X 1" X 4'–0" STANDARD IRON BAR
SSIB DENOTES 1" X 1" X 2'–0" SHORT STANDARD IRON BAR
IB DENOTES 5/8" X 5/8" X 2'–0" IRON BAR
IB ø DENOTES 3/4" diameter X 2'–0" ROUND IRON BAR
CC DENOTES CUT–CROSS
CP DENOTES 5mm X 50mm STEEL PIN
■ DENOTES SURVEY MONUMENT FOUND
□ DENOTES SURVEY MONUMENT SET AND MARKED 1528
WIT. DENOTES WITNESS ⊥ DENOTES PERPENDICULAR
(S) DENOTES SET (M) DENOTES MEASURED (D) DENOTES DEED
SSIB'S SHOWN ON THIS PLAN HAVE BEEN SET IN LIEU OF SIB'S WHERE THE POSSIBILITY THAT UNDERGROUND UTILITIES EXIST.
(S/P) DENOTES SET PROPORTIONALLY (OU) DENOTES ORIGIN UNKNOWN
(P) DENOTES REGISTERED PLAN 895
(P1) DENOTES PLAN BY THE CITY OF WINDSOR PER ALLEY CLOSING BY–LAW 3010
(P2) DENOTES PLAN OF SURVEY PER C.G.R ARMSTRONG, OLS, Dated May 30, 1967, 3K–518
(P3) DENOTES PLAN OF SURVEY PER 1528, Dated Jan. 25, 1996, Plan File B–2364
(P4) DENOTES PLAN OF SURVEY PER (KVL), Dated Feb. 8, 1977, Plan File W77–L235
(1502) DENOTES VERHAEGEN STUBBERFIELD HARTLEY BREWER BEZAIRE INC., O.L.S.
(KVL) DENOTES VERHAEGEN AND BEZAIRE LIMITED, O.L.S.

INTEGRATION DATA

COORDINATES ARE DERIVED FROM GPS OBSERVATIONS USING THE CAN–NET NETWORK SERVICE AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) NAD83 (CSRS) (1997.0).
COORDINATE VALUES ARE TO AN URBAN ACCURACY IN ACCORDANCE WITH SECTION 14(2) O.REG 216/10

POINT ID	NORTHING	EASTING
A	N15385316.180	E1114789.357
B	N15385187.738	E1114844.933

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE–ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT, THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THIS SURVEY WAS COMPLETED ON THE 18th DAY OF JANUARY, 2012

DATE FEBRUARY 16, 2012

Roy Simone
ROY A. SIMONE
ONTARIO LAND SURVEYOR
for VERHAEGEN • STUBBERFIELD • HARTLEY • BREWER • BEZAIRE INC.

WINDSOR
475 Devonshire Road, Suite 200
N8Y 2L5
Ph: (519)258-1772
Fax: (519)258-1791

VERHAEGEN STUBBERFIELD HARTLEY BREWER BEZAIRE INC.

LEAMINGTON
187 Talbot Street East
N8H 1L8
Ph: (519)322-2375
Fax: (519)322-2675

ONTARIO LAND SURVEYORS
www.vshbbsurveys.com

DRAWN BY: NMG	CAD Date: February 16, 2012 4:29:05 PM		
CHECKED BY: RAS	CAD File: 42596000.dwg		
WORK ORDER: 4–25960	FILE NO.: E–WINDSOR–1–129W	PLAN FILE NO.: C–3723	

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 56/2022

Subject: Rezoning – Andi Shallvari - 716 Josephine Ave - Z-011/22 ZNG/6703 - Ward 2

Reference:

Date to Council: June 6, 2022
Author: Adam Szymczak, MCIP, RPP
Senior Planner
519-255-6543 x6250
aszymczak@citywindsor.ca

Planning & Building Services
Report Date: May 6, 2022
Clerk's File #: Z/14346

To: Mayor and Members of City Council

Recommendation:

THAT Zoning By-law 8600 **BE AMENDED** by changing the zoning of Part of Lot 24, Registered Plan 1148 and Part of Lot 17, Registered Plan 1042, (known municipally as 716 Josephine Avenue; Roll No. 050-300-01500) situated on the east side of Josephine Avenue, between Wyandotte Street West and Rooney Street by adding a site specific exception to Section 20(1) as follows:

443. EAST SIDE OF JOSEPHINE AVENUE, BETWEEN WYANDOTTE STREET WEST AND ROONEY STREET

For the lands comprising of Part of Lot 24, Registered Plan 1148 and Part of Lot 17, Registered Plan 1042, a *semi-detached dwelling* shall be an additional permitted use and the following additional provisions shall apply to a *semi-detached dwelling*:

a)	Lot Width – minimum	12.0 m
b)	Lot Area – minimum	371.0 m^2
c)	Lot Coverage – maximum	48.0%
d)	Main Building Height – maximum	10.0 m
e)	Front Yard Depth - minimum	6.0 m
f)	Rear Yard Depth – minimum	2.70 m
g)	That the rear *wall* of the *main building* shall extend eastward from Josephine Avenue a maximum of 24.5 m	
h)	Side Yard Width - minimum	1.20 m

[ZDM 3; ZNG/6703]

Executive Summary:

N/A

Background:

Application Information:

Location: 716 Josephine Avenue; Roll No. 050-300-01500
Part of Lot 24, Registered Plan 1148, Part of Lot 17, Registered Plan 1042

Ward: 2 **Planning District:** 16 – University **Zoning District Map**: 3

Applicant: Andi Shallvari

Owner: Andi Shallvari

Agent: Beau Wansbrough, RPP

Proposal:

The applicant is requesting an amendment to Zoning By-law 8600 to change the zoning of the subject property to permit the construction of a semi-detached dwelling and to allow a reduced minimum lot width from 15.0 m to 12.19 m, a reduced minimum lot area from 450 sq. m. to 371 sq. m, increased maximum lot coverage from 45% to 48%, and a reduced minimum rear yard setback from 7.50 m to 2.71 m.

A single unit dwelling currently occupies the lot.

The applicant intends to demolish the single unit dwelling. The applicant has submitted a conceptual plan (Appendix A).

Site Information:

OFFICIAL PLAN	ZONING	CURRENT USE	PREVIOUS USE
Residential	Residential District 1.3 (RD1.3)	Single Unit Dwelling	N/A
LOT WIDTH	**LOT DEPTH**	**LOT AREA**	**LOT SHAPE**
12.19 m	27.09 - 32.89 m	371.6 sq. m	Irregular
40.0 ft	88.5 – 107.9 ft	3,999.8 sq. ft.	
All measurements are approximate and are for information purposes only.			

Figure 1: Key Map

Figure 2: Subject Parcel - Rezoning

PART OF ZONING DISTRICT MAP 3

N.T.S.

REZONING

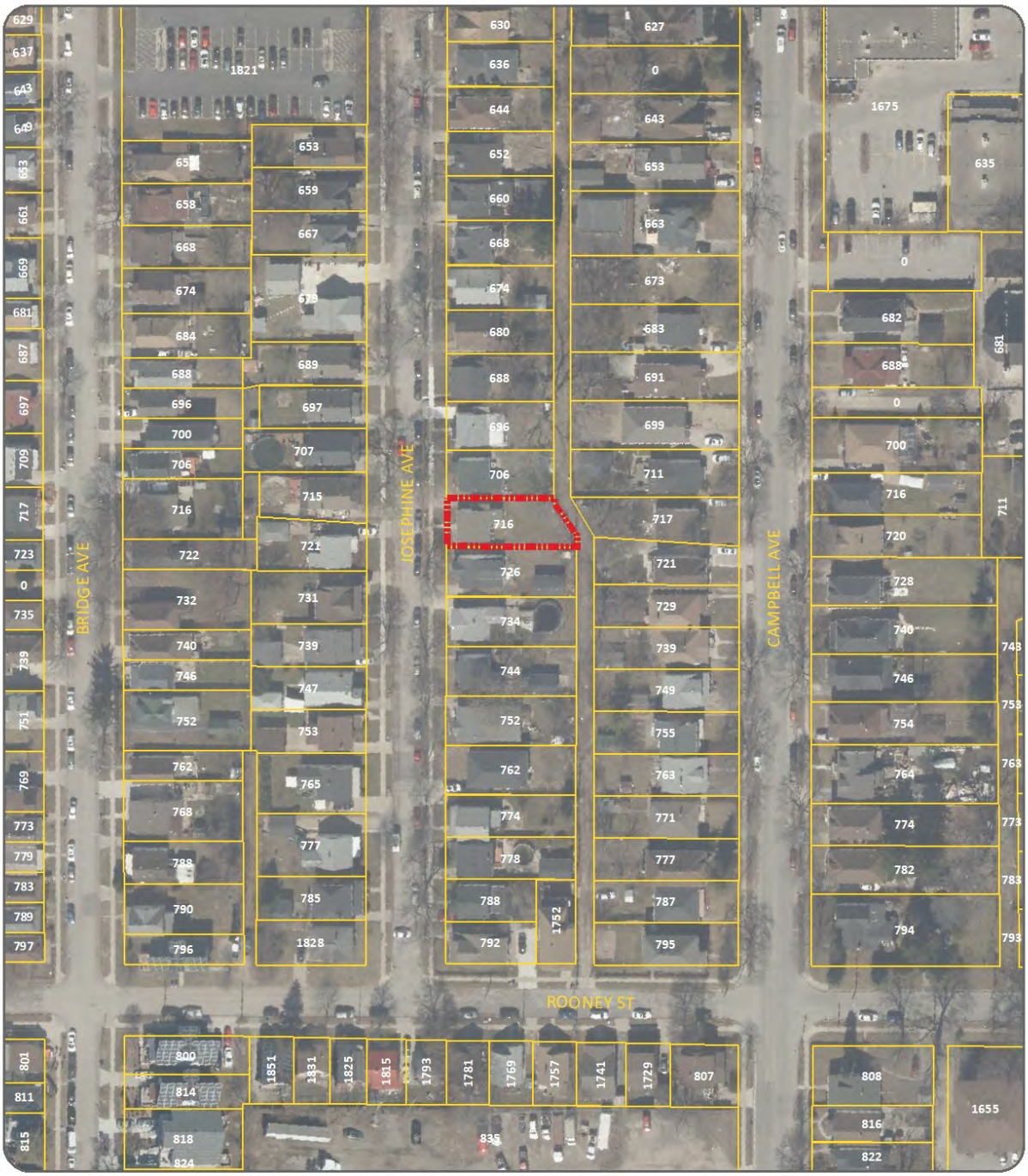
Applicant: Andi Shallvari

SUBJECT LANDS

PLANNING & BUILDING DEPARTMENT

DATE : MARCH, 2022
FILE NO. : Z-011/22, ZNG/6703

Figure 3: Neighborhood Map



Neighbourhood Characteristics:

The subject parcel is located in a residential area consisting of low to medium density dwellings. See Appendix B for site images. The University of Windsor and Ambassador Bridge are major uses in the nearby area. A mix of commercial uses are located along Wyandotte Street to the north including a Shopper's Drug Mart at Wyandotte and Campbell.

Windsor Fire Station Number 4 is located on the north side of College Avenue, west of California, approximately 1.1 km to the southwest. The City of Windsor Adie Knox Herman Recreation Complex and Wilson Park are located about 400 m to the northeast/southeast.

Josephine Avenue is classified as a Local Road, has sidewalks on both sides of the street and has alternating side on-street parking. To the north, Wyandotte Street West is classified as a Class II Arterial Road. To the south, College Avenue is classified a Class I Collector Road and a Proposed Bikeway on Schedule F: Roads and Bikeways.

Transit Windsor operates the Crosstown 2 bus route along Wyandotte Street West, approximately 270 m to the north with stops at Wyandotte and Campbell and Wyandotte and Bridge, and the Dougall 5 bus route on Campbell Avenue with stops located about 217 m to 275 m to the southeast at Rooney Street (northbound) and College Avenue (southbound). The Transit Master Plan recommends maintaining similar transit service.

A combined sewer is available in the Josephine Avenue right-of-way.

Discussion:

Provincial Policy Statement, 2020

The Provincial Policy Statement (PPS) provides direction on matters of provincial interest related to land use planning and development and sets the policy foundation for regulating the development and use of land in Ontario.

Policy 1.1.1 of the PPS states:

"Healthy, liveable and safe communities are sustained by:

a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;

b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;"

The semi-detached dwelling represents an efficient development that will have no adverse impact on the financial well-being of the City, land consumption, and servicing costs, accommodates an appropriate range of residential uses, and optimizes investments in transit. The zoning amendment is consistent with Policy 1.1.1.

Policy 1.1.3.1 of the PPS states:

"Settlement areas shall be the focus of growth and development."

Policy 1.1.3.2 of the PPS states:

"Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

a) efficiently use land and resources;

b) are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;

e) support active transportation;

f) are transit-supportive, where transit is planned, exists or may be developed;"

The parcel is located within the settlement area. The zoning amendment promotes a land use that makes efficient use of land and existing infrastructure. Active transportation options and transit services are located near the parcel. The zoning amendment is consistent with PPS Policies 1.1.3.1 and 1.1.3.2.

The proposed amendment to Zoning By-law 8600 is consistent with the PPS.

Official Plan:

The subject property is located within the University Planning District and is designated Residential on Schedule D: Land Use of the City of Windsor Official Plan.

Objective 6.3.1.1 supports a complementary range of housing forms and tenures in all neighbourhoods. Objective 6.3.1.2 seeks to promote compact neighbourhoods and balanced transportation systems. Objective 6.3.1.3 seeks to promote selective residential redevelopment, infill and intensification initiatives. The semi-detached dwelling represents a complementary and compact form of housing, redevelopment, and intensification that is near sources of transportation. The zoning amendment satisfies the objectives set out in Section 6.5.1 of the Official Plan.

The proposed semi-detached dwelling is classified as a small-scale Low Profile housing development under Section 6.3.2.3 (a), a permitted use in the Residential land use designation (Section 6.3.2.1). The proposed development is compatible with the surrounding land uses (Section 6.3.2.5 (c)) and no deficiencies in municipal physical services and emergency services have been identified (Section 6.3.2.5 (e)). The zoning amendment conforms to the policies in Sections 6.3.2.1 and 6.3.2.5 of the Official Plan.

The zoning amendment conforms to the Zoning Amendment Policies, Section 11.6.3.1 and 11.6.3.3, of the Official Plan.

The proposed change to Zoning By-law 8600 conforms to the general policy direction of the Official Plan.

Zoning By-Law:

Relevant excerpts from Zoning By-law 8600 are attached as Appendix C.

The applicant is requesting a change from Residential District 1.3 (RD1.3) to Residential District 2.1 (RD2.1) to allow the construction of a semi-detached dwelling. RD2.1 permits one semi-detached dwelling (two semi-detached dwelling units) on a lot with a minimum width of 15.0 m and a minimum area of 450.0 m^2, with a minimum front yard depth of 6.0, a minimum rear yard depth of 7.50 m and a minimum side yard width of 1.80 m. The maximum building height is 10.0 m with a maximum lot coverage of 45%.

A site specific exception for a reduction in minimum lot width from 15.0 m to 12.19 m, a reduction in minimum lot area from 450 to 371 m^2, increase in maximum lot coverage from 45% to 48%, and a reduction in the minimum rear yard setback from 7.50 m to 2.71 m.

The reductions in minimum lot width and minimum lot area are for the lot as existing and the increase in lot coverage is marginal; they will have no adverse impact on the proposed development or on surrounding uses. The reduction in the rear yard setback is due to the irregular lot shape along the easterly lot line. No other changes to the zoning provisions has been requested.

While the Residential District 2.1 (RD2.1) zoning district is an appropriate zoning category, given that a site specific exception is required and to avoid clutter on the zoning maps, the Planning Department recommends that the RD1.3 zoning be maintained and that applicable provisions for a semi-detached dwelling be included in the site specific exception.

The proposed semi-detached dwelling is not subject to site plan control.

Risk Analysis:

N/A

Climate Change Risks

Climate Change Mitigation:

In general, residential intensification minimizes the impact on the Community greenhouse gas emissions as these developments create complete communities and neighbourhoods while using currently available infrastructure such as sewers, sidewalks, and public transit.

Climate Change Adaptation:

The proposed construction of a new dwelling provides an opportunity to increase resiliency for the development and surrounding area.

Financial Matters:

N/A

Consultations:

Comments received from municipal departments and external agencies are attached as Appendix D.

Public Notice: Statutory notice was advertised in the Windsor Star, a local daily newspaper. A courtesy notice was mailed to property owners and residents within 120m of the subject parcel.

Planner's Opinion:

The *Planning Act* requires that a decision of Council in respect of the exercise of any authority that affects a planning matter, *"shall be consistent with"* Provincial Policy Statement 2020. The requested zoning amendment has been evaluated for consistency with the Provincial Policy Statement 2020 and conformity with the policies of the City of Windsor Official Plan.

Based on the information presented in this report, it is my opinion that an amendment to Zoning By-law 8600 to rezone the subject parcel by adding a site specific exception to allow the proposed semi-detached dwelling is consistent with the PPS 2020, is in conformity with the City of Windsor Official Plan, and constitutes good planning.

Conclusion:

Staff recommend that Zoning By-law 8600 be amended to permit a rezoning of the subject parcel by adding a site specific exception to permit a semi-detached dwelling as an additional permitted use subject to the provisions contained in the site specific exception.

Planning Act Matters:

I concur with the above comments and opinion of the Registered Professional Planner.

Neil Robertson, MCIP, RPP — *Manager of Urban Design*

Thom Hunt, MCIP, RPP — *City Planner*

I am not a registered Planner and have reviewed as a Corporate Team Leader

JP *JM*

Approvals:

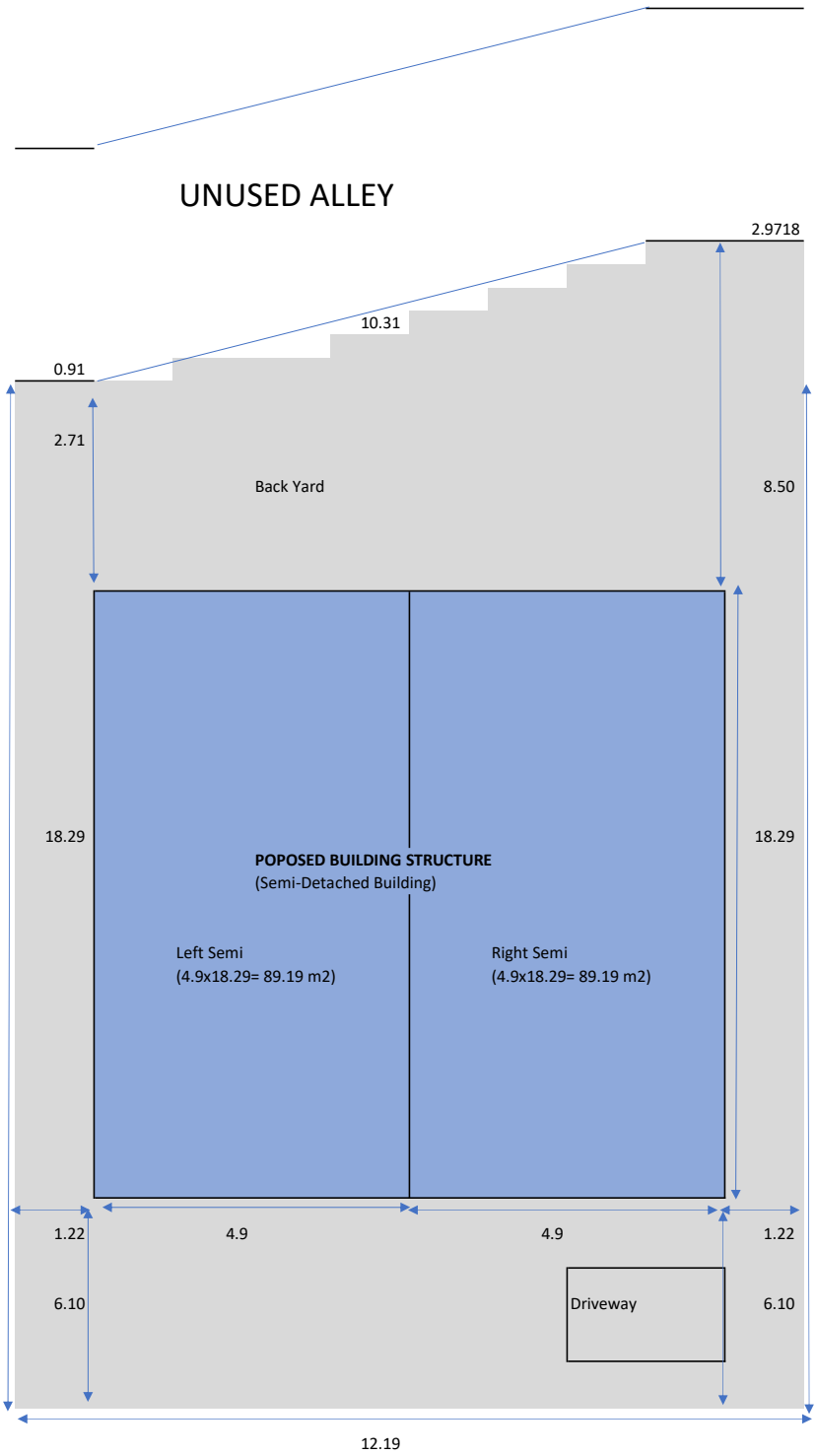
Neil Robertson	Manager of Urban Design / Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Wira Vendrasco	Deputy City Solicitor, Legal Services & Real Estate
Jelena Payne	Commissioner, Economic Development & Innovation
Joe Mancina	Chief Administration Officer

Notifications:

Name	Address	Email
Andi Shallvari	3504 Klondike Ave Windsor ON N8W 5V5	andi.shallvari@gmail.com
Beau Wansbrough, RPP		wansbrough4@gmail.com
Councillor Costante		
Property owners and tenants within 120 m of the subject parcel		

Appendices:

1 Appendix A - Conceptual Site Plan
2 Appendix B - Site Images
3 Appendix C - Extracts from Zoning By-law 8600
4 Appendix D - Comments



716 Josephine Ave

(All measurements in meters. Area in blue indicates proposed building structure)

Lot size

371.60 sqm

Building size

89.19 m2 left semi +89.19 m2 right semi=178.38 m2

Lot coverage 48%

Zoning releif required:

Backyard setback to 2.77 m (irregular)

Frontage to 12.19 m

Lot coverage to 48%

Everything else: As Existing

APPENDIX B - SITE IMAGES
(Google Street View)

IMAGE 1

Subject Parcel – 716 Josephine Avenue - Looking east
(706 to the left, 726 to the right)

IMAGE 2

Looking south on Josephine towards Rooney Street
Subject parcel is on the left side of the image

IMAGE 3

Looking west from subject parcel
(L to R - 731, 721, 715, 707, 689 Josephine)

IMAGE 4

Looking north on Josephine Street towards Wyandotte St W
Subject parcel (red brick front) is on the right side of the image

APPENDIX C - Extracts from Zoning By-law 8600

SECTION 3 – DEFINITIONS

3.10 DEFINITIONS

DWELLING means a *building* or *structure* that is occupied for the purpose of human habitation. A *correctional institution, hotel, motor home, recreational vehicle, tent, tent trailer,* or *travel trailer* is not a *dwelling*.

SEMI-DETACHED DWELLING means one dwelling divided vertically into two dwelling units by a common interior wall having a minimum area above grade of 10.0 sq. m., and may include, where permitted by Section 5.99.80, up to two additional dwelling units.

SINGLE UNIT DWELLING means one *dwelling* having one *dwelling unit* or, where permitted by Section 5.99.80, one *dwelling* having two *dwelling units*. A single family dwelling is a *single unit dwelling*. A *duplex dwelling, mobile home dwelling, semi-detached dwelling unit,* or *townhome dwelling unit,* is not a *single unit dwelling*.

DWELLING UNIT means a unit that consists of a self-contained set of rooms located in a *building* or *structure*, that is used or intended for use as residential premises, and that contains kitchen and bathroom facilities that are intended for the use of the unit only.

SECTION 10 - RESIDENTIAL DISTRICTS 1. (RD1.)

10.3 RESIDENTIAL DISTRICT 1.3 (RD1.3)

10.3.1 PERMITTED USES

Existing Duplex Dwelling
Existing Semi-Detached Dwelling
One *Single Unit Dwelling*
Any use accessory to the preceding uses

10.3.5 PROVISIONS

	Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.1 Lot Width – minimum	9.0 m	15.0 m	9.0 m
.2 Lot Area – minimum	360.0 m^2	450.0 m^2	270.0 m^2
.3 Lot Coverage – maximum	45.0%	45.0%	45.0%
.4 Main Building Height – maximum	10.0 m	10.0 m	10.0 m
.5 Front Yard Depth – minimum	6.0 m	6.0 m	6.0 m
.6 Rear Yard Depth – minimum	7.50 m	7.50 m	7.50 m
.7 Side Yard Width – minimum	1.20 m	1.20 m	1.20 m

SECTION 11 - RESIDENTIAL DISTRICTS 2. (RD2.)

11.1 RESIDENTIAL DISTRICT 2.1 (RD2.1)

11.1.1 PERMITTED USES

One *Duplex Dwelling*
One *Semi-Detached Dwelling*
One *Single Unit Dwelling*
Any use accessory to the preceding uses

11.1.5 PROVISIONS

	Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.1 Lot Width – minimum	12.0 m	15.0 m	9.0 m
.2 Lot Area – minimum	360.0 m^2	450.0 m^2	270.0 m^2
.3 Lot Coverage – maximum	45.0%	45.0%	45.0%
.4 Main Building Height – maximum	10.0 m	10.0 m	10.0 m
.5 Front Yard Depth – minimum	6.0 m	6.0 m	6.0 m
.6 Rear Yard Depth – minimum	7.50 m	7.50 m	7.50 m
.7 Side Yard Width – minimum	1.20 m	1.20 m	1.20 m

APPENDIX D - COMMENTS

Windsor Mapping – Enbridge

After reviewing the provided drawing at 716 Josephine Ave and consulting our mapping system, please note that Enbridge Gas has active infrastructure in the proposed area. A PDF drawing has been attached for reference.

Please Note:
1. The shown piping locations are approximate and for information purposes only
2. The drawings are not to scale
3. This drawing does not replace field locates. Please contact Ontario One Call for onsite locates prior to excavating, digging, etc

Enbridge Gas requires a minimum separation of 0.6m horizontal and 0.3m vertical from all of our plant less than NPS 16 and a minimum separation 1.0m horizontal and 0.6m vertical between any CER-regulated and vital pipelines. For all pipelines (including vital pipelines), when drilling parallel to the pipeline, a minimum horizontal clearance measured from the edge of the pipeline to the edge of the final bore hole of 1 m (3.3 ft) is required. Please ensure that this minimum separation requirement is maintained, and that the contractor obtains locates prior to performing any work and utilizes safe excavation practices while performing any work in the vicinity.

Also, please note the following should you find any abandoned infrastructure in the area:
- Any pipe that is excavated, please assume that it is live
- If during the course of any job, any pipe is found that is not on the locate sheet and is in conflict with your work, please call our emergency number (1-877-969-0999), and one of our Union Gas representatives will respond to determine if that plant is in fact live or dead
- Please note that our Enbridge Gas representative will respond to the live or dead call within 1-4 hours, so please plan your work accordingly

Canada Post

Canada Post has no comments for the attached application.

Jason Scott – Transit Windsor

Transit Windsor has no objections to this development. The closest existing transit route to this property is with the Dominion 5. The closest existing bus stop to this property is located on Campbell at Rooney Northeast Corner. This bus stop is approximately 220 metres away from this property falling within our 400 metre walking distance guideline to a bus stop. This will be maintained with our Council approved Transit Master Plan.

ESSEX REGION CONSERVATION AUTHORITY

The applicant proposes to demolish the single unit dwelling and construct a Semi-detached Dwelling with a driveway from Josephine. The Applicant is requesting an amendment to Zoning By-law 8600 changing the zoning from RD1.3 to Residential District 2.1 (RD2.1) and site specific exceptions to allow the construction of a Semi-detached Dwelling. The applicant is requesting site specific exceptions in minimum lot width from 15.0 m to 12.19 m, minimum lot area from 450 m2 to 371 m2, maximum lot coverage from 45% to 48% and in minimum rear yard setback from 7.5 m to 2.71 m.

DELEGATED RESPONSIBILITY TO REPRESENT THE PROVINCIAL INTEREST IN NATURAL HAZARDS AND REGULATORY RESPONSIBILITIES ASSOCIATED WITH THE CONSERVATION AUTHORITIES ACT

The following comments reflect our role as representing the provincial interest in natural hazards as outlined by Section 3.1 of the Provincial Policy Statement of the *Planning Act* as well as our regulatory role as defined by Section 28 of the *Conservation Authorities Act*.

We have reviewed our floodline mapping for this area and it has been determined this site is not located within a regulated area that is under the jurisdiction of the ERCA (Section 28 of the *Conservation Authorities Act*). As a result, a permit is not required from ERCA for issues related to Section 28 of the *Conservation Authorities Act,* Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation under the *Conservations Authorities Act*, (Ontario Regulation No. 158/06).

WATERSHED BASED RESOURCE MANAGEMENT AGENCY

The following comments are provided in an advisory capacity as a public commenting body on matters related to watershed management.

SECTION 1.6.6.7 Stormwater Management (PPS, 2020)

We do not have any concerns or comments on the zoning by-law amendment, with regard to stormwater management. We further recommend that any stormwater management analysis, be completed to the satisfaction of the Municipality. We do not require further consultation on this file with respect to stormwater management.

PLANNING ADVISORY SERVICE TO PLANNING AUTHORITIES - NATURAL HERITAGE POLICIES OF THE PPS, 2020

The following comments are provided from our perspective as an advisory service provider to the Planning Authority on matters related to natural heritage and natural heritage systems as outlined in Section 2.1 of the Provincial Policy Statement of the *Planning Act*. The comments in this section do not necessarily represent the provincial position and are advisory in nature for the consideration of the Planning Authority.

The subject property is not within or adjacent to any natural heritage feature that may meet the criteria for significance as defined by the PPS. Based on our review, we have no objection to the application with respect to the natural heritage policies of the PPS.
FINAL RECOMMENDATION
We do not have any objections to the zoning by-law amendment at this time.

Barbara Rusan – Building Department

The Building Code Act, Section 8.(1) requires that a building permit be issued by the Chief Building Official for construction or demolition of a building. The building permit review process occurs after a development application receives approval and once a building permit application has been submitted to the Building Department and deemed a complete application.

Due to the limited Ontario Building Code related information received, review of the proposed project for compliance to the Ontario Building Code has not yet been conducted.

It is strongly recommended that the owner and/or applicant contact the Building Department to determine building permit needs for the proposed project prior to building permit submission.

The City of Windsor Building Department can be reach by phoning 519-255-6267 or, through email at buildingdept@citywindsor.ca

Patrick Winters – Engineering & ROW

The subject lands are located at 716 Josephine Ave, zoned Residential District 1.3 (RD1.3) by Zoning By-Law 8600. The applicant proposes to demolish the single unit dwelling and construct a Semi-detached Dwelling with a driveway from Josephine. The Applicant is requesting an amendment to Zoning By-law 8600 changing the zoning from RD1.3 to Residential District 2.1 (RD2.1) and site specific exceptions to allow the construction of a Semi-detached Dwelling.

SEWERS - The site may be serviced by a 375mm vitrified clay combined sewer located within Josephine Avenue. The applicant will be required to submit site servicing drawings.

RIGHT-OF-WAY – The Official Plan classifies Josephine Ave as a local road, requiring a right-of-way width of 20.1m. The current right-of-way width is 20.1m; therefore, a conveyance is not required. Permits will be required from this department for the driveway removal on the north side of the property, for a new driveway on the south side of the property and any other work that may be required in the right-of-way. The driveway is to be constructed as per AS-221 or AS-222 and BP2.2.2. Additionally, the utility pole must be a minimum of one foot from the edge of the driveway. If the proposed driveway

is in conflict with the existing utility pole then this will need to address by the applicant prior to, or during servicing.

In summary we have no objection to the proposed rezoning, subject to the following requirements (Requirements can be enforced during Building and Right-of-Way permitting):

Right-of-Way Permits – The owner agrees to obtain right-of-way permits for sewer taps, drain taps, flatworks, landscaping, curb cuts, and driveway approaches from the City Engineer, prior to commencement of any construction on the public highway.

Redundant Curb Cuts – The owner agrees to remove and replace the redundant curb cut on Josephine Ave with full height curb to the satisfaction of the City Engineer.

Video Inspection (connection) - The owner further agrees, at its entire expense and to the satisfaction of the City Engineer:

1. To undertake a video inspection, of any existing connections proposed for reuse to ensure the suitability of the connection for use in accordance with City of Windsor Standard Specifications S-32 CCTV Sewer Inspection.
2. Any redundant connections will be abandoned according to the City of Windsor Engineering Best Practice B.P.1.3.3.
3. Any new Connections to combined sewers will follow City of Windsor Engineering Best Practice B.P.1.1.1.

Kristina Tang – Heritage Planner

There is no apparent built heritage concern with this property and it is located on an area of low archaeological potential.

Nevertheless, the Applicant should be notified of the following archaeological precaution.

1. Should archaeological resources be found during grading, construction or soil removal activities, all work in the area must stop immediately and the City's Planning & Building Department, the City's Manager of Culture and Events, and the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries must be notified and confirm satisfaction of any archaeological requirements before work can recommence.
2. In the event that human remains are encountered during grading, construction or soil removal activities, all work in that area must be stopped immediately and the site secured. The local police or coroner must be contacted to determine whether or not the skeletal remains are human, and whether the remains constitute a part of a crime scene. The Local police or coroner will then notify the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries and the Registrar at the Ministry of Government and Consumer Services if needed, and notification and satisfactory confirmation be given by the Ministry of Heritage, Sport, Tourism and Culture Industries.

Contacts:

Windsor Planning & Building Department:
519-255-6543 x6179, ktang@citywindsor.ca, planningdept@citywindsor.ca

Windsor Manager of Culture and Events (A):
Michelle Staadegaard, (O) 519-253-2300x2726, (C) 519-816-0711,
mstaadegaard@citywindsor.ca

Ontario Ministry of Heritage, Sport, Tourism and Culture Industries
Archaeology Programs Unit, 1-416-212-8886, Archaeology@ontario.ca

Windsor Police: 911

Ontario Ministry of Government & Consumer Services
A/Registrar of Burial Sites, War Graves, Abandoned Cemeteries and Cemetery Closures,
1-416-212-7499, Crystal.Forrest@ontario.ca

Enwin

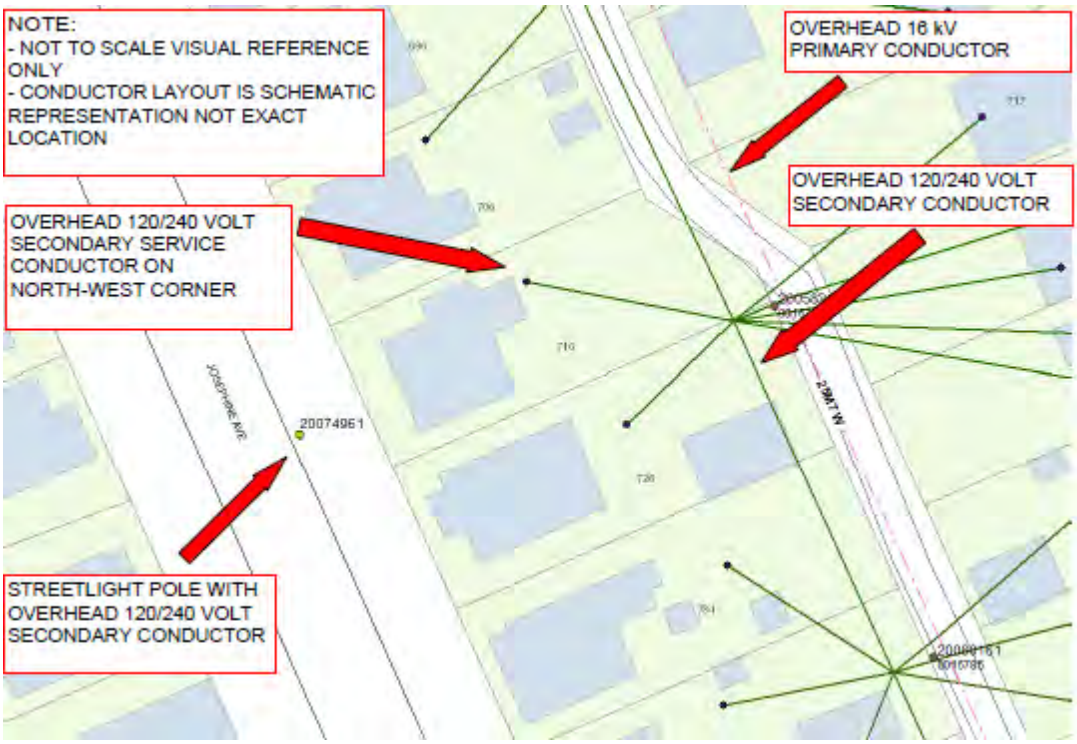
Hydro Engineering: No objection provided adequate clearances are achieved and maintained.

ENWIN has existing primary conductor at 16kV and secondary conductor at 120/240 Volts running along the East side of the property in the rear yard. There is streetlight conductor at 120/240 Volts running in front of the property on the West side.

Be advised of the overhead 120/240 Volt secondary service connected to the North side of the current building along with overhead communication cables connected to the South side of the building.

Prior to working in these areas, we suggest notifying your contractor and referring to the Occupational Health and Safety Act and Regulations for Construction Projects to confirm clearance requirements during construction. Also, we suggest referring to the Ontario Building Code for required clearances for New Building Construction.

Sketch attached for reference only. This attachment does not replace the need for utility locates.



Water Engineering: Water Engineering has no objections to the rezoning.

Rania Toufeili – Transportation Planning

- The Official Plan classifies Josephine Street as a Local Road with a required right-of-way width of 20 meters. The current right-of-way width is sufficient and therefore no conveyance is required.
- Parking supply must meet Zoning By-Law 8600 requirements.
- Driveways must comply with and be constructed to City Standards.
- All exterior paths of travel must meet the requirements of the Accessibility for Ontarians with Disabilities Act (AODA).

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 59/2022

Subject: Approval of a Draft Plan of Subdivision for lands located on the south side of North Talbot Rd, between Southwood Lakes Blvd and HWY 401; File No. SDN-001/21[SDN/6575]; Applicant – Bellocorp Inc.; Ward 1

Reference:

Date to Council: June 6, 2022
Author: Justina Nwaesei, MCIP, RPP
Senior Planner - Subdivisions
519-255-6543, ext. 6165
jnwaesei@citywindsor.ca

Planning & Building Services
Report Date: May 17, 2022
Clerk's File #: Z/14278

To: Mayor and Members of City Council

Recommendation:

I THAT the application of Bellocorp Inc. for Draft Plan of Subdivision approval for Part Lot 306 and Part Lot 307, Concession N Talbot Rd., Sandwich East, Windsor (PIN 01558-0962 LT, PIN 01558-0544 LT and PIN 01558-0964 LT), **BE APPROVED** subject to the following conditions:

A. That the Draft Plan Approval shall lapse on _____ (3 years from the date of approval);

B. That this approval applies to the draft plan of subdivision identified on attached Map No. SDN-001/21-1, prepared by VERHAEGEN Land Surveyors for Bellocorp Inc., Reference No. 21-47-019-01, dated May 20, 2022, showing 33 Lots for single unit dwellings, 1 block for Stormwater Management Facility (SWM), 1 block for Parkland and 1 block for Reserve, plus proposed road allowances (Streets A, B & C);

C. That the Owner(s) shall enter into a subdivision agreement with the Corporation of the City of Windsor for the proposed development on the subject land;

D. That prior to the execution and registration of the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor, the Owner(s) shall submit for approval of the City Planner/Executive Director of Planning & Building a final M plan; and

E. That the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor be registered on title and shall contain, among other matters, the following provisions:

1. The Owner(s) shall include all items as set out in the Results of Circulation (Appendix C, attached) with further amendments as required and other relevant matters set out in CR 233/98 (Standard Subdivision Agreement).

2. That the Owner(s) shall create, prior to the issuance of a building permit, a 20m right-of-way for the new Street A, Street B and Street C, in accordance with the approved Plan of Subdivision.

3. The Owner(s) shall, prior to the issuance of a construction permit,

   (i) Finalize the engineering analysis to identify stormwater quality and quantity measures as necessary to control any increase in flows in downstream watercourses, up to and including the 1:100 year design storm and in accordance with the Windsor-Essex Stormwater Management Standards Manual, to the satisfaction of the City Engineer and the Essex Region Conservation Authority;

   (ii) install the stormwater management measures identified in the engineering analysis completed as part of the development for the site and undertake to implement the recommendations contained therein, to the satisfaction of the City Engineer and the Essex Region Conservation Authority;

   (iii) obtain the necessary development review clearances from the Essex Region Conservation Authority prior to undertaking site alterations and/or construction activities of any kind; and

   (iv) provide, to the Essex Region Conservation Authority, a copy of the fully executed subdivision agreement between the Owner(s) and the City of Windsor, containing provisions to carry out the recommendations of the final plans, reports and requirements noted in Recommendations I.E.4 (i) & (ii) above;

4. Servicing Study - Prior to the issuance of a construction permit, the Owner(s) shall at its own expense, retain a Consulting Engineer to provide a detailed servicing study report on the impact of the increased flow to the existing municipal sewer systems, satisfactory in content to the City Engineer. The Servicing study shall

   (i) review the proposed impact and recommend solutions to address the problems and ultimate implementation of solutions should there be a negative impact to the municipal sewer system, and

   (ii) be finalized in agreement with the City Engineer.

5. Site Servicing Plans – The Owner(s) shall submit a site servicing plan for the subject lands to the satisfaction of the Chief Building Official, the City

Engineer, and ERCA in regulated areas, prior to the issuance of any construction permits for the subject lands.

6. Sidewalks -The Owner(s) shall pay to the Corporation
   (i) the sum of $33,500.00 being the Owner's contribution towards the future construction of a concrete sidewalk on the North Talbot Road frontage of the subject lands, prior to the issuance of a Building Permit; and

   (ii) the sum of $16,500.00, being the Owner's contribution towards the future construction of a 3.0m wide multi-use trail connection from the Southwood Lakes Multi-use Trail, in Stoneybrook Park, to the proposed cul-de-sac at the western end of the proposed Street 'A', prior to the execution of a Subdivision Agreement,.

7. Curbs and Gutters – The Owner(s) shall also pay to the Corporation, prior to the issuance of a construction permit, the sum of $17,750.00 being the Owner's contribution towards the construction of concrete curb and gutter on the North Talbot Road frontage of the subject lands.

8. Corner Cut-Off - The Owner(s) shall, prior to the issuance of a construction permit, gratuitously convey a 4.6m x 4.6m (15' x 15'), corner cut-off at the intersection of North Talbot Road and Street 'B' as well as North Talbot Road and Street 'C' on Map No. SDN-001/21-1, in accordance with City of Windsor Standard Drawing AS-230.

9. Cul-De-Sac: The Owner(s) shall, prior to the issuance of construction permit, construct a cul-de-sac with a minimum radius of 9.5m at the west and east limits of Street A.

10. Stormwater Management Facility: The Owner(s) shall, prior to the issuance of a construction permit, gratuitously convey Block 34 on Map No. SDN-001/21-1 to the Corporation of the City of Windsor for Storm Water Management (SWM) Facility SWM purposes, to the satisfaction of the City Engineer and City Solicitor

11. Berm Requirement - Prior to the issuance of a construction permit, the Owner(s) shall install a berm along the west, south and east limits of the plan of subdivision, as proposed in Appendix A attached to the Stormwater and Functional Servicing Report dated May 14, 2021, prepared by Bill Fuerth of BAIRD AE Inc., to the satisfaction of the City Engineer and the Essex Region Conservation Authority.

12. Fencing Requirement – Prior to the issuance of a construction permit, the Owner(s) shall install a 1.8m (6ft) chain link fence on Block 34, along the mutual boundary line with Lots 9, 10 and 11, to the satisfaction of the City Engineer, the Executive Director of Parks and the Commissioner of Police.

13. Video Inspection (Mainline) - The applicant shall, prior to the issuance of a construction permit, conduct at its entire expense a video inspection, or pay

the cost of similar inspection, of ALL EXISTING sanitary/storm sewers on North Talbot Road which will be tapped to service the development, all to the satisfaction of the City Engineer.

14. MTO Corridor Management (MTO Requirement) - The Owner(s) shall, prior to the issuance of a construction permit, contact the Ministry of Transportation (MTO) Corridor Management to obtain the necessary permits, clearances and/or approvals in accordance with the Public Transportation & Highway Improvement Act.

15. Noise Control Measures for Lots 4, 5 & 6 (inclusive): The Owner(s) shall at its entire expense

    i) install a noise barrier fence along North Talbot Road as recommended in the Acoustical Report, prepared by Shurjeel Tunio of Baird AE Inc. (Baird AE Acoustical Report) dated March 16, 2021; and

    ii) ensure that ducting is provided for the installation of Central Air Conditioning for all the affected lots (Lots 4, 5 & 6), to the satisfaction of the Chief Building Official.

16. Noise Control Measures for all Lots on Map No. SDN-001/21-1: The Owner(s) shall at its entire expense

    i) ensure that all windows and doors leading to sensitive living areas have a minimum sound transmission class (STC) to meet the Ministry of Environment and Climate Change (MOECC) indoor noise level criteria, as specified in the March 16, 2021 Baird AE Acoustical Report;

    ii) engage an acoustical consultant for review of the sound transmission class (STC) for walls, windows and doors, after being installed, to ensure they conform to the recommendations outlined in the March 16, 2021 BAIRD AE Acoustical Report.

17. Warning Clause(s) for Lots 4, 5 & 6 (inclusive): The Owner(s) shall place the following warning clauses in all Offers to Purchase, and Agreements of Purchase or Sale or lease between the Owner(s) and all prospective home buyers, and in the title of each dwelling unit within Lots 4, 5 & 6 on Map No. SDN-001/21-1:

    i) “Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of Environment.”

    ii) “This dwelling unit has been designed with the provision for adding central air conditioning at the occupant’s discretion. Installation of central air conditioning by the occupant in low and medium density

developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of Environment."

18. Species at Risk/ Habitat Protection: The Owner(s) shall comply with, and implement, mitigation measures for construction adjacent to habitat for SARS Reptiles (which include awareness training, strategic vegetation clearing, wildlife exclusion and erosion control fencing, equipment inspection, proper site maintenance and management, and implementation of encounter and reporting protocols) as detailed in Appendix B attached to the report (Preliminary Screening For Species at Risk) by MTE Consultants Inc., dated April 29, 2021, for the subject development.

19. Additional Endangered Species Act measures: To reduce the potential for impacts to maternity roosting habitat for Protected Species of bats, the Owner(s) shall
    i) ensure that vegetation removal will occur between October 1 and March 31, outside of the active season for bats; and
    ii) install replacement bat roosting habitat (two rocket boxes) under the direction of a qualified professional, prior to the issuance of a construction permit.

20. Parkland Conveyance - The Owner(s) shall, prior to the issuance of any construction permit, convey to the Corporation Block 35 on Map No. SDN-001/21-1 which represents 2.7% Parkland conveyance and the 2.3% remaining balance of the Parkland conveyance in the form of cash payment.

21. Tree Preservation –
    i) Prior to the final Subdivision Plan approval, the Owner(s) shall provide a Landscape and Tree Preservation Plan identifying the proposed locations of all existing trees removed from the development and those to be retained in Block 35, to the satisfaction of the Executive Director of Parks and the City Planner/Executive Director of Planning and Development Services.
    ii) Prior to the issuance of the construction permit the Owner(s) shall pay to the Corporation the sum of $130,000.00 which represents replacement tree compensation, at a rate of one (1) street tree for every 70mm caliper (dbh) of desirable trees removed. Costs for the replacement trees is in accordance with the Corporation's Fees and Charges By-law 392-2002.

22. Performance Security - for preservation of the existing desirable trees in Block 35:
    i) Prior to issuance of the construction permit, the Owner(s) shall provide a Performance Security in the amount of $25,000.00, in the form of cash or a certified cheque, to the Corporation to ensure that the nine

(9) desirable trees located on Block 35 are preserved during the construction process;

ii) Prior to release of the Performance Security, the Owner(s) shall request inspection by the Corporation's City Forester to ensure that the proposed tree protection and appropriate method of protection has been completed to the satisfaction of the Executive Director of Parks;

iii) Where trees proposed to be preserved have been removed, at the time of inspection by the Corporation's City Forester, replacement tree compensation will be deducted from the Performance Security at a rate of one tree for every 70mm of tree caliper (dbh) or portion thereof missing. Costs for the replacement trees will be in accordance with the Corporation's Fees and Charges By-law 392-2002.

23. Climate Change Considerations:
    i) Replacement trees will be planted at locations deemed appropriate by the Corporation's City Forester within and near the subject development, including the parkland allowance (Block 35), the Stormwater facility (Block 34), Stoneybrook Park and nearby Public Park(s), to compensate for the removal of existing trees on the subject lands.

    ii) The Corporation's City Forester shall incorporate shade trees, among the new trees, to minimize the urban heat island impacts, and incorporate native, drought resistant plants to limit watering requirements.

24. Bell Canada - The Owner(s) shall, prior to the issuance of a construction permit,
    i) relocate any existing Bell Canada facilities or easements found to be in conflict with the proposed development;

    ii) contact Bell Canada during detailed design to confirm the provision of communication/telecommunication infrastructure needed to service the development;

    iii) provide entrance/service duct(s) from Bell Canada's existing network infrastructure to service the subject development, and, where the required infrastructure is unavailable, the Owner(s) shall agree to pay for the connection to and/or extension of such network infrastructure.

25. Schools - The Owner(s) shall place the following warnings in all Offers to Purchase, Agreements of Purchase and Sale or lease between the Owner(s) and all prospective home buyers, and in the title:
    i) "Students from this area may not be able to attend the closest neighbourhood school due to insufficient capacity and may have to be bussed to a distant school with available capacity or could be accommodate in temporary portable space."

26. Archaeological Warning Clause(s) - The Owner(s) agrees to insert, the following warning clauses in all construction documents concerning the subject lands:

    1. Should archaeological resources be found during grading, construction or soil removal activities, all work in the area must stop immediately and the City's Planning & Building Department, the City's Manager of Culture and Events, and the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries must be notified and confirm satisfaction of any archaeological requirements before work can recommence.

    2. In the event that human remains are encountered during grading, construction or soil removal activities, all work in that area must be stopped immediately and the site secured. The local police or coroner must be contacted to determine whether or not the skeletal remains are human, and whether the remains constitute a part of a crime scene. The Local police or coroner will then notify the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries and the Registrar at the Ministry of Government and Consumer Services if needed, and notification and satisfactory confirmation be given by the Ministry of Heritage, Sport, Tourism and Culture Industries.

NOTES TO DRAFT APPROVAL (File # SDN-001/21)

1. *The applicant is directed to Section 51(39) of The Planning Act 1990 regarding appeal of any imposed conditions to the Local Planning Appeal Tribunal. Appeals are to be directed to the City Clerk and Licence Commissioner of the City of Windsor.*
2. *It is the applicant's responsibility to fulfil the conditions of draft approval and to ensure that the required clearance letters are forwarded by the appropriate agencies to the City of Windsor, to the attention of the Executive Director/City Planner, quoting the above-noted file number.*
3. *Required agreements with the Municipality will be prepared by the City Solicitor.*
4. *The applicant should consult with an Ontario Land Surveyor for this proposed plan concerning registration requirements relative to the Certification of Titles Act.*
5. *The final plan approved by the Corporation of the City of Windsor must be registered within thirty (30) days or the Corporation may withdraw its approval under Section 51(59) of The Planning Act 1990.*
6. *All plans of subdivision/condominium are to be prepared and presented in metric units and certified by the Ontario Land Surveyor that the final plan is in conformity to the approved zoning requirements.*

7. *Where agency conditions are included in the City's Subdivision Agreement, the Applicant is required to forward a copy of the agreement to the agencies in order to facilitate their clearance of conditions for final approval of this plan.*

II THAT the City Clerk **BE AUTHORIZED** to issue the required notice respecting approval of the draft plan of subdivision under Section 51(37) of The Planning Act.

III THAT the subdivision agreement shall **BE REGISTERED** against lands to which it applies prior to the final registration of the Plan of Subdivision.

IV THAT prior to the final approval by the Corporation of the City of Windsor, the City Planner/Executive Director of Planning and Development Services shall **BE ADVISED**, in writing, by the appropriate agencies that conditions have been satisfied.

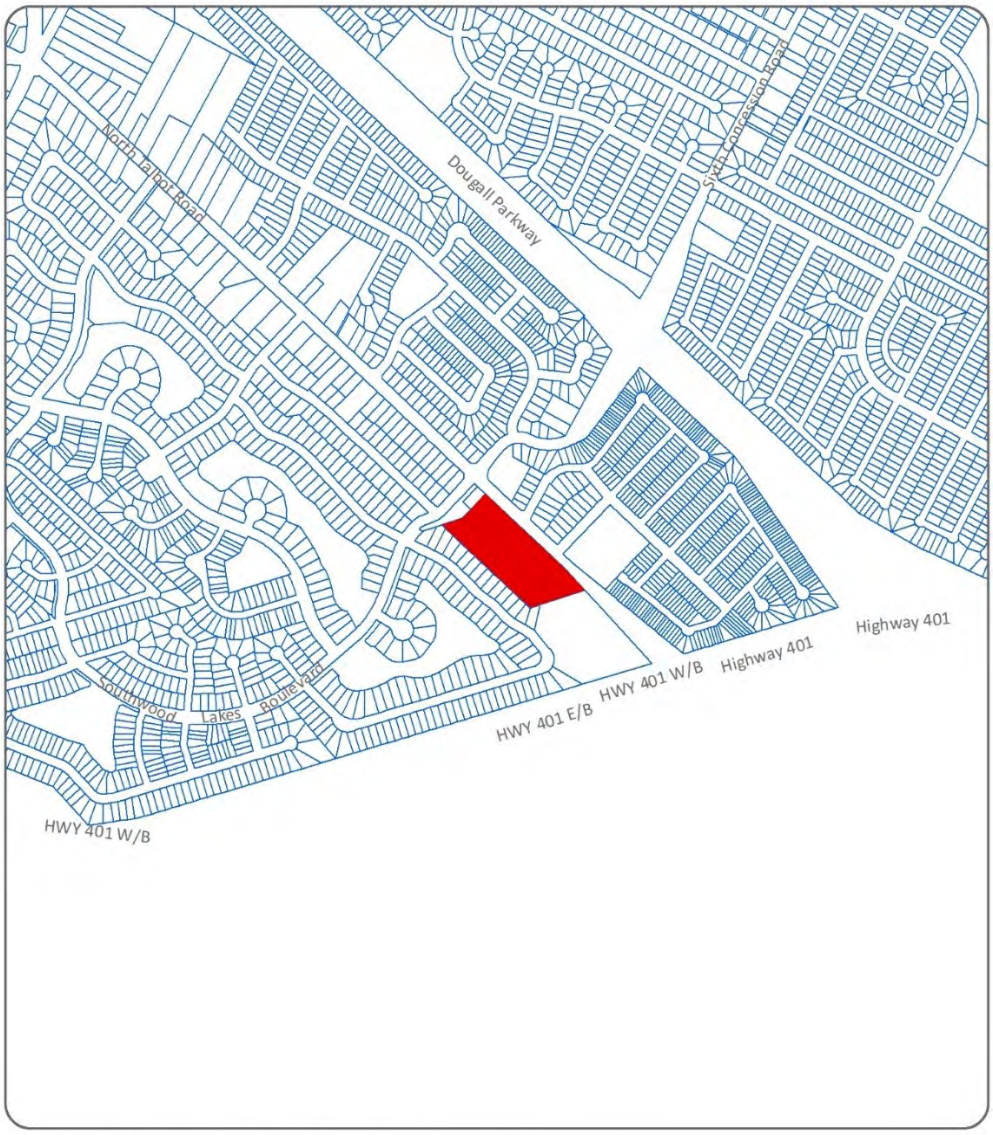
V THAT the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary agreements and documents approved as to form and content satisfactory to the City Solicitor.

VI THAT an amendment to City of Windsor Zoning By-law 8600 **BE APPROVED**, changing the zoning of Block 34 on the Draft Plan of Subdivision, identified as SDN001/21-1 in this report from HRD1.4 to GD1.5 for the purposes of a stormwater management facility, and Block 35 on the Draft Plan of Subdivision, identified as SDN001/21-1 in this report from HRD1.4 to GD1.1 for Parkland.

Executive Summary: N/A

Background:

1. KEYMAP



2. APPLICATION INFORMATION:

LOCATION: South side of North Talbot Road, between Southwood Lakes Blvd and HWY 401, described as Part Lot 306 and Part Lot 307, Concession N Talbot Rd., Sandwich East, Windsor; municipally known as 0, 1095 & 1185 North Talbot Road.

ADDRESS:	0 North Talbot	1095 North Talbot	1185 North Talbot
ROLL NO.:	070-140-04101	070-140-04100	070-140-04000
PIN	01558-0962 LT	01558-0544 LT	01558-0964 LT

WARD: 1 **PLANNING DISTRICT:** 08 - ROSELAND **ZDM: 13**
APPLICANT: BELLOCORP INC., c/o Tosin Bello
AUTHORIZED AGENT: PILLON-ABBS INC., (c/o Tracey Pillon-Abbs)

PROPOSAL: The applicant is requesting approval of a draft plan of Subdivision for the development of 33 lots for single unit detached dwellings, 1 block for SWM facility (shown as Block 34), 1 block for Parkland (shown as Block 35), 1 block for land Reserve (shown as Block 36), and three new road allowances (shown as Streets A, B and C.) Two of the proposed roads provide direct vehicular access to/from North Talbot Road.

The subject lands are designated Residential on Schedule D – Land Use, of the Official Plan and zoned Residential District 1.4 with a holding provision (HRD1.4) by Bylaw 8600. Subsection 20(1)85 of By-law 8600 applies to the subject lands and requires a minimum front yard depth of 9m for any lot fronting on North Talbot Rd between Southwood Lakes Blvd and HWY 401.

SUBMISSIONS BY APPLICANT:

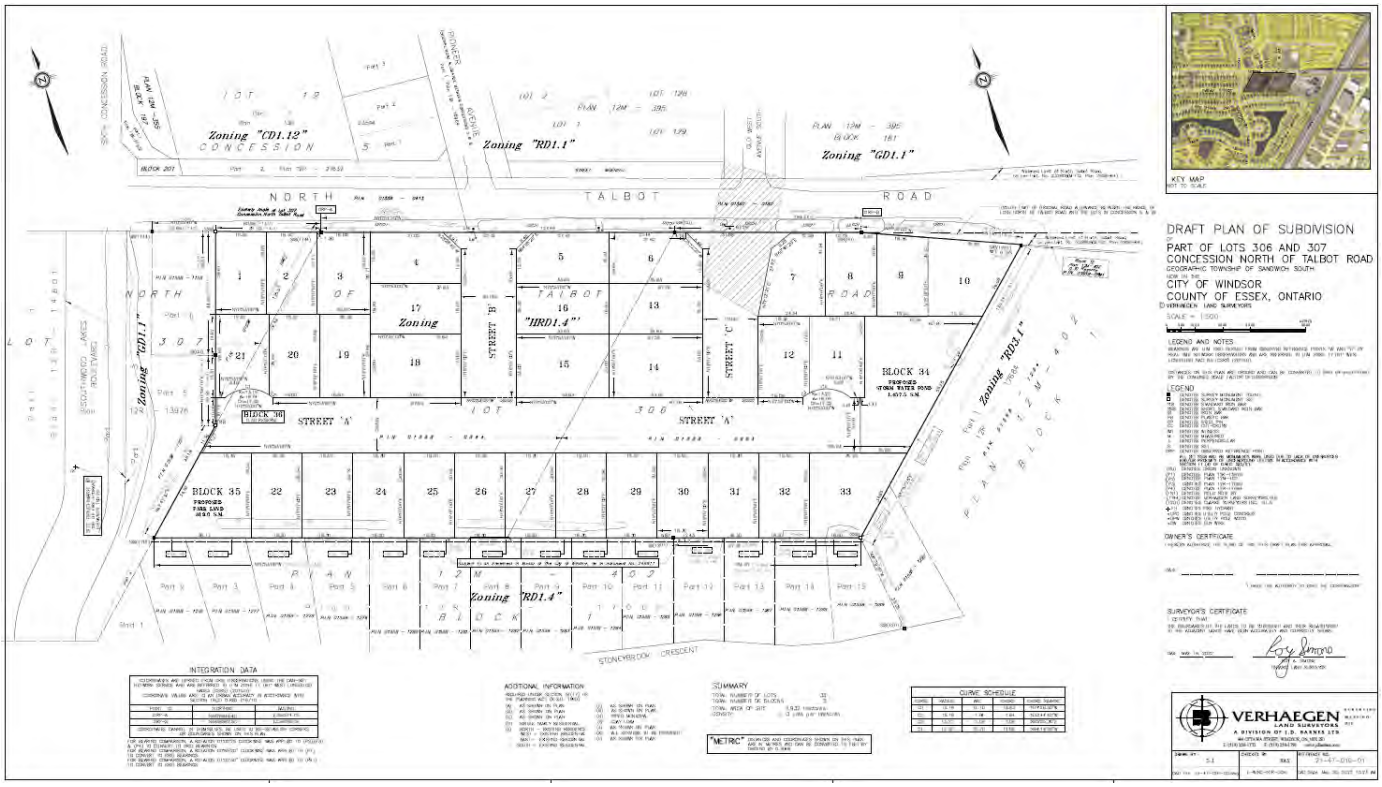
- Plan of Subdivision Application form, signed and commissioned;
- Draft Plan of Subdivision plus Area & Lot width Table;
- Geo warehouse Property Report, dated Sep. 19, 2021;
- Service Ontario - Property Identification from Land Registry Office, Dec. 16. 2021;
- Service Ontario - Property Index Maps;
- Planning Rationale Report, dated Dec. 3, 2021, prepared by Pillon-Abbs Inc.;
- Stormwater Management (SWM) & Functional Servicing Report (FSR), dated May 14, 2021, prepared by Baird AE;
- Tree Condition Report, dated Aug. 13, 2021, prepared by Bezaire Partners;
- Topographic Survey, completed Feb. 4, 2021; prepared by Verhaegen Land Surveyors;
- Phase 1 Environmental Site Assessment (ESA), Mar. 2021, prepared by Coulson & Associates Ltd;
- Acoustical Report, dated Mar. 16, 2021, prepared by Baird AE; and
- Preliminary Screening Report for Species at Risk, dated Apr. 29, 2021, prepared by MTE.
- Continued Endangered Species Act (ESAct) Studies, dated Sep. 16, 2021, by MTE.

3. SITE INFORMATION:

OFFICIAL PLAN	ZONING & ZDM	CURRENT USE(S)	PREVIOUS USE(S)
• ROSELAND Planning District • RESIDENTIAL Land Use	- Residential District 1.4 with a holding symbol (HRD1.4) - ZDM13	- VACANT (most of the land); - Single Unit dwelling N/E corner of site.	Unknown
FRONTAGE	**DEPTH**	*AREA*	***SHAPE***
291.07m	irregular	2.932 ha	Irregular
Note: All measurements are as shown on the draft plan (Map No. SDN-001/21-1)			

PROPOSED DRAFT PLAN OF SUBDIVISION:

[See also Appendices B-1 and B-2, herein attached, for more details]



4. NEIGHBOURHOOD CHARACTERISTICS:

The surrounding area is an established residential neighbourhood mostly comprising low density, low profile residential developments of the single detached, semi-detached and townhome types of housing options

SURROUNDING LAND USE

North – Existing Residential and Open Space uses
- Public right-of-way (North Talbot Rd.), followed by the uses listed below;
- Small- scale low profile residential developments, mostly single detached dwellings, semi-detached and townhome dwellings;
- Vacant land owned by the applicant; and
- Municipal Park (North Talbot Park).

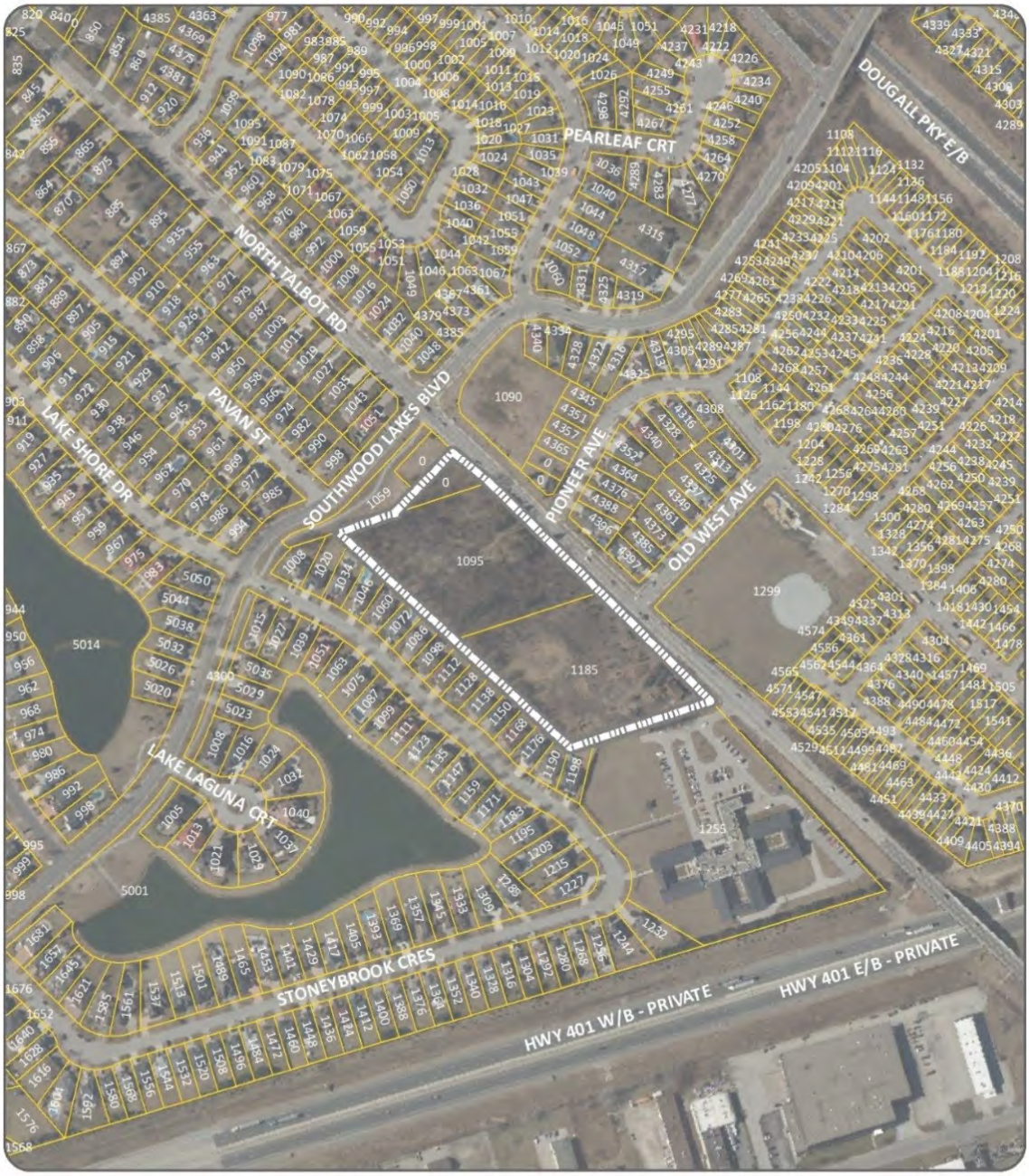
West – Existing Residential and Open Space uses
- Vacant residential lot;
- Municipal Park (Stoney Park);
- Public right-of-way (Southwood Lakes Blvd); and
- Small-scale low profile residential developments in the form of single detached dwellings (west side of Southwood Lakes Blvd)

South – Residential use
- Small-scale low profile residential developments in the form of single detached dwellings.

East – Residential use
- Residential Care Facility (Extendicare Southwood Lakes)

Attached to this report as **Appendix A** are site photos taken on May 12, 2022**.** The site photos, along with the neighbourhood map below, show some of the surrounding land uses and the character of the subject neighbourhood.

NEIGHBOURHOOD MAP



NEIGHBOURHOOD MAP - SDN-001/21, SDN-6575

MUNICIPAL INFRASTRUCTURE

- The City's records show that there are municipal storm and sanitary sewers within the abutting road way, available to service the subject lands as follows:

  - North Talbot Road
    - Storm Sewer: 450mm diameter Corrugated Steel Sewer and 1200mm diameter Reinforced Concrete Pipe
    - Sanitary Sewer: 600mm diameter Concrete Pipe and Reinforced Concrete
- Municipal watermains, fire hydrants and LED streetlights are available within the north side of North Talbot R.O.W. across from the subject lands.
- There are overhead hydro wires and poles on north side of North Talbot R.O.W. across from the frontage of the subject lands.
- There are curbs and gutter along Southwood Lakes boulevard, but none on North Talbot Road.
- There is an existing ditch along the frontage of the subject lands.
- Concrete sidewalks are available on the north side of North Talbot Road, terminating at Old West Avenue.
- Multi-use trail exists along the east side of Southwood Lakes Blvd from the Sixth Concession intersection heading south, through Stoney Park.
- Transit Windsor Bus services (North and Southbound Walkerville 8 Buses) are available in the subject area, along Sixth Concession and North Talbot Roads.
- The closest existing bus stops are located on North Talbot at Sixth Concession, Pioneer, and Oldwest. All of the proposed subdivision would be within a 400m walking distance.
- Bike lanes are available on both sides of the pavement along North Talbot Road.
- North Talbot Road is classified as Class 1 collector road.

Discussion:

1. PROVINCIAL POLICY STATEMENT (PPS) 2020

In making the determination whether the requested draft Plan of Subdivision approval is consistent with PPS 2020, a number of policies of the PPS 2020 are relevant for the discussion and have been considered in the Planning Rationale Report (PRR) dated December 3, 2021, prepared by the applicant's planning consultant (Pillon-Abbs Inc.) I have reviewed the planning consultant's summary of the key policy considerations of the PPS as it relates to the proposed development on the subject lands. I am providing complementary planning analysis to what the planning consultant has already stated in the PRR.

Policy 1.1.1 outlines specific land use planning activities and values that are known to continuously keep communities healthy, liveable and safe.

> *1.1.1 Healthy, liveable and safe communities are sustained by:*
> *a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;*
> *b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;*
> *c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;*

d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;
e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;
f) improving accessibility for persons with disabilities and older persons by addressing land use barriers which restrict their full participation in society;
g) ensuring that necessary infrastructure and public service facilities are or will be available to meet current and projected needs;
h) promoting development and land use patterns that conserve biodiversity; and
i) preparing for the regional and local impacts of a changing climate.

With respect to 1.1.1(a) – The proposed draft plan of subdivision for development of 33 lots for single detached dwellings, promotes a land use pattern that efficiently utilizes the vacant, underutilized subject lands.

With respect to 1.1.1(b) –The surrounding land uses in the subject area comprise a mix of low-density residential dwelling (mostly single unit dwellings), vacant/undeveloped lands, and open space lands with multiuse trails and storm water facilities. The proposed low density, small scale, low profile residential development is an appropriate within the subject area.

With respect to 1.1.1(c) – The proponent submitted an Acoustic Assessment for the proposed residential development. BAIRD AE prepared the Acoustic Assessment dated March 16, 2021, which recommended noise barrier fence along some sections of the North Talbot Road frontage of the subject land, windows and doors requirements, air conditioning installation requirements and Noise warning clauses to mitigate impact on public health and achieve a healthy and efficient living environment.

With respect to 1.1.1(d) – The proposed residential subdivision is within the inner part of the City of Windsor settlement area and is surrounded by existing developments and other land holdings. Therefore, the proposed development does NOT prevent the efficient expansion of settlement areas.

With respect to 1.1.1(e) – The proposed infill development on the subject land minimizes land consumption and is more cost effective. Allowing the proposed Draft Plan of Subdivision in this location contributes to minimizing land consumption and servicing costs by using a site that already has available trunk infrastructure in the immediate area.

With respect to 1.1.1(f) – Sidewalks improve *accessibility for persons with disabilities and older persons*. As noted in the recommendation section of this report, concrete sidewalk will be provided within the subject draft plan of subdivision, as well as along the North Talbot frontage of the subject lands, to connect to existing sidewalks and multi-use trail in the area.

With respect to 1.1.1(g) – As noted in this report under “NEIGHBOURHOOD CHARACTERISTICS”, the subject neighbourhood contains existing municipal infrastructure, existing local park(s) with multi-use trail, nearby place of worship and nearby schools.

With respect to 1.1.1(h) – The tree conditioning reports and the Endangered Species Act Report aim to promote a development and land use pattern that conserve biodiversity. This report contains recommendations that will help save existing desirable trees and protect habitats for endangered species on the subject lands; thereby conserving as much biodiversity as possible on the subject lands.

With respect to 1.1.1(i) – Consideration for climate change is addressed through various methods including lot-grading plans, stormwater management measures, tree planting requirements, landscaping requirements and more.

In summary, the proposed draft plan of subdivision represents an efficient development and land use pattern that will have no adverse impact on the financial well-being of the City of Windsor, land consumption and servicing costs. The noise control measures, amongst other recommendations in this planning report, will help the subdivision to be developed in a manner that does not cause any environmental or public health and safety concerns. The proposed draft plan of subdivision is consistent with Policy 1.1.1 of the PPS.

1.1.3.1 Settlement areas shall be the focus of growth and development.

The subject parcel is located within the settlement area of the City of Windsor. The proposed development creates growth and development within the City of Windsor settlement area; thereby, promoting the vitality of the settlement area. The proposed development will positively impact the existing nearby facilities (parks, schools, and places of worship) in the subject area.

1.1.3.2 Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

a) efficiently use land and resources;

b) are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;

c) minimize negative impacts to air quality and climate change, and promote energy efficiency;

d) prepare for the impacts of a changing climate;

e) support active transportation;

f) are transit-supportive, where transit is planned, exists or may be developed; and

Land use patterns within settlement areas shall also be based on a range of uses and opportunities for intensification and redevelopment in accordance with the criteria in policy 1.1.3.3, where this can be accommodated.

The proposed draft plan of subdivision, in the City of Windsor settlement area, promotes a land use pattern that is based on density that makes efficient use of land and existing infrastructure, including existing and planned active transportation options such as sidewalks, bike lanes, and multiuse trails. The recommendations provided in this report will help minimize negative impacts to air quality and climate change.

1.1.3.3 Planning authorities shall identify appropriate locations and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options through intensification and redevelopment where this can be accommodated taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs.

The subject lands are located in an area that is appropriate for residential intensification. The proposed Draft Plan of Subdivision is a residential intensification that takes into account existing building stock (mostly small scale, low-profile developments of the single detached type of housing), infrastructure (existing and planned) and public service facilities in the subject area. The draft plan of subdivision is consistent with Policies 1.1.3.1, 1.1.3.2 & 1.1.3.3 of the PPS.

1.4.3 Planning authorities shall provide for an appropriate range and mix of housing options and densities to meet projected market-based and affordable housing needs of current and future residents of the regional market area by:

b) permitting and facilitating:

1. all housing options required to meet the social, health, economic and well-being requirements of current and future residents, including special needs requirements and needs arising from demographic changes and employment opportunities; and

2. all types of residential intensification, including additional residential units, and redevelopment in accordance with policy 1.1.3.3;

c) directing the development of new housing towards locations where appropriate levels of infrastructure and public service facilities are or will be available to support current and projected needs;

d) promoting densities for new housing which efficiently use land, resources, infrastructure and public service facilities, and support the use of active transportation and transit in areas where it exists or is to be developed; and

f) establishing development standards for residential intensification, redevelopment and new residential development which minimize the cost of housing and facilitate compact form, while maintaining appropriate levels of public health and safety.

The proposed housing type (single detached dwellings) is use anticipated by municipal zoning by-law and official plan for the subject lands. The proposed residential intensification is appropriate for the subject lands in the subject area. The proposal is for development of new housing in a location where appropriate levels of infrastructure and public service facilities are or will be available.

Approving the Draft Plan of Subdivision would support residential development using the infrastructure that is already in place, instead of requiring more expenditure on new infrastructure in an agricultural setting. In terms of supporting active transportation and transit, the proposed Plan of Subdivision is in close proximity to Transit Windsor service. Also, there are existing and planned sidewalks, multi-use trails and bike lanes in the immediate area. The proposed draft plan will support the use of active transportation and public transit. The proposed draft plan of subdivision is consistent with Policy 1.4.3 of the PPS.

1.6.6.2 Municipal sewage services and municipal water services are the preferred form of servicing for settlement areas to support protection of the environment and minimize potential risks to human health and safety. Within settlement areas with existing municipal sewage services and municipal water services, intensification and redevelopment shall be promoted wherever feasible to optimize the use of the services.

The subject lands are within an area that is serviced by municipal sewage services and municipal water services. Additional municipal services are planned for the subject area through the 2016 Municipal Class EA for the subject corridor. Therefore, the draft plan of subdivision is consistent with policy 1.6.6.2 of the PPS.

1.6.6.7 Planning for stormwater management shall:

a) be integrated with planning for sewage and water services and ensure that systems are optimized, feasible and financially viable over the long term;

b) minimize, or, where possible, prevent increases in contaminant loads;

c) minimize erosion and changes in water balance, and prepare for the impacts of a changing climate through the effective management of stormwater, including the use of green infrastructure;

d) mitigate risks to human health, safety, property and the environment;

e) maximize the extent and function of vegetative and pervious surfaces; and

f) promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.

The applicant submitted a Stormwater Management and Functional Servicing Report that addressed the servicing requirements for the proposed development. Stormwater management is incorporated in the general provisions of the City's Subdivision Agreement. The proposed SWM Facility will be a dry pond. There SWM area will have a Low Impact Design (LID) and provide a stronger resilience to flooding through vegetation to slow runoff, as well as absorb storm water before it reaches the storm water management basin. As a result, the draft plan is consistent with the stormwater management policy (1.6.6.7) of the PPS.

2.1.1 Natural features and areas shall be protected for the long term.

2.1.7 Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

This planning report contains mitigation measures recommended by MTE Consultants in their April 29, 2021 and September 16, 2021 ESAct Study Reports. According to the report dated September 16, 2021, submitted by MTE Consultants, the Endangered Species Act concerns for the proposed development are limited to potential impacts to maternity roosting habitat for Protected Species of bats. The report concludes that *"to reduce the potential for impacts, vegetation removal will occur between October 1 and March 31, outside of the active season for bats, and replacement bat roosting habitat (two rocket boxes) will be installed under the direction of a qualified professional".* Therefore, the proposed draft plan of subdivision is consistent with policy 2.1.7 of the PPS.

In summary, the above planning analysis and the planning analysis provided in the Planning Rationale Report prepared by Pillon-Abbs Inc. (applicant's Planning Consultant) and dated December 3, 2021, confirm that the proposed draft plan of subdivision is consistent with the relevant Policies of the PPS 2020.

3. OFFICIAL PLAN:

The site is designated "Residential" in the Land Use Schedule D of City of Windsor Official Plan. The objectives and policies of the Residential land use designation establish the framework for development decisions in Residential areas within the City of Windsor.

The Official Plan supports a complementary range of housing forms, promotes compact residential form for new developments and also promotes selective residential infill and intensification initiative in the City of Windsor. (Sections 6.3.1.1, 6.3.1.2 & 6.3 1.3 of OP Vol.1.)

The above noted objectives of the OP are satisfied by the proposed single detached dwelling development (low density and complementary range of housing form) on the subject land. The proposed draft plan of subdivision is an infill development, which by its very nature promotes a compact neighbourhood.

The Residential land use designation permits "*Low, Medium and High Profile dwelling units." (See section* 6.3.2 of OP Vol.1). Based on the OP classification of *"types of low profile housing*" (s. 6.3.2.3), the proposed single detached dwellings are deemed small scale form of low profile housing development and are, therefore, permitted in the Residential land use designation.

The proposed development is on lands with access to a collector road (North Talbot road). As noted already in this report, there are existing full municipal physical services available to service the subject land. Existing community services, open spaces and public transportation are already in, and near, the neighbourhood and can service the new development. The proposed development satisfies the locational criteria (s.6.3.2.4) of OP Vol. 1.

With respect to the evaluation criteria set out under s. 6.3.2.5 of OP Vol. 1, the proponent has, in their consultant's Planning Rationale Report, demonstrated to the satisfaction of the City Planner that the proposed development is

- compatible with the surrounding area in terms of scale, massing, height, siting, orientation, setbacks, parking and amenity areas;
- capable of being provided with full municipal physical services and emergency services; and
- provided with adequate off street parking.

In addition, the proposed plan of subdivision is for low density low profile residential development much like the existing Southwood Lakes subdivision.

Section 7.2.3.2 – Pedestrian Network, OP Vol. 1: The Official Plan requires the installation of sidewalks on at least one side of proposed local roads (Streets A, B and C) and installation of sidewalks on both sides of North Talbot Road. Recommendation I (E) 6 of this report ensures compliance with the sidewalk requirements under s.7.2.3.2 (a)(i) of OP Vol. 1. General provision G-2(25) of the City's Subdivision Agreement addresses the sidewalk requirement under 7.2.3.2(a)(ii).

The subject land is adjacent to bicycle lanes, bus stop plus sidewalks on North Talbot Road, Sixth Concession Road and Southwood Lakes Boulevard; therefore, active transportation is supported in the subject neighbourhood.

The proposed development meets the requirements for noise control measures and off-street parking requirements as found in Section 7.2.6.18(b) – Residential Areas, OP Vol. 1.

Traffic Calming measures per section 7.2.6.20 of OP Vol. 1, are incorporated in the General Provisions under G-2(21) of the Subdivision Agreement.

4. Zoning By-Law

The subject lands are zoned Residential District 1.4 with a holding provision (HRD1.4) in By-law 8600. The holding provision is meant to ensure the property is developed to municipal standards by way of a plan of subdivision. The RD1.4 category permits the construction of single unit dwellings on lots with minimum lot width of 18m and minimum lot area of 540m^2. The application proposes to create parcels that will comply with and exceed the zone regulations of the existing RD 1.4 zoning category.

Removal of the holding provision requires compliance with section 5.4.20 of By-law 8600. Execution of a Subdivision Agreement for the subject lands will fulfill two of the three applicable requirements (s.5.4.20 (ii) & (iii)). Registration of a Subdivision Agreement is required in order to satisfy the requirement in s.5.4.20(i), so the Owner(s) can apply to remove the hold provision once the Plan of Subdivision has Final Registration.

Block 34 will be conveyed to the City to be used as a dry pond for storm water management of the subject residential development. The GD1.5 zone is specifically designed for storm water management facilities. Therefore, it is recommended that the zoning for Block 34 be changed from HRD1.4 to GD1.5.

Block 35 will be conveyed to the City for parkland dedication. Bylaw 8600 shows that Green District 1.1 (GD1.1) permits Public Park, child care centre and accessory uses to the two permitted uses. Consequently, it is more appropriate to change the zoning of Block 35 from HRD1.4 to GD1.1. In addition, Block 35 will be consolidated into the existing Stoneybrook Park, which is already zoned GD1.1.

This planning report contains recommendation to amend the zoning of the land parcels shown as Block 34 and Block 35 as suggested in the two paragraphs above.

5. Supporting Studies

Support studies were received for the proposed development on the subject lands. Stormwater Management (SWM) & Functional Servicing Report (FSR), Tree Conditioning Report, Phase 1 Environmental Site Assessment, Acoustic Report, SARS screening.

- *Planning Rationale Report (PRR)*, by Pillon-Abbs Inc. summarized the recommendations contained in the support studies. The PRR also reviewed the relevant planning policies and guidelines and concluded that "*the proposed development is suitable for residential use, is consistent with the PPS, conforms with the intent and purpose of the City of Windsor Official Plan and represents good planning."*

- Stormwater Management (SWM) & Functional Servicing Report (FSR) – Baird AE Inc., concluded that
  - The proposed development is modelled using new ERCA Stormwater Management Manual (SWMM) guideline and meets all standard criteria specified therein;
  - Water elevations for 5, 100 and urban storm events satisfies the new ERCA SWMM guidelines; and
  - The proposed subdivision did not have any adverse impacts on existing downstream developments.

- *Phase 1 Environmental Site Assessment (ESA*) – Coulson & Associates Ltd. concludes that "*the Phase 1 ESA has revealed no significant evidence of actual environmental contamination on the subject properties*" and recommended that *"no further investigation or remedial action is required at this time"*.

- *Acoustical Report* - Baird AE determined that the traffic noise from North Talbot Road and Southwood Lakes Blvd will impact on the proposed development as some of the proposed buildings are within 60dBA daytime noise limits which will trigger for noise attenuation wall. The Acoustical Report shows that mitigation measures such as warning clause, air conditioning and forced air heating are required. No traffic impact was observed from Highway 401 traffic.

  The Accoustial Report demonstrated that mitigation measures are required to bring residential units within the development into compliance with MOECC criteria. This planning report includes the recommende mitigation measures found in section 5.0 of the Acoustical Report as conditions of the draft plan approval; therefore, MOECC criteria will be satisfied. BAIRD AE concluded that the development can, with the implementation of the mitigation measures described in section 5 of the Acoustical report, be designed to address impacts from the surrounding noise sources.

- *Endangered Species Act Study (Preliminary Screening Report for Species at Risk),* dated Apr. 29, 2021, prepared by MTE contained mitigation measures, which were later updated in an addendum submitted in September 2021. This report contains recommendations that address the mitigation measures contained in both April 29, 2021 and September 16, 2021 ESAct Studies.

- *Tree Conditioning Reports 1 & 2, along with their Addendum*, are helpful in determining which existing trees can be saved or removed. Based on the information provided by Bezaire Partners, a tree preservation and landscape plan is required as a condition of approval for this subdivision.

6. MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY (CLASS EA):

North Talbot Road between Sixth Concession Road and the City limits is a municipal roadway classified as a Class I Collector. In 2016, the City of Windsor completed a Municipal Class Environmental Assessment study (Class EA) to provide an improved Sixth Concession Road / North Talbot Road corridor that will serve the needs of the transportation system and area growth for a 20-year period. These improvements will provide enhanced traffic safety and

efficiency, improved transit, pedestrian and cycling facilities within study area, enclosed drainage system for maintenance, safety and aesthetic improvements.

The section of North Talbot Road abutting the subject lands falls within the boundary of the 6th Concession Road/North Talbot Environmental Study Report (ESR) prepared by Dillon Consulting, dated April 2016. The ESR does not identify any property requirements across the frontage of the subject lands.

Construction has begun for Phase 1 of the North Talbot Road improvements from Howard Avenue to Southwood Lakes Boulevard and includes, the installation of new storm sewers, new watermain services connected to the existing watermain, new widened asphalt pavement with on-road bike lanes, new curb and gutters, new concrete sidewalks on both sides of North Talbot, and new streetlights.

The infrastructure improvements at the Sixth Concession Road / North Talbot Road intersection are scheduled for in the next few years in accordance with the 10-year Capital Budget, and will include a roundabout at North Talbot and Southwood lakes Blvd intersection and new multiuse trail on the north side of North Talbot Road across from the subject lands.

Risk Analysis:

Mitigation & Adaptation: The General Provision for the City of Windsor Subdivision Agreements includes items such as stormwater management, landscaping (tree-planting and tree preservation) and lot-grading requirements. These items mitigate climate change risks, while also serving as adaptation tools. Stormwater, tree-planting and preservation, and lot grading requirements are implemented and enforced through the Building Permit process. The use of low-impact development practice and design should also be encouraged at the building permit stage.

Financial Matters: N/A

Consultations:

1. DEPARTMENT AND AGENCIES

Comments received from municipal departments, service units and external agencies are included in **Appendix C**. The applicant/owner shall satisfy all items as set out in the Results of Circulation (Appendix C) attached.

The requirements of Engineering & Geomatics, Transportation Planning, City's Landscape Architect, ERCA, Canada Post, Utility companies and other agencies and departments, as found in Appendix C, have all been addressed under Recommendation I of this report and will be included in the subdivision agreement as special provisions or are already included in the general provisions of the subdivision agreement. It should be noted that in my discussion with the City's Engineering staff on May 16, 2022, it was confirmed that ditch enclosure is not required and culverts for driveways along North Talbot shall be addressed at the time of processing Street Opening Permit application. The following points are worth noting with respect to some municipal and agency comments found in Appendix C attached:

Canada Post will provide mail delivery service to the subdivision through centralized Community Mail Boxes (CMBs). See Appendix C of this report for Canada Post "Additional Developer Requirements". These Canada Post requirements are included under provisions contained in General Provisions [G-2 (11)] of the City's Subdivision Agreement.

***Essex Region Conservation Authority (ERCA)*:** The subject site is not located within a regulated area that is under the jurisdiction of ERCA. The Essex Region Conservation Authority has expressed some concerns regarding the proposed development. ERCA requested deferral of the proposed development pending completion of an Environmental Evaluation Report /Environmental Impact Assessment (EER/EIA). In addition, ERCA had a number of questions regarding stormwater management report submitted by BAIRD AE Inc. ERCA concluded by recommending several draft conditions for inclusion in the Subdivision Agreement. The recommendations in this planning report include all, but one, of the conditions recommended by ERCA. Baird AE Inc. provided an addendum with response to ERCA's questions. See Appendix D attached.

With respect to ERCA's request for an EER/EIA my comments are noted below:

- Environmental Evaluation Report /Environmental Impact Assessment (EER/EIA) is not required for the subject site.
- Section 10.2.5.1 of the OP states that the purpose of an Environmental Evaluation Report is to demonstrate that a proposed development or infrastructure undertaking may proceed in or adjacent to lands designated as Natural Heritage, Environmental Policy Area A or B and/or Candidate Natural Heritage Site.
- Section 5.3.3.1 of the OP states that Lands designated as Natural Heritage appear on Schedules B: Greenway System, C: Development Constraints and D: Land Use.
- The proposed development is not in or adjacent to lands designated as Natural Heritage, Environmental Policy Area A or B and/or Candidate Natural Heritage Site.
- Policy 2.1.8 of the PPS does not apply to the subject site for the reasons noted above, and for the fact that the subject lands and the adjacent lands are not identified as significant woodlands. Consequently, policy 2.1.8 is not a relevant policy for discussions pertaining to the proposed development on the subject land.
- Notwithstanding the above comment, it is good planning to demonstrate that the development has regard for the ecological function of the subject lands. This has been achieved through the applicant's submission of a tree conditioning report containing tree inventory, preservation and compensation plan as well as submission of Endangered Species Act Report containing mitigation measures for the proposed development.
- This planning report shows that the proposed development addresses Endangered Species and desirable trees on the subject lands to the satisfaction of the municipality.

***City's Landscape Architect*:** A number of conditions are stipulated for the purpose of preserving existing desirable trees and ensuring that compensation plan is implemented for those desirable trees on the subject lands that could not be saved. See Appendix C, herein attached, for detailed comments. This report incorporates the requirements in the Landscape Architect's comments.

2. PUBLIC NOTICE

The official notice of the statutory public meeting will be advertised in the local newspaper, the Windsor Star.

Courtesy notice will be mailed to all properties within 120m (400 feet) of the subject parcel prior to the Development & Heritage Standing Committee (DHSC) meeting.

Planner's Conclusion and Opinion:

The information provided by the applicant's Land Surveyor and Planning Consultant confirm that the proposed Draft Plan of Subdivision contain 33 residential building lots that comply with the lot width and lot area requirements for the development of single unit dwellings on lands zoned

RD1.4 by Zoning By-law 8600. The proposed development will provide housing opportunities in the subject area and City.

In my professional opinion, the Draft Plan of Subdivision is consistent with the relevant policies of the Provincial Policy Statement 2020 cited in this report. The Draft Plan of Subdivision also conforms with the City of Windsor Official Plan and constitutes good planning.

Administration is recommending that the Draft Plan of Subdivision be approved subject to the conditions found in the Recommendation section of this planning report.

Furthermore, Administration is requesting and recommending approval of a Zoning change from HRD1.4 to GD1.5 for Block 34 and from HRD1.4 to GD1.1 for Block 35.

Planning Act Matters:

I concur with the above comments and opinion of the Registered Professional Planner.

Michael Cooke, MCIP, RPP
Manager, Planning Policy / Deputy City Planner

Thom Hunt, MCIP, RPP
City Planner/ Executive Director

I am not a registered Planner and have reviewed as a Corporate Team Leader

JP, Commissioner, Economic Development & Innovation

SAH, Chief Administrative Officer(A)

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Wira Vendrasco	Deputy City Solicitor, Legal Services & Real Estate
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Chief Administration Officer (A)

Notifications:

Name	Address	Email
Abutting property owners and tenants within 120 meter (400 feet) radius of the subject land		
Applicant/Registered Owner: Bellocorp Inc., (c/o Tosin Bello)	1185 North Talbot Rd., Windsor ON N9A 6J3	bellocorpdevelopments@gmail.com
Agent: Pillon-Abbs Inc. (c/o) Tracey Pillon-Abbs	23669 Prince Albert Rd, Chatham, ON N7M 5J7	tpillonabbs@gmail.com
Ontario Land Surveyor: VERHAEGEN Land Surveyors (c/o Roy Simone)	944 Ottawa St., Windsor ON N8X 2E1	rsimone@vshbbsurveys.com
Councillor Fred Francis	350 City Hall Sq. W., Suite 220, Windsor, ON N9A 6S1	ffrancis@citywindsor.ca

Appendices:

1 Appendix A, Site Photos
2 Appendix B-1, Map No. SDN-001/21-1, dated May 20, 2022
3 Appendix B-2, Lot Width and Lot Area for Map No. SDN-001/21-1
4 Appendix C, Consultations - Comments from Departments & External Agencies
5 Appendix D, BAIRD AE's response to ERCA's Stormwater questions

APPENDIX A – SITE PHOTOS taken on May 12, 2021 File SDN-001/21

PARTIAL VIEW OF SUBJECT LAND, LOOKING WEST FROM STONEYBROOK CRESCENT AT 1255 NORTH TALBOT RD

APPENDIX A – SITE PHOTOS taken on May 12, 2021

File SDN-001/21

VIEW OF HOMES ON STONEYBROOK CRESCENT ABUTTING SOUTH OF SUBJECT LANDS

VIEW OF RESIDENTIAL CARE FACILITY ABUTTING EAST OF SUBJECT LANDS

APPENDIX A – SITE PHOTOS taken on May 12, 2021 File SDN-001/21

LOOKING SOUTH FROM SOUTHWOOD LAKES & NORTH TALBOT INTERSECTION

LOOKING EAST FROM SOUTHWOOD LAKES & NORTH TALBOT INTERSECTION

VIEWS OF ABUTTING STONEY PARK AND MULTI-USE TRAIL ON THE WEST SIDE OF SUBJECT LANDS

APPENDIX A – SITE PHOTOS taken on May 12, 2021 File SDN-001/21

VIEWS OF THE SUBJECT LANDS AND SURROUNDING FEATURES, LOOKING EAST FROM SOUTHWOOD LAKES BLVD INTERSECTION WITH NORTH TALBOT RD

APPENDIX A – SITE PHOTOS taken on May 12, 2021

File SDN-001/21

VIEW OF NORTH TALBOT ROAD, LOOKING WEST FROM PIONEER AVENUE INTERSECTION, SHOWING FRONTAGE OF SUBJECT LANDS ON THE SOUTH SIDE

APPENDIX A – SITE PHOTOS taken on May 12, 2021 File SDN-001/21

VIEW OF NORTH TALBOT, LOOKING EAST AT OLD WEST AVENUE, SHOWING FRONTAGE OF 1085 and 1255 NORTH TALBOT RD

VIEW OF NORTH TALBOT, LOOKING WEST AT OLD WEST AVENUE, SHOWING FRONTAGE OF SUBJECT LANDS

VIEW OF NORTH TALBOT, LOOKING SOUTH AT OLD WEST AVENUE INTERSECTION, SHOWING FRONTAGE OF SUBJECT LANDS

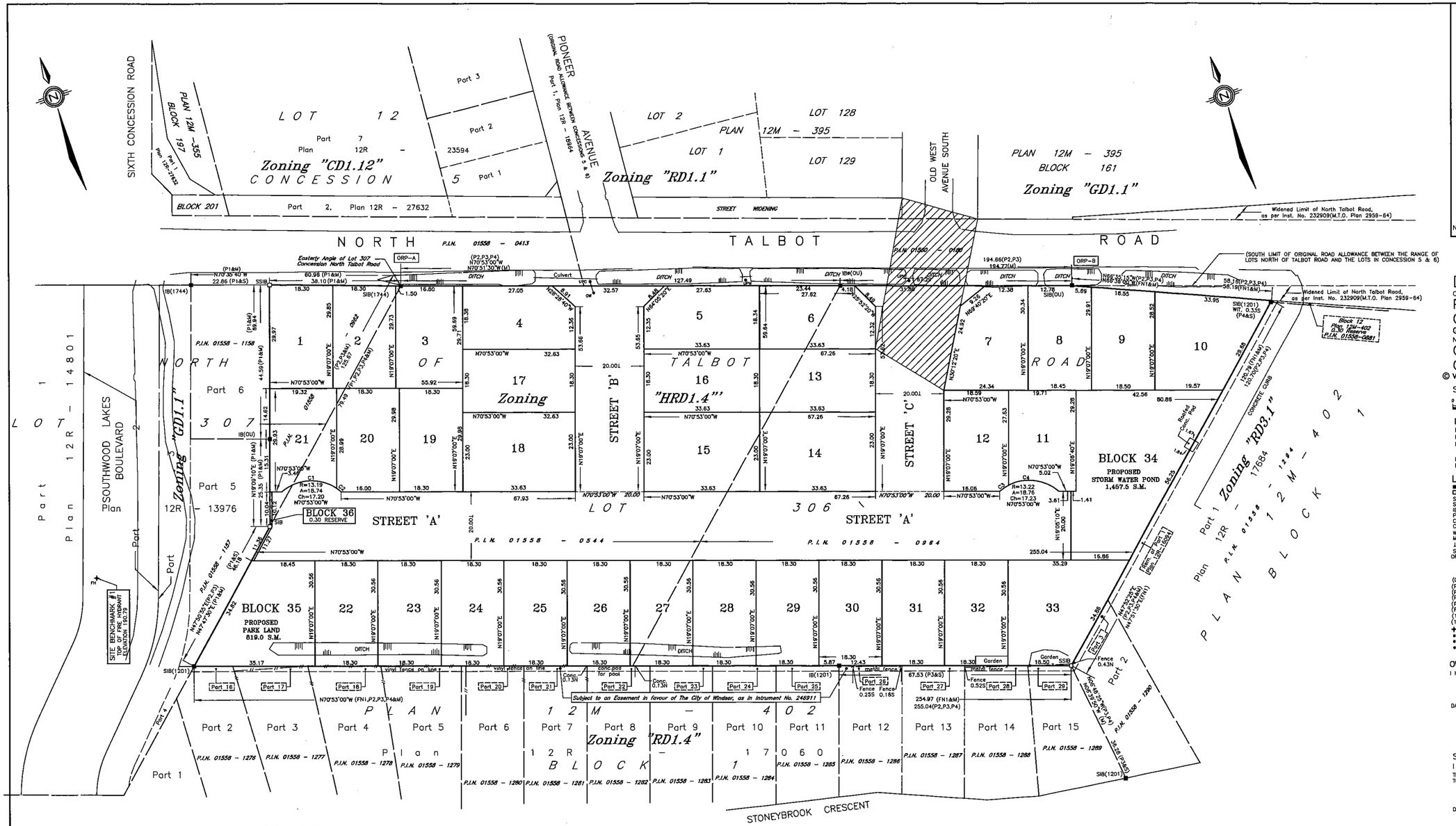
APPENDIX A – SITE PHOTOS taken on May 12, 2021 File SDN-001/21

PARTIAL VIEW OF EXISTING HOMES AND MUNICIPAL PARK AT OLD WEST AVENUE & NORTH TALBOT INTERSECTION, ACROSS FROM THE SUBJECT LANDS

PARTIAL VIEW OF EXISTING MUNICIPAL PARK (NORTH TALBOT PARK) AT OLD WEST AVENUE ACROSS FROM THE SUBJECT LANDS

APPENDIX A – SITE PHOTOS taken on May 12, 2021 File SDN-001/21

PARTIAL VIEW OF EXISTING SINGLE UNIT DWELLING AT 1085 NORTH TALBOT, LOOKING SOUTHWEST FROM OLD WEST AVENUE



KEY MAP
NOT TO SCALE

DRAFT PLAN OF SUBDIVISION
OF
PART OF LOTS 306 AND 307 CONCESSION NORTH OF TALBOT ROAD
GEOGRAPHIC TOWNSHIP OF SANDWICH SOUTH
NOW IN THE
CITY OF WINDSOR
COUNTY OF ESSEX, ONTARIO

SCALE = 1:500

0 5.00 10.00 20.00 30.00 50.00 METRES

LEGEND AND NOTES

BEARINGS ARE UTM GRID DERIVED FROM OBSERVED REFERENCE POINTS "A" AND "B" BY REAL TIME NETWORK OBSERVATIONS AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) NAD 83 (CSRS) (2010.0).

DISTANCES ON THIS PLAN ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99990326.

LEGEND

- ■ DENOTES SURVEY MONUMENT FOUND
- □ DENOTES SURVEY MONUMENT SET
- SIB DENOTES STANDARD IRON BAR
- SSIB DENOTES SHORT STANDARD IRON BAR
- IB DENOTES IRON BAR
- PB DENOTES PLASTIC BAR
- SP DENOTES STEEL PIN
- CC DENOTES CUT-CROSS
- WIT DENOTES WITNESS
- M DENOTES MEASURED
- ⊥ DENOTES PERPENDICULAR
- S DENOTES SET
- ORP DENOTES OBSERVED REFERENCE POINT

ALL SET SSIB AND PB MONUMENTS WERE USED DUE TO LACK OF OVERBURDEN AND/OR PROXIMITY OF UNDERGROUND UTILITIES IN ACCORDANCE WITH SECTION 11 (4) OF O.REG. 525/91.

- (OU) DENOTES ORIGIN UNKNOWN
- (P1) DENOTES PLAN 12R-13976
- (P2) DENOTES PLAN 12M-402
- (P3) DENOTES PLAN 12R-17060
- (P4) DENOTES PLAN 12R-17684
- (FN1) DENOTES FIELD NOTE BY
- (1744) DENOTES VERHAEGEN LAND SURVEYORS,OLS
- (1201) DENOTES CLARKE SURVEYORS INC., O.L.S.
- ✦FH DENOTES FIRE HYDRANT
- ●UPC DENOTES UTILITY POLE CONCRETE
- ●UPW DENOTES UTILITY POLE WOOD
- ●GW DENOTES GUY WIRE

OWNER'S CERTIFICATE

I HEREBY AUTHORIZE THE FILING OF THIS THIS DRAFT PLAN FOR APPROVAL.

DATE: _____

"I HAVE THE AUTHORITY TO BIND THE CORPORATION"

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AND THEIR RELATIONSHIP TO THE ADJACENT LANDS HAVE BEEN ACCURATELY AND CORRECTLY SHOWN.

DATE MAY 19, 2022

ROY A. SIMONE
ONTARIO LAND SURVEYOR

INTEGRATION DATA

COORDINATES ARE DERIVED FROM GRID OBSERVATIONS USING THE CAN-NET NETWORK SERVICE AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) NAD83 (CSRS) (2010.0).
COORDINATE VALUES ARE TO AN URBAN ACCURACY IN ACCORDANCE WITH SECTION 14(2) O.REG 216/10

POINT ID	NORTHING	EASTING
ORP-A	N4678646.40	E336574.75
ORP-B	N4678582.53	E336758.76

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

FOR BEARING COMPARISON, A ROTATION 01°00'25 CLOCKWISE WAS APPLIED TO (P2),(P3) & (P4) TO CONVERT TO GRID BEARINGS.
FOR BEARING COMPARISON, A ROTATION 00°59'20" CLOCKWISE WAS APPLIED TO (P1) TO CONVERT TO GRID BEARINGS.
FOR BEARING COMPARISON, A ROTATION 01°02'30" CLOCKWISE WAS APPLIED TO (FN1) TO CONVERT TO GRID BEARINGS.

ADDITIONAL INFORMATION

REQUIRED UNDER SECTION 51(17) OF THE PLANNING ACT, (R.S.O. 1990)

- (A) AS SHOWN ON PLAN
- (B) AS SHOWN ON PLAN
- (C) AS SHOWN ON PLAN
- (D) SINGLE FAMILY RESIDENTIAL
- (E) NORTH – EXISTING RESIDENCE
  WEST – EXISTING RESIDENTIAL
  EAST – EXISTING RESIDENTIAL
  SOUTH – EXISTING RESIDENTIAL
- (F) AS SHOWN ON PLAN
- (G) AS SHOWN ON PLAN
- (H) PIPED MUNICIPAL
- (I) CLAY LOAM
- (J) AS SHOWN ON PLAN
- (K) ALL SERVICES TO BE PROVIDED
- (L) AS SHOWN ON PLAN

SUMMARY

TOTAL NUMBER OF LOTS	33
TOTAL NUMBER OF BLOCKS	3
TOTAL AREA OF SITE	2.932 Hectares
DENSITY	11.3 Lots per Hectares

"METRIC" DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

CURVE SCHEDULE

CURVE	RADIUS	ARC	CHORD	CHORD BEARING
C1	13.19	17.10	15.93	N74°26'30"W
C2	13.19	1.64	1.64	N33°44'40"W
C3	13.22	3.06	3.06	N75°05'30"E
C4	13.22	15.70	14.80	N64°14'50"W

MAP No. SDN-001/21-1

VERHAEGEN LAND SURVEYORS
A DIVISION OF J.D. BARNES LTD.
944 OTTAWA STREET, WINDSOR, ON, N8X 2E1
T: (519) 258-1772 F: (519) 258-1791 www.jdbarnes.com
SURVEYING MAPPING GIS

DRAWN BY:	CHECKED BY:	REFERENCE NO.:
D.J.	RAS	21-47-019-01
CAD File: 21-47-019-02.dwg	E-WIND-NTR-306	CAD Date: May 20, 2022 10:23 AM

APPENDIX B-2

J.D.BARNES LIMITED

MARKED BY INNOVATION . MEASURED BY REPUTATION™

Draft Plan of Subdivision Dated May 19, 2022

Area and Lot Width Table (May 19, 2022)
J.D.Barnes Reference No. 21-47-019-02

Lot/Block	Lot Width	Area (Square Metres)
LOT 1	18.30	548.3
LOT 2	18.30	545.4
LOT 3	18.30	573.6
LOT 4	18.38	579.7
LOT 5	18.35	598.8
LOT 6	18.34	598.4
LOT 7	24.34	630.3
LOT 8	18.45	558.6
LOT 9	18.50	540.6
LOT 10	19.57	737.1
LOT 11	19.71	541.9
LOT 12	18.59	542.1
LOT 13	18.30	615.5
LOT 14	23.00	773.5
LOT 15	23.00	773.8
LOT 16	18.30	615.5
LOT 17	18.30	597.1
LOT 18	23.00	750.9
LOT 19	18.30	548.7
LOT 20	18.30	548.1
LOT 21	19.32	542.7
LOT 22	18.30	559.2
LOT 23	18.30	559.2
LOT 24	18.30	559.2
LOT 25	18.30	559.2
LOT 26	18.30	559.2
LOT 27	18.30	559.2
LOT 28	18.30	559.2
LOT 29	18.30	559.2
LOT 30	18.30	559.2
LOT 31	18.30	559.2
LOT 32	18.30	559.2
LOT 33	26.90	821.4
BLOCK 34		1457.5
BLOCK 35		819.0
BLOCK 36		6.8
STREET A		4757.6
STREET B		1230.8
STREET C		1230.1

APPENDIX C - COMMENTS

ENBRIDGE – Kelly Buchanan

It is Enbridge Gas Inc.'s (formerly Union Gas Ltd) request that as a condition of final approval that the owner/developer provide to Union the necessary easements and/or agreements required by Union for the provision of gas services for this project, in a form satisfactory to Enbridge.

CANADA POST – Bruno DeSando

Thank you for contacting Canada Post regarding plans for a new subdivision in the City of Windsor. Please see Canada Post's feedback regarding the proposal, below.

Service type and location

1. Canada Post will provide mail delivery service to the subdivision through centralized Community Mail Boxes (CMBs).
2. If the development includes plans for (a) multi-unit building(s) with a common indoor entrance, the developer must supply, install and maintain the mail delivery equipment within these buildings to Canada Post's specifications.

Municipal requirements

1. Please update our office if the project description changes so that we may determine the impact (if any).
2. Should this subdivision application be approved, please provide notification of the new civic addresses as soon as possible.

Developer timeline and installation

Please provide Canada Post with the excavation date for the first foundation/first phase as well as the date development work is scheduled to begin. Finally, please provide the expected installation date(s) for the CMB(s).

Please see Appendix A for any additional requirements for this developer.

Appendix A

Additional Developer Requirements:

- The developer will consult with Canada Post to determine suitable permanent locations for the Community Mail Boxes. The developer will then indicate these locations on the appropriate servicing plans.
- The developer agrees, prior to offering any units for sale, to display a map on the wall of the sales office in a place readily accessible to potential homeowners that indicates the location of all Community Mail Boxes within the development, as approved by Canada Post.
- The developer agrees to include in all offers of purchase and sale a statement which advises the purchaser that mail will be delivered via Community Mail Box. The developer also agrees to note the locations of all Community Mail Boxes within the development, and to notify affected homeowners of any established easements granted to Canada Post to permit access to the Community Mail Box.

- The developer will provide a suitable and safe temporary site for a Community Mail Box until curbs, sidewalks and final grading are completed at the permanent Community Mail Box locations. Canada Post will provide mail delivery to new residents as soon as the homes are occupied.
- The developer agrees to provide the following for each Community Mail Box site and to include these requirements on the appropriate servicing plans:
    - Any required walkway across the boulevard, per municipal standards
    - Any required curb depressions for wheelchair access, with an opening of at least two metres (consult Canada Post for detailed specifications)
    - A Community Mailbox concrete base pad per Canada Post specifications.

ASSESSMENT MANAGEMENT OFFICER - Jose Mejalli

No objection to the 34 lot subdivision and related roadways and change in zoning.

TRANSIT WINDSOR - Jason Scott

Transit Windsor has no objections to this development. The closest existing transit route to this proposed subdivision is with the Walkerville 8. The closest existing bus stops are located on North Talbot at Sixth Concession, Pioneer, and Old West. All of the proposed subdivision would be within our walking distance guidelines of 400 metres. The transit service will be changing in this area with our Council approved Transit Master Plan as the area will be getting a new 2 way conventional transit route along Southwood Lakes to replace the existing 1 way loop that is currently present along North Talbot. All of the proposed subdivision would still be within the walking distance guideline with this change.

ENVIRONMENTAL & SUSTAINABILITY COORDINATOR - Jennifer Nantais

In response to the application for a Plan of Subdivision there are no objections. Please also note the following comments for consideration:

Energy Conservation, Air Quality and Climate Change:

Please note PPS 2020 energy conservation and efficiency policies as they relate to long-term economic prosperity (1.7.1 (j)), as well as improved air quality and reduced greenhouse gas emissions (1.8.1). In addition, the City of Windsor Community Energy Plan (approved July 17 2017) aims to improve energy efficiency; modifying land use planning; reducing energy consumption and greenhouse gas emissions; and fostering green energy solutions throughout Windsor, while supporting local economic development.

As per these policies the developer should consider energy efficiency in the building design. This may include but not be limited to increased insulation, energy efficient appliances and fixtures, high efficiency windows and doors. In addition, consideration for EV charging infrastructure and opportunities to increase resiliency such as providing strategic back-up power capacity is warranted.

In addition, the large scale paving of natural space will increase the urban heat island in the area. It is recommended that the developer consider shade trees, white colour roofs or green roofs to mitigate this impact. For more suggestions please consult the following resources: LEED, Built Green Canada, and EnerGuide.

To promote the use of active transportation, bike racks should be included.

Stormwater Management:

Consideration should be given, as per PPS 2020 Section 1.6.6.7 to maximize the extent and function of vegetative and pervious surfaces; and promote stormwater management best practices, including stormwater attenuation and reuse, water conservation and efficiency, and low impact development.

Landscaping

Consideration for shade trees are recommended to minimize the urban heat island impacts. Consideration of native, drought resistant plants is encouraged to limit watering requirements.

The Environmental Sustainability & Climate Change team supports the comments submitted by the Landscape Architect on this application.

In addition we encourage the developer to consider community gardening space for residents. Local food production is very popular in Windsor and considering the size of this development a space for community garden boxes is warranted.

HYDRO ONE – Dolly Shetty

We are in receipt of Application SDN-001/21 [SDN/6575] - BelloCorp Inc., dated January 11, 2022. We have reviewed the documents concerning the noted Plan and have no comments or concerns at this time. *Our preliminary review considers issues affecting Hydro One's 'High Voltage Facilities and Corridor Lands' only.*

For proposals affecting 'Low Voltage Distribution Facilities' please consult your local area Distribution Supplier.

To confirm if Hydro One is your local distributor please follow the following link:
http://www.hydroone.com/StormCenter3/

Please select " Search" and locate address in question by entering the address or by zooming in and out of the map

If Hydro One is your local area Distribution Supplier, please contact Customer Service at 1-888-664-9376 or e-mail CustomerCommunications@HydroOne.com to be connected to your Local Operations Centre.

BUILDING DEPARTMENT- Barbara Rusan

The Building Code Act, Section 8.(1) requires that a building permit be issued by the Chief Building Official for any construction or demolition of a building. It is strongly recommended that the owner

and/or applicant contact the Building Division to determine building permit needs for the proposed project. The City of Windsor Building Division can be reached by phone at 519-255-6267 or through email at buildingdept@citywindsor.ca

WINDSOR MAPPING, ENBRIDGE - Sandro Aversa C.E.T.

After reviewing the provided drawing and consulting our mapping system, please note that Enbridge Gas has active infrastructure in the proposed area. A PDF drawing has been attached for reference.

Please NOTE:

1. The shown piping locations are approximate and for information purposes only
2. The drawings are not to scale
3. This drawing does not replace field locates. Please contact Ontario One Call for onsite locates prior to excavating, digging, etc

Enbridge Gas requires a minimum separation of 0.6m horizontal and 0.3m vertical from all of our plant less than NPS 16 and a minimum separation 1.0m horizontal and 0.6m vertical between any CER-regulated and vital pipelines. For all pipelines (including vital pipelines), when drilling parallel to the pipeline, a minimum horizontal clearance measured from the edge of the pipeline to the edge of the final bore hole of 1 m (3.3 ft) is required. Please ensure that this minimum separation requirement is maintained, and that the contractor obtains locates prior to performing any work and utilizes safe excavation practices while performing any work in the vicinity.

Also, please note the following should you find any abandoned infrastructure in the area:

- Any pipe that is excavated, please assume that it is live
- If during the course of any job, any pipe is found that is not on the locate sheet and is in conflict with your work, please call our emergency number (1-877-969-0999), and one of our Union Gas representatives will respond to determine if that plant is in fact live or dead
- Please note that our Enbridge Gas representative will respond to the live or dead call within 1-4 hours, so please plan your work accordingly

HERITAGE PLANNER - Kristina Tang

No supporting information required.

There is no apparent built heritage concern with this property and it is located on an area of low archaeological potential.

Nevertheless, the Applicant should be notified of the following archaeological precaution.

1. Should archaeological resources be found during grading, construction or soil removal activities, all work in the area must stop immediately and the City's Planning & Building Department, the City's Manager of Culture and Events, and the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries must be notified and confirm satisfaction of any archaeological requirements before work can recommence.
2. In the event that human remains are encountered during grading, construction or soil removal activities, all work in that area must be stopped immediately and the site secured. The local police or coroner must be contacted to determine whether or not the skeletal remains are

human, and whether the remains constitute a part of a crime scene. The Local police or coroner will then notify the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries and the Registrar at the Ministry of Government and Consumer Services if needed, and notification and satisfactory confirmation be given by the Ministry of Heritage, Sport, Tourism and Culture Industries.

Contacts:
Windsor Planning & Building Department:
519-255-6543 x6179, ktang@citywindsor.ca, planningdept@citywindsor.ca
Windsor Manager of Culture and Events (A):
Michelle Staadegaard, (O) 519-253-2300x2726, (C) 519-816-0711, mstaadegaard@citywindsor.ca
Ontario Ministry of Heritage, Sport, Tourism and Culture Industries
Archaeology Programs Unit, 1-416-212-8886, Archaeology@ontario.ca
Windsor Police: 911
Ontario Ministry of Government & Consumer Services
A/Registrar of Burial Sites, War Graves, Abandoned Cemeteries and Cemetery Closures, 1-416-212-7499, Crystal.Forrest@ontario.ca

PARKS DEVELOPMENT - Sherif Barsom
We have reviewed the submitted application and noticed that there was a Tree Condition Report submitted for this site. At this point Parks Development has no comments pertaining this submission.

Noting that the City Forestry team has to review the report and comment on it if any.

ERCA

The following is provided, as a result of our review, to consider, Draft Plan of Subdivision (SDN-001-21 / SDN- 6575).

The applicant requests approval of a draft plan of Subdivision for the development of 34 residential building lots for single unit detached dwellings, on the parcels described, as, Part Lot 306 and Part Lot 307, Concession N Talbot Rd., Sandwich East, Windsor. The draft plan includes 3 new roadways (Streets A, B & C), and 3 Blocks (Block 35 for SWM facility; Block 36 & 37 for Reserves), identified as part of the proposed residential subdivision development. Two of the proposed new roads provide direct vehicular access from/to North Talbot Road.

The subject lands are designated Residential on Schedule D – Land Use, of the Official Plan and zoned Residential District 1.4 with a holding provision (HRD1.4) by Bylaw 8600. Subsection 20(1)85 of By-law 8600 applies to the subject lands and requires a minimum front yard depth of 9m for any lot fronting on North Talbot Rd between Southwood Lakes Blvd and HWY 401.

It is the ERCA understanding that the existing holding symbol maybe removed, when a Final Plan of Subdivision has been registered, for the site and when the applicant submits an application to remove the holding symbol.

DELEGATED RESPONSIBILITY TO REPRESENT THE PROVINCIAL INTEREST IN NATURAL HAZARDS AND REGULATORY RESPONSIBILITIES ASSOCIATED WITH THE CONSERVATION AUTHORITIES ACT

The following comments reflect our role as representing the provincial interest in natural hazards as outlined by Section 3.1 of the *Provincial Policy Statement* of the *Planning Act,* as well as our regulatory role as defined by Section 28 of the *Conservation Authorities Act*.

We have reviewed our floodline mapping for this area and it has been determined this site is not located within a regulated area that is under the jurisdiction of the ERCA (Section 28 of the *Conservation Authorities Act*).

As a result, a permit is not required from ERCA for issues related to Section 28 of the *Conservation Authorities Act,* Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation under the *Conservations Authorities Act*, (Ontario Regulation No. 158/06).

Please note the ERCA will still require a *Development Review Clearance* for this proposal, given the size and scale of the proposed residential development.

PLANNING ADVISORY SERVICE TO PLANNING AUTHORITIES - NATURAL HERITAGE POLICIES OF THE PPS, 2020

The following comments are provided from our perspective, as an advisory service provider to the Planning Authority, on matters related to natural heritage and natural heritage systems, as outlined in Section 2.1 of the *Provincial Policy Statement (PPS)* of the *Planning Act*. The comments in this section do not necessarily represent the provincial position and are advisory in nature for the consideration of the Planning Authority.

The subject property contains a natural heritage feature that may meet criteria for significant woodland, significant wildlife habitat and/or habitat of endangered species and threatened species. A 'species at risk study' and a “tree inventory” is not sufficient, in order to meet the requirements of PPS natural heritage policies. The proposal is to develop the entire Natural Heritage feature. This would not meet the requirements of PPS policies to demonstrate no negative impact.

Therefore, this application should be *Deferred*, pending completion of a *Environmental Evaluation Report (EER / EIA)*, documenting ALL species on the site and evaluating the site in accordance with EIA guidelines.

WATERSHED BASED RESOURCE MANAGEMENT AGENCY

The following comments are provided in an advisory capacity, as a public commenting body on matters related to watershed management.

SECTION 1.6.6.7 Stormwater Management (PPS, 2020)

ERCA has concerns with the potential impact of the quality and quantity of runoff in the downstream watercourse due to the proposed development on this site.

ERCA recommends that stormwater quality and stormwater quantity will need to be addressed, up to and including the 1:100 year storm event and be in accordance with the guidance provided by the “*Stormwater Management Planning and Guidance Manual, prepared by the Ministry of the*

Environment (MOE, March 2003)" and the "*Windsor-Essex Region Stormwater Management Standards Manual*".

FINAL RECOMMENDATIONS

This application should be *"Deferred"*, pending completion of an *Environmental Evaluation Report (EER / EIA),* documenting ALL species on the site and evaluating the site in accordance with EIA guidelines.

In addition, we therefore request inclusion of the following draft conditions, in the Subdivision Agreement:

1.That the subdivision agreement between the Owner and the Municipality contain provisions, to the satisfaction of the "Municipality" and the "Essex Region Conservation Authority", that stipulate that the Owner will finalize the engineering analysis to identify stormwater quality and quantity measures as necessary to control any increase in flows in downstream watercourses, up to and including the 1:100 year design storm and in accordance with the *Windsor-Essex Stormwater Management Standards Manual.*

2. That the subdivision agreement between the Owner and the Municipality contain provisions that requires that the Owner installs the stormwater management measures identified in the engineering analysis completed as part of the development for the site and undertake to implement the recommendations contained therein, to the satisfaction of the "Municipality" and the "Essex Region Conservation Authority".

3. That prior to undertaking construction or site alteration activities, any necessary permits or clearances be received from the Essex Region Conservation Authority (ERCA), in accordance with Section 28 of the *Conservation Authorities Act*. Alternatively, if not regulated, by the ERCA, any required development review clearances.

4. That the subdivision agreement between the Owner and the Municipality contain provisions that require the Owner to implement any and / or all recommendations of a final *Environmental Evaluation Report (EER / EIA)*, to the satisfaction of the Municipality and the ERCA. Recommendations from this report shall be implemented in the design and construction phases of the development (*note: this draft condition is subject to the ERCA request for a Deferral of this application at this time*).

5. That prior to final approval, the Essex Region Conservation Authority shall require a copy of the fully executed subdivision agreement between the Owner and the Municipality, in wording acceptable to the Essex Region Conservation Authority, containing provisions to carry out the recommendations of the final plans, reports and requirements noted above.

We have no objections to the application for Draft Plan of Subdivision at this time, subject to the draft conditions noted above and the consideration of a *deferral* at this time, pending submission of an *Environmental Evaluation Report (EER / EIA*), documenting ALL species on the site and evaluating the site in accordance with EIA guidelines.

We ask the County of Essex or the approval authority, in this case, to forward a copy of the Notice of Decision, including a copy of the Draft Approved Plan for our records.

We also request to be notified, on any future circulations for this application or notifications, regarding this proposed plan of subdivision.

The ERCA has also provided some preliminary comments on the Stormwater Management Plan to facilitate your review (see attached).

Reviewed the following for SWM considerations:
- 1095 North Talbot Residential SWM and FS Report (Projcet No. 21-021)

Provide the following SWM comments:
- Please confirm is the 100 year SCS event modelled?
- Why is the UST HWL lower than the 100 yr HWL?
- Discharge is to be restricted via a 377 mm diameter plate. Does this size exist? Or will it be custom made?
- Is there an overland spill route to the pond or the ROW? Proposed Street A – Has a HP on the west boundary edge of 190.35 m and on the east edge of 190.08 m. The dry pond has a TOB of 190.27 m. It appears that the overland flow route will spill into the existing adjacent property (1255 North Talbot Rd) for events exceeding the stress test.
- Is an easement required behind blocks 7, 9, 9, 35 for the 250 mm storm sewer. If this is the case, please provide confirmation that the easement is satisfactory to the City.
- Sewer design sheet is missing A-7, Tc is selected as 10 mins but inlet time shows 20 mins. Please clarify.
- What is the purpose of the ditches on the North and South end of the property? Are these for storage or conveyance? Where is the water directed to?
- Since the proposed development is adjacent to existing developed blocks on the southern edge, can you please confirm if the existing grading will outlet into the proposed rear yard cbs? If so, will the provided SWM need to account for additional drainage requirements posed by these lots?

Please NOTE: At this time, ERCA is requesting a **deferral** of the planning application, pending completion of an *Environmental Evaluation Report (EER/EIA)*, documenting ALL species on the site and evaluating the site in accordance with EIA guidelines.

Rania Toufeili – Transportation

- North Talbot Road is classified as a Class I Collector with a required right-of-way width of 25.3 meters per Schedule X of the Official Plan. The current right-of-way is sufficient per the Sixth Concession Road/North Talbot Road Environmental Assessment and therefore no conveyance is required along the roadway.
- Corner cut-offs of 4.6 meters are required on North Talbot Road and Streets B and C (lots 4,5, 6 and 7). The submitted plan shows corner cut-offs.
- The new proposed Street B and Street C should align with the intersections to the north of Pioneer Avenue and Old West Avenue South respectively.
- Driveways for lots 4, 5, 6 and 7 should be set as far back as possible from the intersections. Furthermore, lots that are abutting two streets should have driveways on the lower classification street (local road).
- Sidewalk contributions are to be made as required and outlined by Engineering Right-of-Way.
- Detailed and dimensioned drawings showing the proposed driveways, curb cuts and cul-de-sac design are required to provide further comments on conveyances and additional

requirements. All roadways should be constructed to City of Windsor Standards Engineering Drawings.

- A pedestrian connection should be provided from Street A to the trail on Southwood Lakes Boulevard. A standard cul-de-sac bulb will need to be provided for Street A and therefore a sidewalk connection should be accommodated with sufficient space at this cul-de-sac.
- Parking restrictions and required by-law amendments will be reviewed at the engineering drawings review stage.
- All accesses shall conform to the TAC Geometric Design Guide for Canadian Roads and the City of Windsor Standard Engineering Drawings.
- All exterior paths of travel must meet the requirements of the *Accessibility for Ontarians with Disabilities Act* (AODA).

Bell Canada – Circulations

We have reviewed the circulation regarding the above noted application and have no objections to the application as this time. However, we hereby advise the Owner to contact Bell Canada at planninganddevelopment@bell.ca during detailed design to confirm the provisioning of communication/telecommunication infrastructure needed to service the development. We would also ask that the following paragraph be included as a condition of approval:

"The Owner agrees that should any conflict arise with existing Bell Canada facilities where a current and valid easement exists within the subject area, the Owner shall be responsible for the relocation of any such facilities or easements at their own cost."

It shall also be noted that it is the responsibility of the Owner to provide entrance/service duct(s) from Bell Canada's existing network infrastructure to service this development. In the event that no such network infrastructure exists, in accordance with the Bell Canada Act, the Owner may be required to pay for the extension of such network infrastructure.

If the Owner elects not to pay for the above noted connection, Bell Canada may decide not to provide service to this development.

To ensure that we are able to continue to actively participate in the planning process and provide detailed provisioning comments, we note that we would be pleased to receive circulations on all applications received by the Municipality and/or recirculations.

Please note that WSP operates Bell's development tracking system, which includes the intake of municipal circulations. WSP is mandated to notify Bell when a municipal request for comments or for information, such as a request for clearance, has been received. All responses to these municipal circulations are generated by Bell, but submitted by WSP on Bell's behalf. WSP is not responsible for Bell's responses and for any of the content herein.

If you believe that these comments have been sent to you in error or have questions regarding Bell's protocols for responding to municipal circulations and enquiries, please contact planninganddevelopment@bell.ca.

Enwin

Hydro Engineering: No Objection, however, a hydro easement may be required to accommodate the existing hydro anchor on the northwest corner of Street B on the draft plan. See attached sketch.

Water Engineering: Water Engineering has no objections.

Patrick Winters – Engineering

The applicant is requesting approval for a Draft Plan of Subdivision consisting of 34 lots for single unit detached dwellings. The draft plan includes 3 new roadways (Streets A, B & C), and 3 blocks (Block 35 for SWM facility; Block 36 & 37 for Reserves) identified as part of the proposed residential subdivision development. The subject land is currently zoned (H) RD1.4 under By-law 8600 and designated as residential use under the City of Windsor Official Plan.

After reviewing the servicing requirements of the subject lands pertinent to the subject application, we have the following comments:

Roads and Right-of Way

North Talbot Road between Sixth Concession Road and the City limits is a municipal roadway classified as a Class I Collector. The section of road falls within the boundary of the 6th Concession Road/North Talbot Environmental Study Report [by Dillon Consulting dated April 2016]. The ESR does not identify any property requirements across the frontage of the subject lands

The new proposed Street B and Street C should align with the intersections to the north of North Talbot Road, Pioneer Avenue and Old West Avenue, respectively. Proper cul-de-sacs bulbs would be required at both ends of Street A. The driveways for lots 4, 5, 6 and 7 should be set as far back as possible from the intersections. Furthermore, lots that are abutting two streets should have driveways on the lower classification street (local road). This section of North Talbot Road currently has a rural cross section, and as such contributions are requested in the amounts of $33,500.00 and $17,750.00 towards future construction of concrete sidewalks as well as curbs and gutters, respectively, on the North Talbot Road frontage of the subject lands.

There are City trees and hydro poles in the right-of-way; therefore, the City Forester and respective utility companies should be contacted to see what measures need to be taken to resolve these impediments in the right-of-way prior permit issuance.

The subject lands fall within the Ministry of Transportation (MTO) permit control area. The owner will be required, prior to the issuance of a construction permit, to contact MTO and obtain any necessary permits and approvals.

Additionally, a geotechnical report may be required to determine the capacity of the soil below the road bed and building envelopes.

Sewers

There are municipal storm and sanitary sewers within the abutting road way, available to service the subject property as follows:

- North Talbot Road
  - Storm Sewer: 450mm Corrugated Steel Sewer, 1200mm Reinforced Concrete Pipe
  - Sanitary Sewer: 600mm Concrete Pipe and Reinforced Concrete

Dillon Consulting Ltd. is currently doing detailed engineering design for the North Talbot Road Corridor. The post-development land use parameters used within the model to consider future condition peakflow and volume through the system are as follows:

- East half of the property
  - Area = 1.39 ha
  - Max. Allowable Release Rate = 201 L/s
- West half of the property
  - Area = 1.42 ha
  - Max. Allowable Release Rate = 206 L/s

A servicing study is required for this development and a stormwater strategy supported by the City. Detailed civil servicing drawings are required to provide further comments on additional requirements.

We have no objection to the Subdivision Application, subject to the following conditions:

Subdivision Agreement - The applicant agrees to enter into a Development Agreement with the Corporation of the City of Windsor with the General Provisions of Council Resolutions 233/98 and any other specific requirements.

Corner Cut-Off – The owner(s) agrees, prior to the issuance of a construction permit, to gratuitously convey a 4.6m x 4.6m (15' x 15'), corner cut-off at the intersection of North Talbot Road and Street 'B' as well as North Talbot Road and Street 'C' in the Draft Plan, in accordance with City of Windsor Standard Drawing AS-230.

Servicing Study - The owner agrees, at its own expense, to retain a Consulting Engineer to provide a detailed servicing study report on the impact of the increased flow to the existing municipal sewer systems, satisfactory in content to the City Engineer and prior to the issuance of a construction permit. The study shall review the proposed impact and recommend solutions to addressing the problems and ultimate implementation of solutions should there be a negative impact to the system. The study shall be finalized in agreement with the City Engineer.

Site Servicing Plans – The owner agrees to submit a site servicing plan for the subject lands to the satisfaction of the Chief Building Official, the City Engineer, and ERCA in regulated areas, prior to the issuance of any construction permits for the subject lands.

Video Inspection (Mainline) - The applicant shall agree to conduct at its entire expense a video inspection, or pay the cost of similar inspection, of ALL EXISTING sanitary/storm sewers on North Talbot Road which will be tapped to service the development, all to the satisfaction of the City Engineer.

MTO Corridor Management (MTO Requirement) - The owner will be required, prior to the issuance of a construction permit, to contact the Ministry of Transportation (MTO) Corridor Management Section at 1-800-265-6072 to obtain the necessary permits, clearances and/or approvals in accordance with the Public Transportation & Highway Improvement Act.

Sidewalks -The owner(s) agrees to pay to the Corporation, prior to the issuance of a Building Permit, the sum of $33,500.00 being the Owner's contribution towards the future construction of a concrete sidewalk on the North Talbot Road frontage of the subject lands.

Curbs and Gutters – The owner further agrees to pay to the Corporation, prior to the issuance of a construction permit, the sum of $17,750.00 being the Owner's contribution towards the construction of concrete curb and gutter on the North Talbot Road frontage of the subject lands.

LANDSCAPE ARCHITECT & URBAN DESIGN - Stefan Fediuk

Pursuant to the application for a Plan of Subdivision **(SDN-001/21)** for the properties situated on the south side of North Talbot Road, between Southwood Lakes Blvd and HWY 401 (0 North Talbot Rd; 1095 North Talbot Rd and 1185 North Talbot Rd), please note no objections from a landscape architectural or urban design perspective.

The applicant has provided several documents required through the Pre-submission process as requested by the Landscape Architect, including; Species at Risk Study, Topographic Plan of Survey, Tree inventory and Preservation Plan, and Planning Rationale.

The Applicant's landscape architect has also provided an updated Tree Preservation Report No 2, dated 18 April 2022, and addendum to that report dated May 17, 2022, as well as a revised Subdivision plan and Landscape/Tree Preservation Plan. Through consultation with the Executive Director of Parks, please also note the following comments:

Urban Design:
The proposal's Planning Rationale highlights these options through its response to the required studies as well as the revised subdivision plan to include parkland where the existing trees are the densest, abutting the existing Stoneybrook Park. This preservation and enhance of the natural wooded lots positively respond to the following Provincial and Civic policies related to development:

- Policy of PPS Section 1.1.1 (h) recommends Healthy, livable and safe communities are sustained by promoting development and land use patterns that conserve biodiversity.
- Section 8 Urban Design of the OP, recommends that development within the city provide a memorable, attractive and liveable city, and that development is to maintain and improve the quality of life for present and future generations by integrating the principles of sustainability and place making.

Species at Risk:

The Planning Rationale outlines the mitigation measures for Species at Risk (SAR) Section 4.2.2 including:

- Mitigation measures to avoid potential impact to the Yellow-breasted Chat and protected reptiles should be followed to prevent against potential contraventions of the Endangered Species Act, 2007 or Migratory Bird Convention Act, 2010
- To reduce the potential for impacts, vegetation removal will occur between October 1 and March 31, outside of the active season for bats, and replacement bat roosting habitat (two rocket boxes) will be installed under the direction of a qualified professional.

These are supported by the Landscape Architect.

Parks and Parkland Dedication**:**

Per By-law 12780 and the Planning Act, Residential subdivisions require the provision of parkland dedication representing 5% of the subject lands in the form of land and/or cash-in-lieu, to the satisfaction of the Commissioner of Parks.

Through consultation with the Executive Director or Parks, and Planning Staff and the developer's consultants, opportunities for parkland development; physically connecting the proposed development to the Stoneybrook Park multiuse trail, and help preserve a large portion of the existing natural environment, as per Section 6.3.2.4 of the OP are now being proposed.

Block 35 at the western end of the Street "A", consists of 819.1 m^2, will represent a Parkland conveyance of 2.7% of the overall site development. The difference from the required Parkland of 5% shall be though a provision of cash-in-lieu. In addition, the developer is aware that a Parkland Development contribution is also to be provided.

The proposal found in Section 3.1 of the Planning Rationale identifies a stormwater management facility to be located on Block 35 and further detailed in Section 4.2.5. The addendum and subdivision landscape plan identify that the SWM facility will be 1,498.2 m^2 in area and surrounded by trees that will help to absorb stormwater before entering the municipal stormwater infrastructure. The location and solution is supportable and will a potential attraction for the development, but the developer is to be aware that Parks does not accept stormwater management facilities as Parkland Dedication.

Required

- Special Provision of the Subdivision Agreement pertaining to G-5(5) Parkland Conveyance identifying Block 35 to be conveyed to the City of Windsor as 2.7% Parkland along with cash-in-lieu representing the 2.3% remaining Parkland Conveyance.
- Special Provision of the Subdivision Agreement pertaining to G-2(25) Sidewalks, that the owner(s) shall pay to the Corporation, prior to the issuance of a Subdivision Agreement, the sum of $16,500.00, being the Owner's contribution towards the future construction of a 3.0m wide multi-use trail connection from the Southwood Lakes Multi-use Trail, in Stoneybrook Park, to the proposed cul-de-sac at the western end of the proposed Street 'A'.

Climate Change & Tree Preservation:

As identified in the Planning Rationale provided, *"The Site is grassed and has areas of clustered mature trees predominantly near the western half of the Site and scattered near the eastern portion of 1185 North Talbot Road. The two vacant parcels also have areas of clustered mature trees throughout the Site."* The report also recognizes PPS policy 2.1.1 which requires natural features and area to be protected for the long term.

The development recognizes that most of the vegetation will be removed from the site for development. Removal of vegetation and developing with paved roads and buildings will reduce the stormwater resiliency of the property and increase the heat island effect in the area. Preservation of as many trees as possible has been highly recommended. Where unable to preserve trees, the developer is to provide measures to improve and replace the tree canopy loss that will help mitigate climate change (Section 1.1.3.2 clauses c) and d), as well as 1.6.1 of the PPS).

The Revised Tree Inventory and Conditions Report No 2 prepared by Bezaire Partners, identified 44 instances (including 3 on adjacent municipal land) of desirable species of trees of

significant size and health, to be impacted, by the development (representing a total of 21,160mm of total tree caliper). The western half of the development consists of the most notable number of the trees inventoried consisting of desirable native species providing suitable habitat for urban wildlife (such as squirrels, bats and song birds).

An amendment to that Conditions Report No2, itemizes the trees species, size (dbh in cm), and which could possibly be saved through preservation methods and through the conveyance of Block 35 to the Corporation as parkland. Proposed is the removal of 50 tree (13,700mm of tree caliper) and 16 trees plus one cluster of trees to be preserved (7460mm of tree caliper).

While the developer has suggested planting new trees within the development as compensation for tree loss, residential building permits are completed on a lot-by-lot basis by individual homebuilders. This process would make this difficult to accomplish by the developer and for city staff to administer, once the developer has relinquished ownership to the individual builders. Five Lots (*2, 3, 4, 20 & 21)*would require special permits, individual agreements and site-specific securities, and inspections by the Parks and Planning staff on private single-family residential properties. This process is generally conducted through Site Plan Control; however, the Planning Act precludes private single-family residential properties from that process.

Any new trees to be planted to repopulate the urban tree canopy, is to be completed by City Parks Forestry staff on public lands to ensure that the trees planted are the same as those desirable species removed from the site, and that the trees are more readily maintained by Forestry for the long-term. Block 35 require to be preserved. This will unfortunately, increase the number of trees lost to 57 (17,530mm caliper). It will however, ensure additional new trees to be planted, and maintained through the City Forestry staff, instead of risking expending a great deal of time and resources of the developer and the corporation, only to have the home owner potential remove the preserved tree once the builder sells the home.

Required

- Special Provisions of the Subdivision Agreement pertaining to G-3(2) Preservation of Existing Trees,
    - The owner shall provide a Landscape and Tree Preservation Plan identifying the proposed locations of all existing trees removed from the development and those to be retained in Block 35, to the satisfaction of the Executive Director of Parks and the Executive Director/City Planner, prior to the final subdivision plan approval.
    - The owner shall pay to the Corporation prior to the issuance of a Subdivision Agreement, the sum of $130,000.00 towards compensation, at a rate of one (1) street tree for every 70mm caliper (dbh) of desirable tree removed, in accordance with the Corporation's Fees and Changes By-law 392-2002.
    - Individual lot owner(s) shall also provide cash-in-lieu for one (1) new 70mm caliper native tree per each lot for planting a boulevard tree (per CR 332/79) , in accordance with the Corporation's Fees and Changes By-law 392-2002, prior to the issuance of any construction permit.

In addition to Special Provisions for preservation of the existing desirable trees in Lot22:

- Special Provisions of the Subdivision Agreement pertaining to G-6 the owner shall:
    - Prior to the final subdivision plan approval, provide a Performance Security in the amount of $25,000.00 in the form of cash or a certified cheque to be liquid to ensure that the nine desirable trees located on Block 35 are preserved during the construction process are preserved.

- Request inspection by Corporation's City Forester to ensure that the proposed tree protection and appropriate method of protection has been completed to the satisfaction of the Executive Director of Parks, prior to release of the Security.
- Where trees, proposed to be preserved, have been removed from development, at the time of inspection by the Corporation's City Forester, compensation will be drawn from the Performance Security at a rate of one tree for every 70mm of tree caliper (dbh) or portion thereof missing, in accordance with the Corporation's Fees and Changes By-law 392-2002.

Barry Horrobin – Police Services

I have reviewed the drawings associated with this plan of subdivision application and hereby offer my revised comments for inclusion into the application with other reviewers:

The following comments on the proposed draft plan of subdivision are provided with a particular focus on public safety impact. These comments are in two general categories as follows:

1. The importance of establishing and maintaining proper emergency vehicular access/response capability
2. All other important public safety and security implications relating to the application to ensure a development that is safe for all

EMERGENCY VEHICULAR ACCESS

- The Windsor Police Service generally supports the roadway layout and access connections proposed for this land development to existing roadway infrastructure, most notably the connections back to North Talbot Road. The positioning of Streets 'A' and 'B', "C' properly connect to ensure overall ease of police incident response and general police patrolling activities for this newly developed neighbourhood.

- One issue that may arise as relates to road safety however is that Street 'C' appears to be offset slightly from its alignment with Old West Avenue on the other side of North Talbot Road. Once connected, this could lead to difficulties for drivers making left hand turns onto North Talbot. The offset is not substantial, yet it is enough to divert driver sightlines that could make turns more challenging. As a result, safety could be reduced for all users of the immediate roadway area. If there was a way to better align Street 'C' with Old West, that would seem to present a safer layout

SPECIFIC SAFETY ISSUES & CONSIDERATIONS

The following issues, in no particular order, are hereby raised for consideration, with the goal being to optimize public safety in a practical manner:

- There is a parcel of land proposed for the storm water management facility (block 35). Given this lot will not be a regularly occupied space within the broader neighbourhood, it is important that it be properly constructed/modified and maintained to help discourage any risks to its use in an unlawful or undesirable way (such as trespassing, loitering, etc.). The orientation of this lot as shown on the draft plan is capable of leveraging adequate ongoing natural surveillance, most notably on its southern boundary near the eastern terminus of Street 'A', and this should be maintained as the minimum standard going forward. It would also be prudent to ensure some measure of access control is considered

(by way of a fence for example) on the sides of this lot that abut, residential lots #8, #9, #10, and #11 to provide a functional degree of separation between public and private spaces. Ideally, such fencing should allow for some degree of observation capacity – a steel picket or chain link style fence of 1.8 m would be preferred over an opaque, wood privacy style fence. Fencing along any other lot line/section of lot #35 would not be recommended from a safety and security perspective.

- Ensuring prompt and effective response capability by police responders is directly correlated to accurately locating the right address where an emergency call for assistance is required. Therefore, it is very important that each separate dwelling have a prominently displayed address number that is at least 5" high, is of a contrasting colour to the backdrop onto which it is mounted, and can be easily seen from the adjacent roadway by police without obstruction. This will optimize the address identification by Police/Fire/Ambulance during an emergency response.

- Pedestrian safety is very important in all residential neighbourhoods. This includes appropriate sidewalk infrastructure to connect to adjacent areas and proper street lighting as well. Lighting provided should be LED, in keeping with the current municipal standard, which helps in promoting public safety

In summary, a clause(s), if possible or appropriate, would ideally help as one of the conditions of approval for this application to address the important issues raised here to ensure they are incorporated.

April 22, 2022

Essex Region Conservation Authority

360 Fairview Avenue West

Suit 311, Essex, ON N8M 1Y6

ATTENTION: **Essex Region Conservation Authority**

RE: **1st Submission Review Comments**

1095 North Talbot Residential

Development – City of Windsor

We have completed design changes as per the memorandum dated February 01, 2022. The drawings, report and response letter are dated April 21, 2022.

The following are our point-to-point responses (our responses are shown with listed in bold and italic font) to Town's comments.

- Please confirm is the 100 year SCS event modelled?

  The 100 Year SCS event was modelled please refer to Appendix E.

- Why is the UST HWL lower than the 100 yr HWL?

  HWL depends on the hydraulics of each site.

- Discharge is to be restricted via a 377 mm diameter plate. Does this size exist? Or will it be custom made?

  Discharge is restricted via a 362mm diameter Tempest Device; details in Appendix A.

- Is there an overland spill route to the pond or the ROW? Proposed Street A - Has a HP on the west boundary edge of 190.35 m and on the east edge of 190.08 m. The dry pond has a TOB of 190.27m. It appears that the overland flow route will spill into the existing adjacent property (1255 NORTH TALBOT RD) for events exceeding the stress test.

  A berm has been added to prevent the overland flow route from spilling into the neighboring property please refer to Appendix A for more detail.

- Is an easement required behind blocks 7,8,9,35 for the 250 mm storm sewer. If this is the case please provide confirmation that the easement is satisfactory to the City.

  Baird AE followed up with City of Windsor regarding the easement.

- Sewer design sheet is missing A-7 , Tc is selected as 10 mins but inlet time shows 20 mins. Please clarify.

  Revised.

- What is the purpose of the ditches on the North and South end of the property. Are these for storage or conveyance? Where is the water directed to?

  The ditches have been removed.

- Since the proposed development is adjacent to existing developed blocks on the southern edge. Can you please confirm if the existing grading will outlet into the proposed rear yard cbs? If so, will the provided SWM need to account for additional drainage requirements posed by these lots?

  Yes, the existing grades will outlet into the rear yard CBs and to ensure that we have provided a berm all around the site which can be seen in Appendix A.

Bill Fuerth, P.Eng.

BAIRD AE

Committee Matters: SCM 125/2022

Subject: Adoption of the Development & Heritage Standing Committee minutes of its meeting held May 2, 2022

CITY OF WINDSOR MINUTES 05/02/2022

Development & Heritage Standing Committee Meeting

Date: Monday, May 02, 2022
Time: 4:30 o'clock p.m.

Members Present:

Councillors
Ward 3 - Councillor Bortolin (Chairperson)
Ward 4 - Councillor Holt
Ward 5 - Councillor Sleiman
Ward 7 - Councillor Gill
Ward 10 - Councillor Morrison

Members
Member Baker
Member Bulmer
Member Foot
Member Fratangeli
Member Gyemi
Member Moore
Member Rondot

Member Regrets
Member Miller

Clerk's Note: Councillors Morrison and Sleiman and Member Rondot participated via video conference (Zoom), in accordance with Procedure By-law 98-2011 as amended, which allows for electronic participation.

ALSO PARTICIPATING VIA VIDEO CONFERENCE ARE THE FOLLOWING FROM ADMINISTRATION:

Neil Robertson, Manager of Urban Design / Deputy City Planner
Rob Vani, Manager of Inspections / Deputy Chief Building Official
Patrick Winters, Development Engineer
Brian Nagata, Planner II – Development Review
Tracy Tang, Planner II – Revitalization & Policy Initiatives
Jim Abbs, Planner III – Subdivisions

Greg Atkinson, Planner III – Economic Development
Adam Szymczak, Planner III – Zoning
Kristina Tang, Planner III – Heritage
Rania Toufeili, Policy Analyst
Marianne Sladic, Clerk Steno Senior
Sandra Gebauer, Council Assistant

ALSO PARTICIPATING IN COUNCIL CHAMBERS ARE THE FOLLOWING FROM ADMINISTRATION:

Thom Hunt, City Planner
Wira Vendrasco, Deputy City Solicitor – Legal & Real Estate
Michael Cooke, Manager of Planning Policy / Deputy City Planner
Anna Ciacelli, Deputy City Clerk / Supervisor of Council Services

Delegations—participating via video conference

Item 7.1	Karl Tanner, Dillon Consulting
Item 7.1	Rachel Jordan, Area Resident
Item 7.2	Melanie Muir, Dillon Consulting representing 2342046 Ontario Inc.
Item 7.2	Laura Andreozzi-Chorney, Area Resident
Item 7.3	Tracey Pillon-Abbs, representing the Applicant
Item 7.3	Brian Bondy, Area Resident
Item 7.4	Jeffrey Nanson, Solicitor representing Mr. Vito Maggio, Property Owner
Item 7.4	Vito Maggio, Applicant
Item 7.4	Jeremy McLellan, Area Resident
Item 7.4	Lynne Pearlman, Area Resident
Item 11.2	Rahul Rajpura and Amanda Gelman, Medicap
Item 11.3	Mohamed Tabib, Carthage Developments Inc.

1. CALL TO ORDER

Following the reading of the Land Acknowledgement, the Chairperson calls the meeting of the Development & Heritage Standing Committee to order at 4:31 o'clock p.m.

2. DISCLOSURES OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF

Member Rondot discloses an interest and abstains from voting on Item 7.4 being the report of the Office of Economic Development & Innovation dated April 12, 2022 entitled "Zoning By-law Amendment Application to add a site specific zoning provision to allow a permanent patio in the rear yard at 642 Windermere Road, Z-008/22 [ZNG/6670]," as he is the Chair of the Walkerville BIA.

3. REQUEST FOR DEFERRALS, REFERRALS OR WITHDRAWALS

None requested.

4. COMMUNICATIONS

None presented.

8. ADOPTION OF THE MINUTES

8.1. Adoption of the Development & Heritage Standing Committee minutes of its meeting held April 4, 2022

Moved by: Member Foot
Seconded by: Member Baker

THAT the minutes of the Development & Heritage Standing Committee meeting held April 4, 2022 **BE ADOPTED** as presented.
Carried.

Report Number: SCM 96/2022

9. PRESENTATIONS AND DELEGATIONS (COMMITTEE ADMINISTRATIVE MATTERS)

See Items 10.1, 11.2, and 11.3.

10. *HERITAGE ACT* MATTERS

10.1. City of Windsor Heritage Recognition 2022

Kristina Tang, Heritage Planner, appears via video conference before the Development & Heritage Standing Committee regarding the administrative report entitled "City of Windsor Heritage Recognition 2022" and provides highlights of the plans for the Heritage Awards and a brief outline of the process involved in the selection process of the awards. Ms. Tang provides a detailed description of each property that is being recognized as well as the owners that are being recognized with a heritage designation plaque.

Councillor Gill inquires about how the nominations of the awards were determined. Ms. Tang indicates that administration reviews the properties and determines the work that was involved in the restoration and members of the Heritage Committee have also been consulted.

Councillor Sleiman inquires whether there is a monetary award. Ms. Tang indicates the program does not come with a monetary award although certain applicants may have applied for and received grants through the many CIP and Heritage Grant programs that are available throughout the City.

Moved by: Councillor Gill
Seconded by: Councillor Morrison

Decision Number: **DHSC 390**

I. THAT Council **BE INFORMED** of the joint partnership between the City of Windsor Heritage Recognition 2022 with Doors Open Windsor 2022 and that Administration **ASSIST** in cross promotional efforts.

II. THAT the property owners and project team for the recent heritage conservation work at:
- 1008 Drouillard Road
- Hiram Walker Bridge (Peche Island) Restoration
- 1785 Walker Road- Teron Building
- 225 Giles Boulevard W.- William T. Wesgate House
- 3277 Sandwich Street- Mackenzie Hall Masonry Restoration Project

BE RECOGNIZED with the 2022 Built Heritage Awards.

III. THAT the property owners of Neils C. Ortved House, 766 Devonshire Road, and 436 Askin Avenue **BE RECOGNIZED** with a heritage designation plaque.

Carried.

Report Number: S 43/2022
Clerk's File: MBA/2274

There being no further business the meeting of the Development & Heritage Standing Committee (*Heritage Act* Matters) portion is adjourned at 4:39 o'clock p.m.

The Chairperson calls the *Planning Act* Matters portion of the Development & Heritage Standing Committee meeting to order at 4:41 o'clock p.m.

5. ADOPTION OF THE *PLANNING ACT* MINUTES

5.1. Minutes of the Development and Heritage Standing Committee Meeting (*Planning Act* Matters) held April 4, 2022

Moved by: Councillor Gill
Seconded by: Councillor Holt

THAT the *Planning Act* minutes of the Development & Heritage Standing Committee meeting held April 4, 2022 **BE ADOPTED** as presented.
Carried.

Report Number: SCM 113/2022

7. *PLANNING ACT* MATTERS

7.1. Draft Plan of Subdivision Application - east of 3550 Howard Avenue SDN-002/21 [SDN/6593]- Wonsch Construction Company Limited - Ward 9

Moved by: Councillor Holt
Seconded by: Councillor Sleiman

Decision Number: **DHSC 386**

I THAT the application of Wonsch Construction Company Limited for Draft Plan of Subdivision approval of Part of Block A, Plan 1259, more particularly described as Part 2, 12R-28366, City of Windsor; **BE APPROVED** on the following basis:

A That this approval applies to the draft plan of subdivision, as shown on the attached Drawing SDN002/21-1, which will facilitate the creation of 4 residential lots.

B. That the Draft Plan Approval shall lapse on (3 years from the date of approval).

C. That the owner(s) enter into a subdivision agreement with the Corporation of the City of Windsor for the proposed development on the subject lands:

That prior to the execution and registration of the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor, the Owner(s) shall submit for approval of the City Planner/Executive Director of Planning & Building a final draft M-Plan, which shall include the names of all road allowances within the plan, as approved by the Corporation.

That the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor be registered on title prior to the registration of the final plan of subdivision and shall contain, among other matters, the following provisions:

1. The Owners will include all items as set out in the results of circularization and other relevant matters set out in CR233/98 (Standard Subdivision Agreement).

2. The Owners create, the following rights-of-way, in accordance with the approved Plan of Subdivision:

   a) 20m right of way for the for the extension of Oakridge Avenue and Farrow Avenue to the northerly limit of the subject lands;

3. The Owners convey 0.3m reserve blocks along the north limit of Oakridge Avenue and Farrow Avenue to the City of Windsor, to the satisfaction of the City Planner.

4. The Owners agrees to complete a geotechnical report to determine the capacity of the soil below the road base and building envelopes to the satisfaction of the City Engineer;

5. The Owner agrees to provide a Noise Study for review prior to registration of the Final Plan of Subdivision and agrees to implement any mitigation measures recommended, to the satisfaction of the City Planner;

6. The Owners agrees to complete an MECP species at risk screening and comply with all requirements, including any required remediation measures, resulting from any study or report submitted to the MECP/MNRF regarding SAR assessment, all at its entire expense, to the satisfaction of the City Planner.

7. The Owners will comply with all the following requirements relating to sidewalks:

   Sidewalks will be constructed:
   On the East Side of Oakridge Avenue and Farrow Avenue, to the satisfaction of the City Engineer and the City Planner;

8. The Owners shall provide a detailed servicing study report on the impact of the increased flow to the existing municipal sewer systems to the satisfaction of the City Engineer, prior to the issuance of a construction permit.

   1. The study shall review the proposed impact and recommend solutions to addressing the problems and ultimate implementation of solutions should there be a negative impact to the system.
   2. The study shall be finalized to the satisfaction of the City Engineer.

9. The Owners(s) will:

   a) Undertake an engineering analysis to identify stormwater quality and quantity measures as necessary to control any increases in flows in downstream

watercourses, up to and including the 1:100 year design storm, to the satisfaction of the Municipality and the Essex Region Conservation Authority.

b) Install stormwater management measures identified above, as part of the development of the site, to the satisfaction of the City Engineer and the Essex Region Conservation Authority.

c) Obtain the necessary permit or clearance from the Essex Region Conservation Authority prior to undertaking site alterations and/or construction activities.

10. The Owners provide cash-in-lieu of parkland as permitted in Section 51.1 of the *Planning Act* and in accordance with By-law 12780, as amended, or any successor by-law to the satisfaction of the Executive Director of Parks and the City Planner prior to the issuance of construction permits.

11 The owner shall agree to provide to Union Gas the necessary easements and/or agreements required by Union Gas for the provision of gas services for this project, in a form satisfactory to Enbridge.

12. The Owner(s) shall agree to place the following warnings in all Offers to purchase, Agreements of Purchase and Sale or lease between the Developer and all prospective home buyers, and in the title:

> "Students from this area may not be able to attend the closest neighbourhood school due to insufficient capacity and may have to be bussed to a distant school with available capacity or could be accommodate in temporary portable space."

NOTES TO DRAFT APPROVAL (File: SDN-002/21)

1. The applicant is directed to Section 51(39) of *The Planning Act 1990* regarding appeal of any imposed conditions to the Ontario Land Tribunal. Appeals are to be directed to the City Clerk of the City of Windsor.

2. It is the applicant's responsibility to fulfil the conditions of draft approval and to ensure that the required clearance letters are forwarded by the appropriate agencies to the City of Windsor, to the attention of the Executive Director/City Planner, quoting the above-noted file number.

3. The applicant should consult with an Ontario Land Surveyor for this proposed plan concerning registration requirements relative to the *Certification of Titles Act*.

4. The final plan approved by the Corporation of the City of Windsor must be registered within thirty (30) days or the Corporation may withdraw its approval under Section 51(59) of *The Planning Act 1990*.

5. All plans of subdivision/condominium are to be prepared and presented in metric units and certified by the Ontario Land Surveyor that the final plan is in conformity to the approved zoning requirements.

II THAT the City Clerk and Licence Commissioner **BE AUTHORIZED** to issue the required notice respecting approval of the draft plan of subdivision under Section 51(37) of *The Planning Act*; and,

III THAT prior to the final approval of the plan of subdivision by the Corporation of the City of Windsor, the Executive Director/City Planner shall **BE ADVISED**, in writing, by the appropriate agencies that conditions have been satisfied; and,

IV THAT the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary agreements and documents approved as to form and content satisfactory to the City Solicitor.

Carried.

Report Number: S 45/2022
Clerk's File: Z/14266

7.2. Draft Plan of Subdivision Application 0 Liberty Street n/s Liberty Street, between Dougall Avenue and Gundy Park Lane SDN-003/21 [SDN/6630]-2342046 Ontario Inc. - Ward 9

Moved by: Councillor Sleiman
Seconded by: Member Moore

Decision Number: **DHSC 387**

I THAT the application of 2342046 Ontario Inc. for Draft Plan of Subdivision approval of Part of Lots 42 & 43, Plan 713, and Part of Lot 80, Concession 3, City of Windsor, more particularly described as Parts 1, 2 and 3, 12R-13390; **BE APPROVED** on the following basis:

A That this approval applies to the draft plan of subdivision, as shown on the enclosed Drawing SDN-003/21-1, which will facilitate the creation of 4 residential lots.

B. That the Draft Plan Approval shall lapse on (3 years from the date of approval).

C. That the owner(s) enter into a subdivision agreement with the Corporation of the City of Windsor for the proposed development on the subject lands:

That prior to the execution and registration of the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor, the Owner(s) shall submit for approval of the City Planner/Executive Director of Planning & Building a final draft M-

Plan, which shall include the names of all road allowances within the plan, as approved by the Corporation.

That the subdivision agreement between the Owner(s) and the Corporation of the City of Windsor be registered on title prior to the registration of the final plan of subdivision and shall contain, among other matters, the following provisions:

1. The Owners will include all items as set out in the results of circularization and other relevant matters set out in CR233/98 (Standard Subdivision Agreement).

2. The Owners create, prior to the issuance of a building permit, the following rights-of-way, in accordance with the approved Plan of Subdivision:

   a) 20m right of way for Street A;

3. The Owner agrees, prior to the issuance of a building permit, to remove the existing barrier on Liberty Avenue and erect a new barrier on the Liberty Avenue Right of way at the west Limit of the Plan of Subdivision to the satisfaction of the City Engineer.

4. The Owners convey 0.3m reserve block along the west limit of Street A to the City of Windsor, to the satisfaction of the City Planner.

5. The Owner agrees to complete a geotechnical report to determine the capacity of the soil below the road base to the satisfaction of the City Engineer;

6. The Owner agrees to complete an MECP species at risk screening and comply with all requirements, including any required remediation measures, resulting from any study or report submitted to the MECP/MNRF regarding SAR assessment, all at its entire expense.

7. The Owners will comply with all the following requirements relating to sidewalks:

   Sidewalks will be constructed:
   On the East Side of Street A, to the satisfaction of the City Engineer and the City Planner;

8. The Owners shall provide a detailed servicing study report on the impact of the increased flow to the existing municipal sewer systems to the satisfaction of the City Engineer, prior to the issuance of a construction permit.

   1. The study shall review the proposed impact and recommend solutions to addressing the problems and ultimate implementation of solutions should there be a negative impact to the system.
   2. The study shall be finalized to the satisfaction of the City Engineer.

9. The Owners(s) will:
    a) Undertake an engineering analysis to identify stormwater quality and quantity measures as necessary to control any increases in flows in downstream watercourses, up to and including the 1:100 year design storm, to the satisfaction of the Municipality and the Essex Region Conservation Authority.
    b) Install stormwater management measures identified above, as part of the development of the site, to the satisfaction of the City Engineer and the Essex Region Conservation Authority.
    c) Obtain the necessary permit or clearance from the Essex Region Conservation Authority prior to undertaking site alterations and/or construction activities.

10. The Owners provide cash-in-lieu of parkland as permitted in Section 51.1 of the *Planning Act* and in accordance with By-law 12780, as amended, or any successor by-law to the satisfaction of the Executive Director of Parks and the City Planner prior to the issuance of construction permits.

11. The owner shall agree to provide to Union Gas the necessary easements and/or agreements required by Union Gas for the provision of gas services for this project, in a form satisfactory to Enbridge.

12. The Owner(s) shall agree to place the following warnings in all Offers to purchase, Agreements of Purchase and Sale or lease between the Developer and all prospective home buyers, and in the title:

    "Students from this area may not be able to attend the closest neighbourhood school due to insufficient capacity and may have to be bussed to a distant school with available capacity or could be accommodate in temporary portable space."

NOTES TO DRAFT APPROVAL (File: SDN-003/21)

1. The applicant is directed to Section 51(39) of *The Planning Act 1990* regarding appeal of any imposed conditions to the Ontario Land Tribunal. Appeals are to be directed to the City Clerk of the City of Windsor.

2. It is the applicant's responsibility to fulfil the conditions of draft approval and to ensure that the required clearance letters are forwarded by the appropriate agencies to the City of Windsor, to the attention of the Executive Director/City Planner, quoting the above-noted file number.

3. The applicant should consult with an Ontario Land Surveyor for this proposed plan concerning registration requirements relative to the *Certification of Titles Act*.

4. The final plan approved by the Corporation of the City of Windsor must be registered within thirty (30) days or the Corporation may withdraw its approval under Section 51(59) of *The Planning Act 1990*.

5. All plans of subdivision/condominium are to be prepared and presented in metric units and certified by the Ontario Land Surveyor that the final plan is in conformity to the approved zoning requirements.

II THAT the City Clerk **BE AUTHORIZED** to issue the required notice respecting approval of the draft plan of subdivision under Section 51(37) of *The Planning Act*; and,

III THAT prior to the final approval of the plan of subdivision by the Corporation of the City of Windsor, the Executive Director/City Planner shall **BE ADVISED**, in writing, by the appropriate agencies that conditions have been satisfied; and,

IV THAT the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary agreements and documents approved as to form and content satisfactory to the City Solicitor; and,

V. THAT a one-foot wide portion of the Liberty Street right-of-way as shown on Drawing Number. SDN-003/21-1, contained in this report **BE CLOSED AND RETAINED** for municipal purposes subject to the following:

a. Easements, subject to their being accepted in the City's standard form and in accordance with the City's standard practice, be granted to Enbridge Ltd. and EnWin Utilities Ltd.

VI. THAT the City Planner **BE REQUESTED** to supply the appropriate legal description for the area to be closed, in accordance with Drawing Number. SDN 003-21-1, contained in this report; and,

VII. THAT the City Planner, or designate, **BE AUTHORIZED** to publish the required legal notice regarding the portion of the Liberty St. right-of-way to be closed; and,

VIII. THAT the City Solicitor **BE REQUESTED** to prepare the necessary by-law(s) to facilitate the right-of-way closure; and,

IX. THAT the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary documents approved as to form and content satisfactory to the City Solicitor; and,

X. THAT the matter **BE COMPLETED** electronically pursuant to By-law Number 366-2003; and,

XI. THAT the portion of Liberty Street closed by By-law 5588 **BE OPENED** for vehicular traffic.
Carried.

7.3. Rezoning - 1933923 Ontario Ltd – 0 and 817 Elinor Street - Z-002/22 ZNG/6657 - Ward 7

Moved by: Councillor Gill
Seconded by: Councillor Holt

Decision Number: **DHSC 388**

I. THAT Zoning By-law 8600 **BE AMENDED** by changing the zoning of Part Alley, Registered Plan 1142, further described as Parts 3 & 4, Plan 12R-25749, and Lots 26 to 31, Registered Plan 1142, (Roll No: 060-450-13120 & 060-450-13130), situated at the southwest corner of Wyandotte Street East and Elinor Street, and known municipally as 817 Elinor Street and 0 Elinor Street from Development Reserve District 1.1 (DRD1.1) and Residential District 1.2 (RD1.2) to Residential District 2.5 (RD2.5) and by adding a site specific exception to Section 20 (1) as follows:

442. SOUTHWEST CORNER OF WYANDOTTE STREET EAST AND ELINOR STREET

For the lands comprising of Part Alley, Registered Plan 1142, further described as Parts 3 & 4, Plan 12R-25749, and Lots 26 to 31, Registered Plan 1142, a *multiple dwelling* with five or more *dwelling units* shall be subject to the following additional provisions:

a) Lot Area – per *dwelling unit* - minimum 130.0 m^2

b) That the required *front yard depth*, required *rear yard depth*, and *required side yard* width shall not apply.

c) Building Setback – minimum

from the lot line adjacent to Wyandotte Street East (including the corner cut-off)	1.20 m
from the lot line adjacent to Elinor Street	2.50 m
from an *interior lot line*	2.50 m

d) Notwithstanding Section 25.5.20.1.6, the minimum separation of a *parking area* from a building wall containing a *habitable room window* or containing both a main pedestrian entrance and a *habitable room window* facing the *parking area* where the *building* is located on the same *lot* as the *parking area* shall be 3.50 m

e) Notwithstanding Section 24.40, a *loading space* is not required.

f) An *access area* or direct vehicular access to Wyandotte Street East is prohibited.

[ZDM 14; ZNG/6588]

II. THAT the Site Plan Approval Officer **BE DIRECTED** to:

a) Circulate any application to the Essex Region Conservation Authority for their review and comment;

b) Consider the comments from municipal departments and external agencies in Appendix D attached to Report S 41/2022.

Carried.

7.4. Zoning By-law Amendment Application to add a site specific zoning provision to allow a permanent patio in the rear yard at 642 Windermere Road, which would be exclusive to the restaurant, Vito's Pizzeria, located on the property to the north, known municipally as 1731-1737 Wyandotte Street East Z-008/22 [ZNG/6670]

Moved by: Councillor Holt
Seconded by: Councillor Sleiman

Decision Number: **DHSC 389**
THAT Zoning By-law 8600 **BE AMENDED** by changing the zoning of Lot 3, Plan 502 (642 Windermere Road; Roll No. 020-070-06600; PIN No. 01136-0246), located on the east side of Windermere Road, south of Wyandotte Street East, by adding a site specific provision to Section 20(1) as follows:

438. EAST SIDE OF WINDERMERE ROAD, SOUTH OF WYANDOTTE STREET EAST

For the lands comprising of Lot 3, Registered Plan 502 (known municipally as 642 Windermere Road; Roll No. 020-070-06600; PIN No. 01136-0246), situated on the east side of Windermere Road, south of Wyandotte Street East, a permanent patio (*deck*), exclusive to the Restaurant, located on the property to the north, known municipally as 1731-1737 Wyandotte Street East (legally described as Lot 1, Registered Plan 502; Roll No. 020-070-06900; PIN No. 01136-0386) shall be an additional permitted use and the following additional provisions shall apply:

a) Fence with a height of 1.0 metre shall be installed along the east lot line and the segment of the north lot line which bounds the *rear yard*, save and except a 1.5 metre wide opening to provide pedestrian access to the permanent patio.
b) Landscaped open space yard with a minimum depth of 1.2 metres shall be installed along the east lot line and the segment of the north lot line which bounds the *rear yard*, save and except a 1.5 metre wide opening to provide pedestrian access to the permanent patio.
c) Screening fence with a minimum height of 1.8 metres shall be maintained along the segment of the south lot line which bounds the *rear yard*.
d) Notwithstanding Table 24.20.5.1 herein and the registered Site Plan Control Agreement, dated May 16, 1996, for file number SPC-015/96, no parking spaces shall be required for the existing legal non-conforming *Business Office* use at 642 Windermere Road.

THAT Administration **BE DIRECTED** to provide additional information related to the ability of licensing to address concerns specifically related to: lighting, noise, operating hours, safety in alleys, and vehicular movement; and recommended measures; including the implementation of traffic calming measures, reducing the hours of operation to 11:00 p.m., and prohibition of amplified music; and that this information **BE PROVIDED** when this matter proceeds to Council.
Carried.
Member Rondot discloses an interest and abstains from voting on this matter.

There being no further business the meeting of the Development & Heritage Standing Committee (*Planning Act* Matters) portion is adjourned at 6:07 o'clock p.m.

The Chairperson calls the Administrative Items portion of the Development & Heritage Standing Committee meeting to order at 6:08 o'clock p.m.

11. ADMINISTRATIVE ITEMS

11.1. Brownfield Redevelopment Community Improvement Plan (CIP) application submitted by Albert and Maria Folino for 660 University Avenue East (Ward 3)

Councillor Bortolin provides information related to an updated corrected map that is provided to the members, attached to the consolidated agenda.

Moved by: Councillor Holt
Seconded by: Councillor Gill

Decision Number: **DHSC 391**

I. THAT the request made by Albert and Maria Folino to participate in the Environmental Site Assessment Grant Program **BE APPROVED** for the completion of a proposed Phase II Environmental Site Assessment Study for property located at 660 University Avenue East pursuant to the City of Windsor Brownfield Redevelopment Community Improvement Plan; and,

II. THAT the grant funds in the amount of $8,550 **BE TRANSFERRED** from the CIP Reserve Fund 226 to Brownfield Strategy Remediation (project 7069003) when the eligible work is completed to the satisfaction of the City Planner; and,

III. THAT the City Treasurer **BE AUTHORIZED** to issue payment up to a maximum of $8,550 based upon the completion and submission an eligible study Phase II Environmental Site Assessment Study completed in a form acceptable to the City Planner and City Solicitor; and,

IV. THAT should the proposed Phase II Environmental Site Assessment Study and Remedial Work Plan not be completed within two (2) years of Council approval, the approval **BE RESCINDED** and the funds be uncommitted and made available for other applications; and,

V. THAT the request made by Albert and Maria Folino to participate in the Brownfield Rehabilitation Grant Program **BE APPROVED** for 70% (or 100% if LEED certified) of the municipal portion of the tax increment resulting from the proposed redevelopment at 660 University Avenue East for up to 10 years or until 100% of the eligible costs are repaid pursuant to the City of Windsor Brownfield Redevelopment Community Improvement Plan; and,

VI. THAT Administration **BE DIRECTED** to prepare an agreement between Albert and Maria Folino, the City, and any persons legally assigned the right to receive grant payments to implement the Brownfield Tax Assistance and Rehabilitation Grant Programs in accordance with all applicable policies, requirements, and provisions contained within the Brownfield Redevelopment Community Improvement Plan to the satisfaction of the City Planner as to content, the City Solicitor as to legal form, and the CFO/City Treasurer as to financial implications; and,

VII. THAT the CAO and City Clerk **BE AUTHORIZED** to sign the Rehabilitation Grant Agreement; and,

VIII. THAT the City Planner **BE AUTHORIZED** to sign an Assignment Agreements, if required, satisfactory in form and content to the City Solicitor, in technical content to the City Planner and in financial content to the City Treasurer; and further,

IX. THAT the approval to participate in the Brownfield Rehabilitation Grant Program **EXPIRE** if the grant agreement is not signed by applicant within one year following Council approval. The City Planner may extend the deadline for up to one year upon request from the applicant.

Carried.

Report Number: S 40/2022
Clerk's File: Z/14362

11.2. Economic Revitalization Community Improvement Plan (CIP) application submitted by Bijoy Foods Inc. for 3190 Devon Drive - Ward 9

Rahul Rajpura and Amanda Gelman, Medicap

Rahul Rajpura and Amanda Gelman, Medicap, appear via video conference before the Development & Heritage Standing Committee regarding the administrative report entitled "Economic Revitalization Community Improvement Plan (CIP) application submitted by Bijoy Foods Inc. for 3190 Devon Drive - Ward 9" and are available for questions.

Moved by: Councillor Gill
Seconded by: Councillor Sleiman

Decision Number: **DHSC 392**

I. THAT the request made by Bijoy Foods Inc. to participate in the Business Retention and Expansion Grant Program **BE APPROVED** for the property located at 3190 Devon Drive for up to 10 years or until 100% of the eligible costs are repaid pursuant to the City of Windsor Economic Revitalization Community Improvement Plan; and,

II. THAT Administration **BE DIRECTED** to prepare an agreement between the City, Bijoy Foods Inc., and/or persons or companies that have legally been assigned the right to receive grant payments, to implement the Business Retention and Expansion Grant Program in accordance with all applicable policies, requirements, and provisions contained within the Economic Revitalization Community Improvement Plan to the satisfaction of the City Planner for content, the Commissioner of Legal Services as to legal form, and the CFO/City Treasurer as to financial implications; and,

III. THAT the CAO and City Clerk **BE AUTHORIZED** to sign the Business Retention and Expansion Grant Agreement; and further,

IV. THAT the approval to participate in the Business Retention and Expansion Grant Program **EXPIRE** if the grant agreement is not signed by applicant and owner within one year following Council approval. The City Planner may extend the deadline for up to one year upon request from the applicant.

Carried.

Report Number: S 48/2022
Clerk's File: Z/14364

11.3. Northway Avenue Development from Malden Road to Manitoba Street | Cost Sharing | Carthage Development Inc.

Mohamed Tabib, Carthage Developments Inc.

Mohamed Tabib, Carthage Developments Inc., appears via video conference before the Development & Heritage Standing Committee regarding the administrative report entitled "Northway Avenue Development from Malden Road to Manitoba Street | Cost Sharing | Carthage Development Inc." and is available for questions.

Councillor Morrison inquires about the intersection, opening up Malden, and what would happen with the intersection of Daytona and Malden. Patrick Winters, Development Engineer, appears via video conference before the Development & Heritage Standing Committee regarding the administrative report entitled "Northway Avenue Development from Malden Road to Manitoba Street | Cost Sharing | Carthage Development Inc." and indicates that the intent would be to remove the existing emergency access and install a proper curb return out to Daytona. Mr. Winters adds that it will be the extension of the road and there will be no change to the intersection with a standard 28 ft. wide pavement to Northway.

Councillor Morrison inquires as to the right-of-way as being an issue for that area and whether there will be a four-way stop or other controls at this intersection. Mr. Winters indicates that there will be a review with Transportation Planning for an analysis to occur to determine what is warranted for that intersection.

Moved by: Councillor Morrison
Seconded by: Councillor Sleiman

Decision Number: **DHSC 393**

I. THAT Council **APPROVE** a Cost Sharing payment to Carthage Developments Incorporated estimated at $313,069, excluding HST (final payment to be based on actual construction costs), as the City's share of infrastructure costs associated with the Northway Avenue Development, to be funded from the New Infrastructure Development Project (Project ID# 7035119).

II. THAT the CAO and City Clerk **BE AUTHORIZED** to execute a Servicing Agreement with Carthage Developments Inc. for the installation of full municipal services on Northway Avenue from Malden Road to Manitoba Street, satisfactory in form to the Commissioner of Legal & Legislative Services and in content to the Commissioner of Infrastructure Services in accordance with the following terms:

a. The general servicing requirements as detailed by CR233/98.

b. Cost Sharing - The Corporation agrees to pay to the Owner **THREE HUNDRED THIRTEEN THOUSAND SIXTY NINE DOLLARS ($313,069)** excluding HST, based on estimated construction costs, final payment to be based on actual progress certificate payments, representing the Corporation's share of costs associated with the following:

i. The extension of Malden Road from Daytona Avenue east to Northway Avenue [The City is responsible for 70% of the construction costs];
ii. Curb and base asphalt repairs, as well as the installation of surface asphalt on Northway Avenue, north of Malden Road [The City is responsible for 100% of the construction costs]; and
iii. The installation of storm and sanitary private drain connections, as well as water and hydro connections needed to service two new building lots fronting Daytona Avenue and Northway Avenue.

Carried.

Report Number: S 27/2022
Clerk's File: SW/14365

12. COMMITTEE MATTERS

12.1. Minutes of the International Relations Committee of its meeting held February 2, 2022

Moved by: Councillor Holt
Seconded by: Councillor Morrison

Decision Number: **DHSC 394**
THAT the minutes of the International Relations Committee of its meeting held February 2, 2022 **BE RECEIVED**.
Carried.

Report Number: SCM 82/2022
Clerk's File: MB2022

12.2. Minutes of the International Relations Committee of its meeting held March 31, 2022

Moved by: Councillor Holt
Seconded by: Councillor Morrison

Decision Number: **DHSC 395**
THAT the minutes of the International Relations Committee of its meeting held March 31, 2022 **BE RECEIVED**.
Carried.

Report Number: SCM 95/2022
Clerk's File: MB2022

13. QUESTION PERIOD

None registered.

14. ADJOURNMENT

There being no further business the meeting of the Development & Heritage Standing Committee (Administrative Matters) is adjourned at 6:15 o'clock p.m.
Carried.

_____	_____
Ward 3 - Councillor Bortolin (Chairperson)	Deputy City Clerk / Supervisor of Council Services

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 60/2022

Subject: 1478 Kildare Road, Cunningham Sheet Metal (formerly) - Heritage Permit Request (Ward 4)

Reference:

Date to Council: June 6, 2022
Author: Kristina Tang, MCIP, RPP
Heritage Planner
ktang@citywindsor.ca
519-255-6543 x 6179

Tracy Tang
Planner II- Revitalization & Policy Initiatives
ttang@citywindsor.ca
519-255-6543 x 6449
Planning & Building Services
Report Date: May 18, 2022
Clerk's File #: MBA/12747

To: Mayor and Members of City Council

Recommendation:

I. THAT a Heritage Permit at 1478 Kildare Road, Cunningham Sheet Metal (formerly), **BE GRANTED** for removal and replacement of the wood carriage-style shop doors.

II. THAT the City Planner or designate **BE DELEGATED** the authority to approve any further proposed changes associated with the proposed scope of work for the shop doors restoration.

Executive Summary: N/A

Background:

The property at 1478 Kildare Road is known as the former Cunningham Sheet Metal building. The one storey building was designed with Art Deco elements by McElroy & McIntosh and constructed in 1928. Cunningham Sheet Metal Ltd. had a rich history of operation in Walkerville and contribution to the construction of Windsor. In 2015, the metal fabricator company relocated to a larger facility in Oldcastle. The property at 1479 Kildare Road has since been operating as Justin's Auto Repair.

On January 5, 2009, Cunningham Sheet Metal was listed on the Windsor Municipal Heritage Register and on June 5, 2017, City Council approved the heritage designation through By-law No. 83-2017 as requested by current owners Justin and Cherleen

Lapointe. The Statement of Cultural Heritage Value or Interest from the By-law is attached as Appendix A.

In January 2022, an accidental workplace-related fire damaged the property including the heritage attribute “carriage style wooden door with multi-pane window on north side”. The doors were damaged to the extent of being considered unsafe. In February 2022, an Order to Repair was issued in response to the fire damage on the property. Consequently the exterior of the damaged wood doors was boarded for safety and weather protection. Since February 2022, the wood doors have been removed and placed into storage.

The current owner (Justin Lapointe) plans to replace the doors with new materials and finishes, replicating the style and finish by using the original damaged doors and photo documentation as template. Metal pieces will be refurbished to original state of construction if salvageable, otherwise replicated if unsalvageable.

The wooden doors are a featured heritage attribute in the Heritage Designation By-law and a Heritage Permit is required for their removal and replacement. A Heritage Permit application was submitted to the City on April 21, 2022 (Appendix B - Heritage Permit Application).

Legal Provisions:

The *Ontario Heritage Act* (*OHA*) requires the owner of a heritage designated property to apply to Council to alter the property. The designation by-law includes heritage attributes (see Appendix A). In accordance with the *OHA*, changes to designated property that affect heritage attributes must be considered by City Council after consulting with the municipal Heritage Committee. Council has the option of granting consent with or without terms and conditions, or refusing the application within 90 days of notice of complete application.

Discussion:

Property Description:

The building is a 1928 one-storey long rectilinear industrial building that features a buff brick facade. It was designed by McElroy & McIntosh for the Cunningham Sheet Metal business with simple elements of Art Deco style. The north-facing facade of the building has an exterior feature included in the designation by-law:

- Carriage style wooden door with multi-pane window on north side

In particular, the wooden doors have large metal hinges, a wooden bar lock, and 12-pane windows with wood muntins. The door was painted a forest green colour on the interior and a light grey on the exterior prior to the fire.

Proposal and Heritage Conservation Considerations

For the proposed scope of work, some relevant references from the *Standards & Guidelines for Conservation of Historic Places* have been considered.

8. Maintain *character-defining elements* on an ongoing basis. Repair character-defining elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving *prototypes*.

13. Repair rather than replace *character-defining elements* from the *restoration* period. Where character-defining elements are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.

From Section 4.3.5 Windows, Doors and Storefronts:

	Recommended	Not Recommended
3	**Documenting** the form, materials and condition of windows, doors and storefronts, and their elements, before undertaking an intervention. This includes the configuration, style, method of operation and materials.	Undertaking an intervention that affects windows, doors and storefronts without first documenting their existing character and condition.
4	**Assessing** the condition of windows, doors and storefronts, including hardware, early in the planning process so that the scope of work is based on current conditions.	
5	**Determining** the cause of distress, damage, or deterioration of windows, doors and storefronts through investigation, monitoring, and minimally invasive or non-destructive testing techniques.	
8	**Retaining** sound and repairable windows, doors and storefronts, including their functional and decorative elements, such as hardware, signs and awnings.	Removing or replacing windows, doors and storefronts that can be repaired. Peeling paint, broken glass, stuck sashes, loose hinges or high air infiltration are not, in themselves, indications that these assemblies are beyond repair.
12	**Replacing** in kind extensively deteriorated or missing parts of windows, doors and storefronts, where there are surviving prototypes.	Replacing an entire functional or decorative element, such as a shutter with a broken louver, or a door with a missing hinge, when only limited replacement of deteriorated or missing part is possible. Using a substitute material for the replacement part that neither conveys the same appearance as the surviving parts of the element, nor is physically or visually compatible.
16	**Replacing** in kind irreparable windows, doors or storefronts based on physical and documentary evidence. If using the same materials and design details is not technically or economically feasible, then compatible substitute materials or details may be considered.	Removing an irreparable window, door or storefront and not replacing it, or replacing it with a new one that does not convey the same appearance or serve the same function. Stripping storefronts of character-defining materials or covering over those materials.

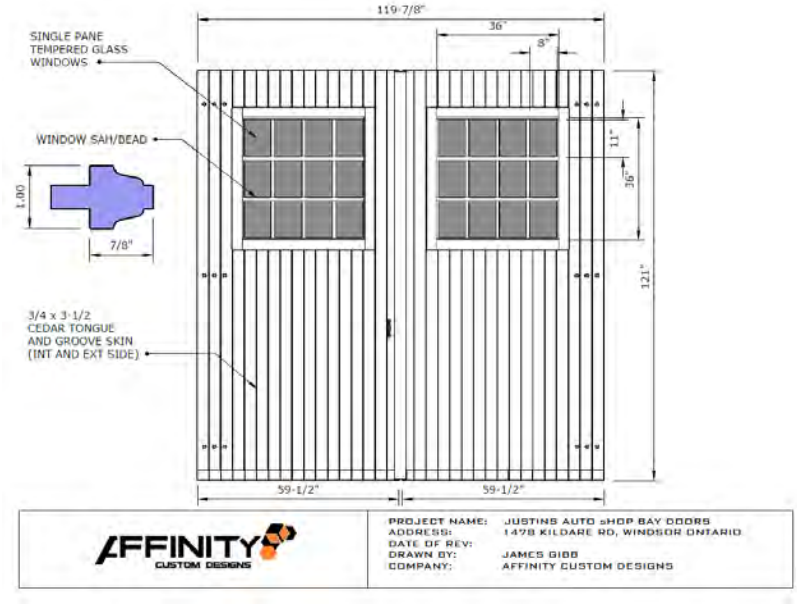
From Section 4.5.2 Wood and Wood Products:

20	**Replacing** in kind an irreparable wood element, based on documentary and physical evidence.	Removing an irreparable wood element and not replacing it, or replacing it with an inappropriate new element.

From Section 4.5.5 Architectural and Structural Metals:

12	**Retaining** all sound and repairable metals that contribute to the heritage value of the historic place.	Replacing metals that can be repaired.
14	**Repairing** parts of metal elements by welding, soldering, patching, or splicing, using recognized conservation methods.	Replacing an entire metal element, when repair and limited replacement of deteriorated or missing parts is possible.
15	**Replacing** in kind, extensively deteriorated or missing parts of metal elements, based on physical and documentary evidence.	Replacing an entire metal element, when limited replacement of deteriorated and missing parts is appropriate. Using a substitute material that neither conveys the appearance of the surviving parts of the metal element, nor is physically or chemically compatible.
18	**Replacing** in kind an irreparable metal element, based on documentary and physical evidence.	Removing an irreparable metal element and not replacing it, or replacing it with an inappropriate new element.
21	**Replacing** in kind a metal element from the restoration period that is too deteriorated to repair, based on documentary and physical evidence. The new work should be well documented and unobtrusively dated to guide future research and treatment.	Removing an irreparable metal element from the restoration period and not replacing it, or replacing it with an inappropriate new element.

The heritage permit is for the complete removal of the fire-damaged wood doors and replacement with new materials and finishes in replication of the original. The new replicated doors are as proposed in the drawings attached within Appendix B.



Drawing of the proposed replacement wood doors

Photographs of the wood doors interior and exterior, taken September 2016

Photographs of the wood doors after fire, showing close-up detail on the interior and the exterior boarded up for safety purposes, taken February 2022. Additional photographs are provided in Appendix C.

As part of the replacement, the retained contractor is conducting investigations on the extent of the damage to the metal pieces such as the hinges. Where possible, restoration of the historic metal pieces is proposed (cleaning and repairs). It is important that heritage-sensitive approaches and materials be employed, so as not to result in unintentional harm to the historic material. Where there are areas of damage beyond repair, the retained contractor proposes to replicate the metal pieces to what was originally constructed using the remaining pieces and photograph documentation.

The proposed drawings follows the Heritage standards and based on the specified profiles and materials, samples and mock-ups from Heritage Staff will not be required for the work.

Official Plan Policy:

The Windsor Official Plan states “Council will recognize Windsor’s heritage resources by: Designating individual buildings, structures, sites and landscapes as heritage properties under the Ontario Heritage Act.” (9.3.3.1(a))

The Plan includes protection (9.3.4.1). “Council will protect heritage resources by: (c) Requiring that, prior to approval of any alteration, partial demolition, removal or change in use of a designated heritage property, the applicant demonstrate that the proposal will not adversely impact the heritage significance of the property …”

The Windsor Official Plan includes (9.3.6.1.), “Council will manage heritage resources by: (e) providing support and encouragement to organizations and individuals who undertake the conservation of heritage resources by private means”.

Risk Analysis:

The risk of taking no action for the wood doors is their inappropriate replacement incompatible with the nature of the heritage property. At this point, the doors have been removed due to their unsafe condition and the opening in the north wall has been boarded. Risk of the inappropriate replacement is being mitigated through the heritage-cognizant proposal.

Climate Change Risks

Climate Change Mitigation: N/A

Climate Change Adaptation: N/A

Financial Matters:

The applicant has informed that their insurance company will be covering the cost of the replacement door in full.

Consultations:

The Heritage Planner has been in communication with the owner since January 2022.

Conclusion:

The heritage permit request for the removal and replacement of the wood carriage-style shop doors is recommended for approval. Delegated authority to the City Planner or designate to direct any further minor changes as needed will provide project efficiencies and confirm that the interventions proposed would not have a negative impact on the heritage attributes of the property.

Planning Act Matters: N/A

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Building
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Chief Administrative Officer (Acting)

Notifications:

Name	Address	Email
Justin Lapointe		volvo1982@hotmail.com
James Gibb		affinitycustomdesigns@gmail.com

Appendices:

1 Appendix A - Statement of Cultural Heritage Value or Interest from Heritage Designation By-law 83-2017
2 Appendix B - Heritage Permit Application
3 Appendix C - Additional Photos of Cunningham Sheet Metal

Appendix A – Statement of Cultural Heritage Value or Interest

From By-Law No. 83-2017, June 5, 2017

REASONS FOR DESIGNATION / STATEMENT OF SIGNIFICANCE
Cunningham Sheet Metal
1478 Kildare Road

Description of Historic Place

The Cunningham Sheet Metal building located at 1478 Kildare Road was constructed in 1928. The one storey rectilinear building was designed by McElroy & McIntosh with a buff brick facade and simple elements of the Art Deco style. Cunningham Sheet Metal has a rich history of operation in Walkerville and contribution to the construction of Windsor. It is located between residential neighbourhood and industrial uses.

Cultural Heritage Value or Interest

Design or Physical Value:

The Cunningham Sheet Metal is a long rectilinear one storey industrial building designed with simple elements of the Art Deco architectural style. The symmetrical building has a buff brick facade with brick pilasters and stone cap. The front facade retains the stone lintels and sills. A low-peaked stone pediment with scroll design at ends is positioned above the front entry, which has a small portico consisting of a flared metal deck with scroll design corbels. Large multi-pane casement windows line the sides of the building to provide natural light.

Historical or Associative Value:

Founded and established since 1908, Cunningham Sheet Metal is one of the oldest industrial businesses that existed in Walkerville. For over a century, it operated in Walkerville and specifically at the Kildare Road facility for 87 years. In the early decades, the Cunningham Sheet Metal business grew as quickly as the Border Cities. Its specialty then in sheet metal work, roofing, heating and ventilation helped to construct countless buildings/structures in the region including those with heritage value such as the Ambassador Bridge, Dillon Hall, Windsor/Detroit Tunnel and Windsor Star Building. Over the century, the business continued to be actively engaged in providing services for significant and ordinary projects in the community.

The building was designed by the firm McElroy & McIntosh. Garnet Andrew McElroy (1897-1986) and Duncan N. McIntosh (1900-1985) were staff architects of the S.S. Kresge Co. who designed or engineered (McIntosh who was also an engineer) many S.S. Kresge Co. retail stores in Canada and the United States. McElroy in particular was a Windsor architect known for his progressive designs using Art Deco and Modernist architectural styles. McElroy's other local works include the Assumption College High School and Chapel (1957), the Wilkinson Shoe Store (c.1930) on Ouellette Avenue, and the heritage designated Harris House (1948) on Ypres Avenue.

Contextual Value:

The property is located at the boundary between residential subdivisions to the north and east and industrial land uses to the south. Residential development had continued expanding southward as the former Town of Walkerville grew while industrial uses had been established in the block to utilize the Essex Terminal Railway Line. The Cunningham Sheet Metal building is a long-standing landmark in the immediate neighbourhood and a signifier of the change between the residential and industrial land uses.

Character Defining Elements:

Exterior features that contribute to the design or physical value of Cunningham Sheet Metal:

- Built in 1928
- One storey industrial building constructed of brick and concrete with simple elements of the Art Deco architectural style, including:
    - Symmetrical rectilinear massing
    - Flat roof
    - Buff brick front wall with brick pilasters and stone cap
    - Low peaked stone pediment with scroll and leaf design at ends on front elevation
    - Small front portico consisting of a flared metal deck with scroll design corbels
    - Stone lintels and sills at front
    - Awning style large multi-pane casement windows on the sides
    - Carriage style wooden door with multi-pane window on north side

Features that contribute to the historical or associative value of Cunningham Sheet Metal:

- One of the most established sheet metal shops that has contributed to the construction of numerous significant and ordinary buildings and structures in Windsor
- One of the oldest industries which operated in Walkerville for over a century
- Designed by local architect Garnet Andrew McElroy & architect/engineer Duncan N. McIntosh

Features that contribute to the contextual value of Cunningham Sheet Metal:

- Located at the boundary of the residential and industrial uses on Kildare Road in the Walkerville area
- Is a landmark to the immediate neighbourhood

THE CITY OF WINDSOR
ONTARIO, CANADA

HERITAGE PERMIT APPLICATION

Revised 12/2021

CORPORATION OF THE CITY OF WINDSOR

Planning Dept., Suite 320-350 City Hall Sq W, Windsor ON N9A 6S1
519-255-6543 | 519-255-6544 (fax) | planningdept@citywindsor.ca

1. Applicant, Agent and Registered Owner Information

Provide in full the name of the applicant, registered owner and agent, the name of the contact person, and address, postal code, phone number, fax number and email address. If the applicant or registered owner is a numbered company, provide the name of the principals of the company. If there is more than one applicant or registered owner, copy this page, complete in full and submit with this application.

APPLICANT

Contact Name(s) JAMES GIBB
Company or Organization AFFINITY CUSTOM DESIGNS
Mailing Address 1479 COUNTY RD 27
LAKESHORE ONTARIO
Postal Code N0R 1A0
Email AFFINITYCUSTOMDESIGNS@GMAIL.COM Phone(s) 519-564-2878

REGISTERED OWNER IF NOT APPLICANT

Contact Name(s) Justin Lapointe
Company or Organization Justins Auto Repair
Mailing Address 1478 Riverside rd
Windsor Ontario
Postal Code N8T 3S3
Email justin@justinsautorepair.ca Phone(s) 519-965-3708

AGENT AUTHORIZED BY REGISTERED OWNER TO FILE THE APPLICATION

Contact Name(s) JAMES GIBB
Company or Organization AFFINITY CUSTOM DESIGNS
Mailing Address 1479 COUNTY RD 27
LAKESHORE ONTARIO
Postal Code N0R 1A0
Email AFFINITYCUSTOMDESIGNS@GMAIL.COM Phone(s) 519-564-2878

Who is the primary contact?

☑ Applicant ☐ Registered Owner ☐ Agent

THE CITY OF WINDSOR
ONTARIO, CANADA

HERITAGE PERMIT APPLICATION

Revised 12/2021

2. SUBJECT PROPERTY

Municipal Address: 1478 Kildare Road, Windsor

Legal Description (if known): CON 1; PT LOTS 94 & 95; RP 12R 28138; part 1

Building/Structure Type:
☐ Residential ☐ Commercial ☑ Industrial ☐ Institutional

Heritage Designation:
☑ Part IV (Individual) ☐ Part V (Heritage Conservation District)

By-law #: 83-2017 District: _____

Is the property subject to a Heritage Easement or Agreement?
☐ Yes ☑ No

3. TYPE OF APPLICATION

Check all that apply:
☑ Demolition/Removal of heritage attributes ☐ Addition ☐ Erection ☐ Alteration*
☐ Demolition/Removal of building or structure ☐ Signage ☐ Lighting

*The *Ontario Heritage Act's* definition of "alter" means to change in any manner and includes to restore, renovate, repair or disturb.

4. HERITAGE DESCRIPTION OF BUILDING

Describe the existing design or appearance of buildings, structures, and heritage attributes where work is requested. Include site layout, history, architectural description, number of storeys, style, features, etc..

Carriage style wooden doors with multi-paned windows on the North side.

Built in 1928 when the whole building was built

THE CITY OF WINDSOR
ONTARIO, CANADA

HERITAGE PERMIT APPLICATION

Revised 12/2021

5. PROPOSED WORK

Provide a detailed written description of work to be done, including any conservation methods you plan to use. Provide details, drawings, and written specifications such as building materials, measurements, window sizes and configurations, decorative details, etc.. Attach site plans, elevations, product spec sheets, etc. to illustrate, if necessary.

COMPLETE REPLACEMENT OF DOORS WITH NEW MATERIALS. BUILT TO MATCH THE DOORS THAT HAVE BEEN DAMAGED IN SIZE STYLE & FINISH.

6. HERITAGE PERMIT RATIONALE

Explain the reasons for undertaking the proposed work and why it is necessary.

THE DOORS WERE DAMAGED DUE TO A STRUCTURE FIRE AND ARE NOT CONSIDERED SAFE.

Describe the potential impacts to the heritage attributes of the property.

THE DOORS WILL BE CONSTRUCTED WITH ALL NEW MATERIALS AND NEW FINISHES TO REPLICATE WHAT WAS ORIGINALLY BUILT.

7. CHECKLIST OF MATERIALS SUBMITTED Check all that apply:

Required:

- ✓ Photographs (showing the current condition and context of existing buildings, structures, and heritage attributes that are affected by the application)
- Site plan/ Sketch (showing buildings on the property and location of proposed work)
- ✓ Drawings of proposed work (e.g. existing and proposed elevations, floor plans, roof plans, etc., as determined by Heritage Planning staff)
- Specifications of proposed work (e.g. construction specification details)

Potentially required (to be determined by Heritage Planning staff):

- Registered survey
- Material samples, brochures, product data sheets etc.
- Cultural Heritage Evaluation Report
- Heritage Impact Assessment (HIA)
- Heritage Conservation Plan
- Building Condition Assessment

THE CITY OF WINDSOR
ONTARIO, CANADA

HERITAGE PERMIT APPLICATION

Revised 12/2021

8. NOTES FOR DECLARATION

The applicant hereby declares that the statements made herein and information provided are, to the best of their belief and knowledge, a true and complete representation of the purpose and intent of this application.

The applicant agrees that the proposed work shall be done in accordance with this application, including attachments, and understands that the issuance of the Heritage Alteration Permit under the Ontario Heritage Act shall not be a waiver of any of the provisions of any By-Law of the Corporation of the City of Windsor, or the requirements of the Building Code Act, RSO 1980, c51.

The applicant acknowledges that in the event a permit is issued, any departure from the conditions imposed by the Council of the Corporation of the City of Windsor, or plans and specifications approved is prohibited and could result in the permit being revoked. The applicant further agrees that if the Heritage Alteration Permit is revoked for any cause of irregularity, in the relation to non-conformance with the said agreements, By-Laws, acts or regulations that, in consideration of the issuance of the permit, all claims against the City for any resultant loss or damage are hereby expressly waived.

APPLICANT Signature(s) _____ Date 04 20 2022

_____ Date _____

THE CITY OF WINDSOR
ONTARIO, CANADA

HERITAGE PERMIT APPLICATION

Revised 12/2021

SCHEDULE A

A. Authorization of Registered Owner for Agent to Make the Application

If the applicant is not the registered owner of the land that is the subject of this application, the written authorization of the registered owner that the applicant is authorized to make the application must be included with this application form or the authorization below must be completed.

I, Justin Laporte, am the registered owner of the land that is
name of registered owner
subject of this application for a Heritage Alteration Permit and I authorize
James Gibb to make this application on my behalf.
name of agent

[signature] March 23, 2022
Signature of Registered Owner — Date

If Corporation – I have authority to bind the corporation.

B. Consent to Enter Upon the Subject Lands and Premises

I, Justin Laporte, hereby authorize the members of the Windsor Heritage Committee and City Council and staff of the Corporation of the City of Windsor to enter upon the subject lands and premises described in Section 3 of the application form for the purpose of evaluating the merits of this application and subsequently to conduct any inspections on the subject lands that may be required as condition of approval. This is their authority for doing so.

[signature] March 23, 2022
Signature of Registered Owner — Date

If Corporation – I have authority to bind the corporation.

C. Acknowledgement of Applicant

I understand that receipt of this application by the City of Windsor Planning Department does not guarantee it to be a complete application. Further review of the application will occur and I may be contacted to provide additional information and/or resolve any discrepancies or issues with the application as submitted.

I further understand that pursuant to the provisions of the Ontario Heritage Act and the Municipal Freedom of Information and Protection of Privacy Act, this application and all material and information provided with this application are made available to the public.

[signature] 04.20.2022
Signature of Applicant — Date

THE CITY OF WINDSOR
ONTARIO, CANADA

HERITAGE PERMIT APPLICATION

Revised 12/2021

DO NOT COMPLETE BELOW – STAFF USE ONLY

Approval Record

Date Received by Heritage Planner: _____
Building Permit Application Date, if needed: _____

☐ Application Approval (City Council):
Development & Heritage Standing Committee: _____
City Council: _____

☐ Application Approval (City Planner):
Heritage Planner: _____
Staff Decision Appealed to City Council: _____
If so, Date to City Council: _____
Council Decision Appealed: _____

Additional Notes / Conditions:

_____
_____
_____
_____

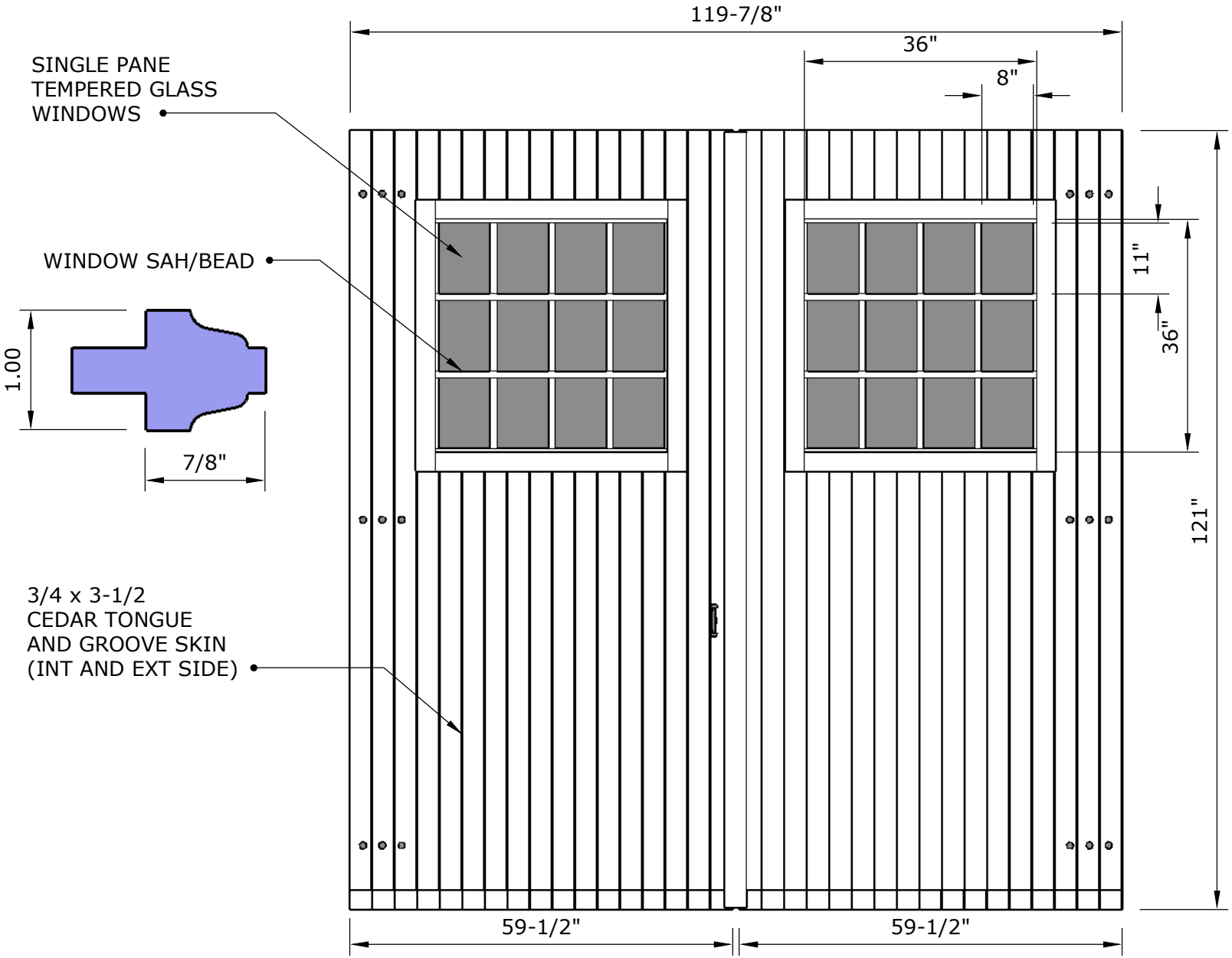
DECISION

Heritage Permit No.: _____ Date: _____
Council Motion or City Planner's Signature: _____

Please contact Heritage Planning to request inspections at ktang@citywindsor.ca

CONTACT INFORMATION

Planning Department - Planning Policy
Corporation of the City of Windsor
Suite 320 - 350 City Hall Square West
Windsor ON N9A 6S1
planningdept@citywindsor.ca
519-255-6543 x 6179
519-255-6544 (fax)
http//:www.citywindsor.ca



AFFINITY CUSTOM DESIGNS

PROJECT NAME:	JUSTINS AUTO SHOP BAY DOORS
ADDRESS:	1478 KILDARE RD, WINDSOR ONTARIO
DATE OF REV:	
DRAWN BY:	JAMES GIBB
COMPANY:	AFFINITY CUSTOM DESIGNS

Appendix C – Additional Photos of Cunningham Sheet Metal

Interior of the wood doors, photographed in September 2016

Exterior of the wood doors on the north facade, photographed in September 2016

Interior of the wood doors immediately following the work shop fire, photographed by owner in January 2022

Interior and exterior of the wood doors during clean-up of the surrounding area, photographed by Administration in February 2022. The exterior was boarded for safety purposes and weather protection at the time

Close-up details of the fire damage to the interior of the wood doors, photographed by Administration in February 2022

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 61/2022

Subject: Request for Heritage Permit – 3036 Sandwich Street, McKee Park (Ward 2)

Reference:

Date to Council: June 6, 2022
Author: Kristina Tang, MCIP, RPP
Heritage Planner
ktang@citywindsor.ca
519-255-6543 X 6179

Tracy Tang
Planner II- Revitalization & Policy Initiatives
ttang@citywindsor.ca
519-255-6543 x 6449
Planning & Building Services
Report Date: May 18, 2022
Clerk's File #: MBA2022

To: Mayor and Members of City Council

Recommendation:

I. **THAT** a Heritage Permit at 3036 Sandwich Street, McKee Park, for the alterations and addition of the gazebo, plaza, boardwalk, benches, decorative light standards, changes to address drainage, and playground, **BE APPROVED**, subject to the following condition(s)**:**

a. Submission of satisfactory product details and samples (including material and colour selections as necessary) to the City Planner or designate; and further,

II. **THAT** the City Planner or designate **BE DELEGATED** the authority to approve any further changes to the heritage alteration permit associated with the current phase of proposed scope for McKee Park including but not limited to the following items:
a. Receptacles
b. Widened paths

Executive Summary: N/A

Background:

3036 Sandwich Street, known as McKee Park, is a heritage designated property under Part V of the *Ontario Heritage Act* as it is located within the boundaries of the Sandwich Heritage Conservation District (HCD). City Council passed the Sandwich HCD Designation By-law No. 22-2009 in January 2009, along with related by-laws. McKee Park became part of the Sandwich HCD when it came into effect in October 2012. The Sandwich HCD Plan requires certain proposed modifications on properties within the HCD, including changes or improvements to public parks, to apply for Heritage Permits.

Photographs of McKee Park in May 2022

In May 2022, the City of Windsor's Parks Department submitted a Heritage Permit application as part of the proposed redevelopment plans for McKee Park, which is significantly supported through funding from Bridging North America. Due to construction season scheduling and the deadline for fund usage, the Parks Department has advised that some phases of the construction would begin in late May 2022. The Heritage Permit application is outlined in Appendix 'A' – Heritage Permit Application.

Discussion:

Property description:

The subject property is a municipal public park located on the west side of Sandwich Street, and also borders on Chewett Street, Russell Street, and the Detroit River. Facilities in the park include a boat ramp, picnic tables, a playground area, a boardwalk, and a parking lot for about 40 cars.

2017 aerial photograph of the property

Parks Staff reported in the Heritage Permit application that the existing boardwalk, pathways, and playground are nearing the end of their lifecycles, and that due to their age, maintenance of the amenities is becoming increasingly challenging. There is also evidence of ponding and drainage issues at the park. Bridging North America has provided the opportunity to redevelop McKee Park and make improvements for the community.


Photographs of McKee Park in May 2022 showing current state of the boardwalk, drainage issues, pathways, and benches.



Area planned for plaza leading to gazebo and the playground.

Proposal:

The Parks Department is proposing the following works at McKee Park:

- Remove existing wooden boardwalk and replace with new composite recycled plastic boardwalk
- New gazebo
- New plaza adjacent to boardwalk and gazebo
- Remove existing asphalt pathways and replace with new widened asphalt pathways
- Remove existing lights and benches and replace with new decorative lights and benches matching the standardized Sandwich HCD public furniture
- Improve heritage appearance of existing silo receptacles and make plans to install new heritage appropriate receptacles
- Make elevation changes and add catch basins to address drainage problems
- Replace the existing playground equipment with new

As part of the Heritage Permit application, Parks staff have submitted a redevelopment plan and specifications for individual components of the proposed works. These supplementary materials are included in Appendix 'A' – Heritage Permit Application.

The proposed works will improve the condition of the park and create an enhanced experience for park users.

Legal provisions:

The subject property is located within the boundaries of the Sandwich Heritage Conservation District (HCD) and is designated under Part V of the *Ontario Heritage Act* (OHA), which in Section 41.1(5) requires the HCD Plan to contain (c) "a description of the heritage attributes of the heritage conservation district and of properties in the district". Changes to the properties within the district are to be considered according to (d) "policy statements, guidelines and procedures for achieving the stated objectives and managing change in the heritage conservation district". The Sandwich HCD Plan outlines some changes to be approved by City Council after review by the Committee; and some minor changes to be approved by staff.

The Sandwich HCD Plan requires Heritage Committee review and Council approval for changes or improvements to public parks.

Official Plan Policy:

The Windsor Official Plan states “Council will enhance heritage resources by (a) Ensuring that within any Heritage Area or Heritage Conservation District that: (i) Infrastructure undertakings respect and enhance the historic character of the area; (ii) Development be of compatible height, massing, scale, setback and architectural style.” (9.3.5.1)

Volume II Section 1.26 on the Sandwich Heritage Conservation District of the City’s Official Plan includes more detailed policies, in particular that “All applications for heritage permits will be required to conform to the design guidelines in the Sandwich Heritage Conservation District Plan, adopted by By-law 22-2009.” (Volume II, Section 1.26.9)

Sandwich Heritage Conservation District (HCD):

Review of Sandwich HCD policies

Section 4.5 on Public Realm emphasizes the important role of the public realm in defining the overall heritage character of the neighbourhood through its mature trees and public furniture. The policies include:

(a) Mature street trees are to be protected and preserved to the extent possible unless they present a public safety hazard or are in a serious state of decline due to age or disease. When removal of street trees is required, they should be replaced with new trees of an appropriate size and species as determined by the Community Services Department;

(e) Existing road right-of-ways and paved surfaces should not be increased;

(f) Street furnishings, including benches, garbage cans, bicycle racks and other components, will be consistent throughout the neighbourhood and be of a style and material that complements the heritage attributes of the District;

Section 5. 6. 2 on Approvals for Public Property and Infrastructure obligates the municipality to be consistent with the policies and guidelines of the Plan through Council review and approval of such works and items:

- Replacement of street lighting, street signs;
- Street furnishings, including benches, trash receptacles, bicycle racks, planters and similar items;
- Alterations, reconstruction or removal of grassed boulevards;
- Changes to sidewalks or roadway pavement widths;
- Changes or improvements to public parks and open space features.

Section 8.2 on Mature Trees provides guidelines for municipal authority to protect mature trees and to be concerned about the protection of root zones of trees, and any replacements. Section 8.6 on Parks and Open Space provides detailed guidelines and recommendations for Paterson Park and Mackenzie Hall Parkette (now Mary Bibb Park) while not specifically mentioning McKee Park. The same principles emphasizing the presence of trees is repeated.

Section 8.10.2 on Lighting Style discusses establishing lighting that is sensitive to the heritage character of the district, recommending the use of King Luminaire ornamental style. Section 8.10.3 on Street Furniture discusses the coordination of elements such as lighting, benches, and trash receptacles to create a sense of place and to set it apart from other areas. It discusses the installation of unifying ornamental furniture such as the Ultra Plus bench series.

Review of Proposal:

Look-out (Boardwalk, Gazebo & Plaza): The Heritage Permit identifies the boardwalk and gazebo that would serve as a look-out area towards the views of the Detroit River and Ambassador Bridge, supporting the HCD element of preserving views and vistas. The gazebo proposed is intended to have a louvered cupola and be without railings (slightly different from the application drawing submitted), which would be acceptable in design. The frame of the gazebo would be painted in charcoal grey and the roofing would be an 18" standing seam style in dark green. The finish chosen is within the Heritage Colour palettes of the HCD. Grass near the proposed gazebo location has been inevitably damaged by foot traffic between the parking lot and the boardwalk. Therefore, as a supplemental destination feature to the gazebo, a plaza paved with exposed aggregate with acid wash finish (then sealed to ensure its condition) will be installed. The recycled plastic material chosen for the boardwalk has been used by the Parks Department at other city parks (Ojibway), though from a purely heritage colour perspective, the brown footpath planks would have been preferred over the grey. The grey colour, however, has been determined to be an acceptable choice in this instance primarily because it absorbs less heat which helps to accommodate visitors to the park should they remove their shoes to enjoy the beach and adjacent boardwalk.

On left, example of grey boardwalk at Ojibway Park. Photo on right shows view from Sandwich Street looking towards Detroit River across McKee Park.

Light & Benches: The eight lights proposed will be the same as the Sandwich Street Roundabout light standards, and the benches will be selected from the same Ultra Bench series used at Patterson Park. This ornamental furniture will fit well with Sandwich HCD and demonstrate continuity with ongoing City investment in consistent streetscaping with other public furniture elements along Sandwich Street and at other parks located in Sandwich.

Receptacles: As for receptacles, there is currently an existing garbage silo within McKee Park. These types of underground silos have an operational advantage due to storage capacity, but have a utilitarian appearance that does not necessarily enhance the HCD. Parks staff is investigating potential finishing details that would "mask" the existing garbage silo, and will consult and discuss further with Planning staff when more options and product information is made available.

Paths, Trees & Drainage: The existing asphalt pathways are currently 5 feet wide but replacement with new 3m wide asphalt pathways is proposed to facilitate operational maintenance, accessibility needs and COVID distancing concerns. Planning staff will continue to work with Parks staff in adjusting the design of the path and incorporating landscaping near Sandwich Street to visually "hide" the appearance of the widened paths. These paths are also designed in a way to minimize tree loss by limiting the root damage to the drip line of the trees and construction plans include tree protection instructions. However, forestry staff have indicated that some/most of the mature maple trees are showing signs of stress already with tip dieback. A review also concluded that the removal of three juvenile trees and one mature tree is required due to the poor health of the trees, and not the construction design. The preservation of the remaining trees has been taken into consideration through the use of woodchips (instead of topsoil), to reduce stress on the root systems with the elevation changes that are being introduced with the catch basins to address the park's drainage and ponding issues.

Playground: The playground set for McKee Park has been ordered as part of the planned 35 new playgrounds that the Parks Department will be installing across the city. As McKee Park's existing playground has been categorized as medium-sized, its design is standardized with other similar sized playgrounds. Heritage appropriate colours have been chosen for McKee's playground, and the play units and swings will be erected in the same location as existing.

On left, view of existing playground. Photo on right shows concept design of new playground.

Archaeology: Since McKee Park is located within an area of High Archeological Potential within the former Huron Village area, the Parks Department has engaged licensed archaeological consultants to conduct archaeological assessments on the property. At the time of writing of this report, the assessments have not resulted in any archaeological finds, but will be further reviewed by the Ministry of Heritage, Sport, Tourism & Culture Industries.

Summary of Review: The proposal considers the Sandwich HCD Plan policies. Further refinement of details is needed on the visual screening of the receptacles, and widened paths, which is recommended to be delegated to staff for approval.

Risk Analysis:

As outlined in the Council approved Sandwich HCD Plan, the heritage permit process and Council review and approval is required to obligate the municipality and other property owners to be consistent with the policies and guidelines of the Sandwich HCD Plan. The proposal would improve the McKee Park experience and enhance the Sandwich Heritage Conservation District.

Climate Change Risks

Climate Change Mitigation: N/A

Climate Change Adaptation: N/A

Financial Matters:

The funding for the redevelopment of McKee Park comes from a partnership between Bridging North America (BNA) and funding from the 2021 capital budget that was approved for use as per CR453/2021.

Description of Funding	Funding Source	Funding Amount
Capital Budget	**PFO-007-12- Neighbourhood Parks Initiatives** McKee Park Capital Project 7221003	$150,000
Grant Funding	**Bridging North America (BNA) Agreement**	$200,000
TOTAL		**$350,000**

Consultations:

Heritage Planning staff have been in discussion with Parks Department staff. Discussions also took place between Planning Department Heritage Planning staff and Urban Design staff.

Conclusion:

The heritage permit requests for the alterations and addition of the gazebo, boardwalk, benches, decorative light standards, improvements to drainage, and playground at 3036 Sandwich Street, McKee Park, is recommended for approval, subject to conditions. Further changes or verifications to the proposal including, but not limited to, the receptacles and widened paths, are recommended to be delegated to Planning staff to expedite the implementation of McKee Park improvements.

Planning Act Matters: N/A

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/ Deputy City Planner
Thom Hunt	City Planner / Executive Director Planning & Building
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Chief Administrative Officer (Acting)

Notifications:

Name	Address	Email
Supervisor, Parks Projects: Darron Ahlstedt		dahlstedt@citywindsor.ca
Manager, Parks Development: Wadah Al-Yassiri		walyassiri@citywindsor.ca
Executive Director, Parks & Facilities: James Chacko		jchacko@citywindsor.ca

Appendices:

1 Appendix A- Heritage Permit Application

HERITAGE PERMIT APPLICATION

Revised 12/2021

CORPORATION OF THE CITY OF WINDSOR

Planning Dept., Suite 320-350 City Hall Sq W, Windsor ON N9A 6S1
519-255-6543 | 519-255-6544 (fax) | planningdept@citywindsor.ca

1. Applicant, Agent and Registered Owner Information

Provide in full the name of the applicant, registered owner and agent, the name of the contact person, and address, postal code, phone number, fax number and email address. If the applicant or registered owner is a numbered company, provide the name of the principals of the company. If there is more than one applicant or registered owner, copy this page, complete in full and submit with this application.

APPLICANT

Contact Name(s) Darron Ahlstedt/Wadah Al-Yassiri
Company or Organization City of Windsor, Parks Design and Development
Mailing Address 2450 McDougall Ave. Windsor, ON

Postal Code N8X 3N6
Email dahlstedt@citywindsor.ca Phone(s) _____

REGISTERED OWNER IF NOT APPLICANT

Contact Name(s) _____
Company or Organization _____
Mailing Address _____

Postal Code _____
Email _____ Phone(s) _____

AGENT AUTHORIZED BY REGISTERED OWNER TO FILE THE APPLICATION

Contact Name(s) _____
Company or Organization _____
Mailing Address _____

Postal Code _____
Email _____ Phone(s) _____

Who is the primary contact?

☒ Applicant ☐ Registered Owner ☐ Agent

THE CITY OF WINDSOR
ONTARIO, CANADA

HERITAGE PERMIT APPLICATION

Revised 12/2021

2. SUBJECT PROPERTY

Municipal Address: 3036 Sandwich Street

Legal Description (if known): Plan 410; lot 13

Building/Structure Type:

☐ Residential ☐ Commercial ☐ Industrial ☐ Institutional

Heritage Designation:

☐ Part IV (Individual) ☒ Part V (Heritage Conservation District)

By-law #: 22-2009 District: Sandwich HCD

Is the property subject to a Heritage Easement or Agreement?

☐ Yes ☒ No

3. TYPE OF APPLICATION

Check all that apply:

☐ Demolition/Removal of heritage attributes ☒ Addition ☒ Erection ☒ Alteration*

☐ Demolition/Removal of building or structure ☐ Signage ☒ Lighting

*The *Ontario Heritage Act's* definition of "alter" means to change in any manner and includes to restore, renovate, repair or disturb.

4. HERITAGE DESCRIPTION OF BUILDING

Describe the existing design or appearance of buildings, structures, and heritage attributes where work is requested. Include site layout, history, architectural description, number of storeys, style, features, etc..

McKee Park, located on the city's riverfront, is due for redevelopment. The existing boardwalk, pathways and playground are all at the end of their useful life. Parks Design and Development has a plan and limited funding to remove and replace/add the following to the park:
New recycled plastic boardwalk, gazebo, pathways (3m width), decorative lights and benches .
Additional catch basins will be added as well to improve the drainage issues that are present in the park now.

5. PROPOSED WORK

Provide a detailed written description of work to be done, including any conservation methods you plan to use. Provide details, drawings, and written specifications such as building materials, measurements, window sizes and configurations, decorative details, etc.. Attach site plans, elevations, product spec sheets, etc. to illustrate, if necessary.

Parks Design and Development has a plan and limited funding to remove and replace/add the following to the park:
New recycled plastic boardwalk, gazebo, pathways (3m width), decorative lights and benches, and in the next year a new playground. Additional catch basins will be added as well to improve the drainage issues that are present in the park now. See the attached Site plan.

6. HERITAGE PERMIT RATIONALE

Explain the reasons for undertaking the proposed work and why it is necessary.

The existing park amenities are aging to the point that maintaining them as they are, is becoming increasing difficult and time consuming. One time funding through Bridging North America (BNA) was provided to McKee Park to upgrade the park. These new amenities will bring the park up to current park standards with respect to pathways and lighting. The other features to be added will create an improved park experience for all who use the park.

Describe the potential impacts to the heritage attributes of the property.

7. CHECKLIST OF MATERIALS SUBMITTED Check all that apply:

Required:

- ☒ Photographs (showing the current condition and context of existing buildings, structures, and heritage attributes that are affected by the application)
- ☒ Site plan/ Sketch (showing buildings on the property and location of proposed work)
- ☒ Drawings of proposed work (e.g. existing and proposed elevations, floor plans, roof plans, etc., as determined by Heritage Planning staff)
- ☒ Specifications of proposed work (e.g. construction specification details)

Potentially required (to be determined by Heritage Planning staff):

- ☐ Registered survey
- ☐ Material samples, brochures, product data sheets etc.
- ☐ Cultural Heritage Evaluation Report
- ☐ Heritage Impact Assessment (HIA)
- ☐ Heritage Conservation Plan
- ☐ Building Condition Assessment

8. NOTES FOR DECLARATION

The applicant hereby declares that the statements made herein and information provided are, to the best of their belief and knowledge, a true and complete representation of the purpose and intent of this application.

The applicant agrees that the proposed work shall be done in accordance with this application, including attachments, and understands that the issuance of the Heritage Alteration Permit under the Ontario Heritage Act shall not be a waiver of any of the provisions of any By-Law of the Corporation of the City of Windsor, or the requirements of the Building Code Act, RSO 1980, c51.

The applicant acknowledges that in the event a permit is issued, any departure from the conditions imposed by the Council of the Corporation of the City of Windsor, or plans and specifications approved is prohibited and could result in the permit being revoked. The applicant further agrees that if the Heritage Alteration Permit is revoked for any cause of irregularity, in the relation to non-conformance with the said agreements, By-Laws, acts or regulations that, in consideration of the issuance of the permit, all claims against the City for any resultant loss or damage are hereby expressly waived.

APPLICANT Signature(s) _____ Date May 4, 2022.

_____ Date _____

SCHEDULE A

A. Authorization of Registered Owner for Agent to Make the Application

If the applicant is not the registered owner of the land that is the subject of this application, the written authorization of the registered owner that the applicant is authorized to make the application must be included with this application form or the authorization below must be completed.

I, _____, am the registered owner of the land that is
name of registered owner
subject of this application for a Heritage Alteration Permit and I authorize
_____ to make this application on my behalf.
name of agent

_____ _____
Signature of Registered Owner Date

If Corporation – I have authority to bind the corporation.

B. Consent to Enter Upon the Subject Lands and Premises

I, _____, hereby authorize the members of the Windsor Heritage Committee and City Council and staff of the Corporation of the City of Windsor to enter upon the subject lands and premises described in Section 3 of the application form for the purpose of evaluating the merits of this application and subsequently to conduct any inspections on the subject lands that may be required as condition of approval. This is their authority for doing so.

_____ _____
Signature of Registered Owner Date

If Corporation – I have authority to bind the corporation.

C. Acknowledgement of Applicant

I understand that receipt of this application by the City of Windsor Planning Department does not guarantee it to be a complete application. Further review of the application will occur and I may be contacted to provide additional information and/or resolve any discrepancies or issues with the application as submitted.

I further understand that pursuant to the provisions of the Ontario Heritage Act and the Municipal Freedom of Information and Protection of Privacy Act, this application and all material and information provided with this application are made available to the public.

_____ _____
Signature of Applicant Date

THE CITY OF WINDSOR
ONTARIO, CANADA

HERITAGE PERMIT APPLICATION

Revised 12/2021

DO NOT COMPLETE BELOW – STAFF USE ONLY

Approval Record

Date Received by Heritage Planner: _____

Building Permit Application Date, if needed: _____

☐ Application Approval (City Council):

Development & Heritage Standing Committee: _____

City Council: _____

☐ Application Approval (City Planner):

Heritage Planner: _____

Staff Decision Appealed to City Council: _____

If so, Date to City Council: _____

Council Decision Appealed: _____

Additional Notes / Conditions:

_____

_____

_____

_____

DECISION

Heritage Permit No.: _____ Date: _____

Council Motion or City Planner's Signature: _____

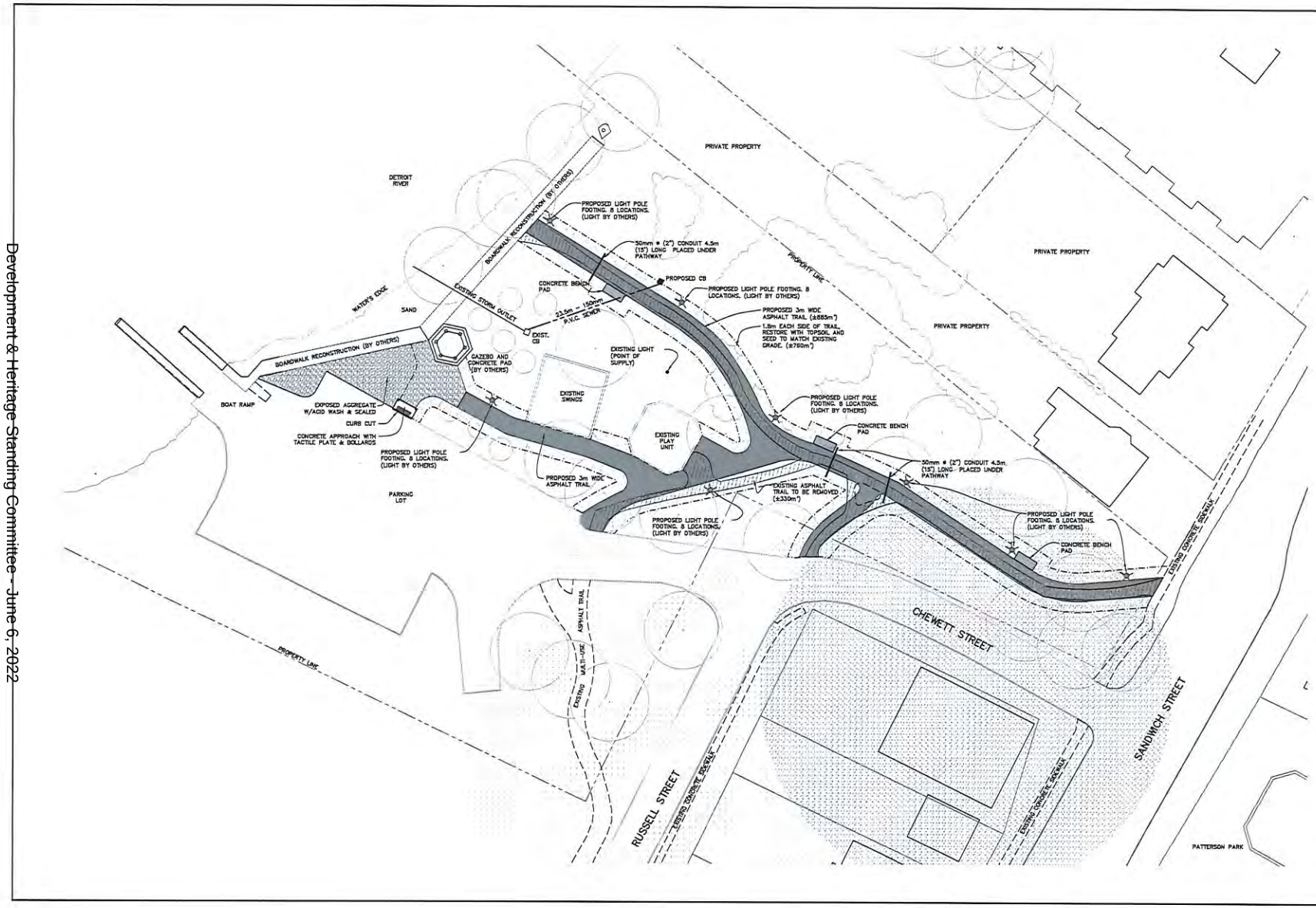
Please contact Heritage Planning to request inspections at ktang@citywindsor.ca

CONTACT INFORMATION

Planning Department - Planning Policy
Corporation of the City of Windsor
Suite 320 - 350 City Hall Square West
Windsor ON N9A 6S1
planningdept@citywindsor.ca
519-255-6543 x 6179
519-255-6544 (fax)
http//:www.citywindsor.ca

McKEE PARK - EXISTING CONDITIONS

1 : 1000
SEPTEMBER 2020



GENERAL NOTES:

1. CONTRACTOR TO CALL FOR LOCATES PRIOR TO COMMENCEMENT OF ANY WORK ON SITE. CONTRACTOR TO DETERMINE AND VERIFY THE LOCATION AND EXISTENCE OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. ADVISE THE PROJECT MANAGER FOR ANY CONFLICT BETWEEN EXISTING UTILITIES AND NEW WORK.
2. THE LOCATION OF UTILITIES IF INDICATED ON THE DRAWING IS NOT GUARANTEED TO BE ACCURATE. THE ONUS LIES ON THE CONTRACTOR AFTER AWARDING OF THE CONTRACT AWARD TO OBTAIN AT THEIR OWN EXPENSE, ALL LOCATES FROM EACH UTILITY. NO EXTRAS TO THE CONTRACT OR CLAIM FOR COMPENSATION WILL BE ALLOWED IF IT SHOULD BE DISCOVERED THAT ANY UTILITY IS ACTUALLY LOCATED IN THE SITE, LINE OR GRADE THAT IS IN VARIANCE WITH THE SITE, LINE OR GRADE SHOWN ON THIS DRAWING.
3. CONTRACTOR TO INFORM CITY PROJECT MANAGER OF COMMENCEMENT OF WORK DATE OF WORK START UP TWO (TWO) PRIOR TO ANY ONSITE OPERATIONS TAKING PLACE. THE CITY WILL MEET CONTRACTOR ON SITE TO REVIEW ALL WORK PRIOR TO COMMENCEMENT. ANY CHANGES OR AMENDS NOTICE SHALL BE GIVEN TO THE CITY PRIOR TO STARTING WORK.
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6. ALL WORK TO BE PERFORMED IN COMPLIANCE WITH THE HEALTH AND SAFETY ACT LATEST REVISIONS AS WELL AS THE CITY OF WINDSOR HEALTH AND SAFETY REGULATIONS.
7. RESTORATION OF ANY AREAS DISTURBED AS A RESULT OF CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE TO EXISTING CONDITIONS OR BETTER INCLUDING DAMAGED ASPHALT, CONCRETE, CURBS OR ANY OTHER SITE FEATURE DAMAGED AS A RESULT OF CONTRACTOR OPERATIONS. GRADING WILL BE RESTORED AS ROUGH FINISHED GRADE AND THE CITY WILL PERFORM ALL FINISHED SITE GRADING AFTER WORK HAS BEEN COMPLETED. ROUGH GRADING INCLUDES ELIMINATING ANY TRIP HAZARDS OR UNEVEN AREAS TO ALLOW FOR POSITIVE DRAINAGE.
8. ANY GRADES AND ELEVATIONS ARE PROVIDED FOR CONVENIENCE TO SHOW AND ARE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE OR VERIFY WITH THE CITY PROJECT MANAGER.
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EXISTING TREE PROTECTION

1. THE FOLLOWING NOTES WILL PERTAIN TO ANY AND ALL EXISTING TREES ON THE SITE LOCATED WITHIN THE CONSTRUCTION AREA OR ADJACENT TO ANY CONSTRUCTION OPERATIONS AS A RESULT OF WORK BEING PERFORMED.
2. PRIOR TO ANY DEMOLITION OR CONSTRUCTION, PROTECT ALL TREES TO REMAIN AS DIRECTED BY THE PROJECT MANAGER BY BY ERECTING SNOW FENCE BEYOND THE DRIP LINE OR AS CLOSE AS POSSIBLE TO THE DRIP LINE TO THE SATISFACTION OF THE PROJECT MANAGER. DO NOT STORE OR STOCKPILE ANY BUILDING MATERIALS OR EQUIPMENT INSIDE THE DRIP LINE OF EXISTING TREES.
3. IF MID-GRADING IS REQUIRED BETWEEN THE DRIP LINE OF AN EXISTING TREE, DO NOT REMOVE OR ADD MORE THAN 100mm (4") OF SOIL. IF THE SITUATION REQUIRES A CHANGE IN GRADE OF MORE THAN100mm (4") NOTIFY THE CITY PROJECT MANAGER FOR FURTHER INSTRUCTION.
4. ANY TREES DAMAGED AS A RESULT OF CONSTRUCTION BEYOND REPAIR MUST BE REPLACED TO THE SATISFACTION OF THE CITY OF WINDSOR WITH NEW TREE CALIPER NO LESS THAN 150mm. THE CONTRACTOR TO NOTIFY THE CITY PROJECT MANAGER AS SOON AS ANY DAMAGE HAS OCCURRED TO ANY EXISTING TREE.

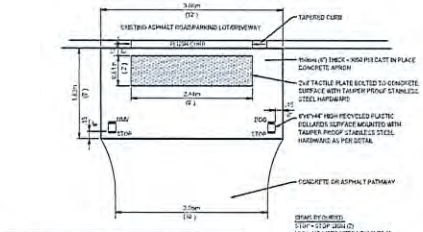
03/2022	TENDER
Date	Issued for
Revisions	

City of Windsor
Parks and Recreation
2450 McDougall St. Windsor Ontario N8X 3N8 519 - 253 - 2300

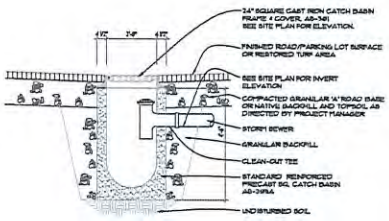
McKEE PARK IMPROVEMENTS
ASPHALT TRAIL REDEVELOPMENT

SITE PLAN

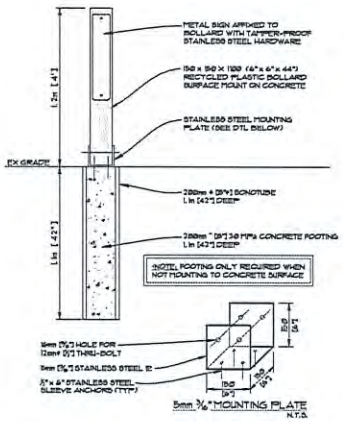
Date MARCH 2022	Approved
Design D. A.	Tender No.
Drawn S. H.	Project No.
	Scale 1 : 250
North	Sheet No. 1 of 2



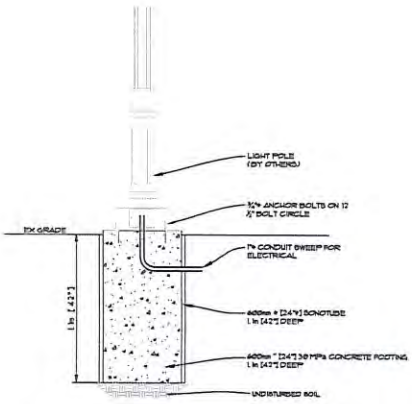
TACTILE PLATE CONCRETE APRON
N.T.S.



CONCRETE CATCH BASIN
N.T.S.



RECYCLED PLASTIC BOLLARD
N.T.S.



CONCRETE FOOTING FOR LIGHT POLES
N.T.S.

1. AUGER A HOLE TO A DEPTH THAT WILL PROVIDE A MINIMUM 6"-12" OF BACKFILL UNDER THE CONTAINER AND 12"-18" LARGER ALL AROUND. THE CONTAINER IS INSTALLED APPROX. 5' INTO THE GROUND.

2. PRIOR TO PLACING CONTAINER IN THE HOLE MAKE SURE ALL SHARP OBJECTS AND ALL ROCKS ARE REMOVED TO PREVENT DAMAGE TO THE CONTAINER.

3. SEED THE CONTAINER IN A MINIMUM OF 6" OF PEA GRAVEL.

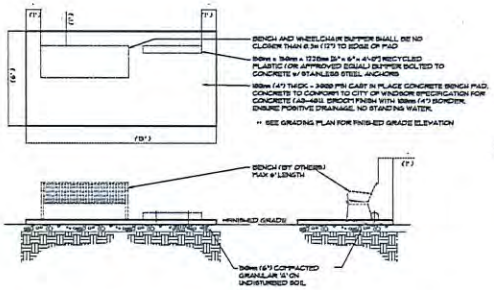
4. PLACE THE CONTAINER IN THE HOLE MAKING SURE THE CONTAINER IS ROTATED IN THE PROPER DIRECTION SO LATER INSTALLATION OF THE LID OPENING WILL FACE THE DESIRED DIRECTION.

5. BACKFILL EVENLY, AVOIDING TO HIGH PRESSURE ON ONE SIDE OF THE CONTAINER SO AS NOT TO DEFORM THE CONTAINER WHILE BACKFILLING. IF THE CONTAIN COMES OUT OF ROUND, BACKFILL SO AS TO PUT PRESSURE ON THE LONG SIDES AND FORCE THE CONTAINER BACK INTO SHAPE - SEE FIGURE A. ONCE THE CONTAINER IS IN THE HOLE AND HAS ITS ROUND SHAPE, INSTALL TEMPORARY GUIDES MADE OF 2x4 NAILED TOGETHER TO FORM A GROSS THE SIZE OF THE INSIDE OF THE CONTAINER SEE FIGURE B. THE CONTAINER WALLS MUST NOT BE DISTORTED IN ORDER TO ACCOMMODATE THE LID.

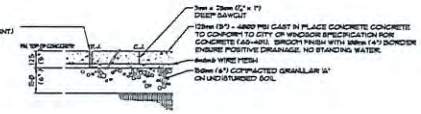
6. INSTALL THE LIFTING MECHANISM AND LOCK THE LID IN PLACE.

7. REFER TO WEBSITE FOR MORE DETAILS: https://adps.bio/in-ground-waste-management-containers/

ALFA MAXI WASTE RECEPTACLE
INSTALLED APPROX. 5'-0" IN THE GROUND
N.T.S.

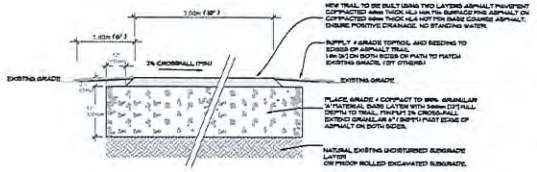


CONCRETE BENCH PAD
WITH WHEELCHAIR CURB
N.T.S.



NOTE:
PROVIDE SAWCUT CONTROL JOINTS AT 1.5m (5') O.C. FOR SIDEWALKS
PROVIDE EXPANSION JOINTS WHERE SIDEWALK ABUTS A RIGID SURFACE OR CHANGES DIRECTION.
EXPANSION JOINTS TO BE FULL DEPTH FIBRE BOARD OR FOAM WITH SEALANT.

CONCRETE PATHWAY
N.T.S.



ASPHALT PATHWAY
N.T.S.

GENERAL NOTES:

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6. ALL WORK TO BE PERFORMED IN COMPLIANCE WITH THE HEALTH AND SAFETY ACT LATEST REVISIONS AS WELL AS THE CITY OF WINDSOR HEALTH AND SAFETY REGULATIONS.
7. RESTORATION OF ANY AREAS DISTURBED AS A RESULT OF CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE TO EXISTING CONDITIONS OR BETTER INCLUDING DAMAGED ASPHALT, CONCRETE, CURBS ON ANY OTHER SITE FEATURE DAMAGED AS A RESULT OF CONTRACTORS OPERATIONS. GRADING WILL BE RESTORED AS ROUGH FINISHED GRADE AND THE CITY WILL PERFORM ALL FINISHED SITE GRADING AFTER WORK HAS BEEN COMPLETED. ROUGH GRADING INCLUDES ELIMINATING ANY TRIP HAZARDS UNDER AREAS TO ALLOW FOR POSITIVE DRAINAGE.
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3. IF RE-GRADING IS REQUIRED BETWEEN THE DRIP LINE OF AN EXISTING TREE, DO NOT REMOVE OR ADD MORE THAN 300mm (+/-) OF SOIL. IF THE SITUATION REQUIRES A CHANGE IN GRADE OF MORE THAN 300mm (+/-) NOTIFY THE CITY PROJECT MANAGER FOR FURTHER INSTRUCTION.
4. ANY TREES DAMAGED AS A RESULT OF CONSTRUCTION BEYOND REPAIR MUST BE REPLACED TO THE SATISFACTION OF THE CITY OF WINDSOR WITH NEW TREES CALIPER NO LESS THAN 50mm. THE CONTRACTOR TO NOTIFY THE CITY PROJECT MANAGER AS SOON AS ANY DAMAGE HAS OCCURRED TO ANY EXISTING TREE.

05/2022	TENDER
Date	Issued for
Revisions	

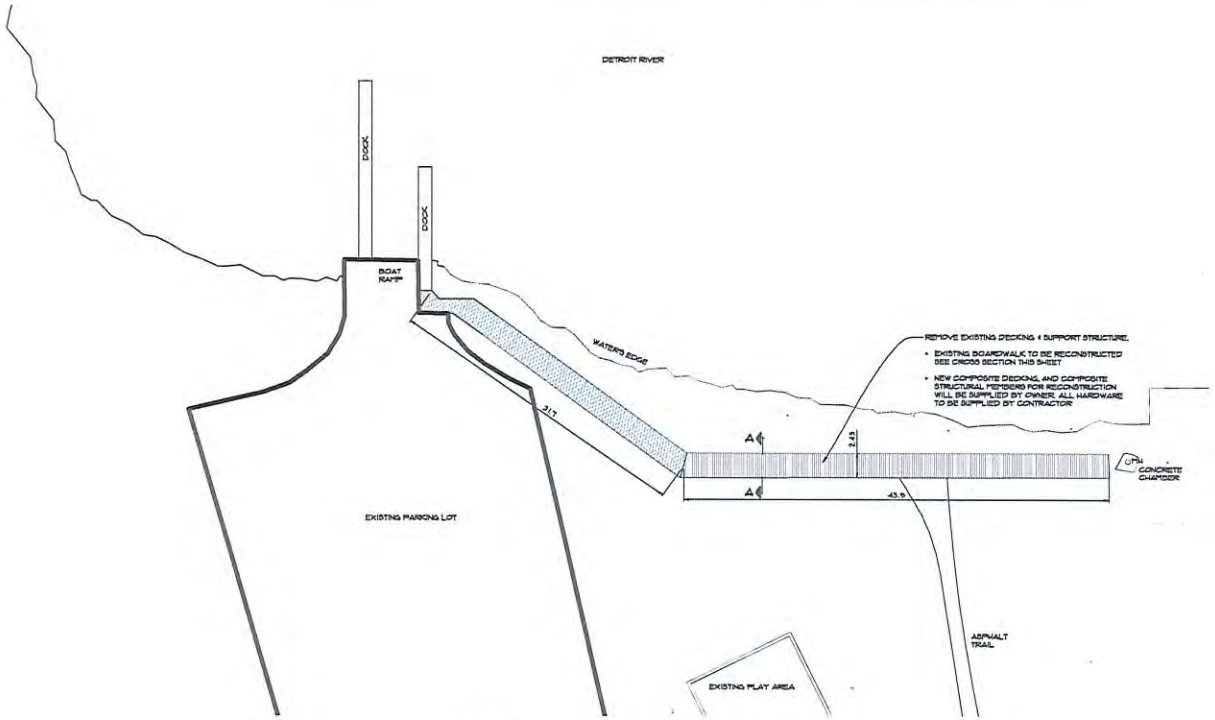
THE CITY OF WINDSOR
ONTARIO, CANADA

City of Windsor
Parks and Recreation
2450 McDougall St. Windsor, Ontario N8X 3N6 519 - 2300

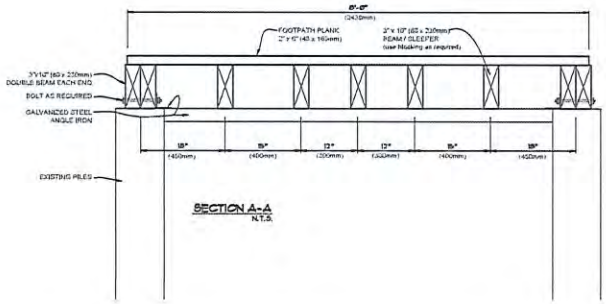
McKEE PARK IMPROVEMENTS
ASPHALT TRAIL REDEVELOPMENT
Project

DETAILS
Sheet Title

Date MARCH 2022	Approved
Design D. A.	Tender No.
Drawn S. H.	Project No.
	Scale AS SHOWN
North	Sheet No. 2 of 2



SITE PLAN
1:200



SECTION A-A
N.T.S.

GENERAL NOTES:

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3. CONTRACTOR TO ADVISE CITY PROJECT MANAGER OF COMMENCEMENT OF WORK DATE OF WORK START UP TIME PRIOR TO ANY ONSITE OPERATIONS TAKING PLACE. THE CITY WILL MEET CONTRACTOR ON SITE TO REVIEW ALL WORK PRIOR TO COMMENCEMENT. A MINIMUM OF HOURS NOTICE SHALL BE GIVEN TO THE CITY PRIOR TO STARTING WORK.
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8. GRADES AND DIMENSIONS ARE PROVIDED FOR CONVENIENCE TO BIDDERS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE OR VERIFY WITH THE CITY PROJECT MANAGER.

EXISTING TREE PROTECTION

1. THE FOLLOWING NOTES WILL PERTAIN TO ANY AND ALL EXISTING TREES ON THE SITE LOCATED WITHIN THE CONSTRUCTION AREA OR ADJACENT TO ANY CONSTRUCTION OPERATIONS AS A RESULT OF WORK BEING PERFORMED.
2. PRIOR TO ANY DEMOLITION OR CONSTRUCTION, PROTECT ALL TREES TO REMAIN AS DIRECTED BY THE PROJECT MANAGER OR BY ERECTING SNOW FENCE BEYOND THE DRIP LINE OR AS CLOSE AS POSSIBLE TO THE DRIP LINE TO THE SATISFACTION OF THE PROJECT MANAGER. DO NOT STORE OR STOCKPILE ANY BUILDING MATERIALS OR EQUIPMENT INSIDE THE DRIP LINE OF EXISTING TREES.
3. IF RE-GRADING IS REQUIRED BETWEEN THE DRIP LINE OF AN EXISTING TREE, DO NOT REMOVE OR ADD MORE THAN MEET (4") OF SOIL. IF THE SITUATION REQUIRES A CHANGE IN GRADE OF MORE THAN MEET (4") NOTIFY THE CITY PROJECT MANAGER FOR FURTHER INSTRUCTION.
4. ANY TREES DAMAGED AS A RESULT OF CONSTRUCTION BEYOND REPAIR MUST BE REPLACED TO THE SATISFACTION OF THE CITY OF WINDSOR WITH NEW TREES (CALIPER NO LESS THAN INCH). THE CONTRACTOR TO NOTIFY THE CITY PROJECT MANAGER AS SOON AS ANY DAMAGE HAS OCCURRED TO ANY EXISTING TREE.

Date	Issued for
Revisions	

THE CORPORATION OF THE CITY OF WINDSOR

City of Windsor
Parks and Recreation

2450 McDougall St. Windsor Ontario N8X 3N8 519 - 9300

McKEE PARK IMPROVEMENTS
BOARDWALK RECONSTRUCTION

SITE PLAN & DETAILS

Date FEBRUARY 2022	Approved
Design D. A.	Tender No. RFT XX-22
Drawn S. M.	Project No.
	Scale AS SHOWN
North	Sheet No. 1 of 1

HAHN PLASTICS

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The hanit® Product

AND WHAT'S THE CATCH? THERE IS NONE.

WHAT MAKES HANIT® UNIQUE?

Each material has its advantages. Unfortunately, it also has its drawbacks.

Wood, for example, is visually attractive, but it cannot assert itself against rain and cold. Only time-consuming maintenance helps against decay. Concrete, however, is very durable, but it is also difficult to transport. It is simply too heavy for many applications. Besides, concrete gets water marks over the years, and begins to flake. Steel, in turn, is flexible, and can be used for various things, if not for the corrosion! And stainless steel has its price. This also applies to new plastics, where the ecological balance sheet is also devastating.

And then there's hanit® .

Unlike wood or steel, the weather cannot harm it. hanit® is also easy on the back and the purse, in other words: it is lighter than concrete and cheaper than stainless steel. But above all, virtually any product can be made out of this high-tech material. Due to its individual composition, hanit® can be adapted to any application.

DURABILITY

- Weather-resistant
- Rot-resistant
- Splinter-free, therefore low risk of injuryCan be used year round
- Moisture-repellent, does not absorb water, therefore dries fast

LIGHT-WEIGHT

- Installation does not require heavy equipment
- Higher load capacity
- Transport cost savings
- Faster installation
- Reduced workload

ECONOMICAL

- Long service life
- Resistant to oils, brines, acids, and salt water
- Low maintenance and service costs

- Made of high-quality processed secondary plastics (polyolefins)
- Excellent price-quality ratio
- Perfect construction material, especially for robust profiles and finished parts

ECO-FRIENDLY

- Produced without preservatives
- Reduces the strain on landfills, is sustainably environmentally friendly
- Recyclable in the material cycle
- Awarded the "BLUE ANGEL" eco-label
- Water neutral
- Non-toxic (safe according to DIN 71, Section 3 Playground Regulation)

SIMPLE PROCESSING

- Easy to process mechanically (drilling, sawing, screwing, nailing)
- Simple adjustments can be made on the spot

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info@hahnplastics.com

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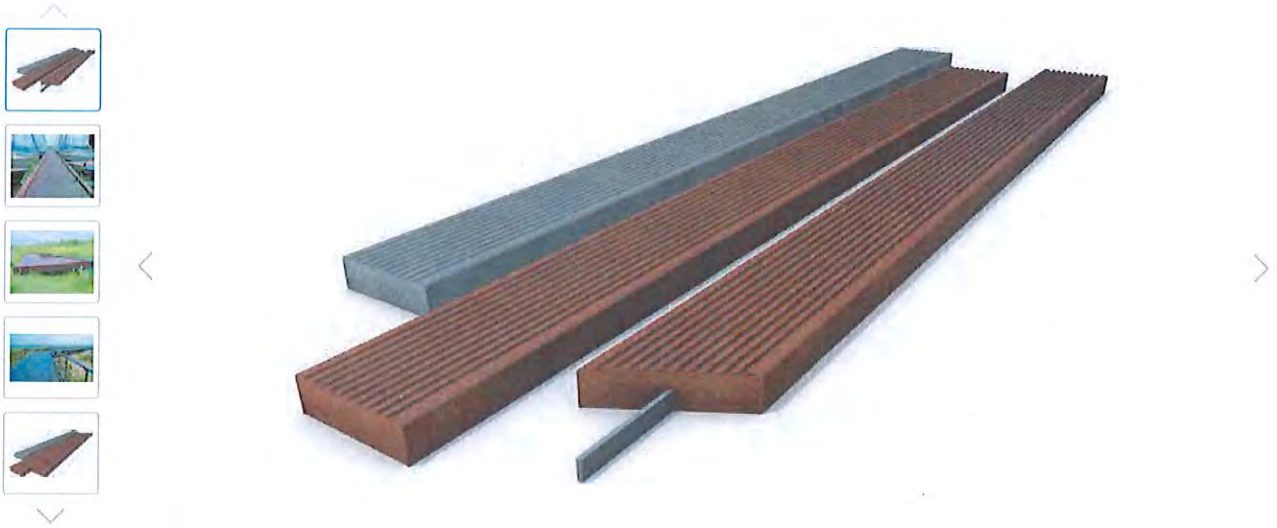
Awards

HAHN PLASTICS

Search all categories...

Products > Ground Reinforcement and Surfaces > Footpath planks

Footpath plank



Colour

Brown | Grey

Detail selection

4.0 x 19.7 cm | 4.0 x 19.7 cm, with reinforcement | 4.8 x 16.5 cm | 4.8 x 16.5 cm, with reinforcement | 6.0 x 19.7 cm | 6.0 x 19.7 cm, with reinforcement

Length

100 cm | 150 cm | 200 cm | 250 cm | 300 cm

1 | Add to wishlist

Order No.: RGU048250

Description | Additional Information | Downloads

Product information "Footpath plank"

Whether used for stairs, bridges, paths or jetties, our footpath planks have proved their mettle over and over again. The grooved, anti-slip surface means they're especially useful wherever water or moisture could be an issue. And you can rest assured hahi footpath planks will last a long, long time.

» Lengths: 100 to 300 cm
» Profile measures: 4.8 x 16.5 cm, 4.0 x 19.7 cm, 6.0 x 19.7 cm
» Reinforced version also available
» Slip resistant
» Splinter-free and rot-resistant
» Fast drying
» No painting, lacquering or sanding

Products exceeding 200 cm in length, are packed on double pallets. Packaging units are for guidance only and are no order requirements. Please note our installation recommendation when doing the installation.

Specification

Detail selection	4.8 x 16.5 cm
Quality (material)	hanit®
Colour	Grey
Length	250 cm
Width	16.5 cm
Thickness	4.8 cm
Weight	18.4 kg
Weight per m²	44.4 kg
Specification	Standard
Piece per pallet	75

› Do you have any questions concerning this product?

Contact Us

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info@hahnplastics.com

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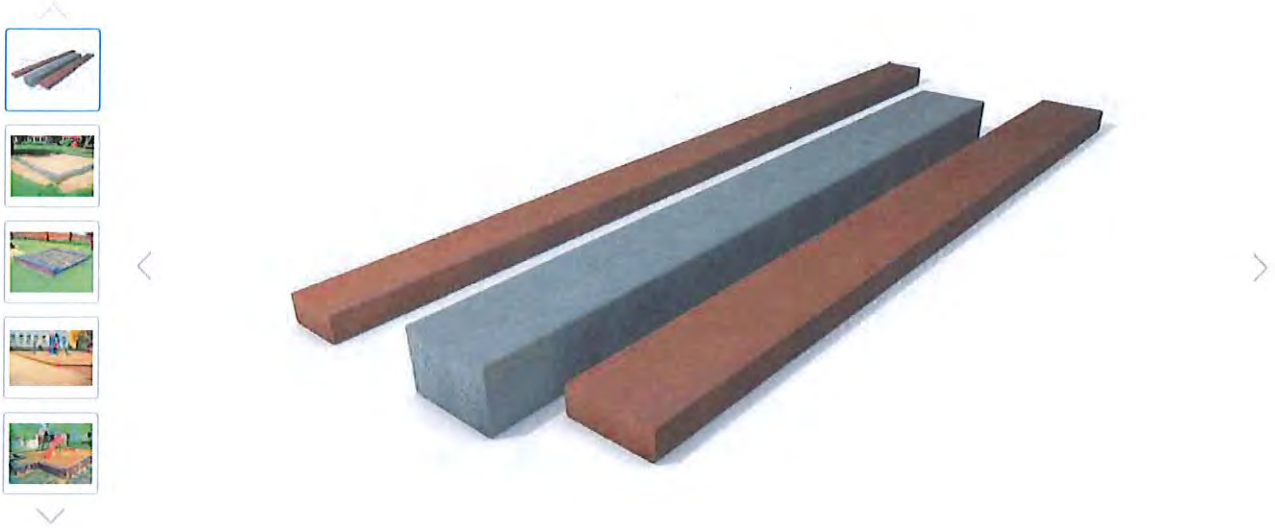
HAHN PLASTICS

Search all categories...

Products > Building and Construction > Beams / Sleepers / Ties

Beams / Sleepers



Colour

Brown | Grey

Detail selection

8 x 16 cm | 8 x 23 cm | 15.5 x 21 cm | 15.5 x 21 cm | rounded longitudinal edges | 16 x 24 cm | plastic reinforcement

Length

150 cm | 200 cm | 225 cm | 250 cm | 300 cm

1 Add to wishlist

Order No.: RG0823250

Description Downloads

Product information "Beams / Sleepers"

Our beams and sleepers made of recycled plastic are basic elements for building edgings, sandboxes or stairs. The recycled products are also ideal for edging playgrounds, as foundations or substructures. Our material hanft recycled plastic is robust and allows easy handling. The beams us recycled plastic are used wherever material strength, durability and safety are important.

Our 16.0 x 24.0 cm sleepers are produced with an internal plastic reinforcement. This ensures a higher density and thus a better screw connection.

» Internal plastic reinforcement
» Less shrinkage
» Better assembly

Packaging units are for orientation only. They are not order specifications. Product length over 200 cm is packed on double pallets.

Specification

Detail selection	8 x 23 cm
Material	hanit®
Colour	Grey
Weight	42.5 kg
Length	250 cm
Packaging unit	30 Pieces

› Do you have any questions concerning this product?

Contact Us

Telephone support and enquiries:

+44 (0)161 850 1965

Monday to Friday, 8am to 5pm

info@hahnplastics.com

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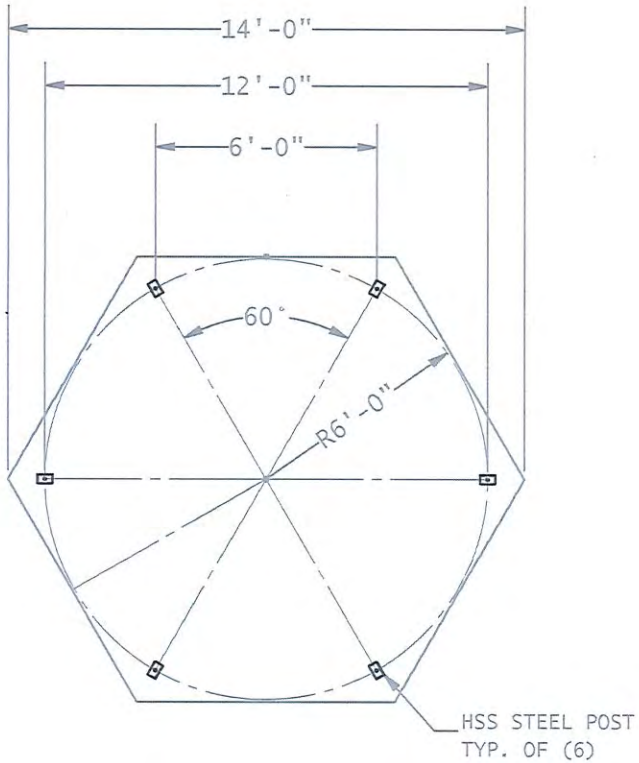
LOFA

Awards

DOCUMENT NOT FOR CONSTRUCTION:
- A FOUNDATION DESIGN HAS NOT BEEN PERFORMED BY AMERICANA OUTDOORS
- A LICENSED ENGINEER FAMILIAR WITH SOIL CONDITIONS AT CONSTRUCTION SITE MUST PERFORM A FOUNDATION DESIGN

This would be an open coupola
Diagram shows closed and is available upon request



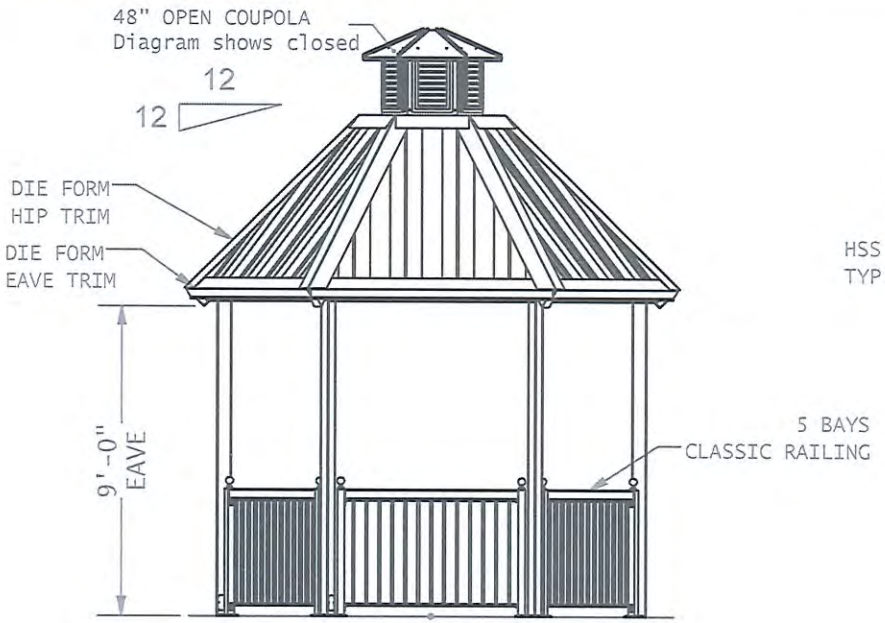
FOUNDATION PLAN

NOT FOR CONSTRUCTION

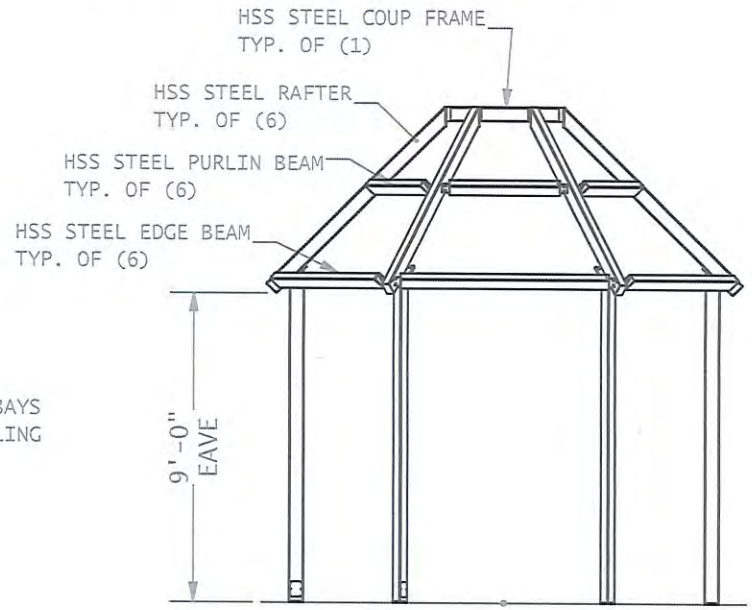
AMERICANA OUTDOORS

(800) 851-0865
www.americana.com

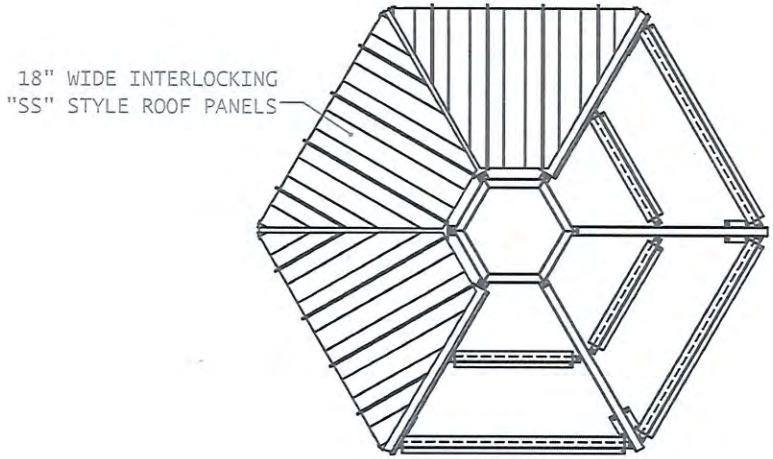
TITLE			
14' APACHE SHELTER			
SIZE	DATE	DWG NO	REV
A	2/22/2022	98461	
SCALE: AS NOTED	DRAWN: MT	SHEET 1 of 2	



FRONT VIEW



ELEVATION PLAN
FRAME ONLY



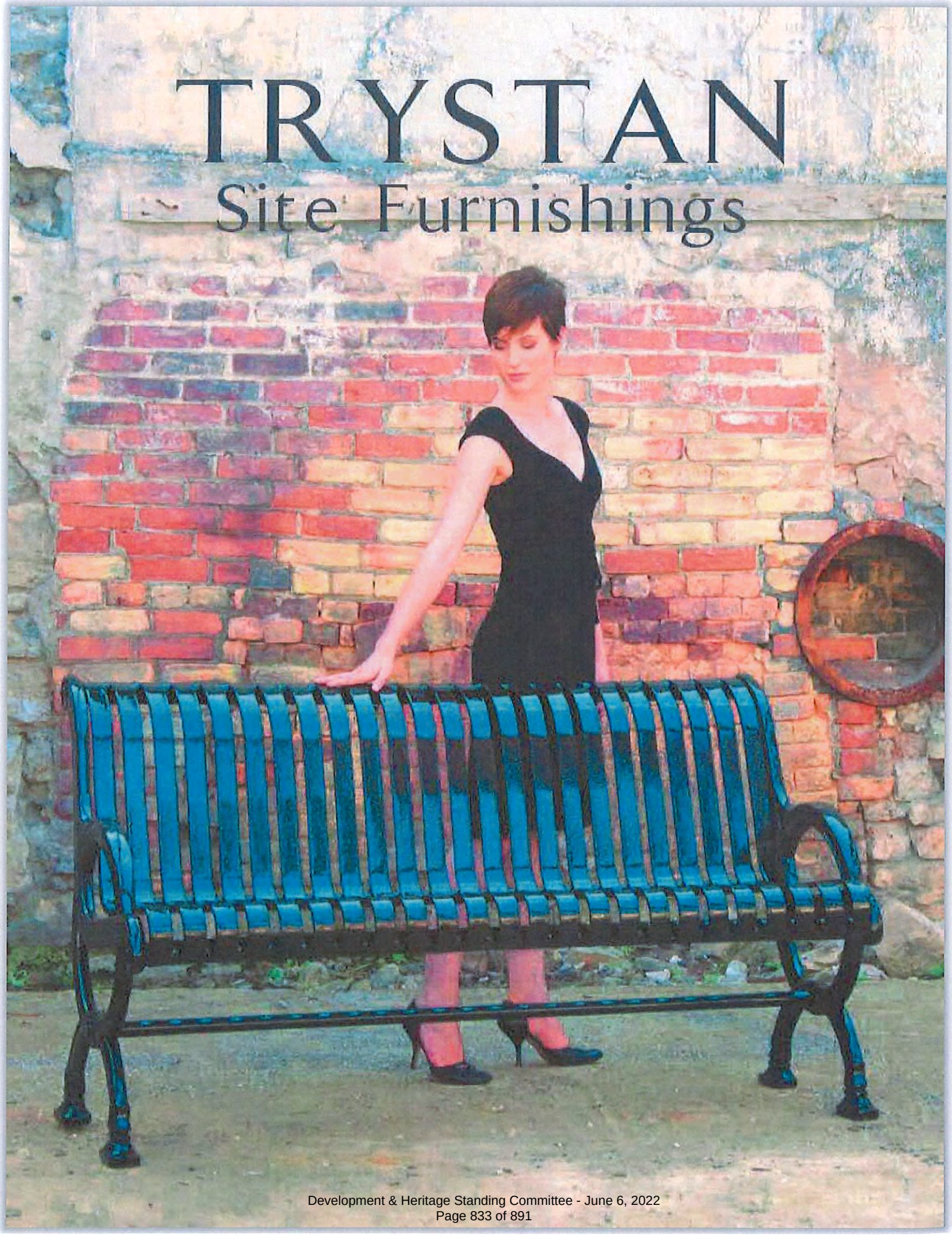
ROOF PLAN

NOT FOR CONSTRUCTION

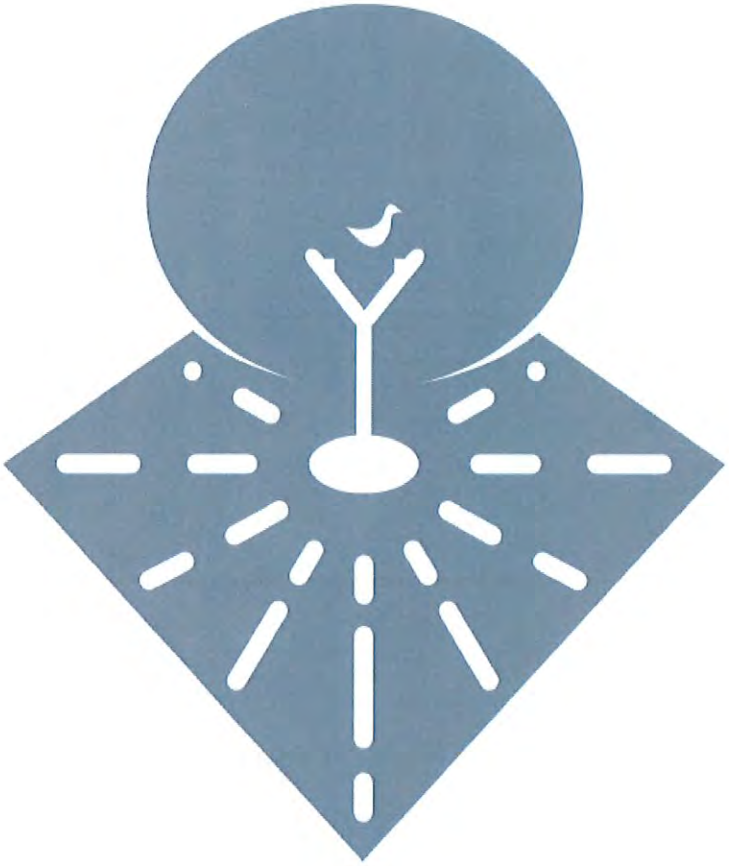
AMERICANA OUTDOORS

TITLE	14' APACHE SHELTER		
SIZE A	DATE 2/22/2022	DWG NO 98461	REV
SCALE: AS NOTED	DRAWN: MT	SHEET 2 of 2	

(800) 851-0865
www.americana.com


TRYSTAN
Site Furnishings

TRYSTAN
Site Furnishings



Trystan has been a manufacturer of quality site furnishings for the past 26 years with 46 years of foundry experience. Our experience gives us the unique ability to not only provide you with an extensive line of attractive and durable site furnishings, but also enables us to modify any of our designs, or create a totally new and unique product to your specifications. We currently sell products across North America dealing directly with our customers or through one of our highly qualified representatives.

Contents

Elite Bench

Overall Height 30¾"
Seat Height 16"
2 by 4 slats

Select Bench

Overall Height 30¾"
Seat Height 16"
2 by 4 slats

B B - 2

Seat Height 16"
2 by 3 slats

B B - 1

Seat Height 16"
2 by 3 slats

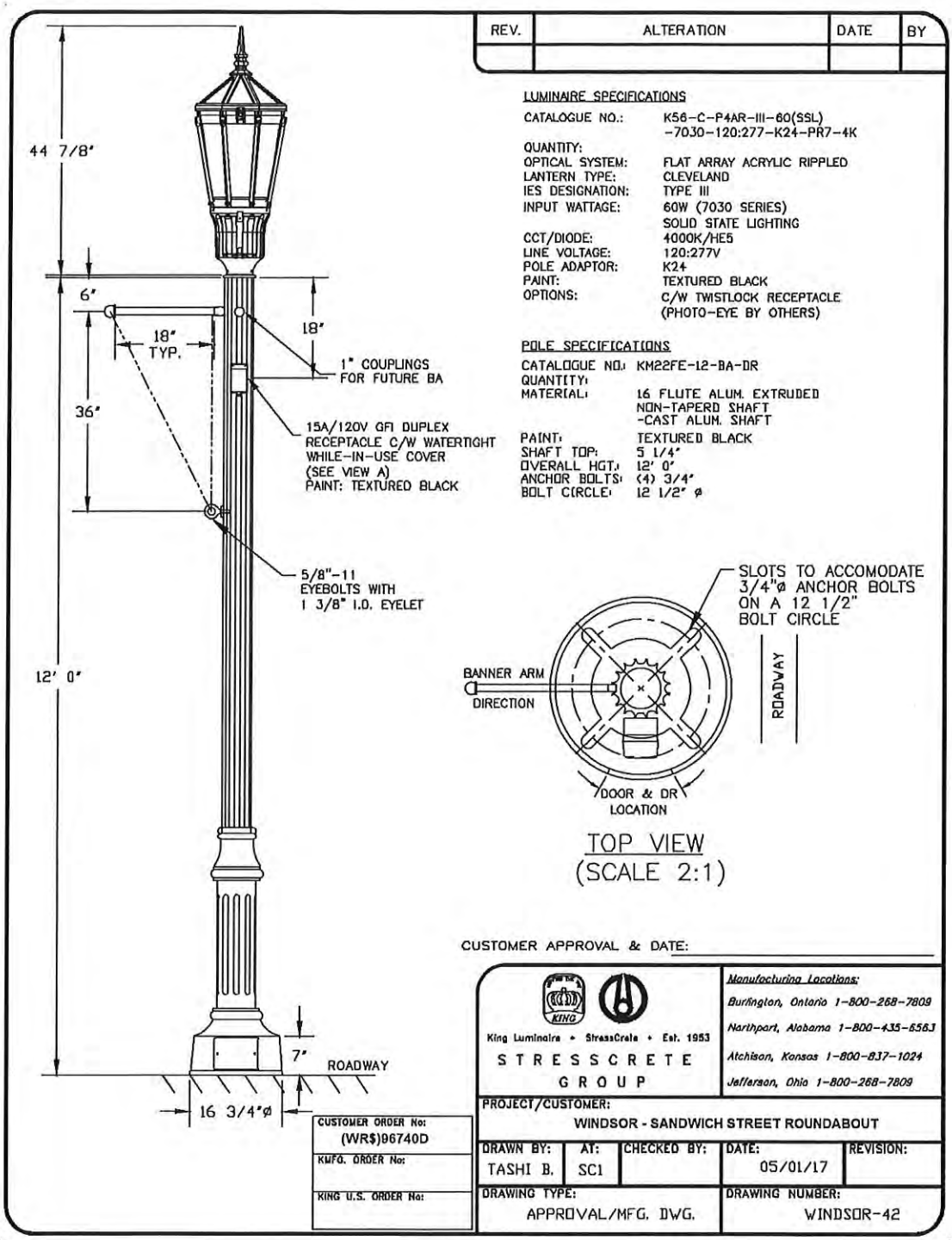
Ultra Bench

Overall Height 30¾"
Seat Height 16"
2 by 3 slats

T U P D - 1

Ultra Plus Bench double base

Overall Height 30¾"
Seat Height 16"
Also available as elite double, ultra double.



REV.	ALTERATION	DATE	BY

LUMINAIRE SPECIFICATIONS

CATALOGUE NO.:	K56-C-P4AR-III-60(SSL) -7030-120:277-K24-PR7-4K
QUANTITY:	
OPTICAL SYSTEM:	FLAT ARRAY ACRYLIC RIPPLED
LANTERN TYPE:	CLEVELAND
IES DESIGNATION:	TYPE III
INPUT WATTAGE:	60W (7030 SERIES) SOLID STATE LIGHTING
CCT/DIODE:	4000K/HE5
LINE VOLTAGE:	120:277V
POLE ADAPTOR:	K24
PAINT:	TEXTURED BLACK
OPTIONS:	C/W TWISTLOCK RECEPTACLE (PHOTO-EYE BY OTHERS)

POLE SPECIFICATIONS

CATALOGUE NO.:	KM22FE-12-BA-DR
QUANTITY:	
MATERIAL:	16 FLUTE ALUM. EXTRUDED NON-TAPERD SHAFT -CAST ALUM. SHAFT
PAINT:	TEXTURED BLACK
SHAFT TOP:	5 1/4"
OVERALL HGT.:	12' 0"
ANCHOR BOLTS:	(4) 3/4"
BOLT CIRCLE:	12 1/2" ø

TOP VIEW
(SCALE 2:1)

CUSTOMER APPROVAL & DATE: _____

King Luminaire • StressCrete • Est. 1953
STRESSCRETE GROUP

Manufacturing Locations:
Burlington, Ontario 1-800-268-7809
Northport, Alabama 1-800-435-6563
Atchison, Kansas 1-800-837-1024
Jefferson, Ohio 1-800-268-7809

PROJECT/CUSTOMER: WINDSOR - SANDWICH STREET ROUNDABOUT				
DRAWN BY: TASHI B.	AT: SC1	CHECKED BY:	DATE: 05/01/17	REVISION:
DRAWING TYPE: APPROVAL/MFG. DWG.			DRAWING NUMBER: WINDSOR-42	

CUSTOMER ORDER No:	(WR$)96740D
KWFG. ORDER No:	
KING U.S. ORDER No:	

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 62/2022

Subject: Request for Partial Demolition of a Heritage Listed Property - 2038 Willistead Crescent, C.E. Platt House (Ward 4)

Reference:

Date to Council: June 6, 2022
Author: Kristina Tang, MCIP, RPP
Heritage Planner
ktang@citywindsor.ca
519-255-6543 X 6179
Planning & Building Services
Report Date: May 19, 2022
Clerk's File #: MBA2022

To: Mayor and Members of City Council

Recommendation:

THAT Council **BE INFORMED** of the proposed removal of the cement and flagstone walkway, front stone porch and front door landing, and stone walls around the house above the collapsing porch, at 2038 Willistead Crescent, C.E. Platt House.

Executive Summary: N/A

Background:

The property at 2038 Willistead Crescent was 'listed' on the Windsor Municipal Heritage Register on August 27, 2007, alongside other Willistead Crescent properties. The two-and-half storey house was constructed c.1929 in Arts & Craft/Tudor Revival house.

Front view of house (on left) and view of impacted areas (on right)

The current owners, Jesse Garant and Jessica Lockhart, are proposing to remove the connected cement and flagstone walkway, front stone porch and front door landing, and stone walls around the house above the collapsing porch due to safety hazard

concerns. The proposal is intended to be a temporary removal to address the failures and would be followed by restoration conducted in phases. The demolition application is outlined in Appendix A- Heritage Permit Application.

Discussion:

Legal provisions:

The subject property is listed on the Windsor Municipal Heritage Register, but not designated. Section 27 of Part IV of the *Ontario Heritage Act* states that "the register may include property ... that the council of the municipality believes to be of cultural heritage value or interest", without being designated. Also, "[T]he owner of the property shall not demolish or remove a building or structure on the property or permit the demolition or removal of the building or structure unless the owner gives the council of the municipality at least 60 days notice in writing of the owner's intention to demolish or remove the building or structure or to permit the demolition or removal of the building or structure." The 60 days only begins after notice is received accompanying plans and information as Council may require. City of Windsor Council approved "Requirements and Procedures, Application for Demolition of Heritage-Listed Properties" (Council Decision # M163-2015) which outlines the required information for demolition, and notes that Administration has 30 days to evaluate if the information submitted is sufficient. Only after determination has been made that the required information has been submitted, does the 60 day count begin.

During the 60 days after notice, City Council (with Committee consultation) may initiate designation, or decide to take no action. If a property is proposed for designation, a notice of intent to designate must include a statement explaining the cultural heritage value or interest of the property and a description of the heritage attributes of the property, which are those features that are considered important to retain if any alterations to the property are proposed after designation. "Cultural heritage value or interest" is to be considered according to Ontario Regulation 9/06.

There is no explicit provision for the Committee or Council to comment on additions to or remodelling a heritage-listed, non-designated property, other than removal/demolition of structures from the Register under the *Ontario Heritage Act* unless designation is initiated. The Owners are interested in designation but is not a formal recommendation of this report. Designation of the property will be the subject of a separate report if so pursued by the Owner.

Property description and proposal:

The subject property is located on the far-east end close to the loop on Willistead Crescent, whereby the houses to its east were constructed in the 1920s and are recognized on the Windsor Municipal Heritage Register while the rest of the houses on the loop were constructed a few decades later in the middle of the 20th century.

The front porch consists of a low stone wall with stone coping and surface stone pavers, and spans from the landing step to the canopy at the west wall of the building. The porch appears to be original to the construction of the building. A center section of the house west of the front entrance protrudes out. That portion serves as the coat room to

the house and is thought to be dressed with veneer stones that are sitting on the porch. Also associated with the porch are the cement and flagstone walkways.

November 2020 Google Streetview photo of property indicating porch failure (left) and indications of deterioration even as early as May 2012 (right) that has since fallen into the cavity below grade.

From Google Streetview, it appears that the porch started to show signs of visible distress even a decade ago and has deteriorated much since. The current owners rented the property in 2014 and later purchased the property around 4.5 years ago. The owner was not aware of the issues then but informed staff that around 2-3 years ago, part of the front porch wall started to collapse. There had been poor waterproofing work done on the house as it appears no backfilling was done. Over the COVID pandemic, no work was conducted on the property to address the issue. Then in January 2022, the Owner recounts that the foundation for the porch appeared to have moved and the 10" thick top slab of the porch cracked and collapsed. The west side wall of the porch has also destabilized and the Owner is concerned that it would be at risk of collapse next. The stone walls on the coat room for the house (the center portion with stones similar to the porch wall) also shows very visible angled cracks as a result of the movements from the porch.

Cracks developed from porch movements.

Fallen section of the porch wall sunken into the cavity, and associated walkway.

View of hole at slab and view underneath porch with no backfill (Source: Jesse Garant)

View of porch wall still standing with stone coping and veneer stone pieces on the interior and exterior sides.

On left, back steps leading to front porch. On right, the exterior southwest corner of the porch wall.

The Owner has attempted to reach contractors to address the issues but expressed that it has been challenging to find interested contractors and that the work would need to be phased out for financial purposes. The Owner's current plan is to have the porch removed first and salvage materials, to follow up with proper waterproofing work in the fall or summer 2023, then in 2024 to reconstruct. The Owner indicated the wish to have removal of the remaining stone walls at the porch and walkways in 2024, and rebuild the stone porch with salvaged material and similar stones. Also in 2024, there would be a plan to install black paving stones for the porch and walkways reflective of the original period.

A building permit has been noted to be required for the work to review structural and Building Code compliance issues. As a heritage listed property, the building permit application would be circulated to the Heritage Planner for courtesy review though comments are not obligatory unless the property was designated. The phasing of work may still be subject to change depending on construction sequence and building permit requirements.

Reporting of the porch removal is brought forward to Heritage Committee/ Council as per Heritage Processes although the Heritage Planner has conveyed to the Owner that there would be no holdback on the timing of the removals given the safety concerns of the landing/porch (which is the primary access to the building).

However, the Owner has been encouraged to find a contractor that would be able to document before removals. Then to conduct the removals in a careful manner to salvage materials for the rebuild, and to rebuild according to the original proportions and likeness using salvaged materials as a first preference, then combined with matching materials. The Owner is being asked to consider the following extracts from the *Standards & Guidelines for Conservation of Historic Places in Canada*:

9. Make any *intervention* needed to preserve *character-defining elements* physically and visually compatible with the *historic place* and identifiable on close inspection. Document any intervention for future reference.

10. Repair rather than replace *character-defining elements*. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the *historic place*.

	Recommended	Not Recommended
15	**Replacing** in kind an irreparable entrance, porch or balcony based on physical and documentary evidence. If using the same materials and design details is not technically or economically feasible, then compatible substitute materials or details may be considered.	Removing an irreparable entrance, porch or balcony and not replacing it, or replacing it with a new one that does not convey the same appearance or serve the same function.
15	**Using** mortars that ensure the long-term preservation of the masonry assembly, and are compatible in strength, porosity, absorption and vapour permeability with the existing masonry units. Pointing mortars should be weaker than the masonry units; bedding mortars should meet structural requirements; and the joint profile should be visually compatible with the masonry in colour, texture and width.	Repointing with mortar of a higher Portland cement content than in the original mortar. This can create a bond stronger than the historic material (brick or stone) and cause damage as a result of the differing expansion coefficients and porosity of the materials. Repointing with a synthetic caulking compound. Using a 'scrub' coating technique to repoint instead of using traditional repointing methods.
16	**Duplicating** original mortar joints in colour, texture, width and joint profile.	

18	**Repairing** masonry by patching, piecing-in or consolidating, using recognized conservation methods. Repair might include the limited replacement in kind, or replacement with a compatible substitute material, of extensively deteriorated or missing masonry units, where there are surviving prototypes. Repairs might also include dismantling and rebuilding a masonry wall or structure, if an evaluation of its overall condition determines that more than limited repair or replacement in kind is required.	

Official Plan Policy:

The Windsor Official Plan includes (9.0) "A community's identity and civic pride is rooted in physical and cultural links to its past. In order to celebrate Windsor's rich history, Council is committed to recognizing, conserving and enhancing heritage resources."

Objectives include (9.3.2.1) "Council will identify Windsor's heritage resources by: ... (c) Researching and documenting the history and architectural and contextual merit of potential heritage resources on an individual property basis; … 9.3.3.4.(a) maintaining and updating the list of built heritage resources known as the Windsor Municipal Heritage Register." and 9.3.5.1 (b) "Providing technical information on the preservation of heritage resources."

Risk Analysis:

The demolition proposed is requested as the front porch is collapsing and a safety concern. Removals need to take place first to address any structural issues before the entrance to the property can be reinstated.

Climate Change Risks

Climate Change Mitigation: N/A

Climate Change Adaptation: N/A

Financial Matters:

There is no financial request from this report. If there is request for financial support from the City for the restoration of the porch and stone walls, the property will first need to be designated and undergo all of the necessary processes before consideration of eligibility for municipal heritage incentives for conservation works on the property.

Consultations:

Discussion took place between Heritage Planning staff, the Owner, and City Building Department staff. Adam Coates, Senior Urban Designer was also consulted.

Conclusion:

Council is to be informed of the proposed removal of the cement and flagstone walkway, front stone porch and front door landing, and stone walls around the house above the collapsing porch, at 2038 Willistead Crescent, C.E. Platt House and of the intended rebuild.

Planning Act Matters: N/A

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/ Deputy City Planner
Thom Hunt	City Planner / Executive Director Planning & Building
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Chief Administrative Officer (Acting)

Notifications:

Name	Address	Email
Jesse Garant		jesseg@jgarantmc.com

Appendices:

1 Appendix A- Heritage Permit Application

HERITAGE PERMIT APPLICATION

Revised 12/2021

CORPORATION OF THE CITY OF WINDSOR

Planning Dept., Suite 320-350 City Hall Sq W, Windsor ON N9A 6S1
519-255-6543 | 519-255-6544 (fax) | planningdept@citywindsor.ca

1. Applicant, Agent and Registered Owner Information

Provide in full the name of the applicant, registered owner and agent, the name of the contact person, and address, postal code, phone number, fax number and email address. If the applicant or registered owner is a numbered company, provide the name of the principals of the company. If there is more than one applicant or registered owner, copy this page, complete in full and submit with this application.

APPLICANT

Contact Name(s) Jesse Garant
Company or Organization N/A
Mailing Address 2038 Willistead Crescent

[redacted]

REGISTERED OWNER IF NOT APPLICANT

Contact Name(s) _____
Company or Organization _____
Mailing Address _____

_____ Postal Code _____
Email _____ Phone(s) _____

AGENT AUTHORIZED BY REGISTERED OWNER TO FILE THE APPLICATION

Contact Name(s) _____
Company or Organization _____
Mailing Address _____

_____ Postal Code _____
Email _____ Phone(s) _____

Who is the primary contact?

☒ Applicant ☒ Registered Owner ☐ Agent

HERITAGE PERMIT APPLICATION

Revised 12/2021

2. SUBJECT PROPERTY

Municipal Address: 2038 Willistead Crescent

Legal Description (if known): _____

Building/Structure Type:

☒ Residential ☐ Commercial ☐ Industrial ☐ Institutional

Heritage Designation:

☐ Part IV (Individual) ☐ Part V (Heritage Conservation District)

By-law #: _____ District: _____

Is the property subject to a Heritage Easement or Agreement?

☐ Yes ☐ No

3. TYPE OF APPLICATION

Check all that apply:

☒ Demolition/Removal of heritage attributes ☐ Addition ☐ Erection ☐ Alteration*

☐ Demolition/Removal of building or structure ☐ Signage ☐ Lighting

*The *Ontario Heritage Act's* definition of "alter" means to change in any manner and includes to restore, renovate, repair or disturb.

4. HERITAGE DESCRIPTION OF BUILDING

Describe the existing design or appearance of buildings, structures, and heritage attributes where work is requested. Include site layout, history, architectural description, number of storeys, style, features, etc..

Front stone porch and front door landing, stone center section on house above porch, cement and flagstone walkways

5. PROPOSED WORK

Provide a detailed written description of work to be done, including any conservation methods you plan to use. Provide details, drawings, and written specifications such as building materials, measurements, window sizes and configurations, decorative details, etc.. Attach site plans, elevations, product spec sheets, etc. to illustrate, if necessary.

2022 - Removal of collapsed front porch. Salvage of coping stones from porch

2023 - Waterproofing, waterline replacement

2024 - Removal of stone wall that is sitting on the remains of the porch and walkways, salvage of window and key corner stones, rebuild wall with stone similar to the period and salvaged stones, rebuild stone porch with stone similar to period and reuse existing coping stones, installation of black paving stones for porch and walkways reflective of period

6. HERITAGE PERMIT RATIONALE

Explain the reasons for undertaking the proposed work and why it is necessary.

Safety Hazard, foundation collapse

Describe the potential impacts to the heritage attributes of the property.

Temporary removal of front porch and front door landing, sidewalks (flagstone) and top of porch (flagstone & cement) switched to black paving stones reflective of period.

7. CHECKLIST OF MATERIALS SUBMITTED Check all that apply:

Required:

- ☒ Photographs (showing the current condition and context of existing buildings, structures, and heritage attributes that are affected by the application)
- ☐ Site plan/ Sketch (showing buildings on the property and location of proposed work)
- ☐ Drawings of proposed work (e.g. existing and proposed elevations, floor plans, roof plans, etc., as determined by Heritage Planning staff)
- ☐ Specifications of proposed work (e.g. construction specification details)

Potentially required (to be determined by Heritage Planning staff):

- ☐ Registered survey
- ☐ Material samples, brochures, product data sheets etc.
- ☐ Cultural Heritage Evaluation Report
- ☐ Heritage Impact Assessment (HIA)
- ☐ Heritage Conservation Plan
- ☐ Building Condition Assessment

8. NOTES FOR DECLARATION

The applicant hereby declares that the statements made herein and information provided are, to the best of their belief and knowledge, a true and complete representation of the purpose and intent of this application.

The applicant agrees that the proposed work shall be done in accordance with this application, including attachments, and understands that the issuance of the Heritage Alteration Permit under the Ontario Heritage Act shall not be a waiver of any of the provisions of any By-Law of the Corporation of the City of Windsor, or the requirements of the Building Code Act, RSO 1980, c51.

The applicant acknowledges that in the event a permit is issued, any departure from the conditions imposed by the Council of the Corporation of the City of Windsor, or plans and specifications approved is prohibited and could result in the permit being revoked. The applicant further agrees that if the Heritage Alteration Permit is revoked for any cause of irregularity, in the relation to non-conformance with the said agreements, By-Laws, acts or regulations that, in consideration of the issuance of the permit, all claims against the City for any resultant loss or damage are hereby expressly waived.

APPLICANT Signature(s) Jesse Garant Date May 11, 2022

_____ Date _____

SCHEDULE A

A. Authorization of Registered Owner for Agent to Make the Application

If the applicant is not the registered owner of the land that is the subject of this application, the written authorization of the registered owner that the applicant is authorized to make the application must be included with this application form or the authorization below must be completed.

I, _____, am the registered owner of the land that is
name of registered owner
subject of this application for a Heritage Alteration Permit and I authorize
_____ to make this application on my behalf.
name of agent

_____ _____
Signature of Registered Owner Date

If Corporation – I have authority to bind the corporation.

B. Consent to Enter Upon the Subject Lands and Premises

I, _____, hereby authorize the members of the Windsor Heritage Committee and City Council and staff of the Corporation of the City of Windsor to enter upon the subject lands and premises described in Section 3 of the application form for the purpose of evaluating the merits of this application and subsequently to conduct any inspections on the subject lands that may be required as condition of approval. This is their authority for doing so.

_____ _____
Signature of Registered Owner Date

If Corporation – I have authority to bind the corporation.

C. Acknowledgement of Applicant

I understand that receipt of this application by the City of Windsor Planning Department does not guarantee it to be a complete application. Further review of the application will occur and I may be contacted to provide additional information and/or resolve any discrepancies or issues with the application as submitted.

I further understand that pursuant to the provisions of the Ontario Heritage Act and the Municipal Freedom of Information and Protection of Privacy Act, this application and all material and information provided with this application are made available to the public.

_____ _____
Signature of Applicant Date

HERITAGE PERMIT APPLICATION

Revised 12/2021

DO NOT COMPLETE BELOW – STAFF USE ONLY

Approval Record

Date Received by Heritage Planner: _____

Building Permit Application Date, if needed: _____

☐ Application Approval (City Council):

Development & Heritage Standing Committee: _____

City Council: _____

☐ Application Approval (City Planner):

Heritage Planner: _____

Staff Decision Appealed to City Council: _____

If so, Date to City Council: _____

Council Decision Appealed: _____

Additional Notes / Conditions:

_____

_____

_____

_____

DECISION

Heritage Permit No.: _____ Date: _____

Council Motion or City Planner's Signature: _____

Please contact Heritage Planning to request inspections at ktang@citywindsor.ca

CONTACT INFORMATION

Planning Department - Planning Policy
Corporation of the City of Windsor
Suite 320 - 350 City Hall Square West
Windsor ON N9A 6S1
planningdept@citywindsor.ca
519-255-6543 x 6179
519-255-6544 (fax)
http//:www.citywindsor.ca

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 57/2022

Subject: Bill 109, More Homes for Everyone Act, 2022 – Changes to the Planning Act Affecting Site Plan Control Approval, City Wide

Reference:

Date to Council: June 6, 2022
Author: Neil Robertson
Manager Urban Design/Deputy City Planner
519-255-6543, ext. 6461
nrobertson@citywindsor.ca
Planning & Building Services
Report Date: May 6, 2022
Clerk's File #: Z2022

To: Mayor and Members of City Council

Recommendation:

I. THAT Council **REPEAL** Bylaw Number 11275: A by-law to delegate authority to the City Planner or designate, to approve plans and drawings and to impose conditions of the approval.

II. THAT Council **AMEND** Bylaw 139-2013 to delegate site plan control approval authority to the City Planner, allow the City Planner to determine the completeness of site plan control applications before accepting an application, terminate redundant site plan control agreements and remove all references to the Manager of Development Applications in accordance with the requirements of Bill 109, More Homes for Everyone Act, 2022.

Executive Summary:

N/A

Background:

Site Plan Control

Section 41 of the *Planning Act* permits municipalities to establish a site plan control area (or areas) within the municipality. In 2004, the "Site Plan Control Area" designation was expanded to the entire limits of the city of Windsor by Bylaw 1-2004. Most classes (e.g. commercial, multi-res, etc) of development in Windsor are subject to Site Plan Control.

Site Plan Control refers to the process by which the City reviews and approves development in accordance with the physical planning, built form and operational objectives identified within the Official Plan. This is to ensure that development will, among other things:

- Be compatible with adjacent or nearby properties;
- Have safe and easy access for pedestrians and vehicles;
- Have adequate landscaping, parking and servicing;
- Meet specific standards of quality and appearance; and,
- Be built and maintained in the manner by which the proposal was approved.

The Site Plan Review process takes into account input from various departments and agencies towards the preparation of a Site Plan Approval Agreement. The Site Plan Approval Agreement is a binding contract between the City of Windsor and the applicant/owner. The agreement consists of conditions of development, is registered on title of the property and is a prerequisite to the building permit application process.

Bill 109, More Homes for Everyone Act, 2022

Bill 109, More Homes for Everyone Act, 2022 received Royal Assent on April 14, 2022. This Act amends a number of other statutes, including the *Planning Act,* with respect to housing, development and various other matters.

Discussion:

Bill 109, More Homes for Everyone Act, 2022 makes a number of changes to section 41 of the *Planning Act* that impact Site Plan Control. These amendments set out the rules respecting consultations with municipalities before plans and drawings are submitted for approval and respecting completeness of applications. New subsection (4.0.1) of the *Planning Act* requires municipalities to appoint an authorized staff person to approval all site plans. Finally, new subsection (11.1) provides for rules respecting when municipalities are required to refund fees when legislated timelines are not met. This report will discuss all of these changes and what they mean for the delivery of the Site Plan Control service in Windsor.

Delegating SPC Authority

The City of Windsor has had delegated approval authority for Site Plan Control since 1998 for all site plans with the following specific exceptions:

- Any development on City-owned lands;
- Any development within the Downtown Business Improvement Area;
- Any development on the north side of Riverside Drive; and,
- Any development on lands identified in a resolution of Council requiring site plan approval by Council.

However, new subsection (4.0.1) of the *Planning Act* requires municipalities to appoint an authorized staff person to approval all site plans. This means that municipal councils

in Ontario no longer have the authority to directly approve site plans. Specifically, Bill 109 states:

> *(4.0.1) A council that passes a by-law under subsection (2) shall appoint an officer, employee or agent of the municipality as an authorized person for the purposes of subsection (4).*

The reference to Subsection (4) above is the approval of plans and drawings. **This change is non-discretionary and is required to be implemented by July 1, 2022.**

Windsor's original delegated approval authority came from Bylaw Number 11275. In order to implement this change, Recommendation 1 is to repeal Bylaw 11275 that includes the exceptions listed above that are no longer permitted. Recommendation 2 is to amend Bylaw 139-2013 to add Site Plan Control to the other approvals that are already delegated to the City Planner.

Pre-Consultation

Bill 109, More Homes for Everyone Act, 2022 also provides for the opportunity to require pre-consultation prior to submission of a formal site plan control application. In order to implement mandatory pre-consultation, municipalities need a bylaw that requires consultation before submitting an application. Windsor has Bylaw 199-2007 that requires pre-consultation prior to submitting any Planning Act application.

Windsor's pre-consultation process results in a letter provided to the applicant that outlines the required studies, documents, and information needed to be submitted as part of a complete application. Since this bylaw has been in place since 2007, there is no further action required to implement mandatory pre-consultation.

Complete Application

The new changes also allow for the City to refuse applications until all of the material identified during the pre-consultation process has been submitted. This process is like the complete application process that already applies to official plan amendment applications and zoning bylaw amendment applications. This ensures that site plan staff have all of the information that they need to address and mitigate the potential impacts of the proposed development. Until there is a complete application the clock doesn't start on the prescribed time period for approving the drawings or plans (see Timeline Changes below).

The *Planning Act* requires policies in the Official Plan to allow to define what is required for a complete application and to refuse acceptance of the application until such time that all of the required materials have been submitted. Windsor's Official Plan already includes the following policy regarding a complete application:

> *When the pre-application consultation process for a proposed development approval application identifies the need for one or more support studies, the application shall not be considered complete for processing purposes until the required study or studies is prepared and submitted to the satisfaction of the Municipality. Notification of a complete*

application shall be given to the applicant and all other parties by the Municipality in accordance with the Planning Act. 10.2.1.12

The complete application provisions flow directly from the Pre-Consultation process that is made mandatory by Bylaw 199-2007.

The City has 30 days to provide notice to the applicant that the plans and drawings, and the information and material required from the pre-consultation have been provided, or to inform the applicant that addition material is required prior to accepting the application as complete.

Timeline Changes

Prior to April 14, 2022, the *Planning Act* provided the municipality 30 days from when the application was submitted to approve the plans or drawings. *Bill 109, More Homes for Everyone Act, 2022* is changing the time period from 30 days from when the application is submitted to 60 days from when the application is deemed to be complete.

The Planning Department has been issuing the draft approval within the 30 day deadline consistently (+95% of the time) over the last number of years. Even though the time period has increased to 60 days, the Planning Department intends to continue meeting the 30 day deadline to maintain a high standard of service to the development community.

Refunding Fees

Finally, *Bill 109, More Homes for Everyone Act, 2022* makes a change to the *Planning Act* that will require municipalities to refund a portion or all of the SPC fees paid if the 60 day deadline is passed without approving the plans or drawings. The refund amount is based on the following sliding scale:

1. No refund if the municipality approves the plans or drawings within the 60 days;
2. A 50% refund if approval comes between 61 and 89 days;
3. A 75% refund if approval comes between 90 and 119 days; and,
4. A 100% refund if the approval comes after 120 days of the application being deemed complete.

This change takes effect January 1, 2023, and will also apply to amendments to the official plan and zoning bylaw.

Terminating Agreements

This is not a change coming from *Bill 109, More Homes for Everyone Act, 2022*; it is a housekeeping matter that is related to the other changes that are recommended by this report.

Currently, site plan approval agreements are registered on title as soon as the agreements are executed. They also include a defined period of time – usually two years – for the construction of the project to start. There are occasions when the site plan agreement is registered on title but the project does not proceed. There may also

be situations when a new site plan approval supersedes an older one. In these instances, the agreement will remain on title, which can sometimes complicate future real estate transactions. Occasionally, the City will receive a request to authorize the removal of an old site plan agreement from title because of one of these two situations.

The authority to terminate site plan agreements and approve their removal from title currently resides with the City Planner in Bylaw 11275. Since Recommendation 1 is to repeal Bylaw 11275, this component of the bylaw will be moved over to Bylaw 139-2013 to allow the City Planner to continue with the authority to terminate such redundant site plan agreements and approving the removal of old site plan agreements from title.

Updating Bylaw 139-2013

Since this report is recommending changes to Bylaw 139-2013, it is an opportune time to address some other changes to the bylaw. The changes resulting from Recommendation 2 eliminates all references to the Manager of Development Applications position in the Bylaw. This position was eliminated as part of a departmental reorganization in 2018.

Implementation Summary

The following is a summary of the actions required to implement the changes resulting from *Bill 109, More Homes for Everyone Act, 2022* and to effect other housekeeping amendments to site plan related bylaws:

- **Delegating SPC Authority** – This change will be implemented by repealing Bylaw 11275 and amending Bylaw 139-2013 to add Site Plan Control to the approvals that are already delegated to the City Planner (see Appendix B - Subsection 8.1);

- **Pre-Consultation** – No action is required because Windsor has Bylaw 199-2007 in place to require pre-consultation;

- **Complete Application** – No action is required because Windsor has Bylaw 199-2007 in place to require pre-consultation and to allow the City to refuse applications that are not complete. Adding a reference to Section 41 of the Planning Act (site plan) to Subsection 1.1.a of Schedule A from Bylaw 139-2013;

- **Timeline Changes** – This is change to the Planning Act that does not require any action by Council;

- **Refunding Fees** – This is change to the Planning Act that does not require any action by Council;

- **Terminating Agreements** – This is a housekeeping amendment to Bylaw 139-2013 to add the termination of old site plan agreements that are already

delegated to the City Planner by Bylaw 11275, which is being repealed (see Appendix B - Subsection 10.1); and,

- **Updating Bylaw 139-2013** – This is a housekeeping amendment to Bylaw 139-2013 to eliminate all references to the Manager of Development Applications position in the Bylaw.

Risk Analysis:

There is the risk being out of compliance with Provincial legislation (i.e. the *Planning Act*) if all Site Plan Control approvals are not delegated to an officer, employee or agent of the municipality by July 1, 2022.

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

There are no financial implications associated with any of the changes resulting from this report.

Consultations:

Wira Vendrasco – Deputy City Solicitor - Legal & Real Estate

Alex Hartley – Senior Legal Counsel

Conclusion:

Bill 109, More Homes for Everyone Act, 2022 resulted in some changes to the *Planning Act* that require changes to existing municipal bylaws in order to comply with the legislative changes. There are also some discretionary changes to the *Planning Act* – many of which the City already does – that require amending some of the site plan related bylaws. Finally, there are some housekeeping amendments that are necessary to update the existing site plan related bylaws.

Planning Act Matters:

N/A

Approvals:

Name	Title
Neil Robertson	Manager of Urban Design / Deputy City Planner

Name	Title
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Wira Vendrasco	Deputy City Solicitor, Legal Services & Real Estate
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Acting Chief Administration Officer

Notifications:

Name	Address	Email

Appendices:

1 Appendix A – Bylaw Number 11275 - Site Plan Approval Authority

2 Appendix B - Bylaw 199-2007

3 Appendix C – Schedule A from Bylaw 139-2013

4 Appendix D - Delegation to City Planner

APPENDIX A

amended B/L 11569, Sept. 7/93
amended B/L 12772, Dec.16/96
amended B/L 398-1998, Dec.21/98
amended B/L 228-2002, Aug.12/2002
amended B/L 172-2003, June 16/2003
amended B/L 54-2014, April 7/2014

B I L L
No. 5
1 9 9 3

B Y – L A W N U M B E R 11275

A BY-LAW TO DELEGATE AUTHORITY TO THE CITY PLANNER OR DESIGNATE, TO APPROVE PLANS AND DRAWINGS AND TO IMPOSE CONDITIONS OF THE APPROVAL **(amended B/L 398-1998, Dec.21/98; B/L 228-2002, Aug.12/2002; amended B/L 172-2003, June 16/2003)**

Passed the 4th day of January, 1993

WHEREAS by By-law Number 6326, as amended, parts of the City of Windsor have been designated as a site plan control area;

AND WHEREAS Subsection 41 (13)(b) of the Planning Act, R.S.O. 1990, provides that the Council may by by-law delegate to an appointed officer of the municipality identified in a by-law by position occupied by any of the Council's power or authority under Section 41 of the said Planning Act;

AND WHEREAS it is deemed expedient to delegate to the City Planner or designate, the authority to approve plans and drawings and impose conditions to such approval as set out in Subsections 41 (4), (5) and (7) of the Planning Act; **(amended B/L 398-1998, Dec.21/98; B/L 228-2002, Aug.12/2002; amended B/L 172-2003, June 16/2003)**

THEREFORE the Council of the Corporation of the City of Windsor enacts as follows:

1. The City Planner or designate may approve plans and drawings referred to in Subsection 2(2) of by-law 6326 except where the development referred to in Subsection 2(1) of the said By-law 6326 is located on the following lands: **(amended B/L 398-1998, Dec.21/98; B/L 228-2002, Aug.12/2002; amended B/L 172-2003, June 16/2003)**

(a) land owned by the Corporation of the City of Windsor;

(b) land described in a resolution of the Council of the Corporation of the City of Windsor as requiring approval by the Council;

(c) land on the north side of Riverside Drive lying between the easterly limit of the City of Windsor and Chewett Street;

(d) land within the Downtown Business Improvement Area and bounded by Riverside Drive on the north; Elliott Street on the south; Glengarry Avenue, Chatham Street, McDougall Street, Tuscarora Street and Windsor Avenue on the east; and Bruce Avenue, Pitt Street, Church Street, Park Street, the north/south alley west of Victoria Avenue between Park Street and Elliott Street, Elliott Street and Victoria Avenue on the west; and

further that the City Planner or designate may approve a minor change or changes to any plans and drawings approved by Council on lands set out in clauses (a), (b), (c) and (d) provided that general intent of such plans and drawings is maintained. **(amended B/L 398-1998, Dec.21/98; B/L 228-2002, Aug.12/2002; amended B/L 172-2003, June 16/2003)**

1a. Despite clauses 1. (a), (b), (c) and (d) the City Planner or designate may, within the Downtown Business Improvement Area, approve plans and drawings of minor development of limited scale, which will not significantly alter the current use of the property and/or off-site uses, and/or have any impact on municipal services, or approve a plan or drawing on any land as authorized by a resolution of the Council of the Corporation of the City of Windsor. **(added B/L 12772, Dec. 16/96) (amended B/L 398-1998, Dec.21/98; B/L 228-2002, Aug.12/2002; amended B/L 172-2003, June 16/2003)(deleted and substituted B/L 54-2014, April 7/14)**

2. The City Planner or designate may as a condition to the approval of plans and drawings referred to in Section 1 and 1a of this by-law, require the owner of the land to: **(amended B/L 12772, Dec.16/96) (amended B/L 398-1998, Dec.21/98; B/L 228-2002, Aug.12/2002; amended B/L 172-2003, June 16/2003)**

(a) provide to the satisfaction of and at no expense to the Corporation of the City of Windsor any or all of the following:

1. Widenings of highways that abut on the land as provided for in the Official Plan of the City of Windsor;

2. Subject to the Public Transportation and Highway Improvement Act, facilities to provide access to and from the land such as access ramps and curbings and traffic direction signs;

3. Off-street vehicular loading and parking facilities, either covered or uncovered, access driveways, including driveways for emergency vehicles, and the surfacing of such areas and driveways;

4. Walkways and walkway ramps, including the surfacing thereof, and all other means of pedestrian access;

5. Facilities for the lighting, including floodlighting, of the land or of any buildings or structures thereon;

6. Walls, fences, hedges, trees, shrubs or other groundcover or facilities for the landscaping of the lands or the protection of adjoining lands;

7. Vaults, central storage and collection areas and other facilities and enclosures for the storage of garbage and other waste material;

8. Easements conveyed to the municipality for the construction, maintenance or improvement of watercourses, ditches, land drainage works, sanitary sewage facilities and other public utilities of the Corporation of the City of Windsor or local board thereof on the land;

9. Grading or alteration in elevation or contour of the land and provision for the disposal of storm, surface and waste water from the land and from any buildings or structures thereon;

(b) maintain to the satisfaction of the Corporation of the City of Windsor and at the sole risk and expense of the owner any or all of the facilities or works mentioned in paragraphs 2, 3, 4, 5, 6, 7, 8 and 9 of clause (a), including the removal of snow from access ramps and driveways, parking and loading areas and walkways;

(c) enter into one or more agreements with the Corporation of the City of Windsor dealing with and ensuring the provision of any or all of the facilities, works or matters mentioned in clause (a) and the maintenance thereof as mentioned in clause (b) or with the provision and approval of the plans and drawings referred to in Section 1 of this by-law.

2a. The City Planner or designate may terminate an agreement entered into by the Corporation as provided for in Section 2(c) when the development provided for in the said agreement has not commenced or an alternate development has been approved by Council or the City Planner or designate. **(added B/L 11569, Sept. 7/93) (amended B/L 398-1998, Dec.21/98; B/L 228-2002, Aug.12/2002; amended B/L 172-2003, June 16/2003)**

3. That By-law Number 8025 being “A By-law to Delegate Authority to the Building Commissioner to make minor changes in Site Plans or Drawings” is repealed.

4. This by-law should come into force and take effect on the day of the final passing thereof.

(signed) “M. Hurst”
M A Y O R

(signed) “T. Lynd”
C L E R K

First Reading - January 4, 1993
Second Reading - January 4, 1993
Third Reading - January 4, 1993

APPENDIX B

BY-LAW NUMBER 199-2007

A BY-LAW TO REQUIRE A PERSON OR PUBLIC BODY TO CONSULT WITH THE MUNICIPALITY BEFORE SUBMITTING APPLICATIONS FOR AN AMENDMENT TO THE OFFICIAL PLAN, AN AMENDMENT TO THE ZONING BY-LAW, SITE PLAN APPROVAL, PLAN OF SUBDIVISION APPROVAL OR PLAN OF CONDOMINIUM APPROVAL IN THE CITY OF WINDSOR

Passed the 29th day of October, 2007.

WHEREAS the *Planning and Conservation Land Statute Law Amendment Act, 2006* amending the *Planning Act* came into force and effect on January 1, 2007.

AND WHEREAS the amendments to the *Planning Act* modify aspects of the land use planning process including the authority of a municipal council to require a person or public body requesting an amendment to its official plan, an amendment to its zoning by-law, approval of plans or drawings within an area of site plan control and approval of a plan of subdivision, to consult with the municipality before submitting an application.

AND WHEREAS Windsor City Council adopted resolution 166/2007 on April 23, 2007 that authorized a by-law requiring applicants to consult with the municipality before submitting applications for an official plan amendment, zoning by-law amendment, site plan approval and plan of subdivision approval.

THEREFORE the Council of the Corporation of the City of Windsor enacts as follows:

1. That a person or public body shall consult with administrative staff of The Corporation of the City of Windsor before submitting applications for an amendment to the City of Windsor Official Plan, an amendment to the Zoning By-law, approval of plans and drawings within an area of site plan control, approval of a plan of subdivision or approval of a plan of condominium.

2. This by-law shall come into force and take effect on the day of the final passing thereof.

EDDIE FRANCIS, MAYOR

CLERK

First Reading - October 29, 2007
Second Reading - October 29, 2007
Third Reading - October 29, 2007

APPENDIX C

SCHEDULE "A"

Council hereby delegates to the City Planner the authority:

Complete Application

1.1 a) To determine whether an application submitted to Council pursuant to sections 22, 34, 41 and 51 of the Act is complete or incomplete in accordance with the provisions of the Official Plan for the City of Windsor.

b) To notify an applicant as to the completeness or incompleteness of an application.

c) To notify the applicant within 30 days of receipt of the processing fee for a planning application, whether the application is complete or incomplete. An incomplete application notification shall identify the missing or deficient information and material necessary to complete the application.

1.2 The provisions of subsection 1.1 apply, with necessary modifications, to each subsequent remedial submission provided to complete the application.

1.3 Within 15 days after the City Planner gives notice to the applicant that the application is complete, to:

(i) give the prescribed persons and public bodies, in the prescribed manner, notice of the application under section 22, 34 or 51 of the Act, accompanied by the prescribed information; and

(ii) make the information and material provided by the applicant available to the public.

1.4 Any notice required under this section shall be given to the applicant in writing by regular letter mail and shall be deemed to be given within 7 business days of the date of the notice.

Exemption from Part Lot Control

2.1 To approve applications for exemption from part lot control under s. 50(7) of the Act.

Extension of Condominium and Subdivision Approval

3.1 To approve applications to extend the draft approval pursuant to s.51 (33) of the Act, for 3 years, and further extend the draft approval for another 3 years, of the draft subdivision/condominium or condominium conversion approval as the case may be, provided such approval is given before the draft approval lapses.

Sandwich Heritage Conservation District Plan –Heritage Alteration Permit

4.1 To process applications for and issue permits for alterations pursuant to s. 42 (1) of the Ontario Heritage Act for the following works:

(i) Window or door removal without replacement,
(ii) Additions of a window or door in a new or altered opening,
(iii) Shutter removal (if original),
(iv) Addition or removal of front and side fencing,
(v) Decorative trim and bracket removal or replacement,
(vi) Removal of chimneys, if significant visual feature,
(vii) Removal or installation of cladding and siding,
(viii) Painting of previously unpainted brick or stone,
(ix) Re-roofing with different materials,
(x) Window removal where window is a significant feature from street,
(xi) Removal of brick or stone piers (if original), and
(xii) Wall mounted signage.

Neighbourhood Residential Rehabilitation Grant Program

5.1 To approve applications for *Neighbourhood Residential Rehabilitation Grant Program* projects to a maximum of $15,000.00 and where sufficient budget funding is available.

Municipal Development Fees Grant Program

6.1 To approve applications for *Municipal Development Fees Grant Program* when it is requested as part of the *Neighbourhood Residential Rehabilitation Grant* **only**, to a maximum of $2,000.00 and where sufficient budget funding is available.

Building Facade Improvements

7.1 Along with the Chief Financial Officer/City Treasurer, to approve beautification projects under $5,000.00 identified in Category A-Beautification under the City of Windsor Building Facade Improvement Program and Urban Design Guidelines for Main Street.

Site Plan Control Approval

8.1 To approve Site Plan Control plans and drawings as set out in Subsections 41(4) and (5), and to impose conditions to such approval as set out in Subsection 41 (7) of the Planning Act.

Execute and Cause to be Registered Site Plan Agreements

9.1 To require and approve the Site Plan Agreement(s) as set out in Subsections 41(7) of the Planning Act, and to execute and cause to be registered against the land as set out in Subsection 41 (10) of the Planning Act.

Removal of Site Plan Control Agreements from Title

10.1 To terminate an agreement entered into by the Corporation as provided for in Section 9.1 when the development provided for in the said agreement has not commenced or an alternate development has been approved in accordance with Section 8.1.

APPENDIX D

B Y - L A W N U M B E R 139-2013

A BY-LAW TO DELEGATE AUTHORITY TO THE CITY PLANNER TO APPROVE AND PROCESS CERTAIN APPLICATIONS UNDER THE PLANNING ACT AND PERMITS UNDER THE ONTARIO HERITAGE ACT

Passed the 26th day of August, 2013.

WHEREAS various sections of the *Planning Act,* R.S.O. 1990, c. P.13, as amended and the *Ontario Heritage Act*, S.O. 2005, c.6 authorize councils to delegate the authority of council to an appointed officer identified in the by-law by position with respect to certain applications under the *Planning Act and* ;

AND WHEREAS section 23.1 of the *Municipal Act, 2001,* S.O. 2001, c. 25, as amended, provides that councils are authorized to delegate their powers and duties under the *Municipal Act* or any other Act to a person or body subject to any restrictions set out;

AND WHEREAS Council has deemed it advisable to delegate by by-law authority to the City Planner with respect to certain applications under the *Planning Act;*

NOW THEREFORE the Council of the Corporation of the City of Windsor enacts as follows:

1. Definitions:

"the Act" shall mean the *Planning Act,* R.S.O. 1990, c. P.13, as amended

"applicant" shall Mean:

(i) a person or public body requesting an amendment to the Official Plan of the City of Windsor under section 22 of the Act;

(ii) a person or public body requesting an amendment to Zoning By-law 8600 under section 34 of the Act;

(iii) an owner of land requesting draft approval of a plan of subdivision/condominium or condominium conversion under section 51 of the Act, or an extension of a draft approval of a

plan of subdivision/condominium or condominium conversion;

(iv) a person or public body requesting approval of Site Plan Control plans or drawings under section 41 of the Act;

(v) an owner of land requesting an exemption from part lot control under section 50(7) of the Act; or

(vi) an owner of property requesting a permit to alter property under section 42 of the Ontario Heritage Act.

"application shall mean:

(i) a request to amend the Official Plan of the City of Windsor under section 22 of the Act;

(ii) a request to amend the Zoning By-law 8600 under section 34 of the Act;

(iii) a request for a draft approval of a plan of

subdivision/ condominium or condominium conversion under section 51 of the Act, or an extension of a draft approval of a plan of subdivision/condominium or condominium conversion;

(iv) A request for approval of Site Plan Control plans or drawings under section 41 of the Act;

(v) a request to exempt land from part lot control under section 50(7) of the Act; or

(vi) a request for a permit to alter property under section 42 of the Ontario Heritage Act.

"Council" shall mean the Council of The Corporation of the City of Windsor.

"City Planner" shall mean the person who holds the position of City Planner for The Corporation of the City of Windsor.

"Manager of Planning Policy" shall mean the person who holds the position of Manager of Planning Policy for The Corporation of the City of Windsor.

"Manager of Urban Design" shall mean the person who holds the position of Manager of Urban Design for The Corporation of the City of Windsor.

2. Delegation to City Planner

2.1 Council hereby delegates to the City Planner the authority to approve and process the applications set out in Schedule "A" attached hereto and forming part of this by-law.

3. Absent City Planner

3.1 When the City Planner is absent or his office is vacant, then anyone of the Manager of Planning Policy, or the Manager of Urban Design shall act in the place and stead of the City Planner under this by-law.

4. Gender

4.1 In this By-law the words "he", "him" or "his" shall have the same meaning as the words "she", "her" or "hers".

5. General

5.1 For the purposes of subsection 23.2(4) of the Municipal Act, it is the opinion of the Council that any legislative powers delegated pursuant to this by-law are of a minor nature having regard to the number of people, the size of geographic area and the time period affected by the exercise of each such power.

6. By-law 167-2010 and By-law "~~28-2010"~~ are hereby repealed.
"**28-2013"**

7. Effective Date

This by-law shall come into force and take effect on the date of the final passing thereof.

EDDIE FRANCIS, MAYOR

CLERK

First Reading - August 26, 2013
Second Reading - August 26, 2013
Third Reading - August 26, 2013

THE CITY OF WINDSOR ONTARIO, CANADA

Council Report: S 58/2022

Subject: Closure of Part of Southerly Portion of North/South Alley between Brant Street and Wyandotte Street East, Ward 3

Reference:

Date to Council: June 6, 2022
Author: Brian Nagata
Planner II - Development Review
(519) 255-6543 ext. 6181
Planning & Building Services
Report Date: May 9, 2022
Clerk's File #: SAA2022

To: Mayor and Members of City Council

Recommendation:

I. THAT the 23.0 metre portion of the 6.1 metre wide north/south alley located on the north side of Wyandotte Street East, between the properties known municipally as 1900-1942 and 1958-1998 Wyandotte Street East, and shown on Drawing No. CC-1807 ***attached*** hereto as **Appendix "A", BE ASSUMED** for subsequent closure.

II. THAT the 23.0 metre portion of the 6.1 metre wide north/south alley located on the north side of Wyandotte Street East, between the properties known municipally as 1900-1942 and 1958-1998 Wyandotte Street East, and shown on Drawing No. CC-1807 ***attached*** hereto as **Appendix "A", BE CLOSED AND CONVEYED** to the abutting property owner at 1958-1998 Wyandotte Street East and as necessary, in a manner deemed appropriate by the City Planner, subject to the following:

a) Easement, subject to there being accepted in the City's standard form and in accordance with the City's standard practice, be granted to:

- Bell Canada to accommodate existing infrastructure;
- EnWin to accommodate existing 120/240 volt and 120/208 volt hydro distribution pole line with guy wires;
- MNSi. to accommodate aerial plant on existing utility poles;
- Owner of the property known municipally as 1900-1942 Wyandotte Street East (legally described as Lots 7 & 9, Part of Lot 5 & Block F, Plan 211; PIN No. 01134-0118) to accommodate existing street level pedestrian entrance/exit from the easterly vacant mercantile unit (1942 Wyandotte Street East) in the commercial building

"Imperial Building" onsite, and shown on Ground Floor Plan ***attached*** hereto as **Appendix "F"**, to the satisfaction of the Chief Building Official; and,

- The Corporation of the City of Windsor to accommodate existing circa 1905, 200.0 millimetre vitrified clay combined sewer and catch basin, to the satisfaction of the City Engineer.

III. THAT the Applicant/Owner **OBTAIN** a Driveway Permit to remove the redundant curb cut on Wyandotte Street East and reinstate the curb and sidewalk to City of Windsor standards.

III. THAT The City Planner **BE REQUESTED** to include, as part of the Site Plan Agreement for Site Plan Control file SPC-002/22, a Special Provision requiring the Applicant/Owner to grant an easement in favour of The Corporation of the City of Windsor, to allow its garbage collection vehicles unobstructed passage over the parking aisle on the property known municipally as 1958-1998 Wyandotte Street East.

IV. THAT Conveyance Cost **BE SET** as follows:

a. For alley abutting lands zoned CD2.1: $10.00 per square foot, plus deed preparation fee and proportionate share of the survey costs as invoiced to The Corporation of the City of Windsor by an Ontario Land Surveyor.

V. THAT The City Planner **BE REQUESTED** to supply the appropriate legal description, in accordance with Drawing No. CC-1807, ***attached*** hereto as **Appendix "A"**.

VI. THAT The City Solicitor **BE REQUESTED** to prepare the necessary by-law(s).

VII. THAT The Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary documents approved as to form and content satisfactory to the City Solicitor.THAT the matter **BE COMPLETED** electronically pursuant to By-law Number 366-2003.

Executive Summary:

N/A

Background:

The applicant, 2798315 Ontario Inc. (Rosati Group), owner of the property known municipally as 1958-1998 Wyandotte Street East, applied to close a 23.0 metre portion of the 6.1 metre wide north/south alley (the subject alley) located on the north side of Wyandotte Street East, between the properties known municipally as 1900-1942 and 1958-1998 Wyandotte Street East, and shown on Drawing No. CC-1807 ***attached*** hereto as **Appendix "A"**, and also shown on the aerial photo ***attached*** hereto as **Appendix "B"**.

The subject alley serves as the sole egress point for The Corporation of the City of Windsor (the City) vehicles collecting garbage from the residential properties to the north. The subject alley is composed of concrete and asphalt paving, and contains a combined sewer with a catch basin and two utility poles, one of which has four guy wires. There is an existing curb cut serving the subject alley from Wyandotte Street East. The abutting commercial building "Imperial Building" at 1900-1942 Wyandotte Street East has a street level pedestrian entrance/exit directly off of the subject alley. (See Appendix D)

The applicant wishes to close the subject alley to allow for the establishment of a landscaped open space yard (the yard) for their existing commercial building "Strathcona Building" at 1958-1998 Wyandotte Street East. The yard is envisioned to be a unique multi-purpose space, offering outdoor dining and walk-up windows for the proposed restaurant "Twisted Apron" in the Strathcona Building, and an area for hosting various seasonal community events. The design of the subject alley will be reviewed by members of Administration as part of the Site Plan Control review (SPC-002/22).

Discussion:

The decision to recommend closure of an alley is derived from the City's *Classification of Alleys and Suitability for Closure* guideline document (the document), **attached** hereto as **Appendix "E"**. The document details four classifications of alleys based on their usefulness, and provides corresponding criteria for determining suitability for closure.

Classification of Public Right-of-Ways

The initial step is to determine if the alley is indispensable. This is achieved through the evaluation of the following criteria set forth in Section 1 of the document.

1. *Does the subject alley serve commercial properties*?

    a. The subject alley provides vehicular access from Wyandotte Street East to the parking areas serving 1900-1942 and 1958-1998 Wyandotte Street East.

    b. Notwithstanding the proposed closure, the parking areas will maintain vehicular access from Brant Street through the portion of the alley to remain open.

    c. Furthermore, the parking areas serving 1900-1942 and 1958-1998 Wyandotte Street East have direct access to Kildare Road and Devonshire Road, respectively.

2. *Does the subject alley serve properties fronting on heavily traveled streets i.e. major arterial routes?*

    a. The subject alley serves 1900-1942 and 1958-1998 Wyandotte Street East, both of which front a Class I Arterial Road (Wyandotte Street East).

b. Refer to the first criteria above.

3. *Does the subject alley contain sewers, and must the alley remain accessible for servicing?*

    a. The subject alley contains a circa 1905, 200.0 millimetre vitrified clay combined sewer with one catch basin.

    b. The Public Works Department has confirmed that the alley must remain accessible for servicing the combined sewer, which would classify it as indispensable.

        - The document states that "*Indispensable alleys should **not be closed**, conveyed, reduced or otherwise jeopardized through minority interests unless a suitable substitute alley is opened in lieu thereof*."

    c. The Public Works Department in this particular situation is amenable to the closure of the subject alley, on the condition that an easement in favour of the City that will effectively allow access to the combined sewer for maintenance and servicing when necessary is granted.

    d. The features within the subject alley will be designed in a manner that will allow for their quick removal at times when the combined sewer must be accessed.

4. *Does the subject alley serve as the only vehicular means of access to rear parking areas and garages where the property has insufficient lot width for a side drive?*

    a. The subject alley is the sole egress point for the parking area at 1958-1998 Wyandotte Street East.

    b. SPC-002/22 will address this issue through reconfiguring the parking area to accommodate two-way vehicular traffic with direct ingress/egress points from Devonshire Road and Brant Street, via the section of the alley to remain open.

5. *Does the subject alley contain Fire Department connections that are deemed to be necessary for firefighting access?*

    a. Windsor Fire & Rescue Services have identified no concerns with the requested alley closure.

Based on the above, the Planning Division deems the subject alley "dispensable", and supports the requested closure.

Notwithstanding the alley being deemed "dispensable", easements will be required to grant access to the aforesaid hard services located therein. Bell Canada, EnWin Utilities and MNSi require blanket easements to access their above-ground services. The City

requires a blanket easement to access their underground combined sewer. An easement is also required to be granted in favour of the owner of 1900-1942 Wyandotte Street East, to accommodate the existing street level pedestrian entrance/exit from the easterly vacant mercantile unit (1942 Wyandotte Street East) in the Imperial Building (See Appendix F). The required easements shall remain unencumbered in perpetuity by any building or other structure, but this shall not prevent the Transferor from paving and utilizing the said lands.

It is our recommendation that, upon closure, the applicant/property owner be given a chance to acquire the subject alley. Hence the recommendation is to close and convey the alley to entire width the abutting property owner of 1958-1998 Wyandotte Street East. It is the understanding of Administration that the owner of the Imperial Building (abutting the west of the alley) has no objection to this arrangement.

Risk Analysis:

The recommended closure will divest the City of associated liability risks and maintenance costs. The recommended closure poses no known risk to City.

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

The alley is assessed at a rate of $10.00 per square foot, plus deed preparation fee and proportionate share of the survey costs as invoiced to the City by an Ontario Land Surveyor.

Consultations:

Consultations were held with Municipal Departments and Utility Companies, which resulted in the information found in attached **hereto** as **Appendix "C"**.

The Environmental Services Department has identified concerns with the requested alley closure. The subject alley provides a means for the City's garbage collection vehicles to safely exit onto Wyandotte Street East. Reversing the vehicles out of the alley onto Brant Street is not an option, as it poses public safety concerns to pedestrians and vehicular operators, and results in undesirable noise from the vehicles reversal signal.

The applicant, by March 31, 2022 email, confirmed that they would be amenable to granting an easement to the City over 1958-1998 Wyandotte Street East, to allow the City's garbage collection vehicles access to Devonshire Road through the rear parking

area, via the parking aisle. The easement will be included as a condition of the Site Plan Agreement for SPC-002/22 to be approved by the Environmental Services Department.

Notice of Development & Heritage Standing Committee meeting and Council meeting are published in the Windsor Star prior to each of the meetings. In addition, notice of each of the public meetings will be mailed to the abutting/affected property owners prior to the meetings.

Conclusion:

The Planning Division recommends closure of the portion of the north/south alley shown on attached Appendix "A", subject to easements as in Recommendation II of this report, in favour of Bell Canada, Enwin Utilities Ltd., MNSi, owner of the property known municipally as 1900-1942 Wyandotte Street East; and the City.

The closed alley is to be conveyed to the abutting property owner as in Recommendation II of this report.

Planning Act Matters:

Brian Nagata, MCIP, RPP

Planner II - Development

I concur with the above comments and opinion of the Registered Professional Planner.

Michael Cooke, MCIP, RPP *Thom Hunt, MCIP, RPP*

Manager of Policy Planning *City Planner*

I am not a registered Planner and have reviewed as a Corporate Team Leader

SAH *JM*

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Chris Carpenter	Coordinator of Real Estate Services
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Acting Chief Administration Officer

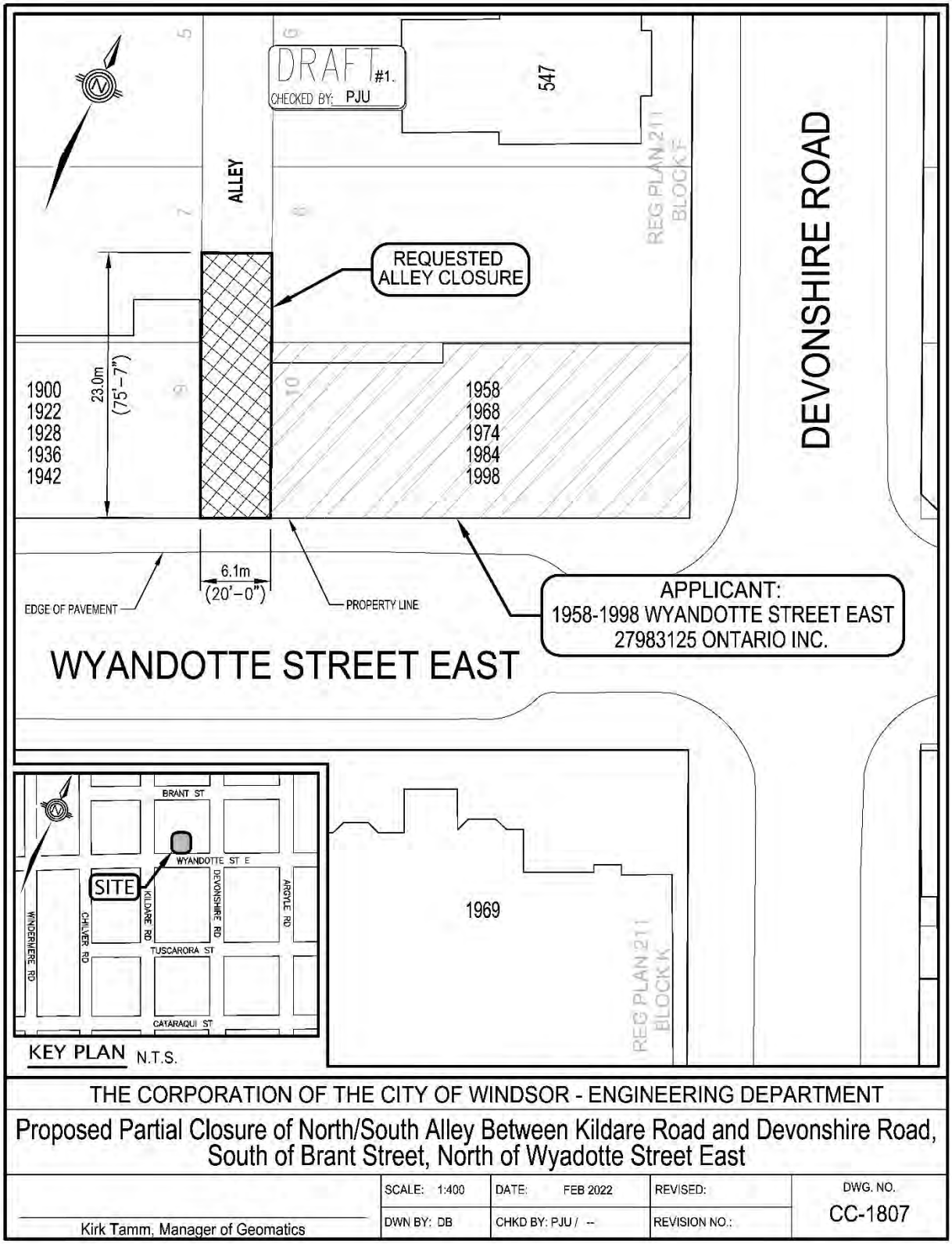
Notifications:

Name	Address	Email
Councillor Chris Holt		cholt@citywindsor.ca
Property owners and tenants within 120 m of the subject parcel		

Appendices:

1 Appendix A - Drawing No. CC-1807
2 Appendix B - EIS Drawing - Aerial Photo
3 Appendix C - Consultations with Municipal Departments and Utility Companies
4 Appendix D - Site Photos
5 Appendix E - Classification of Alleys and Suitability for Closure
6 Appendix F - Ground Floor Plan
7 Appendix G - Approved Site Plan SPC-002-22

APPENDIX "A"
Drawing No. CC-1807

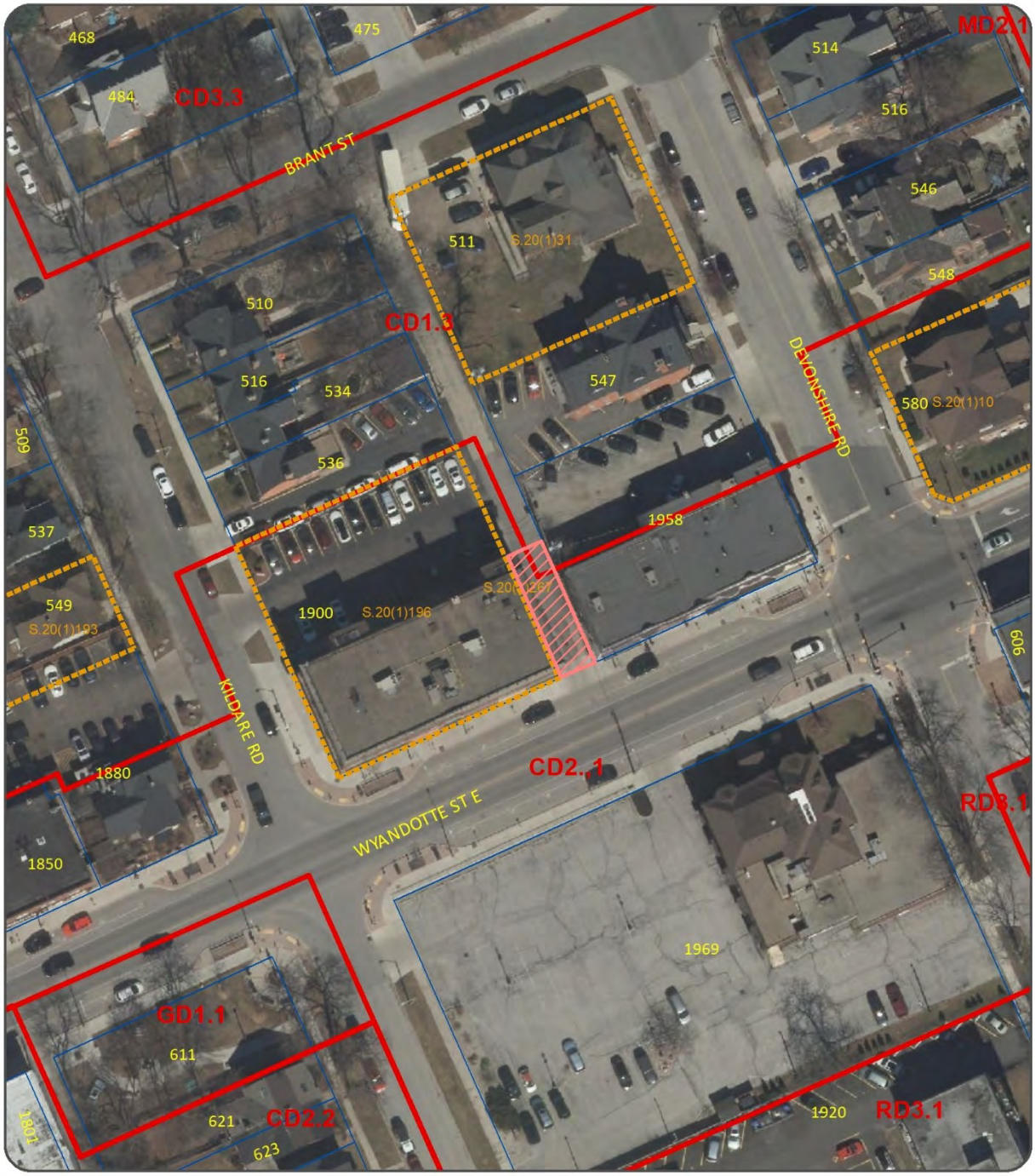


THE CORPORATION OF THE CITY OF WINDSOR - ENGINEERING DEPARTMENT

Proposed Partial Closure of North/South Alley Between Kildare Road and Devonshire Road, South of Brant Street, North of Wyadotte Street East

Kirk Tamm, Manager of Geomatics	SCALE: 1:400	DATE: FEB 2022	REVISED:	DWG. NO. CC-1807
	DWN BY: DB	CHKD BY: PJU / --	REVISION NO.:	

APPENDIX "B"
EIS Drawing - Aerial Photo



STREET & ALLEY CLOSING (SAA/6671)

1:750

APPLICANT : 2798315 ONTARIO INC. (ROSATI)

SUBJECT LANDS

PLANNING DEPARTMENT - DEVELOPMENT DIVISION

DATE: FEBRUARY, 2022

APPENDIX "C"

Consultations with Municipal Departments and Utility Companies

BELL CANADA WSP

Bell Canada requests an easement over the entire closure area.

[Charleyne Hall, Bell Canada External Liaison]

CANADA POST

No comments provided

COGECO CABLE SYSTEMS INC.

No comments provided

ENVIRONMENTAL SERVICES

This closure is a concern for Environmental Services. We collect residential garbage in this alley and businesses receive private garbage collection in this alley. We are unable to exit any other way then the location that is requested to close. Although there are parking lots that exit to Kildare and Devonshire, they are private property and we cannot use them with our heavy trucks due to the risk of damage. Put more simply, we do not go on private property. Furthermore, private collection is done by large front end loader trucks which may not have the ability to make the turn required to exit onto Kildare or Devonshire.

A solution to the residential garbage collection would be to relocate garbage collection for all homes between Wyandotte/Assumption/Kildare/Devonshire. This would require Council approval and communication with the affected homeowners. This solution, however, does not address any private front end loader collection issues (if any).

Without the relocation of garbage collection, Environmental Services cannot support this request.

[Anne-Marie Albidone, Manager, Environmental Services]

ENWIN UTILITIES - HYDRO

No Objection, however, an easement named to Enwin Utilities Ltd is required for the entire east/west alley upon closing to accommodate existing 120/240 volt and 120/208 volt hydro distribution pole line.

[Anwar Nagar, Senior Hydro Engineering Technologist]

ENWIN UTILITIES - WATER

Water Engineering has no objections.

[Bruce Ogg, Water Project Review Officer]

LEGAL DEPARTMENT

For lands abutting CD2.1, $20 per sq/ft without easements and $10 per sq/ft with easements

[Chris Carpenter, Coordinator of Real Estate Services]

MNSi

MNSi has Aerial plant on the poles in the alley so we will require an aerial easement through the subject properties.

[Dave Hartleib, Outside Plant Manager]

PARKS & FACILITIES

Parks development has no comments

[Sherif Barsom, Landscape Architect]

PLANNING DEPARTMENT

This paved alley should not be closed. It appears to still used by both Residential and Commercial uses on this block.

[Jim Abbs, Planner III - Subdivisions]

PLANNING DEPARTMENT – LANDSCAPE ARCHITECT

The alley closure is associated with a Site Plan Control application where all landscape comments have been made.

From an Urban design perspective, this alley is not specifically included in the IIPO's for Walkerville Distillery District. The alley targeted and detailed in the plan is one block to the west, b/w Kildare and Chilver. That being said the application to close this particular alley for private use aligns with the intent of the overall Plan. This application has the endorsement of the Planning Departments Urban Design section.

[Stefan Fediuk – Landscape Architect]

PUBLIC WORKS DEPARTMENT

The proposed alley closure is approximately 27m long, 5.25m wide and composed of asphalt. A 200mm diameter vitrified clay combined sewer runs through the alley. There is a catchbasin within the proposed closure area, if the alley is closed, the catchbasin will become a private catchbasin and must be maintained by the property owner. If the alley closure is approved, an easement will be required over the municipal sewer. There are hydro poles and guy wires within the alley, an easement will also be required for utilities. There is a driveway approach at the south end of the subject closure, providing access to adjacent parking lots. If the alley is closed, the applicant is required to obtain a driveway permit to close the redundant curb cut to city standards. Due to the presence of the combined sewer, this alley is deemed indispensable by CR146/2005. The requested closure is not supported by the Engineering Department.

(Original - March 29, 2022)

The proposed alley closure is approximately 27m long, 5.25m wide and composed of asphalt. A 200mm diameter vitrified clay combined sewer runs through the alley. There is a catchbasin within the proposed closure area. If the alley is closed, the catchbasin will become a private catchbasin and must be maintained in good working order by the property owner to provide drainage for the open alley. If the alley closure is approved, an easement will be required over the municipal sewer. There are hydro poles and guy wires within the alley. An easement will also be required for utilities. There is a driveway approach at the south end of the subject closure, providing alley access to adjacent parking lots. If the alley is closed, the applicant is required to obtain a driveway permit to close the redundant curb cut to city standards. This alley is deemed indispensable by CR146/2005, and there are concerns with the closure application. However, in this unique situation, the Public Works Department will not oppose the closure application subject to the easement and the catch basin maintenance requirements.

(Revised - May 6, 2022)

[Adam Pillon, Development Engineer]

PUBLIC WORKS – TRANSPORTATION/TRAFFIC

No concerns with closing the portion of alley as proposed provided the north leg at Brant remains open to prevent vehicles backing out of parking lots onto Devonshire Road. Applicant to borne the cost of any required signage (i.e. No Exit sign at Brant). Note closure may affect garbage collection – both private and public.

[Mike Spagnuolo, Signal Systems Analyst]

ROGERS COMMUNICATIONS

No comments provided

TELUS COMMUNICATIONS

TELUS has no underground infrastructure in the area of your proposed work

[Meghna Patel, Permit Coordinator]

TRANSPORTATION PLANNING

No concerns with the proposed closure as the north end of the alley remains open for use by other properties. Appropriate signage required at the applicant's request per Traffic Operations requirements. Garbage collection may be affected, this should be discussed with Operations.

[Rania Toufeili, Policy Analyst]

UNION GAS

After reviewing the provided drawing between Kildare and Devonshire and consulting our mapping system, please note that Enbridge Gas has no active infrastructure in the proposed area.

[Jose Dellosa, Drafter Estimator]

WINDSOR FIRE

Windsor fire has no issues

[Michael Coste, Chief Fire Prevention Officer]

WINDSOR POLICE

The Windsor Police Service has no concerns or objections with the closure of this section of alley within the Walkerville neighborhood to permit use of the space as a pedestrian only outdoor patio/amenity area and to facilitate a "grab and go" pickup window. The alley in question is a paved laneway currently accessible to vehicular traffic but its closure will not create problems for police to otherwise gain access for emergency incident response or vehicle patrol purposes within the immediate area. The closure will still leave other options available to the police for such purposes. To ensure the space can be established and then more importantly maintained in a safe condition, it should be enclosed to some degree with fencing and gates to allow pedestrian access but not vehicles. Such fencing needs to be of a type (such as a steel picket style) that will permit ongoing two-way visibility into and out from the space. The space should also have lighting provided to safely address evening conditions. The end result from this closure will create an area of enhanced positivity activity generation (a core principle of good CPTED – crime prevention through environmental design) that supports public safety.

[Barry Horrobin, Director of Planning & Physical Resources]

APPENDIX "D"
Site Photos (March 18, 2022)

Figure 1 - Looking north towards subject alley from Wyandotte Street East

Figure 2 - Looking north towards subject alley from Wyandotte Street East

Figure 3 - Looking south towards subject alley

Figure 4 - Looking south towards subject alley

Figure 5 - Looking south towards subject alley

Figure 6 - Looking north from subject alley

Figure 7 - Rear of 1958-1998 Wyandotte Street East, looking east from subject alley

Figure 8 - Rear of 1958-1998 Wyandotte Street East, looking east from subject alley

Figure 9 - Rear of 1900-1942 Wyandotte Street East, looking west from subject alley

Figure 10 – Looking south towards subject alley from Brant Street

Figure 11 - Front of 1958-1998 Wyandotte Street East, looking north from Wyandotte Street East

Figure 12 - Front of 1900-1942 Wyandotte Street East, looking north from Wyandotte Street East

APPENDIX "E"
Classification of Alleys and Suitability for Closure

Classification of Public Rights-of-Ways:

Currently streets and alleys fall into four classifications on the basis of their usefulness:

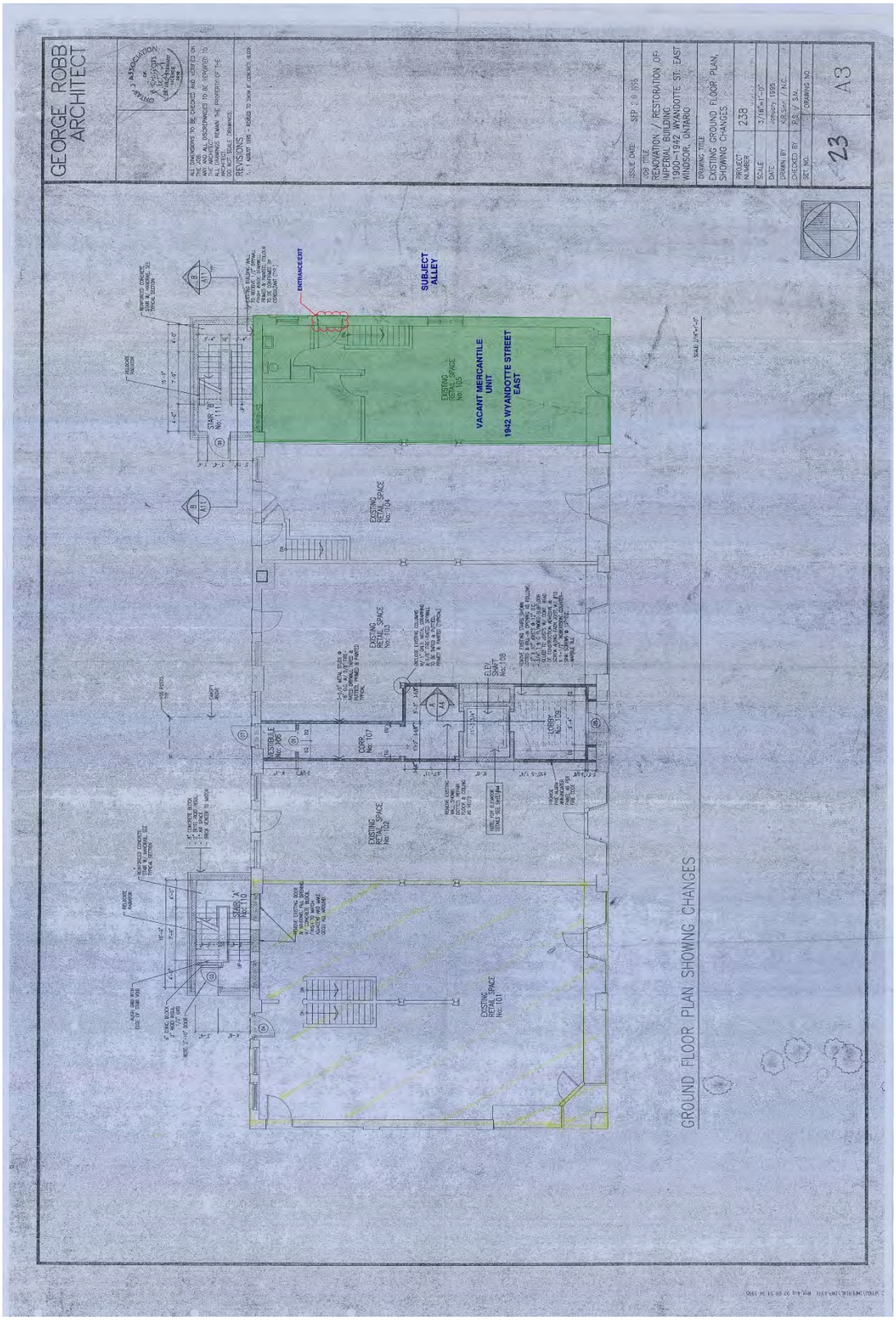
1) Alleys that are **indispensable**. These would be alleys serving commercial properties and properties fronting on heavily traveled streets i.e. major arterial routes and alleys which contain sewers and must remain accessible for servicing; alleys or streets which serve as the only vehicular means of access to rear parking areas and garages where the property has insufficient lot width for a side drive; and, alleys which contain Fire Department connections that are deemed to be necessary for firefighting access.
2) Alleys that, **have some usefulness**, are nevertheless dispensable and may or may not be a complete liability.
3) Alleys that appear to serve **no useful purpose**, either now, or anticipated. Such alleys are in residential areas and locations where generally the lots are wide enough for side drives, or those alleys abutting parks and other parcels of land that do not require any servicing from the alley. Remnant or stub-end streets which are dead-ended and do not serve as access to other streets.
4) Alleys lying in Holding zones and other similar undeveloped areas where the alley system is **clearly obsolete** and has never been developed, but where the City needs to keep its options open until new area plans are prepared and development is imminent.

Suitability for Closing:

Following are the criteria and suitability for closing alleys in each of the above classifications.

1) Indispensable alleys should **not be closed**, conveyed, reduced or otherwise jeopardized through minority interests unless a suitable substitute alley is opened in lieu thereof. They are essential from the viewpoint of fire protection, police protection, emergency services (i.e. ambulance) and loading or unloading of goods, refuse collection, servicing of blocked sewers and utility services. Without such alleys, the above noted services would at least be more costly if not impossible to complete or adequately access; and would noticeably interfere with street traffic, thereby reducing the access capacity of the adjacent arterial, collector, or street for business.
2) Alleys having some usefulness should **be considered for closing** only upon request of abutting owners rather than by encouragement of the City.
3) Alleys that serve no useful purpose should **be closed** if at all possible, and in fact the owners abutting thereon should be encouraged to accept conveyance.
4) Alleys that are clearly obsolete should **not be closed** unless there is a municipal need or specific development proposals acceptable to the City are submitted.

APPENDIX "F"
Ground Floor Plan



APPENDIX "G"
Proposed Site Plan SPC-002/22