February 16, 2023

Ayza Anwar, Development Associate
ADI Developments (Masonry) Inc
1100 Burloak Dr | PH Suite 700
Burlington ON | L7L 6B2

Attention: Ayaz Anwar

Re: BRM-00074068-A0 Project Name: D-6 Compatibility – Air Quality – 1120 Cooke Blvd., Burlington, ON L7T 2J1
Subject: Response to Peer Review

Dear: Mr. Anwar:

EXP Services Inc. (EXP) was retained by ADI Developments (Masonry) Inc, to complete a D-6 Compatibility – Air Quality Assessment at 1120 Cooke Blvd., Burlington, ON, to fulfill the requirements of the Official Plan Amendment and Zoning By-law Amendment for the City of Burlington for an air quality study. A report, dated November 17, 2021, was provided, and underwent Peer Review. The following letter report summarizes EXP's response to the City of Burlington Community Planning Department Staff (Planning Staff) letter dated December 8, 2022, Metrolinx, and CN, where requested. Only one (1) comment, i.e. Comment # 31, regarding the D-6 Compatibility – Air Quality Assessment was noted. The City's letter is attached as Appendix A.

Comment #31- City of Burlington: Site Meteorology of the submitted D6- Air Quality Study, dated November 17, 2021, prepared by EXP Services Inc. appears to reference incorrect data. This section has Figures for Vaughan Ontario and states that the Toronto International Airport is located 12 km from the site. Please review and update this section of the report and any other associated information in the report.

Response: The Report has been updated to include wind roses with historic meteorological data from the "Hamilton" station, located 15 km from the subject site. The revised Report is attached as Appendix B.

Comment # 154- Metrolinx: The PPS, Growth Plan and ROP provides direction to ensure that new sensitive land uses are compatible with, and are not negatively impacted by adjacent industrial, transportation and utility uses. As part of the consideration of the proposed OPA and ZBA, Staff note that a land use compatibility study is required, as the proposal would introduce a new sensitive land use in close proximity to major facilities and existing employment uses.

In considering the proposed development, Staff note that insufficient analysis and justification for the proposed development was provided from a land use compatibility perspective. For instance, all major facilities adjacent to and in close proximity to the subject lands were not analysed as part of the assessment, in addition to air quality, odour and dust impact analysis was not provided for these facilities and uses.

Based upon this, Regional Staff are not in a position to confirm that the policy direction of 79.3, 81.2(4), 143(9), and 143(12) of the ROP have been addressed. Further, the ROP supports the comprehensive planning approach for this growth area in that the protection for existing and planned major facilities should occur through this process to ensure that the planned vision for this growth area is achieved and not negatively impact by site specific development proposals.

Response: All industries in a 1000 m radius, were analyzed based on their minimum separation distance, Ontario D-6-1 industrial categorization criteria and EXP's Environmental Scientist visual examination. While it is not feasible to capture worst case or conditions representative of all sources, the standard approach above is adequate to identify potential dust and odours in the study area.
Odour measurements were completed by an Environmental Scientist with a Bachelor of Science degree and post graduate certificate in environmental management and assessment who has conducted over 10 odour assessments with odour sensitivity rating.

Comment # 172 - CN: Thank you for consulting CN on the application mentioned in subject. It is noted that the subject site is located within 300m to a transit station and CN rail corridor, and within 1000m to CN's rail yard operations. CN has concerns of developing/densifying residential uses in proximity to railway right-of-way. Development of sensitive uses in proximity to railway operations cultivates an environment in which land use incompatibility issues are exacerbated. CN's guidelines reinforce the safety and well-being of any existing and future occupants of the area. Please refer to CN's guidelines for the development of sensitive uses in proximity to railways. These policies have been developed by the Railway Association of Canada and the Federation of Canadian Municipalities.

Response: It is also noted that the Guidelines for New Development in Proximity to Railway Operations (May 2013) is specific to noise and vibration. A noise and vibration assessment are being addressed in a separate study.

Yours truly,

EXP Services Inc.

Kaveh Farhadi, M.Sc.
Air Quality Scientist
Environmental Services

Ron Taylor, M.Sc., C.Chem., CIH.
Discipline Lead, Air Quality & Industrial Hygiene
Environmental Services

Appendix A – City of Burlington Community Planning Department Staff (Planning Staff) letter

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elyse.meneray@burlington.ca

December 8, 2022

Adi Developments (Masonry) Inc.
c/o Mike Bennett, WND Associates Ltd.
90 Eglinton Avenue East, Suite 970
Toronto, ON M4P 2Y3
Sent by email to mbennett@wndplan.com

Re: Applications to amend the Official Plan and Zoning By-law for 1120 Cooke Boulevard (101 Masonry Court)

File Nos: 505-01/22, 520-01/22

Dear Mr. Bennett,

City of Burlington Community Planning Department staff (Planning staff) have reviewed the above-referenced applications, received by the City on March 1, 2022, including revised drawings received by the City on September 14, 2022 and October 3, 2022 . Planning staff have also reviewed comments received from the public on the subject applications as well as technical comments provided by the following agencies and City departments in response to circulation of the applications:

- City of Burlington
  - Transportation Department (Aug. 29, 2022)
  - Site Engineering section (Sept. 9, 2022)
  - Site Engineering – Landscaping and Forestry section (July 20, 2022)
  - Parks Design & Construction section (July 26, 2022)
  - Accessibility section (June 30, 2022)
  - Finance Department (May 18, 2022 and Oct. 12, 2022)
  - Fire Department (June 21, 2022)
- Halton Region (Aug. 8, 2022)
- Halton Regional Police Department (May 5, 2022)
- Halton District School Board (May 19, 2022)
- Halton Catholic District School Board (June 28, 2022)
- Conseil scolaire viamonde (July 7, 2022)
- Ministry of Transportation (MTO) (July 30, 2022 and November 25, 2022)
- Conservation Halton (June 17, 2022)
- Canada Post (June 30, 2022)
- Trans Northern Pipeline Inc. (May 18, 2022)
- Bell Canada (July 5, 2022)
- Canadian National Railway (May 26, 2022 and Sept. 20, 2022)
- Canadian Pacific Railway (July 20, 2022)
- Metrolinx (Sept. 8, 2022)
- Sun-Canadian Pipe Line Co. Ltd. (June 30, 2022)

Planning staff provide the following comments on the above-noted applications, which are informed by staff's planning review of the submitted materials as well as the public and technical comments referenced above. Please note that comments are preliminary in nature and additional comments or concerns may be identified through the continued review of the applications including any subsequent resubmissions.

General Comments

1. Planning staff request that the applications be comprehensively revised as needed to address the technical comments raised in this letter as well as those provided by the above-referenced agencies and City departments, and any other technical matters that may be identified through ongoing review of the proposal.
2. Please provide additional information as requested in these planning comments and in other technical comments.
3. Please ensure consistency between information presented in all reports, plans, and drawings.
4. Please provide a response table to address how each of the planning comments contained within this letter have been addressed in a resubmission.
5. Planning staff are happy to assist in the arrangement of meetings with relevant staff and stakeholders, as needed to clarify comments or discuss next steps to address comments.
6. When preparing a resubmission, please consider the City's ongoing Area-Specific Planning project for the Aldershot Major Transit Station Area (MTSA), and provide additional information to explain how this has been considered. For information on this project, visit www.getinvolvedburlington.ca/mtsa.

Land Use

7. The subject lands are located within the Aldershot GO Central Precinct of the ongoing Area-Specific Planning project for the Aldershot GO MTSA. The Aldershot GO Central Precinct is the focus area for the MTSA area's highest density and the preeminent destination for Major Office, affordable housing and urban format retail. Except for development containing major office uses and development within the Mid-Rise Residential Precinct, all development within the Aldershot MTSA shall contain a minimum of two permitted uses and should contain three permitted uses where feasible. Please consider providing an additional permitted use, such as office or an employment use within the bottom two floors of the proposed buildings.

Housing Mix

8. It does not appear that the dwelling unit mix was provided for the current proposal, dated October 3, 2022. Therefore, staff have based their comments on the original proposal, dated October 7, 2021 and the information contained in the Planning Justification Report, dated November 2021.

9. The development proposal contains the following dwelling unit mix:
    - 1 Bedroom: 424 (37.2%)
    - 1 Bedroom + Den: 424 (37.2%)
    - 2 Bedroom: 277 (24.3%)

- 2 Bedroom + Den: 13 (1.1%)
- 3 Bedroom: 1 (0.1%)

The Burlington Housing Strategy supports a broad variety of housing types and forms with the goal of increasing housing options that meet the needs of all current and future residents at all stages of life. Furthermore, the new Official Plan (2020) contains objectives and policies that promote a land use pattern that mixes and disperses a full range and mix of housing types and tenures.

Halton Region's modified Preferred Growth Concept and Land Needs Assessment (March 2022) estimates that approximately 20% of new dwellings will be ground-related (single and semi detached dwellings and rows/townhouse dwellings) and the remaining 80% of new dwellings will be apartment buildings. Of the remaining 80% of new units that are estimated to be apartment units, 70% should be appropriate for smaller households (55% of all new dwellings) and 30% should be appropriate for larger households (25% of all new dwellings). Please increase the proportion of units that have 2 or more bedrooms to align with the housing targets of the Burlington Housing Strategy.

Built Form

10. The proposed building height should be reduced to align with the objectives and policies of the Mixed-Use Corridor – Commercial designation of the Official Plan (1997, as amended), Urban Corridor designation of the new Official Plan (2020), and the emerging vision for development within the Aldershot GO Central Precinct in accordance with the ongoing Area-Specific Planning project for the Aldershot GO MTSA. Staff recommend a maximum building height of 30 storeys to align with the Aldershot GO Central Precinct Plan.

11. Retail and/or service commercial spaces should be designed with appropriate ceiling heights, unit sizes, and loading/garbage access to allow flexibility to accommodate a variety of different business types over the long term. The width of individual retail and/or service commercial units within the development should support a pedestrian-oriented streetscape.

12. It appears that the most recent development proposal, dated October 3, 2022 is proposing a 0 metre underground setback from all lot lines. Please revise the proposal to provide adequate underground setbacks that facilitate opportunities for the preservation of existing healthy trees and the growth of new large-scale trees on the subject site. There should be no underground structures within a Landscape Buffer. The proposed 0 m setback of underground parking from all lot lines will not be supported.

Amenity Area

13. The unit composition was not provided for the current proposal, dated October 3, 2022. Therefore, staff have calculated the required amenity space based on the original proposal, dated October 7, 2021.

14. The original development proposal provides 21,026 m^2 of amenity space for Buildings A, B and C. Building A provides 17.42 m^2 of amenity space per unit, Building B provides 21.94 m^2 per unit and Building C provides 17.20 m^2 per unit. The Zoning By-law requires a

minimum amenity space of 20 m^2 per one-bedroom dwelling unit and 35 m^2 per two or more bedroom units. Therefore, based on the proposed unit composition a total of 27,145 m^2 of amenity space is required.

15. Staff acknowledges that the proposed development is located adjacent to a future park, which can be used by residents, however, this park is not currently online. Staff need to ensure that sufficient on-site amenity space that is well designed and functional is available to residents until more parkland is brought online. Therefore, staff are encouraging the applicant to provide more amenity space for the proposed development.

16. It appears that the new development proposal, dated October 3, 2022 has removed the 4th floor terrace between Building B and C and the 5th floor terrace on Building A. Please confirm if the areas labelled "Roof at Level 7" for Buildings B and C and "Roof at Level 12" on drawing A204 "Level 7 (Tower)" are proposed to be outdoor amenity areas and replace the previously proposed 4th and 5th floor terraces.

    If these areas are intended to be outdoor amenity areas, please include the total amenity area, revised landscape plans and any required noise or wind barriers for the proposed outdoor amenity areas in the next submission.

Vehicle and Bicycle Parking

17. Staff do not support the proposed reduced parking space dimensions. Please provide appropriately dimensioned parking spaces in conformity with the City's Zoning By-law. Refer to Transportation comments for further guidance on parking rates and design. Staff note that the revised plan, dated October 3, 2022 did not have the proposed parking spaces dimensioned. If the proposed parking spaces are meeting the standards of the Zoning By-law (minimum width of 2.75 metres and minimum area of 16.5 m^2 per space), this comment can be disregarded.

18. Transportation Planning staff have determined that the appropriate vehicle parking rate for the site is 1.00 parking space per unit and 0.08 visitor parking spaces per unit, for a combined rate of 1.08 parking spaces per unit.

    Based on the current development proposal, dated October 3, 2022, the total required vehicle parking spaces would be 1,254 (1,161 resident parking spaces and 94 visitor parking spaces). Therefore, the development proposal is deficient by 232 spaces.

    Transportation Planning staff will need to review the revised TIS and development concept plan to determine if the proposed parking rate of 0.88 parking spaces per unit is supportable.

19. Transportation Planning staff have determined that the appropriate bicycle parking rate for the residential building is 0.50 spaces per unit for long-term parking and 0.05 spaces per unit for short-term parking. The appropriate bicycle parking rate for the commercial portion of the building is 2 long term spaces + 1 space per 1000 m2 GFA and 3 short term spaces + 1 space per 1000 m2 of commercial GFA.

Based on the current development proposal, dated October 3, 2022, the total required bicycle parking for the residential building is 640 spaces (581 long term spaces and 59 short term spaces and the total required bicycle parking for the commercial portion of the building is 7 spaces (4 long term spaces and 3 short term spaces). Therefore, the development proposal requires a total of 647 bicycle parking spaces.

The current development proposal did not include the total bicycle parking space amount. Please provide the total number of bicycle parking spaces in the next submission. Transportation Planning staff will need to review the revised TIS and development concept plan to determine if the proposed bicycle parking spaces are acceptable.

Wind, Shadow, Noise and Air Quality Studies

20. Staff note that the submitted Pedestrian Wind Study, dated November 17, 2021 was conducted based on development concepts provided to SLR Consulting dated April 16, 2021 and May 21, 2021. Since the original submission, the applicant has revised the development concept to incorporate staff and external comments. Staff will require the applicant to submit a revised Pedestrian Wind Study using the most up to date development concept. Staff provide the following comments based on the original Pedestrian Wind Study, dated November 17, 2021.

21. The submitted Pedestrian Wind Study concludes that the incorporation of multiple rows of coniferous trees planted along the west edge of the project site will have a calming effect on wind for Locations 9,20,22 and 23. Staff note that Section 5.2 b – Design Strategies for Wind Mitigation of Pedestrian Level Wind Study Guidelines and Terms of Reference, June 2020 states “some landscaping elements, especially coniferous and marcescent tree species, can be planted to improve wind conditions. These elements cannot replace architectural features or other built elements, as soft landscaping may not sufficiently mitigate wind impacts during all seasons. Trees and landscaping can only be applied to supplement existing mitigation measures”.

    Based on the above, staff feel that these locations should not solely rely on landscaping as a mitigation measure as this may not mitigate wind impacts during all seasons and will take time for the landscaping to fully mature and provide a sufficient wind barrier. Please consider changes to the building design and incorporation of wind barriers to mitigate wind conditions along Waterdown Road and the west edge of the proposed building.

22. The proposed wind mitigation recommendations on Page 26 of the submitted Pedestrian Wind Study do not say whether the mitigation measures will achieve an appropriate Wind Comfort Category level once they are implemented. Staff will require confirmation that the proposed mitigation measures will reduce wind speeds to an appropriate Wind Comfort Category level as per Table 4.1 Pedestrian Wind Comfort Criteria of the Pedestrian Level Wind Study Guidelines and Terms of Reference, June 2020.

23. The submitted Pedestrian Wind Study does not propose mitigation measures for internal site Locations 10, 24, 12, and 14 which have uncomfortable wind conditions in the winter. Please provide rationale for not including mitigation measures for these locations.

24. The submitted Pedestrian Wind Study does not propose mitigation measures for sidewalk Locations 62, 68 and 69 which have uncomfortable wind conditions in the winter. Please provide rationale for not including mitigation measures for these locations.

25. Staff note that the proposed 4th floor terrace between Buildings B and C appears to have been removed in the most recent development proposal dated October 3, 2022. If so, the following comment can be disregarded.

    The submitted Pedestrian Wind Study recommends planning passive activities away from Location 34 (southwest corner) on the 4th floor terrace between Building B and C and incorporating wind screens to the west of Location 30 and 32 to make conditions better in the winter. Staff recommend including the wind screens to allow this space to be comfortably used in the winter. Please revise the Site Plan and Landscape Plan to include the proposed wind screens in this area.

26. Staff requests a plan showing all proposed mitigation measures, i.e. landscaping, vertical wind screens, horizontal features, etc. be provided in the next submission.

27. Staff note that the submitted Shadow Study, dated October 7, 2021, prepared by Core Architects was based on the original development concept, dated October 7, 2021. Staff will require the Shadow Study to be revised to reflect the current development proposal. Staff provide the following comments based on the original Sun Shadow Study, dated October 7, 2021.

28. Sun Access Factor Calculations were not provided for the following areas and dates:
    - Outdoor Amenity Area – September 21st and December 21st
    - Public Realm and Sidewalks – September 21st and December 21st

    Please provide these calculations to ensure that these areas are meeting the Sun Access Factor Calculation requirements of the Sun Shadow Study Guidelines, June 2020.

29. The December 21st Sun Access Factor for Parks and Open Space is below the Sun Access Factor requirement in the Sun Shadow Guidelines. The Sun Shadow Study, Sun Shadow Study Checklist, Planning Justification Report and Urban Design Brief do not include mitigation measures. Please provide rationale for not including mitigation measures.

30. Discussion of shadow impacts in the submitted Planning Justification Report and Urban Design Brief currently considers the planned context of 1120 Cooke Boulevard but not the existing context. This analysis should be updated to consider the existing context of the property and the uses currently permitted for this property in the Zoning By-law.

31. Section 3.5 – Site Meteorology of the submitted D6- Air Quality Study, dated November 17, 2021, prepared by EXP Services Inc. appears to reference incorrect data. This section has

Figures for Vaughan Ontario and states that the Toronto International Airport is located 12 km from the site. Please review and update this section of the report and any other associated information in the report.

32. Please revise the submitted Environmental Noise Study to reflect the changes in the revised development concept.

Fiscal Impact Analysis

33. Finance staff engaged Watson & Associates Economist Ltd. to peer review the submitted Fiscal Impact Analysis, dated November 16, 2021 and prepared by Altus Group. The main findings of the report noted a difference in impacts relating to the assessment assumptions and lifecycle costs. The Altus Study estimates an annual fiscal surplus of $429,893 (2019$) from the proposed development of 1120 Cooke Boulevard, whereas the Watson Peer Review analysis indicates the redevelopment (incremental) is less optimistic than the Altus Study with a potential annual fiscal deficit of approximately $81,570. Please review Finance and the peer reviewer comments and provide a response.

Trees

34. As per Landscaping staff comments, please investigate alternatives to the design that will result in the preservation of trees 12 and 15 (as shown in the TPP).

Urban Design and Public Realm

Building A

35. Building A appears to have a 12 storey podium, with a stepback at the 12th storey adjacent to Waterdown Road and internal to the site. The Tall Building Guidelines refers to a maximum building podium of 80% of the adjacent right of way width, with a recommended maximum height of 20 metres to maintain a human scale. Staff recommend providing a maximum podium height of 20 metres on all sides of the proposed building to align with the requirements of the Tall Building Guidelines.

36. Building A provides a step back at the 12th storey adjacent to Waterdown Road and internal to the site. There is no stepback proposed adjacent to the proposed future park or facing the existing residential development to the east. The Tall Building Guidelines recommend providing a 3 meter stepback above the podium to differentiate between the building podium and tower. The Tall Building Guidelines allow some flexibility with the require stepbacks above the podium. Up to 20% of the tower may extend to the edge of the podium without a stepback, provided that there are no adverse wind and shadow impacts.

    Staff recommend incorporating a 3 metre stepback to the north and east side of the building to achieve the requirements of Tall Building Guidelines. If it can be demonstrated that there are no adverse wind or shadow impacts, staff may be supportive of allowing up to 20% of the tower to extend along the edge of the podium without a stepback.

Building B

37. Building B does not provide a stepback above the podium adjacent to Cooke Boulevard. Please consider providing a 3 metre stepback above the podium.

Building C

38. Building C does not provide a stepback along the entirety of the Masonry Court frontage. Staff recommend continuing the 3 metre stepback along the entire building frontage to allow for a more human scale and to provide a consistent podium height along Masonry Court.
39. The Tall Building Guidelines speak to main building entrances being demarcated and being a focal point of the building. Where applicable, main building entrances should be located at the corner of an intersection and/or in close proximity to transit stops. Consider relocating the main residential building entrance to the corner of Masonry Court and Waterdown Road. This would allow for a focal point at this corner and close access to the nearby transit stops on Waterdown Road.

Overall Site

40. Please provide the floor plate size for proposed buildings. The Tall Building Guidelines require a maximum floor plate size of 750 m^2.

41. The loading area and traffic circle appear to be highly visible from Masonry Court in the most recent development concept, dated October 3, 2022. Please screen the loading area from the public realm and neighbouring properties.

42. Building towers should have a minimum separation distance of 25 metres to maximize privacy, sky views and to minimize the cumulative shadow and pedestrian level wind impacts of multiple tall buildings. Buildings B and C are not meeting the minimum separation distance. A separation distance of 23.8 metres is provided. Please provide justification for this reduced setback including whether there are any adverse wind impacts as a result.

43. Balconies should be a minimum of 1.5 metres to provide usable outdoor amenity space. Please confirm that the proposed balconies are meeting this requirement.

44. Please provide a floor plan showing the rooftop and mechanical penthouse.

45. The floor to ceiling height on the first floor should be a minimum of 4.5 metres. Please confirm that each building is meeting this requirement.

46. Design revisions should consider the City's ongoing Area-Specific Planning exercise for the Aldershot MTSA. Consideration should be given to how the proposed development can support the emerging vision for this section of Masonry Court (Aldershot GO Central Precinct).

Architectural Package – October 3, 2022

47. Please revise the Architectural Plan statistics table to include the following:
    - Total amenity space for the development;
    - Dwelling unit composition (i.e. one bedroom, two bedroom, three bedroom units etc.); and,
    - Total number of bicycle parking spaces.

48. Please revise the Architectural Package to include the following:
    - Clearly label the underground parking setback for the development. It appears to be 0.0 metres, but it is not clearly labelled;
    - Dimension all proposed parking spaces on the site plan, ground plan and underground parking plan or provide a typical parking space graphic;
    - Provide colour elevations in the next submission, detailing the colour and material types for the proposed buildings;
    - Label any proposed wind or noise barriers on the plan, including the height and material composition;
    - Dimension and provide the total area for all proposed balconies; and,
    - Label snow storage areas on the plan.

Draft Official Plan Amendment and Zoning By-law Amendment

49. Please revise the Draft Official Plan Amendment and Zoning By-law Amendment to reflect any proposed changes from the most recent development proposal.

50. Please confirm if the proposed development is intended to be registered as one condominium or multiple. Each condominium will need to comply with the zoning separately.

Please do not hesitate to contact me if you have any questions or wish to discuss the foregoing comments or next steps.

Sincerely,

Elyse Meneray, MCIP RPP
Planner ll, Community Planning Department

c.c.: Bill Wallace, Coordinator of Development Review, City of Burlington

Appendix B - Revised D-6 Compatibility - Air Quality Assessment Report

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1120 Cooke Boulevard, Burlington, ON

D-6 Land Use Compatibility – Air Quality Assessment

Client:
ADI Developments (Masonry) Inc.

Type of Document:
Final

Project Name:
D-6 Land Use Compatibility – Air Quality Assessment
1120 Cooke Boulevard, Burlington, ON

Project Number:
BRM-00074068-A0

EXP Services Inc.
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Date Submitted:
2023-02-16

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Appendix A – Figures

Appendix B – Site Plan Drawings

Version Control

Rev.	Date	Description	Submitted by	Reviewed by
1.0	April 16, 2021	Draft	Emily Woronchak	Ron Taylor
1.1	July 8, 2021	Final	Emily Woronchak	Ron Taylor
1.2	November 17, 2021	Final updated drawings	Emily Woronchak	Ron Taylor
2	February 16, 2023	City of Burlington and Metrolinx Comments	Amir Bahadori	Ron Taylor

1. Legal Notification

This report was prepared by EXP Services Inc. for the account of ADI Developments (Masonry) Inc.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. EXP Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this project.

2. Introduction

EXP Services Inc. (EXP) was retained by ADI Developments (Masonry) Inc. to conduct a D-6 Land Use Compatibility Air Quality Assessment of the compatibility of the proposed mixed-use development of the site known municipally as 1120 Cooke Boulevard (the "subject site"). This report has been prepared in support of the requirements of the City of Burlington for Local Official Plan Amendment and Zoning By-law Amendment.

In order to facilitate the proposed development, amendments to the in-force Burlington Official Plan and Zoning By-law are required. The Subject Site is bound by paved roadways to the northeast and southeast, an undeveloped lot to the northwest and an area of overgrown vegetation to the southwest.

EXP understands the proposed development consists of three residential towers (Building A, Building B and Building C) with grade-related retail in Building B (the "proposed development"). The proposed development will have a total gross floor area of 74,087.16 square metres (7.8 FSI), with 1,026 residential and visitor parking spaces located within a five-level underground parking structure and 5 at-grade commercial parking spaces. Tower heights will be 36 stories for Building A, 26 stories for Building B, 36 stories for Building C and 4 stories for the podium with Buildings B and C.

The development plan, surrounding industrial activities, and provincial regulations and guidelines have been considered in this assessment. This report assesses the potential impact by industrial facilities and major transportation corridors on the air quality on the proposed development and potential compliance issues on nearby industry.

3. Description of Development and Surrounding Area

3.1 Proposed Development

The subject site is located at the northeast corner of Masonry Court and Waterdown Road in the City of Burlington. An extended Cooke Boulevard will bound the east side of the subject site. The site is nearly square-shaped with frontages of approximately 91 metres (299 feet) on Masonry Court, 100 metres (328 feet) on Waterdown Road, and 91 metres (299 feet) on Cooke Boulevard. The total site area is 0.95 hectares (2.36 acres).

Currently, the subject site is largely vacant but was historically used as a concrete brick manufacturing plant from 1956 to 2011. A temporary one-storey sales and presentation centre is located within the southwest portion of the subject site associated with Phase 1 of the StationWest project. The proposed development consists of an area of approximately 2.36 acres (0.96 hectares). The Subject Site has a lot frontage of approximately 90.0 metres (295.3 feet) on Masonry Court and a depth of 99.6 metres (326.8 feet).

As indicated earlier, the proposed development will have a total gross floor area of 74,087.16 square metres (7.8 FSI), 1,026 residential and visitor parking spaces located within a five-level underground parking structure and four at-grade commercial parking spaces. Tower heights will be 36 stories for Buildings A, 26 stories for Building B, 36 stories for Building C and 4 stories for the podium with Buildings B and C.

3.2 Nearby Industries – Database Searches

A search of environmental risk databases (National Pollutant Reporting Inventory (NPRI), Environmental Activity and Sector Registry (EASR) and Environmental Compliance Approvals (ECAs)) identified five (5) addresses of interest from an air quality perspective that are located within 1,000 m of the proposed development.

A summary of the noteworthy findings is provided in Table 1 below:

Table 1. Identified Commercial/Industrial Facilities of Potential Air Quality Concern

Location	Facility	Database*	Activity
1140 Waterdown Road	Bulkwood Products Inc.	ECA – Air	Bulkwood Products Inc. has approval for one (1) horizontal wood grinder, equipped with a diesel fired engine that discharges combustion products to the atmosphere though one (1) stack.
1047 Cooke Boulevard	Etratech Inc.	ECA – Air	Etratech Inc. has approval for the following: • One (1) unused stack measuring 7.8 m above grade; • One (1) stack servicing a test lab and machine shop measuring 6.8 m above grade; • One (1) stack serving two (2) solder machines, two (2) laser marking machines, and one (1) hand soldering station measuring 6.8 m above grade; • One (1) stack serving one (1) soldering machine, one (1) EMC stencil cleaner, one (1) laser marking

Location	Facility	Database*	Activity
			machine, one (1) technician room, and one (1) soldering station measuring 6.8 m above grade; • One (1) stack serving one (1) soldering machine, one (1) coating machine, and hand soldering stations measuring 8.3 m above grade; and • One (1) stack serving one (1) coating machine, three (3) laser marking machines, and hand soldering stations measuring 8.3 m above grade. At the time of the Site visit, the property was occupied by Gentherm Electronics, an electronics manufacturer and engineering company. Based on an online search, Gentherm acquired Etratech Inc. in 2017.
1063 Cooke Boulevard	Category 5 Imaging	ECA – Air	Category 5 Imaging has approval for one (1) large format digital printer and associated airjet dryer; one (1) stack serving the exhaust system for the large format digital printer measuring 8.5 m above grade; one (1) stack serving an exhaust system for the airjet dryer measuring 8.5 m above grade; one (1) natural gas fired HVAC unit; five (5) natural gas fired roof mounted heaters; and one (1) space heater.
1093 Howard Road	St. Marys Cement Inc. (Canada) operating as CBM Ready Mix	ECA – Air	St. Marys Cement Inc. (Canada) operating as CBM Ready Mix (CBM) has approval for one (1) ready-mix concrete batching plant and one (1) portable ready-mix concrete batching plant with equipment including: • One (1) baghouse dust collector serving one (1) silo and one (1) cement pig, containing polyester filter material and a pulse-jet type cleaning system that exhausts through a stack extending 17.5 m above grade; • One (1) baghouse dust collector serving one (1) silo containing polyester filter material and a pulse-jet type cleaning system that exhausts through a stack extending 14 m above grade; • One (1) baghouse dust collector serving one (1) silo containing polyester filter material and a pulse-jet type cleaning system that exhausts through a stack extending 25.5 m above grade; • One (1) baghouse dust collector serving one (1) silo containing polyester filter material and a pulse-jet

Location	Facility	Database*	Activity
			type cleaning system that exhausts through a stack extending 14 m above grade; • One (1) baghouse dust collector serving one (1) cement scale containing polyester filter material and a pulse-jet type cleaning system that exhausts through a stack extending 13 m above grade; and • One (1) loading point dust collection system containing polyester filter material and a pulse-jet type cleaning system that exhausts through a stack extending 10 m above grade.
1077 Howard Road	KMP Industries Ltd.	ECA – Air	KMP Industries Ltd. has approval for one (1) permanent batch-type hot mix asphalt plant with the following equipment: • One (1) dryer/mixer with one (1) natural gas fired burner; • One (1) cyclone separator; • One (1) baghouse dust collector equipped with a pulse jet cleaning mechanism that exhausts through a stack measuring 27.5 m above grade; and • One (1) dust silencer. At the time of the Site visit, the property was occupied by KING Paving & Construction. Based on an online search, KMP Industries Ltd. operates as KING Paving and Construction.

*Facilities with approvals for water and sewer systems only are not listed as they do not have significant air emissions.

The following four (4) facilities identified in the database searches was considered insignificant from an air quality perspective. These are summarized in Table 2.

Table 2. Identified Facilities Considered Insignificant or Not Applicable

Location	Facility	Approval	Description/Assessment
151 North Service Road	The Cumis Group Limited	The Cumis Group Limited has approval for one (1) standby diesel generator for emergency situations that exhausts through a stack measuring 1.5 m above grade and four (4) natural gas fired boilers.	Insignificant.
29 Plains Road West	Aldershot Hardware Ltd.	Aldershot Hardware Ltd. was issued a Pesticides Limited Vendor Licence on April 30, 2020.	Insignificant.
1044 Waterdown Road	Corporation of the City of Burlington	Corporation of the City of Burlington was registered for an EASR – Standby Power System on January 6, 2015.	Insignificant
1035 Howard Road	A. Cupido Transport Limited	A. Cupido Transport Limited has approval for a waste management system serving the province of Ontario for the collection, handling, and transportation of wastes including non-hazardous liquid industrial wastes, hazardous liquid and solid wastes, and various domestic and commercial wastes including dewatered catch basin clean-out material and grease type wastes.	A. Cupido Transport Limited is no longer located at this address. The property is currently occupied by St. Marys Cement Inc. (Canada) operating as CBM Ready Mix which was identified as being a potential for air quality issues (refer to Table 3).

3.3 Site Visit Observation

A site visit was conducted by Emily Woronchak of EXP on April 7, 2021. The site visit comprised a walk through within a one kilometer (1,000 m) radius (Study Area) of the Subject Site to characterize the operations of facilities in the area and to identify odours and potential emissions which may affect the proposed development. Meteorological conditions during the Site visit were clear skies, temperature ranging between 7.1 °C and 8.2 °C, with wind ranging between approximately 12 to 18 km/h from the north-northeast.

The Subject Site is surrounded by a mixture of residential, commercial, and industrial facilities. During the Odour Screening Assessment (refer to Section 2.4) no odours were detected with the Nasal Ranger at all locations illustrated in Figure 4 (Appendix A). The only odours, as detected by human senses, were odours typical of an urban environment (traffic). No significant dust impacts, other odours, or off-site odours were noted at the Subject Site at the time of the site visit from

approximately 12:55 am to 4:45 pm. However, minor dust impacts were noted at truck entrance of CBM off of Howard Road, approximately 560 m southeast from the Subject Site.

It was observed that the further northeast, east, southeast, and south portions of the 1 km Study Area consisted mainly of residential properties while the further southwest portions of 1 km Study Area consisted mainly of vacant land and with some commercial properties. St. Marys Cement Inc. (Canada) operating as CBM Ready Mix, a ready-mix concrete company, and KING Paving and Construction, an asphalt plant and aggregate depot, were observed southwest of the Subject Site, along Howard Road.

Residential properties and residential properties in the early stages of development were observed northeast of the Subject Site along Masonry Court, with the nearest off-site residence located approximately 16 m northeast of the Subject Site on the north side of Masonry Court. Most of the commercial/industrial facilities identified during the Site visit were located along Cook Boulevard, Plains Road East, Plains Road, West, and Howard Road, located southeast, east to southeast, southeast to south, and southwest of the Subject Site, respectively.

Table 3 lists commercial, light industrial, and industrial facilities that were observed within the Study Area but not identified in the database searches.

Table 3. Industrial/Commercial Facilities Observed during Site visit

Location	Facility	Description/Assessment	Potential issue?
2 Masonry Court	Cougar	Shoe company head office and warehouse	No, based on inferred operations
1026 Cooke Boulevard	KD Installations Megbrook Holdings Inc. Everik International Digital21	Material handling systems installation/sales Real estate/developer/finance Electronic parts supplier Home automation service	No, based on inferred operations
1038 Cooke Boulevard	Burlington Pump Inc. O'Dell Associates Inc.	Industrial pump/valves/controls supplier HVAC equipment supplier/servicing	No, based on inferred operations
1047 Cooke Boulevard	Gentherm Electronics	Electronics manufacturer and engineering	Yes, based on inferred operations
1050 Cooke Boulevard	Primary Fluid Systems Inc.	Corporate office and manufacturing/sales of metering pump accessories	Yes, based on inferred operations
1074 Cooke Boulevard	PV Labs	High performance image capture and analysis design and development service	No, based on inferred operations
14 Plains Road East	ESSO Circle K Tim Horton	Gas station Convenience store Restaurant	No, based on inferred operations

Location	Facility	Description/Assessment	Potential issue?
15 Plains Road East	RBC	Bank	No, based on inferred operations
20 Plains Road East	Russell Williams Family Restaurant	Restaurant	No, based on inferred operations
53 Plains Road East	Solid Gold	Restaurant and entertainment club	No, based on inferred operations
91 Plains Road East	Klippings Hair Salon Eighth Empire Tattoos & Piercings Loony Tunes Abbey Stained Glass	Hair salon Tattoo and piercing service Record store Stained glass supplier/repairs/lessons service	No, based on inferred operations
99 Plains Road East	Royal Inn	Hotel	No, based on inferred operations
115 Plains Road East	Skycraft Hobbies Kavita Salon & Spa	Hobby supply store Hair salon	No, based on inferred operations
133 Plains Road East	West Plains Bistro	Restaurant	No, based on inferred operations
145 Plains Road East	Wendy's	Restaurant	No, based on inferred operations
157 Plains Road East	D.O.T. Furniture	Furniture store	No, based on inferred operations
172 Plains Road East	3 Peaks	Software company	No, based on inferred operations
175 Plains Road East	Multi-tenant retail/commercial	Butcher Catering company Bakery Travel agency Picture frame shop	No, based on inferred operations
184 Plains Road East	Mortgage Architects	Mortgage broker	No, based on inferred operations
185 Plains Road East	Multi-tenant retail/commercial	Pharmacy Pain management & dependency clinic Stained glass studio Accounting/bookkeeping service Computer repair service	No, based on inferred operations

Location	Facility	Description/Assessment	Potential issue?
195 Plains Road East	Multi-tenant retail/commercial	Spa Business development service Driving school House cleaning service Olive oil dispensary Barber shop Wet-cleaning and alterations	No, based on inferred operations
7 Plains Road West	Jerry's Automotive Inc.	Truck and car repair	Yes, based on automotive repair operations
15 Plains Road West	The Fitness Firm	Gymnasium	No, based on inferred operations
18 Plains Road West	Multi-tenant mixed-use development	Retirement residence Clinic Dentist Audiologist Pharmacy Physiotherapy	No, based on inferred operations
29 Plains Road West	Home Hardware Aldershot FHO Pharmasave Hasty Market Tim Hortons Nail Pro Studio and Spa	Hardware store Doctors office Pharmacy Convenience store Restaurant Spa and nail salon	No, based on inferred operations
38 Plains Road West	Salon Miah	Hair salon	No, based on inferred operations
40 Plains Road West	Redline Office Solutions RK Hair Studio	Office supply store Hair salon	No, based on inferred operations
70 Plains Road West	Multi-tenant retail/commercial	Spa Tennis store Restaurant Clothing shop Tea store Foot clinic	No, based on inferred operations
93 Plains Road West	Baje Auto Services	Automotive repair shop	Yes, based on automotive repair

Location	Facility	Description/Assessment	Potential issue?
100 Plains Road West	Multi-tenant mixed-use development	Gymnasium Restaurant Convenience store Nail salon and spa Family doctor and pharmacy Chiropractor Clothing store	No, based on inferred operations
107 Plains Road West	We Care Aldershot Dental Care Evelyn's Gerry Lush Clothiers Ma Cherie Fabrics & Friendships Jaggard's Florist & Garden Aldershot Financial Group	Educational services Dentist Clothing store Clothing store Fabric store Florist Financial service	No, based on inferred operations
127 Plains Road West	Benjamin Moore Paints Ye Olde Squire	Paint store Restaurant	No, based on inferred operations
141 Plains Road West	Monarch Dentistry Medisthetics & Laser Clinic	Dentist Cosmetics clinic	No, based on inferred operations
159 Plains Road West	Burlington & Area Midwives	Midwives service	No, based on inferred operations
173 Plains Road West	Gardens Dental	Dentist	No, based on inferred operations
181 Plains Road West	Start Fresh Dental Hygiene Times Nail & Spa Dog Room Basketful Boutique Play 181 Florist	Dentist Nail salon Dog grooming service Clothing store Corporate office Florist	No, based on inferred operations
1032 Howard Road	Argo Wholesale Produce Ltd. Ippolito Group	Produce wholesaler Produce processor/wholesaler	No, based on inferred operations
1060 Howard Road	Ippolito Group Mission Produce Inc.	Produce processer/wholesaler Produce wholesaler	No, based on inferred operations
1077 Howard Road	KING Truck & Equipment Repair	Truck/trailer/heavy equipment repair including welding and fabrication services	Yes, based on automotive repair and welding operations

Location	Facility	Description/Assessment	Potential issue?
1176 Howard Road	Ted's Service Centre	Automotive services and repairs	Yes, based on automotive repair operations
1013 St. Matthews Avenue	Full Circle Martial Arts Active Aldershot	Martial arts school Fitness club	No, based on inferred operations
1135 Gallagher Road	Aldershot Greenhouses Limited	Wholesale florist	Yes, based presence of three (3) stacks unable to attribute inferred operations to.
201 North Service Road	Ippolito Transportation Inc. Ippoito Group	Transportation and warehousing service Produce wholesaler	No, based on inferred operations
166 Flatt Road	Aldershot Landscape Contractors Burlington Tree Farms Limited	Landscaping company Tree farm	No, based on inferred operations
29 Panin Road	Slagter Construction Ltd.	Construction company	Yes, based on inferred operations
1021 Waterdown Road	Dee Signs	Sign shop	No, based on inferred operations
1022 Waterdown Road	Antec Appraisal Group	Real estate appraiser	No, based on inferred operations
1025 Waterdown Road	Feber & Oostdyk	Lawyers office	No, based on inferred operations
1046 Waterdown Road	Burlington Fire Department Station No. 3	Fire station	No, based on inferred operations
1048 Waterdown Road	St. John Ambulance	Emergency training service	No, based on inferred operations
1140 Waterdown Road	B.A.M. Trucking Inc./B.A.M. Pallets	Wood pallet manufacturing and recycling	Yes, based on inferred operations
1160 Waterdown Road	Cosmos Concrete & Paving	Concrete and paving service	Yes, based on inferred operations

3.4 Odour Screening Assessment

An odour screening assessment was conducted in conjunction with the D-6 site visit by EXP on April 7, 2021 to assess any potential off-site odour sources at the Subject Site.

At the time of the odour screening assessment, the Subject Site was occupied by one (1) small presentation centre and an associated paved laneway and parking lot located on the south portion of the property. The remaining portions of the Subject Site were vacant and contained various construction materials and storage bins. Odour measurements were taken using a St. Croix Nasal Ranger Field Olfactometer at three (3) locations from approximately 1:19 pm to 1:35 pm am, illustrated in Figure 4 (Appendix A). Meteorological conditions during the odour assessment were clear skies, temperature of approximately 13.6 °C, with wind ranging between approximately 1.9 to 11.3 km/h from the east-southeast, southeast, and south-southeast. No odours were detected with <2 odour units (OU) at all locations. The only odours, as detected by human senses, were odours typical of an urban environment (traffic), with no significant industrial source identified. No other odours or off-site odours were detected by human senses at the Subject Site.

3.5 Site Meteorology

Based on five-year (January 2018 to December 2022) Environment Canada historical meteorological data from Hamilton Airport, approximately 15 km from the Site, the annual resultant vector is from the southwest (266°) with an average wind speed of 15.8 m/s. Annual and seasonal wind rose diagrams showing wind direction (blowing from) and wind speed distribution are provided in Figures 1 to 5.

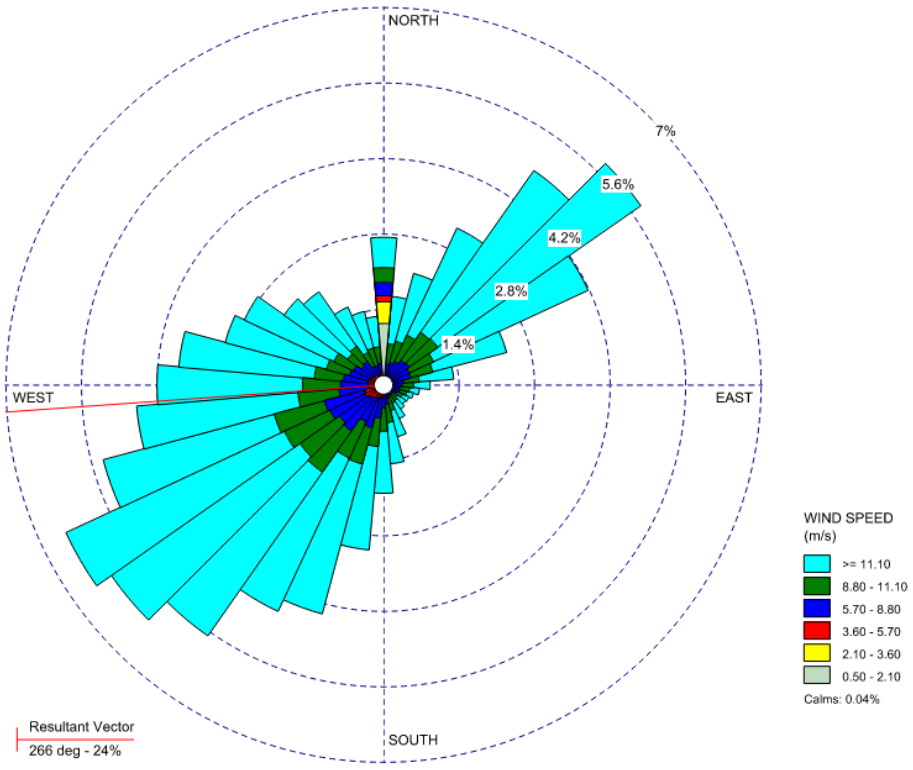


Figure 1. Annual Wind Rose – Hamilton Airport, ON

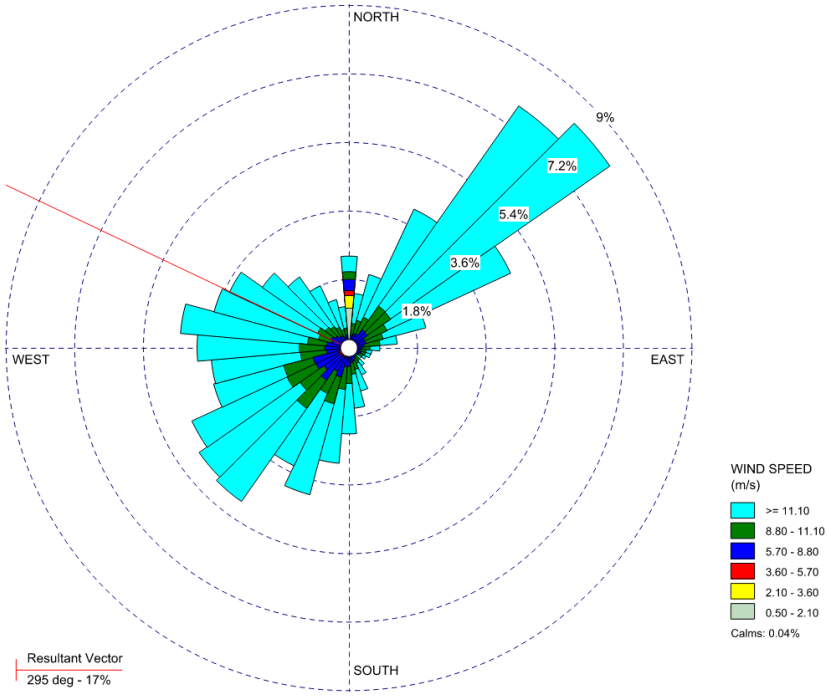


Figure 2. Spring Wind Rose – Hamilton Airport, ON

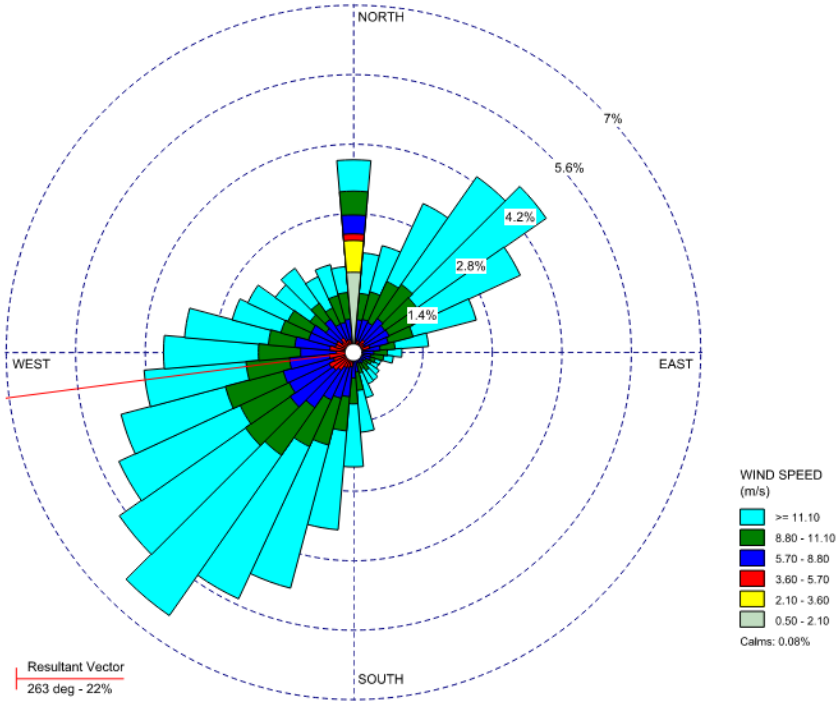


Figure 3. Summer Wind Rose – Hamilton Airport, ON

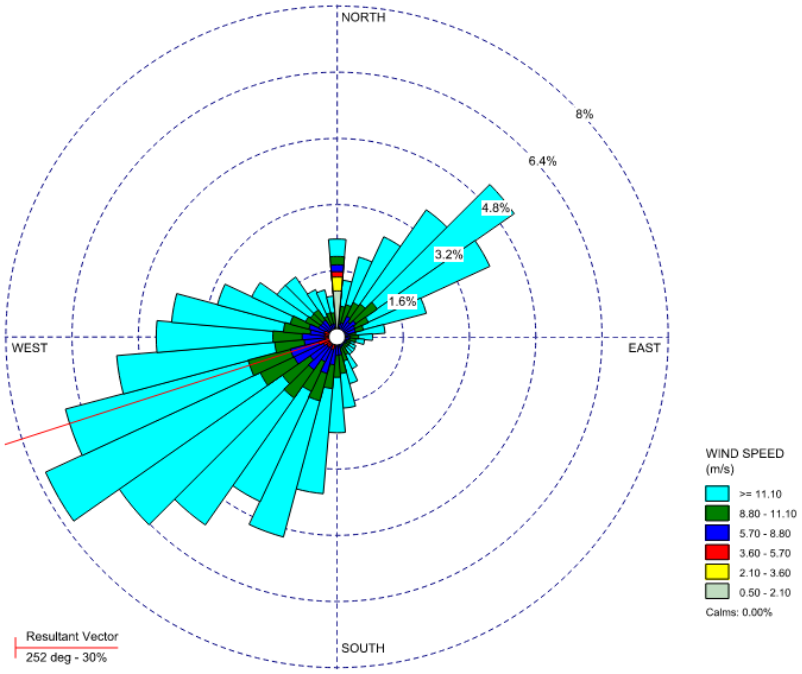


Figure 4. Fall Wind Rose – Hamilton Airport, ON

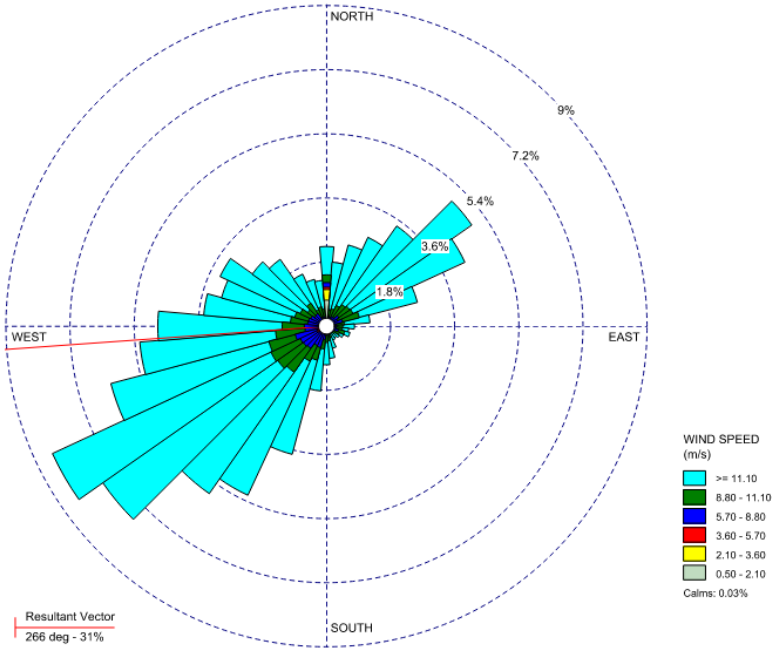


Figure 5. Winter Wind Rose – Hamilton Airport, ON

4. Provincial Guidelines and Regulations

The Ministry of the Environment, Conservation and Parks (MECP) D-series of guidelines are meant to identify potential compatibility issues between land uses. In the case of proposed sensitive uses in proximity to industrial uses, the initial assessment determines if there are any potential adverse effects of nearby industrial operations on the proposed location of the sensitive use. Where the potential for compatibility issues is identified a more detailed assessment may be performed.

4.1 D-Series of Guidelines

The MECP guideline, "D-6 Compatibility between Industrial Facilities" (the Guideline) is intended to be applied in the land use planning process to prevent or minimize future land use problems due to the encroachment of sensitive land uses and industrial land uses on one another. The Guideline recommends minimum separation distances of new developments from industrial facilities. These industrial facilities are defined as follows:

- Class I facilities are generally described as a small scale, self-contained plant or building which produces/stores a product which is contained in a package and has low probability of fugitive emissions.
- Class II facilities are generally described as a medium scale processing and manufacturing plant with outdoor storage of wastes or material (i.e. has an open process) and/or there are periodic outputs of minor annoyance.
- Class III facilities are generally described as 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. They have a high probability of fugitive emissions.

The recommended minimum separation distances for new developments from Class I, II and III facilities are 20, 70, and 300 metres respectively. The potential influence areas for Class I, II, and III facilities are 70, 300, and 1000 metres respectively. The guideline allows less than the minimum separation distance based on an evaluation of the industrial processes and the potential for off-site impacts.

4.2 Risk Assessment Guidelines

Some municipalities require a risk assessment to further assess compatibility with existing industrial facilities in the area. This assessment is based on the Canadian Environmental Protection Act (CEPA) list of hazardous substances and thresholds and the Conseil pour la réduction des accidents industriels majeurs" (CRAIM) list of hazardous substances which was developed using a multi-stakeholder process that reviewed and adopted all the hazardous substances from the Risk Management Program (RMP) developed by the U.S. Environmental Protection Agency (EPA) and a selection of chemicals from the Major Industrial Accident Council of Canada (MIACC) lists. The revised CRAIM List of 174 substances contains: 63 inflammables (RMP), 77 toxics (RMP), 10 inflammables (MIACC / Occupational Safety and Health Administration (OSHA) or National Fire Protection Association (NFPA)), 20 toxic (MIACC / OSHA or NFPA), 3 explosives and 1 miscellaneous. It was designed to take into account the List of hazardous substances from the EPA Risk Management Program (RMP) while also retaining the most hazardous substances from MIACC List 2: (CRAIM 2001). An E2 plan is required for facilities with charge, management or control of a listed substance that is at or above the quantity set out in column 3 of Schedule 1 of the E2 Regulations.

5. D-6 Classification and Nearby Industries

The commercial and light industries identified within 1 km of the Subject Site are generally of Class I facilities with a low probability of significant fugitive emissions. Based on the database search results and the observations from the Site visit (Table 3), facilities considered for further assessment are provided in Table 4, along with their distance to the Subject Site, facility Class, potential air quality issues, and location (inside or outside) relative to the minimum separation distance and area of influence.

Note that while the D-6 guideline suggests the operation of paint-spray booths as a Class II facility, all identified auto-repair facilities have been deemed Class I facilities since paint types now used are less odorous (water- versus solvent-based) and the MECP has a specific Environmental Activity and Sector Registry, including Ontario Regulation 347/12: Regulations under part II.2 of the Act – Automotive Refinishing, for this industry that requires specific operating conditions which further reduces emissions.

Table 4. D-6 Facility Classifications and Assessment

No	Facility	Address	Distance to Site (m)	Class*	Potential Issue	Rationale for Classification	Issue Identified?**
1	Gentherm Electronics	1047 Cooke Boulevard	36 m east	I	PHC/VOC emissions, fugitive emissions	Facility with ECA-Air (Etratech Inc., obtained by Gentherm Electronics in 2017), medium scale electronics manufacturing, no outdoor storage of wastes or material, not an open process, and infrequent movement of products/heavy trucks.	Yes. Outside minimum separation distance and inside area of influence. No odours or dust detected at the time of the Site visit.
2	KMP Industries Ltd. (operating as KING Paving and Construction) KING Truck & Equipment Repair	1077 Howard Road	63 m south	III	PHC/VOC emissions, fugitive emissions, dust	Large scale permanent batch-type hot mix asphalt plant with ECA-Air (KMP Industries Ltd.), medium scale truck/trailer/heavy equipment repair including welding and fabrication services, open process, frequent movement of heavy trucks, and dust likely to be persistent.	Yes. Inside minimum separation distance and area of influence. No odours detected at the time of the Site visit.

No	Facility	Address	Distance to Site (m)	Class*	Potential Issue	Rationale for Classification	Issue Identified?**
3	Category 5 Imaging	1063 Cooke Boulevard	95 m south m	II	PHC/VOC emissions, fugitive emissions	Medium scale large format printing facility with ECA-Air, presence of three (3) stacks, no outdoor storage of wastes or material, and not an open process.	Yes. Outside minimum separation distance and inside area of influence. No odours detected at the time of the Site visit.
4	Bulkwood Products Inc. B.A.M. Trucking Inc./B.A.M. Pallets	1140 Waterdown Road	108 m west	II	PHC/VOC emissions, fugitive emissions, dust	Facility with ECA-Air (Bulkwood Products Inc.), medium scale wood pallet manufacturing and recycling facilities, and outdoor storage of wastes and materials	Yes. Outside minimum separation distance and inside area of influence. No odours or dust detected at the time of the Site visit.
5	Primary Fluid Systems Inc.	1050 Cooke Boulevard	140 m southeast	I	PHC/VOC emissions, fugitive emissions	Small scale corporate office and manufacturing/sales of metering pump accessories, no dust/noise/vibrations detected, no outside storage of wastes or materials.	No. Outside minimum separation distance and area of influence. No odours or stack observed at the time of the Site visit.
6	Cosmos Concrete & Paving	1160 Waterdown Road	157 m west	II	Fugitive emissions, dust	Medium scale concrete and paving service, outside storage of materials, and dust likely to be frequent and occasionally intense.	Yes. Outside minimum separation distance and inside area of influence. No odours or stack observed at the time of the Site visit.
7	St. Marys Cement Inc. (Canada) operating as CBM Ready Mix	1093 Howard Road	284 m south	III	Fugitive emissions, dust	Ready-mix concrete batching plant with ECA-Air, noise audible off property, large production levels, open process, frequent movement of heavy trucks, and dust likely to be persistent.	Yes. Inside minimum separation distance and area of influence. No odours detected at the time of the Site visit. Dust detected on Howard Road.

No	Facility	Address	Distance to Site (m)	Class*	Potential Issue	Rationale for Classification	Issue Identified?**
8	Jerry's Automotive Inc.	7 Plains Road West	316 m south	I	PHC/VOC emissions, fugitive emissions	Small scale auto body garage, no outdoor storage of wastes or material, and not an open process.	No. Outside minimum separation distance and area of influence. No odours or stack observed at the time of the Site visit.
9	Baje Auto Services	93 Plains Road West	451 m south	I	PHC/VOC emissions, fugitive emissions	Small scale auto body garage, no outdoor storage of wastes or material, and not an open process.	No. Outside minimum separation distance and area of influence. No odours or stack observed at the time of the Site visit.
10	Slagter Construction Ltd.	29 Panin Road	465 m south	II	Fugitive emissions, dust	Small scale construction company and outdoor storage of soil/gravel.	No. Outside minimum separation distance and area of influence. No odours or stack observed at the time of the Site visit.
11	Ted's Service Centre	1176 Howard Road	560 m southwest	I	PHC/VOC emissions, fugitive emissions	Small scale auto body garage, no outdoor storage of wastes or material, and not an open process.	No. Outside minimum separation distance and area of influence. No odours or stack observed at the time of the Site visit.
12	Aldershot Greenhouses Limited	1135 Gallagher Road	796 m northeast	I	PHC/VOC emissions, fugitive emissions	Medium scale wholesale florist, presence of three (3) stacks, no outdoor storage of wastes or material, and not an open process.	No. Outside minimum separation distance and area of influence. No odours observed at the time of the Site visit.

5.1 Provincial Guidelines and Regulations for Potentially Incompatible Uses

The MECP D-6 Guideline and D-Series Guidelines and regulations used for assessing environmental compliance are used for assessing land-use compatibility. The following sections describe the regulations and guidelines which are used in this assessment.

5.1.1 Air Quality Contaminants

Under Ontario Regulation 419/05 – Air Pollution – Local Air Quality (O.Reg. 419/05) of the Environmental Protection Act, a facility is required to meet prescribed standards for air quality contaminants at any location off-site but is not required to assess their emissions at elevated points off-site if a receptor does not exist at that elevated location. The proposed development, with building heights of thirty-six (36) and twenty-six (26) stories, introduces elevated receptors that will require a nearby facility to assess their emissions at elevated heights beyond their property line.

For new developments near industrial sources, the existing land uses and their approvals must be considered, and an industry has the right to object to a land use which may impact their ability to operate under their existing provincial approval. A developer can support compliance through design (e.g. removing elevated receptors) or mitigation (e.g. sealed windows, filtration systems, etc.) or collaborating on at-source mitigation with the industry.

5.1.2 Dust

Under Ontario Regulation 419/05 – Air Pollution – Local Air Quality (O.Reg. 419/05) of the Environmental Protection Act a facility is required to meet prescribed standards for particulates (dust) at any location off-site but is not required to assess their emissions at elevated points off-site if a receptor does not exist at that elevated location. The proposed development introduces elevated receptors that will require a facility to assess their emissions at these locations.

For new developments near industrial sources, the existing land uses and their approvals must be considered, and an industry has the right to object to a land use which may impact their ability to operate under their existing provincial approval. A developer can support compliance through design or mitigation (e.g. sealed windows, filtration systems, etc.) or collaborating on at-source mitigation with the industry.

5.1.3 Odour

Odour is the sensation when receptors in the nose are stimulated. Individual response to odour varies and is subjective. Whilst some contaminants are specifically regulated based on odour effects, there is no formal regulation with respect to mixed odours. The MECP apply odour-based standards to locations "where human activities regularly occur at a time when those (odour emitting) activities regularly occur," such as residences and public meeting places. Most odours do not pose a health risk, but exposure to some can lead to headaches, nausea and other symptoms. They are generally only considered and regulated by the MECP in the presence of persistent complaints. Typically, odours are assessed against the following five criteria:

- Frequency – how often a receptor is likely to be exposed to an odour;
- Intensity – strength of the odour;
- Duration – the length of time the odour is likely to be detected by a receptor;
- Offensiveness – subjective character of odour – pleasantness or unpleasantness (hedonic tone); and
- Location – where the odour is likely to occur and with respect to land use. For example, rural smells would be more accepted in rural areas versus urban areas

5.1.4 Traffic Related Air Pollution

The Subject Site is located approximately 365 m southeast of Highway 403 m. The impact of transportation related air pollutants (TRAP) is well recognized in urban centres, including many existing buildings and sensitive communities in Greater Toronto Area. The health risk from TRAP is higher within 500 metres of highways with an average daily traffic volume (Toronto Public Health, 2017). Burlington currently has many existing buildings within this distance in the vicinity of the Subject Site.

Given the proximity of the Subject Site to Highway 403, it is recommended that:

- Air conditioners be installed in the proposed development; and,
- The mechanical design includes best practices of building pressurization and filtration that could be installed in the future if complaints arise.

The closest railway, the Aldershot GO Station, is approximately 185 m to the northeast of the proposed development. This is well outside the standard building setbacks (15m for spur and branch lines, 30 m for secondary and principle main, 300 m for Freight Rail Yard) for new residential developments recommended by the Railway Association of Canada and Federation of Canadian Municipalities Guidelines for New Development in Proximity to Railway Operations (May 2013).

Burlington is a member of the Greater Toronto Area Clean Air Council (GTA CAC), which promotes the reduction of air pollution and greenhouse gas emissions and increased awareness of regional air quality and climate change issues in the Greater Toronto Area through the collective efforts of all levels of government. The Council identifies and promotes the most effective initiatives to reduce the occurrence of air pollution and greenhouse gas emissions.

The City of Burlington Zoning By-law 2020 does not include requirements for the provision of bicycle parking spaces for residential buildings. However, planning documents, including the Halton Region Active Transportation Master Plan (May 2015) recognizes the benefits to including bicycle parking in order to provide residents with greater transportation options and reduce auto dependency. The proposed design includes significant bicycle parking spaces to support this and hence enhance air quality.

5.1.5 Toxic (CRAIM Risk) Substances

A search of environmental risk databases (National Pollutant Reporting Inventory (NPRI), Environmental Activity and Sector Registry (EASR) and Environmental Compliance Approvals (ECAs)) did not identify any addresses located within 1000 m of the proposed development that would be considered a risk based on the revised CRAIM List of 174 substances contains. No facilities with charge, management or control of a listed substance that is at or above the quantity set out in column 3 of Schedule 1 of the E2 Regulations were identified.

6. Assessment – Potential Air Quality Impacts

6.1 General Air Quality Contaminants

1047 Cooke Boulevard

The Class I facility located at 1047 Cooke Boulevard is outside the minimum separation distance and inside the area of influence, as defined under the D6 Guidelines. This facility includes Gentherm Electronics, an electronics manufacturing facility. Etratech Electronics, obtained by Gentherm Electronics in 2017, has an ECA-Air for their operations. As such, they are required to meet the standards for air quality at their property line and beyond. The proposed development will have elevated receptors, which may not have been considered in the approval process and could be impacted by the emissions from this facility. While these impacts cannot be quantified at this time, it is noted that existing residences are present within the minimum separation distance of this facility, with the closest being north adjacent to the facility. Due to the presence of existing residential properties in the area, it is anticipated that, with respect to general air quality contaminants regulated under Ontario Regulation 419/05, the Subject Site is compatible with surrounding lands.

1077 Howard Road

The Class III facility located at 1077 Howard Road is KMP Industries Ltd., operating as KING Paving and Construction, (permanent batch-type hot mix asphalt plant) and KING Truck & Equipment Repair (truck/trainer/heavy equipment repair including welding and fabrication services). This facility is inside the minimum separation distance and the area of influence as defined under the D6 Guidelines. KMP Industries Ltd. has an ECA-Air for its operations. As such, they are required to meet the standards for air quality at their property line and beyond. The proposed development will have elevated receptors, which may not have been considered in the approval process and could be impacted by the emissions from this facility. While these impacts cannot be quantified at this time, it is noted that existing residences are present within the minimum separation distance and area of influence of this facility, with the closest being east adjacent to the facility, on the south side of Waterdown Road, and approximately 191 m north, on the north side of Masonry Court. It is noted that a retirement residence is located approximately 124 m southeast of the facility. Due to the presence of existing residential properties, it is anticipated that, with respect to general air quality contaminants regulated under Ontario Regulation 419/05, the Subject Site is compatible with surrounding lands.

As a heavy equipment servicing facility where welding operations take place on-site, acetylene use is expected. Acetylene is a Major Industrial Accidents Council of Canada (MIACC) List 1 substance with a threshold of 50 tonnes. Exceeding this quanttly is unlikely but has not been confirmed. No large outside storage of compressed gases were observe during the site visit.

1063 Cooke Boulevard

The Class II facility located at 1063 Cooke Boulevard is Category 5 Imaging and is outside the minimum separation distance but within the area of influence, as defined under the D6 Guidelines. Category 5 Imaging is a large format printing facility and has an ECA-Air for its operations. As such, they are required to meet the standards for air quality at their property line and beyond. The proposed development will have elevated receptors, which may not have been considered in the approval process and could be impacted by the emissions from this facility. While these impacts cannot be quantified at this time, it is noted that existing residences are present within the minimum separation distance and area of influence of this facility, with the closest being south adjacent to the facility. Due to the presence of existing residential properties in the area, it is anticipated that, with respect to general air quality contaminants regulated under Ontario Regulation 419/05, the Subject Site is compatible with surrounding lands.

1140 Waterdown Road

This Class II facility located at 1140 Waterdown Road is Bulkwood Products Inc. and B.A.M. Trucking Inc./B.A.M. Pallets, wood pallet and manufacturing and recycling facilities. This facility is outside the minimum separation distance but within the area of influence as defined under the D6 Guidelines. Bulkwood Products Inc. has an ECA for their operations. As such, they are required to meet the standards for air quality at their property line and beyond. The proposed development will have elevated receptors, which may not have been considered in the approval process and could be impacted by the emissions from this facility. While these impacts cannot be quantified at this time, it is noted that existing residences are present within the area of influence of this facility, with the closest being approximately 215 m northeast of the facility. Due to the presence of existing residential properties, it is anticipated that, with respect to general air quality contaminants regulated under Ontario Regulation 419/05, the Subject Site is compatible with surrounding lands.

1160 Waterdown Road

The Class II facility located at 1160 Waterdown Road is Cosmos Concrete & Paving and is located outside the minimum separation distance but within the area of influence as defined under the D6 Guidelines. No environmental permissions (EASR or ECA) were identified for this facility, but approval would be required if their operations released contaminants to the air, such as with a welding booth or dust collector, that would ensure no off-site impacts. As such, while no significant odours or air quality impacts are anticipated for this facility, air quality at the proposed Site can be protected with enforcement of the MECP approval process.

It is also noted that existing residences are present within the area of influence of Cosmos Concrete & Paving with the closest being approximately 215 m northeast of the facility. Due to the presence of existing residential properties, it is anticipated that, with respect to general air quality contaminants regulated under Ontario Regulation 419/05, the Subject Site is compatible with surrounding lands.

1093 Howard Road

The Class III facility is located at 1093 Howard Road and is inside the minimum separation distance and the area of influence as defined under the D6 Guidelines. St. Marys Cement Inc. (Canada), operating as CBM Ready Mix, a ready-mix concrete batching plant, has an ECA-Air for its operations. As such, they are required to meet the standards for air quality at their property line and beyond. The proposed development will have elevated receptors, which may not have been considered in the approval process and could be impacted by the emissions from this facility. While these impacts cannot be quantified at this time, it is noted that existing residences are present within the minimum separation distance and area of influence of this facility, with the closest being approximately 128 m southeast of the facility. It is noted that a retirement residence is located east adjacent to the facility. Due to the presence of existing residential properties in the area, it is anticipated that, with respect to general air quality contaminants regulated under Ontario Regulation 419/05, the Subject Site is compatible with surrounding lands.

6.2 Dust

During the site visit, no significant fugitive dust emissions were observed on the Subject Site or within the 1 km Study Area radius. However, minor dust impacts were noted at truck entrance of CBM off of Howard Road, approximately 560 m southeast from the Subject Site. Review of existing ECAs within the buffer areas identified that KMP Industries Ltd. and St. Marys Cement Inc. (Canada), operating as CBM Ready Mix, may be significant particulate sources. Associated material stockpiles were observed on each property and each property was unpaved. While these facilities have ECAs for their emissions, it is important to note that approvals are likely based on impact at existing receptors at or near ground level without consideration of future development. The proposed development will have elevated receptors, which may be impacted by the emissions of these facilities.

Based on observations made at the time of the site visit, Cosmos Concrete & Paving may also be a particulate source as an

uncovered stockpile of road demolition rubble was observed on the property. It is additionally noted that the surrounding road network is paved within the Study Area is paved.

A request was made to the Halton Region to gather additional information regarding dust and/or odour complaints related to the identified Class II and Class III facilities. A response from a Public Health Inspector at the Halton Region indicated that complaints regarding outdoor pollution (including dust and odor) that are reported to Halton Region Health Department are referred to the Ministry of the Environment, Conservation and Parks (MECP) Spills Action Centre (SAC). A request was made to the MECP to gather more information and no odour issues related to the nearby facilities were reported.

6.3 Odour

Odours are only required to be assessed at locations where human activity (receptors) is likely to occur. Nearby identified industries would not have been required to assess odours outside of their boundaries as a condition of their provincial Environmental Compliance Approval (ECA) applications if receptors did not exist at the time of their approval.

During the Odour Screening Assessment (refer to Section 2.4), no odours were detected with the Nasal Ranger (OU) at all locations illustrated in Figure 4 (Appendix A). The only odours, as detected by human senses were odours typical of an urban environment (traffic), with no significant industrial source identified. No other odours or off-site odours were detected by human senses at the Subject Site.

During the site visit, no significant odours were observed within the 1 km Study Area radius of the Subject Site, with the exception of traffic odours throughout the Study Area. However, significant industrial sources were identified with the potential to impact air quality at the proposed development. These facilities were identified as KMP Industries Ltd. and St. Marys Cement Inc. (Canada), operating as CBM Ready Mix. While these facilities have ECAs for their emissions, it is important to note that approvals are likely based on impact at existing receptors at or near ground level without consideration of future development. The proposed development will have elevated receptors, which may be impacted by the emissions of these facilities. While these impacts cannot be quantified at this time, it is noted that they are outside of the minimum separation distance for Class III facilities, as defined under the D6 Guidelines, and near the outer boundary of the area of influence.

Given the proximity of the Subject Site to the commercial and industrial businesses surrounding the Subject Site and introduction of elevated receptors, there is a potential for members of the proposed development to experience odours, or periodic odours and/or general urban occurrences of odour. As such, it is recommended that best practices of building pressurization and filtration be included in the mechanical design or installed in the future if complaints arise.

A request was made to the Halton Region to gather additional information regarding dust and/or odour complaints related to the identified Class II and Class III facilities. A response from a Public Health Inspector at the Halton Region indicated that complaints regarding outdoor pollution (including dust and odor) that are reported to Halton Region Health Department are referred to the Ministry of the Environment, Conservation and Parks (MECP) Spills Action Centre (SAC). A request was made to the MECP to gather more information and no odour issues related to the nearby facilities were reported.

7. Conclusions and Recommendations

Based on the information obtained from the database searches, site visit and web searches, the following findings have been obtained:

- The proposed location of the development is surrounded by residential, commercial and light industrial properties.
- A total of twelve (12) facilities were identified as facilities with potential air quality issues, including two (2) Class III facilities and four (4) Class II facilities, with the remaining facilities classified as Class I.
- Two (2) Class III facilities are inside the minimum separation distance as defined under the D6 Guidelines. These facilities were identified as KMP Industries Ltd., operating as KING Paving and Construction, a permanent batch-type hot mix asphalt plant; KING Truck & Equipment Repair, a truck/trailer/heavy equipment repair facility including welding and fabrication services; and St. Marys Cement Inc. (Canada), operating as CBM Ready Mix, a ready-mix concrete batching plant. It is noted that these facilities, except for KING Truck & Equipment Repair, have approved ECAs and emissions are controlled (e.g. baghouse. As such, they are required to meet the standards for air quality at their property line and beyond. The proposed development will have elevated receptors, which may not have been considered in the approval process and could be impacted by the emissions from these facilities. While these impacts cannot be quantified at this time, it is noted that existing residences are present within the minimum separation distance of these facilities.
- One (1) Class I facility and three (3) Class II facilities were outside the minimum separation distance but within the area of influence, as defined under the D6 Guidelines.
- The Class II facilities with ECAs for their operations include Category 5 Imaging, a large format printing facility, and Bulkwood Products Inc., regulating emissions outside of their respected property boundaries. Having ECAs, emissions are controlled and, as such, facilities are required to meet the standards for air quality at their property line and beyond. As such, they are required to meet the standards for air quality at their property line and beyond. The proposed development will have elevated receptors, which may not have been considered in the approval process and could be impacted by the emissions from these facilities. While these impacts cannot be quantified at this time, it is noted that existing residences are present within the minimum separation distance and area of influence of these facilities.

  The remaining Class II facilities, Cosmos Concrete & Paving and B.A.M. Trucking Inc./B.A.M. Pallets would require MECP approval if operations released contaminants to the air, such as with a baghouse or welding operations, and air quality at the proposed Site can be protected with enforcement of the MECP approval process. The proposed development will have elevated receptors, which may also be impacted by the emissions from these facilities. While these impacts cannot be quantified at this time, it is noted that they are outside of the minimum separation distance for Class II facilities as defined under the D6 Guidelines.
- The Class I facility with an ECA for its operation is Etratech Inc., obtained by Gentherm Electronics in 2017 and observed as Gentherm Electronics at the time of the Site visit. Having an ECA, emissions are controlled and, as such, facilities are required to meet the standards for air quality at their property line and beyond. The proposed development will have elevated receptors, which may be impacted by the emissions from this facility. While these impacts cannot be quantified at this time, it is noted that they are outside of the minimum separation distance for Class I facilities as defined under the D6 Guidelines.
- Residential properties and residential properties in the early stages of development were observed northeast of the Subject Site along Masonry Court, with the nearest off-site residence located approximately 16 m northeast of the Subject Site on the north side of Masonry Court. It is noted that the residences within the Study Area are within the area of influence from the facilities identified with potential air quality issues, with some being within the minimum separation distance. Due to the presence of existing residential properties in the area, it is anticipated that, with respect to general air quality contaminants regulated under Ontario Regulation 419/05, the Subject Site is compatible with surrounding lands.

- During the Odour Screening Assessment (refer to Section 2.4), no odours were detected with <2 odour units (OU) at all locations illustrated in Figure 4 (Appendix A). The only odours, as detected at the time of the visit by human senses on Site and within the 1 km radius were odours typical of an urban environment (traffic), with no significant industrial source identified. Given the proximity of the Subject Site to the commercial and industrial businesses surrounding the Subject Site and introduction of elevated receptors, there is a potential for members of the proposed development to experience odours, or periodic odours and/or general urban occurrences of odour.
- The Subject Site is located approximately 365 m southeast of Highway 403 m. The impact of transportation related air pollutants (TRAP) is well recognized in urban centres, including many existing buildings and sensitive communities in Greater Toronto Area. The health risk from TRAP is higher within 500 metres of highways with an average daily traffic volume (Toronto Public Health, 2017). Burlington currently has many existing buildings within this distance in the vicinity of the Subject Site.
- A request was made to the Halton Region to gather additional information regarding dust and/or odour complaints related to the identified Class II and Class III facilities. A response from a Public Health Inspector at the Halton Region indicated that complaints regarding outdoor pollution (including dust and odor) that are reported to Halton Region Health Department are referred to the Ministry of the Environment, Conservation and Parks (MECP) Spills Action Centre (SAC). A request was made to the MECP to gather more information and no odour issues related to the nearby facilities were reported.

8. Recommendations

Based on the findings of this assessment, the majority of the facilities identified within the Study Area are not expected to pose an unacceptable air quality, dust or odour issue to the Subject Site. With the presence of Class III facilities within the area of influence, it is recognized these facilities have or are required to have ECAs for their emissions. It is important to note that any approvals are likely based on impact at existing receptors at or near ground level without consideration of future development. The proposed development will have elevated receptors, which may be impacted by the emissions of these facilities. Since these facilities are inside the minimum separation distance, additional review regarding the dispersion of contaminants is recommended to provide confidence that there is no impact at elevated receptors.

It is recognized that there is potential for an odour and/or dust impact due to proximity of the Subject Site to Highway 403, from smaller facilities identified at neighbouring commercial and industrial properties and/or from general urban occurrences. It is recommended that air conditioners be installed in the proposed development and the buildings' mechanical designs include best practices of building pressurization and filtration that could be installed in the future if complaints arise.

9. References

1. Environment and Climate Change Canada, Reported Facility Greenhouse Gas Data, available at: Greenhouse Gas Reporting Program (GHGRP) - Facility Greenhouse Gas (GHG) Data - Open Government Portal (canada.ca)
2. Environment, Conservation and Parks Greenhouse Gas Emissions Reporting by Facility, available at: https://data.ontario.ca/dataset/greenhouse-gas-emissions-reporting-by-facility
3. Environment and Climate Change Canada, National Pollutant Release Inventory (NPRI), available at: Environment and Climate Change Canada - NPRI Data Search
4. Ontario Ministry of the Environment and Climate Change, Environmental Registry, available at: http://www.ebr.gov.on.ca/ERS-WEB-External/
5. Ontario Ministry of the Environment and Climate Change, Access Environment, available at: http://www.accessenvironment.ene.gov.on.ca/AEWeb/ae/GoSearch.action
6. Environmental Compliance Approvals (ECA) database, available at: https://www.ontario.ca/page/list-environmental-approvals-and-registrations
7. Ministry of the Environment and Climate Change (MECP). 1995. D-6 Compatibility between Industrial Facilities, July. Available at https://www.ontario.ca/page/d-6-compatibility-between-industrial-facilities
8. Major Industrial Accidents Council of Canada (MIACC). 1994. MIACC Lists of Hazardous Substances, October 1994.
9. Major Industrial Accidents Council of Canada (MIACC). 1994. Risk-based Land Use Planning Guidelines, June 1995.
10. Federation of Canadian Municipalities, The Railway Association of Canada (FAC/RAC) and DIALOG J.E. Coulter Associates Limited. 2103. Guidelines for New Development in Proximity to Railway Operations, Prepared for The Federation of Canadian Municipalities and the Railway Association of Canada.
11. City of Toronto. 2017. Reduced Health Risks from Traffic-Related Air Pollution (TRAP) in Toronto, prepared by Medical Officer of Health and Deputy City Manager, Internal Corporate Services. Available at: Reducing Health Risks from Traffic-Related Air Pollution (TRAP) in Toronto
12. D-2 Compatibility between Sewage Treatment and Sensitive Land Use, available at https://www.ontario.ca/page/d-2-compatibility-between-sewage-treatment-and-sensitive-land-use.

10. General Limitations

The information and conclusions in this report are considered to be privileged and confidential and have been prepared exclusively for ADI Developments (Masonry) Inc. The purpose of this report is to provide ADI Developments (Masonry) Inc. with an assessment of the potential impacts from operation of commercial and industrial facilities where the proposed developments fall within the industrial facility Potential Influence Area.

The information presented in this report is based on information provided by others and visual observations as identified herein. Achieving the objectives stated in this report has required us to arrive at conclusions based upon the best information presently known to us. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Professional judgment was exercised in gathering and analyzing the information obtained and in the formulation of the conclusions. Like all professional persons rendering advice, we do not act as absolute insurers of the conclusions we reach, but we commit ourselves to care and competence in reaching those conclusions.

Any use which a third party makes of this report, or any part thereof, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. EXP accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Air quality conditions at various times may differ from those assessed. In addition, any changes to the proposed design or introduction of new processes and/or sources may render the conclusions of this report inaccurate or invalid. In the event of any such changes, EXP should be contacted to re-evaluate the conditions within the assessed areas and make appropriate revisions to the original conclusions of this report.

We trust this summary report is satisfactory for your purposes. If you have any questions regarding our submission, please do not hesitate to contact this office.

Sincerely,

EXP Services Inc.

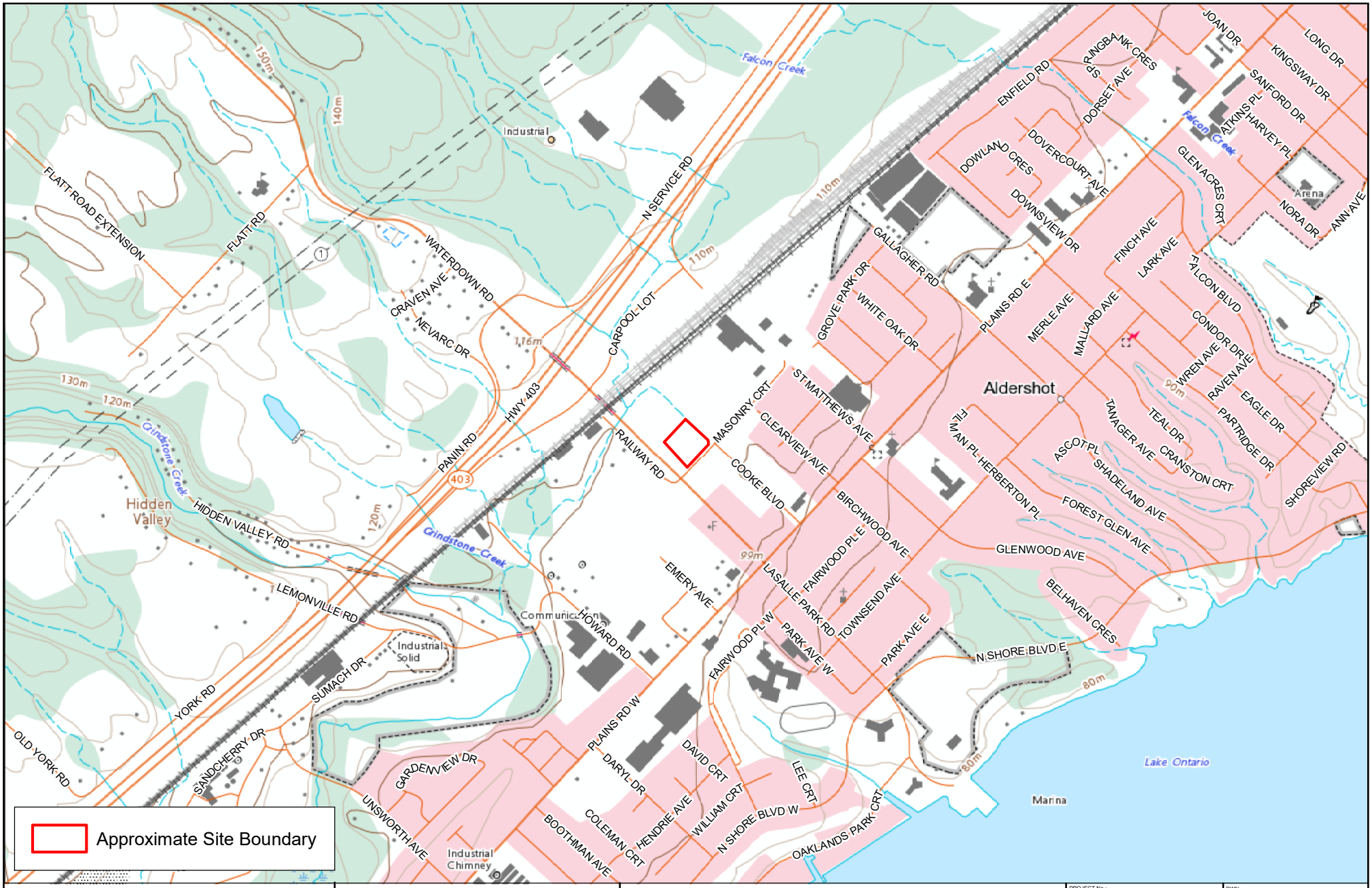




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Appendix A – Figures



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www.exp.com

•BUILDINGS • EARTH & ENVIRONMENT • ENERGY •
•INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY•

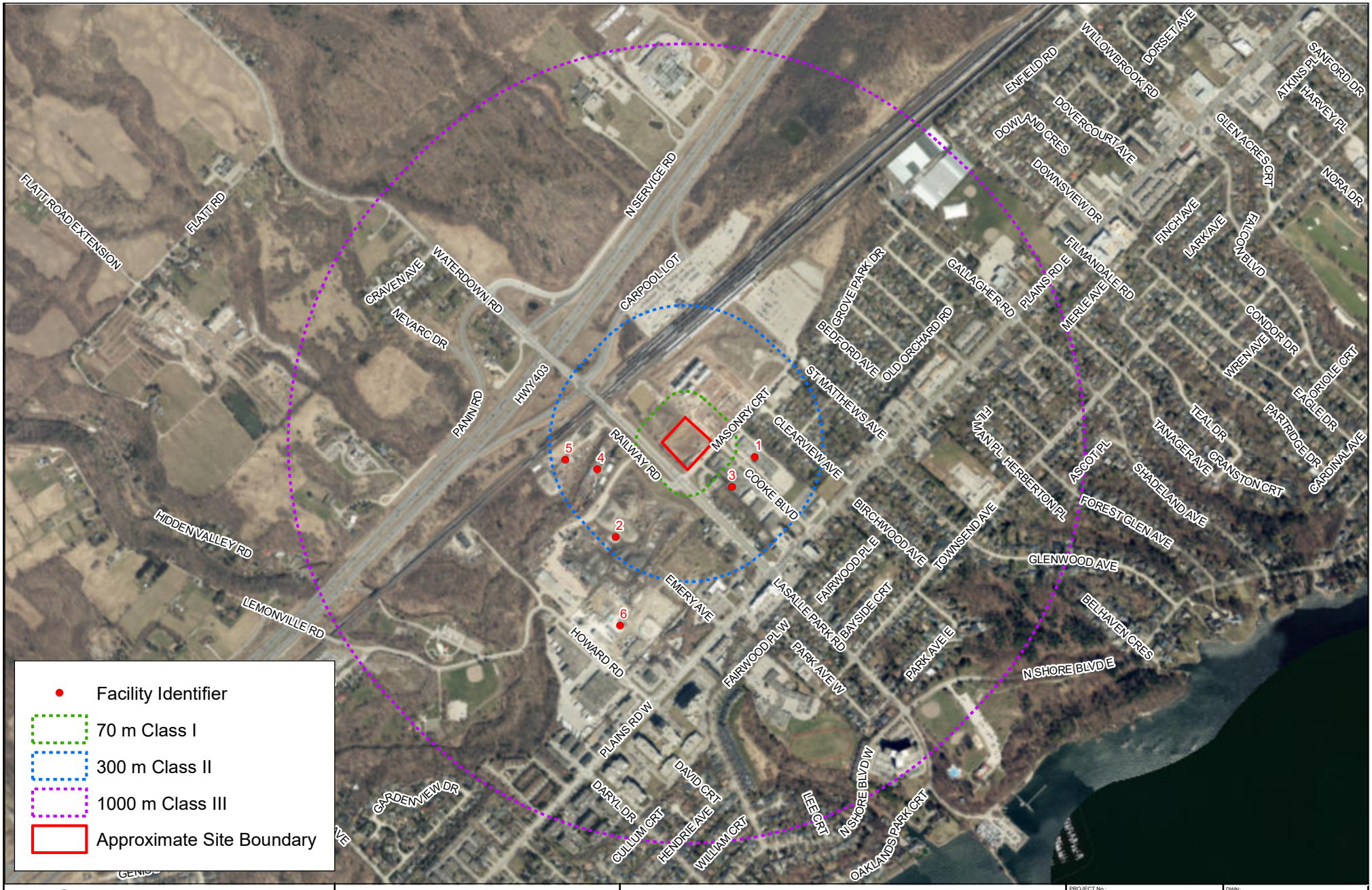
N

0 150 300 450 600 750 m

TITLE AND LOCATION:

SITE LOCATION PLAN
D6 Air Study
1120 Cooke Boulevard
Burlington, Ontario

PROJECT No.: BRM-00074068-A0	DWN: AC
SCALE: AS NOTED	CHKD: RT
DATE: APRIL 2021	FIG. No.: 1



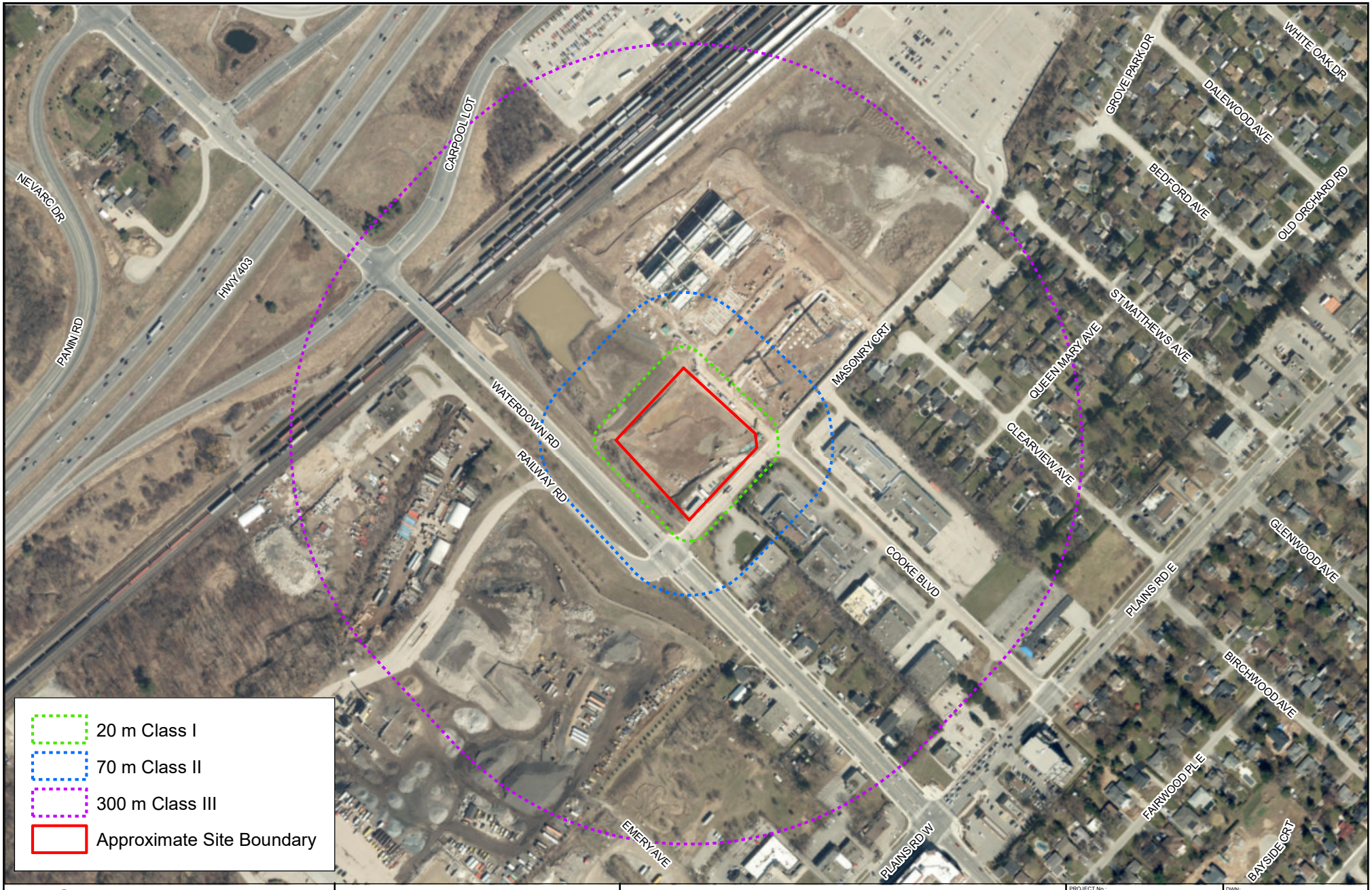
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TITLE AND LOCATION:

AREA OF INFLUENCE
D6 Air Study
120 Cooke Boulevard
Burlington, Ontario

PROJECT No.: BRM-00074068-A0	DWN: AC
SCALE: AS NOTED	CHKD: RT
DATE: MARCH 2021	FIG. No.: 2



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N

0 40 80 120 160 200 m

TITLE AND LOCATION:

MININUM SEPARATION
D6 Air Study
1120 Cooke Boulevard
Burlington, Ontario

PROJECT No.: BRM-00074068-A0	DWN: AC
SCALE: AS NOTED	CHKD: RT
DATE: MARCH 2021	FIG. No.: 3



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• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

N

0 10 20 30 40 50 m

TITLE AND LOCATION:

ODOUR ASSESSMENT LOCATION PLAN
D6 Air Study
1120 Cooke Boulevard
Burlington, Ontario

PROJECT No.: BRM-00074068-A0	DWN: AC
SCALE: AS NOTED	CHKD: RT
DATE: MARCH 2021	FIG. No.: 4

Appendix B – Site Plan Drawings



1120 COOKE BOULEVARD - PHASE 2

ISSUED FOR OPA/ ZBA
10 FEBRUARY 2023

No.	Revisions	Date
02	RE-ISSUED FOR OPA/ZBA	10 FEBRUARY 2023
01	ISSUED FOR OPA/ZBA	07 OCTOBER 2021

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1120 COOKE BLVD

PHASE 2
BURLINGTON, ONTARIO

Drawn	Scale: NTS
Checked	Date: 10 FEB 2023

Title: TITLE

Project No.	Drawing No.
20-129	A001

101 Masonry Court - GCA Chart

	BUILDING A		BUILDING B		BUILDING C		RETAIL		TOTAL	
	BUILDING OUTLINE (GCA) sq.ft.	BUILDING OUTLINE (GCA) sq.m.	BUILDING OUTLINE (GCA) sq.ft.	BUILDING OUTLINE (GCA) sq.m.	BUILDING OUTLINE (GCA) sq.ft.	BUILDING OUTLINE (GCA) sq.m.	BUILDING OUTLINE (GCA) sq.ft.	BUILDING OUTLINE (GCA) sq.m.	sq.ft.	sq.m.
GROUND	11,640	1,081.38	12,610	1,171.51	10,803	1,003.62	5,328	494.98	40,381	3,751.49
LEVEL 2	12,283	1,141.09	12,610	1,171.51	10,803	1,003.62			35,695	3,316.22
LEVEL 3	12,283	1,141.09	12,610	1,171.51	10,803	1,003.62			35,695	3,316.22
LEVEL 4	12,283	1,141.09	12,610	1,171.51	10,803	1,003.62			35,695	3,316.22
LEVEL 5	12,283	1,141.09	12,610	1,171.51	10,803	1,003.62			35,695	3,316.22
LEVEL 6	12,283	1,141.09	12,610	1,171.51	10,803	1,003.62			35,695	3,316.22
LEVEL 7	12,283	1,141.09	8,068	749.59	8,068	749.54			28,419	2,640.21
LEVEL 8	12,283	1,141.09	8,068	749.59	8,068	749.54			28,419	2,640.21
LEVEL 9	12,283	1,141.09	8,068	749.59	8,068	749.54			28,419	2,640.21
LEVEL 10	12,283	1,141.09	8,068	749.59	8,068	749.54			28,419	2,640.21
LEVEL 11	12,283	1,141.09	8,068	749.59	8,068	749.54			28,419	2,640.21
LEVEL 12	12,283	1,141.09	8,068	749.59	8,068	749.54			28,419	2,640.21
LEVEL 13	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 14	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 15	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 16	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 17	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 18	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 19	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 20	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 21	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 22	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 23	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 24	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 25	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 26	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 27	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 28	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 29	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 30	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 31	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 32	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
LEVEL 33	8,073	750.00	8,068	749.59	8,068	749.54			24,209	2,249.12
MPH	4,758	442.01	4,873	452.75	4,831	448.78			14,462	1,343.54
TOTAL GCA	316,279.99	29,825.38	266,107.92	24,722.24	271,346.60	25,208.92	5,327.96	494.98	863,820	80,251.53

TOTAL RESIDENTIAL GCA (ABOVE GRADE)	**863,820**	**80,251.53**
TOTAL RESIDENTIAL GFA (ABOVE GRADE)	**782,043**	**72,654.18**
TOTAL COMMERCIAL GFA (ABOVE GRADE)	**5,328**	**494.98**
TOTAL DEDUCTABLE (ABOVE GRADE)	**76,449**	**7,102.37**
TOTAL SITE AREA (m2)	**9,534.66**	
TOTAL SITE COVERAGE	**7.7**	

7 A100 GCA CHART REF.

ABBREVIATION LEGEND

ACC	ARCHITECTURAL CONCRETE TYPE	EL	ELEVATION	H	HOT	0/C	ON CENTRE	S	SINK
ACT	ACOUSTIC TILE	ELEC	ELECTRICAL	HD	HUB DRAIN	OD	OUTSIDE DIAMETER	S/A	SUPPLY AIR
AD	AREA DRAIN	EOS	EDGE OF SLAB	HM	HOLLOW METAL	OH	OVERHEAD	SC	SEALED CONCRETE
AES	ARCHITECTURAL EXPOSED STEEL	EP	ELECTRICAL PANEL	HOR	HORIZONTAL			SD	SCUPPER DRAIN
ALUM	ALUMINUM	EQ	EQUAL	HSS	HOLLOW STEEL SECTION	PC	PRECAST CONCRETE	SPEC	SPECIFICATION
AFF	ABOVE FINISHED FLOOR	EIF	EXTERIOR INSULATION FINISHTYPE	HT	HEIGHT	PLM	PLASTIC LAMINATE	SQ	SQUARE
		EXP	EXPOSED	HW	HARDWOOD STRIP	PLYWD	PLYWOOD	SQ FT	SQUARE FEET
C	COLD	EXJ	EXPANSION JOINT			PRE-FAB	PRE-FABRICATED	SSTL	STAINLESS STEEL
C/H	COLD & HOT	EXT	EXTERIOR	IM	INSULATED METAL	PS	PRESSED STEEL	STL	STEEL
CAR	CARPET			INS	INSULATION	PT	PAINT	SIM	SIMILAR
CB	CONCRETE BLOCK	FD	FLOOR DRAIN	INT	INTERIOR	P/T	PRESSURE TREATED	ST	STONE TYPE
℄	CENTRE LINE	FDN	FOUNDATION			QM	QUIRK MITRE	STOR	STORAGE
CF	CERAMIC TILE	FIN	FINISH(ED)	JT	JOINT			STRUCT	STRUCTURE, STRUCTURAL
CJ	CONCRETE FINISH TYPE	FL	FLOOR			R	RISER, RADIUS	SW	SWITCH
CL	CONCRETE JOINT	FT	FOOT	LAM	LAMINATED	R.O.	ROUGH OPENING		
COL	CLOSET	FTG	FOOTING	LIN	LINEN	R/A	RETURN AIR	T	TREAD
CONC	CONCRETE BLOCK	FRG	FIBRE REINFORCED GYPSUM			RAD	RADIATOR	TBB	TILE BACKER BOARD
CONT	CONTINUOUS			MA	MARBLE TYPE	RB	RUBBER BASE	TEL	TELEPHONE
CT	CONCRETE COLUMN	GALV	GALVANIZED	MAX	MAXIMUM	RC	REINFORCED CONCRETE	THK	THICK, THICKNESS
C/W	COVERED WITH	GBL	GLASS BLOCK	MECH	MECHANICAL	RD	ROOF DRAIN	T&G	TONGUE & GROOVE
		GR	GRANITE	MIN	MINIMUM	REF	REFERENCE DIMENSIONS	TV	TELEVISION
D	DIAMETER, DRYER	GL	GLASS	ML	MELAMINE	REINF	REINFORCED, REINFORCING	TYP	TYPICAL
DFJ	DEFLECTION JOINT	GWB	GYPSUM WALLBOARD	MOD	MODULE	REQ'D	REQUIRED	T/O	TOP OF SLAB
DN	DOWN			MT	METAL TYPE	RV	REVEAL	T.O.B.	TOP OF BEAM
DWG	DRAWING					REV	REVERSE	T.O.W.	TOP OF WALL
				NFWH	NO FREEZE WATER HOSE	R INSUL	RIGID INSULATION		
				NIC	NOT IN CONTRACT	RM	ROOM		
				N°	NUMBER				
				NTS	NOT TO SCALE				

U/S UNDERSIDE
V VOLT
VB VAPOUR BARRIER
VCT VINYL COMPOSITE TILE TYPE
VERT VERTICAL
VEST VESTIBULE
VP VAPOUR BARRIER
W WASHER, WIDE
WD WOOD TYPE
WF WOOD FINISH TYPE
WP WORKING POINT
W.P. WATERPROOF (MEMBRANE)
W.R.T. WITH RESPECT TO
W/ WITH
XGWB EXTERIOR GYPSUM BOARD

3 A100 ABBREVIATION LEGEND 1:100

GROSS FLOOR AREA BREAKDOWN

FLOOR		RESIDENTIAL UNIT	RETAIL		RESIDENTIAL										TOTAL RESIDENTIAL GFA		TOTAL INDOOR AMENITY		TOTAL DEDUCTABLE	
					BUILDING A (PHASE 1)				BUILDING B (PHASE 2)				BUILDING C (PHASE 3)							
					SALABLE		NON-SALABLE		SALABLE		NON-SALABLE		SALABLE		NON-SALABLE					
			ft2	m2	ft2	m2	ft2	m2	ft2	m2	ft2	m2	ft2	m2	ft2	m2	ft2	m2	ft2	m2	ft2	m2
PARKING LEVEL P-6					0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
PARKING LEVEL P-5					0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	39,094	3,631.67
PARKING LEVEL P-4	PARKING				0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	98,814	9,180.10
PARKING LEVEL P-3					0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	98,814	9,180.10
PARKING LEVEL P-2					0	0.00	822	76.41	0	0.00	0	0.00	0	0.00	0	0.00	822	76.41	0	0.00	97,991	9,103.69
PARKING LEVEL P-1					0	0.00	3,460	321.50	0	0.00	2,645.12	245.74	0	0.00	2,041	189.64	8,146	756.88	0	0.00	90,490	8,404.53
GROUND		0	2,558	494.98	0	71.70	666.53	61.92	0	0.00	9,685	899.69	0	0.00	6,943	645.00	23,803	2,211.36	11,799	1,096.14	11,250	1,045.15
LEVEL 2		49			10,587	983.58	741	68.85	10,693	993.45	882	81.97	9,018	837.81	94	8.73	32,016	2,974.38	0	0.00	3,679	341.84
LEVEL 3	PODIUM	50			10,587	983.58	741	68.85	10,693	993.45	882	81.97	9,018	837.81	751	69.72	32,973	3,035.35	0	0.00	3,023	280.84
LEVEL 4		49			10,587	983.58	741	68.85	10,693	993.45	882	81.97	9,018	837.81	751	69.72	32,673	3,035.35	0	0.00	3,023	280.84
LEVEL 5		49			10,587	983.58	833	77.36	10,693	993.45	882	81.97	9,018	837.81	751	69.72	32,764	3,043.89	0	0.00	2,931	272.33
LEVEL 6		49			10,587	983.58	833	77.36	10,693	993.45	882	81.97	9,018	837.81	751	69.72	32,764	3,043.89	0	0.00	2,931	272.33
LEVEL 7		36			10,587	983.58	833	77.36	5,727	532.09	1,307	121.44	5,446	505.95	1,568	147.50	29,486	2,367.89	2,599	241.54	2,931	272.33
LEVEL 8		41			10,587	983.58	833	77.36	6,897	640.72	561	52.13	6,946	636.29	608	56.49	26,334	2,446.55	0	0.00	2,085	193.66
LEVEL 9	PODIUM	41			10,587	983.58	833	77.36	6,897	640.72	561	52.13	6,946	636.29	608	56.49	26,334	2,446.55	0	0.00	2,085	193.66
LEVEL 10		41			10,587	983.58	833	77.36	6,897	640.72	561	52.13	6,946	636.29	608	56.49	26,334	2,446.55	0	0.00	2,085	193.66
LEVEL 11		41			10,587	983.58	833	77.36	6,897	640.72	561	52.13	6,946	636.29	608	56.49	26,334	2,446.55	0	0.00	2,085	193.66
LEVEL 12		41			10,587	983.58	833	77.36	6,897	640.72	561	52.13	6,946	636.29	608	56.49	26,334	2,446.55	0	0.00	2,085	193.66
LEVEL 13		33			5,378	499.63	2,094	193.62	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	1,460	135.74	1,833	170.29
LEVEL 14		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 15		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 16		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 17		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 18		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 19		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 20		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 21		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 22		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 23	TOWER	36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 24		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 25		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 26		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 27		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 28		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 29		36			6,939	644.67	523	48.56	6,897	640.72	561	52.13	6,946	636.29	608	56.49	22,377	2,078.86	0	0.00	1,833	170.29
LEVEL 30		24			6,939	644.67	523	48.56	0	0.00	0	0.00	6,946	636.29	608	56.49	14,918	1,386.03	0	0.00	1,222	113.50
LEVEL 31		24			6,939	644.67	523	48.56	0	0.00	0	0.00	6,946	636.29	608	56.49	14,918	1,386.03	0	0.00	1,222	113.50
LEVEL 32		12			6,939	644.67	523	48.56	0	0.00	0	0.00	0	0.00	0	0.00	7,462	693.25	0	0.00	611	56.75
LEVEL 33		12			6,939	644.67	523	48.56	0	0.00	0	0.00	0	0.00	0	0.00	7,462	693.25	0	0.00	611	56.75
MECHANICAL PH		0			0	0.00	4,279	397.50	0	0.00	4,351	404.27	0	0.00	4,279	397.50	12,909	1,199.27	0	0.00	1,437	133.54
TOTAL		1,165	2,558.00	494.98	260,620.80	24,212.46	37,168.22	3,453.04	210,920.60	19,595.17	34,740.16	3,227.47	214,911.48	19,965.93	32,736.95	3,041.36	788,453.10	73,249.69	15,861.91	1,473.52	501,617.64	46,601.80

TOTAL ABOVE GRADE DEDUCTABLE	7,102.37
TOTAL BELOW GRADE DEDUCTABLE	39,499.44

2 A100 GFA CHART REF.

PARKING PROVIDED (RESIDENTIAL/VISITOR)	REGULAR PARKING	BARRIER FREE PARKING		TOTAL	TANDEM
		TYPE A	TYPE B		
P-6 PARKING	79	1	0	80	4
P-5 PARKING	217	3	0	220	4
P-4 PARKING	217	3	0	220	5
P-3 PARKING	217	3	0	220	5
P-2 PARKING	174	3	0	177	5
P-1 PARKING	179	3	0	182	5
GROUND	53	0	0	53	0
TOTAL PARKING PROVIDED	1137	16		1139	28

PARKING REQUIRED (RESIDENTIAL / VISITOR)	
RESIDENTIAL PARKING AT .85	1017
VISITOR PARKING AT .05	60
TOTAL PARKING REQUIRED	1130

PARKING (COMMERCIAL)	REGULAR PARKING	BARRIER FREE PARKING		TOTAL
		TYPE A	TYPE B	
GROUND/ROOFTOP	8	0	0	8
TOTAL PARKING PROVIDED	8	1		8

PARKING PER PHASE	PHASE 1 (BUILDING A)	PHASE 2 (BUILDING B)	PHASE 3 (BUILDING C)	TOTAL PER FLR
P-6 PARKING	80	0	0	80
P-5 PARKING	83	74	63	220
P-4 PARKING	83	74	63	220
P-3 PARKING	83	74	63	220
P-2 PARKING	83	74	63	220
P-1 PARKING	83	74	63	220
GROUND (COMMERCIAL)	0	0	8	8
TOTAL PROVIDED	511	374	365	1250

RESIDENTIAL & VISITOR PARKING PER PHASE REQUIRED	PHASE 1 (BUILDING A)	PHASE 2 (BUILDING B)	PHASE 3 (BUILDING C)
RESIDENTIAL	436	320	261
VISITOR	30	22	8
TOTAL REQUIRED	466	341	269

BIKE PARKING		RESIDENTIAL LONG TERM		RES. SHORT-TERM (OUTDOOR)	COMMERCIAL	TOTAL
PHASE 1 (BUILDING A)	PROVIDED	GROUND, P1, VREWALKING 1/2	396	40		436
	REQUIRED			40		40
PHASE 2 (BUILDING B)	PROVIDED	GROUND, P1, VREWALKING 1/2	320	20	20	
	REQUIRED			20		
PHASE 3 (BUILDING C)	PROVIDED	GROUND, P1, VREWALKING 1/2	194	20	8	222
	REQUIRED			20		
TOTAL	PROVIDED		910	80	28	658
	REQUIRED		790	80		870

5 A100 PARKING & BIKE PARKING STATISTICS REF.

BUILDING A(33 STORIES)

UNIT BREAKDOWN	UNIT TYPES							NO. OF LEVELS	TOTAL:
	BACHELOR (400-450sf)	1BED (450-529sf)	1BED+D (530-625sf)		2BED (625-750sf)	2BED+D (751-825sf)	3BED (900-1100sf)		
GROUND	0	0	0	0	0	0	0	1	0
LEVELS 2 - 3	0	3	8		5	1	0	2	34
LEVELS 4 - 12	0	3	8		5	1	0	9	153
LEVELS 13	0	3	4		2	0	0	1	9
LEVELS 14-33	0	5	5		4	0	0	20	240
TOTAL:	0	136	152		137	11	0	33	436
PROVIDED %	0%	31%	35%		31%	3%	0%		100%
		66%				34%			
NO OF BARRIER FREE UNITS REQUIRED	0		43.2			22.2	0		

BUILDING B(29 STORIES)

UNIT BREAKDOWN	UNIT TYPES							NO. OF LEVELS	TOTAL:
	BACHELOR (400-450sf)	1BED (450-529sf)	1BED+D (530-625sf)		2BED (625-750sf)	2BED+D (751-900sf)	3BED (900-1100sf)		
GROUND	0	0	0	0	0	0	0	1	0
LEVELS 2 - 3	0	5	7		3	3	0	2	36
LEVELS 4 - 6	0	4	6		3	3	0	3	48
LEVEL 7	0	3	4		2	1	0	1	10
LEVELS 8- 29	0	3	5		3	1	0	22	264
TOTAL	0	91	146		83	38	0	29	358
PROVIDED %	0%	25%	41%		23%	11%	0%		100%
		66%				34%			
NO OF BARRIER FREE UNITS REQUIRED	0		35.55			18.15	0		

BUILDING C(31 STORIES)

UNIT BREAKDOWN	UNIT TYPES							NO. OF LEVELS	TOTAL:
	BACHELOR (400-450sf)	1BED (450-529sf)	1BED+D (530-625sf)		2BED (625-750sf)	2BED+D (751-900sf)	3BED (900-1100sf)		
GROUND	0	0	0	0	0	0	0	1	0
LEVEL 2	1	2	7		2	2	0	1	14
LEVEL 3	1	2	7		3	2	0	1	15
LEVELS 4 - 6	1	2	7		3	2	0	3	45
LEVEL 7	0	3	3		1	2	0	1	9
LEVELS 8 - 31	0	5	5		3	1	0	24	288
TOTAL	5	133	110		87	36	0	31	371
PROVIDED %	1%	36%	30%		23%	10%	0%		100%
		67%				33%			
NO OF BARRIER FREE UNITS REQUIRED	0.75		36.45			18.45	0		

UNIT BREAKDOWN	1B	1B+D	2B	2B+D	3B	TOTAL
TOTAL	365	408	307	85	0	1,165
REQUIRE %	40%	15%	40%	5%	0%	100%
PROVIDE %	31.3%	35.0%	26.4%	7.3%	0.0%	100%

TOTAL UNITS
1,165

6 A100 UNIT BREAKDOWN REF.

AMENITY SPACE	AMENITY (15 sq.m./UNIT)					
BUILDING A	INDOOR AMENITY	OUTDOOR AMENITY	BALCONY & TERRACE	PARK AREA	RETAIL PLAZA	TOTAL
PROVIDED	545	551	5312	435	150	6331
REQUIRED						6345
BUILDING B						
PROVIDED	454	451	4442	435	150	5932
REQUIRED						5955
BUILDING C						
PROVIDED	300	526	4263	435	150	5724
REQUIRED						5565
A+B+C	1309	1318	13877	1405	450	18439
PARK AREA						1405
TOTAL REQUIRED						17415
TOTAL PROVIDED						18439

4 A100 AMENITY STATISTICS REF.

ARCHITECTURAL DRAWING LIST

DRAWING NO.	TITLE	CONSULTANT
SCHEDULES		
A001	TITLE	CORE
A100	STATISTICS & ZONING	CORE
A101	CONTEXT PLAN	CORE
A103	PHASING DIAGRAM	CORE
A104	SITE PLAN	CORE
A105	SURVEY PLAN	CORE
PLANS		
A200	PARKING LEVEL 6	CORE
A201	PARKING LEVELS 3-5	CORE
A202	PARKING LEVEL 2	CORE
A203	PARKING LEVEL 1	CORE
A204	GROUND LEVEL	CORE
A205	LEVEL 2	CORE
A206	LEVEL 3	CORE
A207	LEVEL 4-6	CORE
A208	LEVEL 7	CORE
A209	LEVEL 8-12	CORE
A210	LEVEL 13	CORE
A211	TYPICAL TOWER	CORE
A212	MECHANICAL PENTHOUSE	CORE
A213	ROOF PLAN	CORE
ELEVATIONS / SECTIONS		
A400	SOUTH ELEVATION	CORE
A401	EAST ELEVATION	CORE
A402	NORTH ELEVATION	CORE
A403	WEST ELEVATION	CORE
A410	BUILDING SECTION 1	CORE
A411	BUILDING SECTION 2	CORE
A412	BUILDING SECTION 3	CORE
PERSPECTIVES		
A600	BUILDING PERSPECTIVE	CORE
A601	BUILDING PERSPECTIVE	CORE
A602	BUILDING PERSPECTIVE	CORE

NOTE: SHADOW STUDY AT SEPARATE PACKAGE

1 A100 DRAWING LIST REF.

02	RE-ISSUED FOR OPA/ZBA	10 FEBRUARY 2023
01	ISSUED FOR OPA/ZBA	07 OCTOBER 2021

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INFO@COREARCHITECTS.COM
WWW.COREARCHITECTS.COM

1120 COOKE BLVD

PHASE 2
BURLINGTON ONTARIO

Drawn: TA	Scale: N.T.S.
Checked: DL	Date: 10 FEB 2023

Title: STATISTICS & ZONING

Project No.: 20-129	Drawing No.: A100



5 A101 CONTEXT PLAN 1:1000

LEGEND

HATCH DENOTES EXISTING PHASE 1

02	RE-ISSUED FOR OPA/ZBA	10 FEBRUARY 2023
01	ISSUED FOR OPA/ZBA	07 OCTOBER 2021

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1120 COOKE BLVD

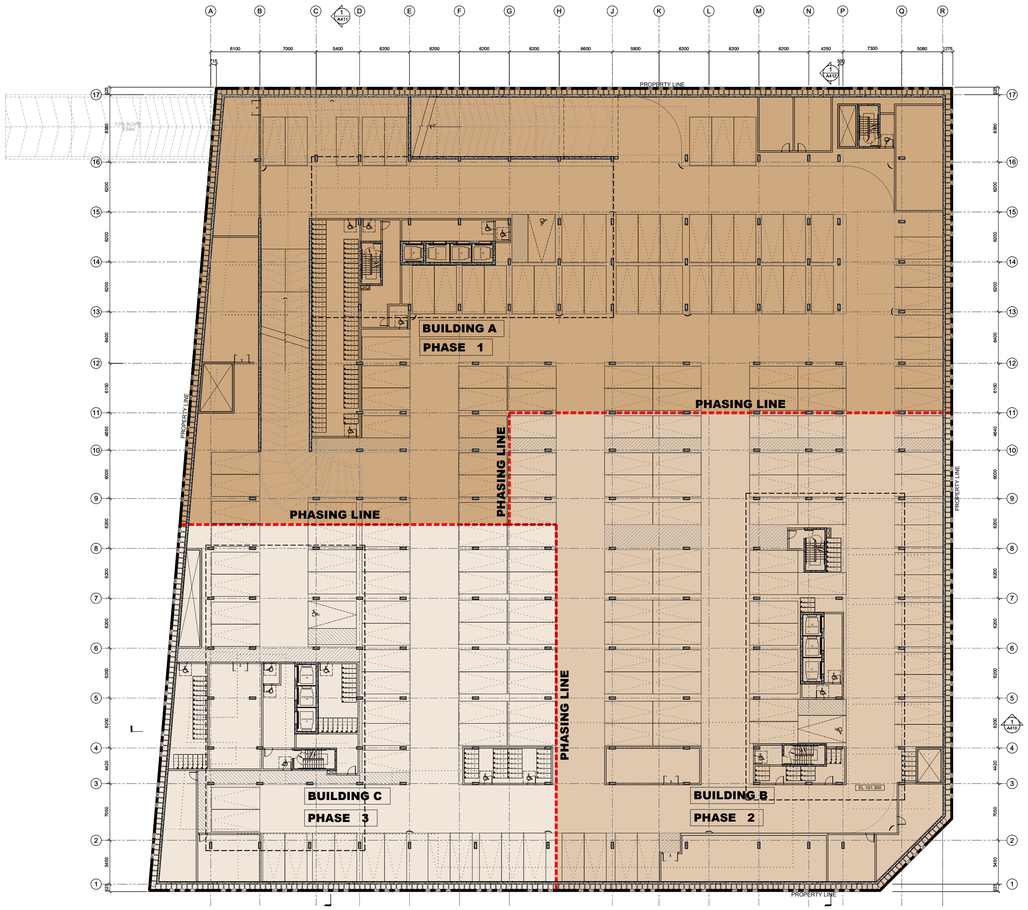
PHASE 2
BURLINGTON ONTARIO

N

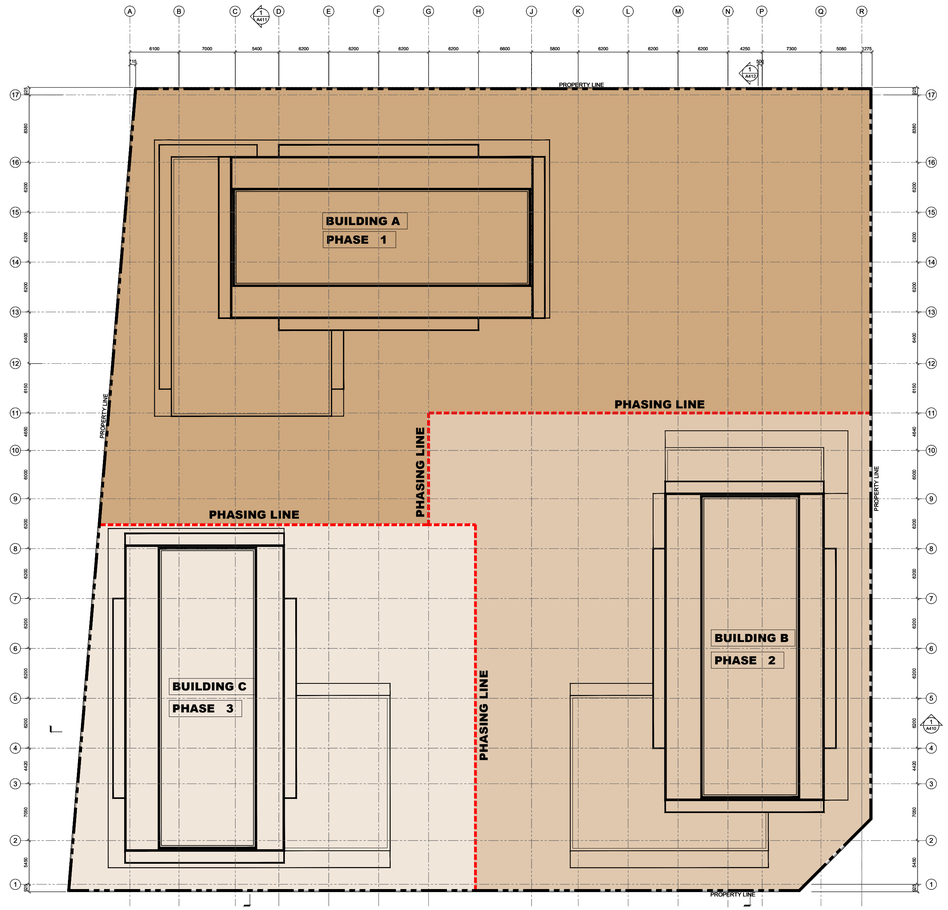
Drawn: CW	Scale: N.T.S.
Checked: DL	Date: 10 FEB 2023

Title: CONTEXT PLAN

Project No.: 20-129	Drawing No.: A101



2 A103 PHASING DIAGRAM BELOW GRADE 1:350



1 A103 PHASING DIAGRAM ABOVE GRADE 1:350

LEGEND

- HATCH DENOTES PHASE 1
- HATCH DENOTES PHASE 2
- HATCH DENOTES PHASE 3

02	RE-ISSUED FOR OPA/ZBA	10 FEBRUARY 2023
01	ISSUED FOR OPA/ZBA	07 OCTOBER 2021

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1120 COOKE BLVD

PHASE 2
BURLINGTON ONTARIO

N

Drawn: CW	Scale: 1:350
Checked: DL	Date: 10 FEB 2023

Title: PHASING DIAGRAM

Project No.: 20-129	Drawing No.: A103

PROPERTY LINE

PARKING ENTRANCE

6% SLOPE 8.54m

ROOF OF RAMP (2.30 m HEIGHT)

44890

8630

2100

2100

5275

BALCONY @LEVEL 8-33

CANOPY@LEVEL 8

EXTERIOR MECHANICAL AREA @ LEVEL 34 ROOF

EL 208.26

BUILDING A

ROOF OF MECHANICAL ROOM @LEVEL 35

EL 213.76

EXTERIOR MECHANICAL AREA @ LEVEL 34 ROOF

EL 208.26

BALCONY @LEVEL 8-33

CANOPY @LEVEL 13

BALCONY @LEVEL 14-33

BALCONY @LEVEL 8-33

RESIDENTIAL ENTRANCE

EXIT

FIRE DEPARTMENT CONNECTION @ GROUND FLOOR

3.8m FROM FIRE DEPARTMENT CONNECTION TO RESIDENTIAL ENTRANCE

4.5m FROM FIRE DEPARTMENT CONNECTION TO RESIDENTIAL ENTRANCE

RESIDENTIAL ENTRANCE

EXIT

20000

42015

OUTDOOR AMENITY

44755

ROOF OF STAIR @ GROUND LEVEL

INTAKE SHAFT

EXIT

BIKE RACKS 22 UNITS.

DASHED LINE DENOTES CISTERN LOCATED AT P-1.

DASHED LINE DENOTES CANOPY @ GROUND LEVEL.

COMMERCIAL PARKING 6 SPOTS

OUTDOOR AMENITY @LEVEL 13

EL 143.16

INFORMAL LOADING SPACE

1500

RETAIL TYPE A

RETAIL

RETAIL

RETAIL

RETAIL

RETAIL

WASTE STAGING AREA

TRUCK SPACE

3.5m (W) x 18.0m (L) x 7.5m (H) MIN. CLEARANCE

DROP OFF

23040

1500

19700

6000

R13000

ENTIRE LOADING AREAS AND TRUCK ROUTE SHALL BE DESIGNED TO SUPPORT LOADS IMPOSED BY COLLECTION VEHICLES (35 TONNES) AND SURFACE TO BE ACCESSIBLE IN ALL CLIMATE CONDITIONS.

FIRE ROUTE

PROPOSED FIRE HYDRANT

INTAKE SHAFT

7955

DN

INFORMAL LOADING SPACE PARKING ENTRANCE

R13000

R13000

12% SLOPE

2100

19750

16050

6% SLOPE 5.50m

1500

PARKING ENTRANCE

CANOPY@ LEVEL 4

ROOF @ LEVEL 4

EL 115.71

BALCONY @ LEVEL 8-29

BIKE RACKS 10 UNITS.

R13000

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

WATERDOWN ROAD

COOKE BLVD

BALCONY @LEVEL 7-31

CANOPY @LEVEL 7

BALCONY @LEVEL 7-31

RESIDENTIAL ENTRANCE

INFORMAL LOADING SPACE PARKING ENTRANCE

12.2m FROM FIRE DEPARTMENT CONNECTION TO RESIDENTIAL ENTRANCE

FIRE DEPARTMENT CONNECTION @ GROUND FLOOR

TRUCK SPACE

3.5m (W) x 18.0m (L) x 7.5m (H) MIN. CLEARANCE

F.F.H

EL 105.200

18645

30800

16.9m FROM PROPOSED FIRE HYDRANT TO FIRE DEPARTMENT CONNECTION

12.8m FROM EXISTING FIRE HYDRANT TO FIRE DEPARTMENT CONNECTION

CANOPY @LEVEL 7

BALCONY @LEVEL 7-29

EXIT

2.1m FROM FIRE DEPARTMENT CONNECTION TO RESIDENTIAL ENTRANCE

RESIDENTIAL ENTRANCE

FIRE DEPARTMENT CONNECTION @ GROUND FLOOR

EXTERIOR MECHANICAL AREA @ LEVEL 30

EL 196.41

BUILDING B

ROOF OF MECHANICAL ROOM @ LEVEL 31

EL 201.91

EXTERIOR MECH. AREA @ LEVEL 30

EL 196.41

RESIDENTIAL ENTRANCE

DASHED LINE DENOTES CANOPY @ GROUND LEVEL.

WASTE STAGING AREA

BIKE RACKS 12 UNITS.

EXTERIOR MECHANICAL AREA @ LEVEL 32

EL 202.110

BUILDING C

ROOF OF MECHANICAL ROOM @ LEVEL 33

EL 207.61

EXTERIOR MECHANICAL AREA @ LEVEL 32

EL 202.110

CANOPY @LEVEL 7

INFORMAL LOADING SPACE

22380

10.8m FROM FIRE DEPARTMENT CONNECTION TO RESIDENTIAL ENTRANCE

BALCONY @LEVEL 7-29

BIKE RACKS 8 UNITS.

FIRE DEPARTMENT CONNECTION @ GROUND FLOOR

EXISTING FIRE HYDRANT

20.4m FROM PROPOSED FIRE HYDRANT TO FIRE DEPARTMENT CONNECTION

BIKE RACKS 3 UNITS.

EXIT

DROP OFF

OUTDOOR AMENITY @ LEVEL 7

EL 125.01

19300

RETAIL ENTRANCE

OUTDOOR AMENITY @ LEVEL 7

EL 125.31

19300

RETAIL ENTRANCE

GROUND FLOOR F.F.H.

EL 105.20

BALCONY @ LEVEL 7-29

BIKE RACKS 11 UNITS.

DASHED LINE DENOTES CANOPY @ GROUND LEVEL.

5935

RETAIL ENTRANCE

6355

1.7m FROM FIRE DEPARTMENT CONNECTION TO RESIDENTIAL LOBBY ENTRANCE

BALCONY @LEVEL 7-31

CANOPY @LEVEL 7

CANOPY @LEVEL 7

6915

3000

RESIDENTIAL ENTRANCE

RETAIL ENTRANCE

5100

5100

87.3m FROM EXISTING FIRE HYDRANT TO FIRE DEPARTMENT CONNECTION REFER TO CIVIL DRAWING FOR EXISTING FIRE HYDRANT LOCATION

108.59 FIRE DEPARTMENT CONNECTION @ SECOND FLOOR

PROPERTY LINE

PROPERTY LINE

MASONRY COURT

UG PARKING BELOW

LIMIT OF FOUNDATION WALL

MAX 3:1

LIES BELOW

LEGEND

- REGULATION PARKING
- BARRIER FREE PARKING
- HORIZONTAL BICYCLE PARKING
- VERTICAL BICYCLE PARKING
- CM TYPICAL CONVEX MIRROR
- EV ELECTRICAL CHARGING STATION

02	RE-ISSUED FOR OPA/ZBA	10 FEBRUARY 2023
01	ISSUED FOR OPA/ZBA	07 OCTOBER 2021

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PHASE 2

BURLINGTON ONTARIO

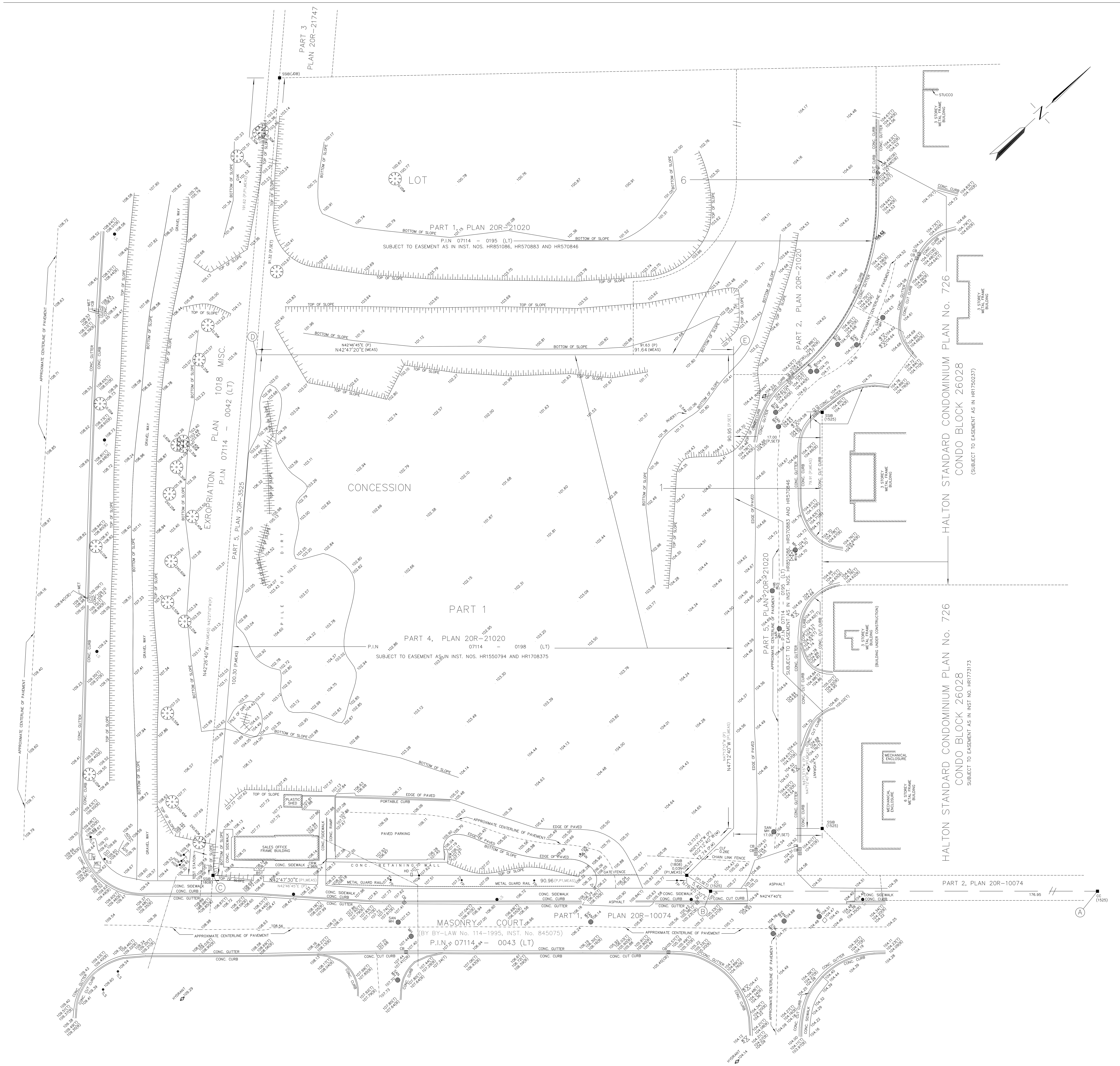
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Drawn: AZ	Scale: 1:200
Checked: DL	Date: 10 FEB 2023

Title: SITE PLAN

Project No.: 20-129

Drawing No.: A104



TOPOGRAPHICAL SURVEY OF

PART OF LOT 6
CONCESSION 1

(GEOGRAPHIC TOWNSHIP OF EAST FLAMBOROUGH)

CITY OF BURLINGTON

REGIONAL MUNICIPALITY OF HALTON

SCALE 1 : 300

5m 4 3 2 1 0 5 10 15 20m

R. AVIS SURVEYING INC.

METRIC : DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

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NOTES AND LEGEND

BEARINGS SHOWN HEREON ARE GRID BEARINGS AND ARE OBSERVED REFERENCE POINTS A AND B HAVING A BEARING OF N42°47'40"E BY REAL TIME NETWORK (RTK) OBSERVATION, UTM ZONE 17, CENTRAL MERIDIAN 81° 00' WEST LONGITUDE.
(6° UNIVERSAL TRANSVERSE MERCATOR PROJECTION, NAD 83 (CSRS-2010)

6° UTM ZONE 17 COORDINATES NAD83(CSRS-2010) (CENTRAL MERIDIAN 81°00' WEST LONGITUDE)		
DERIVED OBSERVED REFERENCE POINTS A AND B		
	NORTHING	EASTING
A	4795993.73	593012.39
B	4795863.89	592892.17
C	4795795.85	592825.04
D	4795869.86	592757.35
E	4795937.11	592819.60

(1) THE UTM COORDINATES LISTED ABOVE ARE TO AN URBAN ACCURACY, PER SUBSECTION 14(2) OF ONTARIO REGULATION 216/10 FILED UNDER THE SURVEYORS ACT
(2) THE UTM COORDINATES LISTED ABOVE ARE TO BE USED FOR GEOGRAPHIC INFORMATION SYSTEM INTEGRATION ONLY AND CANNOT BE USED TO RE-ESTABLISH THE PROPERTY CORNERS OR BOUNDARIES SHOWN HEREON

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFERRED TO THE CITY OF BIRLINGTON BENCHMARK No. 0011922U2445, HAVING AN ELEVATION = 100.718 metres.

DISTANCES SHOWN HEREON ARE ADJUSTED GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.99971063.

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT PLANTED
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR
IB	DENOTES	IRON BAR
CC	DENOTES	CUT CROSS
CP	DENOTES	CONCRETE PIN
NI	DENOTES	NOT IDENTIFIABLE
WIT	DENOTES	WITNESS
MEAS/M	DENOTES	MEASURED
N,S,E,W	DENOTES	NORTH, SOUTH, EAST, WEST
P	DENOTES	PLAN 20R-21020
P1	DENOTES	PLAN 20R-21714
1808	DENOTES	J.H. GELBLOOM SURVEYING LIMITED, O.L.S.
JDB	DENOTES	J.D. BARNES LIMITED, O.L.S.
1525	DENOTES	R. AVIS SURVEYING INC. O.L.S.
ORP	DENOTES	OBSERVED REFERENCE POINTS
ADS	DENOTES	ADVERTISEMENT SIGN
B	DENOTES	BOTTOM OF CONCRETE CURB
BTS	DENOTES	BOTTOM OF STEP
CB	DENOTES	CATCH BASIN
CD	DENOTES	COMMUNICATION DUCT
CLF	DENOTES	CHAIN LINK FENCE
CONC/C	DENOTES	CONCRETE
CRW	DENOTES	CONCRETE RETAINING WALL
FH	DENOTES	FIRE HYDRANT
FP	DENOTES	FLAG POLE
GI	DENOTES	GAS LINE INDICATOR
HD	DENOTES	HYDRO DUCT
HGW	DENOTES	HYDRO GUY WIRE
GVK	DENOTES	GAS VALVE KEY
ICB	DENOTES	INLET CATCH BASIN
LS	DENOTES	LIGHT STANDARD
MET	DENOTES	METAL
OH	DENOTES	OVERHEAD WIRE
SMH	DENOTES	SANITARY MANHOLE
STMH	DENOTES	STORM MANHOLE
T	DENOTES	TOP OF CONCRETE CURB
TLS	DENOTES	TRAFFIC LIGHT STANDARD
TS	DENOTES	TRAFFIC SIGN
WV	DENOTES	WATER VALVE

0.10ø DENOTES CONIFEROUS TREE WITH TRUNK DIAMETER 0.10 metres

0.10ø DENOTES DECIDUOUS TREE WITH TRUNK DIAMETER 0.10 metres

000.00 DENOTES SPOT ELEVATION

AREA : 9535.9 sq. m.

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 LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 27th DAY OF MARCH, 2021.

APRIL 23, 2021
DATE

PIRATHEEPAN RAMACHANDRAN
Ontario Land Surveyor

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CHECKED BY : P.R., O.L.S.	
CALCULATED BY : HT/SR	PROJECT No. : 3211-8
DRAWN BY : GN/S.S./SR/F.M.	DRAWING No. : 3211-8T.DWG

No.	Revisions	Date
02	RE-ISSUED FOR OPA/ZBA	10 FEBRUARY 2023
01	ISSUED FOR OPA/ZBA	07 OCTOBER 2021

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BURLINGTON, ONTARIO

Drawn	Scale N.T.S.
Checked	Date 10 FEB 2023

Title: SURVEY PLAN

Project No. 20-129 | Drawing No. A105



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