

December, 2024

Re. 3056 Neyagawa Boulevard applications for Official Plan Amendment, Zoning By-law Amendment and Draft Plan of Subdivision – Shadow Impact Analysis

Urban Strategies Inc. has prepared this Shadow Impact Analysis on behalf of Neatt Communities for its applications for an Official Plan Amendment, Zoning By-law Amendment and Draft Plan of Subdivision for the property at 3056 Neyagawa Boulevard in the Town of Oakville (the “**Site**”).

THE PROPOSED DEVELOPMENT

This Shadow Impact Analysis has been prepared with regard for the applicable Town of Oakville Terms of Reference (December 2017) to describe and demonstrate the extent of shadow impact from a proposal for a phased, multi-tower mixed-use development on the Site (the “**Proposed Development**”). The Proposed Development Consists of:

- Phase 1, located in the northeast corner of the Site: Two towers of 26 (T1) and 18 (T2) storeys above podiums ranging in height from 5-6 storeys, in addition to a multi-purpose plaza open space (“**Plaza POPS**”), an east-west mid-block connection (“**MBC**”), and a portion of a private woonerf driveway (“**Woonerf**”);
- Phase 2, located in the northwest corner of the Site: Three towers of 18 (T3), 24 (T4) and 28 (T5) storeys above podiums ranging in height from 6-8 storeys, in addition to a neighbourhood-oriented open space (“**Neighbourhood Open Space**”) and a portion of the Woonerf;
- Phase 3, located in the southwest corner of the Site: Two towers of 25 (T6) and 15 (T7) storeys above six-storey podiums, in addition to a north-south MBC; and
- Three new public streets to be dedicated to the Town through the redevelopment process, as well as a proposed right-of-way widening toward Neyagawa Boulevard.

An annotated site plan labelled with the tower numbers is provided below.



Annotated site plan of the Proposed Development with building numbering

SITE & SURROUNDING CONTEXT

The Site is approximately 3.75 hectares in size with frontage along Neyagawa Boulevard, Dundas Street West, and the future extension of Sixteen Mile Drive. The Site currently accommodates a single detached dwelling, a detached garage, open air storage, and vacant open space.

The Site is designated Dundas Urban Core in the North Oakville East Secondary Plan (“**Secondary Plan**”), an area intended to redevelop with medium and high-density mixed-use development to support future Bus Rapid Transit along Dundas. The Dundas Urban Core is part of the Nodes and Corridors that represent the Town’s strategic growth areas, which are the focus for intensification to support the Town’s planned urban structure (Schedule A1 of the Livable Oakville Plan). The Secondary Plan permits heights up to 12

storeys in the Dundas Urban Core, and an Official Plan Amendment is proposed to permit a maximum building height of 28 storeys on the Site.

The surrounding context around the Site includes the following:

North: To the north of the Site is Sixteen Mile Sports Complex (formerly known as North Park), a significant 79-hectare community recreational hub for the North Oakville East area. Sixteen Mile Sports Complex accommodates an existing arena, an off-leash dog park, sports pitches, and Oakville Fire Station 9. An addition to the arena building is currently under construction that will accommodate an aquatics centre, a gymnasium, a library, and additional flexible community space.

East: Immediately south-east of the Site is a separate property at 1013 Dundas Street West, (known as the “**Prime Envision Lands**”). East of Neyagawa Boulevard is a newly-completed 9-storey residential building at 509 Dundas Street West, as well as a commercial-retail plaza known as Dundas Market Square. To the north of the plaza is a residential community characterized by ground-oriented housing, offering a mix of dwelling unit types.

South: To the south of the Site is a neighbourhood known as ‘River Oaks’. The southeastern and southwestern corners of the Dundas-Neyagawa intersection are characterized by service-commercial and retail establishments. Further south and west of Neyagawa Boulevard is a residential enclave accessed via Riverbank Way featuring a network of local streets and single-detached housing.

West: To the west of the Site is the St. Peter and Paul Serbian Orthodox Parish (the “**Parish Lands**”) at 1039 Dundas Street West, which contain a place of worship and associated surface parking area and open space. Further west is the Trafalgar Lawn Cemetery and Lions Valley and Sixteen Mile Creek, a natural area accommodating an extensive trail system for recreational activities and environmental conservation.

SHADOW IMPACT ANALYSIS

The Proposed Development will cast net new shadow on the surrounding area. In our opinion the new shadowing is adequately limited and does not unduly diminish the utility of any areas within the Site or the surrounding lands.

Given that the Secondary Plan permits development up to 12 storeys in the Dundas Urban Core, shadow impacts from the Proposed Development should be viewed in the context of a planning framework that envisions intensification on the Site with built form that will create some level of shadow impact on the surrounding area. The slender 750 square metre tower floorplates mitigate the incremental shadow impact of the buildings, ensuring that shadows cast by the towers move quickly across the surrounding area over the course of each day throughout the year.

The Town of Oakville's Shadow Impact Analysis Terms of Reference specify three criteria through which to evaluate the impact of the Proposed Development's shadow impact. These are addressed in turn below.

Criteria #1: *The Shadow Impact Analysis must demonstrate that adequate sunlight is available for residential amenity spaces to maximize their use during spring, summer and fall afternoons and evenings. Shadow impacts from proposed development should not exceed two consecutive hourly test times after 12:00 p.m. on April 21, June 21 and September 21 (or where the adjacent site is undeveloped, on at least 60% of that site.*

Response: The Proposed Development accommodates a variety of at-grade residential outdoor amenity areas including the Plaza POPS, the Neighbourhood Open Space, and the MBCs. To a lesser extent, the Woonerf provides additional space that could be considered to have amenity value to users of the Site. These amenity areas have been sited to achieve good street frontage, to be framed by the adjoining buildings, and to be lined with active uses to provide good sightlines and animation.

The amenity areas have different degrees of overshadowing throughout the day between April 21 and September 21, which is a function of where these areas are sited in relation to the built form. At times where some of these spaces are in shadow, others are in sunlight. People that prefer to enjoy sunnier spaces are free to access them as desired.

In the summer period (at the June 21 solstice) the Plaza POPS and Neighbourhood Open Space—which are the Site's principal outdoor amenity areas—benefit from good sunlight access while retaining some shaded areas to provide comfortable conditions for those desiring shade.

The Plaza POPS is shadowed for two consecutive test times after 12:00 p.m. on: April 21 (between approximately 12:00 p.m. to 5:00 p.m.); on June 21 (between approximately

12:00 p.m. to 4:00 p.m.); and on September 21 (between approximately 12:00 p.m. to 5:30 p.m.).

The Neighbourhood Open Space is shadowed for two consecutive test times after 12:00 p.m. on: April 21 (between approximately 4:00 p.m. to 7:00 p.m.); on June 21 (between approximately 4:00 p.m. to 7:30 p.m.); and on September 21 (between approximately 4:00 p.m. to 6:00 p.m.).

Notwithstanding, during the times noted above, the shadow does not cover the entire areas of the Plaza POPS and Neighbourhood Open Space. The Proposed Development satisfies the intent of Criteria #1 by accommodating outdoor amenity areas that have a sufficient degree of sunlight exposure between April 21 and September 21 to maximize their utility and to provide comfortable conditions for users.

Criteria #2: *The Shadow Impact Analysis must demonstrate that public sidewalks, public plazas, public parks, and school yards receive at least 5 hours of continuous sunlight per day on April 21, June 21 and September 21.*

Response: The Shadow Impact Analysis demonstrates the shadowing from the Proposed Development on the specific areas listed in Criteria #2, which in this case include North Park and the sidewalks of the surrounding public street network.

The Shadow Impact Analysis illustrates the ultimate planned condition for the Sixteen Mile Sports Complex lands based on publicly available Site Plan drawings (SPA Submission #4, June 2023). The Proposed Development will have some shadow impact on Sixteen Mile Sports Complex throughout the year, although the extent of impact varies with seasonality. The majority of shadowing on Sixteen Mile Sports Complex falls on areas occupied by buildings, parking lots, and driveways. The impact to the active and passive recreational spaces is very minor between April 21 and September 21 when peak usage is anticipated. During these times, the only affected areas are the tennis, beach volleyball and pickleball courts very early in the morning on April 21, and on the lawn/walkway at the southeast corner of North Park. The requirement to provide at least 5 continuous hours of sunlight per day between April 21 and September 21 is achieved for the parts of Sixteen Mile Sports Complex accommodating active and passive recreational space, which are highlighted with a green colour overlay on the accompanying shadow diagrams.

In regards to public sidewalks, the Proposed Development achieves 5 consecutive hours of sunlight per day on the adjoining sidewalks on June 21. In April 21 and September 21 the Proposed Development generally achieves 5 consecutive hours of sunlight per day on the adjoining sidewalks, except for where there is already shadows cast by existing development (such as the 9-storey mid-rise at 509 Dundas Street West which shadows the western sidewalk of Neyagawa Boulevard in the early morning hours between April 21 and September 21).

The Proposed Development satisfies the intent of Criteria #2 by maintaining a minimum of 5 consecutive hours of sunlight on portions of Sixteen Mile Sports Complex accommodating active and passive recreational spaces, and on the surrounding public sidewalks, with the exception of instances where 5 consecutive hours cannot be achieved due to shadowing from existing development.

Criteria #3: *The Shadow Impact Analysis must demonstrate that proposed development allows adequate sunlight on building faces and roofs for the possibility of using solar energy. Shadow impacts from proposed development should not exceed two consecutive hourly test times on December 21.*

Response: The Proposed Development has shadow impacts on the building face and roofs of some surrounding buildings, including on the Sixteen Mile Sports Complex which has existing rooftop solar panels over a portion of the building. Criteria #3 considers shadow impacts on these areas on December 21, the winter solstice and darkest day of the year. On this day, shadows cast by development extend the longest as a result of the relative location of the sun on the horizon.

The Proposed Development exceeds two consecutive hourly test times of shadowing on the Sixteen Mile Sports Complex roof, which is in partial shadow by the Proposed Development on December 21 from sunrise until just after 12:19 p.m. As the shadow passes off the roof by 12:19 p.m. there are several hours of daily peak sun remaining for solar power generation.

The roof of the 9-storey building at 509 Dundas Street East and on the commercial buildings at Dundas Market Square are in partial shadow by the Proposed Development on December 21 from just after 12:19 p.m. until sunset. There are not currently any solar panels on the roof of 509 Dundas Street East or the Dundas Market Square buildings,

however adequate sunlight over these rooftop areas is still maintained on December 21 to provide opportunities for solar power generation.

The extent of shadow impact on the building faces of surrounding properties is difficult to calculate. However, it is our opinion that the level of shadowing on neighbouring building faces is reasonable for an urban environment where high-density development up to 12 storeys is contemplated by the existing policy framework.

Conclusion

This Shadow Impact Analysis illustrates the net new shadow impact associated with the Proposed Development, which seeks to intensify the Site with seven tall buildings ranging in height from 15 to 28 storeys. We have evaluated the shadow impact against the three relevant criteria in the Town's Terms of Reference and in our opinion the shadows from the Proposed Development are adequately limited and do not have undue negative impact on the utility of the Site or surrounding area for amenity, parks and open space, and solar energy purposes.

Please do not hesitate to contact us if you have any questions or concerns.

Sincerely,



Craig Lametti MCIP, RPP
Partner



Josh Neubauer MCIP, RPP
Partner