

MEMORANDUM

To: NBIM 2172 Wyecroft LP (c/o Northbridge Capital Inc.)

Property Address: 2172 Wyecroft Road, Oakville

From: Bousfields Inc.

Date: August 22, 2025

Re: Shadow Impact Analysis

Background

A Sun/Shadow Study was prepared by Turner Fleischer Architects to demonstrate the general shadow impact from the Proposal on April 21st, June 21st, September 21st, and December 21st at hourly intervals starting 1.5 hours before sunrise and ending 1.5 hours before sunset on each study date. To demonstrate the shadow impact beyond an as-of-right condition, the Sun/Shadow Study also illustrates the shadow impact from the Proposal if each tower were 24 storeys in height, as permitted by the Livable Oakville Plan (see Sections 4.6.2 and 5.3 of the Planning and Urban Design Rationale Report, prepared by Bousfields Inc. in support of this application, for more detail on permitted height).

The Town of Oakville development application guidelines for Shadow Impact Analysis reports provides criteria to be used to evaluate the impact of a development proposal on a subject site and surrounding area. These include:

- *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.
- *Criteria #2*: Shadow impacts from proposed development should not exceed two consecutive hourly test times after 12:00pm on April 21st, June 21st and September 21st (or where the adjacent site is undeveloped, on at least 60% of that site).
- *Criteria #3*: 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 21st, June 21st and September 21st.
- Criteria #4: 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 21st.



This memo describes the shadow impact of the Proposal and addresses how the Proposal meets the criteria as outlined above.

Criteria #1

Within the subject site, outdoor residential amenity space is proposed in each Block A and Block B atop the 6-storey podium, primarily within the western portion of each block and accessible from the indoor amenity spaces located on Level 7 within each tower.

The Sun/Shadow Study demonstrates that the outdoor residential amenity space in Block A is impacted by shadow from the Proposal at the following times:

- April 21st from 7:54 a.m. until shortly after 11:54 a.m.;
- June 21st from 7:06 a.m. until shortly after 12:06 p.m.;
- September 21st from 8:34 a.m. to 12:34 p.m.; and
- December 21st from 9:17 a.m. to 11:17 a.m.

With respect to Block B, the outdoor residential amenity space west of Towers C and D experiences shadow in the morning hours, with only a small portion of the amenity space in partial shadow after noon as follows:

- April 21st from 7:54 a.m. until shortly after 12:54 p.m., with the majority of the area in sunshine by 12:54 p.m.;
- June 21st from 7:06 a.m. until shortly after 2:06 p.m., with the majority of the area in sunshine by 1:06 p.m.;
- September 21st from 8:34 a.m. until shortly after 3:34 p.m., with the majority of the area in sunshine by 12:34 p.m.; and
- December 21st from 9:17 a.m. until shortly after 3:17 p.m., with the majority of the area in sunshine by 11:17 a.m.

The triangular outdoor amenity space in Block B, east of Tower C, experiences shade from Towers C and D in the morning hours, followed by shade from Towers A and B in the late afternoon hours as follows:

- April 21st from 7:54 a.m. until shortly after 3:54 p.m. and again from 5:54 p.m. to 6:41 p.m.;
- June 21st from 8:06 a.m. until shortly before 4:06 p.m. and again from 5:06 p.m. to 7:35 p.m.;
- September 21st from 8:34 a.m. until shortly after 4:34 p.m. and again at 6:49 p.m.; and
- December 21st from 9:17 a.m. to 3:17 p.m.



In this regard, the proposed outdoor amenity space in Block A is impacted by the shadow from the Proposal in the morning hours until midday, maximizing access to sunlight during spring, summer, and fall afternoons and evenings in accordance with the criteria above.

Similarly for Block B, a large portion of the proposed outdoor amenity space (i.e., the area west of Towers C and D) is impacted by the shadow from the Proposal in the morning hours until midday, after which point much of the amenity space is in sunshine. Only portions of the amenity space to the east of Tower C are in shade for part of the afternoon throughout the year.

With respect to the as-of-right shadow impact from the proposed towers, all with a height of 24 storeys with the same position onsite as the Proposal, the duration and amount of shadow impact on proposed outdoor residential amenity spaces in Blocks A and B is reflective of that from the Proposal. In this regard, the additional height proposed on the subject site provides for a comparable condition in terms of access to sunlight from within the proposed outdoor amenity spaces during spring, summer, and fall afternoons and evenings.

Finally, in our opinion, the location and size of the proposed amenity spaces relative to the size, position, and orientation of the proposed towers generally maximizes their access to sunlight during spring, summer, and fall afternoons and evenings in accordance with the criteria above. Where some areas experience more shade, programming can be designed to respond to the anticipated shadow conditions in a way that will increase its utility and comfort for users.

In terms of shadowing on adjacent or nearby residential amenity spaces, there are currently no such areas currently exist in the surroundings.

Criteria #2

With respect to its impact on surrounding properties, shadow from the Proposal does not exceed two consecutive hourly test times after 12:00 p.m. on each April 21st, June 21st, and September 21st.

While the lands to the north and west contain existing commercial/industrial uses, the long-term planned vision is for these lands to be redeveloped into a higher-density mixed-use area as per the Bronte GO Area-specific Plan. After 12:00 p.m. on April 21st, June 21st, and September 21st, there is no shadow impact from the Proposal on the lands to the west and northwest of the subject site. On the same test dates, there is limited shadow impact from the Proposal on the northerly lands after 12:00 p.m., and no impact duration longer than two consecutive hourly test times. To that end, when there is impact, the shadow from the Proposal on the northerly properties is less than 60% of the property area. Further, it is noted



that the duration of shadow impact on these areas from a group of towers at the permitted 24-storey height is comparable to that from the Proposal.

As it relates to an adjacent undeveloped site, the subject site is located immediately west of the Bronte GO Station surface parking lot that extends in a U-shape around the properties at 2070 Wyecroft Road and 2100 Wyecroft Road (the "East Parking Lot"). The subject site is also located north of another large surface parking lot servicing the Bronte GO Station on the south side of the rail corridor along Speers Road (the "South Parking Lot").

On April 21st, June 21st, and September 21st after 12:00 p.m., the shadow impact from the Proposal on the East Parking Lot is less than 60% of the site area. With respect to the South Parking Lot, the shadow impact from the Proposal is also less than 60% of the site area on April 21st, June 21st, and September 21st after 12:00 p.m. This meets the intent of the criteria outlined above in that, after noon for each test date, adjacent undeveloped sites have adequate access to sunlight without undue impact from the Proposal. To that end, the extent and duration of shadow impact from a tower at the permitted 24-storey height is comparable to that from the Proposal, in particular with respect to the tower forms in Block B.

Criteria #3

In the vicininty of the subject site, there is an existing public sidewalk along the southern extent of the Wyecroft Road right-of-way, directly adjacent to the subject site. There is no public sidewalk on the north side of Wyecroft Road. A new public sidewalk is proposed along the new north-south public road to the east of the subject site, as well as along both sides of the new public east-west road bisecting the site between Blocks A and B.

The Proposal casts shadow on the Wyecroft Road sidewalk west of the subject site during the morning hours for approximately two hours on April 21st, three hours on June 21st, and one hour on September 21st. With respect to the new north-south road east of the subject site, shadowing from the Proposal occurs midday onwards on each April 21st, June 21st, and September 21st (i.e., 11:54 a.m., 1:06 p.m., and 11:34 a.m. respectively). Finally, the Proposal casts shadow on the new mid-block east-west public road throughout the day, with limited or no shadow impact during the following times:

- April 21st from 1:54 p.m. to 3:54 p.m.;
- June 21st from 1:06 p.m. to 3:06 p.m.; and
- September 21st from 1:34 p.m. to 3:34 p.m.

It is important to note that the impacts from a group of towers at the permitted 24-storey height would have the same duration of impact on the existing Wyecroft Road sidewalk, the



new sidewalk on the north-south road, and the new sidewalks flanking the east-west road mid-block.

More broadly within the surroundings, there is no public sidewalk on South Service Road West to the north or northeast of the subject site. However, South Service Road West south of Wyecroft Road has a public sidewalk on the west side of the right-of-way leading the Bronte GO Station which experiences some shadow from the Proposal on September 21st at 5:34 p.m. onwards. To the west, there is a public sidewalk along the west side of Westgate Road which experiences minor shadowing from the Proposal on June 21st at 7:06 a.m. South of the rail corridor, there are public sidewalks along both sides of Speers Road, which experience minor shadowing from the Proposal on April 21st at 6:41 p.m. and on June 21st at 7:53 p.m.

Based on the foregoing, the Proposal maintains the minimum five hours of continuous sunlight on existing public sidewalks around the subject site on each April 21st, June 21st, and September 21st. With respect to the proposed public sidewalks associated with the proposed development, each receives varied access to sunlight proportionate with a direct adjacency to new high-density development at the proposed or permitted tower heights.

With respect to public parks, plazas, or schools/school yards, there are none existing in the vicinity of the subject site. South of the subject site, directly adjacent to the rail corridor, lands are designated *Parks and Open Space* per OPA 41 Schedule S1 – Bronte GO MTSA Land Use Map where a future public park is anticipated. Shadow from the Proposal reaches the area designated *Parks and Open Space* by 4:54 p.m. on April 21st, 4:06 p.m. on June 21st, and 4:34 p.m. on September 21st, with comparable duration and extent of impacts to that of the permitted 24-storey group of towers tested as the as-of-right condition. In this regard, because of the northerly position of the subject site, future parks and open spaces in this area will receive a minimum five hours of continuous sunlight per day from morning until late afternoon in accordance with the criteria above.

Criteria #4

On December 21st, shadows from the proposed development are generally fast-moving across the surrounding area despite their extended length because of the reduced sun angle in the winter. Shadows on the broader context are no longer than two consecutive hourly test times. However, the duration of shadowing is greater than two consecutive hours on the buildings northeast of the subject site (i.e., 2109, 2125, and 2139 Wyecroft Road). For the duration of shadow impact, generally portions of each rooftop are in shade and not the entirety of each rooftop. Further, as demonstrated by the Study, the impact from the group of towers with the 24-storey height permitted by the Livable Oakville Plan would have



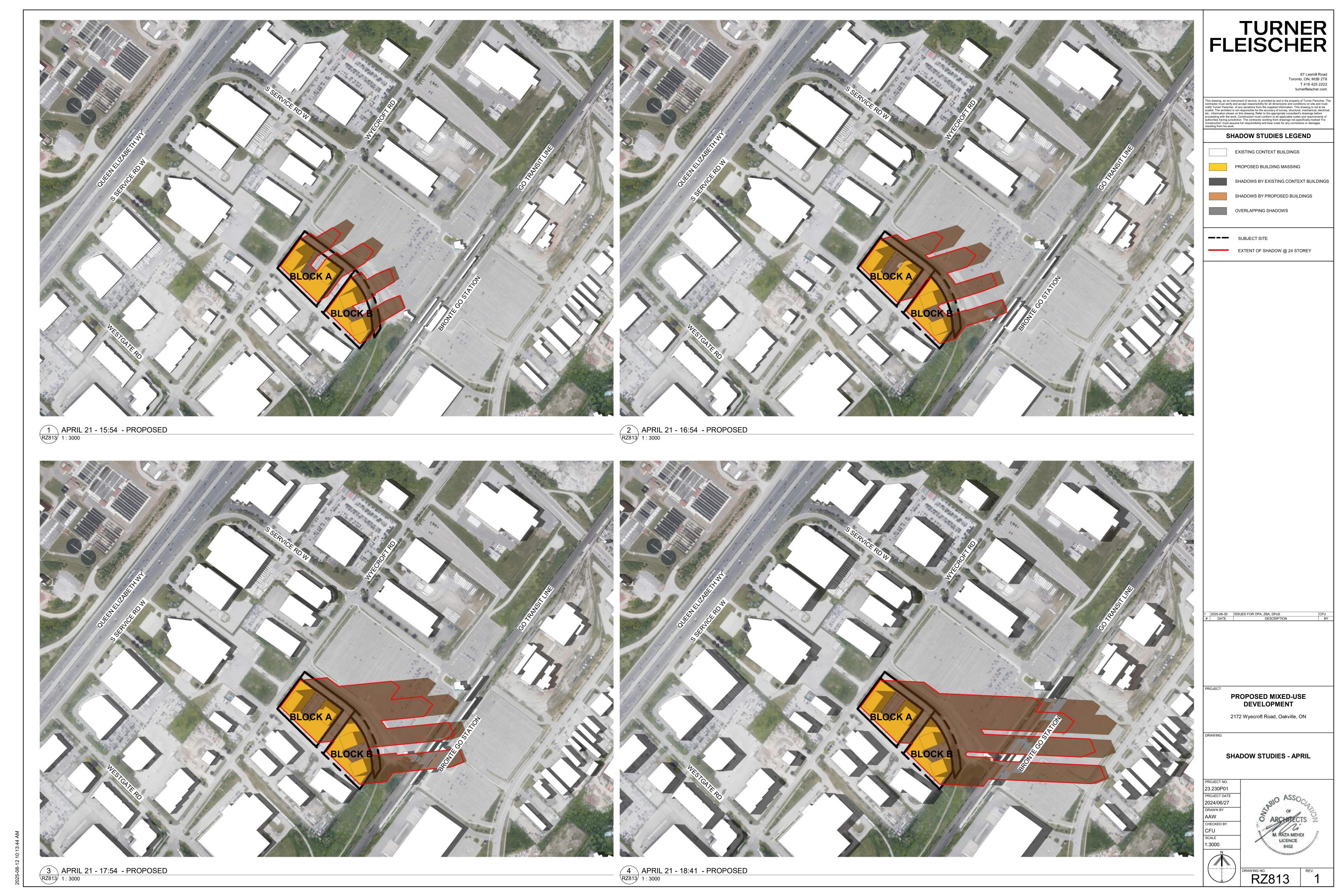
comparable impacts with respect to the duration of shadow on the affected buildings. As such, it is our opinion that the Proposal allows for adequate sunlight on building faces and roofs on December 21st and that the impacts are acceptable, in particular as to their similarity in nature the demonstrated as-of-right impacts.

Conclusion

Based on the foregoing analysis, it is our opinion that the shadow impact from the Proposal is adequately limited and will provide for an appropriate relationship with the surrounding buildings and open spaces. This is both in terms of the Town's criteria for the evaluation of shadow impacts on a subject site and its surrounding area, as well as with consideration for the planned future high-density built form context and public realm character to be realized in the Bronte GO MTSA in the long term.











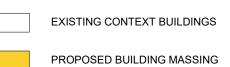




TURNER FLEISCHER

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SHADOW STUDIES LEGEND



SHADOWS BY EXISTING CONTEXT BUILDINGS SHADOWS BY PROPOSED BUILDINGS

OVERLAPPING SHADOWS

SUBJECT SITE

EXTENT OF SHADOW @ 24 STOREY

PROPOSED MIXED-USE DEVELOPMENT

2172 Wyecroft Road, Oakville, ON

SHADOW STUDIES - JUNE

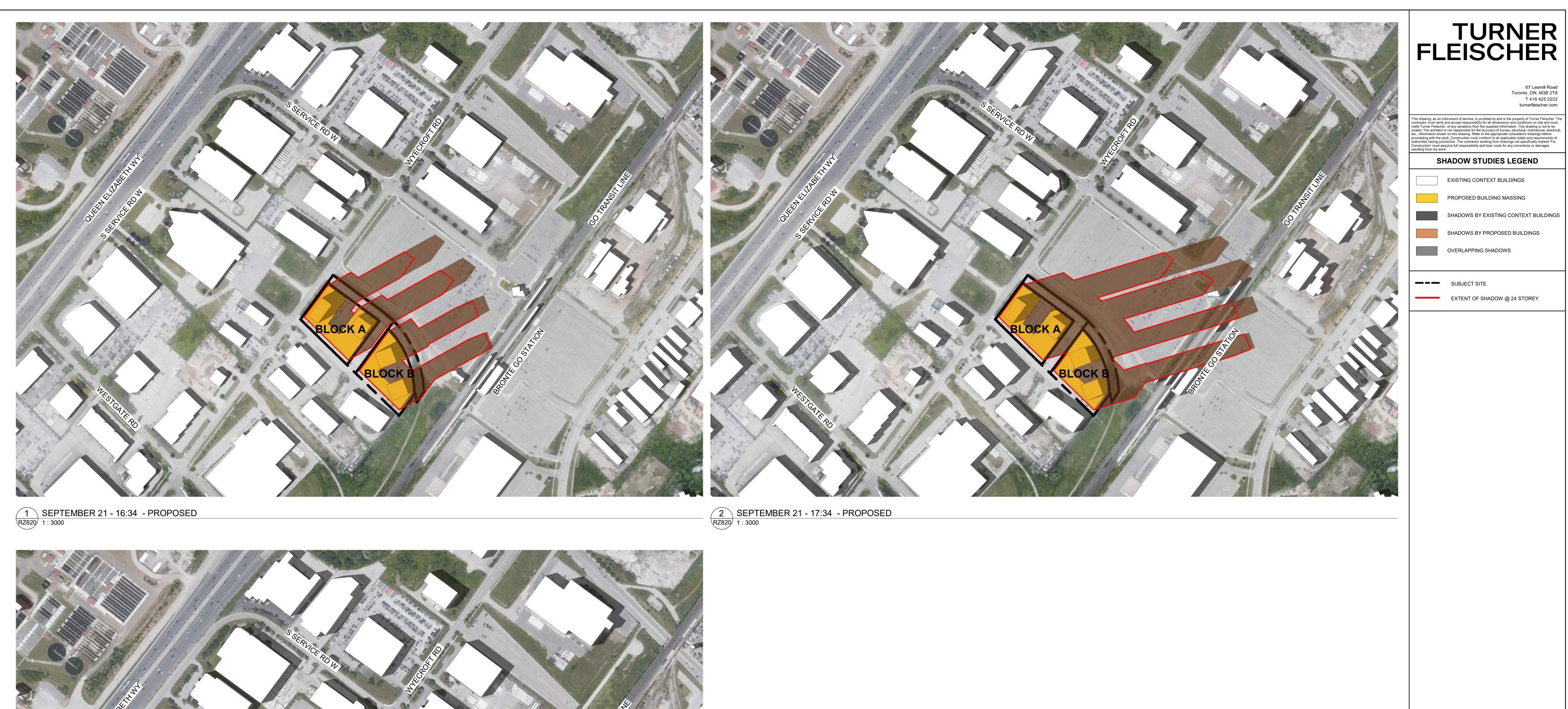
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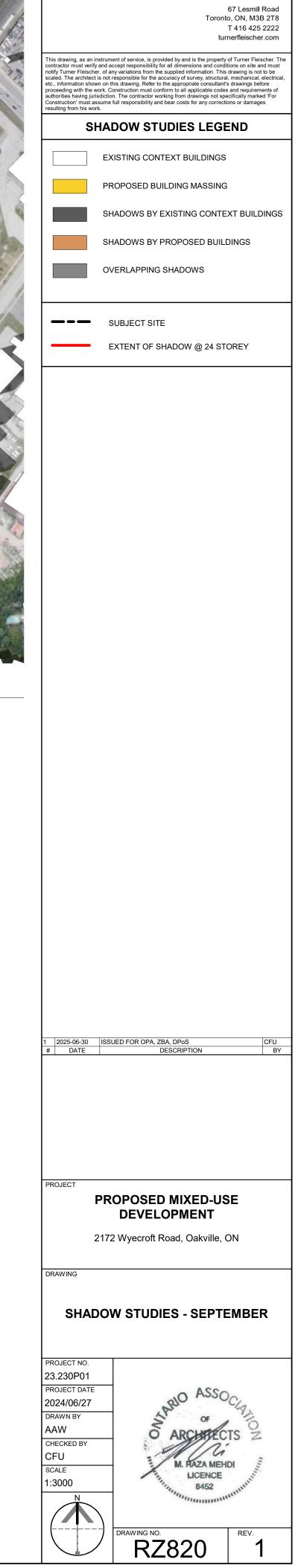
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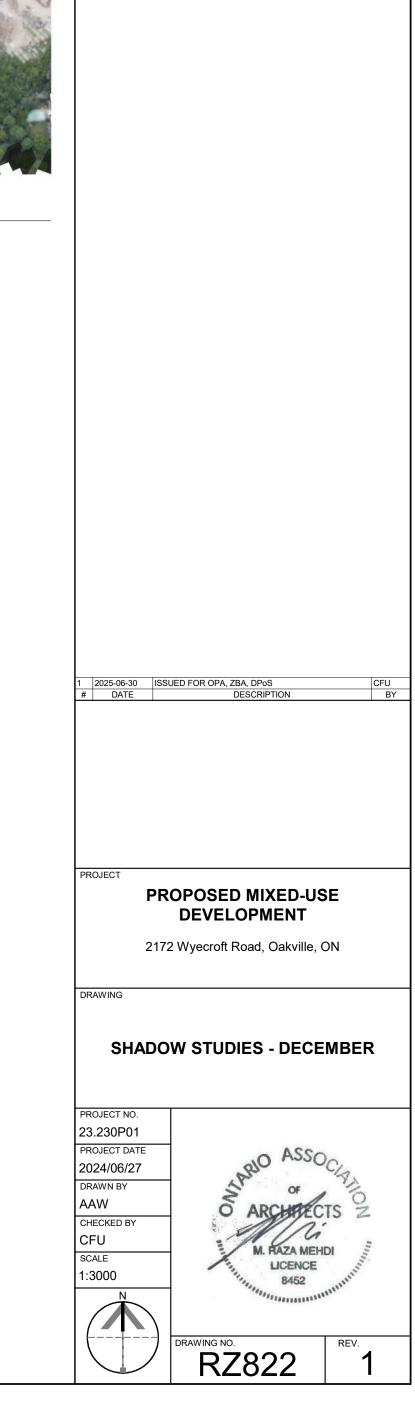












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