Introduction

The development proposes 3 buildings consisting of towers of 8, 10, and 16 Storeys, primarily concentrated along Niagara Street. Additionally, the development further proposes 2 blocks of stacked townhouses located at the eastern externs of the site adjacent to the existing low-rise residential community. The development would provide 853 dwelling units encompassing residential and amenity space, as well as retail and commercial uses. A total of 657 parking spaces will be provided both above grade, at grade and below grade, inclusive of residential, visitor and retail spaces. The site plan proposes a new internal street network as well as Pedestrian Promenade connecting the interior of the site to Niagara Street.

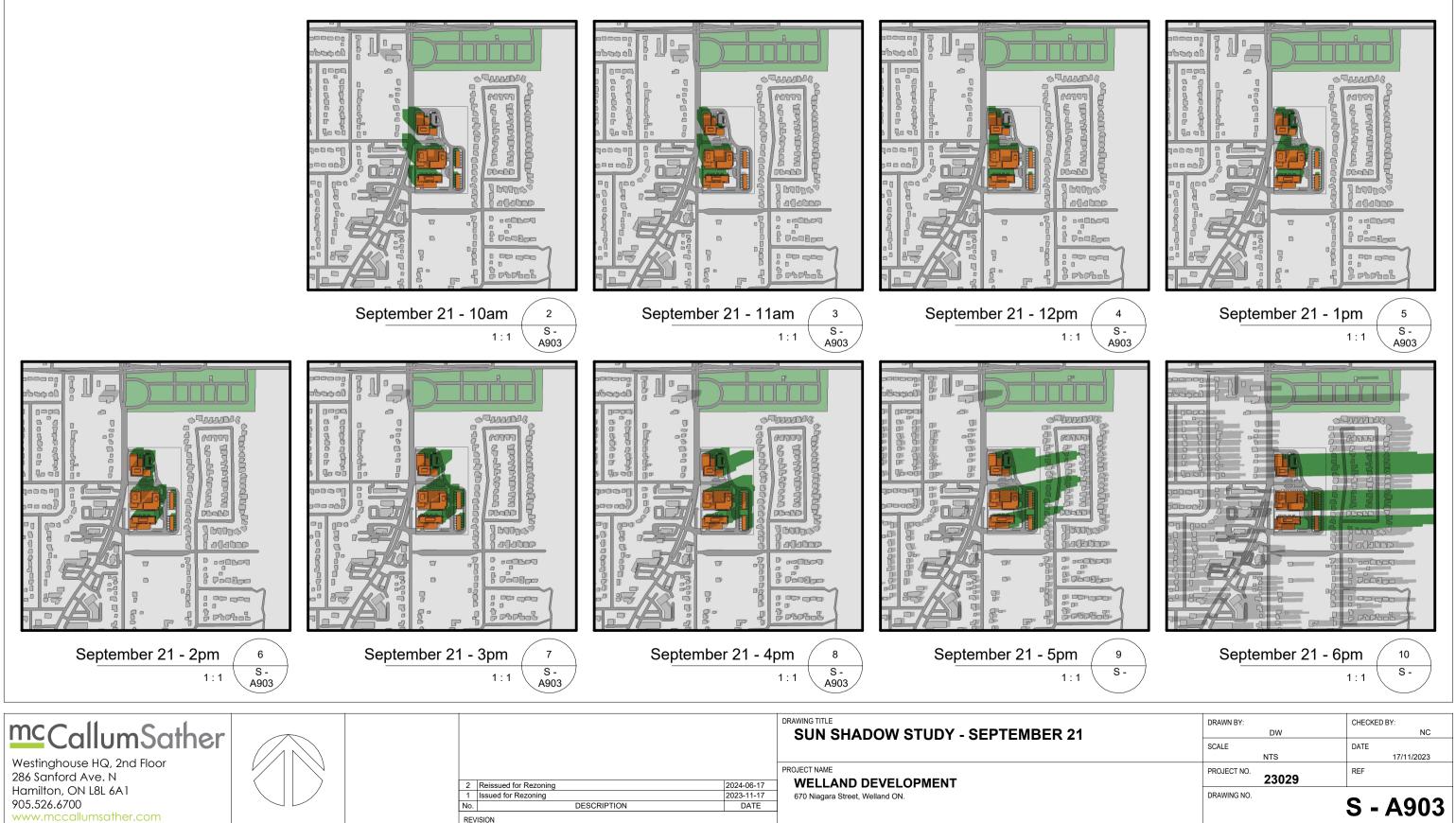
Address: 650-678 Niagara Street ad 418-430 Aqueduct Street, Welland Ontario Latitude/Longitude: 43.010551, -79.249023

The abutting lands to the north, south and east primarily zoned for low density residential. However, the subject lands are identified as an intensification area as outlined in schedule A of the Welland Official Plan. Designated high density Residential as outlined in schedule B1 due to the proximity to the commercial corridor.

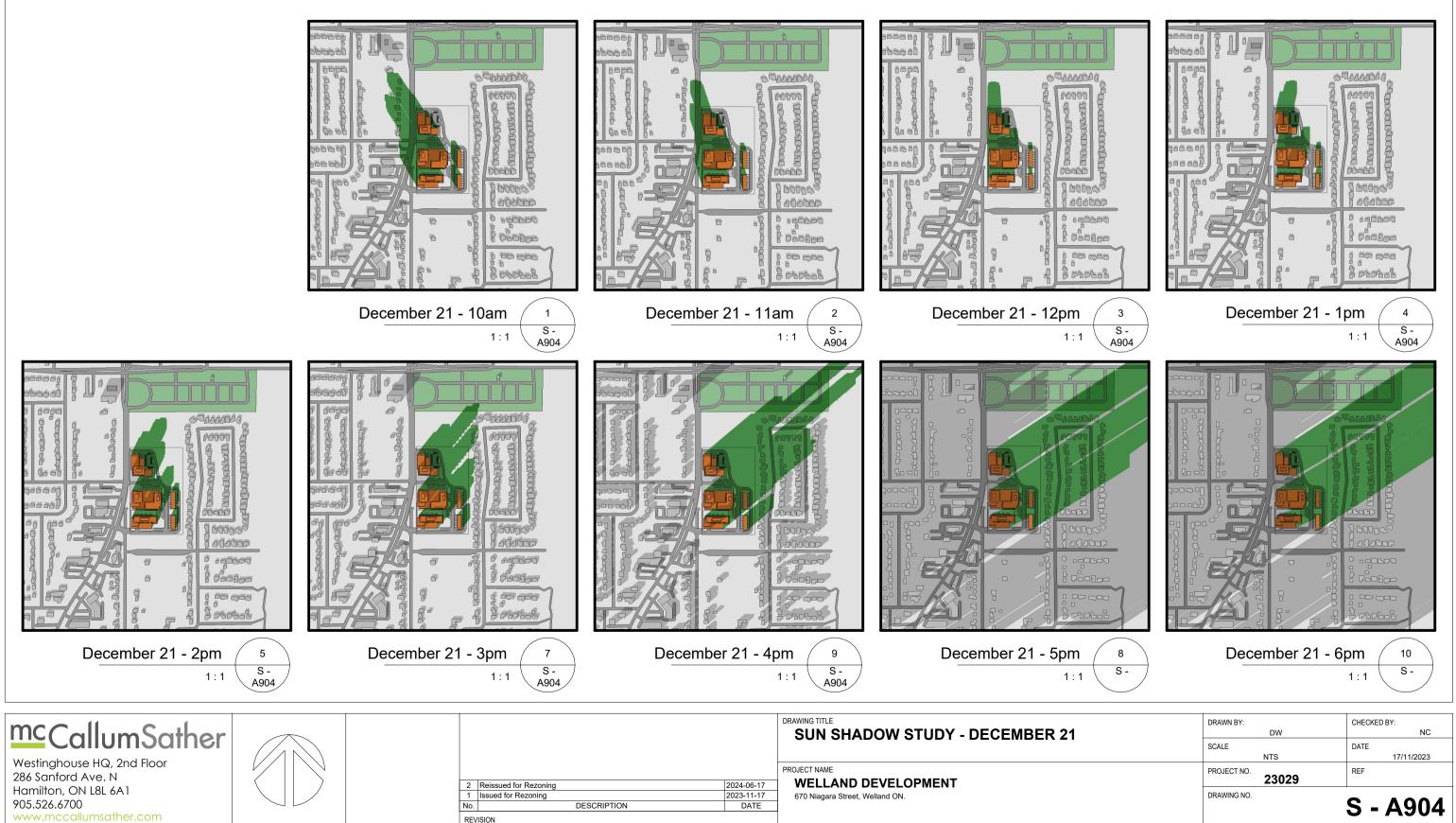
McCallum Sather			DRAWING TITLE SUN SHADOW STUDY	DRAWN BY:	DW	CHECKED BY: NC
Westinghouse HQ, 2nd Floor 286 Sanford Ave. N Hamilton, ON L8L 6A1 905.526.6700 www.mccallumsather.com				SCALE PROJECT NO.	NTS 23029	DATE 17/11/2023
	2 Reissued for Rezoning 1 Issued for Rezoning No. DESCRIPTION REVISION REVISION	2024-06-17 2023-11-17 DATE	670 Niagara Street, Welland ON.	DRAWING NO.		S - A900







DRAWING NO.	S - A903
PROJECT NO. 23029	REF
NTS	17/11/2023
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Mitigation Measures

When developing the site plan, several strategic mitigation measures have been implemented to minimize the extent and coverage of shadows falling on both private and public areas. Density and height distribution have been carefully arranged, with taller structures positioned farthest East, away from low-rise residential neighborhoods. The centralization of density on the site further helps mitigate shadow impacts from the tallest tower to the North and North-East. Stacked townhome structures, with minimal shadow impacts. are placed closest to adjacent neighborhoods, with a significant buffer from the property line. Furthermore, key circulation elements, such as the Pedestrian Promenade, are oriented in the east-west direction to maximize sunlight exposure during late afternoons and promote light permeability throughout the site. Lastly, a significant focus has been placed on maximizing the area of the public realm, and distances between buildings in order to enhance light accessibility and reduce shadow coverage.

Building A, a 10-story slab building, is strategically orientated east-west to minimize shadow impacts by aligning the narrowest edge to the West. Additionally, the greatest podium height is along Niagara Street which mitigates shadows within the site and on adjacent neighborhoods. Building B and C are designed with similar strategies in mind. The tallest heights and densities are concentrated along Niagara Street, reducing shadow impacts on the adjacent community. Building B includes a second tower at 8 storeys, which ensures no shadows are cast on the neighboring low-rise neighborhood. Similarly, Building C's podium height along Niagara is limited to prevent shadow casting on adjacent low-rise neighborhoods to the East.

Overall, these mitigation strategies integrate various design and placement techniques to effectively minimize shadow impacts, prioritizing sunlight accessibility and minimizing disruption to neighboring areas.

Conclusion:

In conclusion, as demonstrated by the preceding shadow analysis, the proposed development complies with the requirements outlined in the Niagara Region Sun/Shadow Study Terms of Reference.

			DRAWN BY:	CHECKED BY: NC
			SCALE NTS	DATE 17/11/2023
		PROJECT NO. 23029	REF	
1 Issued for Rezoning No. DESCRIPTION	2023-11-17 DATE	670 Niagara Street, Welland ON.	DRAWING NO.	S - A905
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