

September 23, 2022

Wendy Fisher, MCIP, RPP
Senior Development Planner
City of Waterloo
100 Regina St S
Waterloo, ON N2A 4J8

via email

Dear Ms. Fisher:

**RE: Application for Official Plan and Zoning By-law Amendment
109, 115 and 133 Bridgeport Road East and 30 Weber Street North, Waterloo
115 Bridgeport Inc.
Updated Shadow Study
OUR FILE 16222B**

On behalf of our client, 115 Bridgeport Inc. and 1648386 Ontario Limited, and in response to your comments regarding the Shadow Study diagrams, please accept the attached drawings which show the shadows for the four seasons, with the property fabric of the surrounding lands included.

March

The sun rises at 7:24 am and sets at 7:35 pm on March 21st. From sunrise until 10 am the shadows impact the commercial properties to the north, with only minor impacts on the residential properties to the east on Bridgeport Road East (less than half their properties). These lands along Bridgeport Road East are planned for 6 storey mixed-use or residential buildings.

At noon, the shadow impacts remain minor and those lands along Bridgeport Road East still have more than half their lots in full sun. By 2pm and through 4 pm, the sun has moved further to the west and the shadows fall to the east, impacting the lots along Bridgeport Road East.

The lots along Royal Street have full sun all morning and only the nearest lot is impacted at 2pm. However it still has more than half of its lot in full sun.

In summary the surrounding lands have full sun for at least 4 hours on at least half of their lots, which is consistent with the Guidelines.

June

The sun rises at 5:41 am and sets at 9:06 pm on June 21st. Shadow impacts are contained to the road, subject lands or the commercial properties to the north until 2pm when shadows begin to fall onto the

lots along Bridgeport Road East. The adjacent lands have full sun from sunrise until 2 pm. At 2 pm, the front portion of the lots are impacted by shadow, while the rear portions are in full sun.

Shadows do not impact the lots along Royal Street until 4pm, when shadows fall across a portion of the immediately adjacent lot.

In summary, the surrounding lands have full sun for at least 4 hours on at least half of their lots, which is consistent with the Guidelines.

September

The sun rises at 7:08 am and sets at 7:22 pm on September 21st. Shadows impact the commercial properties to the north in the morning and portions of the adjacent lots on Bridgeport Road East. However, the lots on Bridgeport Road East have full sun on at least 50% of their lots all morning, which is more than 4 hours.

In the afternoon, the sun has moved further to the west and the shadows fall to the east. The adjacent lots on Bridgeport Road East are impacted by shadows in the afternoon. The lots on Royal Street have full sun all morning and the majority continue to have full sun until later in the afternoon. The immediately adjacent lot is partially impacted by shadows at 2 pm, but at least 50% of the lot remains in full sun.

In summary, the surrounding lands have full sun for at least 4 hours on at least half of their lots, which is consistent with the Guidelines.

December

The sun rises at 7:52 am and sets at 4:49 pm on December 21st. The sun is much lower in the sky and the shadows cast are longer for all building types. The commercial properties to the north are impacted in the morning and early afternoon. The adjacent lots on Bridgeport Road East are impacted in the afternoon. However the lots on Royal Street have full sun all morning and are not impacted until the afternoon. The morning shadow impacts on the lots on Bridgeport Road East are largely due to the 6-storey building on the site and not the towers.

Due to the short daytime sunlight and the low angle of the sun in the sky, the adjacent lots on Bridgeport Road East are most impacted. The shadow impacted on the lots on Royal Street meet the Guidelines.

Regards,

Yours truly,

MHBC



Trevor Hawkins, M.PL, MCIP, RPP
Partner



June 21 10am



June 21 12pm



June 21 2pm



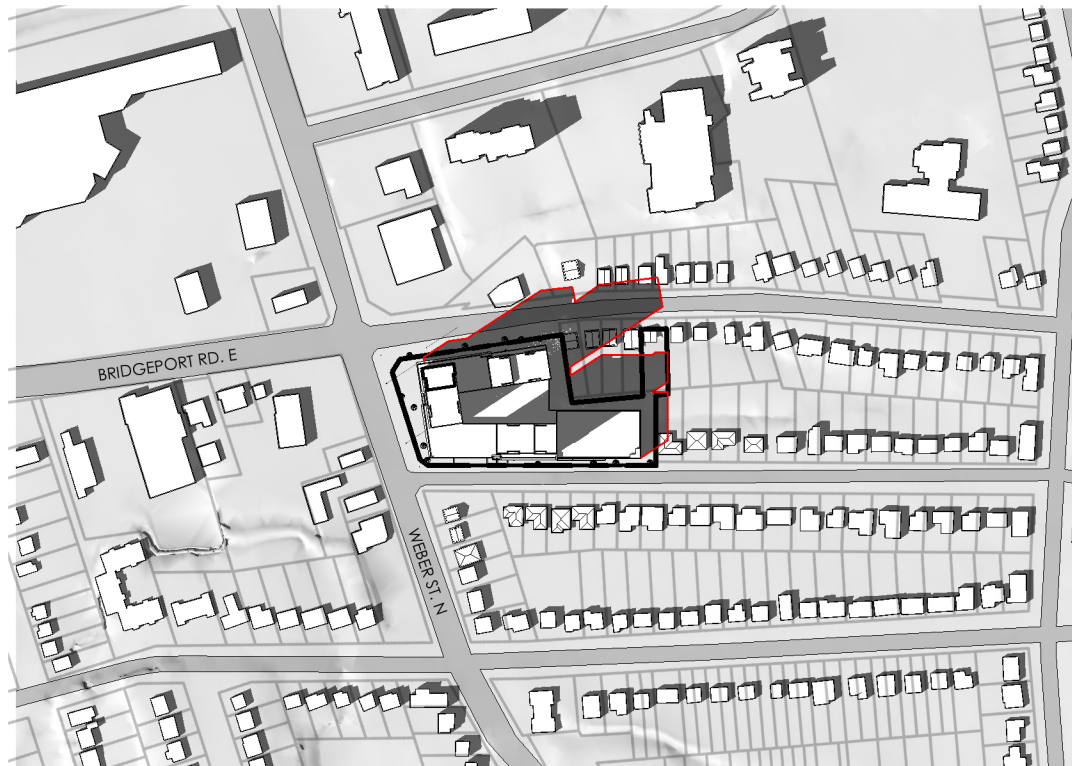
June 21 4pm



Sept 21 10am



Sept 21 12pm



Sept 21 2pm



Sept 21 4pm





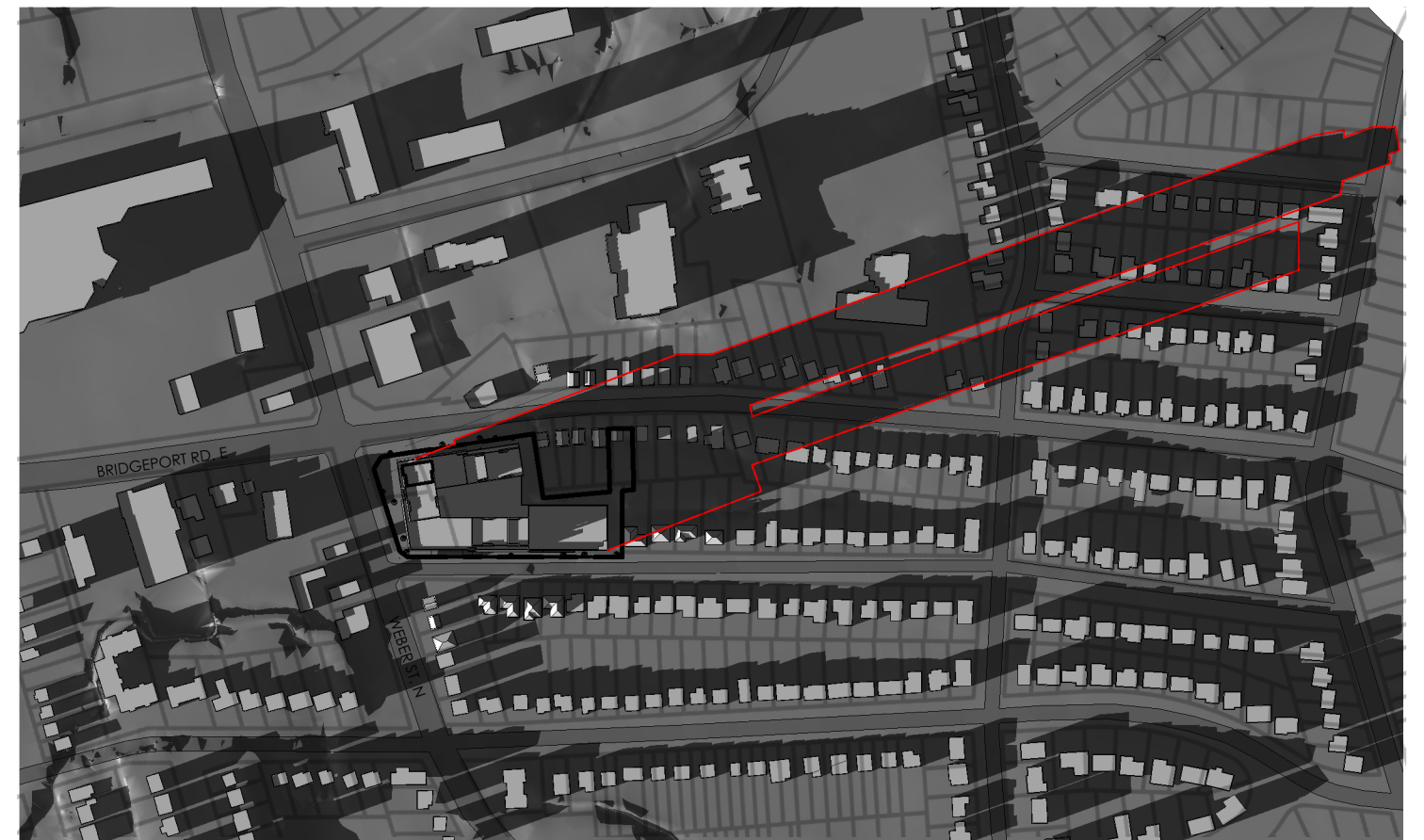
Dec 21 10am



Dec 21 12pm



Dec 21 2pm



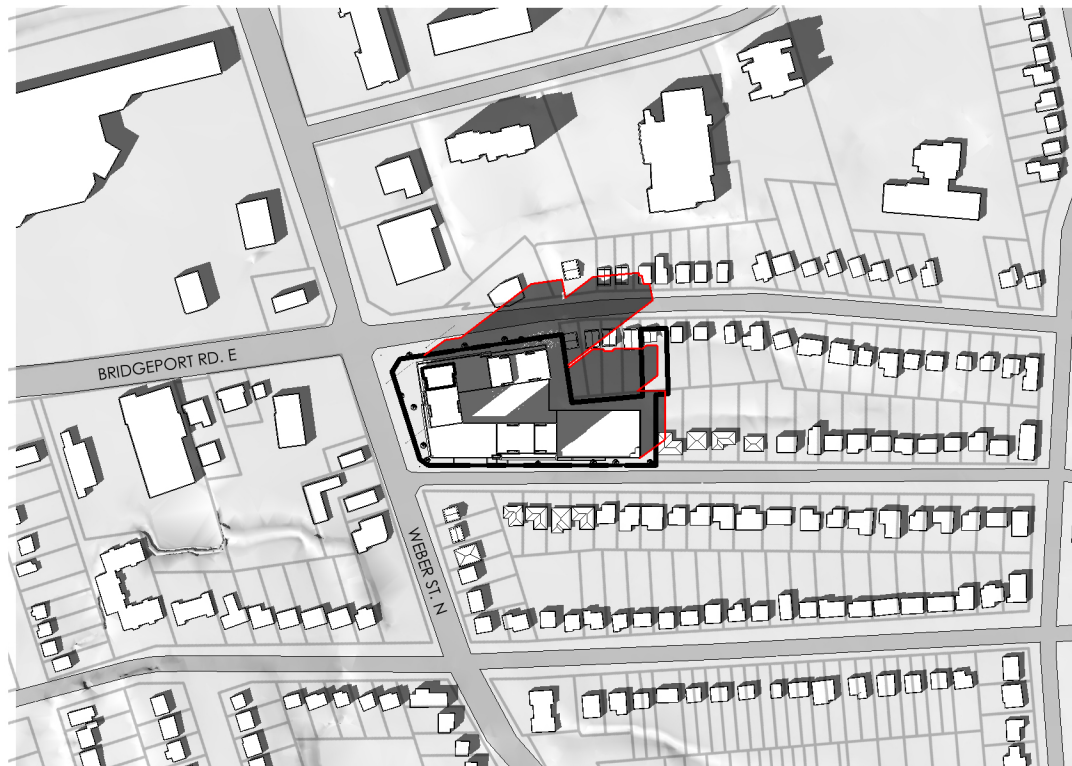
Dec 21 4pm



Mar 21 10am



Mar 21 12pm



Mar 21 2pm



Mar 21 4pm