OEAC-23-46
Memorandum

Economic and Development Services Department

Date: October 3, 2023 File: 12-03

To: Oshawa Environmental Advisory Committee (O.E.A.C.)

From: Branden Morris, Planner A
Economic and Development Services Department

Re: **Application for a Sign Variance: Pattison Outdoor Advertising on behalf of 2775295 Ontario Inc. Regarding Signage at 30 Park Road North**

Pattison Outdoor Advertising on behalf of the property owner at 30 Park Road North, is proposing to convert the existing rooftop billboard sign from a v-shaped static sign to an electronic/read-o-graph display system.

The proposed read-o-graph sign is for static messages only that transition every 10 seconds, and transition instantaneously to the next, without any distracting visual effects. There will be no flashing, motion, video, animation or audio related to the sign.

The purpose of this memo is to provide O.E.A.C. with an opportunity to review the sign proposal contained in Attachments 1 and 2, and provide any comments they may have to staff for consideration in a future staff report concerning the proposed sign variance.

Attachment 1 contains Pattison Outdoor Advertising's application to the City in the form of a letter containing a detailed assessment of the proposed sign.

Attachment 2 contains Media Resources assessment of the lighting impacts of the proposed electronic bill board sign located at 30 Park Road North. Media Resources was hired on behalf of Pattison Outdoor Advertising.

Recommendation

In the event the Oshawa Environmental Advisory Committee wishes to provide comments to staff concerning the sign proposal by Pattison Outdoor Advertising at 30 Park Road North, it is recommended that any comments be submitted via a motion at the October 3, 2023 meeting pursuant to this Report OEAC-23-46, for staff's consideration in a future report concerning the proposed sign variance.

In the event that the Oshawa Environmental Advisory Committee does not wish to provide comments to staff concerning the sign proposal by Pattison Outdoor Advertising at 30 Park Road North, it is recommended that this Report OEAC-23-46 be received for information.

If you have any questions please contact Branden Morris at 905-436-3311, extension 2449 or by email to bmorris@oshawa.ca.

Branden Morris, Planner A
Policy

Attachments

August 17th, 2023

Attn: Warren Munro
Commissioner Development Services
City of Oshawa
50 Centre Street South
Oshawa ON L1H 3Z7

RE: Minor Variance Application - Conversion of Existing Billboard at 30 Park Road North

Dear Mr. Munro,

I am writing on behalf of Pattison Outdoor Advertising, to put forth a detailed application for a variance to convert the existing rooftop billboard, located at 30 Park Road North, Oshawa (the "Subject Property"), from a v-shaped static sign to an electronic/read-o-graph display system (the "Proposed Sign").

The conversion represents a substantial opportunity for both the City of Oshawa and local businesses, and is intended to foster growth, align with City objectives, and further modernize the community. Our application will also address the four tests as outlined in the Planning Act.

The existing static sign was installed in 1996 above a one-storey building, zoned as “Planned Strip Commercial (PSC-A)”. It consists of two faces, each measuring approximately 18.6 square meters. Our intention is to convert these faces into digital displays with the same dimensions and height as the existing sign, thus maintaining the local character and adhering to the City's strategic vision.

The proposed conversion is in line with historical precedents in the City of Oshawa. Over the past few years, we have seen other existing signs converted from static displays to electronic displays. Variance approvals were granted for similar applications in 2017, and again in 2022. These projects successfully enhanced the landscape, offering a more dynamic advertising medium that provides new opportunities for businesses and increased community engagement, without causing disturbances or posing safety risks.

The proposed conversion of the existing sign at the Subject Property represents a significant stride towards modernization within the local advertising landscape. By converging with the technological standards that have been successfully implemented in other neighborhoods of Oshawa, we are enhancing the digital infrastructure within the City and boosting the competitive edge of the local economy.

The benefits of digital signs extend far beyond their visual appeal. They open up a world of dynamic, efficient, and adaptable advertising opportunities that are well-suited for the fast-paced, digitally-driven world we live in. The upgraded signage allows businesses, both local and

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national, to engage more effectively with their audience, offering real-time updates, versatile content, and high-impact visuals.

Figure 1: Aerial View of the Existing Sign Location and Surrounding Area

Our past experiences with similar conversions provide real examples of the success of this venture. Established organizations and brands such as Durham Children's Aid Society, Durham College, Durham Region Health, Amazon, FreshCo, Johnson & Johnson, and Rogers Media have harnessed the power of our digital products in Oshawa. These modern advertising platforms not only improved their visibility, but also underscored their connection with the local community, contributing further towards economic growth. Our intention is to replicate this success, and we believe it will contribute to the City's ongoing growth and prosperity.

The proposed conversion also aligns with the City's strategic vision, specifically its *Economic Diversification Strategy*. This strategy focuses on economic growth, which is intertwined with robust marketing and advertising. The upgrade to electronic displays would provide a more effective platform for more local businesses to advertise their goods and services, further spurring on economic momentum.

The flexible nature of digital content also offers an added benefit to the City due to the opportunity to display important community updates, public initiatives, and special events, which

provides the ability to broadcast messaging to a large audience of visitors and residents. This added function would significantly enhance community engagement, and align with Oshawa's broader strategic vision.

The Proposed Sign would likely lead to an increase in consumer attention, resulting in higher sales for businesses leveraging this new technology. This would further boost growth of the local economy and compliment Oshawa's *Plan for Success*, ultimately contributing to an enhanced quality of life for Oshawa's citizens.

Converting to an electronic display also aligns with the City's strategies related to environmental responsibility. These displays offer a unique advantage over traditional static displays – the ability to change content remotely, without producing physical waste or travelling to and from the site. Combating climate change and reducing waste also aligns with the City's *Strategic Goals of Environmental Responsibility*, as set out in the Official Plan.

We are committed to the responsible operation of our digital network across Canada. As such, the digital displays that we would install are designed to be energy-efficient by using LED technology, which is known to consume less power than traditional bulbs. This means that the Proposed Sign would help reduce our carbon footprint and better protect the environment.

As the Subject Property is situated near a residential zone, we have taken careful measures to minimize any potential impact on these areas. We have used the "V"-shaped configuration to direct the displays away from the residential properties, and towards the intended audience.

We will also operate the sign at levels much lower than the typical maximum brightness requirements during the evenings, at 75 NITS on the North-east face and 150 NITS on the South-east face from sunset to sunrise. These levels are substantially below the "industry-standard" maximum allowable brightness levels of 300 NITS between sunset and sunrise, and will ensure minimal impacts are achieved.

In line with our commitment to public safety, we will also be installing ambient light sensor technology. This technology adjusts the brightness of the LED displays based on the ambient light levels, ensuring the content is not overly bright, further mitigating any potential distraction to drivers and impacts on the neighborhood.

The conversion to an electronic sign will comply with the majority of the guidelines outlined in the Sign By-law, including Section 4.8. Our proposal for this conversion to a digital display also incorporates SiteLine technology – an advanced, permanent solution for projects where light spill into residential areas is of concern. SiteLine is essentially a mechanical baffle system which is installed around each individual LED within the digital display, that controls the direction of the light emitted to effectively "black out" the display from specified angles.

In this instance, the mechanical baffles (or louvers) will physically block any light from the sign from reaching a designated "protected region". Adding SiteLine to the sign face directed North-

east will virtually eliminate any light spill from reaching properties on Buena Vista Avenue or further north on Park Road North.

This method of control is exceptionally reliable because it doesn't rely on software programming or settings that could be subject to failure or errors in configuration. The baffles provide a permanent, physical barrier that ensures the content is only visible from where it is intended to be seen, thereby eliminating unwanted light spill.

Through the application of SiteLine technology, we can guarantee a high degree of control over light spill, effectively protecting the surrounding residential zones. The use of this technology underscores our commitment to adhere to the spirit and intent of the Sign By-law and demonstrates respect for the surrounding community.

As demonstrated in Table 1 below, and detailed in the Light Impact Study included in our application materials, the integration of SiteLine technology is a substantial mitigating measure that will curtail light spillage towards residences along Park Road North and Buena Vista Ave.

Table 1: Light Levels (in NITS) Reaching Nearby Uses

North-east Face

Site Calculations - 10 x 20 75 NITS Right-Blocking									
Measurement Angle									
Distance (M)	-80°	-60°	-40°	-20°	0°	20°	40°	60°	80°
50	0.068lux	0.224lux	0.505lux	0.683lux	0.718lux	0.612lux	0.010lux	0.004lux	0.001lux
100	0.018lux	0.059lux	0.133lux	0.181lux	0.192lux	0.167lux	0.003lux	0.001lux	0.000lux
150	0.008lux	0.026lux	0.060lux	0.081lux	0.087lux	0.075lux	0.001lux	0.000lux	0.000lux
200	0.004lux	0.015lux	0.034lux	0.046lux	0.049lux	0.043lux	0.001lux	0.000lux	0.000lux

South-east Face

Site Calculations - 10 x 20 150 NITS Standard									
Measurement Angle									
Distance (M)	-80°	-60°	-40°	-20°	0°	20°	40°	60°	80°
50	0.137lux	0.448lux	1.011lux	1.366lux	1.437lux	1.366lux	1.011lux	0.448lux	0.137lux
100	0.036lux	0.117lux	0.266lux	0.362lux	0.384lux	0.362lux	0.266lux	0.117lux	0.036lux
150	0.016lux	0.053lux	0.120lux	0.163lux	0.173lux	0.163lux	0.120lux	0.053lux	0.016lux
200	0.009lux	0.030lux	0.068lux	0.092lux	0.098lux	0.092lux	0.068lux	0.030lux	0.009lux

The study results indicate that including SiteLine technology will ensure that any light spill would remain compliant with the requirements set out in the Sign By-law. This implies an increase of less than 0.1 lux at the property boundary, which is significantly lower than the light levels typically associated with urban light pollution like street lights or automobile headlights.

As part of our ongoing commitment to ensuring minimal environmental impacts and preserving the comfort of the surrounding community, we sought the expertise of optical engineers from Media Resources Inc. to conduct a comprehensive Lighting Impact Study of the Proposed Sign. The results of this study are illustrated in Figure 2, which provides a clear representation of the potential light exposure for the neighboring properties.

Figure 2: Aerial View of the Proposed Sign (North-east Face)

Figure 2: Aerial View of the Proposed Sign (South-east Face)

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The visualization in Figure 2 uses the unit 'lux' to measure the amount of light that would spill onto the surrounding areas. To offer a real-world comparison, an increase in light of 0.3 lux is roughly equivalent to the light of a full moon on a clear night - a level of brightness that is both natural and unobtrusive.

This study shows that the light emanating from the Proposed Sign is less than 0.3 lux for all neighboring properties. This indicates that the Proposed Sign would have a negligible impact on surrounding properties, and is unlikely to cause any disturbance to nearby residents or businesses. This low-level lighting falls well within the acceptable standards, demonstrating our commitment to preserving the ambience of the local environment while simultaneously providing enhanced and additional advertising capabilities.

Furthermore, we intend to install a remote monitoring system which is supervised 24/7 by our National Operations Centre via live video feed, to ensure that the Proposed Sign is operating as planned at all times. This established system would detect any irregularities or malfunctions and report them immediately, allowing for swift correction and ensuring continuous compliance with applicable regulations.

Public safety is one of our top priorities. The Proposed Sign will display only a series of static images for a fixed period of 10 seconds, that transition instantaneously to the next, without any distracting visual effects. At no time will the sign display any full-motion video, flashing, blinking, or scrolling images.

A study conducted by the City of Toronto's Transportation Services in 2015 found no significant correlation between electronic sign installations and collision rates (the data found a four per cent decrease in accidents within the study area – a statistically insignificant amount). This further demonstrates that this conversion will not have an adverse effects on traffic safety.

As part of our commitment to comply with the *Planning Act*, we believe our application thoroughly addresses the four applicable tests. Our proposal aligns well with the general intent and purpose of the *Official Plan*, and compliments Oshawa's strategic vision and planning objectives, which prioritize enhancing the City's economic growth, environmental responsibility, and community engagement.

In regards to adhering to the general intent and purpose of the Zoning By-law, despite the variance being sought, our conversion plans respect these guidelines by maintaining the existing sign dimensions, height and location, and strategically planning for measures to minimize any potential impacts on the surrounding residential zones.

Furthermore, the conversion is highly desirable for the appropriate development of the land. By converting the existing sign into digital displays, we allow for a more efficient use of the advertising space, simultaneously providing enhanced marketing opportunities for local businesses and promoting broader economic development within the City of Oshawa.

As for the final test – whether the variance can be considered minor in nature - the conversion to digital displays is designed to respect and enhance the local community. It maintains the size and footprint of the existing sign, and includes numerous steps to mitigate any impacts on the surrounding community, using SiteLine technology to control light spill and setting programmed brightness levels which are far below the industry standards. Our commitment to considering and planning for any potential impacts underscores the minor nature of the proposed conversion, while highlighting the potential for multiple positive impacts.

In conclusion, the conversion of the existing sign at the Subject Property to digital displays presents an opportunity to modernize Oshawa's advertising landscape and align with City objectives, while providing numerous benefits to the local economy and the environment. We hope that you will consider our application favorably, and are always available to discuss any aspects that may require additional information or clarification.

Thank you for your time and consideration.

Sincerely,

Marisa A. Goncalves

Marisa Goncalves
Leasing Representative, Central Region
Pattison Outdoor Advertising

CC: Nathan Jankowski, Manager, Legislation & Permits
Nicholas Campney, Director of Leasing & Legislation

Attachment 2

1-800-667-4554
1387 Cornwall Rd.
Oakville, ON L6J 7T5
mediaresources.com

Re: Use of SITELINE digital display at 30 Park Road North, Oshawa, ON.

To whom it may concern,

Media Resources Inc. has been engaged by Pattison Outdoor to review and assess the lighting impact of the proposed digital billboard installation at 30 Park Road North. This document will describe the brightness management features of our digital billboards as well as provide details on the VISIONiQ SITELINE principles of operation.

Background on Media Resources Digital Display Ambient-Aware Brightness Controls

During dusk, dawn, or cloudy days, the operation of the digital display according to ambient light readings is the ideal way to maintain a glare-free, light-trespass free image. Media Resources digital billboards are all equipped with factory-mounted dual photocell sensors that are redundant and capable of reading ambient brightness even if one unit suffers a hardware failure. The ambient brightness to output brightness response curves have been carefully developed into a standard to provide good readability on the display while keeping in line with the brightness of the overall visual context.

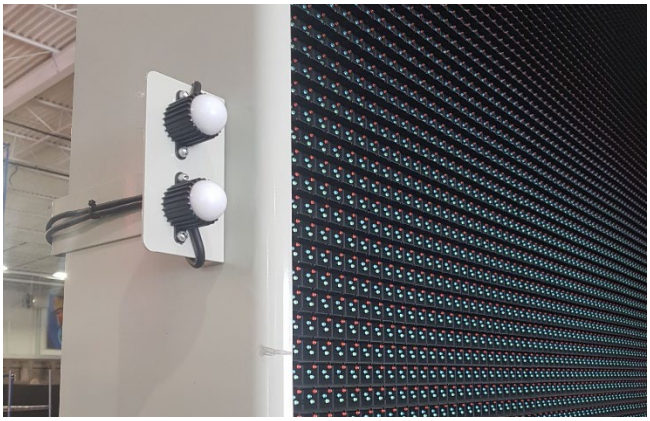

Figure 1. Media Resources standard - dual ambient brightness measuring photocells for hardware redundancy.

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During night-time, brightness control becomes critical as the digital billboards must be operated at a small percentage of its maximum brightness in order to avoid glare or light trespass. Media Resources endeavors to have the most comprehensive system of safeties and traceability for night-time brightness management. The proposed digital billboards are well equipped with modern brightness controls. Besides the redundant photocells above, a number of secondary fail-safes are also implemented including a communications watchdog (automatic reduction to night-time brightness in the event of a communication loss), and failback to a location/season aware time-based schedule in the event of catastrophic photocell system failure. With these safety features in place, it becomes extremely unlikely for the digital billboard to operate at high brightness levels at night.

Additionally, the Media Resources Network Operations Centre can monitor brightness and recall brightness history for traceability. See Figure 2 and Figure 3 below on our internal control system for configuring brightness and recalling brightness history.

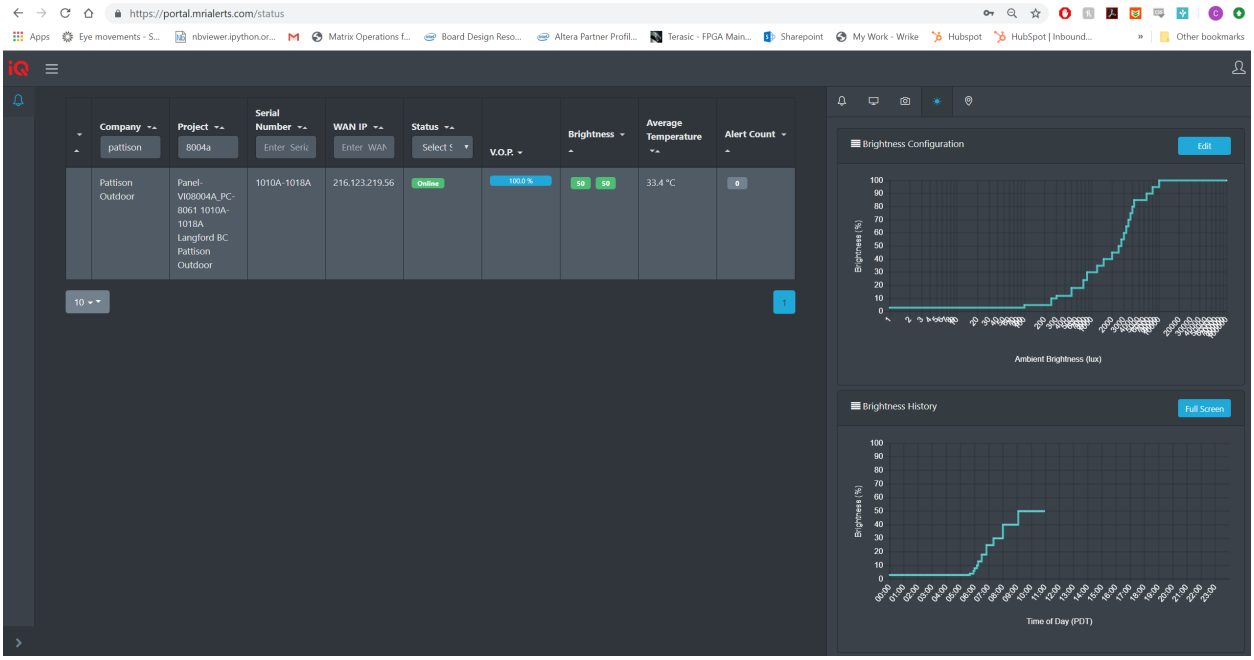

Figure 2. Media Resources web portal showing brightness configuration and history of the current day.

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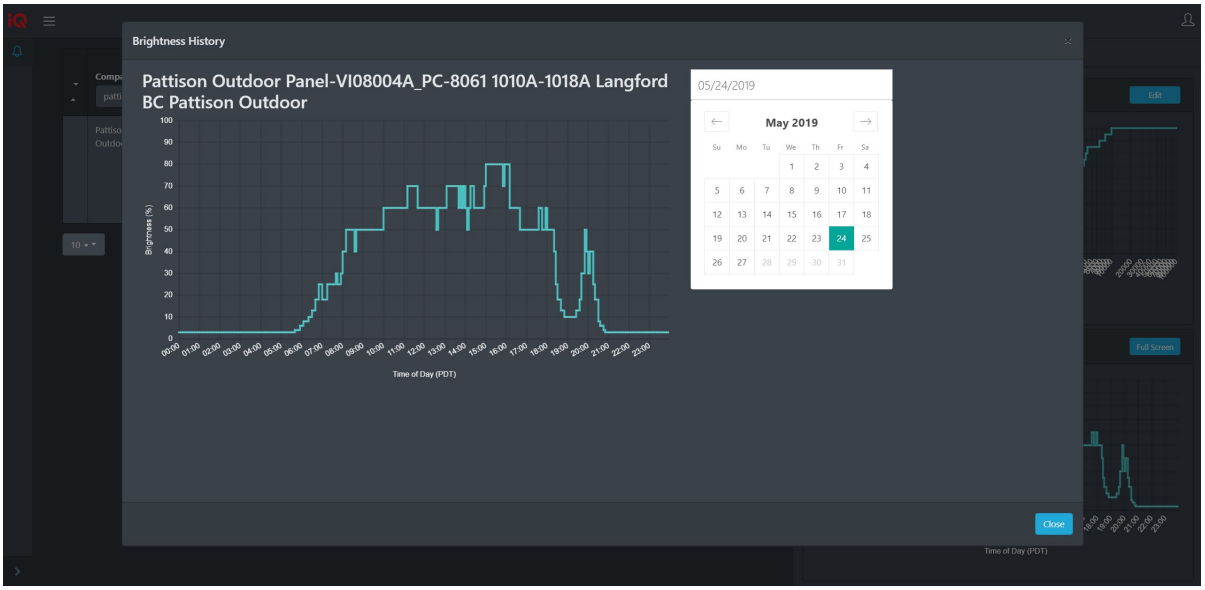

Figure 3. Media Resources web portal showing brightness history of any selected previous date. Brightness history data is logged indefinitely on Media Resources servers.

SITELINE and light trespass mitigation

Media Resources Inc. invented the SITELINE product specifically to address the issues surrounding individual areas where light emission into nearby areas is undesirable.

The SITELINE system employs a patent-pending mechanical baffle (or louver) system similar to luminaire baffles to eliminate all projection of light from the Light Emitting Diodes (LEDs) into a "protected region". As a result, the protection is physical (See Figure 4 and 5) – reliable, permanent, and not the outcome of any programming or settings.

As can easily be seen in the figures below, the mechanical baffles/louvers (made of matte-finished black polymer) do not have the effect of any optical focusing or re-direction of light, and thus do not increase the light emission from the LEDs in any direction. They serve strictly as carefully configured mechanical baffles which absorb the light from the LEDs and prevent its passage in the protected direction. A specified NITS value of the display is the maximum output in any direction and is therefore the upper bound on luminance. Any statement suggesting that the SITELINE system can increase brightness above the NITS value of the display is incorrect.

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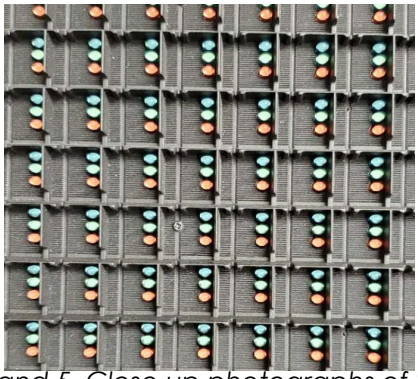
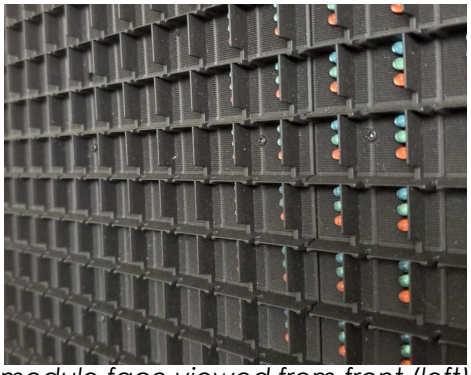

Figures 4 and 5. Close up photographs of SITELINE module face viewed from front (left) and from side (right). Note the red, green and blue diode lenses are directly visible from front direction but are obscured behind baffles viewed from the side.

Media Resources commits to the effectiveness of this light restriction technology when deployed at 30 Park Road North. We have calculated the expected illuminance impact to surrounding areas of concern, shown in Figure 6, along with a table showing lux values at various distances and angles from the face of the display. Media Resources guarantees that the display will operate within 20% of illuminance impact calculated below. If approved and constructed, we can provide on-site lighting measurements to confirm correct installation and light restriction performance.

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Site Calculations - 10 x 20 75 NITS Right-Blocking									
Measurement Angle									
Distance (M)	-80°	-60°	-40°	-20°	0°	20°	40°	60°	80°
50	0.068lux	0.224lux	0.505lux	0.683lux	0.718lux	0.612lux	0.010lux	0.004lux	0.001lux
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200	0.004lux	0.015lux	0.034lux	0.046lux	0.049lux	0.043lux	0.001lux	0.000lux	0.000lux

Table 1. Site calculations based on MRI VIQ3 Siteline 16.67mm Right-Blocking.

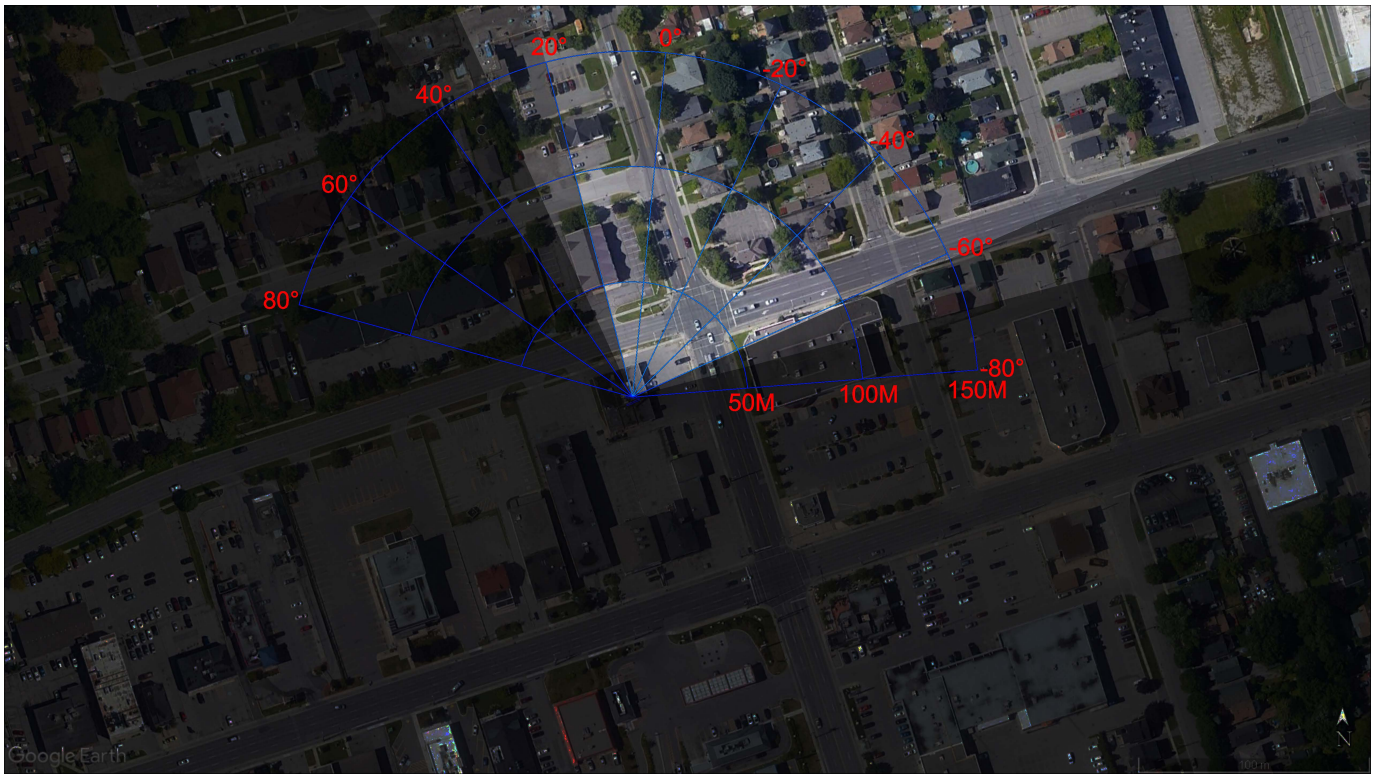

Figure 6. Site satellite photo overlay of distances and angles from proposed digital billboard site, corresponding to calculated illuminance figures in lux provided in Table 1.

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We are always committed to the responsible application of LED digital technology and are happy to engage with regulatory stakeholders at any time. Please feel free to contact us if you have any questions.

Sincerely,

Anthony Knight
Product Implementation Specialist
Media Resources Inc.
(289) 681-0035
aknight@mediaresources.com