

Survey Overview

Digital signs display electronically-controlled images, video or multimedia content for information sharing or advertising. They are becoming an important part of our growing city. The City of Edmonton is developing a digital sign policy that will provide guidance about the use of digital signs. Edmontonians were invited to participate in an online survey to learn about impacts, business and community considerations, and future opportunities for using digital signage.

What We Heard

Major Impacts

The project team identified four areas of impact for digital signs: Safe Mobility, Human Health and Wellbeing, Environment Protection and Edmonton's Image. Participants were asked which impacts should be addressed in how the City of Edmonton regulates digital signs and to identify other impacts. 67% of participants indicated that all identified impacts should be addressed.

- **Safe Mobility** - digital signage may cause driver distraction and confusion with other road signals, as well as increase driver sensory workload and create unsafe driving conditions. The vast majority of respondents acknowledged driver distraction is a major impact of digital signs, with contributing factors such as sign size, sign location density (number of signs in an area), excessive sign brightness, and the sudden change from dark to white image background, which creates glare and unsafe driving conditions at night.
- **Human Health and Wellbeing** - The proximity of digital signs to residences was raised as a concern by many respondents. The prolonged exposure to digital light after dark affects people's circadian rhythms and may be harmful to human health. People noted that bright light and flashing images from digital signs at night affect their mental health and can trigger adverse reactions to people with higher light sensitivity and medical conditions such as epilepsy. People with vision problems, including older drivers, expressed concerns about digital sign glare at night.
- **Environment Protection** - The **environmental impacts** of digital signage include light pollution, impact on animals and plants, energy conservation and climate change considerations. Survey respondents indicated that digital signs may create undesirable light pollution to the sky or to neighbouring properties, and may have a negative impact on migrating birds and other wildlife. Energy usage was raised as a concern by many respondents, as well as suggestions about using alternative sources of energy (e.g. solar).
- **Edmonton's Image** - Freestanding digital signs affect urban streetscapes and may create sign clutter that impacts the image of the city. Many respondents indicated that sign clutter should be avoided by reducing

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the size and frequency of digital signs. Some respondents were concerned about information overload in the public realm and commented that free-standing billboards do not contribute to an attractive city.

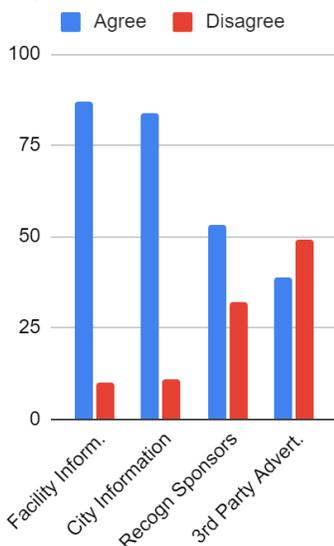
Business Considerations

The principles that guide the usage of digital signage for commercial purposes were shown to the survey respondents. The majority of respondents (63%) agreed that these principles should be considered when creating digital signage policy. Many responses expressed concern that the impacts of digital signage should be addressed first before looking into the business benefits of signage. As digital signs are much brighter and attention-demanding than traditional signs, concerns were raised that traditional signs cannot compete with digital signs, which could create marketing inequality, an issue further exacerbated by higher cost of digital signage that precludes smaller businesses from using it at present.

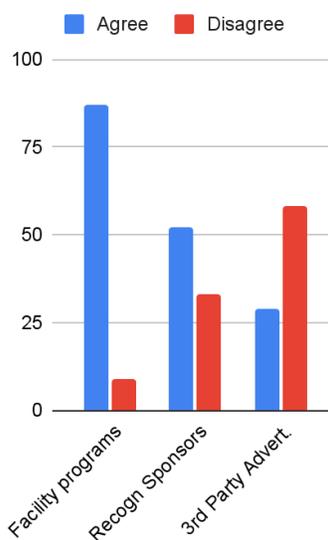
Community Benefit Opportunities

The opportunity for using digital signage for **community benefits** at schools, community leagues and City facilities was well received by the majority of respondents. Most respondents agreed that these signs should be used to predominantly display facility or community-related information about local programs or events, and recognize sponsors or businesses that operate within the facility. Comparatively, a lesser proportion of respondents agree that digital signs should be used for commercial third party advertising. The opportunity to use digital media and signage to display public art was well received (68% agreement). Respondents agree with the use of digital signage for traffic management, safety messages and wayfinding, but are not supportive of seeing commercial advertising on transportation infrastructure within the road right-of-way. The three diagrams provide more detail.

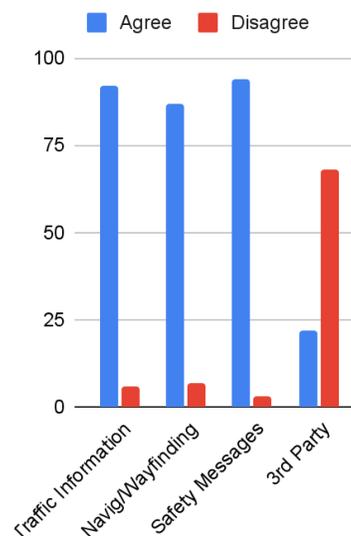
Signs at City Facilities



Signs at Schools/CLs



Signs in Road ROW



Other Common Themes and Considerations

While most of the feedback from the open-ended questions tended to gravitate around the major impact areas of digital signage, additional considerations were raised with relation to other aspects of digital signage. These included the need for proper sign maintenance by the sign owners, and enforcement by the City (currently managed through a complaint-based compliance); concerns about the type of content to be displayed (e.g. family-friendly content, no messages that can be divisive or offensive). Responses indicated lack of awareness that the City's ability to manage content is limited due to freedom of expression. Other common concerns in the survey were related to the risk of vandalism in the public realm.

How We Engaged

On April 4, 2023, an email inviting people to participate in the survey was sent out to various organizations and members of the Edmonton Insight Community who indicated interest in this topic. A second email was sent on April 18, 2023 as a reminder that the survey was still open for another week. The survey was posted on the City website and in the City's weekly public service announcement sent to the media.

A presentation about Digital Signs was made to the Sign Industry at a workshop for the Zoning Bylaw Renewal project. All attendees were invited to participate in the survey and sent an email with a direct link to it.

The survey was live from April 4 to 25, 2023.

Who Was Engaged

In total, 1,483 participants completed the survey; they included:

- Signage industry (9 participants)
- Marketing agencies (digital billboards) (15 participants)
- Community Leagues and EFCL (276 participants)
- Edmonton business associations (100 participants)
- School boards (48 participants)
- Design and development associations (35 participants)
- City agencies and other organizations (28 participants)
- Environmental organizations (22 participants)
- General public (not included in the above categories) (950 participants)

GBA+ Analysis

A Gender Based Analysis Plus (GBA+) approach was used to further understand the unique impacts of digital signs on Edmontonians and the perspectives of equity-seeking groups who may have varying interests and abilities, and may experience inequalities. Completing a GBA+ analysis of the survey responses helped gauge a detailed picture of how different groups may experience and interact with digital signs across Edmonton.

Through this public engagement process we heard from a diverse group of people (see table below).

Age			Gender			Diverse Identities		
Young Adults (18 to 34)	Adults (35 to 65)	Seniors (65+)	Woman	Man	Gender Diverse	Indigenous	LGBTQ2S+	Persons Living with a Disability
10%	56%	28%	42%	45%	2.4%	2%	7%	20%

Some highlights from the GBA+ analysis of the survey results include:

- Younger residents aged 18-34 (21%) are more likely to say that the City should address human health and wellbeing than residents aged 65+ (13%) in how the City of Edmonton regulates digital signs.
- A majority of respondents agreed that digital signs should be used to display facility information. Within this category, younger adults (aged 18-34 (74%)) were more likely to agree than older adults (aged 65+ (55%)) that digital signs should be used for displaying facility information.
- Several residents indicated that glare from digital signage during night time affects their vision and may create unsafe driving conditions, especially for older people and for people with vision problems.

Next Steps

Our key take-aways from the survey are:

- Majority of respondents think the major impacts of digital signage (safe mobility, human health and wellbeing, environment, and city image) should be addressed in how the City regulates digital signs.
- Majority of respondents agree that the principles of digital signs used for commercial advertising should be considered when creating digital signage policy.
- Respondents agreed with the potential for digital signage being used for community benefits, e.g. signage at schools and other not-for-profit organizations, digital signs displaying public art.
- Respondents agree with the use of digital signs at City facilities, schools and not-for-profit organizations for facility and community related information and less likely to agree with the use of digital signs for commercial advertising.

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- Respondents agree with the use of the digital signs located within the road right-of-way for traffic management, safety messages and wayfinding, but are less likely to agree with the use of digital signs for commercial advertising.

Our next steps are:

- Develop digital signage strategic guidance to identify the principles for using digital signage for business and community benefits, and to provide direction of how the major impacts of digital signage should be addressed.
- Explore how to better mitigate digital signage impact on residents' wellbeing (e.g. in mixed-use areas and in the residential neighbourhoods), on safe mobility, the environment and the city image.
- Ensure that our work is aligned with the strategic goals of The City Plan and other City programs and initiatives.
- Based on the review of existing regulations, identify areas of improvement which may inform future amendments to the Zoning Bylaw.

APPENDIX A - Online Survey and Results

Below is a summary of the questions asked and the responses received. Results percentages are shown after each question.

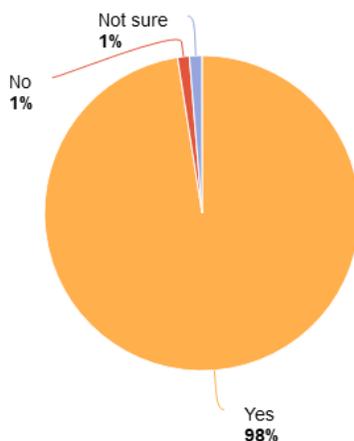
Note: The *Agree/Disagree* percentages shown in this document are the aggregate sums of (*Strongly Agree + Somewhat Agree*) and (*Strongly Disagree + Somewhat Disagree*) percentages.

Question 1

What are digital signs?

Digital signs display electronically-controlled images, video or multimedia content for information sharing or advertising. With the rapid development of digital technologies and digital media, digital signs represent an ever-growing class of signage used in Edmonton. Digital signs can be free-standing, billboards or attached to buildings, or a combination of digital and non-digital signs.

Have you seen digital signs in Edmonton?



Question 2

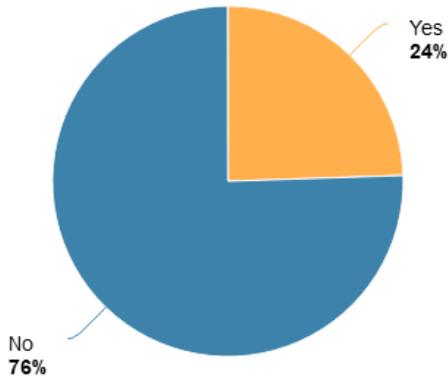
How are digital signs regulated?

Digital signs on private land are regulated through the Zoning Bylaw 12800, while signs within public roads and parkland are subject to the Traffic Bylaw 5590, Parkland Bylaw 2202, and Bylaw 12846 Regulation of Work and Equipment Installation on City Lands.

Why is a policy needed for digital signs? Policies state what we intend to achieve and give high-level direction on how to achieve it. They provide additional guidance and direction and inform decision-making.

The City of Edmonton is presently developing a Digital Sign Policy to better identify the potential impacts from digital signs and how these impacts should be addressed while considering the needs of local business, protecting the public interest and exploring opportunities for the advancement of the digital media and technologies.

Before today, were you aware how digital signs in Edmonton are regulated?



Question 3

Based on research about sign regulations from other municipalities, the City has identified several areas of impact for digital signs as described below.

Safe Mobility - Direct light, including from digital displays, may cause glare, distraction and confusion with other road signals, which may affect driver reaction time and cause accidents.

Human Health and Wellbeing - Prolonged exposure to digital light after dark affects people's circadian rhythms and may be harmful to human health. This impact is worse for those with conditions that are sensitive to light, such as the autism spectrum, ADHD, epilepsy, and others.

Environmental Protection - Environmental impacts include light pollution, impact on animals and plants, energy conservation and climate change considerations.

Edmonton's Image - The spread of digital signs might create sign clutter that impacts the urban character of the city.

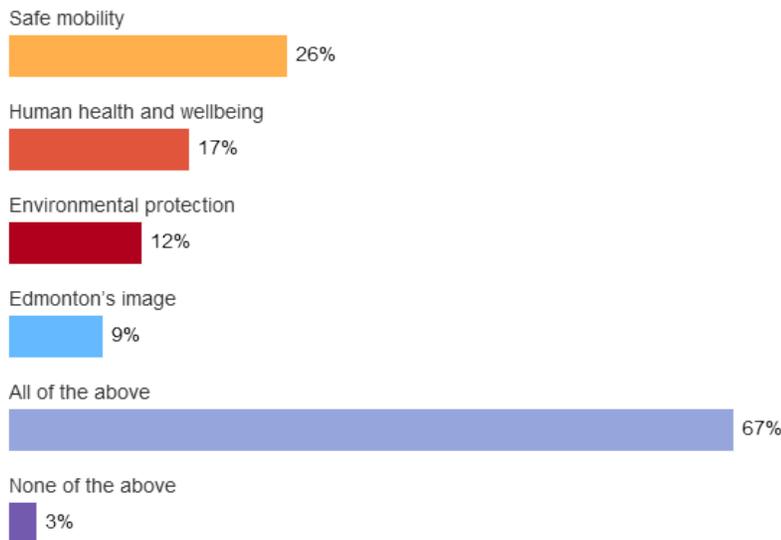
Which of the following impacts of digital signs should be addressed in how the City of Edmonton regulates digital signs? Please select all that apply.

- *Safe mobility*
- *Human health and wellbeing*
- *Environmental protection*
- *Edmonton's image*
- *All of the above*
- *None of the above*

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Question 4

In your opinion, are there any other impacts of digital signs?

Results: 31% Yes, 28% No, **41% Not Sure**

The comments to this open-ended question validated the identified major impacts as shown on page 1.

Question 5

Digital signs are a rapidly developing technology that is redefining advertising and marketing and changing the urban environment of Edmonton and other major cities. Signs, including digital signs, bring benefits to local business and our community.

Business Benefits

The following high-level principles pertain to the City's approach to commercial use of digital signs.

- *Digital signs are useful for commercial advertising.*
- *Digital signs should be sized and positioned to suit their use and location.*
- *Digital signs should meet the needs of local businesses.*

Do you think these principles should be considered when creating digital signage policy?

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● Strongly disagree ● Somewhat disagree ● Neither agree nor disagree ● Somewhat agree
● Strongly agree ● I don't know



Question 6

In your opinion, are there other considerations with relation to the benefits of digital signs to businesses?

- Yes (please specify) (29%)
- No (32%)
- Not sure (39%)

Responses: We heard a variety of perspectives about the commercial digital signs. Overall, there was a good understanding of the business benefits of digital signs. For example, digital information is easier to update, and digital images and video can be more visually appealing and attention-drawing. On the other hand, we heard comments that the current digital sign market is monopolized by big players and small businesses that cannot afford digital advertising, which raised the question of the inequality of the small business.

Question 7

Do you agree with City facilities (i.e. recreation centres, attractions, libraries, EcoStations, etc.) being able to use digital signs for:

- Facility information
- City-related information
- To recognize sponsors
- 3rd party advertising for revenue generation

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● Strongly disagree
 ● Somewhat disagree
 ● Neither agree nor disagree
 ● Somewhat agree
● Strongly agree
 ● Should not use at all

Facility information



City-related information



Recognize sponsors



Third party advertising for revenue generation



Question 8

Do you agree with digital signs being used by community leagues, schools, and other social, cultural, religious and sports not-for-profit organizations:

- To share information about facility programs and events
- To recognize sponsors
- For 3rd party advertising

● Strongly disagree
 ● Somewhat disagree
 ● Neither agree nor disagree
 ● Somewhat agree
● Strongly agree
 ● Should not use at all

To share information about facility programs and events



To recognize sponsors



For third party advertising



Question 9

Do you agree with digital signs being used for public art displays at approved locations? (Currently there are no such examples in Edmonton)

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● Strongly disagree
 ● Somewhat disagree
 ● Neither agree nor disagree
 ● Somewhat agree
● Strongly agree
 ● Should not use at all



Question 10

Do you agree with digital signs being used on sidewalks, public roadways, bridges, overpasses, etc.

- *To display traffic information*
- *For navigation and wayfinding*
- *For safety messages*
- *For commercial advertising*

● Strongly disagree
 ● Somewhat disagree
 ● Neither agree nor disagree
 ● Somewhat agree
● Strongly agree
 ● Should not use at all

to display traffic information



for navigation and wayfinding



for safety messages



for commercial advertising



Questions 11

Are there any other public benefits of digital signs you think have been missed?

Results: 13% Yes; **49% No**, 38% Not Sure

Questions 12

*Do you have any other feedback on the Digital Sign Policy? *Optional*

The common themes from the responses to this question are summarized in the Survey Overview and the Other Common Themes and Considerations sections above.

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Questions D1 - D6 - Demographics

The City of Edmonton strives to ensure all public engagement efforts are inclusive, have fair and equal access to the public engagement process and the opportunity to influence decisions. Our surveys include demographic questions to help us determine if we are hearing from a variety of perspectives.

The demographic questions in the survey informed the GBA+ analysis presented on page 3.