Complete Street Design Guidelines – Transportation Planning Impacts

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Report Summary

This presentation provides information regarding the Complete Street Guidelines as well as their impact to the design of the transportation network.

Relationship to the Strategic Plan, Health Impact Assessment and Climate Action Plans

This report refers to “providing quality multimodal transportation alternatives for roads, transit, trails, paths, sidewalks, and connecting neighbourhoods and communities within Greater Sudbury” which is identified in the Strategic Plan under the strategic objective of Create a Healthier Community. This report also supports the “achieve 35% active mobility transportation mode share by 2050” as identified in the City of Greater Sudbury Community Energy and Emissions Plan (CEEP) by improving walking infrastructure.

Financial Implications

There are no financial implications.

Executive Summary

This report presents the City of Greater Sudbury's Complete Streets Design Guidelines (CSDG) and highlights their potential impacts the development processes, and the broader development community. The guidelines propose significant changes to street designs, including the implementation of 2:1 slopes for roadside ditches, narrowing lane widths, expanding sidewalk and cycling infrastructure, and incorporating landscaping elements. These changes aim to enhance safety, promote active transportation, improve public spaces, and align with the City’s broader sustainability and growth objectives.

Introduction

The City of Greater Sudbury is introducing new Complete Streets Design Guidelines to better align road infrastructure with the city’s vision of creating safer, more accessible, and environmentally sustainable streets for all users. These guidelines, which support the Complete Streets Policy approved by Council in 2018,

focus on enhancing active transportation options, improving connectivity, and fostering the livability and vibrancy of neighborhoods. The guidelines offer actionable recommendations to design streets that prioritize safety, accessibility, and multi-modal transportation.

Each street in Greater Sudbury plays a unique role and must be designed to reflect its specific context, whether existing or in future developments. Whether serving as a major transit corridor, residential commercial or industrial areas, or downtown areas with high pedestrian and cyclist activity, streets must fulfill multiple functions while balancing the needs of all users. The Complete Streets guidelines emphasize a context-driven approach, ensuring street designs align with both existing conditions and their future role in the transportation network, addressing functional needs and the surrounding area's characteristics.

The proposed guidelines will have a direct impact on the development community, influencing property development, site planning, and the design of roads within new subdivisions. Developers will be required to align road layouts and infrastructure with these new design principles, helping to create safer, more sustainable communities that supports active transportation. The guidelines outline key objectives such as:

- **Context-sensitive Design**: Tailor street designs to their specific roles within the transportation network.
- **Vibrant Public Spaces**: Design streets to attract pedestrians, cyclists, and community members, encouraging social interaction and local commerce.
- **Prioritize Transit and Active Transportation**: Integrate safe and efficient walking, cycling, and transit options to reduce dependency on private vehicles.
- **Safety and Accessibility:** Ensure streets accommodate users of all ages and abilities, promoting inclusivity and supporting a healthier community.
- **Connectivity:** Enhance the connectivity of the transportation network by linking key destinations.
- **Cost-effectiveness:** Consider environmental, social, and economic benefits and costs in street design to improve long-term resiliency.

By integrating Complete Streets principles, Greater Sudbury will promote a more sustainable, inclusive, and efficient transportation system. These design changes will not only improve the quality of life for residents but also support the city’s growth, economic activities, and public health initiatives. The incorporation of Complete Streets design will also align with the city’s ongoing commitment to enhancing transit infrastructure and promoting active mobility, ensuring greater accessibility and convenience for all residents.

Incorporating these guidelines into developments projects will not only help meet the city's sustainability and connectivity goals but will also boost economic growth, reduce vehicle operating costs, and create more vibrant public spaces.

Public Consultation

The Complete Streets Design Guidelines for Greater Sudbury have undergone extensive consultation to ensure they reflect the needs and priorities of the community. This process engaged a diverse range of stakeholders, including transportation professionals, community groups, accessibility advocates, and residents, to create a comprehensive and inclusive plan.

The draft road cross sections were first presented to the Operations Committee in June 2022. Following this, a public consultation period was held, lasting until September 30, 2022. During this time, staff actively engaged with the public at key events such as the Sudbury Market and Rib Fest. Additionally, staff presented the proposed cross sections to various advisory groups, including the Population Health Advisory Committee, the Seniors Advisory Panel, the Community Action Network Chair meeting, and the Development Liaison Advisory Panel (DLAC).

Feedback was collected through surveys, offering residents and stakeholders the opportunity to voice their opinions on critical elements such as cycle tracks, sidewalks, pedestrian amenities, parking, and more. The survey results indicated strong support for safer and more inclusive infrastructure, with a particular emphasis

on separated and protected bike lanes, the creation of multi-use paths, and the need for improved pedestrian amenities such as benches and greenery.

Key insights include:

- **Cycle Infrastructure**: Need for dedicated, separated cycling lanes and multi-use paths, especially connecting the city's cycling network.
- **Sidewalks and Pedestrian Safety**: The importance of wide, well-maintained sidewalks, particularly in residential and downtown areas. Winter maintenance and accessibility for people with disabilities were common concerns, with calls for safer pedestrian routes and improved snow removal.
- **Public Transit**: Enhancing public transit infrastructure, including more frequent services, better bus stops, and designated lanes.
- **Parking and Traffic Flow**: There were mixed opinions about on-street parking for businesses in downtown areas, with some supporting its presence for local businesses, while others expressed concern about the negative impact of parking on traffic flow and safety, particularly near busy pedestrian areas. For local residential roads, there is a preference for parking on one side, with a growing emphasis on incorporating cycling infrastructure and ensuring safe, accessible spaces for pedestrians.

Proposed Changes within the Complete Streets Guidelines

The proposed changes within the Complete Streets Design Guidelines include adjustments to road cross-section standards, with a focus on lane widths, sidewalk dimensions, and the integration of cycling infrastructure. Currently, urban roads in Greater Sudbury have a standard width of 9 metres for local roads or varying lane widths of 3.75 to 4.5 metres for arterial and collector roads, while rural roads range from 6.7 metres to 7.3 metres for local and collectors up to 14.6 metres for arterial roads. The proposed changes aim to narrow lane widths to 3.5 metres for arterial and collector roads and reduce the total road width to 7.5 metres for urban local roads and 6.0 metres for rural local roads. This reduction in road width will free up space for pedestrian and cycling infrastructure, such as wider sidewalks and dedicated bike lanes, while still maintaining traffic flow.

For sidewalks, the guidelines propose widening sidewalks from 1.5 metres to 1.8 metres to better accommodate mobility devices and strollers. This will improve pedestrian mobility, especially in high foot traffic areas. The guidelines also include a strong focus on cycling infrastructure, recommending the addition of dedicated bike lanes and cycle tracks, particularly on arterial and collector roads. The incorporation of safe cycling routes will enhance connectivity within the city's growing active transportation network, offering an alternative to car travel and encouraging more sustainable commuting options.

Another significant change is the proposal to adjust slopes on local and collector rural cross sections for roadside ditches from the current 3:1 to a 2:1 ratio. This adjustment will create space for bike lanes, sidewalks, and wider paved shoulder space for active transportation within the existing right-of-way, enhancing safety without expanding the roadway. Both designs have low expected collision frequencies, supporting their safety.

Additionally, the guidelines propose integrating more landscaping features, such as additional trees, shrubs and benches, along roadways. These features will not only improve the aesthetic appeal of streets but also provide environmental benefits like improved air quality and stormwater management. The addition of benches for rest areas will also help create more inviting public spaces.

Emergency vehicle access has been a key consideration in the proposed changes. The guidelines recommend ensuring roads are wide enough to accommodate larger emergency vehicles, such as fire trucks, while also incorporating narrower lane or road widths, which will help slow traffic and improve safety for all road users.

Impacts on Development in the Community

The Complete Streets Design Guidelines were developed to support the Complete Streets policy, adopted in 2018, and provide a consistent approach for integrating key elements into road projects and new roads. These guidelines focus on improving road safety, accessibility, and sustainability. These guidelines will have some impact on how developers approach road design for new subdivisions and developments, whether industrial, commercial, or residential.

When developers apply for approval of industrial, commercial, or residential subdivisions, the City requires that the designs for local, collector, and arterial roads (both urban and rural) comply with the same standards as those used in road reconstruction projects. This includes 1.5 metre sidewalk on one side of a local roads, and both sides of collector and arterial roads. Urban arterial and collector roads must include cycle tracks or bike lanes, while rural roads require 2 metre paved shoulders for active transportation. These requirements align with the City's Official Plan, and are enforced through the Zoning By-law, which regulates land use and ensures development follows the City's planning and design goals.

As part of the Site Plan Control process, developers must include or contribute to the future installation of sidewalks, cycle tracks, or bike lanes. They are also required to include landscaping, like tree planting, along these roads as part of new developments or road improvements resulting from new development.

The new design standards propose narrowing lane widths for arterial and collector roads to 3.5 metres, as well as reducing road widths of urban local roads to 7.5 metres. The guidelines also propose increasing sidewalk widths from 1.5 metres to 1.8 metres. This change will improve pedestrian mobility, especially for those with mobility devices or strollers, and will make new roads more inclusive.

The City currently has both rural (open ditch) local roads (where lot sizes are larger, and houses are farther apart) and rural local roads in urban areas (where lot sizes are smaller, and houses are closer together). There is currently only one standard for these types of roads. For rural local roads, the Complete Streets Design Guidelines propose a cross-section similar to the current standard, with the key difference being narrower road widths to 6.0 metres and additional landscaping for trees and shrubs. For rural local roads in urban areas, rather than following the current practice of urbanizing the road (which involves adding curb, gutter, storm sewers, sidewalks, etc.), the Complete Streets Design Guidelines propose a new cross-section that retains the rural character (with open ditches) while narrowing road width to 6.0 metres, adding a sidewalk and additional landscaping elements such as trees, shrubs, and benches. This new cross-section for rural local roads in urban areas was specifically designed to provide the municipality with an option that avoids full urbanization in already built-up areas, offering a more cost-effective and context-sensitive solution for these neighborhoods.

When a new road is built, including in a development, it is typically urbanized, meaning it follows urban cross-sections that include curb and gutter systems, stormwater management infrastructure, sidewalks, and other essential urban features. As the city grows, new subdivisions are designed to integrate with the existing urban infrastructure, ensuring effective stormwater management and reducing risks like flooding and erosion. The benefit of urbanization with curb and gutter systems is that it maximizes land use. These systems take up less space compared to open ditches and culverts, which require more room for drainage. This makes curb and gutter systems a more practical solution in urban areas where space is limited, allowing developers to optimize land while maintaining effective stormwater control. Curb and gutter systems also provide a cleaner, more organized appearance, which aligns with the visual preferences of urban environments. Open ditches, on the other hand, are often considered less attractive in residential and commercial areas.

The proposed changes to the Complete Streets Design Guidelines will have a manageable impact on developers' costs. For all new roads, wider sidewalks will increase initial costs, but these will be offset by savings from narrower road widths, reducing the amount of paving required. On urban collector roads, cycle tracks, bike lanes, and landscape features are already part of the design. For rural collector roads, the 2-metre paved shoulder is also included, so no additional cost will result from these features. As part of the Site Plan Control process, developers are required to include or contribute to the future installation of sidewalks, cycle tracks, or bike lanes, which may incur higher initial costs due to sidewalk widening.
The new design cross section for rural local roads in urban areas, which preserves a rural feel with open

ditches while adding sidewalks, offers cost savings compared to full urbanization. However, the City will need to review each new development application individually to determine if adopting this cross-section is appropriate, taking into account the specific impacts of accepting this design for new roads and the total life cycle cost of the assets. This review will ensure that the design is suitable for each development's context and needs, in alignment with the City's Official Plan, which prioritizes active transportation infrastructure, and the Zoning By-law, which regulates land use and ensures developments are consistent with the City's broader planning and design goals.

Conclusion and Next Steps

The Complete Streets Design Guidelines offer a strategic, flexible approach to transforming Greater Sudbury's transportation network into a safer, more accessible, and sustainable environment. The guidelines are adaptable to the unique context of each road and neighborhood. The city will monitor and adjust the guidelines as needed, incorporating concepts like infill development and low impact development.

If adopted, staff will complete a comprehensive review of all relevant City policies, procedures, best practices, and current standards to ensure consistency with Complete Streets principles. This review will ensure that the guidelines continue to align with the objectives of community impact, resource management, sustainable development, and quality control, with the goal of creating a well-organized, livable, and thriving community. The review will consider not only the integration of Complete Streets principles but also the impact from a road maintenance and sustainability perspective, ensuring that future developments are built with long-term viability in mind.

Additionally, staff will develop criteria and guidelines to determine when a rural road cross-section in an urban area can be used for new development. This will help make the decision-making process transparent to the development community, ensuring clarity and consistency in planning and development decisions.

The city's ongoing development of the Roads and Transportation Asset Management Plan will play a critical role in prioritizing capital road projects. During the development of the capital budget, the guidelines will be reviewed to determine which elements should be included in each project, ensuring that funds are allocated efficiently. A key part of this process will be the use of data like past collision history, traffic speeds, and active transportation user volumes to identify areas in need of Complete Streets upgrades. For instance, roads with lower Average Annual Daily Traffic (AADT) and lower speeds may not require dedicated cycling lanes or wider sidewalks, as the needs of these areas may differ. Additionally, the current sidewalk priority index will be reviewed to further guide these decisions. Staff will return with future reports which will expand on the criteria that will be used to guide this decision-making process which will be applicable to development driven projects.

Resources Cited

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