

Sidewalk Infill Prioritization Criteria

ISSUE

This report outlines the revised criteria for prioritizing locations for sidewalk infill.

BACKGROUND

The Active Transportation Implementation Plan, approved by City Council on March 25, 2019, provided a five-year plan for sidewalk infrastructure expansion and identified the following next steps for the Sidewalk Infill Program:

- conduct a detailed review of the inventory of missing sidewalks;
- prioritize the sidewalks for implementation;
- complete feasibility analysis;
- prepare designs for construction; and
- develop cost estimates.

A review of the inventory of missing sidewalks is substantially complete. The next step is to prioritize sidewalk infill locations.

CURRENT STATUS

A missing sidewalk inventory is manually maintained and is prioritized based on the following criteria:

Priority	Description
1	Locations primarily include outstanding residential requests and locations where no sidewalk exists on either side of the roadway. Also includes neighbourhood traffic review or corridor review recommendations.
2	Locations include sidewalks around high pedestrian areas such as parks, schools, and public facilities.
3	Locations include areas that have a sidewalk along one side of the roadway and are not on a pedestrian corridor leading to a park, school, senior citizen's complexes, or public facilities.

DISCUSSION/ANALYSIS

Best Practice

Currently there are no formal sidewalk warrants provided by major organizations such as the Transportation Association of Canada, Institute of Transportation Engineers (ITE) or the American Association of State Highway and Transportation Officials.

ITE has published an informational report titled "Survey of Guidelines Used to Select Sidewalk Locations". The report provides information gathered on sidewalk policies and warrants from over 200 jurisdictions internationally (11% Canada, 88% USA, and 1% other).

Findings from this report indicate the top six criteria used to prioritize sidewalk installations are as follows:

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1. Proximity to schools, parks, or recreational facility;
2. Evidence of pedestrian use or foot paths;
3. Presence of sidewalks on adjacent properties;
4. Request from public;
5. Roadway classification; and
6. Proximity to transit stations, routes, or stops.

Additionally, a jurisdictional scan of how other cities prioritize sidewalk infill investments was conducted. This scan revealed that many jurisdictions utilize criteria similar to those outlined in ITE's report. A summary of the findings is included in Appendix 1.

Revised Prioritization Criteria

Based on the above-noted findings, new criteria for prioritizing sidewalk infill locations will be implemented. The revised method utilizes a combination of land use and street context to determine which missing sidewalk locations will have the most impact on the safety and walkability of the pedestrian network. The new criteria will prioritize:

- streets with higher traffic volumes and travel speeds;
- streets with higher potential for pedestrian demand;
- pedestrian access to parks, schools, and major destinations;
- destinations that serve vulnerable users such as older adults and children; and
- integration with transit and future Bus Rapid Transit service.

The criteria is comprised of two categories: 1) Pedestrian Potential and 2) Risk Reduction Potential. Each category contains a set of criteria with a maximum amount of points that can be achieved. Below is a description of each category.

Category	Description
<p>Pedestrian Potential</p> <p>(50 Points)</p>	<p>This category utilizes land use to determine potential demand for pedestrian facilities. The Pedestrian Potential criteria is currently being used by Asset Preservation and Municipal Engineering Services to prioritize city sidewalks for various improvements. Transportation will utilize this criteria to estimate latent pedestrian demand. The criteria contained within this category include:</p> <ul style="list-style-type: none">• Adjacent Land Use (Max 20 points);• Nearby Vulnerable User Destinations (Max 10 points);• Nearby Major Destinations (Max 10 points); and• Nearby Transit Stops (Max 10 points).
<p>Risk Reduction Potential</p> <p>(50 points)</p>	<p>This category utilizes street classification, presence of existing pedestrian facilities, and pedestrian desire to indicate the potential for risk reduction. The criteria contained within this category include:</p> <ul style="list-style-type: none">• Street Classification (Max 20 points);• Presence of Sidewalk (Max 15 points); and• Pedestrian Desire (Max 15 points). <p>In the event that a pedestrian is involved in a collision while traveling along a street where no pedestrian facility is available, maximum points (50) would be assigned in the Risk Reduction Potential category. In the period for 2014-2018, no collisions of this type were reported.</p>

Criteria is applied to the missing sidewalk locations using Geographic Information Systems and the score for each of the criteria is totalled to determine priority. Scores are then grouped into five categories (a higher score indicates a higher priority):

- Priority 1: 81 to 100
- Priority 2: 61 to 80
- Priority 3: 41 to 60
- Priority 4: 21 to 40
- Priority 5: 0 to 20

Additional details on the criteria and assigned points are included in Appendix 2.

Application of Criteria

The Sidewalk Infill Prioritization Criteria is a tool to help prioritize locations for new sidewalks. The criteria will be used as a guide to identify sidewalk infill locations and additional discretion may be required in determining locations. For example, if there are three sequential blocks of missing sidewalk, and the middle block of missing sidewalk scores lower in priority than the blocks on either side, the preference will be to address the entire length of the missing sidewalk to avoid creating additional gaps in the network.

Additionally, top sidewalk infill locations will be reviewed for alignment with other street improvement projects. To capitalize on construction efficiencies, a sidewalk infill location that scores lower in priority may be accelerated to coordinate with other street improvement projects that are scheduled to occur.

The criteria will be applied to the database of missing sidewalks annually to capture any potential changes in the land use or street characteristics that may occur.

It is important to note that not all missing sidewalk locations may be feasible for construction. A number of factors including available right-of-way, utilities, presence of landscaping, and impacts on property/business owners must be reviewed to determine if sidewalk construction is feasible. This feasibility review will occur after sidewalk locations are prioritized.

OTHER IMPLICATIONS

There are no financial, privacy, legal, social, or environmental implications identified.

NEXT STEPS

1. The revised prioritization criteria will be applied to the inventory of missing sidewalks.
2. Top priority locations will be reviewed to determine construction feasibility. The process for determining feasibility will include identifying right-of-way and existing utilities, site visits to assess grades and landscaping, and potential impacts to adjacent property and/or business owners.
3. Once construction of the sidewalk is determined feasible, the missing sidewalk location will be placed on the Sidewalk Construction List, and the design and cost

estimate of the sidewalk will be completed. The top locations will be reviewed for alignment with other street improvement projects to identify opportunities to combine work.

4. A list of sidewalk infill projects totalling \$20 million will be brought forward to City Council in the third quarter of 2020.

APPENDICES

1. Jurisdictional Scan of Prioritization Criteria for Sidewalk Infill Investments
2. Details on City of Saskatoon Updated Sidewalk Infill Prioritization Criteria

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