



Report to: Development Services Committee

Date Report: May 23, 2017

SUBJECT: Infill Sidewalk Prioritization Process and Methodology, All Wards
PREPARED BY: Joseph Palmisano, Manager, Transportation, Ext. 6200
David Porretta, Supervisor, Traffic Operations, Ext. 2040
REVIEWED BY: Loy Cheah, Senior Manager, Transportation, Ext. 4838

RECOMMENDATION:

- 1) That the report entitled “Sidewalk Infill Prioritization Process and Methodology”, be received;
- 2) And that sidewalk gaps on arterial and collector roads be prioritized;
- 3) And that all sidewalk infill projects be subject to the prioritization process and methodology defined in this report except for infill projects that must address public safety issues as determined by the Director of Engineering;
- 4) And that any City road programmed for reconstruction be designed to include sidewalks in accordance with the current (1997) sidewalk policy, including as an item of clarification that sidewalks are to be provided on both sides of a minor collector road;
- 5) And that Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

This report summarizes the current process with respect to identifying and closing gaps in the City’s sidewalk network. It seeks Council’s endorsement to prioritize arterial and collector roads for infill sidewalk installation and the application of the defined process and criteria for processing infill sidewalk projects.

BACKGROUND:

At the April 25, 2016 Development Services Committee (DSC) meeting, staff made a presentation entitled “Draft Infill Sidewalk Policy”. Staff outlined both the need and challenges of installing infill sidewalks in existing residential neighbourhoods. A subsequent staff presentation was made at the January 23, 2017 DSC meeting which provided further information regarding the needs and justification of infill sidewalks, a review of practices in other

municipalities, an evaluation of the benefits and disadvantages of infill sidewalks, and a work plan to bring back a draft Sidewalk Infill Policy for Council's approval.

Comments received from DSC on the presentations were centred around impacts new sidewalks would have on individual residential properties and the impact on limited City budget.

Current sidewalk policy was finalized in 1997

A policy for the placement of sidewalks in new subdivisions within the City of Markham was established in 1983. The policy was reviewed and updated in 1994 and 1997. The City's 1997 (current) Sidewalk Policy in New Subdivisions provides for the following sidewalk requirements:

1. Both sides of arterial roads;
2. Both sides of major collector roads;
3. One side of local roads;
4. Cul-de-sacs which service more than 30 lots;
5. One side of a local industrial road; and
6. Both sides of a local road designated as primary road in the community design plan as agreed upon by the Development Services and Community Services Commissions.

Although not explicitly identified in the current policy, it is presumed that minor collector roads are to have sidewalks on both sides given the similarities between minor and major collector roads in terms of the role and function of these roadways. This clarification to the policy is now included in the staff recommendation.

Alignment with City Policies/Guidelines/Standards

The overall objective identified in Chapter 7 of the City's **2014 Official Plan** "is to develop a transportation system that increases mobility options for all road users, including pedestrians, cyclists, and transit riders and, in the process, begins to redress the past imbalance created by focusing on accommodating the automobile."

Further, it is the policy of Council:

"7.1.4.2 To support walking and cycling throughout Markham as competitive mobility choices for everyday activities such as work, school, shopping, business and leisure by:

- a) creating a more pedestrian-friendly environment that is interconnected by a network of safe, direct, comfortable and convenient pedestrian routes that are suitable for year-round walking;*
- b) designing, constructing and integrating new streets and retrofitting existing streets, where appropriate, to focus on the needs of pedestrians, cyclists and persons with disabilities and ensuring safety, accessibility, convenience, and comfort of all street users are considered."*

The City of Markham's **Engineering Standards** identify the road cross-sections to be constructed in new neighbourhoods. The Engineering Standards generally align with the 1997 Sidewalk Policy in New Subdivisions and include sidewalks on both sides of collector roads (both major and minor).

Markham's **Sustainability Plan** was developed in 2011, to improve our natural environment and to enhance the quality of life in our City. Our *Greenprint* is a 50+ year plan with a bold vision and a strong leadership commitment to make Markham one of the most livable and sustainable communities in North America. A key direction of the Sustainability Plan is for the City of Markham to equitably design streets so that pedestrian and cycling modes are safe, efficient, and viable year round.

The Accessibility for Ontarians with Disabilities Act (AODA) became law in June 2005. The purpose of the Act is to benefit all Ontarians by developing, implementing and enforcing accessibility standards in order to achieve accessibility for Ontarians with disabilities in key areas of daily living before January 1, 2025. While the AODA does not specifically address sidewalks within established communities, it does indicate the need to remove "barriers" to ensure communities and facilities to be accessible to all Ontarians. "Barriers" are defined in the AODA as anything that prevents a person with a disability from fully participating in all aspects of society because of his or her disability.

Municipalities across Ontario have established infill sidewalk policies

Many municipalities in Ontario have established formal Council policies on infill sidewalks. They differ in their approach and methodologies as was presented in the January 23, 2017 staff presentation. Some are high level policies similar to Markham's policy for sidewalks in new development while others are more detailed with weighting factors for different criteria to prioritize infill sidewalk projects.

In the Cities of Toronto, London and Barrie, their infill sidewalk policies specifically direct staff to include sidewalks in road reconstruction projects where they currently do not exist to meet accessibility objectives.

DISCUSSION:

Population and employment in Markham is expected to continue to increase significantly over the next 20 years. As Markham continues to grow, it is no longer sustainable and physically possible, without major disruptions to existing communities, to focus on accommodating more vehicles as the predominant mode of transportation. It is critical that we turn to other transportation options such as walking, cycling, and transit. Improving the overall pedestrian network and environment in neighbourhoods with limited pedestrian facilities will be essential to meeting the objectives of a multi-modal transportation system and encourage walking and transit use. Also, sidewalks help promote a healthier lifestyle and promote neighbourhood and community cohesion by encouraging people to be in public spaces where face-to-face interactions can occur.

Need for improvements to the sidewalk network in older communities.

While the majority of the newer areas of Markham include sidewalk facilities reflective of the 1997 Sidewalk Policy in New Subdivisions, there are many older neighbourhoods that lack such facilities. For example, collector roads constructed prior to 1997 may not include sidewalks on both sides of the road. Without a safe and highly connected network of sidewalks, residents will be discouraged to walk to community amenities such as schools, parks, local retail and public

transit. Improving the overall pedestrian network and environment will be essential to meeting the objectives of a multi-modal transportation system and encourage walking and transit use. A preliminary review of existing sidewalk inventory by Ward across the City of Markham was undertaken and is shown in Attachments 'A' to 'H'. Attachment 'I' provides a summary of sidewalk status by road classification within Markham's urban area.

Gaps in sidewalk network varies by community

Currently, in our urban areas, just over half of Markham's local roads are without sidewalks and, just over 20% of collector roads and approximately 16% of arterial roads do not have sidewalks on both sides.

Older neighbourhoods such as Thornhill lack sidewalk facilities, with many local roads (approximately 70 %) constructed without sidewalks. In comparison, a newer community such as Cornell includes sidewalks on both sides of all local roads.

In developing a robust pedestrian system, it is imperative that local roads in urban areas have sidewalks on at least one side, and collector roads and arterial roads have continuous sidewalks on both sides as these corridors typically provide direct connectivity to community amenities such as schools, parks and open spaces, commercial/retail areas, and public transit.

Current process for infilling sidewalk is primarily based on need

Since 2009, the City's Capital Program has resulted in the construction of approximately 32 kilometers of infill sidewalks, with the majority, 30 kilometers, constructed along arterial, collector or industrial roads.

The average annual budget for design and construction for infill of sidewalks between 2009 and 2015 was approximately \$1.2M. This budget allows for approximately 4 to 5 kilometers of sidewalk infill per year. Currently, citizen requests for sidewalk infill exceed available budget. Based on the average annual budget of \$1.2M and the construction of 4 to 5 kilometers of sidewalk infill per year, it would take approximately 20 years to construct sidewalks on both sides of all collector and arterial roads, without considering local roads.

Current sidewalk infill process and methodology is structured and objective

One of the most challenging aspects of a sidewalk infill project within residential areas is obtaining support from residents directly affected by the project. The individual concerns in residential areas typically relate to loss of parking on driveways, privacy, and impacts to street trees or landscaping. As such, residential areas have seen little new infill sidewalk constructed since 2009. In order to facilitate the construction of sidewalks in existing communities, staff have employed a process and methodology to identify and prioritize these projects based on consideration of a number of criteria. It is important that the process and methodology with regards to infill sidewalk projects be clearly documented to ensure objectivity and transparency. The current process and methodology is summarized below and shown in Attachment 'J':

Step 1: Identification of infill sidewalk projects:

- Council or citizens request
- City road being planned for major rehabilitation or reconstruction
- Gap analysis of the sidewalk network or through a City master plan of pedestrian routes

Step 2: Confirm validity/need and assess initial priority of each project based on:

- Roadways that serve as a route to transit, schools, parks, community centre, major destination (institutional/commercial/retail)
- Gap in sidewalk network including consistency with Sidewalk Policy in New Subdivisions
 - Both sides of arterial roads
 - Both sides of collector roads
 - One side of local roads
- Catchment area of subject sidewalk

Step 3: Determine feasibility and placement of sidewalk based on:

- Sidewalk grid connectivity
- Municipal tree and streetscaping impacts
- Utility impacts
- Private landscaping impacts

Step 4: Conduct community consultation and confirm support:

- Circulation to local Councillor for comment
- Circulation to all affected citizens for comment
- Completion of Public Meeting if necessary

Step 5: Program individual project by year in the capital plan based on:

- Approval status (Public Meeting completion)
- Ease of implementation (utility coordination, cost, etc)
- Available budget

Application of current process and methodology in existing residential areas

The current process and methodology has been successfully applied when community support exists. However, as noted previously, it can be challenging obtaining support from residents directly affected by the proposed infill sidewalk project.

Where a sidewalk gap creates a known public safety condition, as determined by the Director of Engineering, staff will continue to program and install the necessary sidewalks without having to confirm community support.

Annual sidewalk capital program is approved by Council

All infill sidewalk projects prioritized are included in the annual sidewalk construction program and are approved by Council through the annual budget approval process.

SUMMARY AND CONCLUSION:

The sidewalk network is a unifying infrastructure that is used by multi-generations of Markham residents. It promotes in-place ageing which is an important part of complete communities. A complete and comprehensive sidewalk network allows for easier and wider access to community services including schools, parks and open space, neighbourhood retail, community institutions and commerce, and public transit. It results in, among other things:

- More residents and people walking;
- Healthier residents;
- Safer neighbourhoods and communities; and
- Less and slower traffic on streets.

The current sidewalk network in urban areas built post-1997 generally meets our sidewalk policy. However, most of Markham's older neighbourhoods and communities do not. Gaps in our sidewalk network exist on arterial roads, collector roads as well as local roads. Currently, about 17% of arterial roads and 20% of collector roads do not have sidewalks on both sides of the road. Priority should be directed to arterial and collector road gaps as these corridors typically are where the above noted community services are located.

Typical resident opposition to sidewalk construction in residential areas means that most infill sidewalk projects have been in commercial and industrial areas. Even so, infill sidewalk requests currently exceeds available budget.

Staff is employing a structured and objective process in processing and prioritizing infill sidewalk requests. The average annual budget of \$1.2M allows for an average of 4 to 5 km of sidewalks to be built each year. At this rate of construction, the sidewalk gaps along arterial and collector roads in the urban area will take in the order of 20 years to complete. Addressing the gaps on local roads will take much longer and require local community support except where a public safety issue is identified.

FINANCIAL CONSIDERATIONS AND TEMPLATE:

The current infill sidewalk program for collector and arterial roads has an average annual budget of \$1.2million. The additional infill program for residential neighbourhoods is not anticipated to be a significant amount. All budget and expenditures will be closely monitored and continue to be subject to Council approval through the budget approval process.

HUMAN RESOURCES CONSIDERATIONS:

Not Applicable.

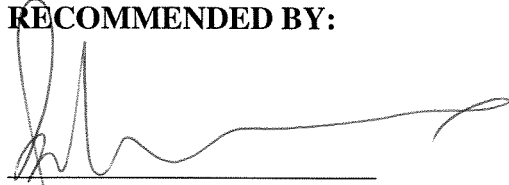
ALIGNMENT WITH STRATEGIC PRIORITIES:

The recommendations contained in this report align with the strategic focus for a Safe & Sustainable Community, through the ongoing management of the City’s transportation network. This recommendation is also consistent with the policies of the City Official Plan.

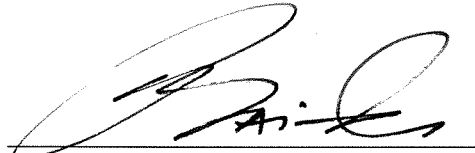
BUSINESS UNITS CONSULTED AND AFFECTED:

Operations Department has been circulated this report, recognizing operations and maintenance impacts associated with additional sidewalks.

RECOMMENDED BY:



Brian Lee, P.Eng
Director, Engineering



Jim Baird, M.C.I.P., R.P.P.
Commissioner, Development Services

ATTACHMENTS:

Attachment ‘A’: Sidewalk Inventory – Ward 1

Attachment ‘B’: Sidewalk Inventory – Ward 2

Attachment ‘C’: Sidewalk Inventory – Ward 3

Attachment ‘D’: Sidewalk Inventory – Ward 4

Attachment ‘E’: Sidewalk Inventory – Ward 5

Attachment ‘F’: Sidewalk Inventory – Ward 6

Attachment ‘G’: Sidewalk Inventory – Ward 7

Attachment ‘H’: Sidewalk Inventory – Ward 8

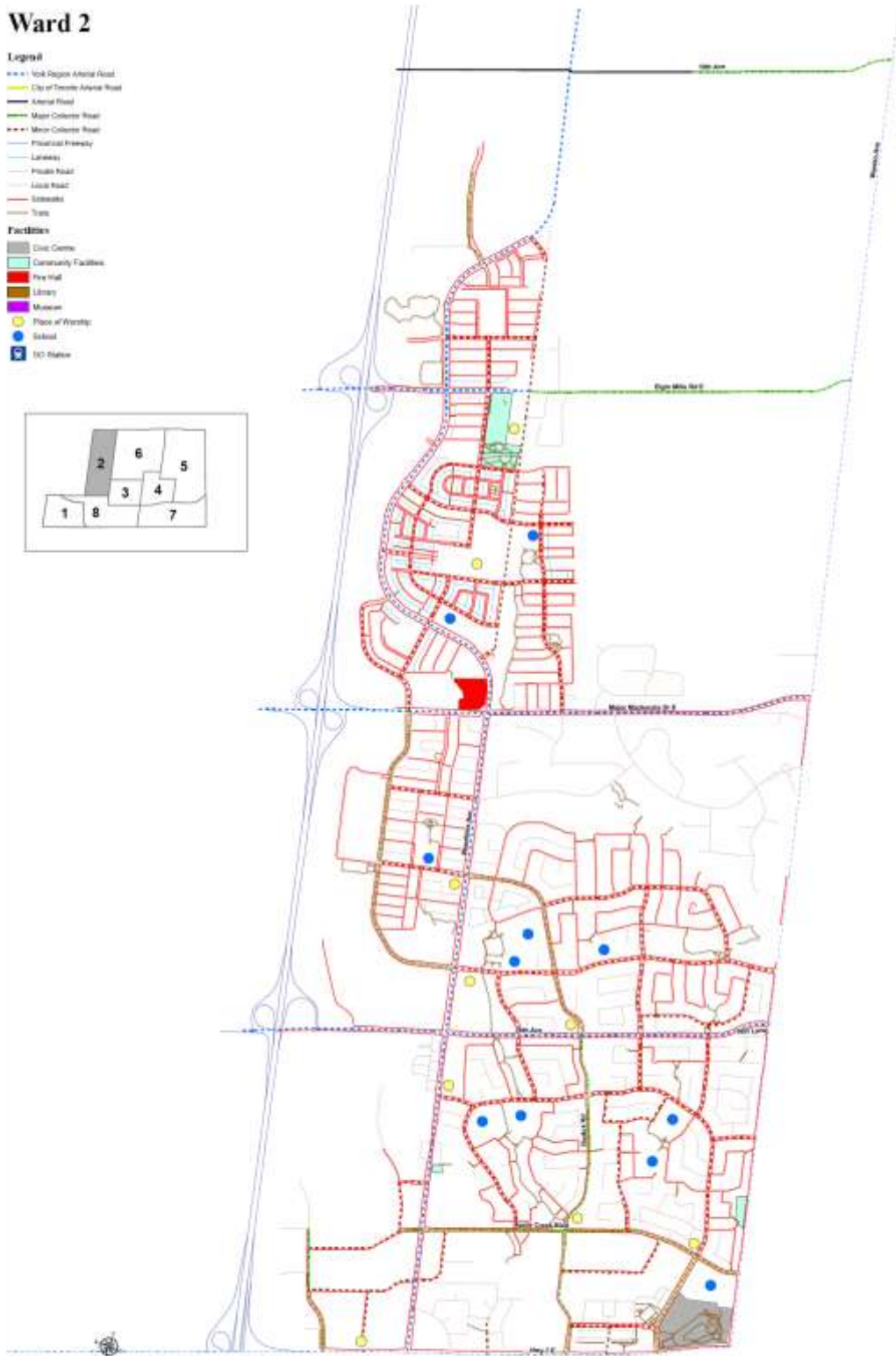
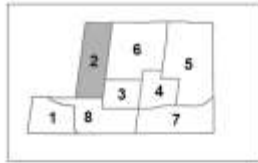
Attachment ‘I’: Sidewalk Status – By Road Classification

Attachment ‘J’: Sidewalk Infill – Prioritization Process and Methodology

Attachment 'B': Sidewalk Inventory – Ward 2

Ward 2

- Legend**
- York Region Arterial Road
 - City of Toronto Arterial Road
 - Arterial Road
 - Major Collector Road
 - Minor Collector Road
 - Physical Freeway
 - Laneless
 - Prohibit Road
 - Local Road
 - Streets
 - Trails
- Facilities**
- City Centre
 - Community Facilities
 - Fire Hall
 - Library
 - Museum
 - Place of Worship
 - School
 - NO Match



Attachment 'E': Sidewalk Inventory – Ward 5

Ward 5

Legend

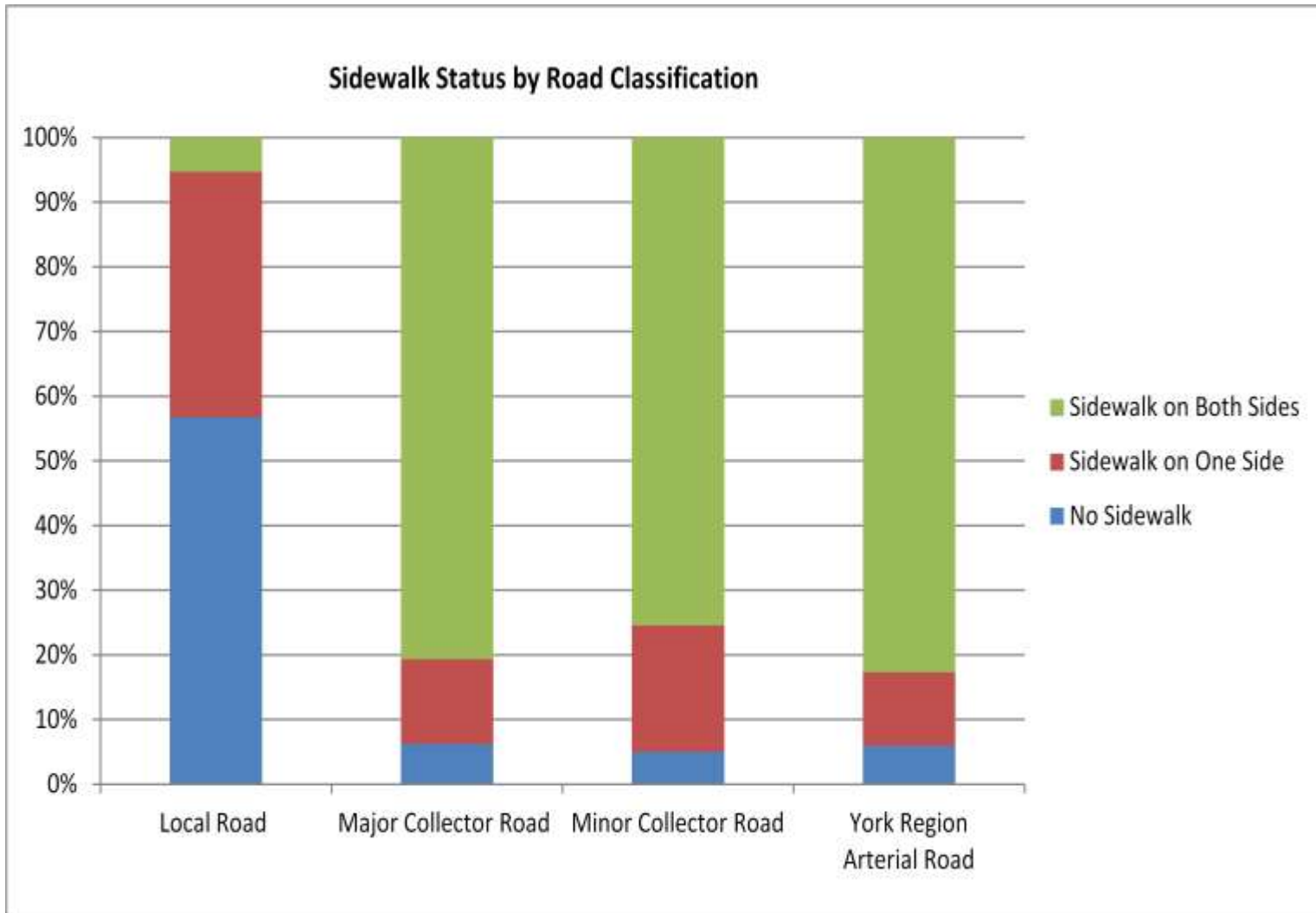
- Top Region Arterial Road
- City of Toronto Arterial Road
- Arterial Road
- Major Collector Road
- Other Collector Road
- Physical Priority
- Utility
- Access Road
- Local Road
- Sidewalk
- Trail

Facilities

- City Centre
- Community Facilities
- Fire Hall
- Library
- Museum
- Place of Worship
- School
- SD Station



Attachment 'I': Sidewalk Status by Road Classification



Attachment 'J': Sidewalk Infill - Prioritization Process and Methodology

