City of Burnaby

Meeting 2019 June 24

COUNCIL REPORT

FINANCIAL MANAGEMENT COMMITTEE

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

SUBJECT: SIDEWALK CONSTRUCTION PROGRAM UPDATE

RECOMMENDATIONS:

1. THAT Council instruct staff to accelerate the construction of sidewalks and urban trails at an average value of approximately $10,000,000 per year with the detailed program to be developed and approved through the Capital Plan process.

2. THAT Council instruct staff to prioritize new sidewalk and urban trail construction using criteria outlined in this report.

REPORT

The Financial Management Committee, at its meeting held on 2019 June 18, received and adopted the ***attached*** report providing information on the current sidewalk construction program and accelerated construction of new sidewalks and urban trails.

Prior to adopting the report, the Committee AMENDED the first recommendation to increase the value of the sidewalk and urban trail construction to approximately $10,000,000 per year.

Respectfully submitted,

Mayor M. Hurley
Chair

Councillor S. Dhaliwal
Vice Chair

Copied to:	City Manager Director Engineering Director Finance Director Planning and Building Director Parks, Recreation, and Cultural Services

City of Burnaby

Meeting 2019 June 18

COMMITTEE REPORT

TO:	CHAIR AND MEMBERS FINANCIAL MANAGEMENT COMMITTEE	**DATE:**	2019 June 11
FROM:	DIRECTOR ENGINEERING	**FILE:**	37500-14

SUBJECT: SIDEWALK CONSTRUCTION PROGRAM UPDATE

PURPOSE: To provide information on the current sidewalk construction program and to accelerate construction of new sidewalks and Urban Trails.

RECOMMENDATIONS:

1. **THAT** the Financial Management Committee recommend Council instruct staff to accelerate the construction of sidewalks and Urban Trails at an average value of approximately $5,500,000 per year with the detailed program to be developed and approved through the Capital Plan process;

2. **THAT** the Financial Management Committee recommend Council instruct staff to prioritize new sidewalk and Urban Trail construction using criteria outlined in this report; and

REPORT

INTRODUCTION

Sidewalks are an important part of a transportation network, providing a critical service for vulnerable road users including wheelchair users, families with strollers, and seniors. Sidewalks also support a healthy community, contribute to a reduction of greenhouse gases, and support equity (as walking is the lowest cost transportation mode).

Burnaby currently has approximately 725 km of concrete sidewalk, 36 km of asphalt sidewalk, and 38 km of asphalt Urban Trail. However, approximately 40% of Burnaby roads (275 km) are missing a sidewalk or Urban Trail on one or both sides of the street.

This report provides additional background and discusses options to accelerate sidewalk construction beyond the current policies and strategies.

POLICY SECTION

Provision of sidewalks is strongly aligned with the adopted vision, themes, and goals of the new Transportation Plan, and the City of Burnaby's Corporate Strategic Plan by supporting the following goals and sub-goals of the Corporate Strategic Plan.

Goal

- A Connected Community –
  - Geographic connection –
    Ensure that people can move easily through all areas of Burnaby, using any form of transportation.

- An Inclusive Community
  - Serve a diverse community –
    Ensure City services fully meet the needs of our dynamic community.

- A Healthy Community
  - Healthy Environment –
    Enhance our environmental health, resilience and sustainability.

- A Safe Community
  - Transportation safety –
    Make City streets, pathways, trails, and sidewalks safer.

- A Dynamic Community
  - City facilities and infrastructure –
    Build and maintain infrastructure that meeting the needs of our growing community.

Completion of the sidewalk network has also been referenced as a goal within the Social Sustainability Strategy and the Environmental Sustainability Strategy, supporting pedestrian safety and mobility.

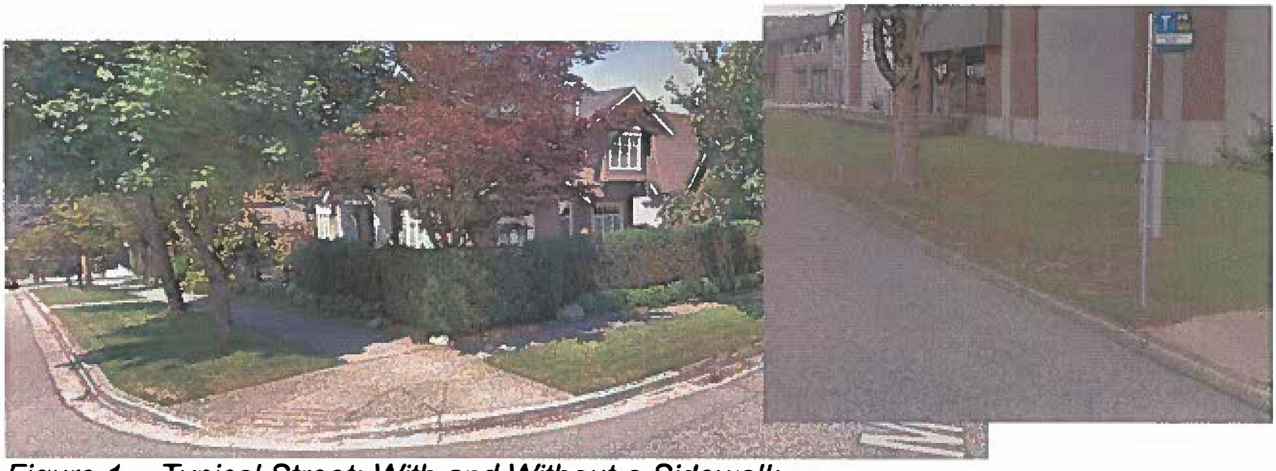


Figure 1 – Typical Street: With and Without a Sidewalk

BACKGROUND

New sidewalks in Burnaby are currently installed through development, the Local Area Service (LAS) Program, Capital Construction on Arterial & Collector Streets, and through the recently implemented Interim Local Street Upgrade Strategy. Since 2014, over 20 km of new sidewalks have been installed in Burnaby.

The volume of new sidewalks being installed has been steadily increasing over the last several years, and is projected to continue increasing over the next three years (from 2.5km in 2014, to over 5 km in 2017, and extending up to 9 km in 2021, for a near-term average of 7km per year).

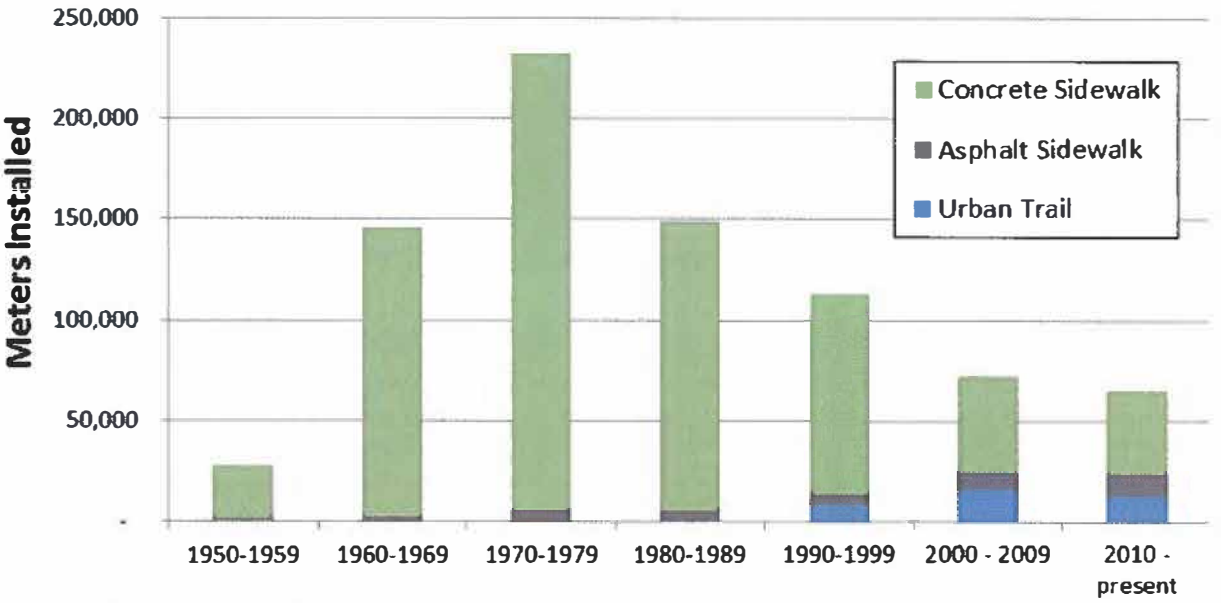


Figure 2 – Sidewalk Inventory Age

The following table provides more context on the current sidewalk network.

Sidewalk and Urban Trail Status	Existing Sidewalks and Trails (km)	Missing Sidewalks and Trails (km)	Percent of Road Network
Sidewalks or trails on both sides of the street	640	23	58%
Sidewalks or trails not beside streets	22	N/A	N/A
Sidewalks or trails on one side of the street	137	137	20%
No sidewalks or trails on either side of the street	0	278	20%
Streets where sidewalks are not intended to be built	0	0	2%
Subtotal	**799**	**438**	**100%**

Table 1- Sidewalk Status

At the current average construction rate of 7km of new sidewalk per year, it would take over 30 years to reduce the sidewalk gap by 50%, with 220km of sidewalk still missing by 2050. As the current program is largely opportunistic, the rate of sidewalk network completion will drop over time and some critical gaps may persist longer than desirable due to a lack of other capital project drivers. Therefore, completion of the sidewalk network would take over 60 years through current policies, practices, and funding levels.

FINANCIAL IMPLICATIONS

The Five-Year Capital Plan currently shows $50 - 80M of annual spending on civil infrastructure rehabilitation and expansion (water, sewer, drainage, communications conduit, and roads).

Category	2019	2020	2021
Water & Sewer	21.6	18.4	21.4
Drainage	11.9	9.7	6.4
Conduit	0.9	1.6	1.0
Roads	18.1	34.8	52.0
Subtotal	**52.6**	**64.5**	**80.9**

Table 2- Current Infrastructure Capital Spending
NOTE: Excludes Metrotown Passarelle and Fortis-related Broadway upgrades (not typical Capital works)

An accelerated sidewalk construction program would require additional capital investment. Sidewalk construction costs are highly variable due to site conditions, with the following cost range:

- **Sidewalk only → $150 – 450 per metre**(where curb & gutter already exists)
  Assume $300 per metre for planning purposes

- **Sidewalks with interim street upgrade → $1,250 – 2,250 per metre**
  (where curb & gutter doesn't exist)
  Assume $1,750 per metre for planning purposes

  This cost for sidewalks with interim street upgrades includes the associated road upgrades such as curb & gutter, pavement widening, new boulevard trees, etc.. However, it doesn't include potential coordinated water or sewer replacement costs, and is variable due to site conditions such as topography, available right-of-way, existing encroachments, etc..

At a high level, the cost to complete the sidewalk network is estimated at approximately $460M. However, approximately 200km of missing sidewalk (or 45% of total missing sidewalks) is adjacent streets with curbs, and can be built at a much lower unit rate, for a total estimated cost of approximately $60M.

The following table displays the approximate additional annual spending necessary to complete the sidewalk network. This assumes that an average of 7km per year of new sidewalks is being added through capital construction and redevelopment. Additional analysis and conceptual design development would be required to refine the estimates and provide more certainty.

Time to Complete the Sidewalk Network	Estimated Additional Annual Spending	Percent Increase to Current Infrastructure Capital Plan*
20 years	$15M	24%
30 years	$8M	12%
35 years	$5.5M	9%
40 years	$4M	6%
50 years	$2M	3%

Table 3- Accelerated Sidewalk Program Costs
*Assumes average Infrastructure Annual spending of approximately $65M per year

The primary funding source for the additional funding required would be from Statutory Capital reserve funds, specifically the Capital Works Financing Fund (CAWFF). Any significant increases to the sidewalk program will likely require further contributions from taxes to CAWFF.

An accelerated sidewalk and Urban Trail construction program could enable earlier completion of critical sidewalk network gaps, as well as complete high-priority locations faster than the current methodologies would enable.

OPTIONS & CONSIDERATIONS

An accelerated sidewalk and Urban Trail construction program focused on critical links[1] could be prioritized using the following criteria:

1. **Near schools, community centres, and transit facilities** – schools, community centres, and transit facilities have high demand for continued pedestrian access, as well as a higher percentage of access by vulnerable road users.

2. **Most Cost-Effective First.** Key factors that affect the cost of sidewalk construction include existing curb & gutter and site topography. If a street already has curb & gutter and is only missing a sidewalk, the cost to install sidewalks is significantly cheaper than if the street would also need to have curb & gutter installed. Steep streets can have higher costs due to requirements for retaining walls, re-grading existing driveway connections, etc.

1 Per the Interim Local Street Upgrade Strategy, critical links are defined as streets near schools, community centres, parks, and transit facilities.

3. **Gaps in network.** Completing gaps in a sidewalk network will ensure that pedestrians have safe and convenient access throughout their entire neighbourhood.

4. **Streets without any sidewalks.** Streets without sidewalks on either side of the street would be prioritized over streets with sidewalks already on one side of the street.

However, the following locations would have a much lower priority for accelerated sidewalk construction:

1. **Areas imminent for development** (within the next 5 to 10 years) – Areas with development activity will receive new sidewalks through the redevelopment process as a condition of development approval, at no cost to the taxpayers. Further, any sidewalks installed in advance of development would likely need to be replaced due to utility upgrades and road right-of-way (ROW) changes to accommodate the new development. Areas with significant active development activity include the Town Centres (Metrotown, Brentwood, Lougheed, and Edmonds).

2. **Rural areas and non-critical links** – Rural areas have lower pedestrian volumes, lower traffic volumes, and higher costs of sidewalk installation. Therefore, these areas would not be prioritized in an accelerated sidewalk construction program. Similarly, streets not located near schools, parks, transit, and community centres also would have lower pedestrian volumes and would not be prioritized in an accelerated sidewalk construction program.

Additional sidewalk installation program considerations include:

1. **Coordination with IT conduit installation** – The City of Burnaby has a 'one-dig' fibre installation strategy that looks to coordinate City-owned fibre installation with other capital projects. This strategy significantly reduces the cost of fibre installation and reduces the likelihood of new sidewalks and pavements being damaged by future fibre construction. Therefore, an accelerated sidewalk installation program would also accelerate the completion of Burnaby's city-wide fibre network.

2. **Coordination with utilities** (if necessary) – if existing water, sewer, or drainage mains are in poor condition and need to be replaced within the next 15 years, it would be prudent to install the utilities concurrent with the new sidewalks to avoid digging up or damaging the newly built sidewalks (and roads, if applicable) shortly thereafter.



Figure 8 – New Sidewalks (Carleton Av, beside Willingdon Heights Community Centre)

SUMMARY

The City of Burnaby does not have sidewalks on both sides of the street for 40% of the network, for a total of 438km of missing sidewalks. Through current policies, strategies, and funding levels, the sidewalk network is currently being expanded by approximately 7km per year. At a high level, the cost to complete the sidewalk network is estimated at $460M and currently estimated to be completed in over 60 years.

RECOMMENDATIONS

Staff recommend that the Financial Management Committee recommend Council instruct staff to increase the rate of dedicated new sidewalk and urban trail construction by an average rate of approximately $5,500,000 per year, with a goal to complete the sidewalk and Urban Trail network in 35 years (2055). The program would be prioritized based on the methodology outlined in this report, with an engineering consultant retained to help develop a detailed near-term program (ie. 5 years) with more cost certainty. These near-term projects would be added to the Five Year Capital Plan, which is submitted annually to Council for approval.

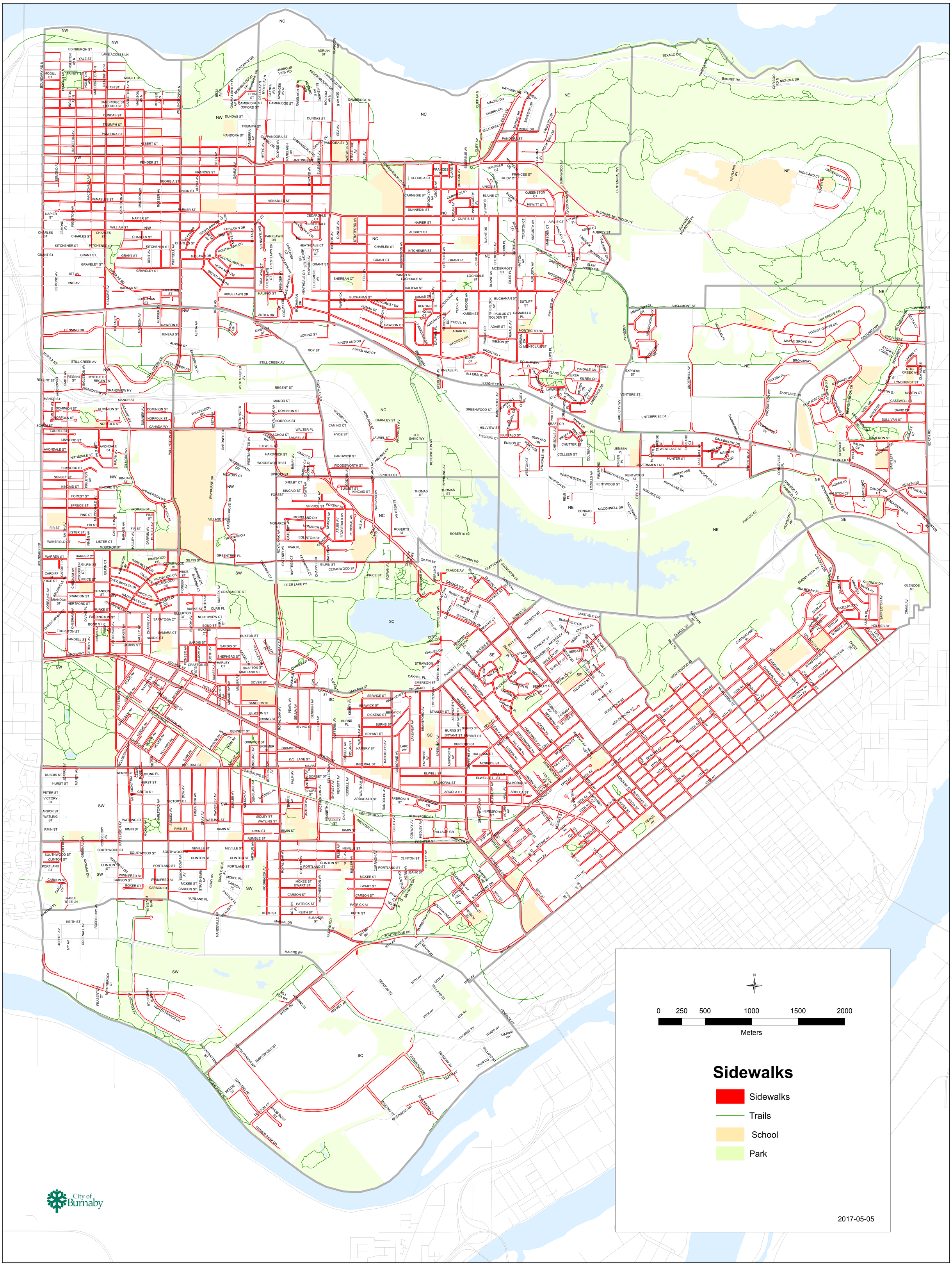
Completion of the sidewalk network supports the adopted vision, themes, and goals of the new Transportation Plan, the Corporate Strategic Plan goals of a Connected, Inclusive, Healthy, Safe, and Dynamic Community, and the goals identified in the earlier Social Sustainability Strategy and the Environmental Sustainability Strategy.

for Leon A. Gous, P.Eng., MBA
DIRECTOR ENGINEERING

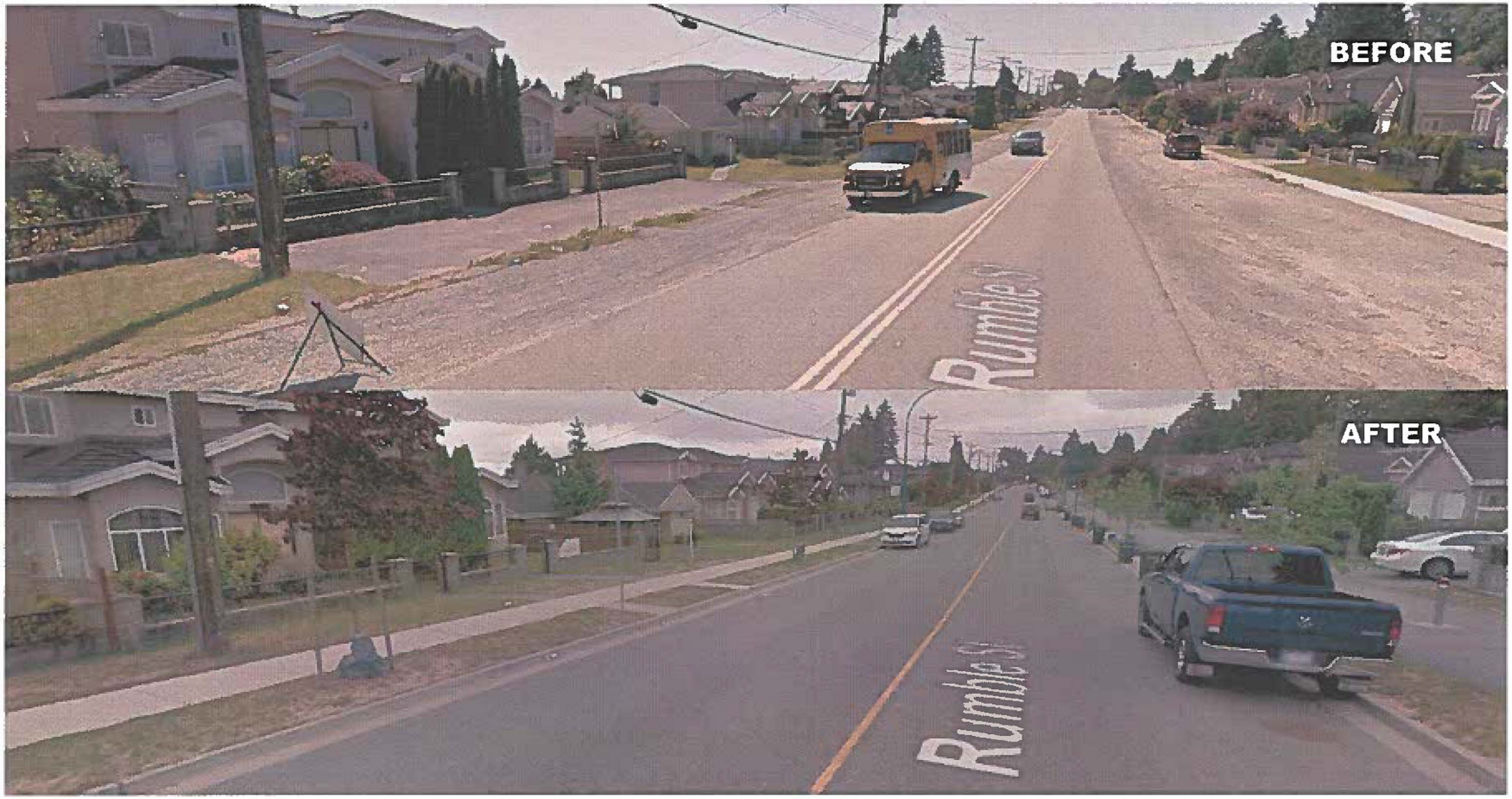
JWH/ac

Copied to: City Manager
Director Finance
Director Planning
Director Parks, Recreation, and Cultural Services

Appendix A
Sidewalk Map (current sidewalks)



Appendix B
Before & After Photos



Rumble, Boundary – Gilley

Appendix B
Before & After Photos



Gamma, Cambridge - Albert