

# Table of Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>V</b>
<b>1.0 INTRODUCTION.....</b>	<b>1.1</b>
1.1 STUDY PURPOSE AND OBJECTIVES .....	1.2
1.2 PREVIOUS RELATED STUDIES .....	1.3
1.3 PROJECT PROCESS .....	1.10
<b>2.0 COMMUNICATIONS &amp; ENGAGEMENT .....</b>	<b>2.1</b>
2.1 ENGAGEMENT OVERVIEW .....	2.1
2.2 ENGAGEMENT PHASES.....	2.1
2.3 ENGAGEMENT ACTIVITIES.....	2.2
<b>3.0 EXISTING CONDITIONS .....</b>	<b>3.1</b>
3.1 ROAD NETWORK.....	3.1
3.2 CURRENT TRAFFIC VOLUMES AND OPERATIONS .....	3.7
3.3 COLLISION REVIEW .....	3.11
3.4 BRIDGE CONDITIONS .....	3.11
3.5 ACTIVE TRANSPORTATION NETWORK.....	3.11
3.6 TRANSIT .....	3.12
3.7 ADJACENT LAND USE.....	3.13
3.8 UTILITIES .....	3.14
<b>4.0 SHORT TERM INVESTMENT PLAN .....</b>	<b>4.1</b>
4.1 EXISTING ISSUES AND OPPORTUNITIES .....	4.1
4.2 IDEAS EVALUATED .....	4.3
4.3 RECOMMENDED SHORT TERM INVESTMENTS .....	4.8
4.4 UTILITY ASSESSMENT .....	4.11
4.5 OPINION OF PROBABLE COST .....	4.12
<b>5.0 LONG TERM CONCEPT DEVELOPMENT AND EVALUATION .....</b>	<b>5.1</b>
5.1 PROCESS TAKEN .....	5.1
5.2 PROJECT GOALS AND OBJECTIVES .....	5.3
5.3 CONCEPTS DEVELOPED.....	5.6
5.4 CONCEPT EVALUATION .....	5.15
<b>6.0 RECOMMENDED CONCEPT .....</b>	<b>6.1</b>
6.1 ULTIMATE ROADWAY CONCEPT .....	6.1
6.2 PEDESTRIAN/CYCLIST FACILITIES.....	6.10
6.3 TRANSIT .....	6.11
6.4 HIGH-OCCUPANCY VEHICLES (HOV) .....	6.11
6.5 TRAFFIC ANALYSIS.....	6.12
6.6 UTILITY ASSESSMENT .....	6.14
6.7 STORMWATER MANAGEMENT ASSESSMENT .....	6.18

6.8	OPINION OF PROBABLE COST .....	6.22
<b>7.0</b>	<b>IMPLEMENTATION .....</b>	<b>7.1</b>
7.1	FUNDING PROCESS.....	7.1
7.2	IMPLEMENTATION TIMELINE .....	7.1
7.3	RECOMMENDATION FOR FUTURE STUDY .....	7.1

## LIST OF TABLES

Table 3-1 - Existing Road Classifications, Geometries, and Posted Speeds .....	3.1
Table 3-2 - Existing Bus Service Summary .....	3.13
Table 4-1 - Short Term Ideas Evaluated.....	4.4
Table 4-2 - Opinion of Probable Cost – Construct a new ramp and acceleration lane from southbound Shaganappi Trail NW to eastbound 16 Avenue NW .....	4.12
Table 4-3 - Opinion of Probable Cost – Install a new traffic signal and dual lane entrance ramp to control northbound Bowness Road NW to westbound 16 Avenue NW.....	4.12
Table 4-4 - Opinion of Probable Cost – Introduce connectivity enhancements along Bowness Road NW for people who walk and bicycle.....	4.13
Table 4-5 - Opinion of Probable Cost – Realign the ramp from eastbound 16 Avenue NW to southbound Bowness Road NW .....	4.13
Table 5-1 - Project Objectives .....	5.3
Table 5-2 - Design Criteria .....	5.5
Table 5-3 - Design Elements Identified .....	5.6
Table 5-4 - Technical Elements Identified .....	5.6
Table 5-5 - Evaluation Criteria Summary.....	5.15
Table 6-1 - Existing Stormwater Infrastructure Modifications & Removals.....	6.20
Table 6-2 - Long Term Concept Opinion of Probable Cost Summary.....	6.22

## LIST OF FIGURES

Figure 1.1: South Shaganappi Corridor Study - Study Area .....	1.2
Figure 1.2: 1970 Shaganappi Trail Corridor Study Plan .....	1.3
Figure 1.3: CTP Road Classifications in Study Area .....	1.5
Figure 1.4: CTP Primary Cycling Network in Study Area.....	1.6
Figure 1.5: CTP Primary Transit Network in Study Area.....	1.7
Figure 1.6: CTP Primary HOV Network in Study Area.....	1.8
Figure 1.7: CTP Primary Goods Movement Network in Study Area.....	1.9
Figure 1.8: South Shaganappi Study – Study Phases .....	1.12
Figure 3.1: Existing Road Geometry – 42 Street to Shaganappi Trail.....	3.2
Figure 3.2: Existing Road Geometry – Shaganappi Trail to West Campus Boulevard.....	3.3
Figure 3.3: Existing Road Geometry – Shaganappi Trail to 37 Street.....	3.4
Figure 3.4: Existing 2015 Traffic Volumes .....	3.8
Figure 3.5: Existing 2015 Pedestrian Volumes.....	3.9
Figure 3.6: Existing 2015 Bicycle Volumes.....	3.10
Figure 3.7: Existing Active Transportation Network.....	3.12
Figure 3.8: Existing Deep Utilities – 42 Street to Shaganappi Trail.....	3.15
Figure 3.9: Existing Deep Utilities – Shaganappi Trail to West Campus Boulevard .....	3.16
Figure 3.10: Existing Deep Utilities – Shaganappi Trail to 37 Street.....	3.17
Figure 3.11: Existing Shallow Utilities – 42 Street to Shaganappi Trail.....	3.18

Figure 3.12: Existing Shallow Utilities – Shaganappi Trail to West Campus Boulevard .....	3.19
Figure 3.13: Existing Shallow Utilities – Shaganappi Trail to 37 Street.....	3.20
Figure 4.1: Collision Rate vs. City Average .....	4.1
Figure 4.2: Traffic Operation Issues .....	4.2
Figure 4.3: Pedestrian & Bicycle Connectivity .....	4.3
Figure 4.4: Short Term Recommended Concept Plan.....	4.9
Figure 4.5: Short Term Recommended Concept Cross Sections .....	4.10
Figure 5.1: Preferred Concept Selection Process.....	5.2
Figure 5.2: Long Term Concept - At-Grade Intersections .....	5.10
Figure 5.3: Long Term Concept - East-West Couplet.....	5.11
Figure 5.4: Long Term Concept - Hybrid .....	5.12
Figure 5.5: Long Term Concept - Tight Urban Diamond.....	5.13
Figure 5.6: Do Nothing Concept.....	5.14
Figure 5.7: Safety Evaluation Summary .....	5.17
Figure 5.8: Access and Connectivity Evaluation Summary.....	5.18
Figure 5.9: Multi-Modal Transportation Evaluation Summary .....	5.19
Figure 5.10: Efficient Traffic Flow Evaluation Summary .....	5.20
Figure 5.11: Land Enhancement Evaluation Summary.....	5.21
Figure 5.12: Stakeholder Input Evaluation Summary.....	5.22
Figure 5.13: Financial Feasibility Evaluation Summary .....	5.23
Figure 5.14: Summary of Evaluation .....	5.24
Figure 6.1: Long Term Recommended Plan (Page 1) .....	6.2
Figure 6.2: Long Term Recommended Plan (Page 2) .....	6.3
Figure 6.3: Long Term Recommended Plan (Page 3).....	6.4
Figure 6.4: Long Term Recommended Plan (Page 4).....	6.5
Figure 6.5: Long Term Recommended Plan (Page 5).....	6.6
Figure 6.6: Long Term Recommended Plan (Page 6).....	6.7
Figure 6.7: Long No Longer Required for Transportation Infrastructure (Page 7).....	6.8
Figure 6.8: Shaganappi Trail / Bowness Road T-Intersection Alternative .....	6.13
Figure 6.9: Water Utility Assessment .....	6.15
Figure 6.10: Sanitary Utility Assessment.....	6.17
Figure 6.11: Proposed Storm Plan .....	6.21

## LIST OF APPENDICES

<b>APPENDIX A</b>	<b>SOUTH SHAGANAPPI STUDY 2015 – 2018 ENGAGEMENT SUMMARY REPORT .....</b>	<b>A.1</b>
<b>APPENDIX B</b>	<b>EXISTING CONDITIONS TRAFFIC ANALYSIS .....</b>	<b>B.1</b>
<b>APPENDIX C</b>	<b>EXISTING COLLISION DATA REVIEW &amp; DIAGRAMS.....</b>	<b>C.1</b>
<b>APPENDIX D</b>	<b>EXISTING BRIDGE CONDITIONS EXISTING .....</b>	<b>D.1</b>
<b>APPENDIX E</b>	<b>ACTIVE TRANSPORTATION.....</b>	<b>E.1</b>
<b>APPENDIX F</b>	<b>EXISTING UTILITIES .....</b>	<b>F.1</b>

<b>APPENDIX G</b>	<b>SHORT TERM IDEAS EVALUATED.....</b>	<b>G.1</b>
<b>APPENDIX H</b>	<b>SHORT TERM OPINION OF PROBABLE COST .....</b>	<b>H.1</b>
<b>APPENDIX I</b>	<b>MULTIPLE ACCOUNT EVALUATION – SUMMARY OF RESULTS .....</b>	<b>I.1</b>
<b>APPENDIX J</b>	<b>LONG TERM CONCEPT .....</b>	<b>J.1</b>
<b>APPENDIX K</b>	<b>LONG TERM CONCEPT TRAFFIC ANALYSIS.....</b>	<b>K.1</b>
<b>APPENDIX K</b>	<b>LONG TERM CONCEPT OPINION OF PROBABLE COST.....</b>	<b>L.1</b>