

BANK STREET

RIVERSIDE DRIVE TO LEDBURY AVENUE

FUNCTIONAL DESIGN STUDY

PUBLIC AND BUSINESS CONSULTATION GROUP MEETING NO.1

JUNE 28, 2016



AGENDA

- INTRODUCTIONS
- PROJECT LIMITS
- PURPOSE OF STUDY
- STUDY TIMELINE
- STUDY CONTEXT
- ISSUES AND CONSIDERATIONS
- WORK COMPLETED TO-DATE
- NEXT STEPS
- QUESTIONS/COMMENTS

PURPOSE OF STUDY

UPDATE THE FUNCTIONAL DESIGN PLAN FOR BANK STREET FROM RIVERSIDE DRIVE NORTH TO LEDBURY AVENUE.



PROJECT LIMITS



PURPOSE OF STUDY

PLAN WILL INCLUDE:

- GEOMETRY AND GENERAL LAYOUT
- TYPICAL CROSS-SECTIONS
- INTERSECTION DETAILS
- LANDSCAPE DETAILS
- IDENTIFY PROPERTY
- IDENTIFY COSTS

PURPOSE OF STUDY

UPDATE WILL:

- BUILD ON 2007 PRELIMINARY DESIGN REPORT FOR BANK STREET (MRC)
- INCORPORATE RECOMMENDATIONS EMERGING FROM 2012 BANK STREET COMMUNITY DESIGN PLAN
- BUILD UPON POLICIES AND GUIDELINES OF 2013 OFFICIAL PLAN (OP) AND TRANSPORTATION MASTER PLAN (TMP) DESIGN PLAN
- CONSIDER COMPLETE STREETS, USING MULTIMODAL LEVEL OF SERVICE (MMLOS) GUIDELINES
- SEGREGATED CYCLING FACILITY
- EVALUATE TRANSIT PRIORITY MEASURES

PURPOSE OF STUDY

UPDATE DOES NOT INCLUDE:

- REVIEW OF UNDERGROUND INFRASTRUCTURE – STORM AND SANITARY AND WATERMAIN - FROM 2007 PRELIMINARY DESIGN REPORT
- RECOMMENDATIONS FOR POTENTIAL BURYING OF OVERHEAD HYDRO LINES
- ADVANCEMENT OF RELATED PROJECTS IDENTIFIED IN THE CDP
 - BILLINGS BRIDGE RECONSTRUCTION
 - SIGNATURE PUBLIC ART (PRELIMINARY AND DETAIL DESIGN)
 - GREENWAY LINEAR PARK

STUDY TIMELINE

WE ARE HERE



1ST ROUND OF
CONSULTATIONS
P&BCG AND TAC
(JUNE 2016)

2ND ROUND OF
CONSULTATIONS
P&BCG AND TAC
(SEPT. 2016)

PUBLIC OPEN HOUSE
(OCT. 2016)

PRESENTATION TO THE
TRANSPORTATION
COMMITTEE
(OPTIONAL – DEC. 2016)

START

ANALYSIS OF
EXISTING
CONDITION

DEVELOP DRAFT
FUNCTIONAL DESIGN
PLAN

MODIFY PLAN BASED
ON CONSULTATION
GROUP INPUT

REFINE AND
DEVELOP
RECOMMENDED
PLAN (DEC. 2016)

FINAL
REPORT
(JAN. 2017)

TRANSFER TO INFRASTRUCTURE
SERVICES DEPARTMENT
(JAN. 2017)

STUDY CONTEXT

2007 PRELIMINARY DESIGN REPORT FOR BANK STREET (PDR)

- STUDY UNDERTAKEN TO ADDRESS DETERIORATED CONDITIONS OF PAVEMENT AND UNDERGROUND UTILITIES
- REVIEW OF EXISTING AND FUTURE CAPACITY INFRASTRUCTURE NEEDS FROM RIVERSIDE DR. TO WALKLEY RD.
- “SHELVED” DUE TO DOWNSTREAM SEWER CONSTRAINTS

2008 BANK STREET/RIVERSIDE DRIVE

INTERSECTION MODIFICATIONS FUNCTIONAL DESIGN

- FUNCTIONAL DESIGN PLAN DEVELOPED BUT NEVER IMPLEMENTED

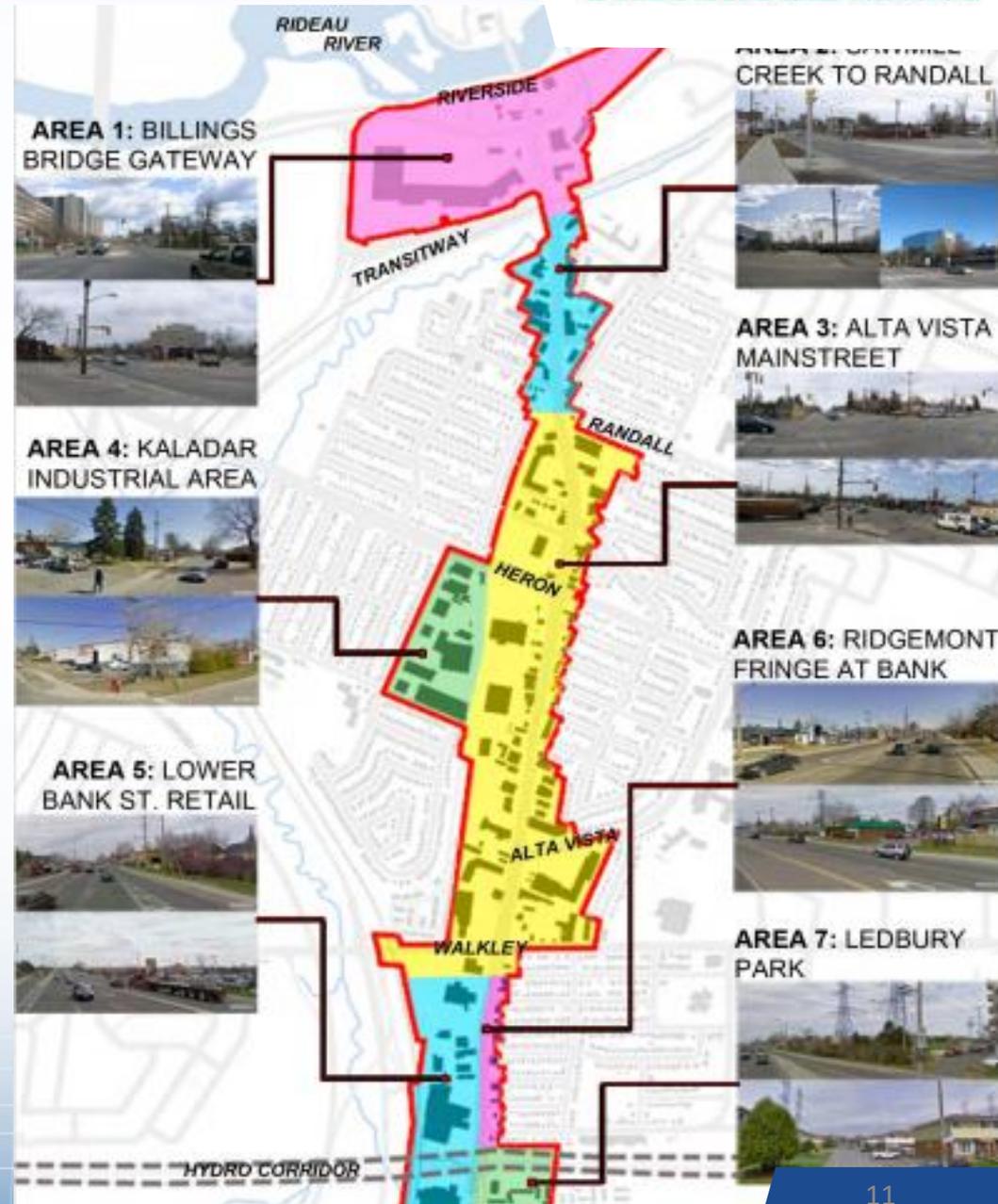
STUDY CONTEXT

2012 COMMUNITY DESIGN PLAN (CDP)

- PURPOSE: TO CREATE A FRAMEWORK FOR THE FUTURE DEVELOPMENT OF THESE LANDS, FULFILLING:
 - POLICY DIRECTIONS OUTLINED IN THE CITY'S OFFICIAL PLAN
 - SETS SPECIFIC OBJECTIVES FOR THE BANK STREET COMMUNITY
- PROVIDES THE LAND USE CONCEPT FOR THE AREA AND THE SERVICING AND TRANSPORTATION STRUCTURE FOR FUTURE DEVELOPMENT

STUDY CONTEXT

CHARACTER MAP



STUDY CONTEXT

2012 COMMUNITY DESIGN PLAN (CDP)

THE CDP'S IDENTIFIED 13 RELATED CAPITAL PROJECTS:

- BILLINGS BRIDGE RECONSTRUCTION
- MUNICIPAL PARKING LOT
- CONVERSION OF WESTERLY RAMP BETWEEN RIVERSIDE DRIVE NORTH AND SOUTH INTO ROAD
- SIGNATURE PUBLIC ART
- BILLING ESTATE MUSEUM
- BRUCE TIMMERMAN PARK
- LEDBURY PARK AREA CONNECTION IMPROVEMENTS
- NEW PARKETTE NEAR LEDBURY
- COMMUNITY GARDEN
- BROOKFIELD MUP
- BIKE LANES ON CPR BRIDGE
- LINK TO DATA CENTRE DRIVE AND

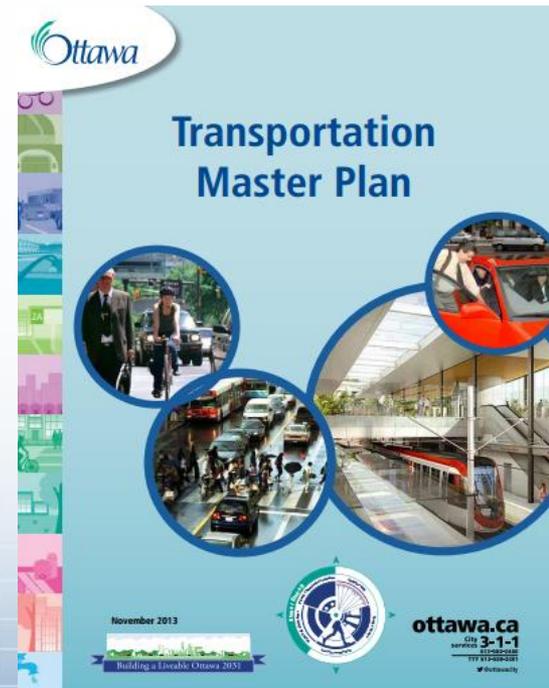
THE FUNCTIONAL DESIGN PLAN ONLY ADDRESSES THE FIRST PROJECT LISTED IN THE CDP:

- THE BANK STREET RECONSTRUCTION PROJECT, WHICH ENTAILS THE DETAILED DESIGN, RIGHT-OF-WAY CROSS SECTION, AND PUBLIC REALM IMPROVEMENTS ALONG THE STREETScape.

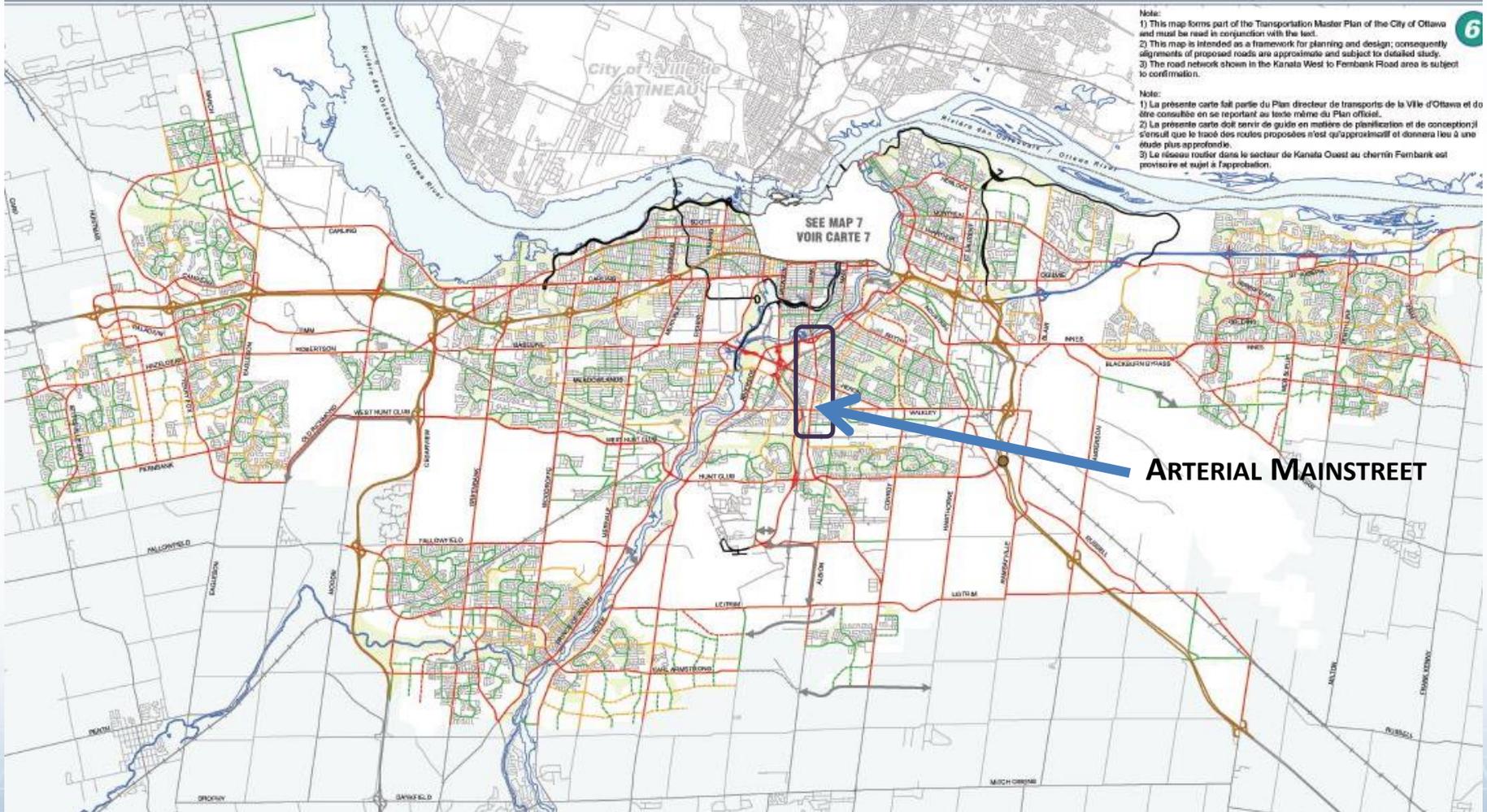
STUDY CONTEXT

2013 TRANSPORTATION MASTER PLAN (TMP)

- TMP IS THE CITY'S BLUEPRINT FOR PLANNING, DEVELOPMENT, AND TRANSPORTATION NETWORKS
- TRANSPORTATION VISION FOR 2031 WITH FOCUS ON THESE KEYS AREAS:
 - INTEGRATION OF COMPLETE STREETS
 - IMPROVING WALKING AND CYCLING
 - SUPPORTING TRANSIT-ORIENTED DEVELOPMENT
- BANK STREET IDENTIFIED AS ARTERIAL MAINSTREET

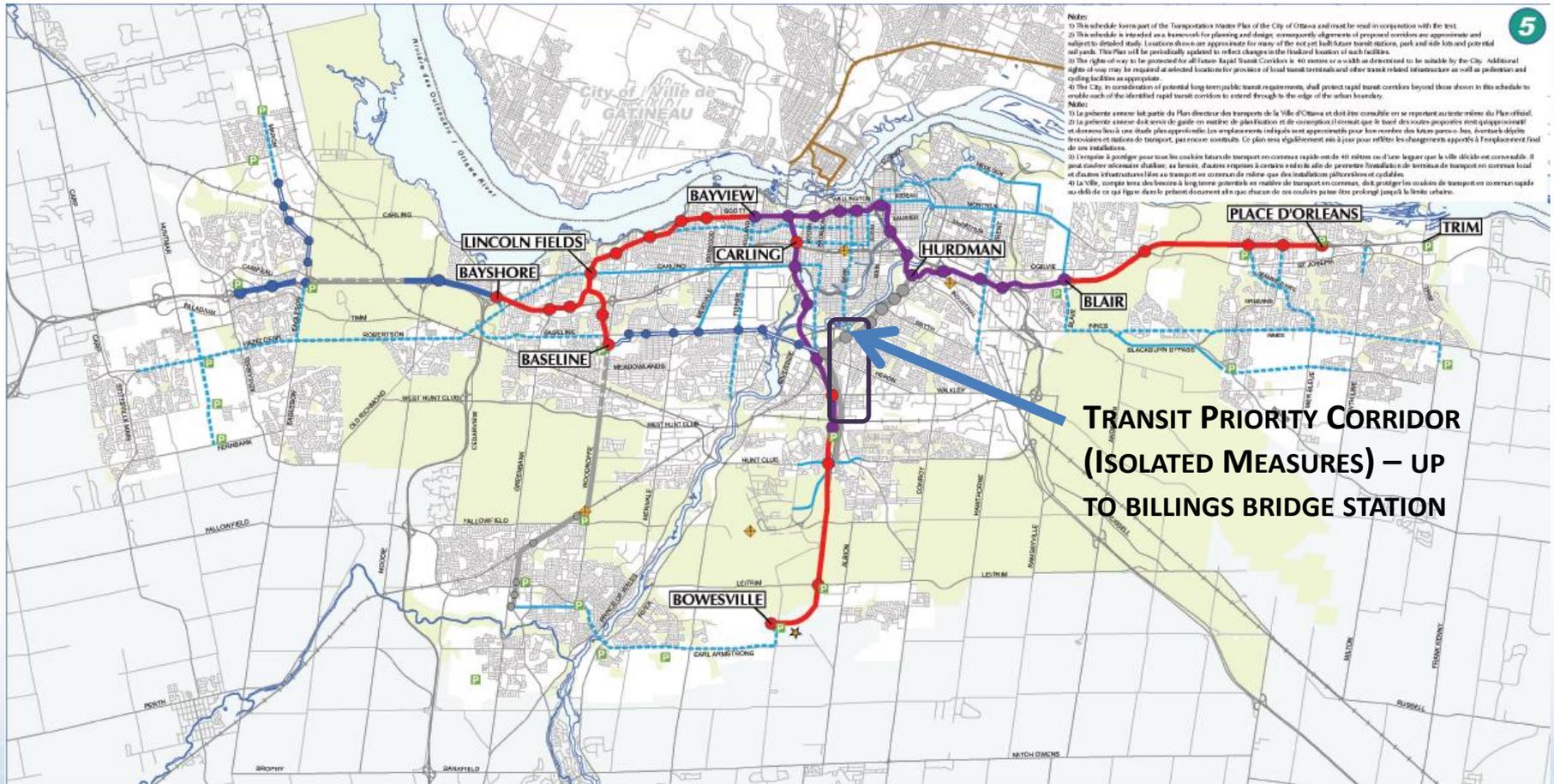


STUDY CONTEXT ROAD NETWORK



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STUDY CONTEXT TRANSIT PRIORITY NETWORK



Notes:

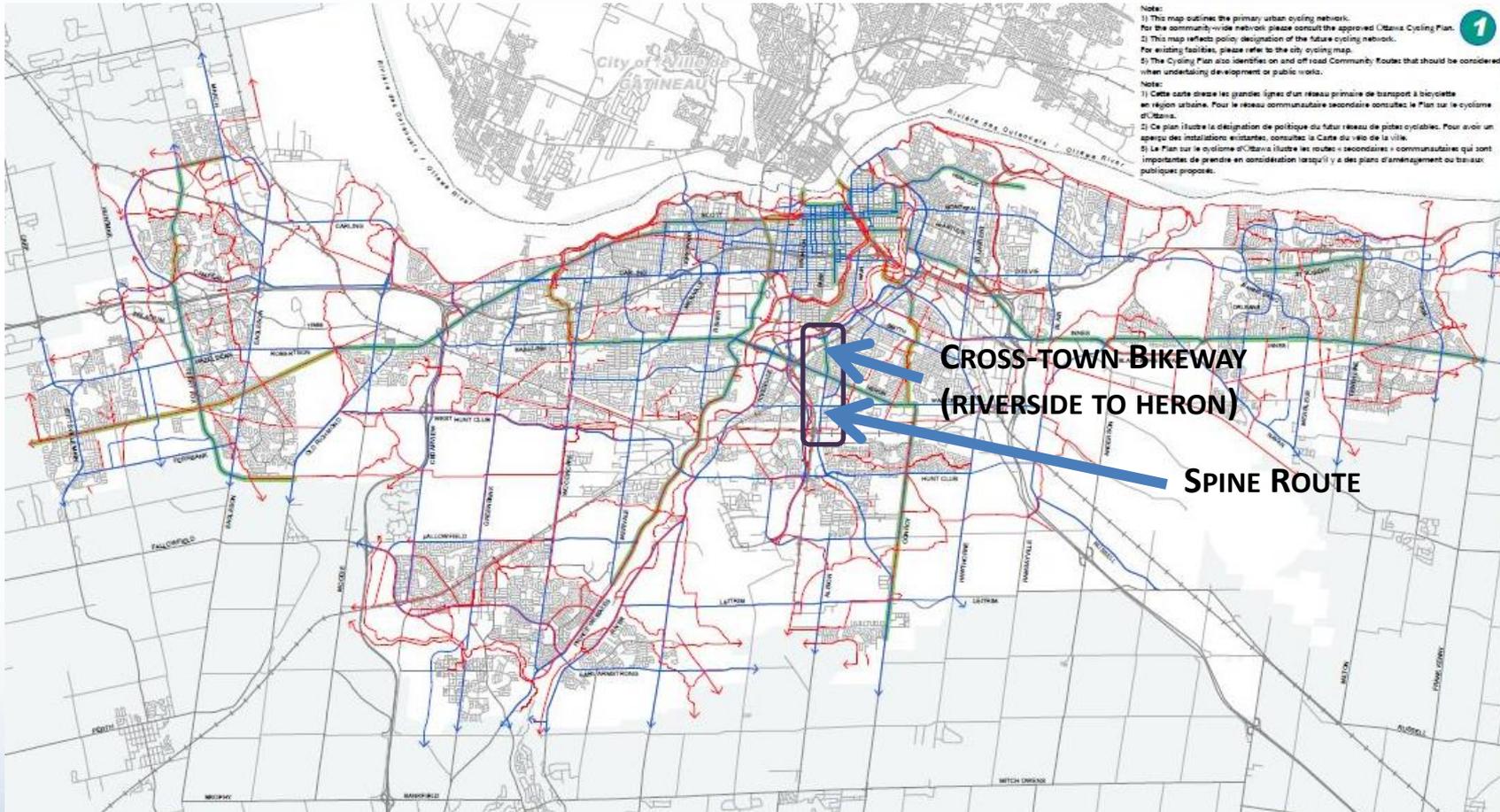
- This schedule is part of the Transportation Study Plan of the City of Ottawa and must be read in conjunction with the text.
- This schedule is intended as a framework for planning and design; corresponding alignments of proposed corridors are approximate and subject to detailed study. Location shown are approximate for many of the road-park facilities, transit stations, park and ride lots and potential rail yards. This Plan will be periodically updated to reflect changes in the finalized location of such facilities.
- The right-of-way to be provided for all Transit Rapid Transit Corridors is 40 metres or a width as determined to be suitable by the City. Additional right-of-way may be required at selected locations for provision of local transit terminals and other transit related infrastructure as well as pedestrian and cycling facilities as appropriate.
- The City, in consideration of potential long term public transit requirements, shall protect rapid transit corridors beyond those shown in this schedule to enable each of the identified rapid transit corridors to extend through to the edge of the urban boundary.

Notes:

- Le présent annexe fait partie du Plan directeur des transports de la Ville d'Ottawa et doit être consulté en se reportant au texte relatif du Plan officiel.
- La présente annexe est soumise de guide en matière de planification et de conception; il s'agit que le tracé des routes proposées sont approximatif et est soumis à une étude plus approfondie. Les emplacements indiqués ne sont qu'approximatifs pour les arrêts des lignes rapides. Les bornes de dépôt, les stations et stations de transport, les zones de transit, les plus pour offrir les changements apportés à l'aménagement final de ces installations.
- L'espèce à protéger pour tous les corridors rapides de transport en commun est d'environ 40 mètres ou d'une largeur que la ville décide en consultation. Il peut exister d'autres installations, des bornes de dépôt, des stations de transport, des bornes de dépôt, des bornes de transport en commun local et d'autres infrastructures liées au transport en commun de même que des installations pour piétons et cyclistes.
- La Ville, compte tenu des besoins à long terme potentiels en matière de transport en commun, doit protéger les corridors de transport en commun rapide au-delà de ce qui figure dans le présent document afin que chacun de ces corridors puisse être prolongé jusqu'à la limite urbaine.

**TRANSIT PRIORITY CORRIDOR
 (ISOLATED MEASURES) – UP
 TO BILLINGS BRIDGE STATION**

STUDY CONTEXT CYCLING NETWORK



STUDY CONTEXT

2013 COMPLETE STREETS

- DESIGNED TO ACCOMMODATE AND BALANCE THE SAFETY AND MOBILITY OF ALL USERS
- FACILITATE THE USE OF PUBLIC TRANSIT AND WILL SUPPORT TRANSIT-ORIENTED DEVELOPMENT
- DEVELOPMENT OF MMLOS GUIDELINES

Complete Streets At a Glance

Building a Liveable Ottawa 2031 is a city-wide review of land use, transportation and infrastructure policies that make up the Official Plan, Transportation Master Plan, Infrastructure Master Plan, Cycling Plan and the Pedestrian Plan, with an eye towards making Ottawa a more vibrant, healthy and sustainable city. The focus of the review is to propose solutions to 12 current planning issues. The outcome of the review will be an updated Official Plan and supporting plans with policies and priorities that influence the future growth of the city for years to come.

The last step is the review and approval of the Development Charges (DC) by-law before it expires in July, 2014. Development charges fund a portion of the growth-related costs associated with many services provided by the city.

This background is one of 12 designed to help residents participate in Building a Liveable Ottawa 2031.

What are complete streets?
 Complete streets are streets built for everyone. Most of Ottawa's roads were primarily built to accommodate motor vehicles. As Ottawa grows and develops, the City is ensuring our streets are designed to meet the needs of all people whether they choose to walk, bike, drive or take public transit. Complete streets could have wider sidewalks, bike lanes, or dedicated bus lanes. Depending on the street, improvements could include smaller changes such as longer crosswalk signals that make it easier for older adults to cross the road, sheltered bus stops, or trees and benches to make a street more pleasant to use. Complete streets do not mean bike lanes and sidewalks on every street. There is no one size fits all approach. Each community, whether it is urban, rural or suburban is unique. Complete streets will make it easier and more desirable to use public transit and will support transit-oriented development.

Why are complete streets important?
 Implementing this design concept will ensure streets are designed to meet the needs of all people whether they choose to walk, bike, drive or take public transit. Complete streets:

- Are designed for the benefit of everyone including drivers. Getting more people cycling, walking and taking transit will help reduce heavy traffic and accidents between cars and other users
- Encourage healthy lifestyles by making it easier to walk or bike
- Help build sustainable communities by reducing the pollution caused by heavy traffic
- Improve the lives of people who need assistance when walking or accessing public transit
- Ensure that more people can easily get to stores and businesses
- Build safe, livable and welcoming communities

Ottawa logo, Ottawa.ca, Building a Liveable Ottawa 2031, Ottawa City Council 3-1-1



DRAFT REPORT

Multi-Modal Level of Service (MMLOS) Guidelines

Supplement to the TIA Guidelines



Prepared for City of Ottawa by IBI Group September 15, 2015

STUDY CONTEXT

MULTIMODAL LEVEL OF SERVICE (MMLOS)

THE MMLOS ALLOWS FOR COMPARISON OF MODES IN ORDER TO EVALUATE TRADE-OFFS BY ASSESSING CRITICAL PARAMETERS THAT DETERMINE THE RELATIVE ATTRACTIVENESS AND COMFORT FOR PARTICULAR MODE ALONG A CORRIDOR.

MODE	ELEMENT	LEVEL OF SERVICE	
Pedestrians (PLOS)	Segments	High level of comfort	Low level of comfort
	Intersections	Short delay, high level of comfort, low risk	Long delay, low level of comfort, high risk
Bicycles (BLOS)	Segments	High level of comfort	Low level of comfort
	Intersections	Low level of risk / stress	High level of risk / stress
Trucks (TkLOS)	Segments	Unimpeded movement	Impeded movement
	Intersections	Unimpeded movement / short delay	Impeded movement / long delay
Transit (TLOS)	Segments	High level of reliability	Low level of reliability
	Intersections	Short delay	Long delay
Vehicles (LOS)	Intersections	Low lane utilization	High lane utilization

STUDY CONTEXT MMLOS TARGETS

OP Designation / Policy Area	Road Class	PLOS	Bicycle - BLOS				Transit - TLOS ²			Truck - TrLOS		Auto - LOS ⁴
			Cross-town Bikeway	Spine Route	Local Route	Elsewhere	Rapid Transit Corridor	TP - Continuous Lanes	TP - Isolated Measures	Truck Route	Other	
Land-Use Designation												
Central Area	Arterial	A	A	C	B	D	A	C	D	D	E	E
	Collector	A	A	B	B	D	A	C	D	D	No target	E
	Local	A	A	B	B	D	A	C	D	E	No target	E
Developing Community	Arterial	C	B	C	B	D	B	C	D	D	No target	D
	Collector	C	B	C	B	D	B	C	D	D	No target	D
	Local	C	B	C	B	D	B	C	D	N/A	No target	D
Employment Area	Arterial	C	B	C	C	E	B	C	D	B	D	D
	Collector	C	B	C	C	E	B	C	D	B	D	D
	Local	C	B	D	C	No target	B	C	D	D	E	D
Entreprise Area	Arterial	C	B	C	B	D	B	C	D	B	E	D
	Collector	C	B	C	B	D	B	C	D	B	E	D
	Local	C	B	C	B	No target	B	C	D	D	No target	D
General Rural Area	Arterial	No target	N/A	D	D	No target	N/A	N/A	N/A	C	E	D
	Collector	No target	N/A	D	D	No target	N/A	N/A	N/A	C	No target	D
	Local	No target	N/A	D	D	No target	N/A	N/A	N/A	No target	No target	D
General Urban Area	Arterial	C	B	C	B	D	B	C	D	D	E	D
	Collector	C	B	C	B	D	B	C	D	D	No target	D
	Local	C	B	C	B	D	B	C	D	N/A	No target	D
Mixed Use Centre	Arterial	C	A	C	B	D	B	C	D	D	E	D
	Collector	C	A	B	B	D	B	C	D	D	No target	D
	Local	C	A	B	B	D	B	C	D	N/A	No target	D
Village	Arterial	C	B	C	B	D	N/A	N/A	N/A	D	No target	D
	Collector	C	B	C	B	D	N/A	N/A	N/A	D	No target	D
	Local	C	B	B	B	D	N/A	N/A	N/A	N/A	No target	D
Traditional Main Street	Arterial	B	A	C	C	D	B	C	D	D	E	D
	Collector	B	A	C	C	D	B	C	D	D	No target	D
Arterial Main Street	Arterial	C	B	C	D	D	B	C	D	D	E	D
All Other Designations	Arterial	D	B	C	C	D	B	C	D	D	No target	D
	Collector	D	B	C	C	D	B	C	D	D	No target	D
	Local	D	B	C	C	D	B	C	D	N/A	No target	D
Policy Areas³												
Within 600m of a rapid transit station	Arterial	A	A	C	B	D	A	C	D	D	E	E
	Collector	A	A	B	B	D	A	C	D	D	No target	E
	Local	A	A	B	B	D	A	C	D	N/A	No target	E
Within 300m of a school	Arterial	A	A	C	B	D	A	C	D	D	E	E
	Collector	A	A	B	B	D	A	C	D	D	No target	E
	Local	A	A	B	B	D	A	C	D	N/A	No target	E

ISSUES AND CONSIDERATIONS

SPECIFIC CONCERNS TO BE ADDRESSED

- ACCESS TO BUSINESSES
- TWO-WAY LEFT TURNS
- TRANSIT PRIORITY
- COMPATIBILITY WITH CDP
- SEGREGATED CYCLING FACILITIES
- PEDESTRIAN ENVIRONMENT
- DESIGN SPEED



WELLINGTON ST TWO-WAY CYCLE TRACK



EXISTING CONDITIONS OF BANK ST AT
WALKLEY RD



GREENBANK RD SIDEWALK WIDENING



EXISTING CONDITIONS OF BANK ST AT
HERON RD

ISSUES AND CONSIDERATIONS

PUBLIC CONCERNS

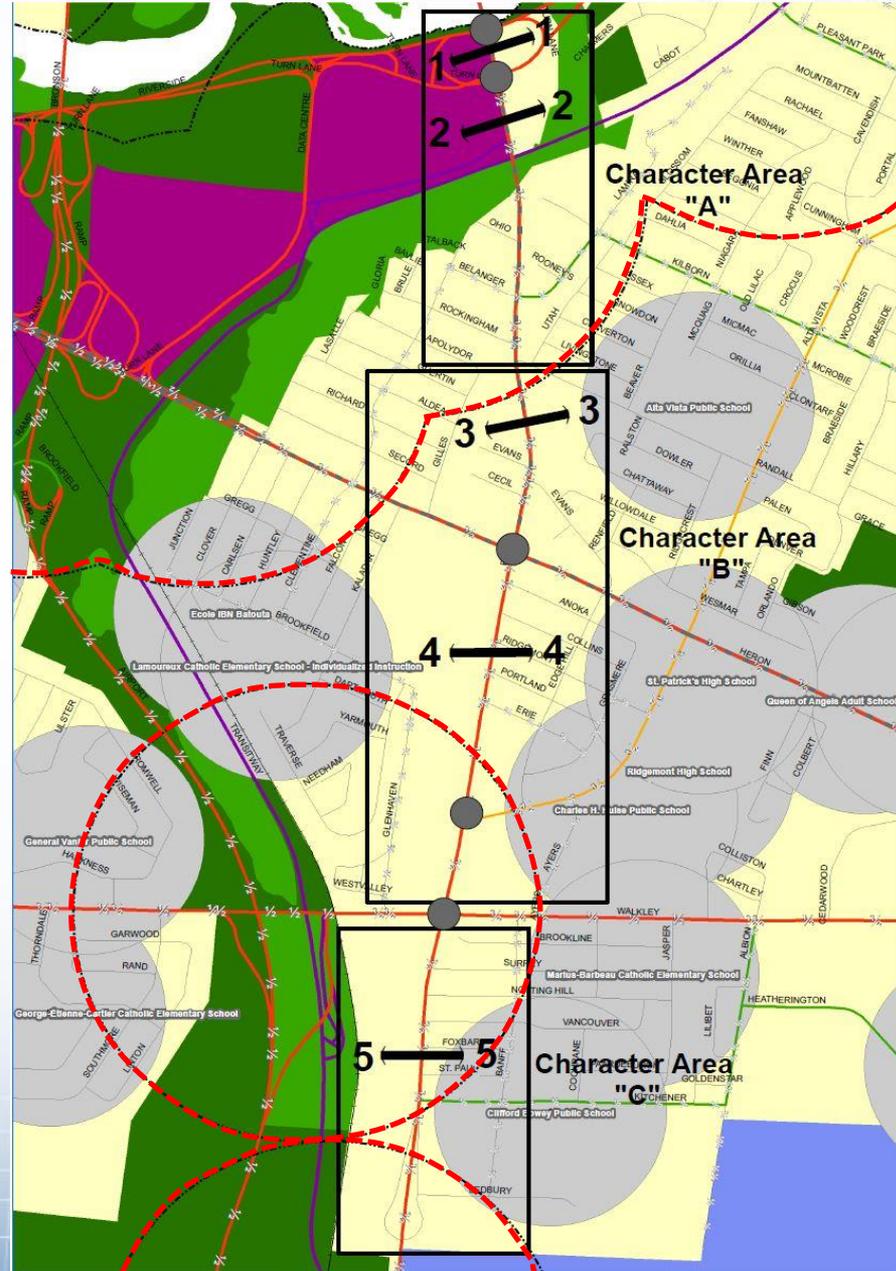
- ENTRANCE/EXIT OF BLUE HERON MALL
- PEDESTRIAN SIGNALIZATION AT BANK STREET AND RIVERSIDE DRIVE NORTH



WORK COMPLETED TO-DATE

- TRAFFIC ANALYSIS OF EXISTING CONDITIONS
 - REVIEW OF EXISTING TRAFFIC COUNTS
 - REVIEW OF COLLISION DATA
- MMLOS ANALYSIS OF EXISTING CONDITIONS
- REVIEWED INITIAL CROSS SECTION ALTERNATIVES

WORK COMPLETED TO-DATE SEGMENT MAP



WORK COMPLETED TO-DATE

MMLOS ANALYSIS OF EXISTING CONDITIONS FOR INTERSECTIONS

INTERSECTION NUMBER & CROSS-STREET						
1	RIVERSIDE DRIVE WESTBOUND	C (C)	N/A	D (E)	D	C (D)
2	RIVERSIDE DRIVE EASTBOUND	E (E)	F	D (C)	D	C (E)
13	HERON ROAD	F (F)	F	F (F)	B	E (E)
19	ALTA VISTA DRIVE	E (E)	F	C (D)	C	B (B)
20	WALKLEY ROAD	F (F)	F	F (F)	A	B (D)

MMLOS TARGETS FOR INTERSECTIONS

INTERSECTION NUMBER & CROSS-STREET						
1	RIVERSIDE DRIVE WESTBOUND	A	A	D	D	E
2	RIVERSIDE DRIVE EASTBOUND	A	A	D	D	E
13	HERON ROAD	C	B	D	D	D
19	ALTA VISTA DRIVE	A	B	D	D	E
20	WALKLEY ROAD	A	B	D	D	E

WORK COMPLETED TO-DATE

MMLOS ANALYSIS OF EXISTING CONDITIONS FOR SEGMENTS

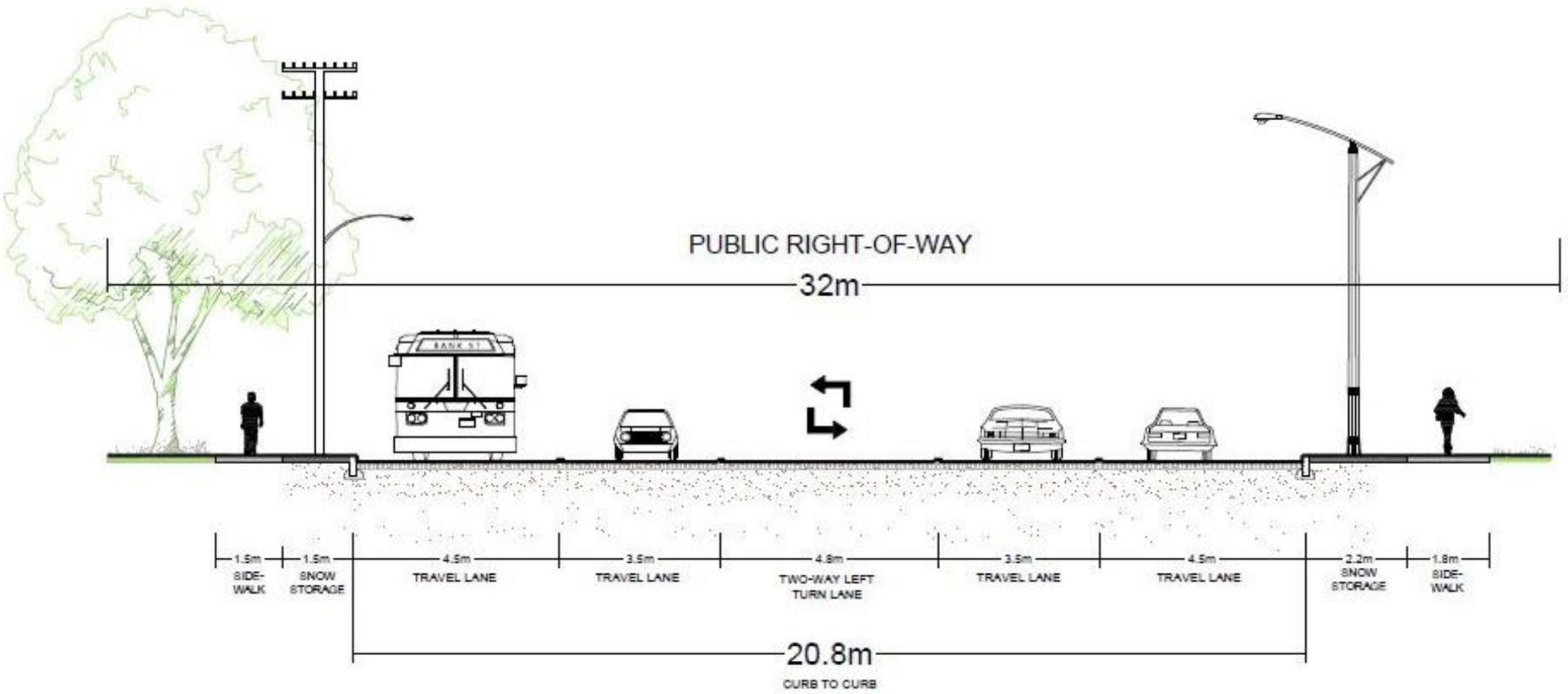
SEGMENT NUMBER & FROM / TO						
1	FROM RIVERSIDE DRIVE WESTBOUND TO RIVERSIDE DRIVE EASTBOUND	E	E	D	A	VLOS NOT REPORTED FOR SEGMENTS
2	FROM RIVERSIDE DRIVE EASTBOUND TO BILLINGS BRIDGE TRANSITWAY	E	B	D	A	
3	FROM RANDALL AVENUE TO HERON ROAD	E	E	D	C	
4	FROM HERON ROAD TO ERIE AVENUE	E	E	D	E	
5	FROM WALKLEY ROAD TO KITCHENER AVENUE	E	E	D	C	

MMLOS TARGETS FOR SEGMENTS

SEGMENT NUMBER & FROM / TO						
1	FROM RIVERSIDE DRIVE WESTBOUND TO RIVERSIDE DRIVE EASTBOUND	A	A	D	D	VLOS NOT REPORTED FOR SEGMENTS
2	FROM RIVERSIDE DRIVE EASTBOUND TO BILLINGS BRIDGE TRANSITWAY	A	A	D	D	
3	FROM RANDALL AVENUE TO HERON ROAD	C	B	D	D	
4	FROM HERON ROAD TO ERIE AVENUE	C	C	D	D	
5	FROM WALKLEY ROAD TO KITCHENER AVENUE	A	B	D	D	

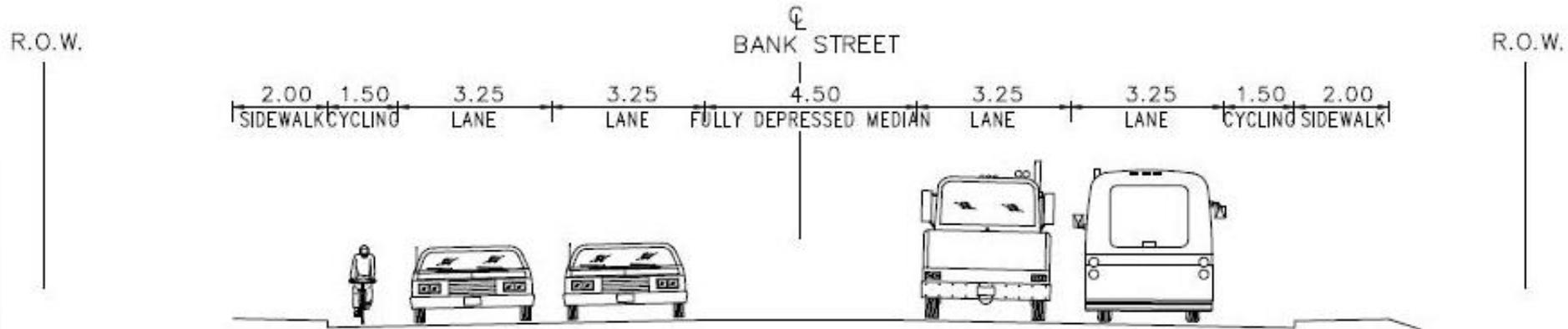
WORK COMPLETED TO-DATE

CROSS-SECTION OF EXISTING CONDITIONS BETWEEN HERON STREET AND RANDALL AVENUE



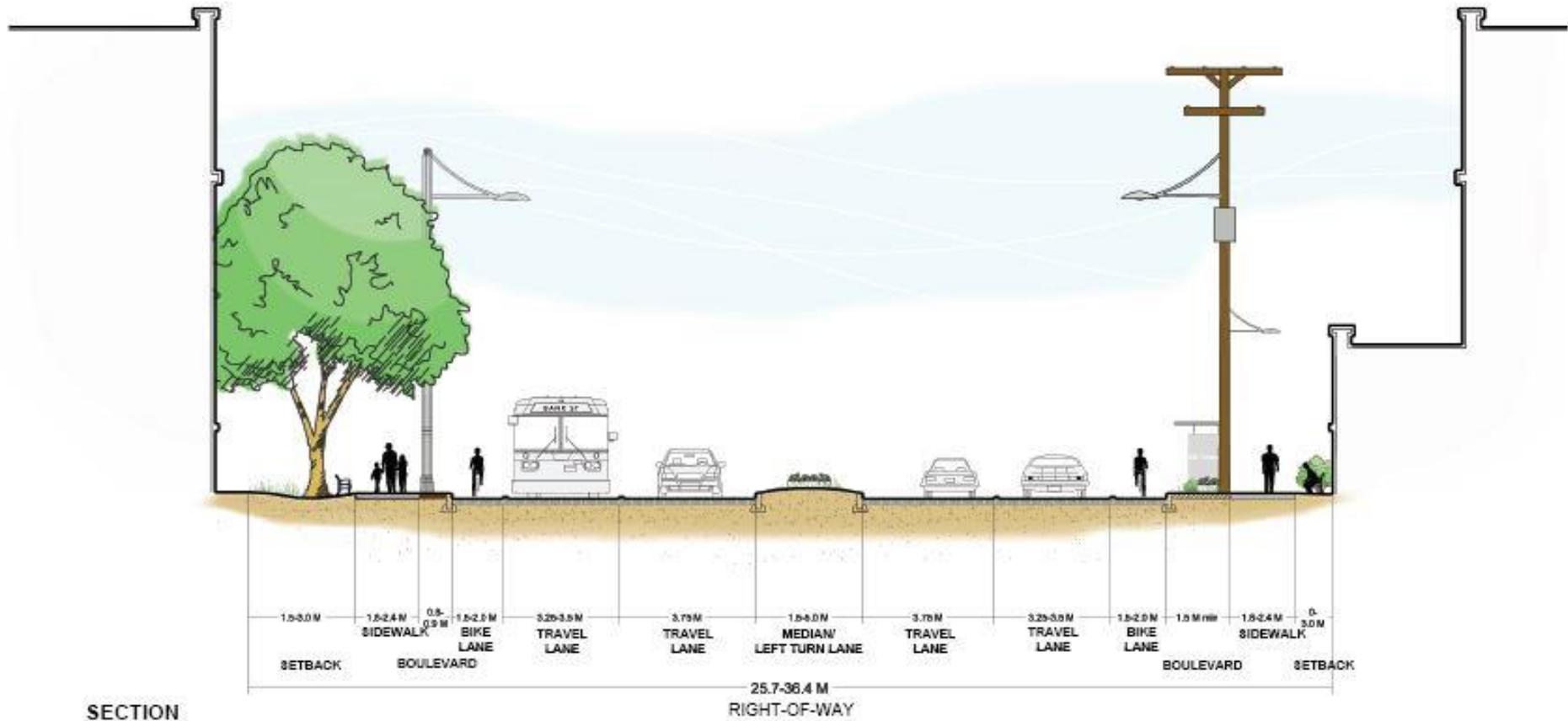
WORK COMPLETED TO-DATE

PDR 2007 CROSS-SECTION BETWEEN HERON STREET AND RANDALL AVENUE



WORK COMPLETED TO-DATE

CDP 2012 CROSS-SECTION BETWEEN HERON STREET AND RANDALL AVENUE



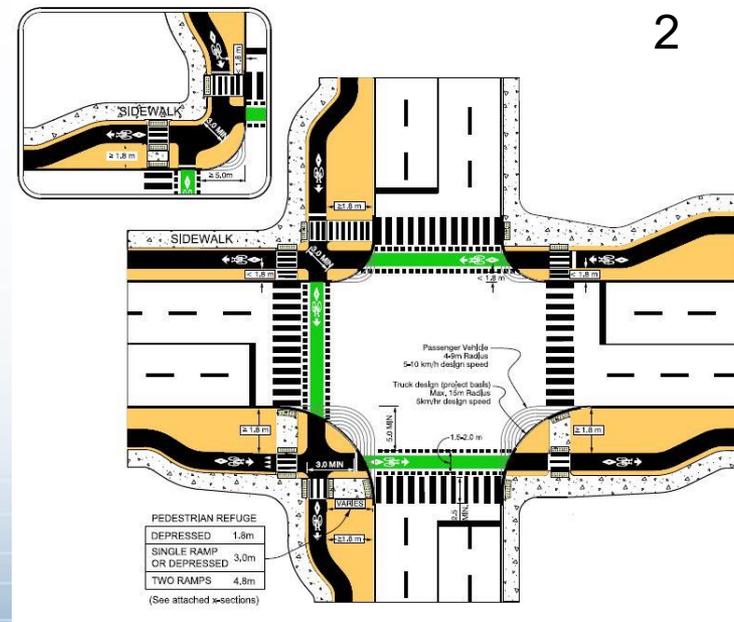
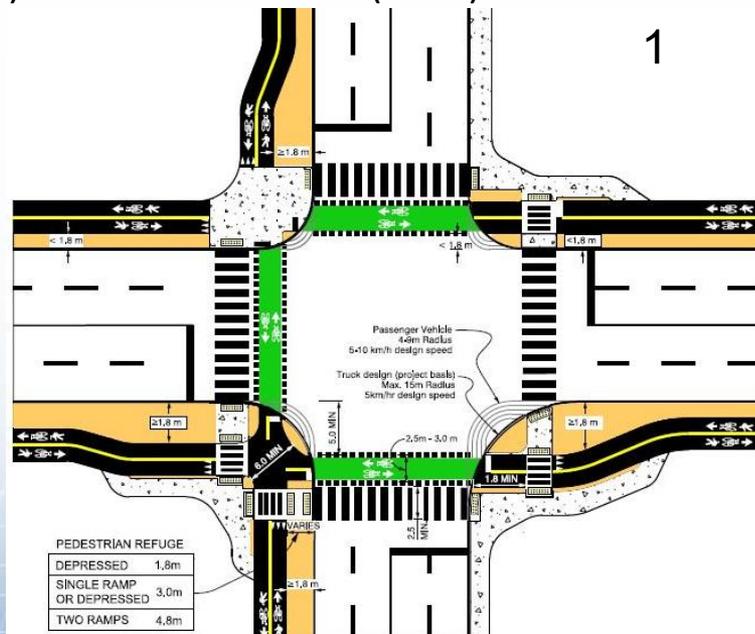
SECTION

WORK COMPLETED TO-DATE

TOOL KIT – PROTECTED INTERSECTIONS

THE CITY HAS DRAFTED PROTECTED INTERSECTION PLANS, WHICH WILL BE CONSIDERED DURING THE FUNCTIONAL DESIGN STUDY

- 1) CYCLE TRACK AND SIDEWALK TREATMENTS; AND
- 2) MULTI-USE PATHWAY (MUP) OR TWO-WAY CYCLE TRACK AND SIDEWALK TREATMENTS.



NEXT STEPS

- DEVELOP DRAFT FUNCTIONAL DESIGN PLAN
 - GEOMETRY AND GENERAL LAYOUT
 - LANDSCAPING
- SECOND ROUND OF CONSULTATION GROUP MEETINGS – SEPTEMBER 2016
- MODIFY PLAN BASED ON CONSULTATION GROUP INPUT
 - PROPERTY REQUIREMENTS
 - COSTING
- PUBLIC OPEN HOUSE – OCTOBER 2016
- REFINE AND DEVELOP RECOMMENDED PLAN – DECEMBER 2016
- PRESENTATION TO THE TRANSPORTATION COMMITTEE – DECEMBER 2016 (OPTIONAL)
- FINAL REPORT – JANUARY 2017

QUESTIONS/COMMENTS

FOR MORE INFORMATION, PLEASE VISIT:

<http://ottawa.ca/en/city-hall/public-consultations/transportation/bank-street-renewal-between-riverside-drive-north-and>

COMMENT SHEETS ARE AVAILABLE; PLEASE RETURN THEM BY **JULY 19, 2016**.

FOR FURTHER INQUIRIES, PLEASE CONTACT ANN SELFE: ANN.SELFE@OTTAWA.CA

THANK YOU

