



INFORMATION ONLY COUNCIL REPORT
Engineering / Public Works
For the November 26, 2019 Council Meeting

DATE: November 19, 2019
TO: Paul Gipps, CAO
FROM: Nilton Praticante, Design and Inspection Technologist
RE: Gellatly Road Phase IV – Design Update

STRATEGIC PRIORITY OBJECTIVE:

Completion of this project is consistent with the Council adopted 2014 Strategic Priorities Item *Priority #3 – Community Enhancement, Item 3.7 Gellatly Road Phase 4*

BACKGROUND:

The design for improvements to Gellatly Road from Carrington Road to Boucherie Road was initiated in 2014. Stantec Consulting Ltd. was retained to complete the design which encompassed the following site improvements:

- Concrete curb and gutter
- Concrete sidewalks & multi-use pathway
- Cycling lanes (adjacent to roadway; delineated by painted white line)
- Storm drainage system
- Additional cross walks
- Street lighting
- Roundabout at Boucherie/Gellatly intersection
- Intersection improvements at Witt/Gellatly
- Intersection improvements at Carrington/Gellatly
- Bus bay pullouts
- Road re-alignment to improve drivability and sight lines

At the time, the design process evolved to include comments obtained from a public open house, a Road Safety Audit conducted by ICBC and feedback from City Council. The project was temporarily postponed due to a realignment in capital works priorities.

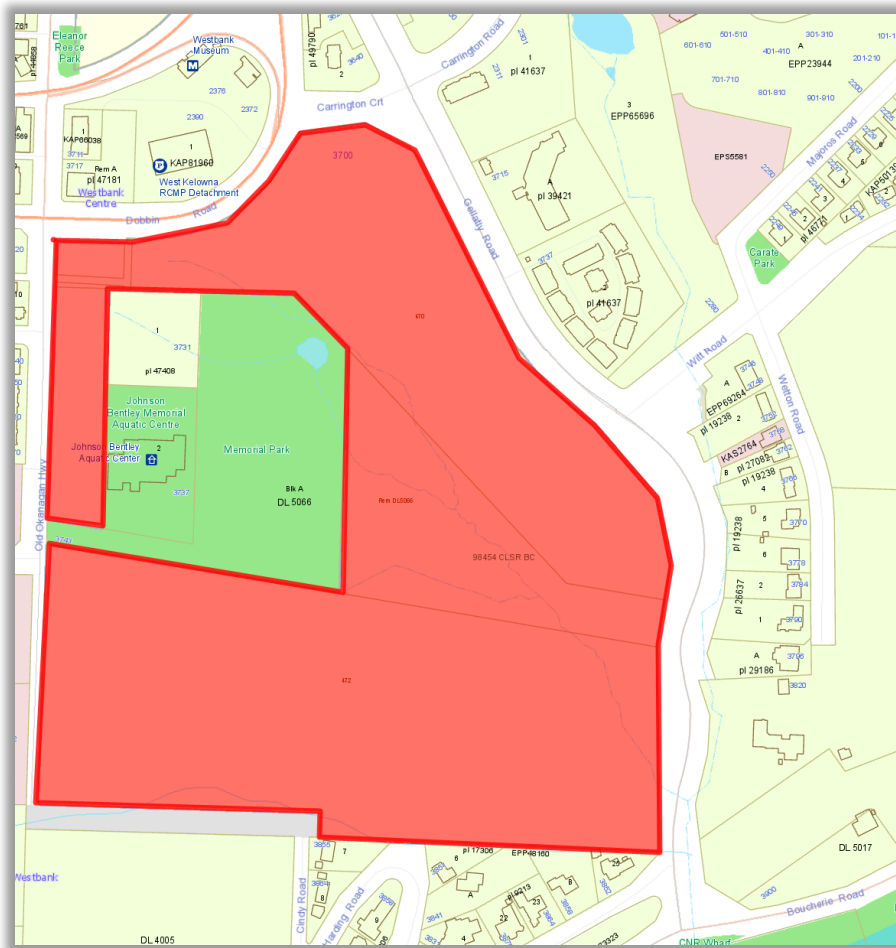
In January 2019, Stantec was re-engaged to update the existing design and include the following scope items:

- Apply revisions to the proposed roundabout at Boucherie/Gellatly
- Incorporate recommendations made by ICBC
- Detailed retaining wall design
- Conduct a traffic analysis at the intersection of Carrington/Boucherie
- Additional topographic survey to determine potential land acquisition requirements

In order to finalize intersection designs, discussions were held with staff from Westbank First Nation (WFN) to determine future development intentions of the land located adjacent to Gellatly Road. Despite the WFN land currently designated as Highway Commercial, feedback from WFN determined that future intentions are to re-zone the land to High-Density 5-6 storey residential. Additional recommendations from WFN included the following key discussion items:

- Sanitary and Storm services to be included at the lower end parcels on Gellatly Road
- Storm service to be sized to meet pre-development flow rates.
- Current design does not require land acquisition from WFN

Fig. 1 – WFN Land

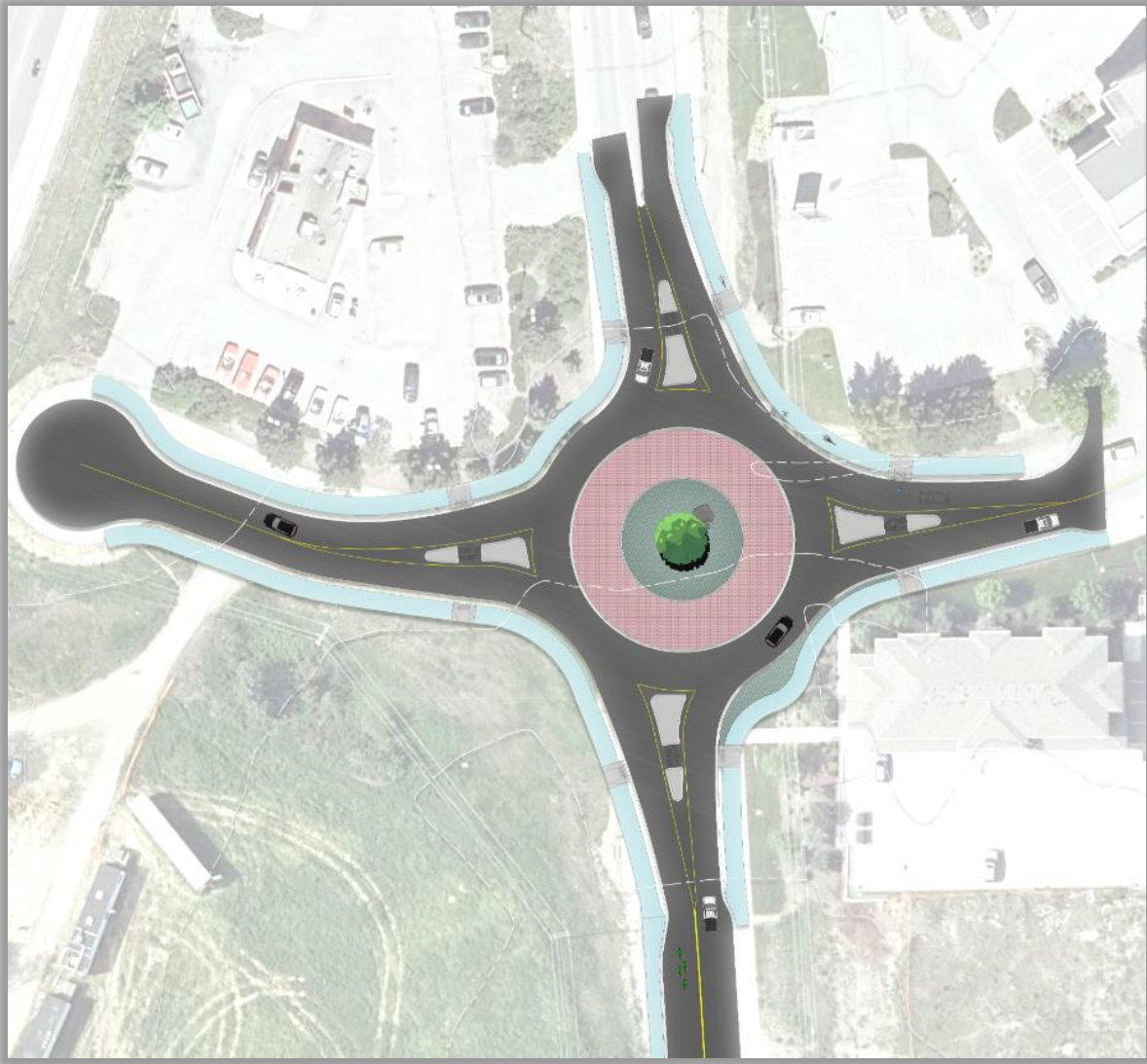


Obtaining this information from WFN was essential in conducting two sensitivity tests comparing a proposed roundabout at Carrington/Gellatly against a standard two-way stop controlled intersection with traffic lights.

For the sensitivity analysis with Gellatly/Carrington reconfigured as a roundabout, traffic operations improved significantly, warranting that a roundabout would be ideal at this location if the proposed WFN development was to be implemented. All approaches were anticipated to operate efficiently within acceptable thresholds and continue through to the 2035 future horizon.

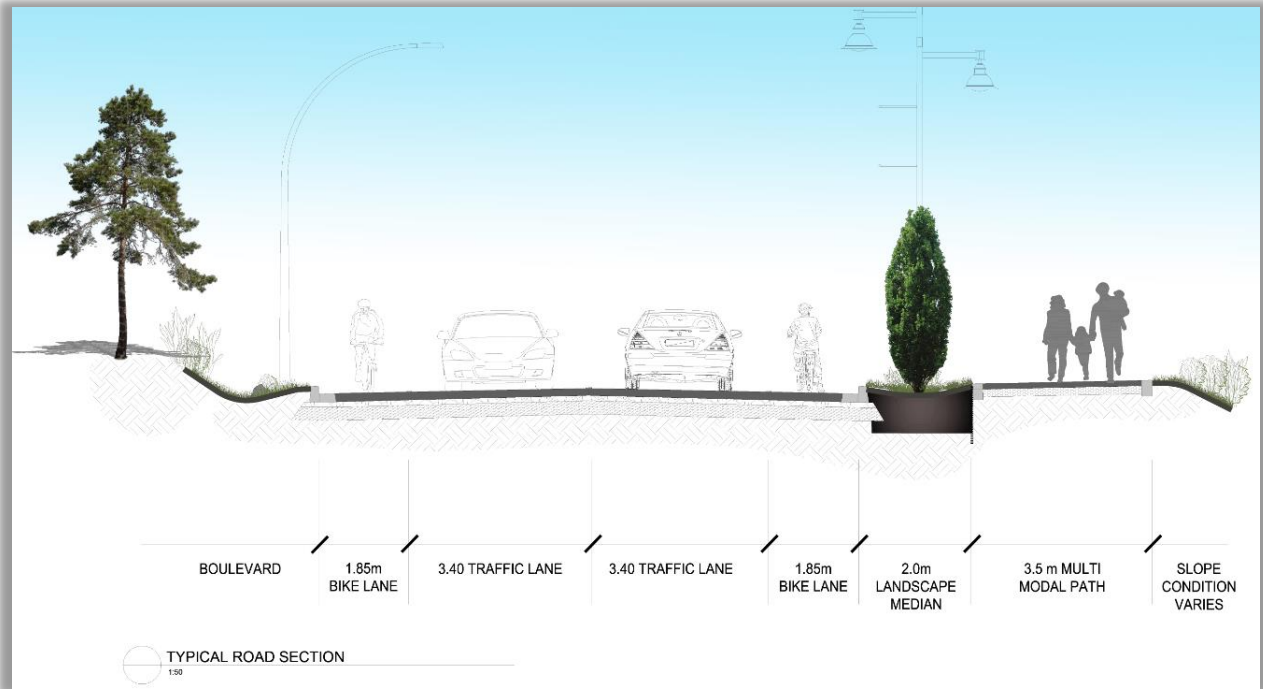
The existing approaches on Carrington Road/Court are already experiencing unfavourable traffic operations with queueing and delays exceeding acceptable thresholds. With natural regional growth in this area, this intersection will only continue to worsen and require future mitigation measures to alleviate the queueing at the stop-controlled approaches. Introduction of a roundabout at this intersection is a warranted mitigation measure that should be implemented.

Fig. 2 – Carrington/Gellatly Roundabout



The road cross-section developed for the corridor will include 1.85m bike lanes on both sides of the roadway and 3.4m travel lanes. Concrete sidewalks will be located on both sides of the roadway between Carrington Court and Witt Road to provide access to the bus bay locations. A 3.5m multi-use path, separated by a 2.0m landscaped boulevard, will be introduced on the west side of the roadway between Witt Road and Boucherie Road as outlined below:

Fig. 3 – Typical Cross-section (Witt Rd. to Boucherie Rd.)



An overall site plan, along with detailed renderings of the proposed roundabouts at Carrington road and Boucherie road can be found attached in **Appendix A – Supplemental Drawings**.

With regards to the existing Smith Creek bed between Witt road and Boucherie road, remedial and reinforcement works will be constructed as part of this project on the 200m section located between Witt road and the existing culvert inlet.

South of the existing culvert intake, the creek bed will be raised, converted to greenspace, and maintained as an over-flow with introduction of a diversion structure downstream at Boucherie road. Raising of the creek bed addresses the existing slope stability concerns downstream caused by flooding in previous years.

Fig. 4 – Creek Reinforcement



FINANCIAL IMPLICATIONS:

Within the original Ten Year Capital Plan, the construction works were previously estimated to be approximately \$5,000,000 in 2014. Through value engineering and an updated project design, current anticipated projects expenses have been summarized below:

Table 1 – Anticipated Project Expenses

Description	Cost (Excluding GST)
Anticipated Construction Costs	\$ 5,100,000
Construction Contingency, Market Unknowns, Design (20%)	\$ 1,020,000
Utilities, Geotechnical, Legal Survey	\$ 380,000
Subtotal	\$ 6,500,000

With potential funding anticipated from DCC's and capital funds, there will be an opportunity to seek additional funding through various grants including the Bike BC Program, Transit Gas Tax Fund and ICBC's Road Improvement Program.

REVIEWED AND APPROVED BY:

Allen Fillion, Director of Engineering and Public Works
Warren Everton, Director of Finance/CFO
Paul Gipps, CAO

Powerpoint: Yes No

Attachments: APPENDIX A – SUPPLEMENTAL DRAWINGS