REPORTS

Item No. 4  Waverley Street at CN Mainline (Rivers) Grade Separation – Quarterly Project Status Report No. 6 for the Period Ended July 31, 2017

STANDING COMMITTEE DECISION:

The Standing Policy Committee on Finance concurred in the recommendation of the Winnipeg Public Service and received as information the financial status of the Waverley Street at CN Mainline (Rivers) Grade Separation project.
Minutes – Standing Policy Committee on Finance – November 9, 2017

DECISION MAKING HISTORY:

Moved by Councillor Allard,

That the recommendation of the Winnipeg Public Service be concurred in.

Carried
ADMINISTRATIVE REPORT

Title: Waverley Street at CN Mainline (Rivers) Grade Separation – Quarterly Project Status Report No. 06 for the Period Ended July 31, 2017

Critical Path: Standing Policy Committee on Finance

AUTHORIZATION

<table>
<thead>
<tr>
<th>Author</th>
<th>Department Head</th>
<th>CFO</th>
<th>CAO</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Neirinck, P. Eng.</td>
<td>J. Berezowsky Acting Director of Public Works</td>
<td>M. Ruta</td>
<td>D. McNeil</td>
</tr>
</tbody>
</table>

EXECUTIVE SUMMARY

Project On Schedule: Yes ✓ No ☐ Project On Adopted Budget: Yes ✓ No ☐

Percent of Schedule Complete: 32% Percent of Adopted Budget Spent: 7.6%

This is the sixth quarterly report to SPC Finance on this Project. Expenditures to date total $11,854,401.85. Currently, the total project Estimate at Completion is $121.339M.

Contract 1 consisted of the installation of the underground utilities required in advance of the underpass construction and was substantially complete on May 17, 2017. It had a final contract value $2,960,757.57.

Construction on Contract 2 is ongoing and achieved a major project milestone which is opening the Waverley Street detour roadway to traffic on October 2, 2017. The next major project milestone will be completing the railway detour and putting it into service, expected by the end of October 2017. Opening the detour road to traffic in the fall of 2017 was critical to the overall project schedule.

The effects of construction on area traffic and active transportation modes are being managed and mitigated where possible, to maintain the safety of road users and construction workers.

To date, Contract 2 has approved over expenditures totaling $783,486.40 primarily related to poor subgrade conditions related to the temporary railway detour.

Addition of the retaining wall structure to the project scope has an estimated budget requirement of approximately $2.6 M (Class 3 estimate). No schedule impact is anticipated.

Manitoba Hydro has successfully relocated a majority of electrical distribution work which reduced project risk.

In accordance with the terms of the Crossing Agreement with CN, the existing contract to supply rail materials will be expanded to include rail construction work.

CN has formally advised the City that due to the proposed reconfiguration of the existing CN
infrastructure as part of both the Waverley Street Underpass Project and the Southwest Rapid Transitway (Stage 2) & Pembina Highway Project, CN will require the proposed railway design be modified to accommodate a third railway track. Discussions between the City and CN are ongoing.

**RECOMMENDATIONS**

That the financial status of the Waverley Street at CN Mainline (Rivers) Grade Separation project, as contained in this report, be received as information.

**REASON FOR THE REPORT**

The Asset Management Administrative Standard FM-004 requires all projects with a total estimated cost of $21 million (2017) or more report quarterly to the Standing Policy Committee on Finance. This threshold is adjusted annually for construction inflation as part of the annual Capital Budget approval. The Standing Policy Committee on Finance may also request reporting on any capital project.

**IMPLICATIONS OF THE RECOMMENDATIONS**

No implications.

**HISTORY/DISCUSSION**

See Appendix C – Key Project Events (History)

**Construction** (Update from last report)

The project is currently in the construction phase. The project has been divided into two construction contracts designated Contract 1 and Contract 2.

Contract 1 consists primarily of the installation of underground utilities required in advance of the underpass construction. As of May 17, 2017, Borland Construction has substantially completed the work of Contract 1. On May 18, 2017, the Chief Financial Officer approved a contract over-expenditure for Contract 1 in the amount of $871,763.57, primarily to cover the cost associated with adding the supply of specialized feeder main materials with long lead time to Contract 2 (i.e. - to preserve schedule, these costs that were originally to be included in Contract 2 were added to Contract 1).

Contract 2 consists of all the major components of the underpass project including: the underpass bridge structure; pump station; temporary detour roadways; installation of water and sewer infrastructure and extensive improvements to the surrounding transportation network. Contract 2 was awarded to Maple Leaf Construction. Maple Leaf Construction continues to make progress on construction of 2017 works, which primarily include:

- Construction of detour roadway and detour rail embankment
- Rehabilitation of Waverley Street in the vicinity of Grant Avenue, including intersection improvements
- Renewal of the Midtown Water Feeder Main
During construction of the detour rail embankment, very poor subgrade materials were encountered that were not suitable to support the temporary rail track and freight traffic. The subgrade required additional excavation, placement of geotextile reinforcement and soil replacement with crushed rock. Despite the additional scope of work, construction of the embankment was completed on schedule; however additional cost for the work is currently estimated at $683,000, or approximately 1.5% of the value of Contract 2. On August 24, 2017, the Chief Administrative Officer approved an over-expense for Contract 2 (Bid-Opportunity 473-2016) in the amount of 1.71% or $763,486.40, primarily to cover the additional costs associated to address these poor subgrade soil conditions.

Manitoba Hydro has successfully relocated all four major electrical distribution work items. The relocation and installation of new street lighting is progressing with ongoing road construction.

Various external utilities have been engaged to perform modification and/or relocation of their services to accommodate the proposed works.

On July 31, 2017, a project scope change was initiated to undertake detailed design and construction of a new retaining wall structure in the vicinity of 1360 Taylor Avenue, for the purposes of maintaining parking on City owned land currently leased to Mondo Foods Co. Ltd. Addition of the retaining wall structure to the project scope has an estimated budget requirement of approximately $2.6 M (Class 3 estimate). No schedule impact is anticipated. On September 13, 2017, the Chief Administrative Officer approved a second contract over-expense to Dillon Consulting Limited in the amount of $290,000.00 for consulting services related to design and contract administration services for this retaining wall.

Since the previous reporting period, the following new financial commitments were established:

- On June 29, 2017, the City of Winnipeg authorized Manitoba Hydro (Gas) to proceed with adjustment and relocation of various natural gas pipeline installations, estimated cost $17,653.43.
- On June 29, 2017, the City of Winnipeg authorized Shaw Cablesystems G.P. to proceed with relocation of various underground services to accommodate the work, estimated cost $27,821.30.
- On June 30, 2017, the City of Winnipeg entered into two Electric Service Agreements with Manitoba Hydro (Materials Management reference number 538-2017) for the renewal of street lighting in the Vicinity of Waverley Street at Grant Avenue, and for the relocation of Fiber Optic Cable along Taylor Avenue, total estimated cost $238,612.00.
- On July 18, 2017, the City of Winnipeg authorized Bell MTS (MTS Inc.) to proceed with relocation of communication cables required for the project, estimated cost $90,160.73.

Construction and installation of temporary and permanent railway infrastructure and associated railway related works is being delivered by the Canadian National Railway Company. Their existing contract for supply of rail materials will be expanded to include rail construction work.
**Table 1 – Project Contracts Table**

<table>
<thead>
<tr>
<th>Bid Opportunity #</th>
<th>Company Name</th>
<th>Description</th>
<th>Original Contract Award Value (GST &amp; MRST extra as applicable)</th>
<th>Total Approved Over-Expenditures (Over-Expenditure amount only)</th>
<th>Date of Award</th>
<th>Date of Completion</th>
<th>Estimated % Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFP 66-2014</td>
<td>Dillon Consulting Limited</td>
<td>Consulting Services for Preliminary Engineering Study</td>
<td>$1,011,904.00</td>
<td>$50,000</td>
<td>30-Apr-14</td>
<td>30-Sep-15</td>
<td>100</td>
</tr>
<tr>
<td>RFP 150-2016</td>
<td>Dillon Consulting Limited</td>
<td>Consulting Services for Detailed Design, Contract Administration, and Post-Construction Services</td>
<td>11,368,000.00</td>
<td>448,530.00</td>
<td>29-Feb-16</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Single Source</td>
<td>Fireseeds North Infrastructure</td>
<td>Independent Road Safety Audit</td>
<td>62,347.50</td>
<td>-</td>
<td>27-Sep-16</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>Single Source**</td>
<td>Canadian National Railway Company</td>
<td>Supply of Rail Materials</td>
<td>6,800,000.00</td>
<td>-</td>
<td>13-Feb-17</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Single Source</td>
<td>Manitoba Hydro</td>
<td>Relocation of Electrical Distribution - Four Electric Service Agreements</td>
<td>1,228,002.00</td>
<td></td>
<td>29-Mar-17</td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>Bid-Opp 473-2016</td>
<td>Maple Leaf Construction Ltd.</td>
<td>Contract 2 - Underpass Structure, Railworks, Roadworks, Land Drainage Sewer, Pumping Station and Landscaping Works</td>
<td>44,701,918.80</td>
<td>763,486.40</td>
<td>20-Apr-17</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Single Source</td>
<td>Bell Canada</td>
<td>Communication Cable Relocation Works</td>
<td>800,000.00</td>
<td></td>
<td>9-May-17</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Single Source</td>
<td>Manitoba Hydro</td>
<td>Fiber Optic Cable and Street Lighting - Two Electric Service Agreements</td>
<td>238,612.00</td>
<td></td>
<td>27-Jun-17</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>Single Source</td>
<td>Manitoba Hydro</td>
<td>Relocation of Various Natural Gas Pipelines</td>
<td>17,653.43</td>
<td></td>
<td>29-Jun-17</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Single Source</td>
<td>Shaw Cablesystems G.P.</td>
<td>Relocation of Various Underground Servcies</td>
<td>27,821.30</td>
<td></td>
<td>29-Jun-17</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Single Source</td>
<td>BellMTS (MTS Inc.)</td>
<td>Relocation of Communication Cables</td>
<td>90,160.73</td>
<td></td>
<td>18-Jul-17</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$ 68,435,413.76</strong></td>
<td><strong>$ 2,133,780</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Upcoming Procurements:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Anticipated Award Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction of Rail Infrastructure and Associated Rail Work</td>
<td>1-Dec-17</td>
</tr>
</tbody>
</table>
Schedule (Update from last report)

The project is currently forecast to be on schedule.

Preliminary Design and Detailed Design phases are complete and were delivered on schedule.

Construction on Contract 1 began in January of 2017 and was substantially complete as of May 17, 2017. Supply and delivery of large diameter casing pipe was added to the scope of work for Contract 1, and the total performance date was extended to allow for delivery of the materials.

Work on Contract 2 began on May 5, 2017. For the 2017 construction season, the primary deliverable is completion of the Detour Roadway and opening it to traffic in the fall of 2017.

On October 2, 2017, at 6:00 a.m. the detour roadway was opened to traffic, achieving a major project milestone on original targeted completion date.

Table 2 – Project Milestones Table

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Original Targeted Completion Date</th>
<th>Revised Targeted Completion Date</th>
<th>Actual Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Preliminary Design</td>
<td>15-Feb-15</td>
<td></td>
<td>23-Jan-15</td>
</tr>
<tr>
<td>2 Detailed Design</td>
<td>27-Feb-17</td>
<td></td>
<td>9-Jan-17</td>
</tr>
<tr>
<td>3 Contract 1 Works - Total Performance</td>
<td>1-Jun-17</td>
<td>30-Nov-17</td>
<td></td>
</tr>
<tr>
<td>4 Detour Roadway</td>
<td>2-Oct-17</td>
<td>2-Oct-17</td>
<td></td>
</tr>
<tr>
<td>5 Underpass Bridge Structure</td>
<td>17-Aug-18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Underpass Roadway</td>
<td>23-Sep-19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Contract 2 Works - Total Performance</td>
<td>31-Jul-20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Risk (Update from last report)

The risk of failing to obtain a Crossing Agreement with CN has been resolved. On May 24, 2017, the City received a copy of the duly executed Crossing Agreement with CN, executed by CN on May 19, 2017 and effective May 1, 2017.

CN is proposing a third railway track between the Waverley Underpass and Pembina Highway Underpass which could result in design changes and cost impacts to the Project. The City is meeting with CN to understand the impact of the proposed third railway track on both the Waverley Street Underpass and Southwest Rapid Transitway & Pembina Underpass projects.

Significant relocation of overhead and underground electrical distribution lines are required by Manitoba Hydro in several areas of the project. Manitoba Hydro has successfully relocated all four major electricity distribution line conflicts with the proposed work.

With the project now in the construction phase, there is a risk that unfavorable subsurface soil and groundwater conditions may impact the construction schedule for subgrade construction, bridge and pump station foundations, trenchless pipe installations and various excavations. Encountering unfavorable subsurface conditions poses schedule and financial risk. Comprehensive subsurface soil and groundwater investigations were carried out in the design phase to mitigate this impact; however there is always a degree of uncertainty as these investigations can never be known with complete certainty until the work is performed.

With any construction project with significant roadwork occurring, there is a risk that vehicular as well as pedestrian and cycling traffic will be negatively affected, which may include delay,
wayfinding difficulty, and real or perceived safety concerns. To mitigate these impacts, the City is taking several steps including; installation of a real-time travel time information system for northbound Waverley Street in advance of the construction site; routine adjustment of signal timing to improve traffic flow; construction of a full four lane detour roadway and associated active transportation pathway to accommodate all users during underpass construction; coordination between major construction projects in the area to maintain adequate regional traffic flow; lane closure restrictions in place during peak hours and during important events (e.g. Canada Summer Games); and road safety audit services at various stages conducted by a third party.
<table>
<thead>
<tr>
<th>Risk Statement and Explanation</th>
<th>Risk Mitigation Management Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New:</strong></td>
<td></td>
</tr>
<tr>
<td>Vehicle, pedestrian and cycling traffic negatively impacted by construction (e.g. delays, wayfinding difficulty)</td>
<td>Installed real-time travel time information system, ongoing signal timing adjustments, constructing full four lane detour road and path, ongoing coordination between major construction projects in the area, restricting lane closures during peak periods and important events.</td>
</tr>
<tr>
<td><strong>Ongoing:</strong></td>
<td></td>
</tr>
<tr>
<td>Failure of third party utilities to relocate services could delay the project</td>
<td>All major Manitoba Hydro electrical distribution lines have successfully been relocated. Relocation of other third party utilities is still required. The City, its consultants, contractors, and third party utilities are working closely to complete the work in time to avoid schedule impacts.</td>
</tr>
<tr>
<td>Encountering poor subsurface soil and groundwater conditions may delay the project and increase cost</td>
<td>Comprehensive subsurface soil and groundwater investigations carried out during design phase.</td>
</tr>
<tr>
<td>Maintaining the project schedule</td>
<td>Developed a schedule that includes contingency, ongoing schedule reviews. Delegated authority to CAO to award competitively tendered construction contracts exceeding $5,000,000 allowed for timely award of Contract 2.</td>
</tr>
<tr>
<td><strong>Mitigated:</strong></td>
<td></td>
</tr>
<tr>
<td>Failure to obtain a Crossing Agreement with CN</td>
<td>Crossing Agreement executed by CN on May 19, 2017</td>
</tr>
<tr>
<td>Failure to assemble required land could delay the project</td>
<td>An expropriation by-law was approved by Council on July 13, 2016. The City took possession of expropriated lands on January 12, 2017.</td>
</tr>
<tr>
<td>Lead-time for delivery of specialized large diameter pipe material could delay Feeder Main renewal work</td>
<td>Procurement of the specialized materials was added to Contract 1 works, and has successfully been supplied for Contract 2.</td>
</tr>
</tbody>
</table>

* Not every risk need be disclosed but those significant in nature to the project should be disclosed and monitored. Risks should be in order from higher to lower assessed risk and revised on an ongoing basis.
Financial (Update from last report - See Appendix B – Financial Forecast)

The financial forecast is disclosed in Appendix B. Expenditures for the current reporting period (May 1 to July 31, 2017) were $3,395,413.34 and primarily consist of Professional Services and Construction. Expenditures to date total $11,854,401.85.

Currently, the total project Estimate at Completion is $121.339M, resulting in a forecasted surplus of $3.4943M.

- Engineering and Design costs are currently forecasted to be higher than the original Class 3 cost estimates for the work.
- Construction costs (including railwork and utility costs) are currently forecast at $6.147M below budget. This is attributed to favorable construction market conditions during tendering of Contract 2, as well as utility relocation costs now forecast to be lower cost than originally estimated.
- While all land necessary for the project has been obtained, settlements are still being negotiated with landowners. Land acquisition costs are expected to remain within budget.

The above projection is based on the fact that a majority of the work has been contracted with favorable pricing. In addition a number of risk factors have been reduced including delay risks surround the road/rail detours implementation as well as completion of a number of utility relocations. As the project progresses, risks will be mitigated with known financial impact.

Despite the favorable Estimate at Completion indicating a projected surplus, at this time, adjustment of the project budget is not recommended. Ongoing risks such as subsurface soil and groundwater conditions as well as third party utility relocations still have the potential to require the use of contingency amounts.

As both the Federal Government and the Province will reimburse the City one-third of eligible costs to an upset limit, the City’s portion of the estimated surplus is approximately $14.3M (~41%) factoring in estimated ineligible costs. However, the City’s portion of the funding is financed by debt as noted below so there is no benefit in adjusting the project budget at this time.

Funding (Update from last report)

The project is being funded by the three levels of government with the City’s share being budgeted at 41% of total project costs factoring in ineligible cost not covered by the other levels of Government. Funding for the project was budgeted without reliance on contributions from the railway.

On May 24, 2017, the City received a copy of the duly executed Crossing Agreement with CN, executed by CN on May 19, 2017 and effective May 1, 2017. The Crossing Agreement, approved by Council on December 14, 2016, includes a cost sharing arrangement with CN Rail contributing $9,500,000.00 as their cost apportionment for the project. With this contribution, the City’s share of project costs is estimated to be 35%.

On July 5, 2017, the City received a copy of the fully executed contribution agreement between the Province of Manitoba and the City of Winnipeg. The contribution agreement with the Federal Government is under negotiation.
The majority of the City's share of project cost is to be funded by debt. To-date, $17,000,000 of debt has been issued on the project.

Table 4 – Project Funding Forecast & Receivable Table

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Adopted Budget (in millions)</th>
<th>Amended Budget (in millions)</th>
<th>Committed (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class of Estimate</td>
<td>Class 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Winnipeg</td>
<td>$ 64,532</td>
<td>$ 54,500</td>
<td>$ 54,500</td>
</tr>
<tr>
<td>Province of Manitoba</td>
<td>$ 45,875</td>
<td>$ 46,400</td>
<td>$ 46,400</td>
</tr>
<tr>
<td>Federal Government of Canada</td>
<td>$ 45,875</td>
<td>$ 45,882</td>
<td>$ 45,882</td>
</tr>
<tr>
<td>Other Contributions</td>
<td>-</td>
<td>$ 9,500</td>
<td>$ 9,500</td>
</tr>
<tr>
<td>Total</td>
<td>$ 156,282</td>
<td>$ 156,282</td>
<td>$ 156,282</td>
</tr>
</tbody>
</table>

- The funding forecast should match the capital budget detail sheet.

Property Acquisition (Update from last report)

Approximately 13 private landowners have been impacted by the expropriation process associated with this project. The impacts include partial takings, temporary easements, and permanent easements. Meetings were held with individual property owners during the preliminary engineering study, and ongoing meetings are occurring as the land acquisition process progresses. Four landowners have reached negotiated settlements. Negotiations are ongoing with the remaining landowners. Failure to reach a negotiated settlement will result in the matter being referred to the Land Value Appraisal Commission (LVAC). The LVAC is an independent tribunal which determines the due compensation payable for government land purchases and expropriations.

Stakeholder Engagements/Communications (Update from last report)

Project details continue to be updated on the project website: www.winnipeg.ca/WaverleyUnderpass.

Ongoing project newsletters and project website updates are summarized as follows:

- On May 5 2017, Construction Update #2 was posted to the project website and issued to stakeholders informing the public of upcoming work on the detour road.

- On May 5, 2017 a groundbreaking ceremony was held with the Mayor, Federal and Provincial Ministers, and CN representatives marking the commencement of underpass construction. The City issued a news release with details of the day’s events.

- On July 26, 2017, a news release and website update were issued corresponding to the launch of a travel time information system.
Subsequent Events after Report Period End Date

- On August 24, 2017, the Chief Administrative Officer approved an over-expenditure for Contract 2 (Bid-Opportunity 473-2016) in the amount of 1.71% or $763,486.40, primarily to cover the additional costs associated to address these poor subgrade soil conditions.
- On September 13, 2017, the Chief Administrative Officer approved an over-expenditure to Dillon Consulting Limited’s contract in the amount of $290,000 for consulting services related to design and contract administration services for a retaining wall structure at 1360 Taylor Avenue.
- On September 11, 2017, Construction Update #3 was posted to the project website, serving to provide notice of the weekend closure and subsequent detour roadway configuration.
- On September 25, 2017, the City issued a news release announcing the upcoming weekend closure of Waverley Street and Taylor Avenue and details of the detour roadway configuration.
- On September 28, 2017, a final inspection of the temporary at-grade detour crossing at CN Rivers Subdivision Mile 3.94 occurred between CN and City representatives.
- On September 29, 2017 at 5:30 PM, Waverley Street and Taylor Avenue were completely closed to vehicular, cyclist and pedestrian traffic in the vicinity of the project area.
- On September 30, 2017, CN officially closed the existing public crossing at Mile 3.89 Rivers Subdivision.
- On October 2, 2017 at 6:00 AM, Waverley Street and Taylor Avenue were re-opened to traffic now operating on the detour configuration, which is expected to be in effect until the fall of 2019, at which time traffic is expected to be transitioned under the new underpass roadway.
- On October 2, 2017 at 6:00 AM, CN officially opened the new temporary public crossing at Mile 3.94 Rivers Subdivision, complete with anti-whistling status.
Financial Impact Statement      Date:   October 20, 2017

Project Name:
Waverley Street at CN Mainline (Rivers) Grade Separation – Quarterly Project Status Report No. 06 for the Period Ended July 31, 2017

COMMENTS:
There is no financial impact associated with the recommendation of this report.

"Original signed by J. Ruby, CPA, CA"
J. Ruby, CPA, CA
Manager of Finance & Administration

CONSULTATION
N/A

OURWINNIPEG POLICY ALIGNMENT

01-3 Prosperity Direction 1: Provide efficient and focused civic administration and governance.

This report supports demonstration of accountability through service performance measurement and reporting.

SUBMITTED BY

Department:   Public Works
Division:     Engineering
Prepared by:  C.D. Ward, P. Eng., Bridge Projects Engineer
Date:         November 1, 2017

Appendices
Appendix A – Key Project Facts
Appendix B – Financial Forecast
Appendix C – Key Project Events (History)
### Appendix A – Key Project Facts

<table>
<thead>
<tr>
<th>Project Sponsor</th>
<th>Brad Neirinck, P.Eng., Manager of Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Responsible for Project Delivery</td>
<td>Public Works Department</td>
</tr>
<tr>
<td>Consultant Engineer (Company Name)</td>
<td>Dillon Consulting Limited</td>
</tr>
<tr>
<td>Adopted Budget</td>
<td>$156,282,000</td>
</tr>
<tr>
<td>Class of Estimate (Adopted)</td>
<td>Class 3 (-20% to +30%)</td>
</tr>
<tr>
<td>Range of Estimate (Adopted)</td>
<td>$125,000,000 to $203,167,000</td>
</tr>
<tr>
<td>Amended Budget</td>
<td>N/A</td>
</tr>
<tr>
<td>Class of Estimate (Amended)</td>
<td>N/A</td>
</tr>
<tr>
<td>Range of Estimate (Amended)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Project Description (Scope)
- Underpass bridge structure, land drainage including pump station, roadways, active transportation pathways, and landscaping;
- Temporary roadway and railway detours to facilitate underpass construction;
- Twinning of Taylor Avenue from Waverley Street to Lindsay Street, and twinning of Hurst Way from Waverley Street to approximately 45 Hurst Way;
- Improvements to Waverley Street from Wilkes Avenue to Grant Avenue, including intersection improvements;
- Professional services for detailed design, contract administration, and post-construction services;
- Land acquisition; and
- Utility relocations.

### Committee Membership:
- James Berezowsky, Acting Director of Public Works (Chair)
- Brad Neirinck, Manager of Engineering, Public Works (Project Sponsor)
- Tim Shanks, Manager Water Services, Water and Waste
- (vacant), Planning Property and Development member
- Jason Ruby, Manager of Finance, Public Works
- Georges Chartier, Chief Asset and PM Officer, Chief Administrative Office

(*) – Projects with aggressive schedules are inherently more risky and more likely to experience cost overruns and schedule delays.
### Appendix B – Financial Forecast

Waverley Street at CN Mainline (Rivers) Grade Separation Financial Forecast  
Peoplesoft Project ID 1805001413  
As at July 31, 2017

#### Project Component Deliverables

<table>
<thead>
<tr>
<th>Project Component Deliverables</th>
<th>Budget (in 000's)</th>
<th>Expenditure Forecast (in 000's)</th>
<th>Surplus (Deficit) From Amended Budget</th>
<th>Variance Last Report</th>
<th>Change in Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adopted Budget</td>
<td>Council Approved Change</td>
<td>Amended Budget</td>
<td>Actual 2016</td>
<td>Actual Costs To July 31, 2017</td>
</tr>
<tr>
<td>Engineering, Design and Other</td>
<td>$ 11,422</td>
<td>$ -</td>
<td>$ 11,422</td>
<td>$ 4,693</td>
<td>$ 6,547</td>
</tr>
<tr>
<td>Construction</td>
<td>$ 88,280</td>
<td>$ -</td>
<td>$ 88,280</td>
<td>$ 5</td>
<td>$ 3,380</td>
</tr>
<tr>
<td>Land Acquisition</td>
<td>$ 4,200</td>
<td>$ -</td>
<td>$ 4,200</td>
<td>$ 5</td>
<td>$ 623</td>
</tr>
<tr>
<td>Internal Financing/Overhead Costs</td>
<td>$ 10,090</td>
<td>$ -</td>
<td>$ 10,090</td>
<td>$ 235</td>
<td>$ 1,304</td>
</tr>
<tr>
<td>Contingency</td>
<td>$ 42,290</td>
<td>$ -</td>
<td>$ 42,290</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td><strong>Total Project Budget</strong></td>
<td><strong>$ 156,282</strong></td>
<td><strong>$ -</strong></td>
<td><strong>$ 156,282</strong></td>
<td><strong>$ 4,938</strong></td>
<td><strong>$ 11,854</strong></td>
</tr>
</tbody>
</table>

#### % of Project Budget Spent

(Actual Costs to Date / Adopted & Amended Budget) 8% 8%

* Amended budget and actual costs to date have been agreed to the City's general ledger and Monthly Capital Expenditures Report.  
This project was approved on December 12, 2012 (Preliminary Engineering Study) and February 24, 2016 (Detailed Design and Construction).
Appendix C – Key Project Events (History)

- On January 29, 2013, Council approved the 2013 Capital Budget that included an amount of $1.2 million to undertake the preliminary engineering study for the Project.
- On April 30, 2014, Dillon Consulting Limited was awarded the consulting services for a preliminary engineering study under RFP 66-2014.
- On June 25, 2014, Council concurred with the Executive Policy Committee (EPC) that Waverley Underpass be identified as one of the City’s top six highest priority major capital projects.
- On December 9, 2014, a public open house was held as part of the ongoing public engagement during the preliminary engineering study phase of the project.
- On March 24, 2015, EPC established Waverley Underpass as the City’s highest ranking project of four significant capital projects.
- On March 25, 2015, Council approved the prioritization established by EPC.
- On May 19, 2015, the Administration submitted an application for infrastructure funding to the New Building Canada Fund.
- On January 15, 2016, the Province of Manitoba provided approval-in-principle for their portion of funding to a maximum amount of $45.9 million under the New Building Canada Fund.
- On January 20, 2016, the Federal Government provided approval-in-principle for their portion of the funding to a maximum amount of $45.882 million under the New Building Canada Fund.
- On February 24, 2016, Council approved the addition of the Waverley Underpass project in the 2016 Capital Budget in the amount of $155.082 million including the Provincial and Federal funding.
- On February 29, 2016, Dillon Consulting Limited was awarded consulting services for detailed design, contract administration, and post-construction services for the Project.
- On March 22, 2016, Council approved the 2016 Capital Budget which includes the Waverley Street at CN Mainline (Rivers) Grade Separation project as noted above.
- On April 21, 2016, the project website (www.winnipeg.ca/WaverleyUnderpass) went live.
- On June 15, 2016, Council approved the expropriation of lands related to the project.
- On July 13, 2016, Council approved By-Law No. 89/2016 for the expropriation of lands related to the project.
- On July 29, 2016, the City was informed by the Province of Manitoba that a waiver of the expropriation inquiry hearing had been granted by the Lieutenant Governor at the Cabinet meeting held on July 27, 2016.
- On August 26, 2016, the Director of Public Works approved an over-expenditure to Dillon Consulting Limited in the amount of $158,530.00 for the incorporation of train and vehicle detection in the project area, to enable the use of new innovative technology to assist in the movement of traffic during construction.
- On September 6, 2016, the Director of Planning Property and Development approved Offers of Compensation for land acquisitions under $25,000.
- On September 20, 2016, Standing Policy Committee on Property and Development, Heritage, and Downtown Development approved Offers of Compensation over $25,000, to be made to land owners and other interested parties.
- On September 22, 2016, a website update occurred, providing notification of the Open House event, posting the open house materials including display boards, and posting a link for viewers to provide feedback through an online survey.
• On September 28, 2016, Council approved the consolidation/registration of land assembly corresponding to the expropriation, By-law 89/2016.

• On October 6, 2016, an Open House event was held. Two sessions were held at the Caboto Center at 1055 Wilkes Avenue, one from 3:30 pm to 5:30 pm, and a second session from 7:00 pm to 9:00 pm. The event was attended by approximately 500 members of the community. Feedback on the project was provided to the project team members. A corresponding update to the project website was made including posting of three 3D animated flythrough videos of the project.

• On October 17, 2016, Contract 1 was posted to the City of Winnipeg Bid-Opportunities website.

• On October 26, 2016, Council approved the delegation of authority to the Chief Administrative Officer to award competitively tendered construction contracts exceeding $5,000,000, and the delegation of authority to the Chief Administrative Officer for negotiation and award of single source contracts with the Canadian National Railway Company exceeding $5,000,000.

• On October 26, 2016, Council approved By-law 105/2016 for the opening of parts of Waverley Street and Taylor Avenue for the purposes of construction.


• On November 23, 2016, Borland Construction Inc. was awarded Bid-Opportunity 472-2016 for the Waverley Street Underpass at CN Mile 3.89 Rivers Sub: Contract 1 – Preliminary Underground Works and Security Fencing, in the amount of $2,088,994.00.

• On December 14, 2016, Council approved a cost-sharing arrangement for CN Rail to contribute $9,500,000 as their cost apportionment for the project, to be used as a part of the City’s portion of project funding.

• On January 9, 2017, Contract 2 was posted to the City of Winnipeg Bid-Opportunities website.

• On January 12, 2017, the City of Winnipeg obtained possession of permanently expropriated lands and the right to enter and construct on lands subject to expropriated easements.

• On February 1, 2017, the first of several electronic newsletters (Construction Update #1) was issued, providing the public with an update on construction of the project.

• On February 10, 2017, the City was advised that CN property required for the project was sold to a private company. The land was identified as CN land at the start of the expropriation process, and was therefore not subject to expropriation because CN land cannot be expropriated. At that time, an interest in the required lands was expected to be obtained via the forthcoming crossing agreement between the City and CN.

• On February 13, 2017, the City of Winnipeg awarded a Single Source Purchase Order (Materials Management reference number 98-2017) to CN for the supply of rail materials.

• On March 14, 2017, SPC Property and Development, Heritage and Downtown Development approved the purchase of privately owned lands required for the project which were not subject to the expropriation bylaw.

• On March 20, 2017, the City of Winnipeg issued a notice in accordance with Section 8(1) of the Railway Safety Act for work related to construction of the new at-grade crossing of the Waverley Street Detour Road at the CN Rivers Subdivision Mile 3.94. Notices were issued to representatives of Grant Memorial, the Reh-Fit Center, and CN in accordance with the Act.

On March 29, 2017, the City of Winnipeg entered into four Electric Service Agreements with Manitoba Hydro (Materials Management reference number 247-2017) for the relocation of various electrical distribution lines required for the project.

On April 20, 2017, Maple Leaf Construction Ltd. was awarded Bid-Opportunity 473-2016 for the Waverley Street Underpass at CN Mile 3.89 Rivers Sub: Contract 2 – Underpass Structure, Railworks, Roadworks, Land Drainage Sewer, Pumping Station and Landscaping Works, in the amount of $44,701,918.80.

On April 25, 2017, the City of Winnipeg issued a notice in accordance with Section 8(1) of the Railway Safety Act for work related to alteration of the existing at-grade crossing of Waverley Street at CN Rivers Subdivision Mile 3.89. A notice was issued to CN in accordance with the Act.

On April 26, 2017, the City issued a news release announcing the award of Contract 2 to Maple Leaf Construction Ltd.

On May 5, 2017, a groundbreaking ceremony was held with the Mayor, Federal and Provincial Ministers, and CN representatives marking the commencement of underpass construction. Construction Update #2 was posted to the project website and issued to stakeholders. The City issued a news release with details of the day’s events.

On May 9, 2017, the City of Winnipeg awarded a Single Source Purchase Order (Materials Management reference number 411-2017) to The Bell Telephone Company of Canada or Bell Canada for works associated with the project.


On May 18, 2017, the Chief Financial Officer approved a contract over-expenditure for Contract 1 in the amount of $871,763.57, primarily to cover the cost associated with adding the supply of specialized feeder main materials with long lead time to Contract 2.

On May 24, 2017, the City received a copy of the duly executed Crossing Agreement with CN, executed by CN on May 19, 2017 and effective May 1, 2017.

On June 29, 2017, the City of Winnipeg authorized Manitoba Hydro to proceed with adjustment of various natural gas pipeline relocations.

On June 29, 2017, the City of Winnipeg authorized Shaw Cablesystems G. P. to proceed with relocation of various underground services to accommodate the work.

On June 30, 2017, the City of Winnipeg entered into two Electric Service Agreements with Manitoba Hydro (Materials Management reference number 538-2017) for the renewal of street lighting in the Vicinity of Waverley Street at Grant Avenue and for the relocation of Fiber Optic Cable along Taylor Avenue.

On July 5, 2017, the City received a copy of the fully executed contribution agreement between the Government of Manitoba and the City of Winnipeg.

On July 18, 2017, the City of Winnipeg authorized Bell MTS (MTS Inc.) to proceed with relocation of communication cables required for the project.

On July 19, 2017, Council passed By-Law No. 50/2017 to prohibit the sounding of engine whistles at CN River Subdivision Mile 3.94.

On July 26, 2017, a news release and website update were issued corresponding to the launch of a travel time information system.

On July 31, 2017, a project scope change was initiated to proceed with detailed design and construction of a new retaining wall structure in the vicinity of 1360 Taylor Avenue, for the purposes of maintaining parking on City owned land currently leased to Mondo Foods Co. Ltd.