

Staff is also recommending a number of additions to the core Stage 2 plan. Specifically, the July 2015 Stage 2 Functional Design report included the Trim Road extension and the Airport Rail Link in the Stage 2 LRT Project's Confederation Line East Extension and Trillium Line Extension Environmental Assessments (EAs), on the understanding that they would proceed only if fully funded by the federal and provincial governments. Preliminary engineering designs for these extensions have been ongoing to ensure that Council has the option to proceed with these extensions once funding is confirmed. To date, the Ontario Government has committed 50 per cent funding for the Airport Rail Link and Trim Road extensions. We continue our discussions with the Government of Canada with the goal of securing the formal funding commitment prior to the release of the Request for Proposal.

The Stage 2 LRT Implementation report also recommends advancing the conversion of the Bayshore to Moodie Transitway to LRT, with grade separation at Holly Acres, and the construction of an additional Maintenance and Storage Facility (MSF) in the general vicinity. This would replace the MSF that was previously planned for Woodroffe along the Nepean Corridor. Staff believes the extension to Moodie and the MSF in this location can be achieved within the current project budget. This facility is required to be critical to the operation of Phase 2 and future expansions.

In addition, the July 2015 report directed staff to identify "City and senior government planned infrastructure works for potential bundling opportunities" as part of the Stage 2 Project procurement and contract. As such, this report identifies approximately 20 city projects that would benefit from bundling as part of the procurement process. This list will be finalized through the procurement process and presented to Council for approval as part of the Contract Award report. Based on the success experienced with Confederation Line, the report also recommends bundling the Ministry of Transportation of Ontario's (MTO) Highway 417 Expansion Project (from Highway 416 to Maitland Avenue) with Stage 2. Constructing these projects with a single proponent will take advantage of economies of scale and efficiencies, transfer the risk of costly delays, reduce transit and traffic impacts, and will help to align construction schedules to minimize impacts on residents.

Part 2: Procuring the Stage 2 LRT and Related Projects

Part two of this report lays out the recommended strategic procurement strategy that sets the stage for a robust market participation and best value for taxpayers. First, by recommending that existing contractual arrangements be extended with the Rideau Transit Group (RTG) to allow the city to secure improved costing on specific components and services. Secondly, staff is recommending the remainder of the Stage 2 works, or over 80 per cent of the rail-project work, be competitively tendered.

Because the Rideau Transit Group (RTG) is currently the maintainer for the Confederation Line's core assets until 2048, any procurement strategy to add extensions to Confederation Line faced new complexities that have not been faced previously in Ontario. As a result, this report is putting forward an innovative procurement strategy that retains the accountability and risk transfer achieved in the Confederation Line procurement while ensuring an open and transparent competition on as much of the new scope as possible. This part of the report also outlines the feedback from the market soundings on the proposed procurement process.

The recommended procurement process enables the city to secure a consistent set of vehicles, an integrated train control system, and a single, accountable maintainer, which are basic requirements for operating an efficient system. As well, the Belfast Yard Maintenance and Storage facility (MSF), which is used to ensure the good repair and availability of the vehicle fleet and will be operated by RTG until 2048.

Over the last eight months staff entered into negotiations with RTG to provide these core elements that must be consistent and integrated with the Confederation Line system infrastructure. The resulting Memorandum of Understanding (MOU) between the City and RTG, recommended for approval as part of this report, provides for a fixed-price for the project components and services that will be delivered by RTG. The scope includes 38 additional Alstom Citadis light rail vehicles (LRVs) for the Confederation Line extensions, the expansion of the Belfast Yard MSF, and the provision of on-board train control and communications equipment. In addition, once the Stage 2 Confederation Line extensions are complete, RTG will assume responsibility for maintenance and lifecycle of the fully constructed line and they will maintain the expanded fleet of LRVs. As a result of these negotiations, RTG will remain the single point of accountability for service availability and maintenance risks.

Staff believes the prices negotiated provide positive value to the City, with the price for each vehicle of \$1.1 million less than the 2012 price, which resulted from the Confederation Line competitive procurement process, and a lower per kilometre vehicle maintenance price resulting in significant savings over the life of the contract. If approved by Council, the fixed price negotiated with RTG for this work is \$492 million. There would also be a provision for any additional works that might need to be undertaken by RTG in areas such as wayside train control, system integration and insurance. These works would be undertaken at the City's discretion, in accordance with the terms of the existing Confederation Line project agreement (PA) that dictates an open book process with capped profit margins.

The balance of the system expansion is recommended to be undertaken through two new procurements. The Confederation Line East and West extensions, and their related projects, are recommended to proceed by way of a \$2.1 billion Design, Build Finance (DBF) procurement, with RTG assuming responsibility for maintaining the resulting works as a single integrated system to 2048. This will allow the City to maintain its current risk profile regime and seamless system integration across the expanded Confederation Line. With this approach, RTG would not be eligible to bid on the upcoming Design Bid Finance procurement for Confederation Line capital works.

The Trillium Line extension, including upgrades to the existing system, and related works will be tendered separately in a \$550 million full Design, Build, Finance, Maintain (DBFM) contract that includes maintenance responsibilities for the new and existing infrastructure. Because RTG has no involvement currently in the Trillium Line, and therefore, has no competitive advantage, they would be permitted to compete in the Trillium Line DBFM procurement.

Part 3: Supporting the Implementation of the Stage 2 Light Rail and Related Projects

While the majority of the focus of this report and the related recommendations are specific to finalizing the project definition for the procurement process and selecting the procurement

model itself, there are a number of related activities and actions that must be undertaken to prepare for the implementation of the Stage 2 LRT Project in preparation of and following the Contract Award.

Part three of the report, therefore covers some of the specific activities the City will undertake to be ready to implement Stage 2, including approaches to maintain mobility and bus service throughout the various construction phases as well as the approach to assembling the required lands, and the delegated authority to proceed with the agreements necessary to prepare for the Contract Award and the project itself.

The budget for the core Stage 2 LRT Project is set at \$3 billion at the time of spend. This includes the costs for the construction of the Confederation Line East extension to Place d'Orléans, the Confederation Line West extension to Baseline and Bayshore, and the extension of Trillium Line south to Bowesville. The extension from Bayshore to Moodie from bus rapid transit to light rail transit is also expected to be achievable within this budget envelope set by Council.

The cost estimates for the additional extension of the Confederation Line from Place d'Orléans to Trim (the Trim Extension) and the link from the Trillium Line South Keys Station to the Ottawa Macdonald-Cartier International Airport (the Airport Rail Link) remain consistent with the 2013 TMP estimates (\$160 million and \$155 million, respectively) and are conditional on receiving full funding from the federal and provincial governments and the negotiation of a memorandum of understanding with the Airport Authority.

As noted in the City Treasurer's Affordability Update report, these works can be completed and implemented within the City's affordability envelope and debt policy, subject to federal and provincial funding being provided as anticipated.

One of the lessons learned from the Confederation Line project is the importance of anticipating and planning for the mobility impacts of construction as early as possible in the design stage of the project. This report provides a refined short-list of traffic and transit staging options, based on an analysis of traffic impacts, transit running times, capital costs, operating costs, property implications and community impacts which will be finalized at the time of contract award.

Finally, as noted in the July 2015 report, staff has identified additional potential station-oriented development opportunities for the Stage 2 LRT Project. Three stations are recommended for station-oriented development opportunities including Baseline, Cleary, and Pinecrest.

Should Council approve the recommendations in this report, it is anticipated that a final report will be brought forward in Q2 2018 outlining the results of the procurement process and related activities, leading to the final design and construction of the Stage 2 LRT Project in time for revenue service to begin in 2021 for the Trillium Line Extension, the Confederation Line East extension by 2022 and the western extension by 2023.

If you have any questions, please do not hesitate to contact me at extension 52111.

*Original signed by
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cc: Senior Leadership Team
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