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| TO: | CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON JUNE 18, 2019 |
| FROM: | KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER |
| SUBJECT: | CLARKE ROAD IMPROVEMENTS ENVIRONMENTAL STUDY REPORT |

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the Clarke Road Improvements Environmental Study Report:

- (a) Clarke Road Improvements Schedule C Municipal Class Environmental Assessment **BE ACCEPTED**;
- (b) A Notice of Study Completion for the Project **BE FILED** with the Municipal Clerk; and,
- (c) The Environmental Study Report **BE PLACED** on the public record for a 30 day review period.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan.
- Strategic Priorities and Policy Committee – June 23, 2014 – Approval of 2014 Development Charges By-Law and DC Background Study.
- Civic Works Committee – May 9, 2017 – Clarke Road Widening Environmental Assessment VMP North Extension to Fanshawe Park Road East Appointment of Consulting Engineer
- Strategic Priorities and Policy Committee – March 25, 2019 – 2019 Development Charges Covering Report and Proposed By-Law

COUNCIL’S 2019-2023 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus area of Building a Sustainable City by building new transportation infrastructure to meet the long term needs of our community.

BACKGROUND

Purpose

This report provides an overview of the Municipal Class Environmental Assessment (EA) for the Clarke Road improvements from Fanshawe Park Road East to the Veterans Memorial Parkway (VMP) North Extension and also seeks the approval to

finalize this study. The Environmental Study Report (ESR) highlights the process undertaken throughout the Environmental Assessment.

Related Initiatives

Smart Moves – The 2030 Transportation Master Plan

On June 26, 2012, Council approved the Smart Moves Transportation Master Plan (TMP). Of the five “Smart Moves” that form the basis of the TMP, the improvements on Clarke Road to widen from two lanes to four lanes and to include a multi-use pathway align with the following Smart Moves:

- More Strategic Program of Road Network Improvements
- Greater Investment in Cycling and Walking Infrastructure

The London Plan

The London Plan, which encompasses the objectives and policies for the City’s short and long-term physical land development, classifies this portion of Clarke Road as an expressway because the VMP extension connects smoothly to Clarke Road. This section of Clarke is also classified as having walking and cycling routes.

The expressway classification places a priority on high volumes of vehicle and freight movements, cycling and walking routes on one side of the road, and upholds the quality of standard in urban design.

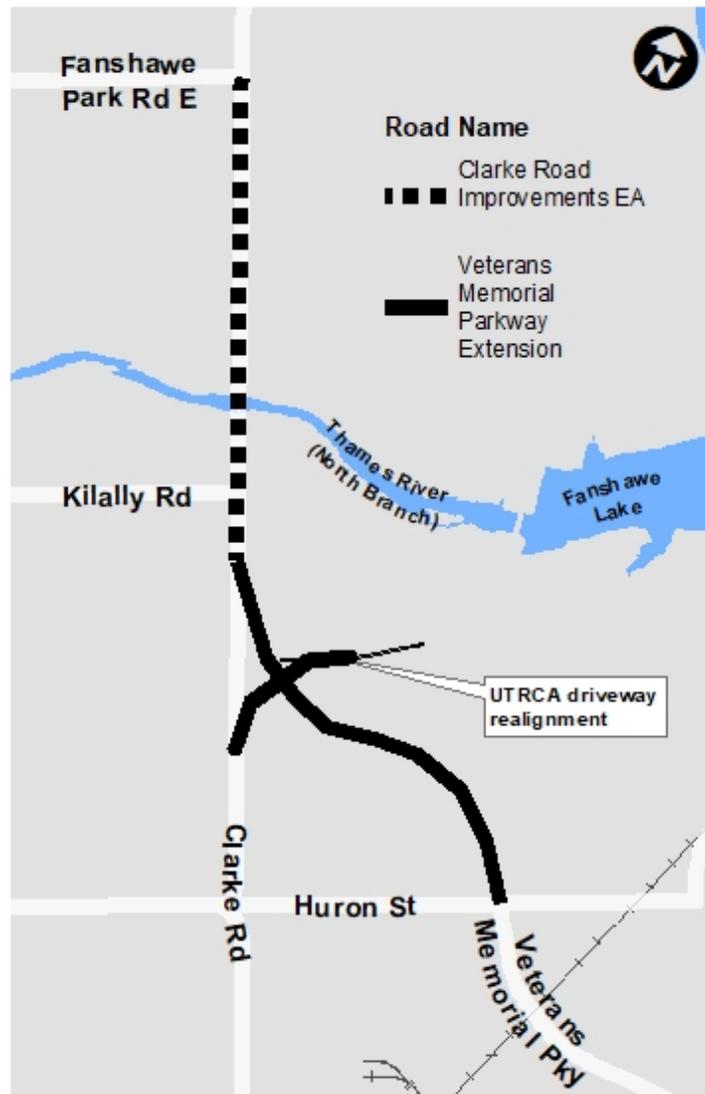
Due to the potential increase in development growth leading to rising traffic volumes, the London Plan and the 2030 Transportation Master Plan highlight the importance of infrastructure improvements to the Clarke Road corridor for all modes of transportation. An EA is required due to the anticipated impacts associated with reconstructing the road to address the forecasted area growth and rising traffic volumes.

Veterans Memorial Parkway North Extension

The detailed design of the Veterans Memorial Parkway North Extension is currently underway. The project scope entails constructing a two lane expressway from Veterans Memorial Parkway at Huron Street to Clarke Road near the Upper Thames River Conversation Authority Entrance. Future expansion to four lanes as the widening progresses north of Oxford Street is accommodated in the planning and design.

The objective of this project is to improve transportation circulation and connectivity in the northeast part of the city and to alleviate traffic congestion at the intersections of Clarke Road/Huron Street and VMP/Huron Street. This extension will increase traffic capacity on both Clarke Road and VMP, as well as improve the level of service for vehicle commuters at intersections. See the map of project area below. Currently, this project is planned for construction in 2021, which is contingent on additional property approvals.

Area Map



Veterans Memorial Parkway Interchange Environmental Assessment

The Veterans Memorial Parkway Interchange Environmental Assessment was a long range planning exercise to identify interchange locations along the entire length of the Veterans Memorial Parkway from Wilton Grove Road to Kilally Road. Interchanges and flyovers allow the expressway to best meet functional requirements of the Veterans Memorial Parkway in a full built out condition. Full build out of the Veterans Memorial Parkway refers to a four lane expressway with interchanges and flyovers.

DISCUSSION

Project Description

The Clarke Road Improvements Class EA was carried out in accordance with Schedule 'C' of the Municipal Class Environmental Assessment (Class EA) document. The Class EA process is approved under the Ontario Environmental Assessment Act and outlines the process whereby municipalities can comply with the requirements of the Act.

The Class EA study has satisfied the requirements of the Ontario Environmental Assessment Act by providing a comprehensive, environmentally sound planning process with public participation. The ESR documents the process followed to determine the recommended undertaking and the environmentally significant aspects of the planning, design, and construction of the proposed improvements. It describes the problem being addressed, the existing social, natural and cultural environmental considerations, planning and design alternatives that were considered and a description of the recommended alternative.

The study area for this Class EA include the Clarke Road corridor from its intersections with the future VMP extension to the intersection of Fanshawe Park Road East. The study area includes the intersection of the Upper Thames River Conservation Authority (UTRCA) access road and Kilally Road. The study area also includes the J.W. Carson Bridge, which crosses the Thames River north of Kilally Road.

The ESR identifies solutions for traffic growth, intersection and active transportation improvements. Improvements to the Clarke Road corridor are needed to accommodate the increased traffic volumes as a result of the VMP extension, and potential development in the area.

The ESR also identifies environmental effects and proposed mitigation measures, commitments to further work and consultation associated with the implementation of the project. A copy of the Executive Summary for the ESR is attached in Appendix A.

Planning and Analysis of Alternatives

Phase I of the Municipal Class EA (MCEA) process involved the identification of the problem and opportunity statement. Based on the review of existing conditions, servicing studies, planning documents, development proposals, preliminary traffic studies and collision data, the following summarizes the problems and opportunities within the study area:

- Growth Management: Need to accommodate growth of traffic on Clarke Road as a result of the future VMP extension, industrial development south of the study area, and residential development in the area.
- Intersection issues: Decreased level of service at intersections within the study area require modifications, including turning lanes, improved traffic control or roundabouts.
- Active Transportation: Need to improve active transportation facilities within the study area and provide system connections, as per the City's Cycling Master Plan and the London Plan.

Phase II of the MCEA process includes an inventory of the existing socio-economic, cultural and natural environments to identify alternative solutions (planning alternatives) to address the problem/opportunity statement. Alternative solutions are identified and evaluated based on their ability to reduce impacts to the socioeconomic, natural, cultural and technical environments. Alternative solutions considered for the study area included:

- Do Nothing
- Improve Other Roads in the Transportation Network
- Accommodate Other Travel Demands
- Provide Additional Travel Lanes and Intersection Improvements.

Widening Clarke Road to provide additional through lanes, cycling facilities, pedestrian pathways and intersection improvements was identified as the preferred solution to accommodate future travel demands. This solution was determined to be the most consistent with municipal planning initiatives, based on its ability to support future development, the extension of VMP, improvements to pedestrian and cycling facilities, and the intended function of Clarke Road.

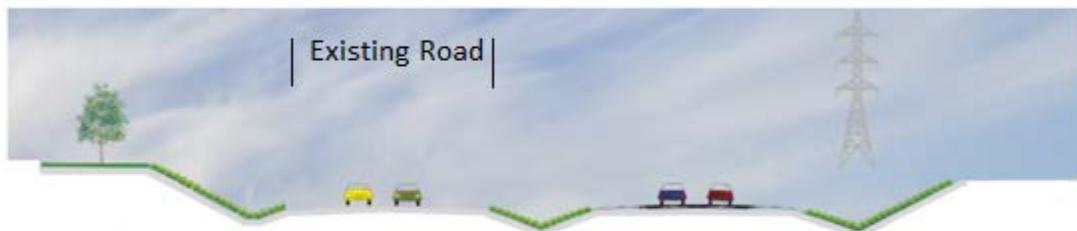
Design Alternatives

Phase III of the MCEA process involves the development and evaluation of alternative design concepts. The main outcome in this phase of the study was developing road cross-sections and layout concepts for the recommended planning solution.

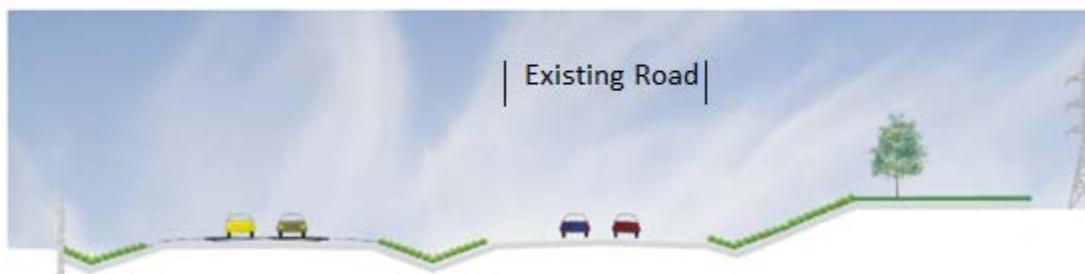
Identification of the land requirements for this project was a key outcome to identify appropriate mitigation measures such as minimizing cultural, socio-economic and environmental impacts, while still meeting the City's design standards.

Three road widening design alternatives were developed and examined, which can be seen in the below figure:

- Alternative 1 – Widening to the East of the Centreline
- Alternative 2 – Widening to the West of the Centreline
- Alternative 3 – Widening Symmetrically about the Centreline



Alternative 1 - Widening to the East of the Centreline



Alternative 2 - Widening to the West of the Centreline



Alternative 3 - Widening Symmetrically about the Centreline

The recommended road widening alternative is 'Alternative 3 – Widening Symmetrically about the Centreline', with the ability to accommodate the ultimate widening to six lanes. This alternative is recommended as it reduces overall impacts to property and entrances along Clarke Road, reduces significant impacts to the utility corridor on the east side, and reduces impacts to the key natural heritage features.

Similarly, the J.W. Carson Bridge was evaluated with a number of potential alternatives. 'Do Nothing' was not considered as a feasible alternative for the J.W. Carson Bridge with the widening of Clarke Road. Bridge design alternatives were developed based on observed condition of the existing structure, and the environmental sensitivities associated with the underlying aquatic and terrestrial environment.

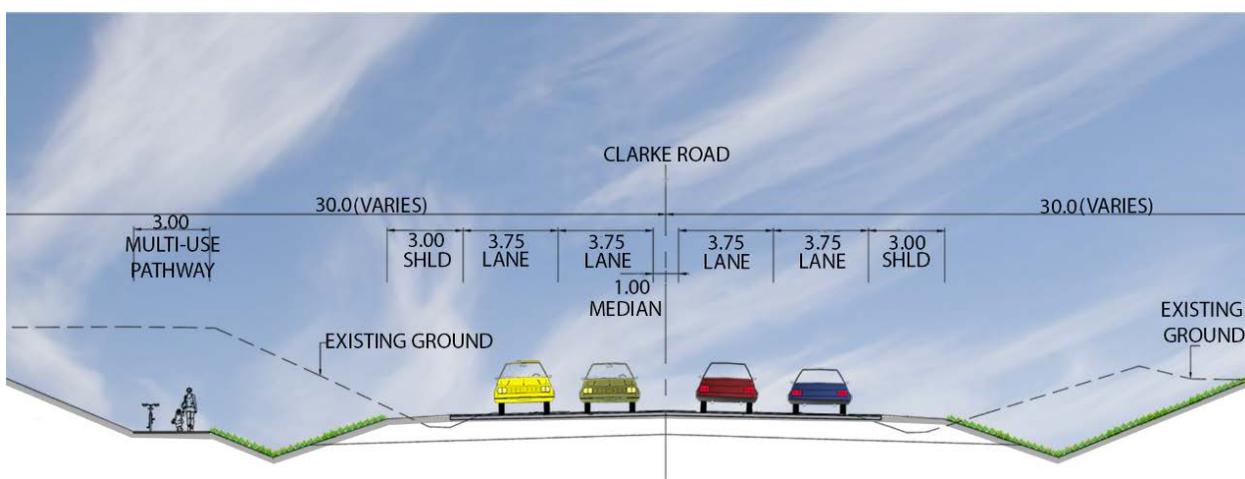
Consultation with MNR and UTRCA provided clear guidance on the importance of minimizing the new footprint and number of construction events in order to limit environmental disturbance. Based on these considerations and the recommended road widening alternative, “Widening Symmetrically about the Centreline”, three structural design alternatives were evaluated for the bridge:

- Alternative A - Rehabilitate and widen the existing structure
- Alternative B - Replace existing structure with a single span option
- Alternative C - Replace existing structure with a multi-span option

Based on the evaluation, the preferred bridge design alternative is ‘Alternative C - Replace the existing structure with a multi-span bridge. This alternative was more favourable as it allowed for one construction event over a 75+ year service life of the structure which minimizes the natural environment disturbance. In addition, the required sub-structure elements (ie, piers and abutments) could be constructed to accommodate the ultimate widening to six lanes to avoid future in-water work.

Project Description

The recommended road widening along Clarke Road consists of widening the road symmetrically about the centreline to accommodate four traffic lanes, with consideration to an ultimate build out to six lanes. The widened roadway is proposed to be comprised of four 3.75 m lanes with a 1.0 m flush median and 3.0 m outside paved shoulder. The proposed cross section will facilitate a 2% cross-fall on both sides of the road centreline, as well as a separated 3.0 m multi-use pathway along the west side of the road corridor.



The bridge replacement is recommended due to the emphasis on minimizing both long-term and short-term environmental disturbances to the underlying aquatic and terrestrial environment. The proposed bridge will have four 3.75m lanes with 1.5m shoulders and a separated 3.0 m multi-use pathway.

The new multi-span bridge will consist of two spans, with an ultimate lifespan of 75+ years. During construction, the works can be staged such that two lanes of traffic can be maintained with localized road closures, therefore minimizing impacts to road users along the Clarke Road corridor.

The 3.0 m multi-use pathway has also been recommended along the west side of the Clarke Road corridor to provide a broader range of cycling facilities. This will contribute to a continuous and connected network of both on and off road cycling facilities, including a connection to the nearby Fanshawe Lake Conservation Area. The pathway will accommodate a range of cyclists' needs and abilities. The multi-use pathway network includes and supports a broader range of users with various design considerations.

The preferred design best addresses the project problem statement based on the detailed evaluation and feedback received from the public and external agencies which included UTRCA and MNR.

Public and Agency Consultation

Consultation was a key component of this Class EA study in order to provide an opportunity for stakeholder groups and the public to gain an understanding of the study process and provide feedback. The consultation plan was organized around key study milestones, including the two Public Information Centres (PIC's), stakeholder engagement and participation of technical review/regulatory agencies. The key stakeholders included residents, interested public, agencies, Indigenous Communities and those who may be affected by the project.

A Notice of Study Commencement was issued in June 2017. The study team received correspondence from the public and agencies indicating their interest in the study and requesting to be kept informed.

Public Information Centre No. 1 was held on September 21, 2017 to present the study, including information on existing conditions, alternative planning solutions, evaluation criteria and design considerations. It served as an opportunity for the public to review the project information, ask questions, and provide input to the members of the study team.

Public Information Centre No. 2 was held on July 11, 2018 as an opportunity for attendees to review the impact of the proposed road improvement options on the social, cultural, economic, and natural environments as well as review the preliminary preferred design.

Agencies and stakeholders which required information updates pertaining to them were notified at study milestones and during specific phases of the study. In addition to formal public events, the project team conducted in-person meetings with stakeholders and agencies as requested and required. Staff met with UTRCA and the Ministry of Natural Resources and Forestry throughout the EA process. Presentations were made to the City of London Environmental and Ecological Planning Advisory Committee (EEPAC), Cycling Advisory Committee (CAC) and Transportation Advisory Committee (TAC) throughout the project.

In general all agencies and stakeholders understand the need for roadway improvements. Some had concerns regarding natural heritage impacts and protection for environment throughout the detailed design. Mitigation of potential impacts involves the avoidance or minimization of potential impacts through good design, construction practices and/or restoration and enhancement activities. If mitigation is not possible then compensation is possible to achieve a no net-impact for particular natural heritage features. Detailed mitigation measures will be finalized in consultation with impacted property owners, City, UTRCA, and MNRF as part of detailed design.

IMPLEMENTATION

Construction Staging

The implementation of the preferred widening of Clarke Road from two to four lanes is recommended to begin construction in 2033, which is based on the 2019 Development Charges Background Study. The timing for the improvements is also dependent upon the City's available funding as well as coordination with other City projects. Dates are subject to change based on future Development Charges Studies.

Property will be acquired on a proactive basis as opportunities arise. The design process would begin a few years prior to implementation. Coordination with property owners, Hydro One and regulatory agencies is planned for early in the design process, providing ample time for consultation.

Network traffic management and a communications plan will be developed during detailed design to inform road users, outline detours during closures and instruct local

traffic movement. Access to commercial and industrial properties will be maintained during construction.

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| FINANCIAL CONSIDERATIONS |
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Preliminary Cost Estimates

The estimated total project cost associated with the proposed improvements, including engineering, roadway construction, earthworks, structural, utility relocations, landscaping, staging, and other project costs is approximately \$25,560,000.

| Capital Cost | Estimated \$ |
|-----------------------------|---------------------|
| Roadwork | \$5,089,000 |
| Structural | \$13,200,000 |
| Electrical | \$250,000 |
| Miscellaneous | \$200,000 |
| Sub Total | \$18,739,000 |
| Property Acquisition | \$1,200,000 |
| Contingency (10%) | \$1,924,790 |
| Environmental Mitigation | \$300,000 |
| Utility Relocations (10%) | \$508,900 |
| Engineering (15%) | \$2,887,185 |
| Total Estimated Cost | \$25,560,000 |

The 2019 Development Charges Background Study includes a cost estimate of \$24,917,500. This estimate was based on the best available information at the time and is close to the EA estimate. The final cost of the project will be influenced through detailed design, as mitigation measures and environmental compensations are fully developed.

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| CONCLUSION |
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Improvements to Clarke Road from Fanshawe Park Road East to the proposed Veteran’s Memorial Parkway North Extension are necessary as development in the vicinity continues to create growth along this major corridor. A Municipal Class Environmental Assessment (EA) was undertaken to confirm the preferred solution to proceed in coordination with the required corridor improvements. The ESR is ready for final public review. The Clarke Road Improvements Class EA Study was carried out in accordance with Schedule C of the Municipal Class Environmental Assessment process.

Three road design alternatives were developed which included three additional bridge alternatives to address the problems and opportunities. The preferred planning solution is to widen the road symmetrically while also replacing the J.W. Carson Bridge with a multi-span bridge option. This alternative was more favourable as it minimizes the environmental disturbance, and impacts to property owners.

Consultation was a key component of this study. The Class EA was prepared with input from agencies, utilities, emergency service providers, property owners in proximity to the study and Indigenous Communities.

Pending Council approval, a Notice of Study Completion will be filed, and the ESR will be placed on public record for a 30-day review period. Stakeholders and the public are encouraged to provide input and comments regarding the study during this time period. Should the public and stakeholders feel that the EA process has not been adequately addressed, they may request a Part II Order to the Minister of the Environment, Conservation and Parks within the 30-day review period per MECP instructions on their website.

The project is planned to be implemented in 2033, based on the 2019 Development Charges Background Study.

Acknowledgements

This report was prepared with assistance from Peter Kavcic, P.Eng., of the Transportation Planning and Design Division.

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| RECOMMENDED BY: | |
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| KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER | |

Attach: Appendix A – Environmental Study Report Executive Summary

c: Isaac Bartlett, Stantec Consulting Ltd.

Appendix A Environmental Study Report Executive Summary

The City of London retained Stantec Consulting Ltd. to identify transportation corridor improvements along Clarke Road between Fanshawe Park Road East and the Veterans Memorial Parkway (VMP) extension, which is currently under detailed design.

The City's 2030 *Smart Moves Transportation Master Plan* (TMP) and the 2014 *Development Charges Background Study* identified the need to widen Clarke Road from 2 to 4 lanes with consideration given to the ultimate build-out of 6 lanes. The widening was identified as a priority project to address future traffic volumes associated with future improvements being implemented along VMP.

In accordance with the Municipal Class Environmental Assessment (MCEA) (Municipal Engineers Association, 2000, as amended in 2007, 2011, and 2015), this study is being planned as a Schedule C undertaking, which includes the completion of Phases 1 through 4 of the MCEA study process.

Consultation

A contact list was developed at the outset of the study, which includes relevant government and regulatory agencies, utilities, community organizations, interested members of the public, and Indigenous communities. Project notices, including the Notice of Study Commencement, Notice of Public Information Centres (PICs), and the Notice of Completion were published in the *Londoner* in two consecutive editions, posted on the City's study website.

(<http://www.london.ca/residents/Environment/EAs/Pages/Clarke-Road-Improvements.aspx>)

A Technical Agencies Committee (TAC) was established to facilitate discussions among relevant City departments and approval bodies. Two PICs were held throughout the study to ensure stakeholders have an understanding of the project, and to provide opportunities for stakeholders to provide input into the alternatives, evaluation criteria, and design details.

All input from the public, review agencies/ministries, and other stakeholders has been documented. All consultation with Indigenous communities has also been documented in a consultation log.

Phase 1 – Problems and Opportunities

Phase 1 of the MCEA process includes a review of a number of planning and policy documents, related studies and reports, and initial traffic review. A number of policy documents were reviewed to understand the existing and planned conditions and objectives within the study area and surrounding neighborhoods, and to provide the framework for identifying improvements. Relevant policy documents include the Provincial Policy Statement, Endangered Species Act, City of London Transportation Master Plan, City of London Official Plan, the London Plan, and London ON Bikes Cycling Master Plan.

Based on the review of existing conditions, servicing studies, planning documents, development proposals, preliminary traffic studies and collision data, the following summarizes the problems and opportunities within the study area:

- Growth Management - Need to accommodate growth of traffic on Clarke Road as a result of the future VMP extension, industrial development south of the study area, and residential development in the area.
- Intersection Issues - Decreased level of service at intersections within the study area and require modifications, including turning lanes, improved traffic control or roundabouts.

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- Active Transportation - Need to improve active transportation facilities within the study area and provide system connections (as per the City's Cycling Master Plan and the London Plan).

Improvements to the Clarke Road corridor are needed to accommodate increased traffic volumes as a result of the future VMP extension, and future industrial and residential development in the area. The improved transportation corridor will serve the needs of the transportation system including active transportation and area growth to 2031 and beyond.

Phase 2 – Existing Conditions

Phase 2 of the MCEA process includes an inventory of the existing socio-economic, cultural, and natural environments. Background information was collected from various sources to characterize the existing features within the study area.

The existing transportation network, including roads, transit, and active transportation facilities were reviewed to understand the current conditions. Existing and future land use patterns were identified to evaluate the current socio-economic conditions prior to determining alternative solutions.

An Environmental Impact Study was conducted to assess the study area, identify constraints and sensitivities, and determine the general connectivity of natural features within study limits and surrounding area. Field investigations included the characterization of vegetation communities, botanical surveys, a wildlife habitat assessment, and an aquatic habitat assessment. Drainage and watershed characteristics were identified, and analysis conducted to determine flow levels and connectivity.

A Stage 1 Archaeological Assessment and Cultural Heritage Assessment were completed to determine archaeological potential, identify built heritage resources and cultural heritage landscapes present within the study area. The findings of the existing conditions were considered throughout the development and evaluation of alternative solutions and designs for the corridor.

Alternative Solutions

Alternative solutions are identified and evaluated based on their ability to reduce impacts to the socio-economic, natural, cultural and technical environments. Alternative solutions considered for the study area included Do Nothing, Improve Other Roads in the Transportation Network, Accommodate Other Travel Demands, and Provide Additional Travel Lanes and Intersection Improvements.

Widening Clarke Road to provide additional through lanes, cycling facilities, pedestrian pathways and intersection improvements was identified as the preferred solution to accommodate future demands associated with auto and other travel demands. This solution was determined to be the most consistent with municipal planning initiatives, based on its ability to support future development, the extension of VMP, pedestrian and cycling facilities, and the intended function of Clarke Road.

Design Alternatives

Three road widening design alternatives were developed and assessed including "Widening to the East of the Centreline", "Widening to the West of the Centreline", and "Widening Symmetrically about the Centreline". "Widening Symmetrically about the Centreline" was identified as the preferred design alternative.

Based on the recommended road widening alternative, "Widening Symmetrically about the Centreline", three structural design alternatives were considered for the J.W. Carson Bridge over the Thames River, including "Rehabilitate and Widen the Existing Structure", "Replace Existing Structure with a Clear Span Option", and "Replace Existing Structure with a Multi-Span Option". Replacement of the existing J.W. Carson

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Bridge with a multi-span bridge option was identified as the preferred structural alternative to accommodate the new four lanes, with consideration given to the ultimate build-out of six lanes.

Project Description

The recommended road widening along Clarke Road consists of widening the road symmetrically about the centreline to accommodate four traffic lanes, with consideration to an ultimate build out to six lanes.

The widened roadway is proposed to be comprised of four 3.75 m lanes with a 1.0 m flush median and 3.0 m outside paved shoulder to accommodate cyclists. The proposed cross section will facilitate a 2% cross-fall on both sides of the road centreline, as well as a separate multi-use pathway along the west side of the road corridor.

The bridge replacement is recommended due to the age of the existing structure and the emphasis on minimizing both long-term and short-term environmental disturbances to the underlying aquatic and terrestrial environment. The new abutments and footings for the ultimate build out to six lanes could be constructed at the time the new bridge structure is required for the four-lane expansion to minimize the number of construction events and limit disturbances to the underlying aquatic environment associated with the Thames River corridor.

The new multi-span bridge will consist of two spans, with an ultimate lifespan of 75+ years. During construction, the works can be staged such that two lanes of traffic can be maintained, which will allow for continued access along the Clarke Road corridor.

The active transportation facilities proposed along Clarke Road incorporates a fully paved shoulder for on-road use. A 3.0 m multi-use pathway has also been recommended along the west side of the Clarke Road corridor to provide a broader range of cycling facilities. This will contribute to a continuous and connected network of both on- and off-road cycling facilities, including a connection to the nearby Fanshawe Conservation Area pathways, and accommodate a range of cyclists' needs from the commuter cyclist to the recreational cyclist. The multi-use pathway network (the Thames Valley Parkway) includes and supports a broader range of users with various design considerations.

Preliminary Cost Estimate

The capital costs associated with the bridge replacement and associated roadwork is estimated to be approximately \$25,559,875.

| Capital Cost | Estimated \$ |
|--|---------------------|
| Roadwork | \$5,089,000 |
| Structural | \$13,200,000 |
| Electrical | \$250,000 |
| Miscellaneous | \$200,000 |
| Sub Total | \$18,739,000 |
| Contingency (10% Sub Total + Utilities) | \$1,924,790 |
| Environmental Mitigation | \$300,000 |
| Property | \$1,200,000 |
| Utilities (10% Roadworks) | \$508,900 |
| Engineering (15% Sub Total + Utilities) | \$2,887,185 |
| Total Estimated Cost | \$25,559,875 |

Implementation and Timing

The implementation of the preferred widening of Clarke Road from two to four lanes is recommended to begin construction in 2033, which is based on the 2019 Development Charges Background Study. The timing for the improvements is also dependent upon

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the City's available funding as well as coordination with other City projects. Dates are subject to change based on future Development Charges Studies.

Based on construction commencing in 2033, a preliminary schedule of the process can be seen below. Coordination with property owners, Hydro One, and regulatory agencies is planned for early in the design process, providing ample time for consultation.

- Detail Design – 2031 - 2032
- Tendering – late 2032
- Construction – 2033

Potential Impacts and Proposed Mitigation

Many of the environmental concerns related to this project have been mitigated through the process by which the preferred design was selected. The anticipated impacts and proposed mitigation measures have been described in Section 8. A list of specific commitments developed with the Upper Thames River Conservation Authority (UTRCA) and the Environmental and Ecological Planning Advisory Committee (EEPAC) to be carried forward to Phase 5 of the Municipal Class EA process, Implementation (detailed design and construction) is provided in Section 9. The City of London will work with UTRCA, EEPAC and the Ministry of Environment, Conservation and Parks (MECP) during detailed design and prior to the start of construction to ensure that the proposed works are acceptable and to obtain required permits.