

Appendix A:

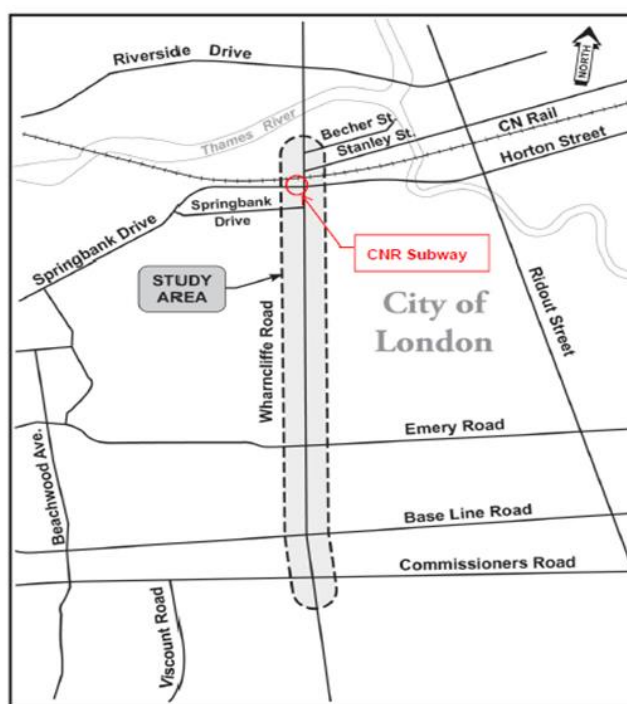
Environmental Study Executive Summary

E1 Introduction

The City of London has completed a Class Environmental Assessment (Class EA) study for Wharncliffe Road South between Commissioners Road and Becher Street.

Wharncliffe Road South is a major north-south arterial roadway in the City of London. Within the study area, Wharncliffe Road South accommodates approximately 28,000 to 35,000 vehicles per day providing for local mobility within the Old South, Coves and Riverforks neighbourhoods, and broader city-wide transportation connections to downtown London, southwest London and Western University.

Wharncliffe Road South Class EA Study Limits



Wharncliffe Road South is generally four lanes across much of the City, with the exception of two rail bridge crossing locations where a reduction in travel lanes has created 'bottlenecks' in the traffic capacity and traffic operations. These are: 1) a Canadian Pacific Rail (CPR) crossing of Wharncliffe Road North just north of Oxford Street; and 2) a Canadian National Rail (CNR) crossing of Wharncliffe Road South just north of Horton Street.

The CPR crossing has been addressed as part of a separate Class EA Study: Western Road / Wharncliffe Road North Widening from Platts Lanes to Oxford Street, February 2017. This project is now being constructed, schedule for completion in fall 2018. The CNR crossing just north of Horton Street is being addressed within the study area of *this* Class EA.

Transportation objectives for Wharncliffe Road South were identified in the City of London 2030 Transportation Master Plan (TMP), prepared in 2013. The TMP recommended two distinct project phases to improve Wharncliffe Road South that have been addressed within this Class EA:

Phase 1 comprises:

- 1) Adding one northbound travel lane on Wharncliffe Road South between Horton Street and Becher Street thereby addressing the 'gap' that exists between the existing four lane Wharncliffe Road South to the north and south of this section;
- 2) Implementing operational improvements at the Horton Street intersection which includes facilitating northbound and southbound left-turns on Wharncliffe Road South; and
- 3) Replacing the CNR Bridge to accommodate the additional northbound lane and the intersection improvements.

The City of London Transportation Master Plan recommended implementation on the 5 to 10 year horizon (i.e. 2018 to 2023) the Development Charges Background Study (2014) recommended implementation in 2019. Implementation of this project is planned immediately following approval of the EA.

Phase 2 comprises: the development of a long-term vision for Wharncliffe Road South from Springbank Drive to Commissioners Road West. This section of Wharncliffe Road South is already four lanes but has operational issues that reduce its efficiency. Improvements considered for this section includes road cross-section enhancements and access management. This section is an important transit corridor accommodating the Southcrest Road, Wharncliffe Road South and Jalna Boulevard routes. It is intended that the road improvements will also enhance transit system efficiency and performance. Efficient transit routes will play an important part in supporting the planned rapid transit network in London. The TMP recommended implementation on the 10 to 15 year horizon (i.e. 2023 to 2028).

The Wharncliffe Road South Class EA Study was carried out in accordance with Schedule 'C' of the Municipal Class Environmental Assessment (Class EA) document (October 2000, amended 2007, 2011, and 2015). 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 Ontario Environmental Assessment Act.

This Class EA study has satisfied the requirements of the Ontario Environmental Assessment Act by providing a comprehensive, environmentally sound planning process with public participation, and to facilitate dialogue with parties representing a number of diverse interests. This Environmental Study Report (ESR) documents the decision making process carried out during the Wharncliffe Road South Class EA study.

CNR is an important project partner as the owner of the railway. CNR has provided input and an endorsement of a preferred grade separation design.

E2 Planning Context

The policy context is discussed in Chapter 2 of the ESR. The policy framework guides infrastructure and land use planning and strategic investment decisions to support City growth and transportation objectives. The key plans / policies and a summary of their relevance to Wharncliffe Road South follows:

The London Plan (December 2016)

The following aspects of the London Plan are pertinent to the Wharncliffe Road South Class EA: Main Street Place Type identified between Commissioners Road and Horton Street; and Civic Boulevard Street Classification for entire study area.

The Main Street Place Type encourages a broad range of residential, retail service and office uses. Mixed-use building are encouraged. This Place Type reflects the existing use within the Commissioners Road to Horton Street section of Wharncliffe Road South and supports redevelopment / reinvestment in this area.

The Civic Boulevard Street Classification places a priority on pedestrian, cycle and transit movements, moves medium to high volumes of vehicular traffic and encourages a high quality pedestrian realm / urban design.

The current zoning surrounding Wharncliffe Road South is designated as Main Street Commercial Corridor (north section) and Auto-Oriented Commercial Corridor (south section). The Main Street Commercial Corridor is intended to: provide for the redevelopment of the vacant, under-utilized and poorly maintained properties; encourage development which maintains the scale, setback and character of the neighbourhood; encourage common parking areas instead of individual access points and parking areas; encourage mixed use development to achieve higher densities and reinforce the modal shift to transit and active transportation. The Auto-Oriented Commercial Corridor permits a greater range of commercial uses. One of the key goals of the designation is to improve the aesthetics, manage access, provide for coordinated design of signage, street furniture, lighting and landscaping, and safe / convenient pedestrian and transit access.

City of London 2030 Transportation Master Plan (2013)

One of the five key initiatives of the TMP is a 'More Strategic Program of Road Network Improvements'. Even with the greater emphasis of this TMP on transit, active transportation, Travel Demand Management (TDM), and parking, many road improvements will still be required. The City's approach to defining the need for road network improvements has become more strategic. This approach recognizes the targets for reduced modal share for the automobile by 2030, and is consistent with the City's expectation that transit and active transportation modal shares will increase significantly from current levels. The City's approach also explicitly recognizes that road improvements will be required for different purposes. In this regard, a number of widening are required to support the Rapid Transit (RT) initiative. Among the TMP road projects identified, were two distinct projects for Wharncliffe Road South, within the study area:

Widen to four lanes between Becher Street and Springbank Drive, recommended for implementation on the 5 to 10 year horizon (i.e. 2018 to 2023); and

'Optimize' operations between Horton Street and Commissioners Road, recommended for implementation on the 10 to 15 year horizon (i.e. 2023 to 2028). The TMP specifies that optimization projects reflect highly constrained urban rights-of-way where the opportunity to complete physical improvements will be limited.

City of London Strategic Plan (2015-2019)

The Wharncliffe Road South Class EA supports the Strategic Plan through the strategic focus area of building a sustainable city by implementing and enhancing safe and convenient mobility choices for transit, automobile users, pedestrians and cyclists. The environmental assessment will identify solutions to improve Wharncliffe Road South including addressing the long-standing bottleneck at the CNR Bridge.

2014 Development Charge Background Study

The DC Background Study carried the two TMP-recommended projects for Wharncliffe Road South through and identified high level funding allocations as well as recommended timing for implementation of 2019.

SHIFT: London's Rapid Transit Initiative

As envisioned by the Transportation Master Plan, the Rapid Transit (RT) network will rely on a strategic program of road network improvements to support the City's overall transportation network. Even with the RT and greater emphasis on transit, active transportation and parking, many road improvements will still be required. Wharncliffe Road South is strategically positioned as a north-south route that offers a transportation alternative to Wellington Road for vehicular traffic and an opportunity to create a more efficient London Transit network to connect with and support RT via the stations planned at Riverside Drive and Oxford Street.

London ON Bikes Cycling Master Plan (2016)

The Wharncliffe Road South Class EA study team consulted with the City's London ON Bikes team during the development of the Cycling Master Plan. Given the constrained right-of-way on Wharncliffe Road South, south of Horton Street, a designated cycling facility was not proposed in the Master Plan. However, the replacement of the CNR Bridge should consider protecting additional boulevard width to accommodate cyclists. Given that the bridge replacement represents a long-term investment, provision for a future potential cycling facility is considered prudent planning.

E3 Transportation Assessment

Key findings of the transportation assessment (Chapter 2) are summarized below:

- ▶ The road 'bottleneck' created by the CNR Bridge has been recognized by the City since the 1960's with various studies, over the past 40 years, that considered the bridge replacement. Steady population and job growth is projected and the City of London must ensure the road network is efficient and supports a range of transportation modes
- ▶ Within a 5-year period (between Year 2009 to 2013), a total of 748 collisions were recorded at the study area intersections with the highest collision rate at Horton Street. It is noted that some of the turning movements at this intersection are operating at or over existing capacity. The relatively higher collision rate for this intersection may be due to the existing network constraint, proximity to the CNR Bridge, and blocked sightlines. The limiting

factor of a single northbound lane under the structure, requires the merging of three movements; eastbound left-turn, westbound right-turn, and northbound through. The proximity of the CNR Bridge to the intersection and embankments contribute to limited sightlines between vehicles, and between vehicles and pedestrians. The existing vegetation on the embankment also significantly reduces the sightlines for the west and southbound right-turns, and eastbound left-turn movements.

- ▶ The northbound capacity constraint at the CNR Bridge also results in high delays for the approaching northbound traffic at Horton Street. The queue length for northbound through-traffic generally extends to Byron Avenue (approximately 300 m) during morning peak hour. Consequently, eastbound traffic at Springbank Drive (un-signalized) may be experiencing high delays during both peak hours.
- ▶ Within a 5-year period (between Year 2009 to 2013), there were a total of 295 collisions recorded at mid-blocks in the study area. The substandard lane widths and higher traffic delays / congestion and the high density of accesses / driveways allowing all turning movements to/from the properties are the potential contributing factors for the high collision rates.
- ▶ In 2014, the City of London conducted a detailed safety review study, ranking the top 20 intersections on the basis of their Potential for Safety Improvement (PSI). Wharncliffe Road South intersections at Commissioners Road and Horton Street 7th rank and 14th, respectively for the PSI.

E4 Problem and Opportunity Statement

Wharncliffe Road South is the centre of the local community, providing access to a variety of local destinations and supporting both city-wide and local mobility for many different users (pedestrians, cyclists, transit patrons, and drivers). Traffic congestion, traffic operations and collisions are significant issues and these issues will continue to worsen in future. Wharncliffe Road South is strategically located to play an increasingly important role in the City's transportation network to support RT. Improvements are necessary to: provide additional northbound road capacity between Horton Street and Becher Street to accommodate the travel demand; and provide for safe and efficient traffic operations at intersections. Improvements will facilitate more efficient movement of transit, vehicles and goods. There is an opportunity to consider provision for sustainable transportation choices that enhance the pedestrian environment and link to the cycling network.

E5 Planning Alternatives

Transportation planning solutions represent reasonable means of addressing the transportation problems and opportunities. In addition to 'Do Nothing', alternatives to address deficiencies in the transportation network capacity typically include those that increase network capacity, reduce transportation demand or combinations thereof. The alternatives are assessed against their ability to reasonably address the problems and opportunities, and in consideration of the constraints identified in the early stages of the study, to identify a preferred solution(s) for which alternative designs can be developed. For this study, alternative solutions have been identified as: 1) Do Nothing; 2) Manage Transportation Demand; 3) Improve Intersections; 4) Manage Access; 5)

Strategically Improve Traffic Capacity; 6) Implement Partial Improvements to the Road Cross-Section; and 7) Implement The London Plan Civic Boulevard.

The evaluation process concluded that the preferred planning solution to solve the current congestion, capacity and operational deficiencies should be a combination of the following solutions: Strategically Improve Traffic Capacity; Partial Road Cross-Section Improvements; Improve Intersections; and Manage Access.

The preferred planning solution addresses the problems and opportunity statement while avoiding unnecessary social and natural environment impacts and implements the key recommendations of the TMP by addressing the traffic capacity issue between Springbank Drive and Becher Street and by seeking to optimize operations between Commissioners Road and Springbank Drive, in consideration of the highly constrained nature of this section.

Alternative Solution 7 (The London Plan) is not being carried forward as part of this Class EA study however, the City will look for opportunities to acquire the full right-of-way (36 m) as parcels adjacent to Wharnccliffe Road South redevelop. This is considered to be a long-term strategy and is beyond the scope of the Wharnccliffe Road South Class EA study.

The Preferred Planning Solution involves several aspects to be implemented in two phases. This approach is consistent with the recommendations of the Transportation Master Plan (TMP), recognizing that the CNR Bridge replacement and additional northbound lane on Wharnccliffe Road South is high priority for the City, and provides the City with flexibility to implement longer-term improvements in other parts of Wharnccliffe Road South in future, as needed.

E6 Design Alternatives

Phase 3 of the Municipal Class EA process involves the development and review of alternative design concepts. The main outcome in this phase of the study was developing design concepts for the recommended planning solution. Several design concept alternatives were developed to properly assess the potential impacts and benefits associated with each alternative. The following design issues and constraints influence the generation, assessment, and evaluation of the alternative designs:

- ▶ Accommodation of potential future land use changes and densities within the study area;
- ▶ Consideration of active transportation initiatives;
- ▶ Avoidance of significant property requirements; and
- ▶ Minimization of environmental impacts (social, cultural, and natural environments).

E6.1 Phase 1 Becher Street to Springbank Drive

E6.1.1 CNR Bridge Design Alternatives

Two Span vs. Single Span - it was determined that a single span structure was more appropriate for this location considering traffic operations and safety at the

intersection. Therefore, a single span structure was carried forward as the preferred span design.

Road Cross-Section Under the CNR Bridge - Based on the single span bridge design alternative, a road cross-section was developed for Wharncliffe Road South at the bridge location to determine the length of the span required to accommodate the roadway. Given the proximity to the Horton Street intersection, the road cross section under the bridge incorporates the turning lanes proposed as part of the Horton Street intersection improvements.

CNR Bridge Type - Based on an assumed road-cross section of 34.5 m at the CNR Bridge, four single span bridge types were considered. The through plate girder option was carried forward as the preferred bridge type design alternative.

E6.1.2 CNR Bridge Replacement Alternatives

The CNR Bridge is in a highly constrained location with a major arterial road intersection located immediately to the south and existing residential homes located along the north edge of the CNR property.

As CNR Bridge replacement alternatives were developed, it became apparent that the bridge replacement methodology will ultimately influence the Wharncliffe Road South Alignment (including the flexibility to shift the alignment) and the nature of potential impacts to the properties, since the footprint impacts must consider both the permanent property requirements as well as the complex construction staging requirements for the type of replacement methodology selected. Two basic replacement alternatives were developed: 1) Trestle Construction (In-Place); and 2) Rail Diversion.

CNR Bridge Replacement Alternative 1 - Trestle (In-Place)

This alternative entails constructing the new longer bridge while train traffic is maintained on the existing tracks with short-term rail blockages. The bridge deck would be constructed in an adjacent staging area, north of the tracks, then shifted onto the newly constructed abutments. This alternative provides little flexibility to modify the alignment of Wharncliffe Road South, given that the new bridge will be centred on the same location as the existing. Therefore it was not possible to develop distinct road alignment design alternatives within this bridge replacement design alternative. Wharncliffe Road South will remain on its existing alignment, and additional width for the northbound through lane, turn lanes and sidewalks will be added east and west of the existing centre line.

CNR Bridge Replacement Alternative 2 - Rail Diversion

A temporary rail diversion carrying the existing two rail tracks would be required across Wharncliffe Road South, just south of the existing bridge. Rail traffic would be diverted to the temporary diversion while a new bridge is constructed in the same or similar location as the existing bridge. This alternative was complicated by the extraordinary length of the diversion that is required due to the curve in the existing rail line and the need to tie back in to the existing track alignment west of the York Street CNR Bridge. Wharncliffe Road South would be closed to traffic for 18 to 24 months.

The rail diversion requires significant areas of temporary fill and retaining walls along Horton Street as well as additional track protection closer to the bridge, contributing to significantly more time and cost than Alternative 1. All costs associated with retaining walls and track protection would be considered 'throw-away'. The rail diversion design alternative construction concept is depicted on Exhibit 5-5.

Alternative 2 offers slightly more flexibility with respect to road alignment options for Wharncliffe Road South. The specific location of the new bridge would not be limited by the location of the existing bridge, thus allowing for some shift in the road alignment. For the purposes of the concept design of this alternative, the new bridge and Wharncliffe Road South was shifted west in an effort to minimize permanent impacts to 100 Stanley Street, compared to Alternative 1.

CNR Bridge Construction Staging

Both of the CNR Bridge replacement alternatives are highly complex in terms site preparation, construction staging and access. As such, significant effort was made to develop construction access and staging concept plans in order to understand all possible advantages and disadvantages, impacts and benefits of each alternative. The proximity of the residence and cultural heritage value at 100 Stanley Street specifically warranted an additional level of analysis of these two design alternatives.

While the rail diversion alternative appeared to offer some opportunity to shift the future road alignment, it does not avoid impacts to 100 Stanley Street which is a significant built heritage resource. More significantly, the construction staging and access for both alternatives will require large construction equipment (e.g. cranes, drill rigs etc.) to be located on the property at 100 Stanley Street, in close proximity to the dwelling.

Preferred CNR Bridge Replacement Design Alternative

Based on the review and assessment, the project team favours Alternative 1 – Trestle (In-Place) Construction because: it requires less temporary construction therefore more efficient; has smaller construction footprint; has a shorter construction duration; has lower construction cost; and provides opportunity to maintain traffic on Wharncliffe Road South and Horton Street for longer periods of time.

Consultation with CNR

In October 2016, CNR decisively approved the Alternative 1 - Trestle (In-Place) Replacement. CNR conveyed concerns related to the extensive rail diversion required under Alternative 2.

E6.1.3 Horton Street Intersection Design Alternatives

A range of intersection improvement alternatives at Horton Street were developed to increase capacity and efficiency. The assessment considered the operational benefits of individual movements as well as combinations of movements to determine the most favourable combination of improvements.

E6.2 Phase 2 Springbank Drive to Commissioners Road

E6.2.1 Partial Road Cross-Section Improvements

Springbank Drive to Elmwood Avenue, where the existing road cross-section is 5-lanes (4 travel lanes and a two way left-turn lane):

- ▶ Maintain 5-lane cross section;
- ▶ Increase the general purpose lane widths to 3.3 m;
- ▶ Increased the width of the two-way left turn lane to 3.5 m;
- ▶ Increase the sidewalk width to 1.8 m; and
- ▶ Set boulevard to 1 m on the west side of the road and 1.5 m on the east side of the road, to accommodate the utility infrastructure, with 0.3 m buffer.

Elmwood Avenue to Emery Street, where the existing road cross-section is 4-lanes:

- ▶ Maintain 4-lane cross-section;
- ▶ Decrease the general purpose lanes from 3.5 m to 3.3 m to match other sections Wharnccliffe Road South;
- ▶ Increase sidewalk width of 1.8 m with 0.3 m buffer; and
- ▶ Set boulevard to 1 m on the west side of the road and 1.5 m on the east side of the road, to accommodate the utility infrastructure, with 0.3 m buffer.

Emery Street to Base Line Road, where the existing road cross-section is 4-lanes:

- ▶ Three design alternatives were developed that reflect a range of possible traffic operation and access management improvements to this section of the corridor, balanced with minimizing property impacts: 1) road cross-section improvement; 2) raised median; and 3) new 5-lane road cross-section. Given the commercial character of this section of Wharnccliffe Road South, and that there are 23 accesses, it was deemed important to continue to provide access to left-turning vehicles. Alternative 3 is preferred since it maintains the existing left-turn opportunities and increases safety and traffic operations by providing a space for turning vehicles, while not impeding through traffic.

E6.2.2 Road Widening Design Alternatives

Minor widening of the right-of-way is required to accommodate the proposed partial road cross-section improvements between Springbank Drive and Base Line Road. Since the existing road right-of-way is inconsistent and irregular in terms of width, consideration was given to widening the right-of-way to the east or west to accommodate the improved cross-section. Three road widening design alternatives were reviewed: Widen to the east; Widen to the west; and Widen on existing road alignment (around centreline). Widening to the west was determined to be preferable because:

- ▶ Generally the existing right-of-way tends to be wider toward the west; i.e., right-of-way extends further west from centreline rather than the east on numerous parcels, additionally buildings tend to be set back slightly more

on the west side thus minimizing the number of houses/buildings actually impacted;

- ▶ Direct and indirect impacts to cultural heritage resources is minimized by widening to the west; and
- ▶ There are utility and hydro poles located on the east side. Relocation would be expensive and potentially require a review and upgrade of the all existing building connections.

E7 Preferred Plan Summary

E7.1 Phase 1 Becher Street to Springbank Drive

- ▶ Replacement of the CNR Bridge with a single span, double track through plate girder bridge utilizing trestle (in-place) replacement methodology;
- ▶ Addition of one northbound lane on Wharnccliffe Road South;
- ▶ Improvements to the Horton Street intersection which include north and southbound dedicated left-turn lanes, additional southbound right-turn lane, extension of east and westbound left-turn lane storage, additional east-westbound through/right-turn lane. With the new functionality of the Horton Street intersection, southbound left turns onto Stanley Street will be blocked to improve safety.
- ▶ Relocation of the dwelling at 100 Stanley Street to a nearby property, in a manner that conserves the heritage values of the dwelling and is compliant with provincial and municipal heritage policies.

E7.2 Phase 2 Springbank Drive to Commissioners Road

- ▶ Partial road cross-section improvements designed to:
 - Make travel lanes and turn-lanes a consistent width throughout the study area; provide for a two-way left-turn lane between Emery Street and Base Line Road to allow for left-turn movements without impacting traffic operations; provide for a greater separation between the roadway and sidewalk; and provide for a wider sidewalk to enhance the pedestrian environment.
- ▶ Improvements to the Commissioners Road intersection, including changes in access to nearby McGregor Avenue and Highland Avenue;
- ▶ Design improvements to other intersections to be consistent with current City design standards and make them AODA compliant;
- ▶ Access management to reduce the number of commercial entrances, in accordance with City guidelines, and therefore reduce the number of potential conflict points for traffic and pedestrians;
- ▶ Transit system improvements that increase transit efficiency and better integrate with improved traffic operations.

E8 Preliminary Property Requirements

The required acquisitions from some residential and commercial properties impact structures and other facilities such as parking areas. The final extent of acquisition

at these locations and associated mitigation will be the subject of negotiations with the property owners.

E8.1 Phase 1 Becher Street to Springbank Drive

Preliminary property impacts are listed in the table below. Impacts are noted as *full* (where the building on the property is impacted and full buy-out required), or *partial* (minor edge encroachments). Additional easements during construction will be required which will be further assessed during detail design. The location and extent of all property impacts will be confirmed in detailed design.

Municipal Address	Type	Nature of impact
100 Stanley Street	Residential	Relocation of the dwelling to a nearby property. Included on the City of London Inventory of Heritage Resources as a municipally designated under Part IV of the OHA. Priority 1.
32 Wharnccliffe Road South	Residential	Partial impacts – very minor edge impacts to frontage. Approximate area = 19 m ² Included on the City of London Inventory of Heritage Resources as a listed heritage property. Priority 3.
34 Wharnccliffe Road South	Residential	Partial impacts – very minor edge impacts to frontage. Approximate area = 32 m ² Identified as having potential heritage interest. Not included on the City of London Inventory of Heritage Resources as a listed or designated heritage property.
36 Wharnccliffe Road South	Residential	Partial impacts – very minor edge impacts to frontage. Approximate area = 40 m ² Identified as having potential heritage interest. Not included on the City of London Inventory of Heritage Resources as a listed or designated heritage property.
42 Wharnccliffe Road South	Commercial	Full removal of building which includes 4 commercial (main floor) and 4 residential (second floor) rental units. Identified as having potential heritage interest (107 Stanley Street in Table 3-1). Not included on the City of London Inventory of Heritage Resources as a listed or designated heritage property.
69 Wharnccliffe Road South	Commercial	Full removal due to intersection improvements. Identified as having potential heritage interest. Not included on the City of London Inventory of Heritage Resources as a listed or designated heritage property.
71 Wharnccliffe Road South	Commercial	Full removal due to intersection improvements.
73 Wharnccliffe Road South	Commercial	Full removal due to intersection improvements.
74 Wharnccliffe Road South	Commercial	Partial impacts – very minor edge impacts to parking area. Approximate area = 114 m ²
79 Wharnccliffe Road South	Commercial	Partial impacts to parking area; opportunity to redesign parking area to be reviewed during detail design. Approximate area = 162 m ²
9 Evergreen Avenue	Residential	Partial impacts - very minor edge impacts to corner for daylight triangle, to be reviewed during detail design. Approximate area = 19 m ²

Within the identified impacted properties listed:

- ▶ 1 property included on the City of London Inventory of Heritage Resources as a municipally designated under Part IV of the OHA. Priority 1. (100 Stanley Street).
- ▶ 1 property included on the City of London Inventory of Heritage Resources as a listed heritage property. Priority 3. Minor edge impacts along the frontage (32 Wharncliffe Road South).
- ▶ 4 properties that have been identified as having potential heritage interest but are not included on the City of London Inventory of Heritage Resources.

E8.2 Phase 2 Springbank Drive to Commissioners Road

Significant efforts have been made during the Wharncliffe Road South Class EA to minimize property impacts, including: minimizing the road cross-sections and associated rights-of-way (as discussed in Chapter 5); and recommending a road widening design alternative that minimizes overall property impacts.

Despite these measures to avoid property impacts, some sections of the Preferred Plan have very limited existing right-of-way and therefore some property will be required to accommodate the recommended improvements. The Preferred Plan will impact 68 properties. Approximate property impacts are summarized in Chapter 6. The exact amount of property required at each property will be confirmed during detailed design. Impacts are divided into full (where the building on the property is impacted and full buy-out required) to minor edge encroachments. In some cases encroachment impacts will result in the removal of landscaped vegetation.

It is noted that the western boundary of the Wortley Village Old South Heritage Conservation District (HCD) is irregular and generally follows the back property line along Wharncliffe Road South from Horton Street south to the south side of Duchess Street. The HCD is municipally designated under Part V of the OHA.

Within the identified impacted properties:

- ▶ 2 properties included on the City of London Inventory of Heritage Resources as listed heritage properties, Priority 2. One property will be fully impacted and the other property proposed to have minor edge impacts along the frontage.
- ▶ 3 properties within the HCD that will have very minor edge impacts at intersections (i.e. impacts of approximately 4.5 m²);
- ▶ Other properties have been identified as having potential heritage interest but are not included on the City of London Inventory of Heritage Resources as a listed or designated heritage property.

The property impacts in the corridor are extensive despite the modest nature of the improvements. Due to the extent of the property impacts, implementation timing and staging of phase 2 will be further reviewed. Implementation may be timed as properties redevelop and property becomes available and impacts are minimized. A long-term corridor vision is illustrated in the ESR that builds upon potential property redevelopment.

E9 Consideration of Cultural Heritage Value at 100 Stanley Street

In order to examine viable heritage conservation options, and in an effort to provide more certainty to the EA recommendations and preliminary design, an additional scope of work was undertaken following Public Information Centre 2 to:

- ▶ Identify a range of heritage conservation options that reflect heritage policies including the Provincial Policy Statement, the Ontario Heritage Act and the City of London Official Plan;
- ▶ Complete a technical review consisting of:
 - more detailed review of the construction staging and access needs with a CN-approved contractor;
 - review feasibility of maintaining the dwelling in place or relocating the dwelling with a contractor experienced in heritage building relocation;
 - consider relocation, routing and design requirements of utilities, and municipal services;
- ▶ Identify key issues and constraints for each of the heritage options based on the technical review; and
- ▶ Prepare a Heritage Impact Statement (HIS) to inform the consideration of heritage value in recommending an approach.

The EA preliminary recommendation with respect to conserving the cultural heritage value of 100 Stanley Street is to relocate the dwelling. The proposed receiving site will utilize city-owned parcels on the west side of Wharncliffe Road South, south of Evergreen Avenue. These parcels are within approximately 60 m of the residence at 100 Stanley Street. The project team believes that this recommendation offers the best opportunity to protect the cultural heritage value that is both sympathetic to the original context and recognizes the importance of the building to City and the neighbourhood.

The feasibility of relocating the home was confirmed by a contractor with experience moving heritage buildings. Based on the preliminary investigations, the home appears to be in good structural condition and relocation, using conventional techniques with minimal damage, is possible. Relocation would be subject to future planning approvals, development of a detailed relocation plan, and a more detailed heritage conservation strategy.

The City of London has designated the subject property under Part IV of the Ontario Heritage Act (OHA) with By-law No. L.S.P.-3413-272, dated November 1, 2010, which was registered as Instrument No. ER40074, November 26, 2010. The project team proposes to relocate the dwelling in such a way that conserves all of the exterior and interior attributes ascribed in the By-law.

The project team acknowledges that the context / setting of the dwelling will change in relation to the neighbourhood and streetscape. However, the proposed receiving property is sympathetic to the original 100 Stanley Street address in that it is located very close to the original property, on a corner of Wharncliffe Road South, in a similar streetscape realm to the existing. Although the project team's recommendation will not preserve the authenticity of the original site, it is believed to preserve the cultural heritage values of 100 Stanley Street with integrity. Following construction, there would be an opportunity to reinstate a park setting at

100 Stanley Street, to be named St. James Park, with associated heritage interpretive materials reflecting the history of original St. James Park at this site, the route to Port Stanley and the original location of the dwelling.

The project team has made this recommendation on the basis that no other options to retain the dwelling in its current location are viable. Other options considered by the project team were: 1) preserving 100 Stanley Street In-Situ (i.e. requiring a substantial realignment of Wharncliffe Road South); 2) maintaining the dwelling on a remnant parcel (with substantial changes to the property); and 3) demolition. Options 1 and 2 are not viable and therefore are not carried forward for consideration by Council. Demolition results in the permanent loss of the cultural heritage value, however, is technically feasible and would be the least costly option.

The preliminary recommendation was presented to LACH on November 16, 2017 as an information item. LACH reiterated their previous position (January 2017) that they do not support the potential demolition of 100 Stanley Street. LACH also indicated a preference for preserving 100 Stanley Street in-situ which, as noted above, is not viable.

The economic comparisons of the viable alternatives considered property and compensatory resident costs depending on the option. The relocation option included excavation and site preparation at new and existing sites, new foundation and slab, bracing, relocation, landscaping and demolition of the remaining original foundation. The net difference between relocation and demolition is approximately \$0.5 M after considering all the costs associated with each option.

As is typical for an EA study, preliminary mitigation recommendations are subject to review and confirmation during detailed design, in consideration of the more detailed understanding of design, technical issues/constraints and costing.

E10 Consultation

A Notice of Study Commencement for the project was issued in February 9, 2015. A project website page was also developed at the outset of this study. Responses from residents were received that related to property and access impacts, timing and duration of construction, pedestrian and cyclist safety, and high traffic volumes.

The project team met with CNR in January 2015 and January 2016. In April 2016, a structural preliminary design report was provided to CNR to facilitate their internal review process. City and CNR staff discussed the project again in August 2016. In October 2016, CNR decisively approved the in place replacement alternative. CNR conveyed concerns related to the extensive rail diversion required under the other alternative.

PIC 1 was held on June 11, 2015 to review the study scope, existing conditions, need and justification, planning alternatives, and design concept alternatives. PIC 2 was held on November 30, 2016. A summary of the public and agency feedback was presented along with the preliminary preferred alternative, impacts, and mitigation. Two meetings have occurred with Riverforks Community Organization. In addition, staff met individually with property owners who are most significantly impacted.

The project team presented the Cultural Heritage Assessment Report (CHAR) and the Preliminary Preferred Plan (as presented at Public Information Centre 2) to the London Advisory Committee on Heritage (LACH) on January 11, 2017. The project team provided a staff report and preliminary Heritage Impact Statement (HIS) for information purposes to LACH on November 16, 2017, to follow-up on work that was undertaken by the Wharncliffe Road South Class EA project team with respect to considering options to conserve the cultural heritage value of the heritage-designated property at 100 Stanley Street.

E11 Construction Staging and Traffic Detouring

Implementation of Phase 1 from Becher Street to Springbank Drive is planned immediately following approval of the Environmental Assessment (EA) Study. Improvements to corridor operation and traffic flow gained from widening the CNR subway will be monitored following construction.

Completion of the full scope of the proposed work will be a significant undertaking. The reconstruction of the CNR subway is very complex. The EA evaluated several construction methodologies and identified a construction plan that minimizes the impacts to road users and rail operations. Based on the review and assessment, the project team recommends – trestle (in-place) construction because of the following benefits: requires less temporary construction (therefore more efficient), has a smaller construction footprint, has a shorter construction duration, has a reduced construction cost, and provides opportunity to maintain traffic on Wharncliffe Road South and Horton Street for longer periods of time. It is anticipated that a Wharncliffe Road South closure period of 5 to 6 months total is required and a Horton Street closure period of 2 to 3 months. These impacts will be further scrutinized in much more detail during the design phase with the goal to minimize and mitigate. The impacts will be communicated to the community with appropriate advance notice and identification of detours.

To maximize work done during the road closures required for the grade separation reconstruction, infrastructure work such as watermain and sewer upgrades and rehabilitation of the Wharncliffe Road bridge over Thames River will be coordinated to occur at the same time. These other work items have been anticipated and would individually trigger road restrictions if implemented separately.

Subject to approval and acceptance of this ESR, detailed design will be initiated. The design and approvals of the proposed project will include property acquisition requirements, and thorough agency (CNR and MOECC) approvals and coordination. Commencement of construction will likely be in 2021 following immediately after detailed design and will need to be coordinated with other major City projects.

It is estimated that an on-site construction duration in the order of 18 months is necessary for the CNR rail bridge construction. The intersection at Horton Street will be lowered by about 1.8 m in order to achieve the required clearance under the new rail bridge. Similarly, Stanley Street will be lowered by about 0.8 m in order to connect to Wharncliffe Road. Reconstruction of the grade separation will require long-term closures of Wharncliffe Road and the intersections at Horton Street and

Stanley Street. The details, durations and mitigations for these closures will be further developed during detail design.

The subsequent plan for optimization improvements (Phase 2) of Wharncliffe Road South from Springbank Drive to Commissioners Road West will continue to be under review for long-term implementation. The timing and implementation of this section will be determined based on the identified improvements, infrastructure renewal needs and availability of property. The ESR will provide guidance for future development including road widening dedication and access management requirements.

E12 Preliminary Cost Estimates

A preliminary construction cost for Phase 1, Wharncliffe Road South between Becher Street and Springbank Drive is \$38.9 M. The cost estimate includes roadway construction, the railway grade separation, traffic signals, street lighting, stormwater management, utility relocation, landscaping, traffic control, sanitary sewer and watermain improvements, landscaping, staging, and property acquisitions. The preliminary estimate for the project is summarized below and this value will be used to update future capital budgets.

Cost sharing is anticipated with Canadian National Railway at 15% of the railway grade separation. Utility cost sharing has been taken into account within the estimates. The watermain and sewer costs represent life cycle renewal investments that will be funded out of sewer and water rate accounts. Accounting for these sources identifies a \$31.5 M requirement for the Phase 1 Transportation growth project. The current Development Charge Background Study identifies \$23 M for the Phase 1 and 2 of Wharncliffe Road Improvements identified for implementation in 2019. Allocation of both phases of the 2019 Wharncliffe Road investments to the priority Phase 1 improvements leaves an \$8.5 M shortfall that will be accounted for in the upcoming 2019 Development Charges Background Study and future capital budget updates.

The preliminary cost for Phase 2 of the Wharncliffe Road South Improvements between Springbank Drive and Commissioners Road is \$16.8 M. This value is subject to numerous assumptions based on the long-term nature of the works and will be further refined as the timing for implementation is determined. The project team assumed the required property will be obtained predominantly through development dedication and recognizes only a portion of the identified property would require purchase. With the EA identifying a long-term vision that is impaired by property constraints, and considering the financial needs of the Phase 1 project described above, the upcoming Development Charges Background Study update will defer the improvements from Springbank Drive to Commissioners Road as a long-term need. This creates the financial capacity describe above.