

8. SELECTION OF ALTERNATIVE HAUL ROUTES

As required by the CART Terms of Reference, the study adopted a process for identifying, screening, analyzing, and evaluating alternative haul routes. This process has six steps and can be summarized as follows:

1. **Identification of initial long list of alternative haul routes** - Identify all reasonable potential haul routes in the study area. (The study area is shown in **Exhibit 8-1**) The result is an initial long list of alternative haul routes for input from the public and stakeholders.

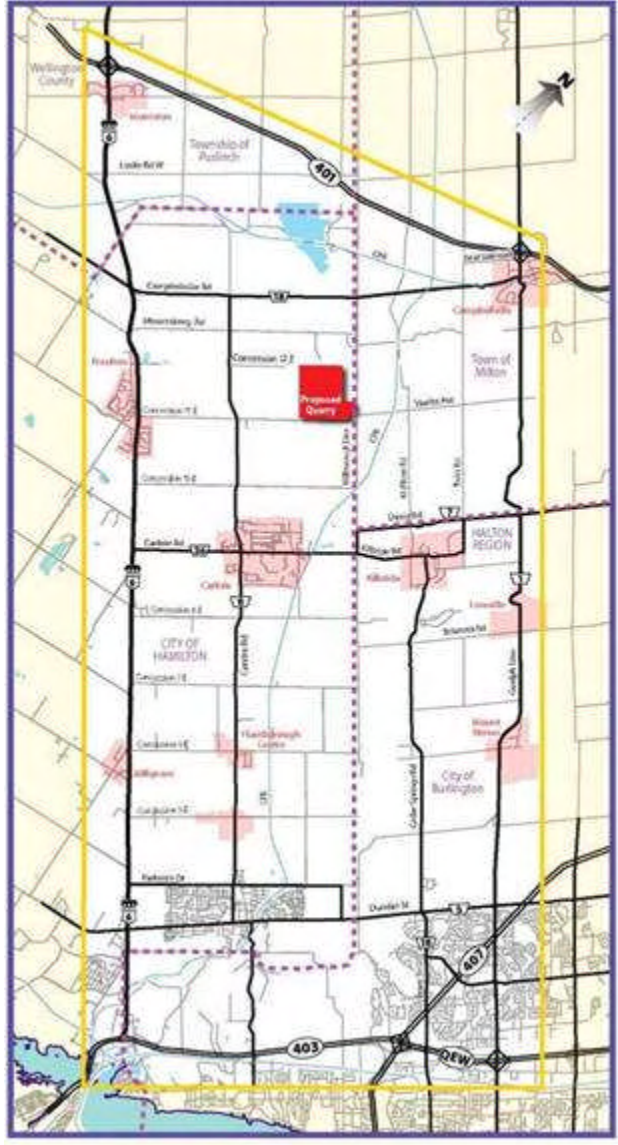


Exhibit 8-1: Study Area

2. **1st stage screening of initial long list of alternative haul routes** - Conduct an initial screening of the initial long list of alternative haul routes. Use the routes' environmental impacts for the screening criteria. The result is an initial short list of alternative haul routes which can be presented to the public and stakeholders for their input.

3. **2nd stage screening of selected alternative haul routes** - Conduct a detailed screening of the environmental impacts of alternative haul routes that were initially screened out, but which might have merit. Determine whether the routes should be included for consideration. The result is the final short list of alternative haul routes.

4. **Analyze the short list of alternative haul routes.**

5. **Evaluate the short list of alternative haul routes.**

6. **Select the preferred haul route(s).**

Section 8 of this report describes the first set of three steps. **Section 8.1** identifies the initial list of haul routes for consideration. **Section 8.2** describes the first stage screening the haul route alternatives and **Section 8.3** describes the second stage screening.

Section 8.4 discusses the qualitative assessment and comparison that was done in combination with the screening to help develop the short list of haul routes.

Section 8.5 presents the final short list of five haul routes (three individual routes and two combination routes) on a map. **Section 8.6** describes each of the five alternative haul routes and provides a map of each route.

The haul route study will describe the second set of three steps, i.e. the analysis, the evaluation, and the selection of the preferred haul route(s).

8.1 Identification of the Initial Long List of Alternative Haul Routes



The first step involved the identification of an initial long list of alternative haul routes. The process started by listing all reasonable haul route links in the study area.

A road link was included in the list if it satisfied any one of the following criteria:

- Existing truck route
- Existing arterial road
- Existing provincial highway
- Existing road that borders the site, i.e. Concession 11 E, Concession 12 E, and Milborough Line.

Exhibit 8-2 shows the resulting initial long list of alternative haul routes. The routes are shown in green.

Exhibit 8-2: Long List of Alternative Haul Routes

8.2 1st Stage of Screening of Initial Long List of Alternative Haul Routes

All of the alternative haul routes on the initial long list were reviewed and screened link by link to eliminate routes that had a significant number of adverse impacts and disadvantages. The alternative haul routes had a total of 27 links.

Each link was reviewed individually. The screening was applied at a high level and used available secondary source data. The elimination of a link as a potential haul route did not depend on a single criterion, but on the overall advantages and disadvantages of the road link. The following screening criteria were applied:

- Avoid settlements and built-up areas
- Avoid schools and parks
- Avoid roads with significant engineering and safety deficiencies
- Avoid significant impacts on the natural environment
- Avoid routes that would need extensions or new road construction (to minimize environmental impacts)

8.2.1 Eliminated Road Links

The screening eliminated 16 road links. They are shown in **Exhibit 8-3**.

The eliminated links are listed below with a brief summary of the high level rationale used in the elimination. **Section 8.2.2** provides a comprehensive analysis of all 27 route links.

Link 2 Centre Road – From Concession 11 E to Carlisle Road

Constraints include:

- Passes through the heart of the Carlisle community
- Passes by two schools
- Passes by community centre and park
- Reconstruction and widening required

Link 3 Centre Road – From Carlisle Road to Dundas Street

Constraints include:

- Passes through the heart of the Carlisle community
- Passes through Flamborough Centre
- Passes through Concession 5 E settlement area
- Passes through Waterdown
- Passes by four schools and four parks
- Reconstruction and widening required

Link 4 Milborough Line – From Highway 401 to Campbellville Road

Constraints include:

- Not an existing truck route
- Questionable feasibility for new 401 interchange
- Passes by Mountsberg Wildlife Centre
- Significant engineering deficiencies
- Major reconstruction and widening required

Link 6 Milborough Line – From Concession 11 E to Derry Road

Constraints include:

- Not an existing truck route
- Significant engineering and safety deficiencies
- Major reconstruction and widening required
- Potential impacts on Environmentally Significant Area

Link 7 Brant Street – From Dundas Street to QEW

Constraints include:

- Passes through heavily built up area in Burlington
- Numerous homes backing on to Brant
- Numerous businesses along Brant
- Cannot access QEW Niagara without going on Fairview or Plains Road

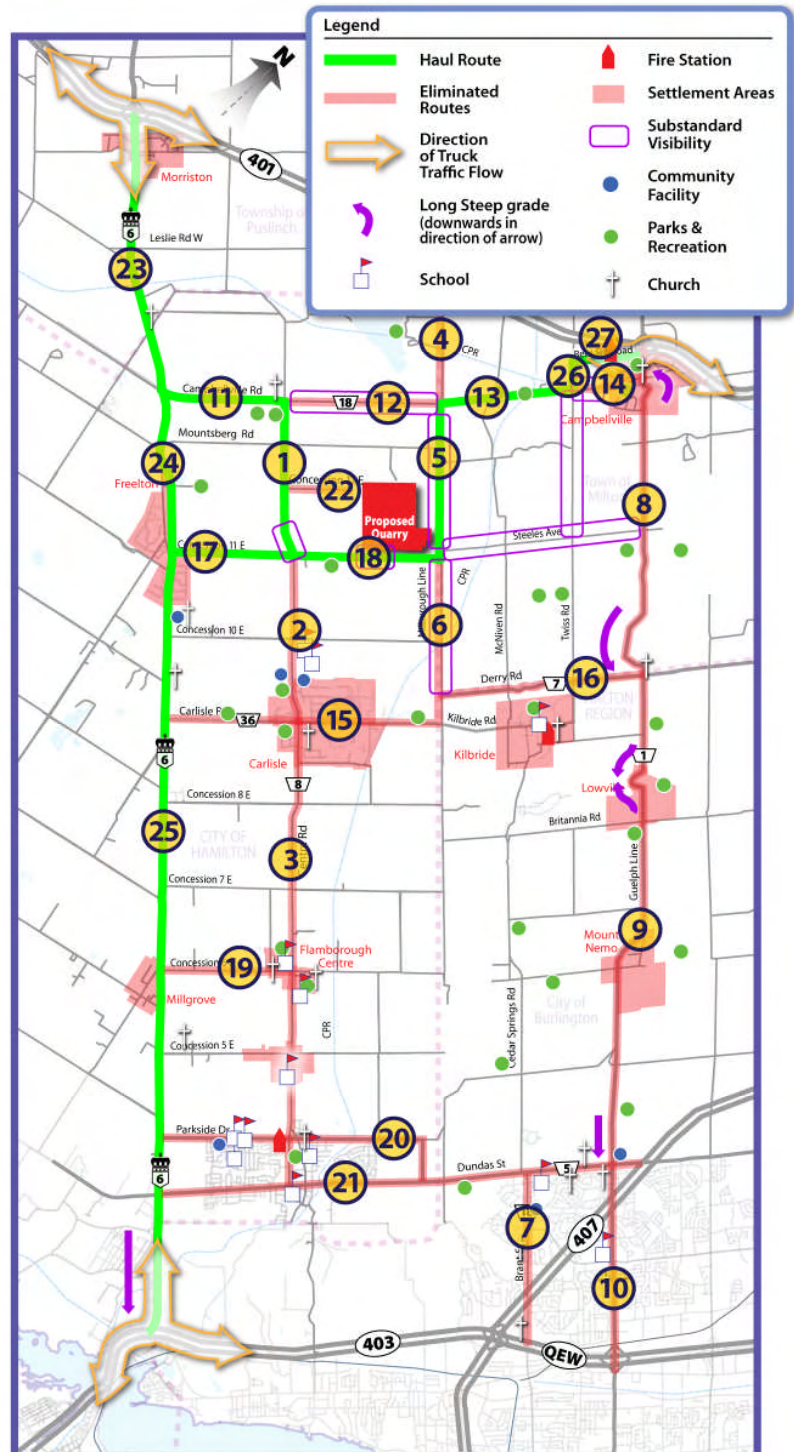


Exhibit 8-3: Eliminated Haul Route Linkages

Link 8 Guelph Line – From Highway 401 to Derry Road

Constraints include:

- Passes through the heart of Campbellville
- Passes by many businesses
- Potential conflicts with auto traffic and pedestrians
- Passes by church, and several parks/conservation areas
- Long steep grades north of Derry Road and south of Campbellville
- Guelph Line not easily accessible for trucks from the quarry site

Link 9 Guelph Line – From Derry Road to Dundas Street

Constraints include:

- Passes through Lowville community
- Passes through Mount Nemo community
- Potential conflicts with auto traffic and pedestrians
- Passes by parks and conservation area
- Long steep grades in Lowville area and north of Dundas Street
- Guelph Line not easily accessible for trucks from the quarry site

Link 10 Guelph Line – From Dundas Street to QEW

Constraints include:

- Passes through heavily-built up area in Burlington
- Numerous homes backing on to Guelph Line
- Numerous businesses along Guelph Line
- Guelph Line not easily accessible for trucks from the quarry site

Link 12 Campbellville Road – From Centre Road to Milborough Line

Constraints include:

- Significant visibility problems with ‘roller coaster’ alignment
- Major reconstruction required with significant implications to adjacent properties/accesses expected

Link 14 Campbellville Road – From Twiss Road to Guelph Line

Constraints include:

- Passes through Campbellville built-up area
- Numerous homes and driveways
- Deficient road alignment at CP crossing
- Passes by Campbellville Conservation Area:
- Major physical constraints at Guelph Line intersection for turning truck traffic
- Cannot access 401 without passing through business heart of Campbellville

Link 15 Carlisle Road – From Highway 6 to Milborough Line

Constraints include:

- Passes through heart of Carlisle community
- Passes by a park and conservation area
- Potential conflicts with autos and pedestrians

- Reconstruction and widening required
- Numerous homes and businesses

Link 16 Derry Road – From Milborough Line to Guelph Line

Constraints include:

- Milborough not suitable access route to Derry
- Reconstruction and widening required.

Link 19 Concession 6 E – From Highway 6 to Centre Road

Constraints include:

- Passes through Flamborough Centre,
- Not easily accessible for trucks from quarry site

Link 20 Parkside Drive – From Centre Road to Evans Road

Constraints include:

- Passes through Waterdown built-up area
- Numerous homes along the route
- Significant conflicts with pedestrians and auto traffic

Link 21 Dundas Street – From Centre Road to Evans Road

Constraints include:

- Passes through heart of Waterdown
- Significant conflicts with pedestrians and auto traffic
- Significant traffic congestion and delays

Link 22 Concession 12 E

Constraints include:

- Not an existing truck route
- Significant impacts on the natural environment
- Significant reconstruction and widening required

8.2.2 Evaluation of Each Haul Route Link

Each of the 27 route links were then considered in detail in terms of the advantages and disadvantages associated with the evaluation criteria listed in the City of Hamilton's Terms of Reference. The results are summarized in tabular format in **Appendix B**.

This section summarizes the main findings. There are no known cultural heritage characteristics to evaluate at this time.

In addition to this discussion, **Section 8.4** provides further explanation regarding the qualitative assessment and comparison that was used to help develop the short list of haul routes.