

# VISUAL IMPACT ASSESSMENT

PROPOSED EXTENSION OF THE BURLINGTON QUARRY

Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2  
City of Burlington, Ontario

Date:

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Prepared for:

**Nelson Aggregates Co.**

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# 1.0 Introduction

MHBC has been retained by Nelson Aggregate Co. (Nelson) to prepare a Visual Impact Report for the lands located at Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2 in the City of Burlington. The proposal contemplates two extensions to the existing Burlington Quarry (Licence N0. 5499). The properties are located in the northwestern portion of the City of Burlington, in the Region of Halton, and are adjacent on the north and west sides of the existing Burlington Quarry, as shown in **Figure 1**.

The 2020 NEC Visual Impact Assessment Technical Criteria has been considered in the preparation of this Visual Impact Report. Please see Appendix A for definitions extracted from the 2017 Niagara Escarpment Plan. While not an exhaustive list, these definitions should be referenced through the course of reading this report. This report aims to satisfy the NEC's process for Visual Impact Assessments through:

- Establishing a baseline for the existing conditions through the following:
  - Establishment of a study area (within a 1.0 km radius of proposed extension sites);
  - Review of aerial photography, topographic mapping and review of existing features within the study area and surrounding context;
  - Initial on-site reconnaissance and photo inventory of existing conditions (conducted during leaf-off condition to depict worst case scenario).
- Identifying the physical changes in an accurate and objective and reproducible manner through the following:
  - Creation of viewshed location mapping based on desktop analysis;
  - On-site review and photography (conducted during leaf-off condition to depict worst case scenario);
  - Listing of all base material used, including sources.
- Assessing the impact of change on the Escarpment visual, landscape and scenic resources through the following:
  - Identification of areas of note and individual receptors / viewsheds where further study was deemed to be warranted;
  - Consideration of physical changes recommended through other reports (e.g. noise study);
  - Further on-site review and study where deemed to be warranted.

## 1.1 Description of the Proposed Extension

### SITE DESCRIPTION

The proposed West Extension is bounded by Cedar Springs Road to the West, Colling Road to the North, the existing Burlington Quarry to the East, and No. 2 Sideroad to the South. The proposed South Extension is bounded by No.2 Sideroad to the North Camisle Golf Course to the West, and agricultural properties to the East and South. This property is currently designated Escarpment Rural Area under the Niagara Escarpment Plan (2017).

#### West Extension

The proposed West Extension is approximately 58.8 hectares (ha), with a proposed extraction area of 33.1 hectares. The lands comprising the West Extension are currently used as the Burlington Springs Golf Club. It contains two structures towards the centre of the property used as a club house and garage, and three structures in the southern portion of the property used for golf course operation and ancillary functions.

#### South Extension

The proposed South Extension is approximately 18.1 ha, with a proposed extraction area of 14.3 ha. The South Extension is currently used for agricultural purposes. It contains two residential domiciles and four shed/storage buildings. Immediately to the west is a provincially significant woodland. This property is currently designated Escarpment Rural Area under the Niagara Escarpment Plan (2017).

## 1.2 Purpose

The purpose of this report is to identify and describe the visual resources of the subject lands in the context of the proposed operations and to assess and suggest mitigation measures for any perceived visual impacts on surrounding lands and roads from the publicly accessible domain.

A key component of this report is to determine how to mitigate changes in the landscape views from the public domain toward the proposed quarry extension in order limit the change to the open landscape character of the area. This includes views from public roads / public spaces (golf courses), and from publicly accessible roads/areas adjacent to residential properties. Recommended mitigation measures were developed to ensure that the integrity of the open landscape character of the area would be maintained, and that there would be no objectionable visual impacts on the surrounding uses and features as a result of the proposed quarry operations.

# 2.0 Background

The Niagara Escarpment includes a variety of topographic features and land uses extending 725 kilometres from Queenston on the Niagara River to the islands off Tobermory on the Bruce Peninsula. The following outlines the relevant designations and objectives of the Niagara Escarpment Plan that have been considered in this report. Figure 2 shows the land designations within the study area, as found in the Niagara Escarpment Plan.

## 2.1 Purpose and Objectives of the Niagara Escarpment Plan

The Purpose of the Niagara Escarpment Planning and Development Act is:

“To provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment and to ensure only such development occurs as is compatible with that natural environment.”

The objectives of the Niagara Escarpment Plan are:

1. To protect unique ecologic and historic areas;
2. To maintain and enhance the quality and character of natural streams and water supplies;
3. To provide adequate opportunities for outdoor recreation;
4. To maintain and enhance the open landscape character of the Niagara Escarpment in so far as possible, by such means as compatible farming or forestry and by preserving the natural scenery;
5. To ensure that all new development is compatible with the purpose of the Plan;
6. To provide for adequate public access to the Niagara Escarpment; and
7. To support municipalities within the Niagara Escarpment Plan Area in their exercise of the planning functions conferred upon them by the Planning Act.

## 2.2 Land Use Objectives for Escarpment Rural Areas

The following objectives were extracted from Section 1.5 of the Niagara Escarpment Plan:

1. To maintain the scenic resources of lands in the vicinity of the Escarpment and the open landscape character of the Escarpment.

2. To conserve cultural heritage resources, including features of interest to First Nation and Métis communities.
3. To encourage forest management and recreation.
4. To provide for compatible rural land uses.
5. To encourage agriculture and protect agricultural lands and prime agricultural areas.
6. To provide a buffer for ecologically sensitive areas of the Escarpment.
7. To provide for the consideration of new Mineral Resource Extraction Areas which can be accommodated by an amendment to this Plan.

## 2.3 Land Use Objectives for Mineral Extraction Areas

The following policies were extracted from Section 1.9 of the Niagara Escarpment Plan:

The Mineral Resource Extraction Area designation includes mineral aggregate operations licensed pursuant to the Aggregate Resources Act and areas where mineral aggregate resource extraction may be permitted, subject to the policies of this Plan.

The objectives of Mineral Extraction Areas are as follows:

1. To designate Mineral Resource Extraction Areas where licensed mineral aggregate operations are permitted.
2. To minimize the impact of mineral aggregate operations on the Escarpment environment.
3. To encourage progressive rehabilitation of mineral aggregate operations.
4. To encourage rehabilitated mineral aggregate operations to be restored to a state that is of equal or greater ecological or agricultural value than the original characteristics of the site.
5. To ensure that, after a licence is surrendered, the land is re-designated to a land use designation that is compatible with the rehabilitation of the site, the designation criteria of adjacent lands, the surrounding Escarpment environment and existing land uses in the area.
6. To encourage, where possible, the integration of rehabilitated lands into the Niagara Escarpment Parks and Open Space System.

Criteria for Designation:

1. Licensed pits and quarries producing more than 20,000 tonnes annually.

## 2.4 Amendments for Mineral Resource Extraction

The following provisions apply to all amendments for new Mineral Resource Extraction Areas within the Niagara Escarpment Plan Area. These policies were extracted from Section 1.2.2 of the Niagara Escarpment Plan:

1. Mineral aggregate operations within a new Mineral Extraction Area producing more than 20,000 tonnes annually may be considered on lands within the Escarpment Rural Area land use designation through an amendment to the Niagara Escarpment Plan. Such an amendment will be to effect the change from Escarpment Rural Area to Mineral Resource Extraction Area.
2. In considering applications for amendments to the Niagara Escarpment Plan to re-designate Escarpment Rural Area to Mineral Resource Extraction Area designation, the demonstration of need for mineral aggregate resources, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources locally or elsewhere.
3. In evaluating applications for amendments to the Niagara Escarpment Plan to re-designate Escarpment Rural Area to Mineral Resource Extraction Area, the following matters, in addition to all other relevant policies of this Plan, will be considered:
  - a) protection of the Escarpment environment;
  - b) opportunities for achieving the objectives of the Niagara Escarpment Planning and Development Act through the final rehabilitation of the site;
  - c) the protection of prime agricultural areas, the capability of the land for agricultural uses, and its potential for rehabilitation for agricultural uses; and
  - d) opportunities to include rehabilitated lands in the Niagara Escarpment Parks and Open Space System.
4. Amendment applications must be accompanied by:
  - a) information on the location of the site in relation to the Escarpment and to the Escarpment Rural, Protection and Natural Area designations;
  - b) information to support the requirements of this Plan, along with information submitted to meet the requirements of the Aggregate Resources Act, including site plans and reports submitted under that Act; and
  - c) information on the ultimate use of the site in conformity with the applicable land use designations.

## 2.5 Development Criteria for Mineral Aggregate Resources

The following development criteria were extracted from Section 2.9 of the Niagara Escarpment Plan:

The objective is to ensure that mineral aggregate operations and their accessory uses are compatible with the Escarpment environment and to support a variety of approaches to rehabilitation of the natural environment and provide for re-designation to land use designations compatible with the adjacent land uses.

3. In addition to all other relevant policies of this Plan, proposals for mineral aggregate operations including wayside pits and quarries, accessory uses, accessory facilities and haul routes shall:
  - c) demonstrate how the Escarpment's scenic resources and open landscape character will be maintained and where possible enhanced during and after the extraction;
  - g) minimize negative impacts of mineral aggregate operations and their accessory uses on surrounding land uses;
  - j) minimize negative impacts of mineral aggregate operations and their accessory uses on parks, open space and the existing and optimum routes of the Bruce Trail.
5. The mineral aggregate operation shall be screened while it is in progress and, where possible, prior to extraction in a manner compatible with the surrounding visual environment.
6. Screening shall incorporate the following:
  - a. overburden material in the form of a berm with varied heights and widths, supplemented with native tree, shrub and vegetative plantings;
  - b. vegetative screen plantings are to be of compatible species and sizes to permit only very limited visual contact from the surrounding landscape;
  - c. all plantings should be properly maintained to ensure continued survival and good growth rates; and
  - d. where the existing forest is adequate to be considered as an effective screen along the perimeter of the site, no additional artificial berming or stockpiling of overburden materials will be permitted within the forested area being used as a natural screen.
11. Rehabilitation shall incorporate the following:
  - d) All excavated pit and quarry walls are to be sloped and rehabilitated in accordance with best practices. On sites where a higher standard of

rehabilitation is justified (e.g., to improve land use compatibility) or on sites where topsoil and/or land fill material is scarce, alternative approaches to slope standards may be applied. Sections of pit or quarry faces may be left exposed for aesthetic or educational purposes or to create habitat diversity in an approved rehabilitation plan;

- e) vegetation, including seeding, crops, trees and shrubs, shall be planted as soon as possible as part of progressive rehabilitation of the pit or quarry;
- f) rehabilitation of the site shall contribute to the open landscape character and compatible with the surrounding scenic resources;

Both the Aggregate Resources Act site plans and recommendations outlined in this report consider the development criteria policies outlined. Wherever possible, preservation of the existing vegetation, early rehabilitation style planting and enhanced screening of the proposed extension have been incorporated in the recommendations of this visual impact assessment to ensure that the extraction process is visually minimized.

## 2.6 Scenic Resources and Landform Conservation

The following policies were extracted from Section 2.13 the Niagara Escarpment Plan:

The objective is to ensure that development preserves the natural scenery and maintains Escarpment Related Landforms and the open landscape character of the Escarpment.

### Scenic Resources

1. Development shall ensure the protection of the scenic resources of the Escarpment.
2. Where a visual impact on the scenic resources is identified as a concern by the implementing authority, a visual impact assessment shall be required.
3. A visual impact assessment shall:
  - a) establish a baseline for the existing conditions;
  - b) identify the proposed physical changes; and
  - c) assess the impact of the proposed change on the scenic resources of the Escarpment; and
  - d) propose measures to minimize any visual impacts.
4. Appropriate siting and design measures shall be used to minimize the impact of development on the scenic resources of the Escarpment, including:
  - a) establishing appropriate setbacks and maximum building heights;
  - b) changing the orientation and height of built form to reduce visibility and skylining;
  - c) clustering buildings where appropriate;

- d) minimizing the development footprint and changes to the existing topography and vegetation;
  - e) using natural topography and vegetation as screening for visual mitigation;
  - f) where there is minimal existing screening or vegetation that cannot be retained, providing new planting of native species to screen development;
  - g) using non-reflective materials on roofs and walls along with measures to reduce reflectivity associated with windows; and
  - h) minimizing the effect from exterior lighting (e.g., lighting directed downward).
- Landform Conservation

#### Landform Conservation

5. Planning, design and construction practices shall ensure that Escarpment Related Landforms are maintained and enhanced, and that development is visually compatible with the natural scenery and open landscape character of the Niagara Escarpment.
7. Except as provided for in Part 2.9 (Mineral Aggregate Resources), the construction of berms will only be permitted in cases where natural vegetation is insufficient to mitigate visually incompatible land uses, or where noise attenuation is required.

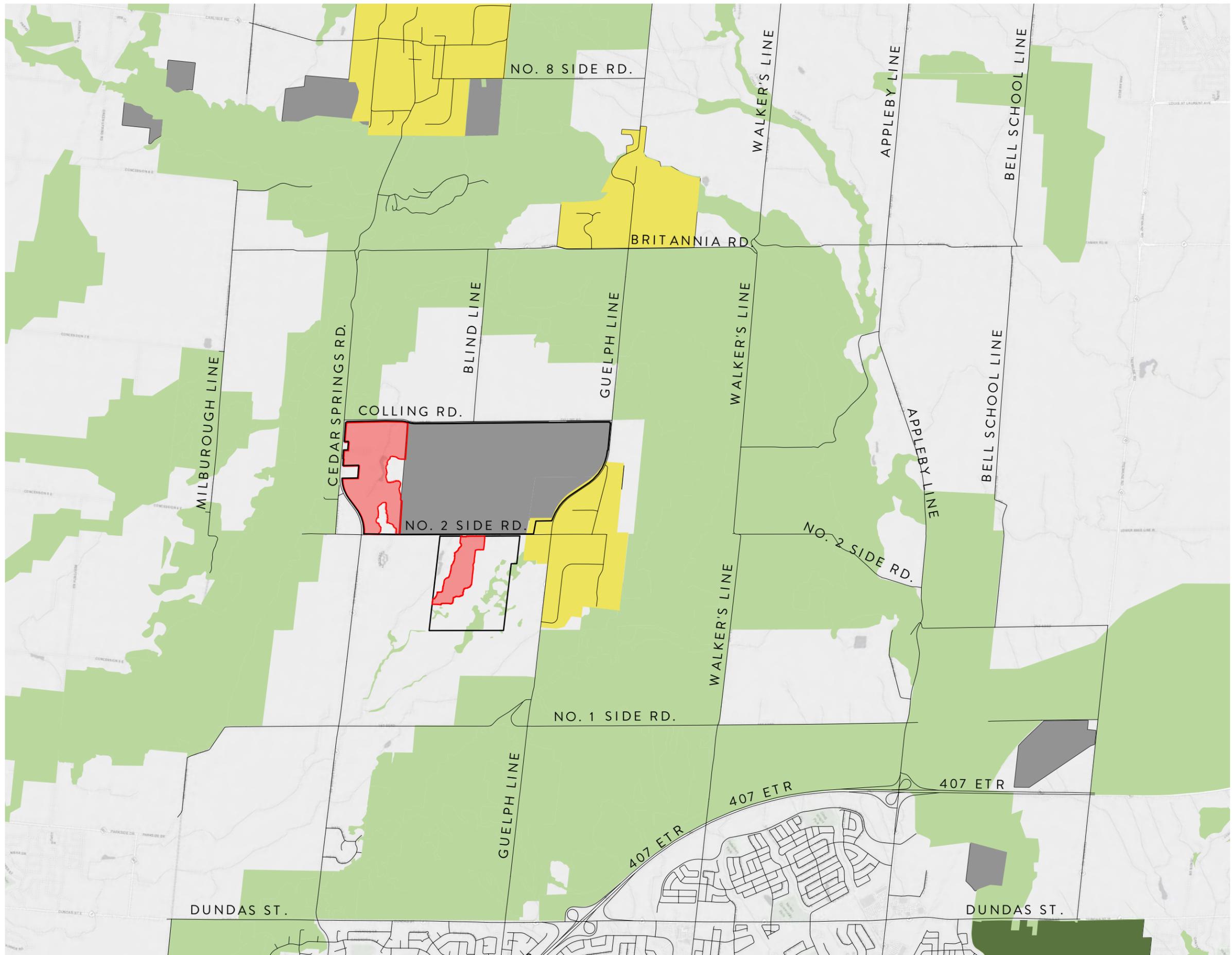


Figure 1  
Location Map

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

- Subject Lands
- Additional Lands Owned by Applicant
- Natural Heritage System (Provincial)
- Minor Urban Centre
- Authorized Aggregate Site
- Provincial Park

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DRAWN: CC



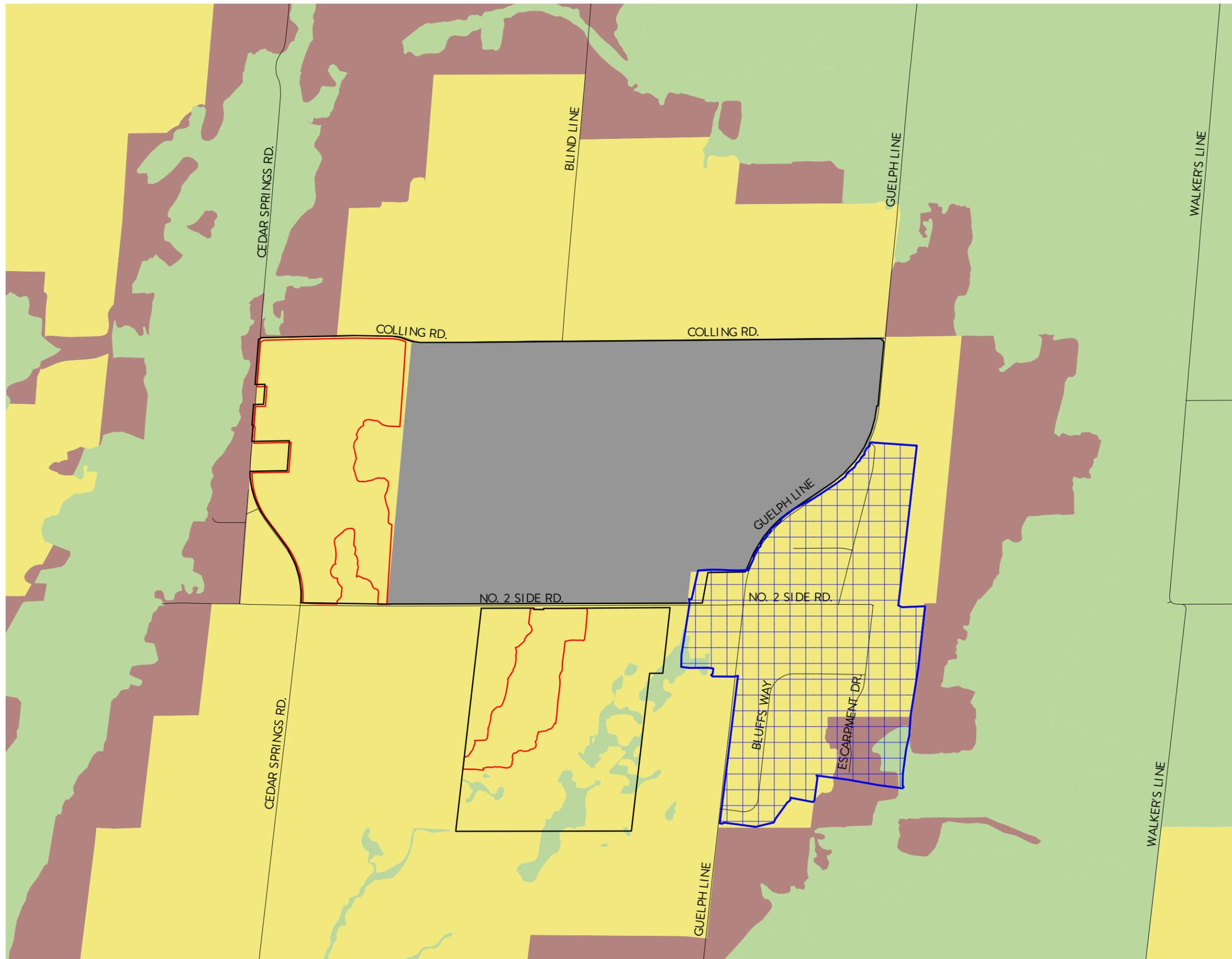


Figure 2  
**Niagara Escarpment Plan (2017)**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

- Subject Lands
- Additional Lands Owned by Applicant
- Escarpment Natural Area
- Escarpment Rural Area
- Escarpment Protection Area
- Mineral Resource Extraction Area
- Mt. Nemo Minor Urban Centre

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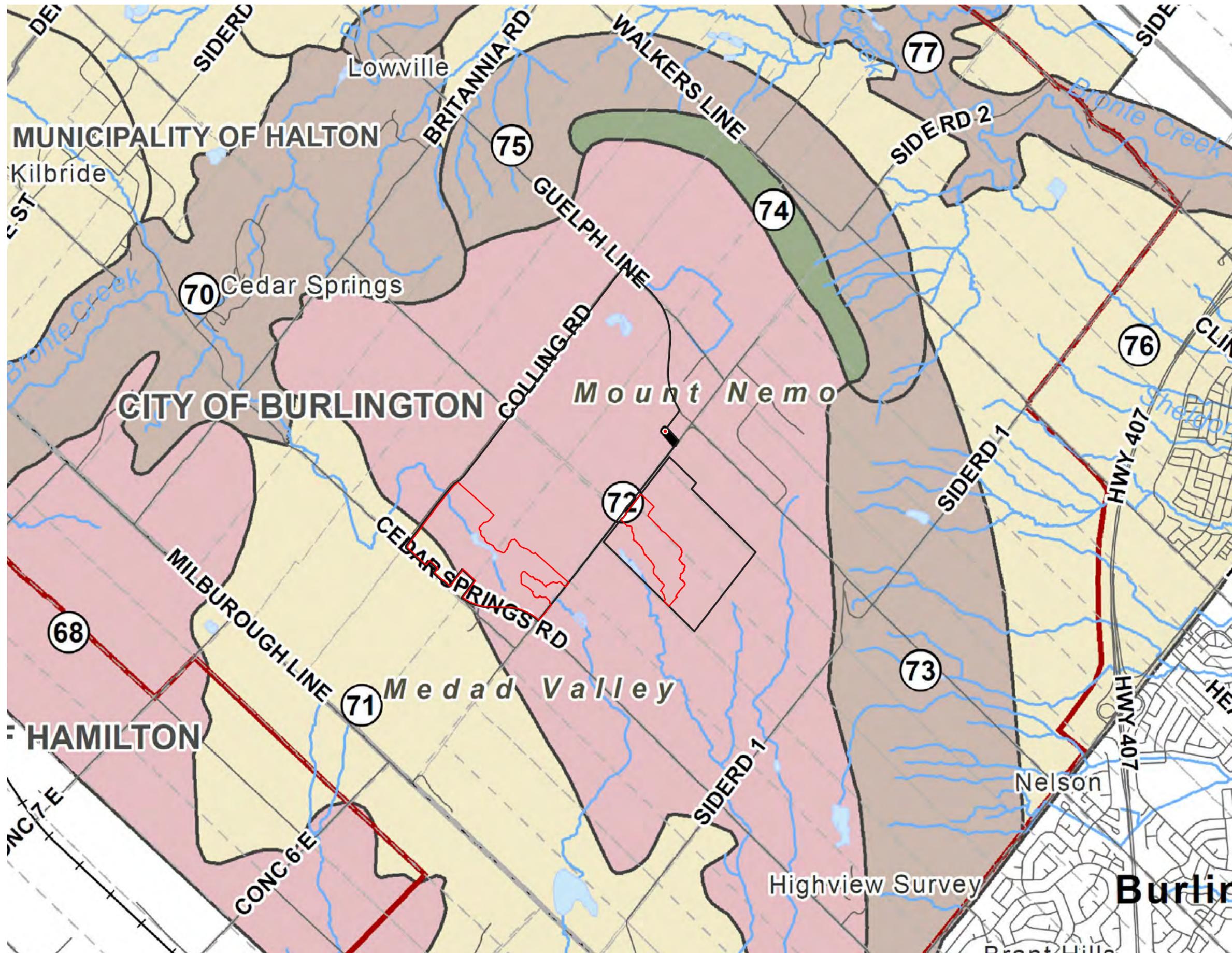


Figure 3  
**Niagara Escarpment Landscape Evaluation Study**  
 Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

- Subject Lands
- Additional Lands Owned by Applicant
- Low
- Average
- Attractive
- Very Attractive

DATE: May 2022  
 SCALE: 1:30,000  
 FILE: 9135S  
 DRAWN: CC



# 3.0 Methodology

The methodology used to complete the report included undertaking the following:

1. A detailed review of background documentation information including air photographs and topographic mapping.
2. The collection of field data and on-site photography from key vantage points (viewpoints) along public roadways during winter (leaf-off condition).
3. Identification and review of residences, public roads and golf courses that may be prone to visual impacts as a result of the proposed extraction activities.
4. Analysis and inventory of visual and landscape character.
5. Identification of potential visual impacts.
6. Recommendations of potential mitigation measures to be taken.
7. Preparation of a Visual Impact Report for submission to the relevant approval agencies.

Several areas were selected for the visual impact analysis due to the proximity to the subject lands and potential for views of the site. The viewpoint locations included No. 2 Side Road (public road), Cedar Springs Road, Cedar Springs Court, Colling Road, Blind Line, The Camisle Golf Course, and residential properties (receptors) within the study area. This report includes a photographic inventory documenting existing views during leaf-off conditions, and a description / evaluation of the various views.

To capture photos on site for analysis, a Nikon D3300 model Digital Single-Lens Reflex (DSLR) camera using a 50mm lens at F2.8 was used. Photos were taken at eye level standing height (approximately 1.70m above grade). Photos were taken individually at a ratio of 6000px by 4000px to encompass a 180 degree viewpoint from the standing location. To create the panoramic photos presented, the individual photos were stitched together in Adobe Photoshop using the Photomerge tool. For photo simulations (**Figures 9A – 9J**), only individual photos were used in order to avoid distortion and ensure simulation accuracy.

The information presented in this assessment is based on a stationary perspective that would be experienced by a person standing at various station points / viewpoints along the selected roads. The photographs used for the photo record were taken in winter 2020 and winter 2021

during 'leaf-off' conditions for the purposes of illustrating worst case scenario. Photos for the visual simulations were taken in March 2022 also during leaf-off conditions. For the residences within the study area, the elevation as well as the location and height of the houses (e.g. one or two-story) were taken into account in determining significant views and potential impacts. Photos from residential properties were taken from the end of the driveway (public property), closest to the road.

The visual impacts were assessed based on extraction occurring to the maximum proposed extent of 252.5 masl at the West Extension, and 252.5 – 271.0 masl at the South Extension. Cross sections at key vantage points were drawn in order to assess the existence of any visual impacts, and to inform mitigation recommendations these where visual impacts could exist **(See Figures 6A to 6K)**.

### 3.1 Photo Simulations

Through our investigations and requests from the Niagara Escarpment Commission, six Station points were identified as priority where photo simulations were deemed to be helpful in assessing and evaluating potential visual impacts. The resulting photo simulations were produced as a tool to depict and evaluate the change in the Escarpment landscape which would result from the implementation of the operations plan/mitigation plan and the implementation of the rehabilitation plan. All six points were simulated for the implementation of the operations plan and mitigation plan during quarry operations. In addition, four of these six points were simulated for the projected conditions of implementing the rehabilitation plan. The 3D model was built using current and up to date information and the data was used responsibly and without prejudice. The resulting photo simulations have not been purposely enhanced, diminished or otherwise altered in any way and the results are as accurate as the modelling software used will allow.

The methodology used to develop the photo simulations is as follows:

Preparation:

The station points were GPS located and these coordinates were recorded;

- Photos of the various station points were taken using a Nikon D3300 model Digital Single-Lens Reflex (DSLR) camera using a 50mm lens at F2.8 as these settings produce images that closely represent that which is seen by the human eye and offer minimal distortion.

### Computer Modelling:

- An accurate 3D Model of the proposed mitigation measures and rehabilitation plan was created in AutoCAD and 2D Studio Max and placed into the computer model.
- The 6 Station points were located in the AutoCAD / ArchGIS model at the GPS coordinates obtained through the site investigations.
- The Station points were moved 1.6m above the model surface to simulate human viewing height (and actual camera height) from the real world ground surface elevation at each point.
- Virtual cameras were created using the lens settings and Metadata to match the actual DSLR camera (Nikon D3300) and focal length settings and these were placed into the computer model at each station point and the camera angles were adjusted to match that of the actual DSLR image (3D Studio Max).

### Final Output and Post Production:

- At each Station point, it was ensured that along with the DEM, at least three features that appeared in the photographs were accurately located on the computer model. In most cases, these were trees, utility poles, signs or buildings. A rudimentary rendered image showing these points was rendered and superimposed on the respective photo image for each station point, after which the known points were aligned in order to verify the accuracy of what would become the final rendered photo simulation (3D Studio Max, Photoshop).

### Software used:

- ESRI ArcGIS
- Autodesk AutoCAD
- Autodesk 3D Studio Max
- Adobe Photoshop

# 4.0 Proposed Quarry Operations

The license area for both proposed extensions is 76.9 hectares and the proposed extraction area is 47.4 hectares. The South Quarry Extension is 18.1 hectares with a proposed extraction area of 14.3 hectares. The West Quarry Extension is 58.8 hectares with a proposed extraction area of 33.1 hectares.

The Burlington Quarry Extension contains approximately 30 million tonnes of the highest quality aggregate resource in Southern Ontario. Nelson is applying for a maximum tonnage limit of 2 million tonnes per year, however they plan on extracting an average of 1 million tonnes per year. As a result, the South Extension is expected to operate for +/-9 years and the West Extension for +/-21 years.

Access to the West Extension will be through the existing Nelson Quarry to the east, and access to the South Extension will be off of No. 2 Side road. The proposed extraction activities will operate in 6 phases. Phase 1A and 1B will occur in the northern section of the South Extension and will be followed by Phase 2, which will encompass the remainder of the extension.

Phase 3 will begin in the south-east portion of the West Extension and will move up into the south central areas for Phase 4. Phase 5 will occur in northern third of the extension, while the sixth and final phase will connect the areas of Phase 4 and 5 in the centre of the West Extension.

The direction of extraction in the South extension will move from north to south while the in West Extension it will move generally from east to west in each phase. The exception is Phase 6, which will move from north to south. The Operations Plan is shown in (**Figure 8**) of this report.

No processing operations are contemplated within the proposed extensions, and the extracted aggregate will be transported to the existing Burlington Quarry for processing and shipping to market, utilizing the existing entrance/exit and haul route. For the purposes of processing, aggregate extracted from the South Extension (Phases 1 & 2) will be transported by crossing No. 2 Side Road and aggregate extracted from the West Extension (Phases 3-6) will be transported by internal haul routes on the quarry floor.

Setbacks in each of the extensions vary depending on the surrounding context. Along Cedar Springs Road, the setback from the extraction area of the West Extension varies from 95-100 m. Along Colling Road it is between 30 and 68 m. Along No. 2 Side Road, the setback is 225 m in the south-western portion of the site and 30 m along the south-eastern portion of the site. For the South Extension, there is a setback of 30 m along No. 2 Side Road and a 15 m setback around the rest of the license boundary.

The site will be operated above and below the water table, with rehabilitation proposed to occur with a mix of different landscape ecologies including wetlands, forests, ponds, lakes, and grasslands. While re-grading will occur within the site to create more transitional changes in topography, the rehabilitation plan will utilize the variations in topography to create new landscape topologies such as the lakes and wetlands. Refer to the proposed Rehabilitation Plan **(Figure 7)**.

# 5.0 Landscape Character

## 5.1 Site Context

The Nelson Aggregate Quarry Extension Lands are located in the north-western part of the City of Burlington, approximately 10 km north of the Burlington Downtown area and 13 km south-west of Central Milton. The surrounding area is primarily characterized by existing aggregate extraction, farm-related and non-farm-related residences, agricultural outbuildings, open space and hedgerows, and golf course recreational uses. The West Extension lands are currently being used as a golf course and are characterized by manicured lawns, small woodlots, and an approximately 600 m long linear irrigation pond in the centre of the property. The western side of Cedar Springs Road is lined with residential properties that face the future West Extension lands.

The South Extension lands are currently being used for agricultural purposes and are characterized by surrounding woodlots, hedgerows, and rural residential domiciles.

## 5.2 Topography

The West Extension lands consist mainly of relatively gently sloping hills and long flat areas characteristic of a golf course with elevations between 261 and 276 masl. The lowest point of the site is located in the North West corner of the proposed extension, at the corner of Cedar Springs Road and Colling Road.

The South Extension lands consist mainly of relatively gently sloping agricultural lands and small rolling hills with elevations between 273 and 282 masl. The lowest point of the site is located near in the south-west corner of the proposed extension.

## 5.3 Vegetation

The West Extension is comprised primarily of open manicured lawns of the existing golf course with patches of woodland consisting mostly of deciduous trees and some coniferous trees. The periphery of the property is largely planted with deciduous trees and understory species. There are a few interspersed confers, but they do not comprise a significant percentage of periphery planting. Many of the tree species are mature and there is a dense understory present at many sections of the site periphery. An existing young plantation of predominantly coniferous trees exists at the corner of No. 2 Side Road and Cedar Springs Road.

The South Extension is comprised primarily of agricultural lands interspersed by mixed deciduous and coniferous hedgerows. The agricultural fields are bordered by swathes of homogenous deciduous and coniferous woodlands to the west, mixed deciduous and coniferous to the south, and long stretches of nursery trees to the east. The northern section of the property surrounding the residences is a lightly wooded area with larger sections of open meadow, and understory plants.

## 5.4 Land Use

The subject lands for both the West and South Extensions are designated as Escarpment Rural Area under the Burlington Official Plan. Portions of the woodland located adjacent to the South and West Extensions are considered significant woodlands.

Under the Rural Lands Land Use Policies, it is noted under Section 2.1.1 h) that “the designation of new Mineral Resource Extraction areas or a new license under The Aggregate Resources Act shall be provided for, where they can be accommodated in accordance with the policies of this Plan and by amendment to the Niagara Escarpment Plan, Regional Official Plan and this Plan.”

The adjacent land uses include Rural Settlement Area, other Escarpment Rural Areas, Escarpment Protection Area, Greenlands, and Mineral Resource Extraction Area, which is the existing Nelson Quarry.

The Bruce Trail Iroquoia Section runs along Nelson property on the north side of the existing quarry. The Trail had been relocated to Nelson property in order to provide a safer network for trail users.

The Niagara Escarpment Commission’s Landscape Evaluation Study rated the West Extension lands as mostly low, with a small portion at the northwest corner being rated as average; and rated the South Extension lands as low. Adjacent lands to the extensions were rated between low and average. Refer to **Figure 3** for the Niagara Escarpment Landscape Evaluation Study for this area.

# 6.0 Description of Views

Site reviews were undertaken in Winter 2020 and Winter of 2021 during leaf-off condition to illustrate worst case scenario. The analysis and location of the 49 studied viewpoints are included in this chapter and are identified on **Figure 4 (Assessed Views Photo Location Plan), and 4A to 4P (Photo Records of Assessed Views)**. The site reviews included evaluation of potential receptors and views within 1 km of the proposed extensions and were chosen specifically in locations where visual impacts could potentially be expected. Refer to **Table 1** for a summary of the locations and associated evaluations of the identified potential receptors along the mentioned public roadways.

## 6.1 Existing Landscape Setting and Context

The subject lands are located within a rural area that contains a variety of land uses including agricultural uses, rural residential uses, golf courses and aggregate extraction operations. The Western Extension lands consist of a golf course and related facilities, while the Southern Extension lands consist of rural residential dwellings and field areas. Beyond the immediate site area, a broader range of rural uses exist, as well as a settlement area (Mount Nemo) and the natural features of the escarpment ridge. The Bruce Trail Iroquoia Section runs along Nelson property on the north side of the existing quarry and along Blind Line in close proximity of the site. The trail along Nelson property provides a safer experience for trail users to transverse this section. The section along Blind Line in close proximity to the site only utilizes the existing public road and is not considered to be an “optimum” section of the Trail. This combination of natural and man-made rural features constitutes what can be defined as “open landscape character” as set out in the Niagara Escarpment Plan (2017, 2021 consolidation). **Figure 1** provides the overall landscape context and land use information.

### *Building clusters*

For the past several decades, the area surrounding the subject lands has continued to evolve and transition from a predominantly agricultural area to one with a broader range of uses. Rural residential and estate residential dwellings have been constructed on lots severed off farm parcels, and some previous farm parcels have seen the former agricultural buildings utilized for non-farm uses. As a result of this change, many farm buildings no longer serving a functional purpose for agricultural uses have been removed. In the case of the Western Extension, there

is no evidence of the former agricultural building cluster. As a result of the changes, former farmyard areas have been slowly been repurposed for other uses.

The majority of building clusters associated with the existing residential dwellings on the subject lands are of recent construction, and yard areas and landscape features are typical of a manicured yard area that one would expect to find in a rural residential area.

### *Agricultural lands (existing and former)*

The field pattern of the subject lands has evolved as farming practices have also change, but has also seen a shift away from agricultural uses as well. Related to the Southern Extension on lands owned by Nelson but not subject to the application, there has been additional forestation of former field areas and naturalization of wet areas of the properties. One of the major open landscape character features of the area are the hedgerows of mixed vegetation that separate the individual agricultural field areas. While largely a product of historical farming practices, they have become part of the recognized landscape character of the area. In addition, bedrock outcrops were noted in areas of the property as well during the visit.

With respect to the Western Extension, agricultural uses have ceased altogether in order to accommodate the golf course use. The golf course was established in the 1960's and has continued on the property since that time. Areas of the property have been graded to accommodate the fairways and putting greens, and cart paths, parking areas and access / maintenance roads have been constructed. The golf course occupies the entirety of the former field areas. Around the perimeter of the golf course, berms have been constructed and natural vegetation is generally located along the roadways. While commonly found in many rural settings, the golf course departs from the traditional conception of open landscape character given its highly manicured and formal style that contrasts the agricultural aspects of the rural area.

## **6.2 Along Cedar Springs Road**

The greatest potential opportunities for views into the West Extension lands are located along Cedar Springs Road with a total of 34 residences along this stretch of road. Cedar Springs Road is also used by motorists, pedestrians, and cyclists. These views vary from fully screened by vegetation and topography, filtered views due to vegetation, to full potential visibility of the subject lands, but these potential views are mostly at a distance as the proposed extraction limits are well set back from the road.

Although Cedar Springs Road presents many potential opportunities for visual impacts due to a longer perimeter, it is expected that the setback of the operations from Cedar Springs Road will help minimize potential visual disruption, and allow for more space to implement mitigation measures such as berming to augment existing vegetation. Cedar Springs Road appears to experience more traffic than the other adjacent roads, and is a direct route to the downtown area. Though not a publically accessible, the residences backing onto the existing golf course are the closest receptors, and as such, consideration is given to this special condition.

North of the existing Burlington Springs Golf Course entrance, a berm begins to form up to Colling Road, which serves to eventually fully screen the view from residences on the opposite side of the road. Furthermore, several of these residences are located on a significantly lower grade, further reducing their potential for visual impact.

### **6.3 Along Cedar Springs Court**

Generally, Cedar Springs Court does not offer direct views to the West Extension, however, there are a number of residences that back on to Cedar Springs Road, which opens the opportunity for some potential filtered views from backyards (which are predominantly vegetated to some extent). Given the nature of the Court, through traffic and pedestrian traffic is minimal, and views are mostly blocked or filtered by existing vegetation and homes.

### **6.4 Along Colling Road**

There are two residences that have direct views into the north-eastern corner of the West Extension along Colling Road. There is limited vegetation and smooth topography at these locations, allowing for generally uninterrupted views into the existing golf course. It is expected that motorist, cyclists, pedestrians, and local residents occupying their homes would experience visual impacts from the proposed West Extension without mitigation measures in place.

In addition, there is a property located on Blind Line that has frontage along Colling Road. Given existing vegetation, topography, and the existing quarry, there is no potential for views to the proposed West Extension.

## 6.5 Along No. 2 Side Road

There are a total of 16 residences along No. 2 Side Road, as well as the Camisle Golf Course. Of these, three of the residences as well as the Camisle Golf Course have the potential for visual impacts.

Much of the West Extension's frontage along No. 2 Side Road is partially to fully screened by existing vegetation and topography. However, closer to Cedar Spring Road topographic conditions begin to flatten and openings in the vegetation are evident. This creates conditions of better visibility into the future West Extension and opens up the potential for visual impacts, particularly into the south portion of the West Extension where a short section of the extraction limits will be closest to the road.

The main public views into the South Extension will be along No. 2 Side Road, immediately adjacent to the north frontage of the extension. Travelers along No. 2 Side Road would experience relatively short glimpses of the subject lands due to existing berms, varied topography, and adjacent wooded areas. However, it is expected that an opening in vegetation will be created along the northern border of the Southern Extension, opening up the potential for views into the site. No. 2 Side Road has relatively limited through traffic, aside from current haul traffic. Light traffic volumes aside, visual mitigation measures will be required for the open stretches where clear views can be had. The frontage of the South Extension along No. 2 Side Road is partially screened by vegetation, which will aid in reducing the potential visual impact if retained.

# 7.0 Findings

## 7.1 Visual Impact on Public Roadways

The West Extension is somewhat well screened from the south and west sides, and very well screened on the north side. There are, however, several locations with partial to open views of the site. The eastern edge presents no additional visual impact as it is adjacent to the existing quarry. Existing topography, vegetation, and berms provide sections of appropriate screening, but the close proximity of residential domiciles and openings in visual barriers will necessitate the implementation of some visual mitigation measures.

The South Extension is generally well screened from views to the south, east, and west with views into the site along No. 2 Side Road. The lack of visual impact to the south east and west is primarily due to existing vegetation, topography, and surrounding agricultural uses which serve to buffer against potential viewpoints.

## 7.2 Visual Impact on Nearby Residences

Based on the assessment outlined in Section 6, the following residences have views of the subject lands where potential visual impacts may exist:

- 1420, 2102, 2090 2 Side Road – Partially screened or filtered views.
- 2080, 2015, No. 2 Side Road – Significant views.
- 4516, 5050, 5070, 5214, 5224, 5258, 5254, 5255 Cedar Springs Road – Partially screened or filtered views.
- 5165, 5164, 5158, 5172, 5168, 5179, 5186, 5206, 5191, 5234, 5248, 5244, 5245, Cedar Springs Road – Significant views.
- 5089 Cedar Springs Court – Partially screened or filtered views.
- 2129, 2139, Colling Road – Significant views.

Other residences in the area are screened and do not have views to the West and South Extensions.

## 7.3 Proposed Pond Prior to Phase 3

As part of the operations process of the quarry, a 4.3 hectare infiltration pond will be constructed along the western portion of the Western Extension prior to extraction in Phase 3 (see Figure 5

for approximate location). This pond will replicate the functions of the existing golf course pond in terms of water capture, storage, and infiltration. The water could be managed to be stored during periods of snow melt and storm events and be released during periods of droughts and low flow to enhance surrounding key natural heritage and hydrologic features. This will result in a change to the landscape prior to the completion of extraction activities. For the purposes of water retention and storage, berms that are fixed at 272 masl in height will be constructed around the periphery of the pond. Although the primary function of these berms is hydrological in nature, they also provide a visual screen of the pond from the surrounding streets. This creates an additional layer of screening to shield views of the water feature from adjacent viewers and also ties into and compliments the visual berms located at the extraction area edge. Currently, a water channel runs approximately three quarters of the length of the Burlington Springs Golf Club. While it is acknowledged that the infiltration pond is not a typical feature of the escarpment area, it is an existing feature of the area in its current state. Therefore, while it would not be a significant change to the existing visual landscape to re-instate a similar pond, the proposed berms around the pond will screen views of the permanent water line and hide this uncommon feature from view.

A key difference of the proposed pond and the existing golf course pond will be its surrounding condition. The proposed pond will be less managed than the existing golf course pond, taking on a more naturalized appearance. This better conforms to the open landscape character of the area by providing a more natural feature as opposed to a highly managed golf course pond.

Consequently, what will be visible as a result of reinstating the infiltration pond will better conform to a naturalized open landscape character of the area.

## 7.4 Proposed Truck Crossing at 2 Side Road

As part of quarry operations and to minimize the distance travelled for trucks on public right-of-ways, there is a proposed at-grade crossing between the Southern Extension and the existing quarry across 2 Side Road (See **Figure 8 Operations Plan**). Along the south side of 2 Side Road, planted berms will be constructed running perpendicular to the south entrance road. In addition to the offset of extraction activities from the public right of way, these planted berms will limit potential views into the site to only when directly in front of the vehicular entrance. Some sparse trees and vegetation will be removed in order to accommodate the proposed entrance and required sight triangle as stipulated in the Traffic Safety Assessment and graphically shown on **Figure 5B**. It is noted that these trees currently do not create a visual screen into the site.

The northern side of the proposed crossing is characterized by a row of existing mature coniferous trees and understory vegetation and relatively flat topography. In order to

accommodate the crossing, an opening in the vegetation will have to be cleared to permit vehicle access. The removals will be based on the required sight triangle. In order to preserve the mature coniferous tree line, berming is not proposed at this location. Planting shall be proposed running parallel on either side of the north entrance road behind the sight triangle in order to reduce potential views that may open up from a removal of existing vegetation. This planting will run approximately 17m from the tree protection fence back to the limit of existing extraction. Planting shall be consistent with the same planting proposed on the visual berms on the south side of 2 Side Road.

Photo simulations of the expected condition during quarry operations have been provided in **Figures 9E and 9F**.

## 7.5 Existing Vegetation Summary

An Existing Vegetation Summary (**Figure 5A**) was conducted as part of this assessment to catalog existing vegetation on and around the Subject Lands. This inventory was created to help assess where existing vegetation could be protected in relation to proposed quarry operations in order to maximize existing screening. It is acknowledged that the implementation of the Operations Plan (**Figure 8**), construction of some berms, the hydrological pond, and the proposed truck access on Side Road 2 will require the removal of existing trees. In these areas, we have outlined the general location of proposed tree protection fencing along the limits of work to delineate where tree protection is to occur. The Existing Vegetation Summary should be read in conjunction with the Mitigation Plan (**Figure 5**). The exact location of this tree protection fencing will require field verification at the time of installation and shall be installed based on the detailed recommendations found in Section 9 of this report.

## 7.6 Summary of Visual Impacts

The following table summarizes potential visual impacts. Visual impact has been defined as any potential change made to the existing landscape character or views of the subject lands and surrounding area by the proposed use of the subject lands for aggregate extraction. High impact suggests very noticeable change, therefore requiring mitigation measures to minimize the perceived visual impacts. Moderate impact suggests noticeable change, and may require mitigation measures to minimize perceived visual impacts. Low impact suggests that insignificant or filtered views may be had from very specific angles, but the perceived visual impact is so slight that it would not likely require mitigation.

#	Direction	Approximate Distance from Extraction Area (m)	Coordinates	Receptor
1	SW	542	43°24'12.70"N, 79°52'37.45"W	Mt. Nemo Christian Nursing Home
2	SW	485	43°24'10.95"N, 79°52'39.90"W	2470 No. 2 Sideroad
3	SW	445	43°24'10.76"N, 79°52'41.04"W	2462 No. 2 Sideroad
4	SW	408	43°24'9.59"N, 79°52'42.33"W	2450 No. 2 Sideroad
5	SE	327	43°23'45.28"N, 79°53'8.85"W	2196 No. 2 Sideroad (South Facing)
6	NW	354	43°23'45.37"N, 79°53'9.06"W	2196 No. 2 Sideroad (North Facing)
7	SE	444	43°23'43.44"N, 79°53'11.12"W	Camisle Golf Course (South Facing)
8	NE	262	43°23'43.42"N, 79°53'11.24"W	Camisle Golf Course (North Facing)
9	E	536	43°23'40.25"N, 79°53'14.76"W	2136 No. 2 Sideroad (South Facing)
10	W	184	43°23'40.23"N, 79°53'14.80"W	2136 No. 2 Sideroad (North Facing)
11	E	589	43°23'38.86"N, 79°53'16.29"W	2126 No. 2 Sideroad (South Facing)
12	W	135	43°23'38.81"N, 79°53'16.43"W	2126 No. 2 Sideroad (North Facing)
13	NW	71	43°23'37.28"N, 79°53'18.08"W	2116 No. 2 Sideroad
14	SE	842	43°23'36.24"N, 79°53'19.22"W	Camisle Golf Course 2102 No. 2 Sideroad
15	NW	72	43°23'34.51"N, 79°53'21.32"W	Camisle Golf Course 2090 No. 2 Sideroad
16	NW	97	43°23'32.79"N, 79°53'23.10"W	2080 No. 2 Sideroad
17	NW	241	43°23'28.90"N, 79°53'27.37"W	2015 No. 2 Sideroad (Affecting 4455 Cedar Springs Rd. Property)
18	N	461	43°23'22.59"N, 79°53'26.30"W	4455 Cedar Springs Road
19	N	427	43°23'23.75"N, 79°53'28.12"W	4480 - 4500 Cedar Springs Road
20	N	390	43°23'25.28"N, 79°53'29.84"W	4516 Cedar Springs Road
21	N	266	43°23'24.82"N, 79°53'32.25"W	1420 2 Side Road
22	N	119	43°23'28.63"N, 79°53'36.23"W	5050 Cedar Springs Road
23	N	117	43°23'29.68"N, 79°53'41.88"W	5070 Cedar Springs Road
24	N	298	43°23'25.27"N, 79°53'47.87"W	5079 Cedar Springs Court
25	N	246	43°23'27.20"N, 79°53'53.60"W	5089 Cedar Springs Court
26	N	195	43°23'28.89"N, 79°53'53.18"W	5116 & 5106 Cedar Springs Court
27	NE	199	43°23'29.83"N, 79°53'54.57"W	5132 & 5140 Cedar Springs Court
28	NE	302	43°23'32.85"N, 79°53'59.10"W	5165, 5164, 5158 Cedar Springs Road
29	NE	302	43°23'33.85"N, 79°54'0.52"W	5172, 5168, 5179 Cedar Springs Road
30	NE	315	43°23'34.67"N, 79°54'1.71"W	5186, 5206, 5191 Cedar Springs Road
31	NE	179	43°23'37.59"N, 79°54'5.92"W	5214 & 5224 Cedar Springs Road
32	NE	171	43°23'38.54"N, 79°54'7.17"W	5234 Cedar Springs Road
33	NE	166	43°23'39.96"N, 79°54'9.05"W	5248, 5244, 5245 Cedar Springs Road
34	NE	168	43°23'41.28"N, 79°54'10.99"W	5258, 5254, 5255 Cedar Springs Road
35	NE	168	43°23'42.40"N, 79°54'12.85"W	5264 Cedar Springs Road
36	NE	107	43°23'43.86"N, 79°54'14.91"W	5268 Cedar Springs Road
37	NE	165	43°23'45.16"N, 79°54'16.82"W	5300 Cedar Springs Road
38	E	160	43°23'46.18"N, 79°54'18.74"W	5318 & 5328 Cedar Springs Road
39	E	200	43°23'47.26"N, 79°54'20.11"W	5336 Cedar Springs Road
40	E	228	43°23'48.43"N, 79°54'21.70"W	5352 Cedar Springs Road
41	E	348	43°23'49.49"N, 79°54'23.35"W	5360, 5370, 5380 Cedar Springs Road
42	E	390	43°23'51.13"N, 79°54'25.89"W	5390 Cedar Springs Road
43	SE	75	43°24'2.29"N, 79°54'1.27"W	2129 & 2139 Colling Road
44	SW	831	43°24'25.52"N, 79°53'45.20"W	5374 Blind Line (Property Frontage)
45	SW	658	43°24'18.39"N, 79°53'42.20"W	5374 Blind Line (Colling Road Frontage)
46	SW	675	43°25'15.78"N, 79°52'35.61"W	2519 2 Side Road
47	SW	608	43°24'14.66"N, 79°52'35.71"W	2509 & 2495 2 Side Road
48	SW	528	43°24'13.95"N, 79°52'36.75"W	2585 & 2479 2 Side Road
49	SW	502	43°24'10.95"N, 79°52'39.90"W	2473 2 Side Road
50	S	75	43°24'0.06"N, 79°52'53.00"W	Approx. 2322-2402 2 Side Rd
51	SE	50	43°23'56.83"N, 79°52'56.41"W	Approx. 2316 2 Side Rd
52	SE	50	43°23'52.96"N, 79°53'0.44"W	Approx. 2292 2 Side Rd
53	NW	256	43°23'25.81"N, 79°53'31.16"W	Approx. 1420 2 Side Rd
54	E	148	43°23'29.76"N, 79°53'51.77"W	Cedar Springs Court
55	E	162	43°23'46.41"N, 79°54'18.77"W	Approx. 5328 Cedar Springs Rd
56	SE	50	43°23'51.41"N, 79°54'13.30"W	Approx. 2139-2129 Colling Rd
57	S	50	43°23'55.16"N, 79°54'9.01"W	Approx. 2139-2129 Colling Rd
58	S	55	43°24'0.62"N, 79°54'3.26"W	Approx. 2139-2129 Colling Rd
59	S	720	43°24'21.19"N, 79°53'39.12"W	Approx. 5335-5347 Blind Line
60	S	2350	43°25'0.67"N, 79°52'55.61"W	Mt. Nemo Conservation Area Entrance

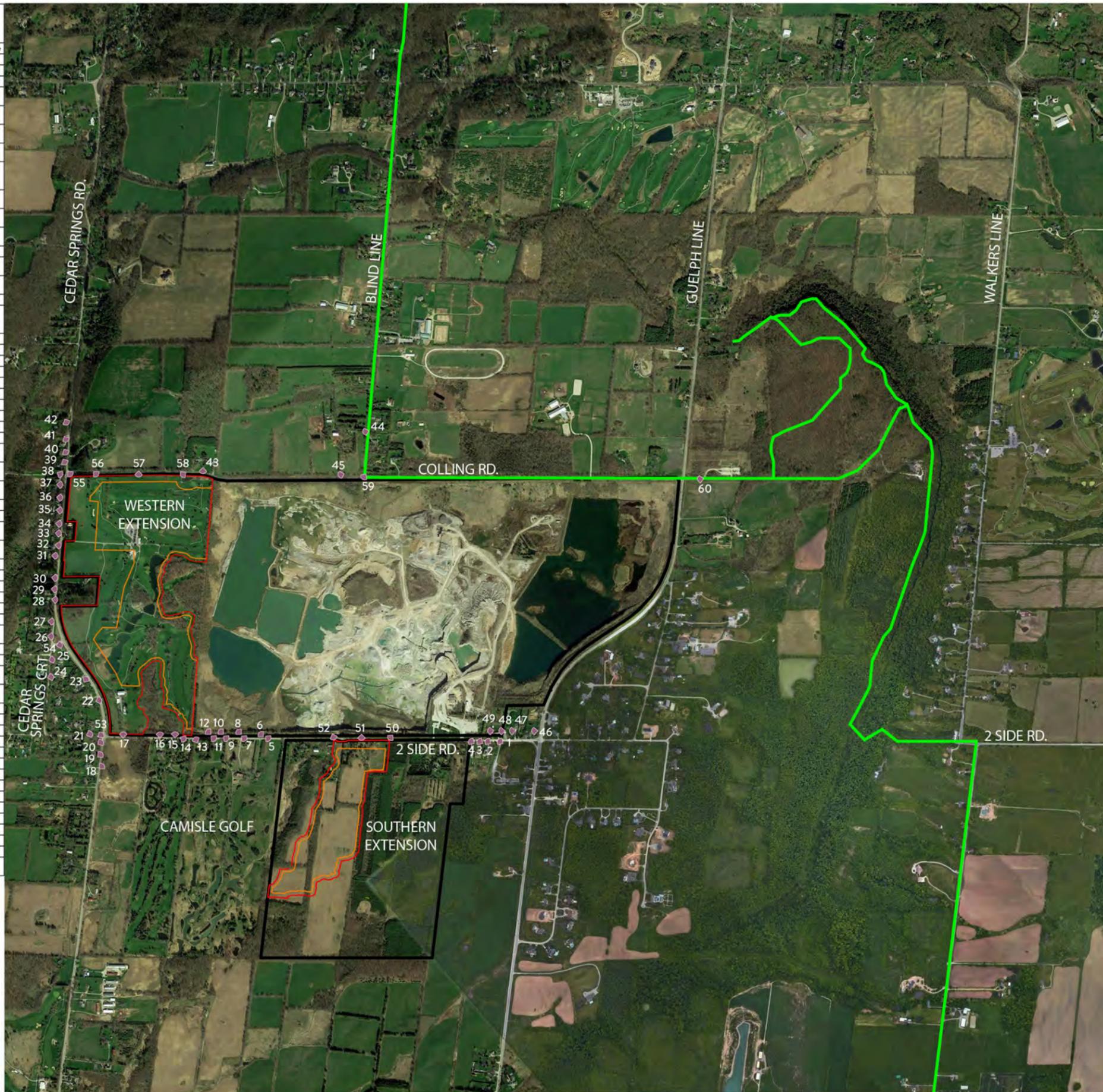


Figure 4  
Assessed Views Photo Location Map

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

- Subject Lands
- Extraction Limit
- Additional Lands Owned by Applicant
- ◆ Location of Viewshed and Barrier Photos (see Figures 4A to 4M)
- Bruce Trail

DATE: May 2022  
SCALE: 1:20,000  
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Photo 1: 4486 Guelph Line, Mount Nemo Christian Nursing Home. Taken on 2 Side Road.



Photo 2: 2470 2 Side Road.



Photo 3: 2462 2 Side Road.

Figure 4A

**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for view locations

Photos taken on January 20, 2020

DATE: May 2022

FILE: 91355

DRAWN: CC



Photo 4: 2450 2 Side Road.



Photo 5: 2196 2 Side Road. Facing Towards Proposed Southern Extension.



Photo 6: 2196 2 Side Road. Facing Towards Proposed Western Extension.

Figure 4B

**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for view locations

Photos taken on January 20, 2020

DATE: May 2022

FILE: 9135S

DRAWN: CC





Photo 7: 2102 2 Side Road, Camisle Golf Course. Facing Toward Proposed Southern Extension.



Photo 8: 2102 2 Side Road, Camisle Golf Course. Facing Toward Proposed Western Extension.

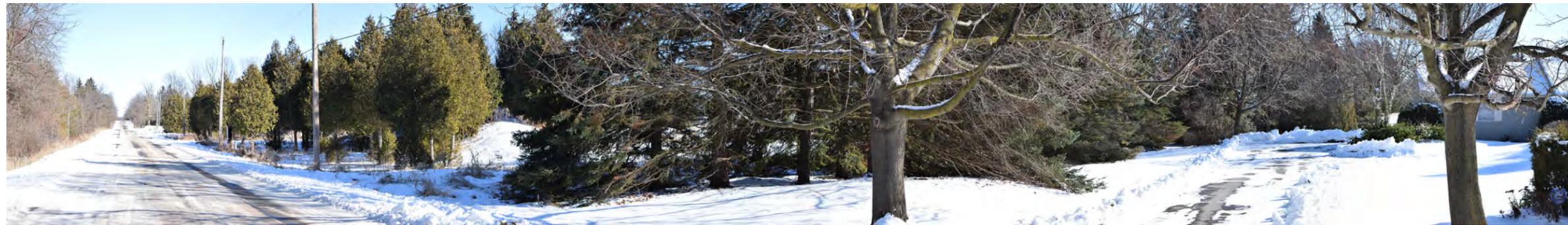


Photo 9: 2136 2 Side Road. Facing Towards Proposed Southern Extension.



Photo 10: 2136 2 Side Road. Facing Towards Proposed Western Extension.

Figure 4C

**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE** Refer to Figure 4 Assessed Views Photo Map for view locations

Photos taken on January 20, 2020

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 11: 2126 2 Side Road. Facing Towards Proposed Southern Extension.



Photo 12: 2126 2 Side Road. Facing Towards Proposed Western Extension.



Photo 13: 2116 2 Side Road. Facing Towards Proposed Western Extension.

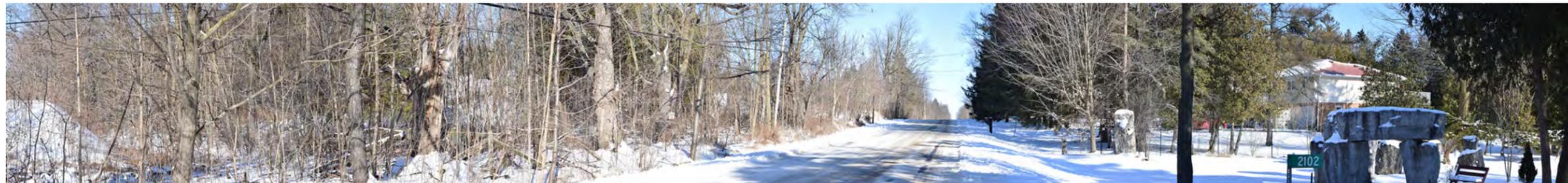


Photo 14: 2102 2 Side Road, Camisle Golf Course Facing Towards Proposed Southern Extension.

Figure 4D

### Photo Record of Assessed Views

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for view locations

Photos 11-12, 14 taken on January 20, 2020

Photo 13 taken on January 29, 2021

DATE: May 2022

FILE: 91355

DRAWN: CC



Photo 15: 2090 2 Side Road, Camisle Golf Course. Facing Towards Proposed Western Extension.



Photo 16: 2080 2 Side Road. Facing Towards Proposed Western Extension.



Photo 17: 2015 2 Side Road. Facing Towards Proposed Western Extension.



Photo 18: 4455 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 19: 4480 -4500 Cedar Springs Road. Taken at 4800 Cedar Springs Road, Facing Towards Proposed Western Extension.

Figure 4E

**Photo Record of Assessed Views**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for view locations

Photos taken on January 20, 2020

DATE: May 2022

FILE: 91355

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Photo 20: 4516 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 21: 1420 2 Side Road. Facing towards Proposed Western Extension.



Photo 22: 5050 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 23: 5070 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 24: 5079 Cedar Springs Court. Facing Towards Proposed Western Extension.

Figure 4F

Photo Record of Assessed Views

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE** Refer to Figure 4 Assessed Views Photo Map for view locations

Photos taken on January 20, 2020

DATE: May 2022

FILE: 9135S

DRAWN: CC





Photo 25: 5089 Cedar Springs Court. Facing Towards Proposed Western Extension.



Photo 26: Taken Between 5106 and 5116 Cedar Springs Court. Facing Towards Proposed Western Extension.



Photo 27: Taken Between 5132 and 5140 Cedar Springs Court. Facing Towards Proposed Western Extension.



Photo 28: 5165, 5164, 5158 Cedar Springs Road. Taken Between 5164 and 5158, Facing Towards Proposed Western Extension.



Photo 29: 5179, 5172, 5169 Cedar Springs Road. Taken Between 5172 and 5168, Facing Towards Proposed Western Extension.

Figure 4G

**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for  
 view locations

Photos taken on January 20, 2020

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 30: 5186, 5206, 5191 Cedar Springs Road. Taken Between 5186 and 5206, Facing Towards Proposed Western Extension.



Photo 31: 5124, 5224 Cedar Springs Road. Taken Between 5124 and 5224, Facing Towards Proposed Western Extension.



Photo 32: 5234 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 33: 5248, 5244, 5245 Cedar Springs Road. Taken Between 5248 and 5244, Facing Towards Proposed Western Extension.



Photo 34: 5258, 5254, 5255 Cedar Springs Road. Taken Between 5258 and 5254, Facing Towards Proposed Western Extension.

Figure 4H  
**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for  
 view locations

Photos taken on January 20, 2020

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 35: 5264 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 36: 5268 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 37: 5300 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 38: 5318, 5328 Cedar Springs Road. Taken Between 5318 and 5328, Facing Towards Proposed Western Extension.

Figure 41  
**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for  
 view locations

Photos taken on January 20, 2020

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 39: 5336 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 40: 5352 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 41: 5360, 5370, 5380 Cedar Springs Road. Taken Between 5360 and 5370, Facing Towards Proposed Western Extension.

Figure 4J  
Photo Record of Assessed Views

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for  
view locations  
Photos taken on January 20, 2020

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 42: 5390 Cedar Springs Road. Facing Towards Proposed Western Extension.



Photo 43: 2129, 2139 Colling Road. Facing Towards Proposed Western Extension.



Photo 44: 5374 Blind Line. Taken at the Property Frontage Facing Towards Proposed Western Extension.

Figure 4K  
**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for  
 view locations  
 Photos taken on January 20, 2020

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 45: Taken at Colling Road and Blind Line Where the 5374 Blind Line Property Fronts onto Colling Road.



Photo 46: 2519 2 Side Road. Facing Towards Proposed Southern Extension.



Photo 47: 2509, 2495 2 Side Road. Taken Between 2509 and 2495 Facing Towards Proposed Southern Extension.

Figure 4L  
**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for  
 view locations

Photos taken on January 20, 2020

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 48: 2585, 2479 2 Side Road. Taken Between 2585 and 2479 Facing Towards Proposed Southern Extension.



Photo 49: 2473 2 Side Road. Facing Towards Proposed Southern Extension.



Photo 50: Approx. 2322-2402 2 Side Road. Facing Towards Proposed Southern Extension.



Photo 51: Approx. 2316 2 Side Road. Facing Towards Proposed Southern Extension.

Figure 4M  
**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for  
 view locations

Photos 48 and 49 taken on January 20, 2020

Photos 50 - 51 taken on January 29, 2021

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 52: Approx. 2292 2 Side Road. Taken Between 2585 and 2479 Facing Towards Proposed Southern Extension.



Photo 53: Approx. 1420 2 Side Road. Facing Towards Proposed Western Extension.



Photo 54: Cedar Springs Court. Facing Towards Proposed Western Extension.



Photo 55: Cedar Springs Road & Colling Road. Approx. 5328 Cedar Springs Rd. Facing Towards Proposed Western Extension.

Figure 4N  
Photo Record of Assessed Views

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

NOTE: Refer to Figure 4 Assessed Views Photo Map for  
view locations

Photos taken on January 29, 2021

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 56: Approx. 2139-2129 Colling Road. Facing Towards Proposed Western Extension.

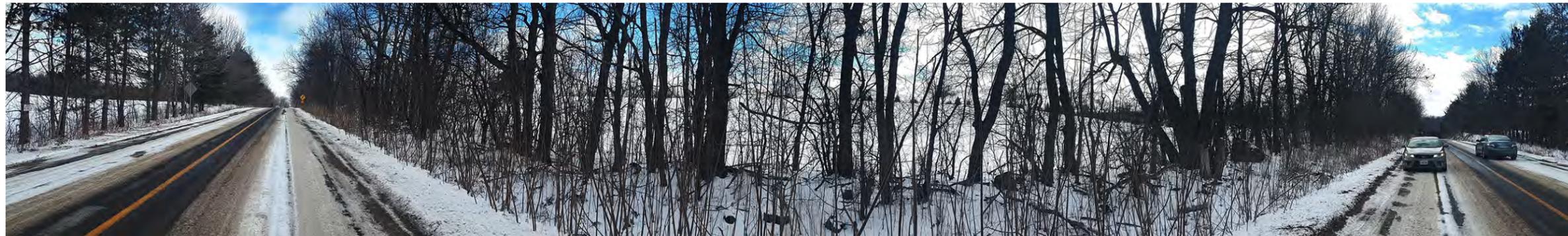


Photo 57: Approx. 2139-2129 Colling Road. Facing Towards Proposed Western Extension.



Photo 58: Approx. 2139-2129 Colling Road. Facing Towards Proposed Western Extension.



Photo 59: Bruce Trail. Approx. 5335-5347 Blind Line. Facing Towards Proposed Western Extension.

Figure 40  
**Photo Record of Assessed Views**

Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for  
 view locations

Photos taken on January 29, 2021

DATE: May 2022

FILE: 9135S

DRAWN: CC



Photo 60: Mt. Nemo Conservation Area Entrance. Facing Towards Proposed Western Extension.

Figure 4P  
**Photo Record of Assessed Views**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

**NOTE:** Refer to Figure 4 Assessed Views Photo Map for view locations.  
Photo taken on February 23, 2021

DATE: May 2022
FILE: 9135S
DRAWN: CC



**Table 1. Summary of Visual Impacts**

Viewshed/ Photo	Description of View	Notes	Potential Impact (without mitigation)	Visual Changes Related to the Operations Plan	Visual Changes Related to the Rehabilitation Plan	Recommended Mitigation (Figure 5)
<i>Figures 4A &amp; 4M: Viewsheds</i>						
<b>Photo 1</b>	Mt. Nemo Christian Nursing Home. (Towards Southern Extension)	Views of Nursing Home driveway, residential building, and roadside vegetation. Topography and vegetation creates no opportunity for views.	None	-	-	Mitigation measures not required.
<b>Photo 2</b>	2470 No. 2 Side Road (Towards Southern Extension)	Views of residences and mixed vegetation on private property. Topography and vegetation creates no opportunity for views.	None	-	-	Mitigation measures not required.
<b>Photo 3</b>	2462 No. 2 Side Road (Towards Southern Extension)	Views of residences and mixed vegetation on private property. Topography and vegetation creates no opportunity for views.	None	-	-	Mitigation measures not required.
<b>Photo 4</b>	2450 No. 2 Side Road (Towards Southern Extension)	Views of residence and mixed vegetation on private property. Views of some roadside trees. Topography and vegetation creates no opportunity for views.	None	-	-	Mitigation measures not required.
<b>Photo 5</b>	2196 No. 2 Side Road (Towards Southern Extension)	Views of roadside vegetation dominated by cedar hedges. Private residence in distant background. Potential for minimal filtered views.	Low	Distant trees removed resulting in some small gaps in vegetation. Likely no discernible views into site. Potential to see proposed visual berm.	-	Mitigation measures not required.

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<b>Photo 6</b>	2196 No. 2 Side Road (Towards Western Extension)	Views of roadside vegetation dominated by cedar hedges. Existing cedar hedge, mixed deciduous vegetation, and berms result in no views being anticipated.	None	-	-	Mitigation measures not required.
<b>Photo 7</b>	Camisle Golf Course (Towards Southern Extension)	Views of roadside and private land vegetation dominated by cedar hedges. Views of barn on private property. Potential for minimal filtered views.	Low	Distant trees removed resulting in some small gaps in vegetation. Likely no discernible views into site.	-	Mitigation measures not required.
<b>Photo 8</b>	Camisle Golf Course (Towards Western Extension)	Views of mixed vegetation on roadside and private property, and property owned by the applicant. Existing cedar hedge, mixed deciduous vegetation, and berms result in no views being anticipated.	None	-	-	Mitigation measures not required.
<b>Photo 9</b>	2136 No. 2 Side Road (Towards Southern Extension)	Views of mixed vegetation on roadside and private property. Views of private Residence. Existing coniferous trees, mixed deciduous vegetation, and topography result in no views being anticipated.	None	-	-	Mitigation measures not required.
<b>Photo 10</b>	2136 No. 2 Side Road (Towards Western Extension)	Existing coniferous trees, mixed deciduous vegetation, and topography result in no views being anticipated.	None	-	-	Mitigation measures not required.
<b>Photo 11</b>	2126 No. 2 Side Road (Towards	Views of mixed vegetation on roadside and private property.	None	-	-	Mitigation measures not required.

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	Southern Extension)	Views of private Residences. Existing coniferous trees, mixed deciduous vegetation, and topography result in no views being anticipated.				
<b>Photo 12</b>	2126 No. 2 Side Road (Towards Western Extension)	Views of mixed vegetation on roadside, private property, and property owned by the applicant. Views of private Residence. Existing coniferous trees, mixed deciduous vegetation, and topography result in no views being anticipated.	None	-	-	Mitigation measures not required.
<b>Photo 13</b>	2116 No. 2 Side Road (Towards Western Extension)	Views of mixed vegetation on roadside, private property, and property owned by the applicant. Views of private Residence. Existing coniferous trees, mixed deciduous vegetation, and flattening topography result in filtered to open views of southern tip of West Extension being anticipated.	Moderate	Proposed noise berm will now block views into site. Removal of existing vegetation.	Views of proposed trees and planted slopes.	Proposed 3.0 m noise berm will provide adequate visual screening from extraction activities. Retain existing vegetation along No. 2 Side Road where possible.
<b>Photo 14</b>	Camisle Golf Course 2102 No. 2 Side Road (Towards Western Extension)	Existing coniferous trees, mixed deciduous vegetation, and topography result in no views being anticipated.	None	-	-	Mitigation measures not required.
<b>Photo 15</b>	Camisle Golf Course 2090 No. 2 Side Road (Towards Western Extension)	Views of largely deciduous vegetation on the roadside and lands owned by the applicant. Filtered views anticipated.	Low	-	Views of existing roadside vegetation. Some filtered views of proposed trees, slopes, and open areas.	Proposed 3.0 m noise berm will provide adequate screening. Retain existing vegetation along No. 2 Side Road where possible.

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<b>Photo 16</b>	2080 No. 2 Side Road (Towards Western Extension)	Filtered views of mixed vegetation on the roadside and lands owned by the applicant. Minimal Filtered views anticipated through existing mixed deciduous vegetation.	Low	The possible filtered view of the golf course ancillary structure will be removed. Filtered golf course views will be removed.	Views of existing roadside vegetation. Some filtered views of proposed trees, slopes, and open areas.	Mitigation measures not required.
<b>Photo 17</b>	2015 No. 2 Side Road (Affecting 4455 Cedar Springs Rd. Property) (Towards Western Extension)	Views of largely deciduous vegetation and small coniferous vegetation on the roadside and lands owned by the applicant. Views of golf course ancillary structure. Filtered views anticipated.	Moderate	The view of the golf course ancillary structure will be removed. Views of golf course will be removed. Possible views into extraction area without mitigation. Clear views of proposed pond will be present.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation.	Construction of a 2.5 m visual berm. Retain existing vegetation where possible, including young coniferous plantation trees.
<b>Photo 18</b>	4455 Cedar Springs Road (Towards Western Extension)	Views of largely deciduous vegetation on the roadside and private property. Views of private residence. Possible filtered views, but not likely. Existing vegetation provides some screening. Distance to extraction activities will reduce or eliminate potential visual impact.	Low to none	The view of the golf course ancillary structure will be removed. Views of golf course will be removed. Possible views into extraction area without mitigation. Possible views of proposed pond will be present.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation.	Mitigation measures not required.
<b>Photo 19</b>	4480 – 4500 Cedar Springs Road (Towards Western Extension)	Views of largely deciduous vegetation on the roadside and private property. Views of private residences. Possible filtered views but not likely. Existing vegetation provides some screening. Distance to extraction will reduce or eliminate potential visual impact.	Low to none	The view of the golf course ancillary structure will be removed. Views of golf course will be removed. Possible views into extraction area without mitigation. Possible views of proposed pond will be present.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation.	Mitigation measures not required.

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<p><b>Photo 20</b></p> <p>4516 Cedar Springs Road (Towards Western Extension)</p>	<p>Views of largely deciduous vegetation and small coniferous vegetation on the roadside, lands owned by the applicant, and private property. Possible filtered views. Existing vegetation provides some screening. Distance to extraction activities will reduce potential visual impact.</p>	<p>Low</p>	<p>The view of the golf course ancillary structure will be removed. Views of golf course will be removed. Possible views into extraction area without mitigation. Clear views of proposed pond will be present.</p>	<p>Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation.</p>	<p>Construction of 2.5m Visual berm will prevent views into the extraction zone.</p>
<p><b>Photo 21</b></p> <p>1420 2 Side Road (Towards Western Extension)</p>	<p>Views of mixed vegetation on private property. Views of surrounding private residences. Existing vegetation provides some screening. Distance to extraction activities will reduce potential visual impact.</p>	<p>Low</p>	<p>The view of the golf course ancillary structure will be removed. Views of golf course will be removed. Possible views into extraction area without mitigation. Clear views of proposed pond will be present.</p>	<p>Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of rehabilitated excavation area which included proposed trees and slopes.</p>	<p>Construction of 2.5m Visual berm will prevent views into the extraction zone.</p>
<p><b>Photo 22</b></p> <p>5050 Cedar Springs Road (Towards Western Extension)</p>	<p>Views of largely deciduous vegetation and small coniferous vegetation on lands owned by the applicant. Views of golf course structures. Views anticipated. Vegetation is more sparse and topography relatively gentle.</p>	<p>Moderate</p>	<p>The view of the golf course ancillary structures will be removed. Views of golf course views will be removed. Views of vegetation and rolling hills of golf course will be altered. Likely will have views into extraction area without mitigation. Clear views of proposed pond will be present.</p>	<p>Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of rehabilitated excavation area which included proposed trees and slopes.</p>	<p>Construction of a 2.5 m visual berm. Retain existing vegetation where possible, including young coniferous plantation trees.</p>

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<b>Photo 23</b>	5070 Cedar Springs Road (Towards Western Extension)	Views of largely deciduous vegetation and small coniferous vegetation on lands owned by the applicant. Views of golf course structure. Views anticipated. Vegetation is more sparse and topography relatively gentle.	Moderate	The view of the golf course ancillary structure will be removed. Views of golf course will be removed. Views of vegetation and rolling hills of golf course will be altered. Likely will have views into extraction area without mitigation. Clear views of proposed pond will be present.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of rehabilitated excavation area which included proposed trees and slopes.	Construction of a 2.5 m visual berm. Retain existing vegetation where possible, including young coniferous plantation trees.
<b>Photo 24</b>	5079 Cedar Springs Court. (Towards Western Extension)	Views of mixed vegetation on private property. Views of private residence. Minimal Filtered views possible. Existing vegetation provides significant screening. Distance to extraction activities will also reduce or eliminate potential visual impact.	Low	-	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of rehabilitated excavation area which included proposed trees and slopes.	Mitigation measures not required.
<b>Photo 25</b>	5089 Cedar Springs Court. (Towards Western Extension)	Views of mixed vegetation. On private property and distance views of lands owned by the applicant. Filtered views probable. Existing vegetation provides some screening. Distance to extraction activities likely to reduce potential visual impact.	Low	Views of golf course will be removed. Distant Views of vegetation and rolling hills of golf course will be altered. Possible views of proposed pond.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of rehabilitated excavation area which included proposed trees and slopes.	Construction of a 2.5 m visual berm. Retain existing vegetation where possible, including young coniferous plantation trees.
<b>Photo 26</b>	5116 & 5106 Cedar Springs Court (Towards Western Extension)	Views of mixed vegetation. On private property and distance views of lands owned by the applicant. Filtered views of private residence. Photo taken between property driveways. Filtered views probable. Existing vegetation provides some screening. Distance	Low	Views of golf course will be removed. Distant Views of vegetation and rolling hills of golf course will be altered. Possible views of proposed pond.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of rehabilitated excavation area which included proposed trees and slopes.	Construction of a 2.5 m visual berm. Retain existing vegetation where possible, including young coniferous plantation trees.

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to extraction activities likely to reduce potential visual impact.

<p><b>Photo 27</b></p> <p>5132 &amp; 5140 Cedar Springs Court (Towards Western Extension)</p>	<p>Views of cedar hedge on private property. Photo taken between property driveways. Dense existing hedge in front of properties. 5140 Property is on a higher elevation. Views from second storey are unlikely.</p>	<p>None</p>	<p>Views of golf course will be removed. Views of vegetation and rolling hills of golf course will be altered. Clear views of proposed pond will be present.</p>	<p>Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of rehabilitated excavation area which included proposed trees and slopes.</p>	<p>Mitigation measures not required.</p>
<p><b>Photo 28</b></p> <p>5165, 5164, 5158 Cedar Springs Road (Towards Western Extension)</p>	<p>Views of mixed vegetation on lands owned by the applicant and private property. Photo taken between 5164 &amp; 5158. 5165 backs onto West Extension. Partial filtered views expected through existing vegetation</p>	<p>Moderate</p>	<p>Views of golf course will be removed. Views of vegetation and rolling hills of golf course will be altered. Will have views into extraction area without mitigation. Clear views of proposed pond will be present.</p>	<p>Views into the rehabilitated area largely screened by existing buildings, vegetation, and distance. Some views of existing vegetation and grassland within subject lands expected.</p>	<p>Proposed 3.0 m noise berm will provide adequate screening.</p>
<p><b>Photo 29</b></p> <p>5172, 5168, 5179 Cedar Springs Road (Towards Western Extension)</p>	<p>Views of mixed vegetation on lands owned by the applicant and private property. Views of private residence. Filtered views of golf course. Photo taken between 5172 &amp; 5168. 5179 backs onto West Extension. Views are anticipated given sparser vegetation and flat topography.</p>	<p>High</p>	<p>Views of golf course will be removed. Views of vegetation and rolling hills of golf course will be altered. Will have views into extraction area without mitigation. Clear views of proposed pond will be present.</p>	<p>Views into the rehabilitated area largely screened by existing buildings, vegetation, and distance. Some views of existing vegetation and grassland within subject lands expected.</p>	<p>Proposed 3.0 m noise berm will provide adequate screening.</p>
<p><b>Photo 30</b></p> <p>5186, 5206, 5191 Cedar Springs Road (Towards Western Extension)</p>	<p>Sparse views of mixed vegetation on lands owned by the applicant and private property. Views of private residence. Filtered views of golf course. Photo taken between 5186 &amp; 5206. 5191 backs onto West Extension. Views are anticipated given lack of vegetation and flat topography.</p>	<p>High</p>	<p>Views of golf course will be removed. Views of vegetation and rolling hills of golf course will be altered. Will have views into extraction area without mitigation. Clear views of proposed pond will be present.</p>	<p>Views into the rehabilitated area largely screened by existing buildings, vegetation, and distance. Some views of existing vegetation and grassland within subject lands expected.</p>	<p>Proposed 3.0 m noise berm will provide adequate screening.</p>

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<b>Photo 31</b>	5214 & 5224 Cedar Springs Road (Towards Western Extension)	Sparse views of mixed vegetation on lands owned by the applicant and private property. Photo taken between 5224 & 5214. 5214 is a little more set back, existing vegetation helps screen views. Views are anticipated given lack of vegetation and flat topography.	High	Views of golf course will be removed. Views of vegetation and rolling hills of golf course will be altered. Will have views into extraction area without mitigation. Clear views of proposed pond will be present.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of proposed water feature and islands surrounded by 2:1 planted slopes.	Proposed 3.0 m noise berm will provide adequate screening.
<b>Photo 32</b>	5234 Cedar Springs Road (Towards Western Extension)	Sparse views of mixed vegetation on lands owned by the applicant and private property. Clear views of golf course. Views are anticipated given lack of vegetation and flat topography.	High	Views of golf course will be removed. Views of vegetation and rolling hills of golf course will be altered. Will have views into extraction area without mitigation. Clear views of proposed pond will be present.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of proposed water feature and islands surrounded by 2:1 planted slopes.	Proposed 3.0 m noise berm will provide adequate screening.
<b>Photo 33</b>	5248, 5244, 5245 Cedar Springs Road (Towards Western Extension)	Views of mixed vegetation on private property and lands owned by the applicant. Views of private residence. Photo taken between 5248 & 5244. 5245 backs onto West Extension. Views are anticipated given lack of vegetation and flat topography.	Moderate	Views of golf course will be removed. Views of vegetation in distant background may be altered. May have views into extraction area without mitigation. Unlikely views of proposed pond will be present.	Views of existing vegetation that has been maintained. Distant views of proposed water feature and islands surrounded by 2:1 planted slopes.	Proposed 3.0 m noise berm will provide adequate screening.
<b>Photo 34</b>	5258, 5254, 5255 Cedar Springs Road (Towards Western Extension)	Views of mixed vegetation on private property and along the roadside. Views of existing berm. Photo taken between 5258 & 5254. 5255 backs onto Western Extension. Existing Berm provides partial screening. Berm does not affect 5255. Filtered views anticipated for 5255 property.	Low	Views of vegetation in distant background may be altered. May have views into extraction area without mitigation. Unlikely views of proposed pond will be present.	Views of existing vegetation that has been maintained. Distant views of proposed water feature and islands surrounded by 2:1 planted slopes.	Proposed 3.0 m noise berm will provide adequate screening.

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<b>Photo 35</b>	5264 Cedar Springs Road (Towards Western Extension)	Views of deciduous vegetation along existing berm. Existing topography provides significant/full screening.	None	-	-	Mitigation measures not required.
<b>Photo 36</b>	5268 Cedar Springs Road (Towards Western Extension)	Views of deciduous vegetation along existing berm. Existing topography provides significant/full screening. House at significantly lower grade than the road.	None	-	-	Mitigation measures not required.
<b>Photo 37</b>	5300 Cedar Springs Road (Towards Western Extension)	Views of deciduous vegetation along existing berm. Some coniferous vegetation visible extending above berm. Existing topography provides significant/full screening. House at significantly lower grade than the road.	None	-	-	Mitigation measures not required.
<b>Photo 38</b>	5318 & 5328 Cedar Springs Road (Towards Western Extension)	Views of mixed vegetation along existing berm. Berm begins to taper down towards intersection revealing raised topography behind. Photo taken between 5318 & 5328. Existing berm provides significant/full screening. 5318 at significantly lower grade than other side of the road. 5328 is set back from the road by several hundred metres.	None	-	-	Mitigation measures not required.
<b>Photo 39</b>	5336 Cedar Springs Road (Towards Western Extension)	Views of mixed vegetation on private property. Some distant vegetation along the raised topography at the corner of the intersection is visible. Existing topography and vegetation	None	-	-	Mitigation measures not required.

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		provides full screening of potential views.				
<b>Photo 40</b>	5352 Cedar Springs Road (Towards Western Extension)	Views of mixed vegetation on private property and roadside. Existing topography and vegetation provides full screening of potential views.	None	-	-	Mitigation measures not required.
<b>Photo 41</b>	5360, 5370, 5380 Cedar Springs Road (Towards Western Extension)	Views of mixed vegetation on private property and roadside. Photo taken between 5360 & 5370.	None	-	-	Mitigation measures not required.
<b>Photo 42</b>	5390 Cedar Springs Road (Towards Western Extension)	Views of mixed vegetation on private property and roadside. Existing topography and vegetation provides full screening of potential views. 5390 at significantly lower grade than other side of the road.	None	-	-	Mitigation measures not required.
<b>Photo 43</b>	2129 & 2139 Colling Road (Towards Western Extension)	Relatively open views of the golf course. Rolling hills with some mixed vegetation. Photo taken between 2129 & 2139. Clear views anticipated. Extraction activities occurring close to public right of way.	High	Views of golf course will be removed. Almost all vegetation and golf course landscape will be removed. Long linear views of quarry will be present without mitigation.	Views of roadside wetland and planted grassland. Clear views of water feature and proposed islands.	Proposed 3.5 m noise berm will provide adequate screening.
<b>Photo 44</b>	5374 Blind Line (Property Frontage) (Towards Western Extension)	Largely coniferous trees on private property. Existing topography, distance, and vegetation provides full screening of potential views.	None	-	-	Mitigation measures not required.
<b>Photo 45</b>	5374 Blind Line (Colling Road Frontage) (Towards	Views of deciduous trees along roadside adjacent to lands owned by the applicant and private property. Existing topography,	None	-	-	Mitigation measures not required.

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	Western Extension)	distance, and vegetation provides full screening of potential views.				
<b>Photo 46</b>	2519 2 Side Road. (Towards Southern Extension)	Topography and vegetation creates minimal opportunity for views.	None	-	-	Mitigation measures not required.
<b>Photo 47</b>	2509 & 2495 2 Side Road (Towards Southern Extension)	Photo taken between 2509 & 2495. Topography and vegetation creates minimal opportunity for views.	None	-	-	Mitigation measures not required.
<b>Photo 48</b>	2585 & 2479 2 Side Road (Towards Southern Extension)	Photo taken between 2585 & 2479. Topography and vegetation creates minimal opportunity for views.	None	-	-	Mitigation measures not required.
<b>Photo 49</b>	2473 2 Side Road (Towards Southern Extension)	Topography and vegetation creates minimal opportunity for views.	None	-	-	Mitigation measures not required.
<b>Photo 50</b>	Approx. 2322-2402 2 Side Road (Towards Southern Extension)	Open landscape character and views of agricultural fields. Views of surrounding mixed vegetation. Taken at the north east corner of the future Southern Extension.	High	Open views of agricultural lands to be removed. Removal of existing rural residential buildings owned by the applicant. Clear views of extraction activity will be present.	Views of proposed grassland and beaches. Views of proposed water getting progressively deeper. Further from the road.	Proposed 2.5m visual berm will prevent views into extraction area.
<b>Photo 51</b>	Approx. 2316 2 Side Road (Towards Southern Extension)	Views of largely coniferous vegetation along road side and lands owned by applicant.	Low	Existing vegetation provides significant screening to the subject lands. This vegetation is outside the extraction zone and is expected to be retained. Likely views into site if vegetation were to decline.	Views of proposed grassland and beaches. Views of proposed water getting progressively deeper. Further from the road.	Proposed 2.5m visual berm will prevent views into extraction area. Where possible, retain existing vegetation.

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<b>Photo 52</b>	Approx. 2292 2 Side Road (Towards Southern Extension)	Views of mixed vegetation along road side and lands owned by applicant. Views of barn and rural residential structure present.	Low	Existing vegetation provides significant screening to the subject lands. This vegetation is outside the extraction zone and is expected to be retained. Likely views into site if vegetation were to decline.	Views of proposed grassland and beaches. Views of proposed water getting progressively deeper. Further from the road.	Proposed 5.0m noise berm will prevent views into extraction area. Where possible, retain existing vegetation.
<b>Photo 53</b>	Approx. 1420 2 Side Road (Towards Western Extension)	Views of mixed vegetation on private property. Views of surrounding private residences. Existing vegetation provides some screening. Distance to extraction activities will reduce potential visual impact.	Low	The view of the golf course ancillary structure will be removed. Views of golf course will be removed. Possible views into extraction area without mitigation. Clear views of proposed pond will be present.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of rehabilitated excavation area which included proposed trees and slopes.	Construction of 2.5m Visual berm will prevent views into the extraction zone.
<b>Photo 54</b>	Cedar Springs Court (Towards Western Extension)	Views of mixed vegetation. On private property and distance views of lands owned by the applicant. Filtered views probable. Existing vegetation provides some screening. Distance to extraction activities likely to reduce potential visual impact.	Low	Views of golf course will be removed. Distant Views of vegetation and rolling hills of golf course will be altered. Possible views of proposed pond.	Views of existing vegetation that has been maintained. Possible views of infiltration pond, likely screened by pond berming and vegetation. Distant views of rehabilitated excavation area which included proposed trees and slopes.	Construction of a 2.5 m visual berm. Retain existing vegetation where possible, including young coniferous plantation trees.
<b>Photo 55</b>	Approx. 5328 Cedar Springs Road (Towards Western Extension)	Views of mixed vegetation on private property. Some distant vegetation along the raised topography at the corner of the intersection is visible. Existing topography and vegetation provides full screening of potential views.	None	-	-	Mitigation measures not required.
<b>Photo 56</b>	Approx. 2139-2129 Colling Road (Towards Western Extension)	Relatively screened views from existing berm and deciduous vegetation. Photo taken along Colling Road. Clear views anticipated. Extraction activities	Low	Screened views of golf course will be removed. Distant vegetation that extends higher than the berm will be	Clear views of water feature and proposed islands.	Proposed 3.0 m noise berm will provide adequate screening.

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**Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2, City of Burlington**

		occurring close to public right of way.		removed. Views into the extraction area very unlikely.			
<b>Photo 57</b>	Approx. 2139-2129 Colling Road (Towards Western Extension)	Topography and vegetation creates minimal opportunity for views.	High	Views of golf course will be removed. Almost all vegetation and golf course landscape will be removed. Long linear views of quarry will be present without mitigation.		Clear views of water feature and proposed islands.	Proposed 3.0 m noise berm will provide adequate screening.
<b>Photo 58</b>	Approx. 2139-2129 Colling Road (Towards Western Extension)	Topography and vegetation creates minimal opportunity for views.	High	Views of golf course will be removed. Almost all vegetation and golf course landscape will be removed. Long linear views of quarry will be present without mitigation.		Views of roadside wetland and planted grassland. Clear views of water feature and proposed islands.	Proposed 3.5 m noise berm will provide adequate screening.
<b>Photo 59</b>	Approx. 5335-5347 Blind Line – Bruce Trail (Towards Western Extension)	Topography, vegetation, and distance creates no opportunity for views.	None	-		-	Mitigation measures not required.
<b>Photo 60</b>	Entrance to Mt. Nemo Conservation Area. (Towards West Extension)	Topography, vegetation, and distance creates no opportunity for views.	None	-		-	Mitigation measures not required.

Cross-sections are included in **Figures 6A to 6K**, which illustrate the views relative to the subject lands. The sections illustrate that the location, topography and existing conditions around the majority of the subject lands are conducive to effectively screened quarry operations. There are some areas, however, where sparse vegetation and relatively flat topography create the opportunity for views into the site and visual mitigation is proposed in these areas (**See Figure 5, Mitigation Plan**). Mitigation strategies outlined in the table above are also shown on the post-mitigation sections, which show how the proposed strategies provide an effective screening from quarry operations.

## 7.7 Niagara Escarpment Plan Policy Analysis

The following section provides an analysis of how the proposed quarry and associated mitigation measures conform to the policies of the Niagara Escarpment Plan outlined in Section 2.0 of this report.

### Niagara Escarpment Plan Purpose and Objectives

As noted in Section 4 of this report, the Western Extension lands are currently functioning as a golf course while the Southern Extension lands are existing agricultural fields. The Southern Extension lands, while agriculturally productive, are characterized by mono-cropping and therefore not considered to be of high ecological value. Given the high inputs associated with maintaining and operating a golf course, the existing condition of the Western Extension lands are also considered not ecologically unique or valuable. In addition, it is noted that there are no natural water courses in the subject lands, and the man-made pond on the Western Extension lands is to be re-instated to retain its hydrological functions.

As described in the Cultural Heritage Assessment prepared by MHBC Planning, “the built heritage resources located on the subject lands will be conserved through the proposed operations, and the subject lands were found to not contain a cultural heritage landscape. Therefore there are no direct or indirect impacts as a result of the operation. It is also concluded that the proposed quarry development will have no negative impacts on adjacent cultural heritage resources. Given the low potential for impact as a result of the proposed development, mitigation, implementation and monitoring recommendations have not been provided.”

During quarry operations, the open landscape character of the area will be retained by screening views into the quarry that would otherwise interrupt visually pleasing vistas or deviate from the general appearance of the area.

After quarry operations cease, these lands are proposed to be conveyed to a public authority for the implementation of the Rehabilitation Plan. The plan will enhance the open landscape

character of the area by creating naturalized landscapes and habitats that did not previously exist on the subject lands. Consequently, the objective of protecting unique ecological and historical areas is met through this proposal.

Through the implementation of the rehabilitation plan, new opportunities for outdoor recreation will be created. These lands are proposed to be conveyed to a public authority which will open up previously inaccessible private lands as naturalized spaces for leisure, thus allowing residents to have better connections and usage of the area. The proposed quarry extensions are permitted uses for these lands under the NEP and as described above conform to the purposes and objectives prescribed in Section 2 of this report.

### **Land Use Objectives for Escarpment Rural Areas**

The lands for the proposed quarry extensions are currently designated as Escarpment Rural Areas. As per Section 1.5.1.7, an objective of this type of designation is to provide for consideration of new Mineral Resource Extraction Areas by amendments to the Plan. As such, Nelson Aggregates is currently seeking to fulfill this objective in accordance with the Niagara Escarpment Plan.

However, it is acknowledged that the areas surrounding the proposed extensions will continue to be Escarpment Rural Areas. Consequently, this requires mitigation measures to be provided surrounding the quarry extension in order to minimize any visual impact on these surrounding rural areas.

These proposed mitigation measures will ensure that the open landscape character of the area is maintained during quarry operations by screening potential views into the quarry. For the Western Extension, while the existing golf course could be considered a “scenic resource”, it is not one that generally contributes to the overall open landscape character of the area. The loss of agricultural lands is acknowledged for the Southern Extension, but the views of these lands from the public right of way are currently limited and will be further screened during quarry operations.

Furthermore, it is important to note that the proposed rehabilitation plan will provide an overall improvement to the open landscape character of the area post quarry operations and will create new scenic resources to be enjoyed.

The general appearance of a place or landscape, or the features of a landscape, taking into consideration the visual condition and scenic quality, which vary by location and are dependent on features such as geology, vegetation, landforms, and human developments. The heritage attributes of protected heritage properties may also include or be, in themselves, scenic resources.

## Land Use Objectives for Mineral Extraction Areas

As this proposed licensed quarry will produce more than 20,000 tonnes annually, it may qualify for designation as a Mineral Resource Extraction Area. The proposal is in compliance with these amendments stipulated for Mineral Resource Extraction areas for multiple reasons. Firstly, a comprehensive Operations Plan (**Figure 8**) has been provided for minimizing the impact of extraction operation by conducting it in a logical set of stages. A Mitigation Plan (**Figure 5**) has been provided to show where mitigation measures such as visual berms and vegetation will be located to minimize the visual impacts of the proposed Quarry to protect the surrounding visual landscape character of the area. This achieves the objective of minimizing the impact mineral aggregate operations on the Escarpment by screening views of quarry operations. The proposed vegetation along berms will maintain open landscape character during quarry operations through acting as a natural edge to the public right of way.

Furthermore, a Rehabilitation Plan (**Figure 7**) has been proposed to show how the lands will be transformed after extraction activities cease. This proposal containing hectares of different ecosystems, open areas, and naturalized area will have a greater ecological value than the current golf course and rural residential/ monoculture agricultural activities found in the Western and Southern Extensions respectively. Nelson has proposed to convey these lands for public use, which would make these lands one of the largest open space areas in the Region with access via the Bruce Trail.

## Development Criteria for Mineral Aggregate Resources

The proposal shall meet the development criteria set out in Section 2.9 of the Niagara Escarpment Plan through prevention, mitigation, and rehabilitation. Firstly, the Operations Plan (**Figure 8**) lays out where and when extraction activities will occur. By phasing the project, the overall impact is spread out and focused on smaller areas through the quarry life cycle. In addition, extraction setbacks provide opportunity to implement visual mitigation measures and separate people from the negative impacts of extraction activities.

Mitigation measures will ensure that where extraction may be visible, appropriate measures are taken to minimize their overall impact on potential viewers. As shown in the Mitigation Plan (**Figure 5**) several visual berms are proposed around the periphery of each proposed extension. In addition, several noise berms will also function as visual berms in preventing views into the site. How these proposed berms will be planted is outlined in Section 9.0 of this report. In addition, where possible existing vegetation will be retained in order to preserve the natural character of the area and maintain present visual screening. Through implementing these measures, the existing scenic resources of the area will be maintained as the quarry will not be visible to provide a visual interruption to the larger open landscape. The vegetated berms will

provide a natural edge to the public right of way to help frame existing vistas so that the viewer can focus on the surrounding open landscape character of the escarpment.

Rehabilitation will be the last stage in ensuring that the development criteria for this proposal is fulfilled. Upon completion of extraction activities, a Rehabilitation Plan outlined in **Figure 7** shall be implemented. This will include the removal of visual berms and the creation of multiple ecologies that will not only be functioning ecosystems, and open areas. Compared to the current Low – Average visual ranking of the proposed extensions, the post-rehabilitation areas will have abundant vegetation and varying topographies and uses that will contribute to an enhanced visual landscape.

Through the implementation of the proposed rehabilitation plan, several proposed hydrological features will enhance the overall hydrological profile of the area post quarry operations.

For example, the introduction of several wetland areas will not only introduce habitat base for a strong ecosystem, but will allow for natural processes of water purification to take place. Furthermore, the removal of golf course operations can be seen as a hydrological benefit given the high herbicide and fertilizer use associated with their upkeep. Polluted run-off from the golf course will no longer be entering surrounding water systems, helping reduce overall environmental impacts. From a visual perspective, creating a healthy, functioning ecosystem is desirable as it enforces the natural characteristics of the areas open landscape character.

As it is not expected for the quarry to be visible from accessory uses such as parks, recreational networks, or optimum routes of the Bruce Trail, there is no considered impact on these resources.

## **Scenic Resources and Landform Conservation**

The overall objective of Section 2.13 of the Niagara Escarpment Plan is “to ensure that development preserves the natural scenery and maintains Escarpment Related Landforms and the open landscape character of the Escarpment.”

In keeping with the requirements of Section 2.13 of the Niagara Escarpment Plan, this Visual Impact Assessment has been prepared to establish baseline conditions, identify proposed physical changes, assess the impact of proposed changes on scenic resources, and propose mitigation measures to minimize visual impacts.

Although there are no proposed structures that will affect the skyline as part of this proposal, significant changes to the existing topography will occur as a result of excavation. Setbacks from extraction activities have been established to maximize the separation between possible viewers and extraction activities. Where possible, existing vegetation will be retained to

maintain existing screening and visual landscape character during quarry operations. The proposal will not affect any existing escarpment landforms. While there will be changes to the open landscape character of the subject lands, this will be minimized by through proposed screening measures such as visual berms, then eventually be enhanced through the proposed Rehabilitation Plan after quarry operations have ceased.

Based on our assessment, we believe that this proposal is in conformity with the general objective of Section 2.13. The existing golf course that is to be removed via the expansion of the existing quarry into the Western Extension is not a considered a major change to the defining traits of the open landscape character of the area. As the golf course itself differs from the defining “rural” or “natural” characteristics of open landscape character, its replacement is not seen as a major impact. Furthermore, the proposed screening that is to be implement will shield prospective views into the quarry and will keep the viewers sightlines focused on the surrounding landscape.

For the Southern Extension, while it is acknowledged there will be a loss of existing agricultural operations, the opportunities for views into this area are already limited by a relatively small street frontage presence. As a result, the proposed screening along 2 Side Road will prevent passersby from viewing quarry operations and screening view from the public right of way.

## 7.8 Niagara Escarpment Commission Landscape Evaluation Study Analysis

The NEC Landscape Evaluation Study (LES) ranked the scenic Visual Impact Assessment quality of landscape units across the Niagara Escarpment Planning Area from Outstanding to Very Low based on scoring landform, vegetative cover, land use, special features, and views. **Figure 3** shows the landscape evaluation of the subject lands and surrounding area. It is noted that the entirety of the Southern and Western Extensions are rated ‘Low’ with exception to the western corner of the Western Extension, which is rated as ‘Average’. Furthermore, the existing Nelson Quarry is currently rated as ‘Low’.

Given the current rating of the existing quarry, despite the changes to the landscape being proposed, it is not expected that the value rating for these lands will change. The area currently categorized as ‘Average’ is largely characterized by an existing vegetated berm with mostly mature deciduous trees and understory. This can be seen in receptor photos 35 – 39 (**Figures 4I – 4J**). Based on the proposed extraction area, is expected that the vast majority of land classified as ‘Average’ will be outside the extraction area and therefore retain its value. Furthermore, the proposed visual berms (**See Figure 5**) along the periphery of the extraction area will shield any possible site lines from the ‘Average’ lands into the quarry.

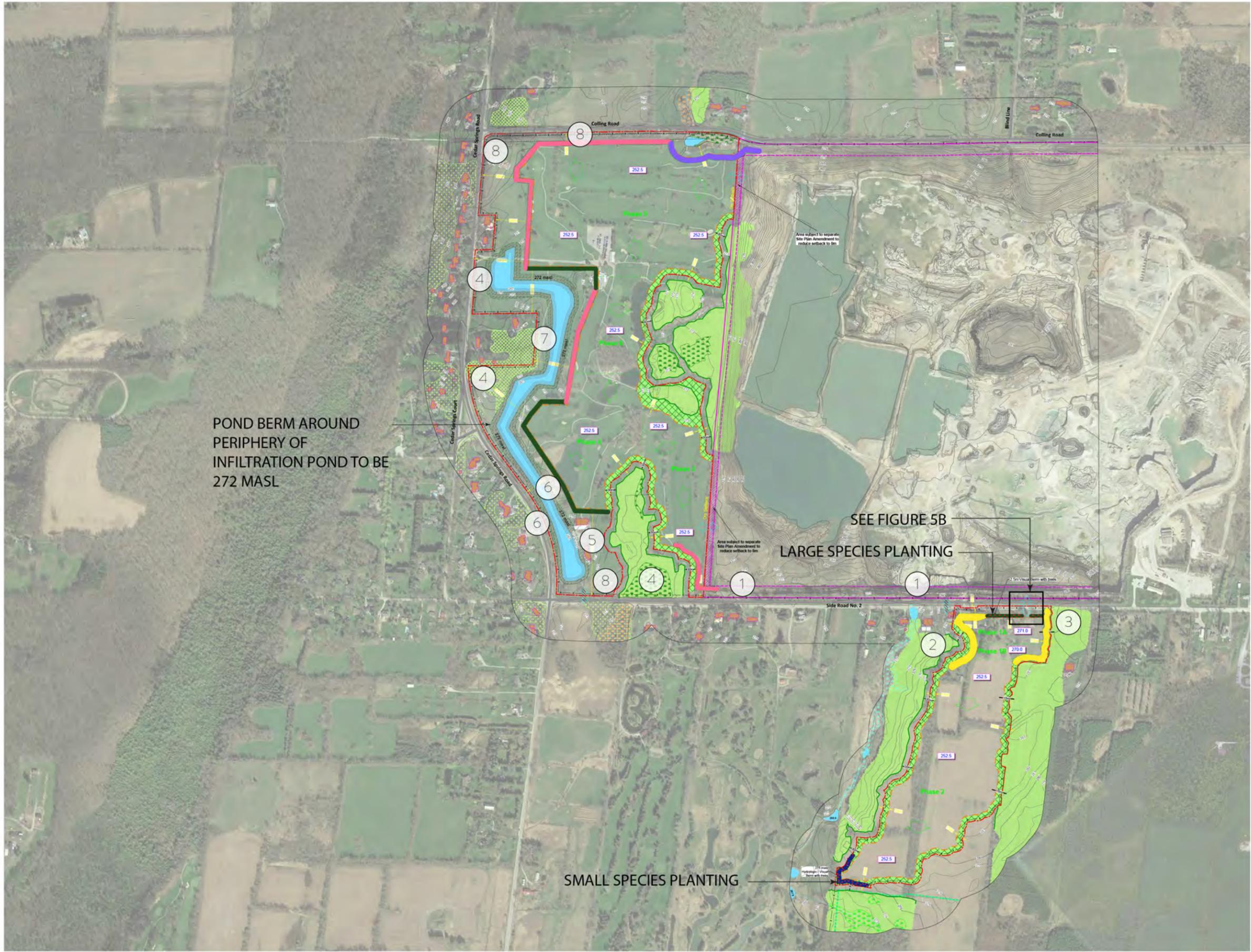


Figure 5  
**Mitigation Plan**  
 Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region

- Subject Lands
- Extraction Limit
- Additional Lands Owned by Applicant
- Visual Berm 2.0 m
- Visual Berm 2.5 m
- Noise Berm 3 m
- Noise Berm 3.5 m
- Noise Berm 5-6 m
- ▨ Berm Planting (Large Species Cells A1-A4 per Section Planting Detail)
- ▨ Berm Planting (Small Species Cells B1-B3 per Section Planting Detail)
- ▨ Significant Woodland
- ▨ Woodland
- ▨ Forested Setback - During Operation
- ▨ Wetland

- 1 Existing large trees along 2 Side Rd. to be retained if possible.
- 2 Existing dense coniferous wooded area to remain.
- 3 Existing coniferous plantation to remain.
- 4 Deciduous tree area to remain.
- 5 Coniferous tree plantation, retain as much as possible.
- 6 Retain existing vegetation along Cedar Springs and small plantation trees as much as possible.
- 7 Retain existing trees behind residences.
- 8 Retain existing vegetation.

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**Tree Species Observation Notes - See Vegetation Area for Location**

- A. Honey Locust, Weeping Willow, Colorado Spruce
- B. White Spruce
- C. White Cedar, Black Walnut, Sugar Maple
- D. Maple Species
- E. Spruce Species, Poplar Species, Pine Species, Sugar Maple
- F. Sugar Maple, Manitoba Maple, Maple Species, Poplar Species, Black Cherry

**General**

1. Tree Protection Fencing shall remain 3.0 metres from the toe of a berm
2. Setbacks and lengths are approximate and will be determined in the field
3. Tree Protection Fencing shall be placed on the outer edge of the sight line triangle within the Existing and South Extension licence boundary.

Figure 5A  
Existing Vegetation Summary

Project Sideways - Quarry Expansion  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

- Proposed Licence Boundary
- Proposed Limit of Extraction
- Existing Licence Boundary
- Existing Limit of Extraction
- Sight Line Triangle - No Vegetation or Berms
- Proposed Berm - Visual
- Proposed Berm - Acoustic
- Proposed Berm - Hydrologic
- Vegetation Area
- Proposed Crossing
- Tree Protection Fencing

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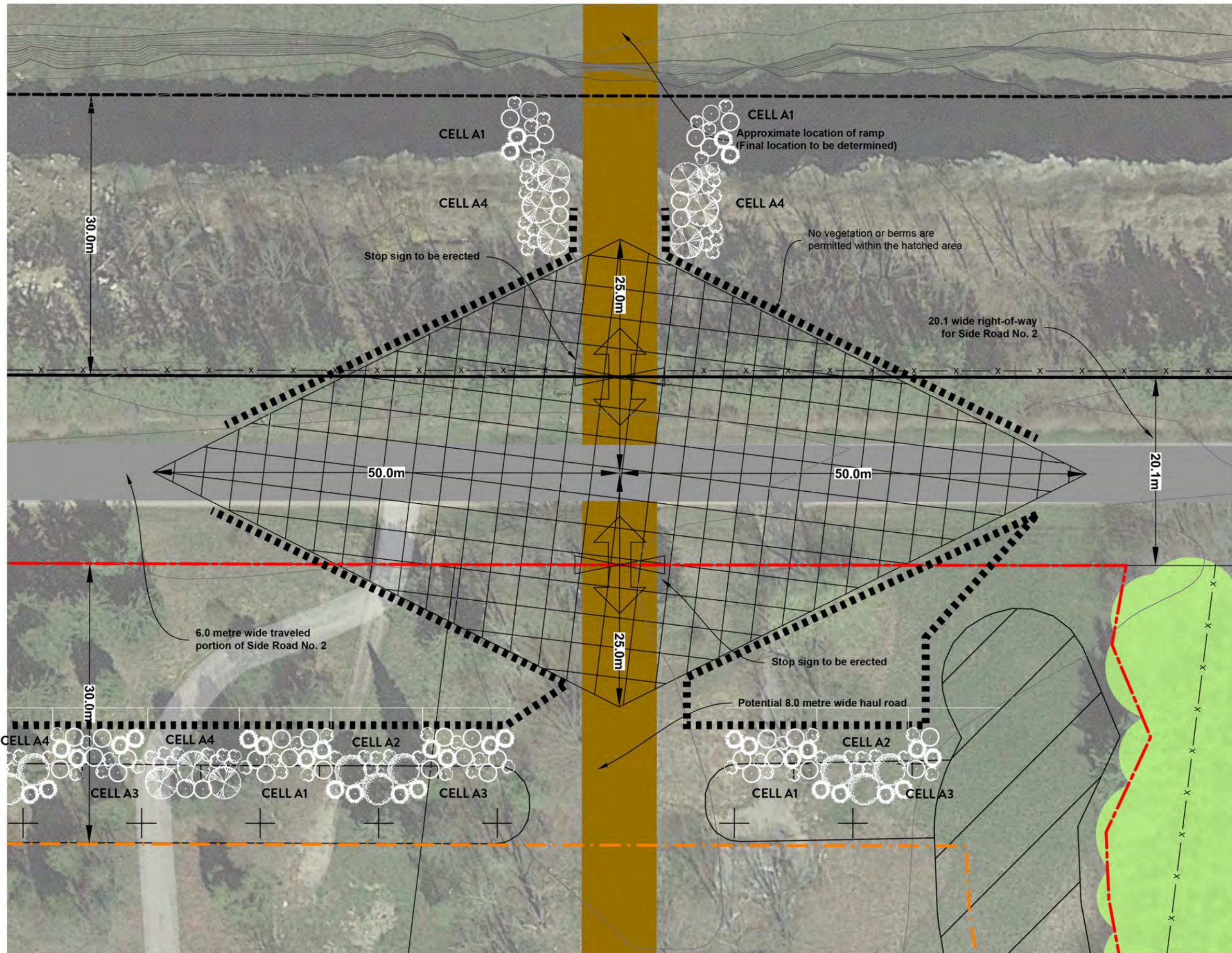
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Figure 5B

### Mitigation Plan - 2 Side Road Crossing

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region



-  Proposed Licence Boundary
-  Proposed Limit of Extraction
-  Existing Licence Boundary
-  Existing Limit of Extraction
-  Sight Line Triangle - No Vegetation or Berms
-  Proposed Berm - Acoustic
-  Proposed Berm - Visual
-  Proposed Entrance
-  Proposed Gate
-  Tree Protection Fencing
-  Proposed Planting  
Refer to recommendations made in Section 9 of the VIA report and on the Section 9 Planting Detail

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SCALE: 1:10,000  
FILE: 91355



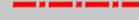
Figure 6 A - C

### Cross Sections A - C

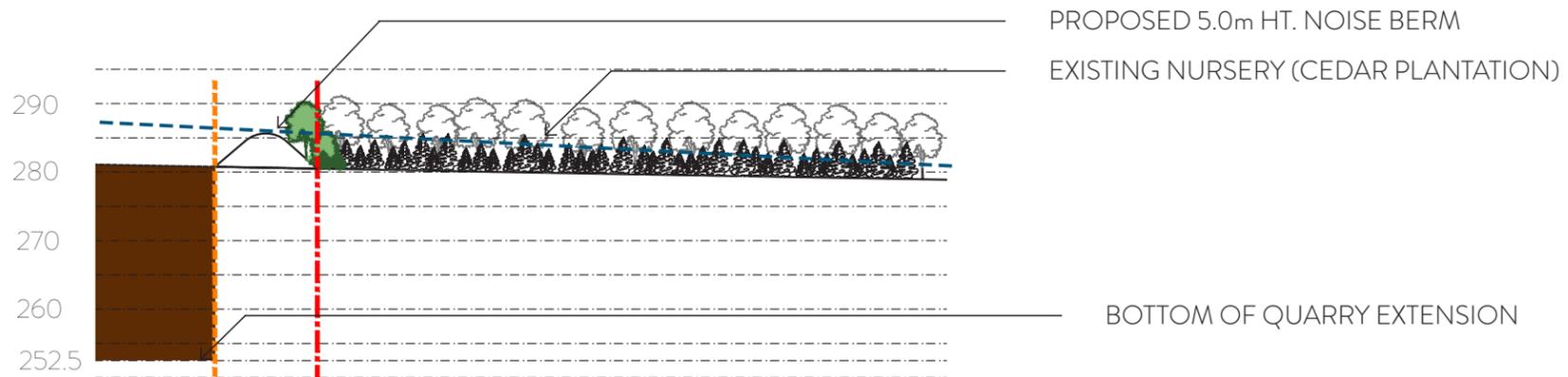
Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region



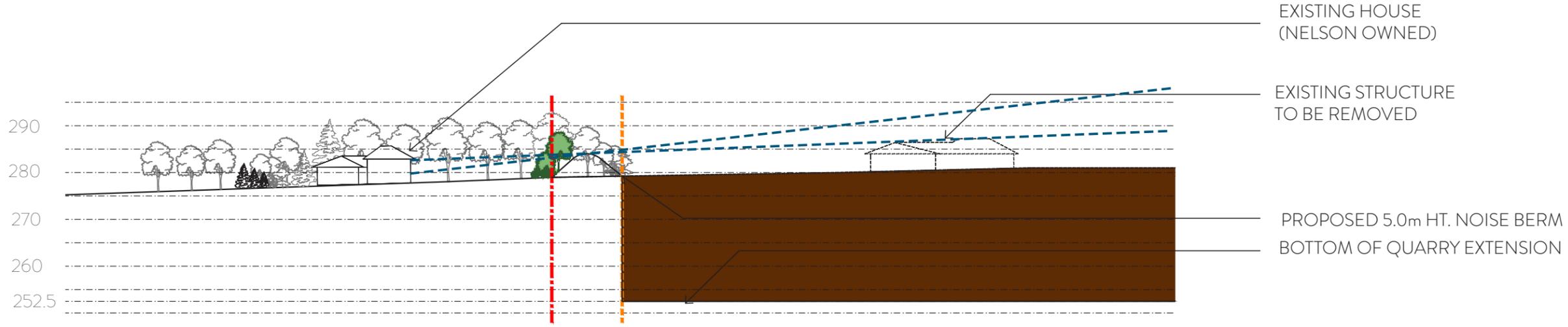
**Legend**

-  Limit of Extraction
-  Licence Boundary
-  Existing Vegetation
-  Line of Sight
-  Area to be Excavated
-  Proposed Vegetation
-  Existing Grade to be Altered

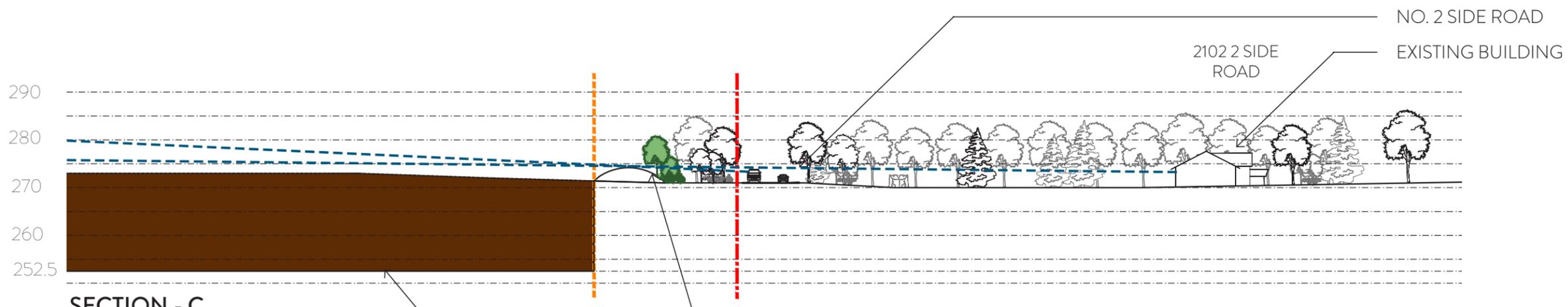
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FILE:	9135S
DRAWN:	CC



**SECTION - A**  
SOUTHWEST - NORTHEAST



**SECTION - B**  
SOUTHWEST - NORTHEAST



**SECTION - C**  
NORTHWEST - SOUTHEAST

PROPOSED 3.0m HT. NOISE BERM  
BOTTOM OF QUARRY EXTENSION

Figure 6 D-G

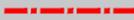
### Cross Sections D - G

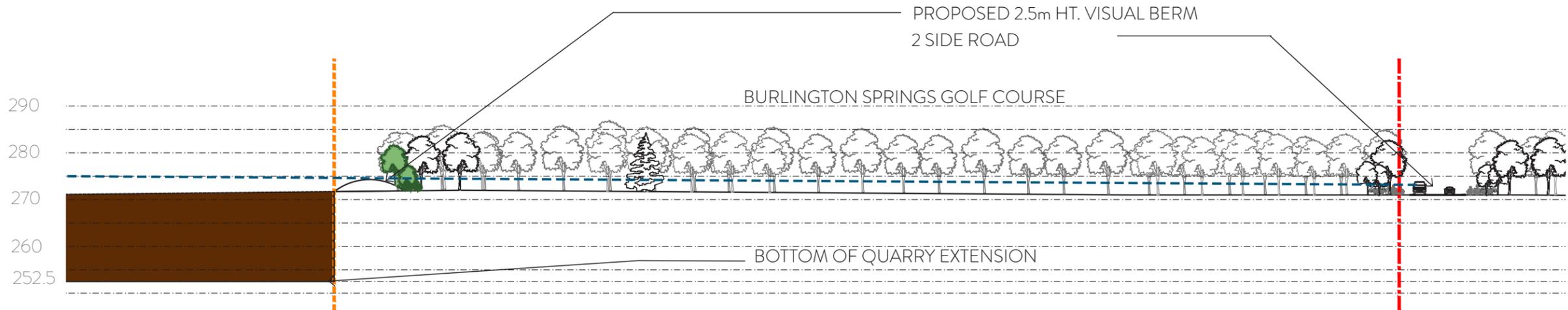
Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

#### KEY PLAN

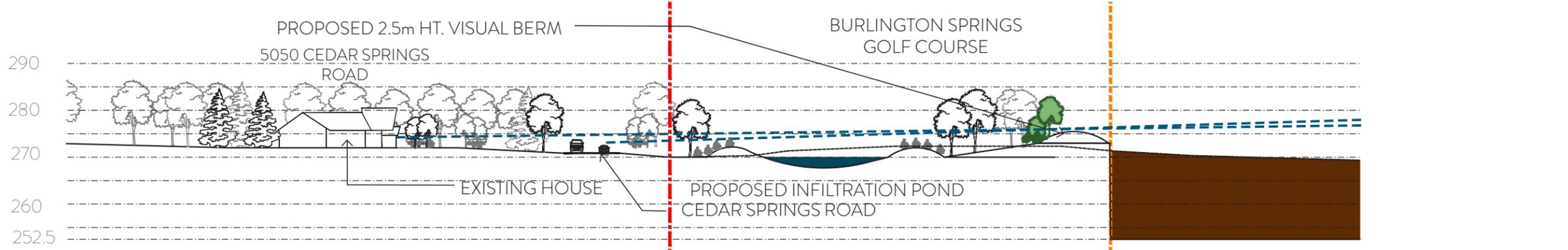


#### Legend

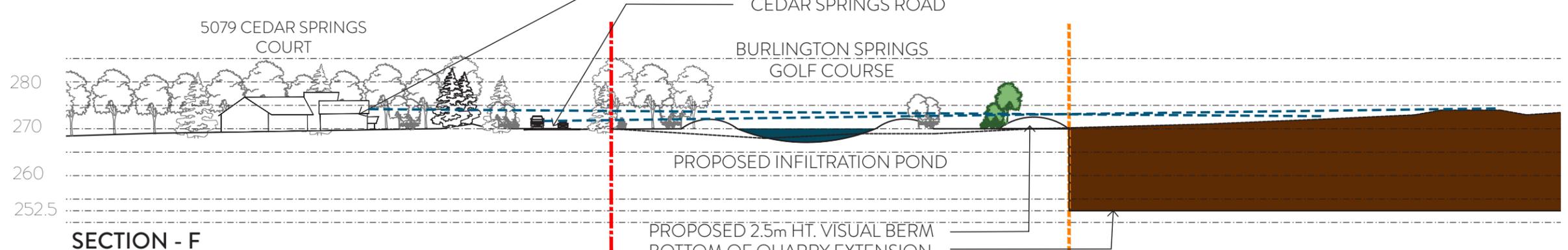
-  Limit of Extraction
-  Licence Boundary
-  Existing Vegetation
-  Line of Sight
-  Area to be Excavated
-  Proposed Vegetation
-  Existing Grade to be Altered



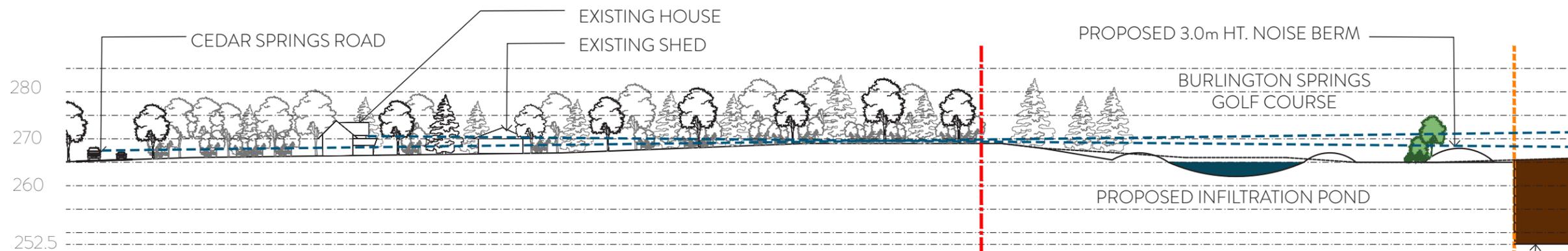
**SECTION - D**  
NORTHWEST - SOUTHEAST



**SECTION - E**  
SOUTH - NORTH



**SECTION - F**  
SOUTH - NORTH



**SECTION - G**  
SOUTHWEST - NORTHEAST

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FILE: 9135S

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Figure 6 H-K

**Cross Sections H - K**

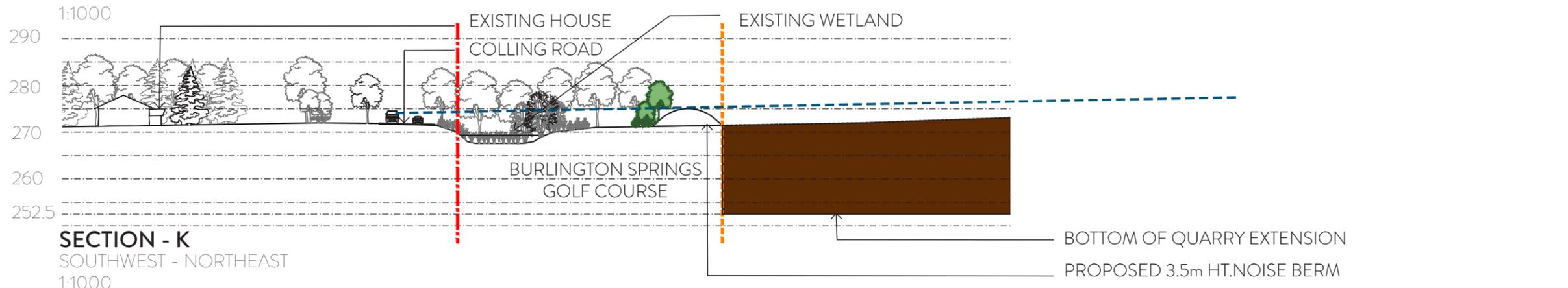
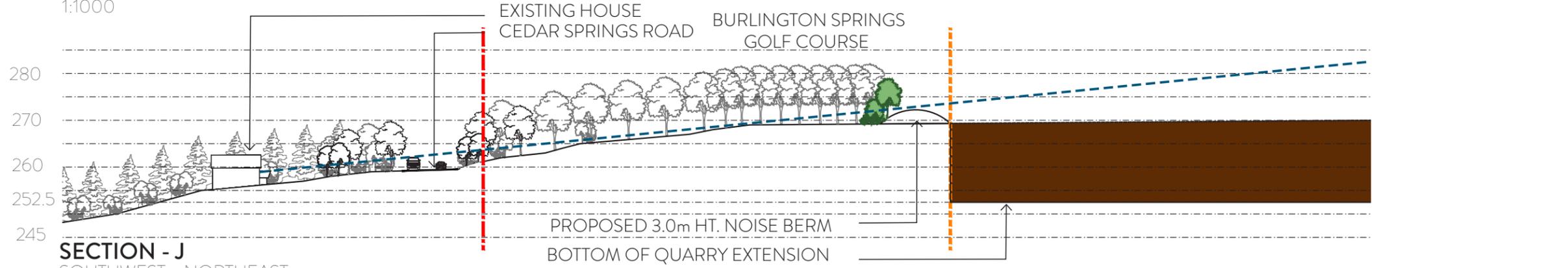
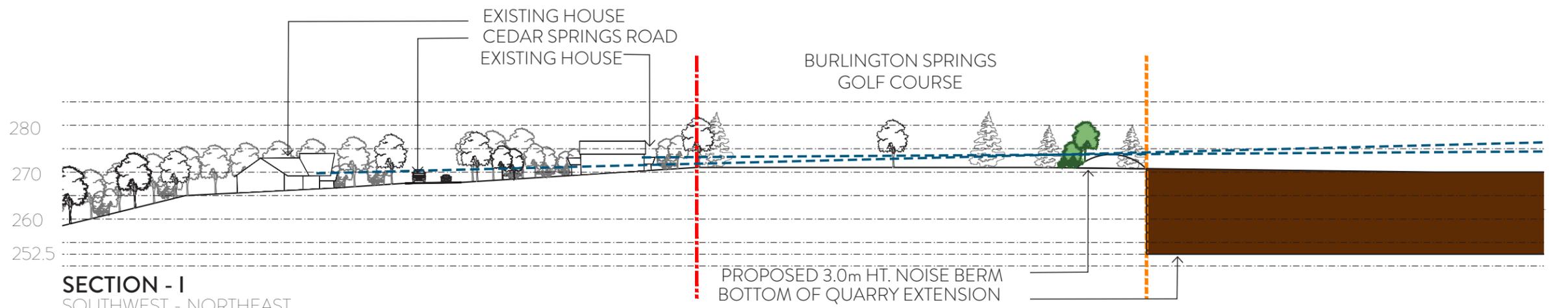
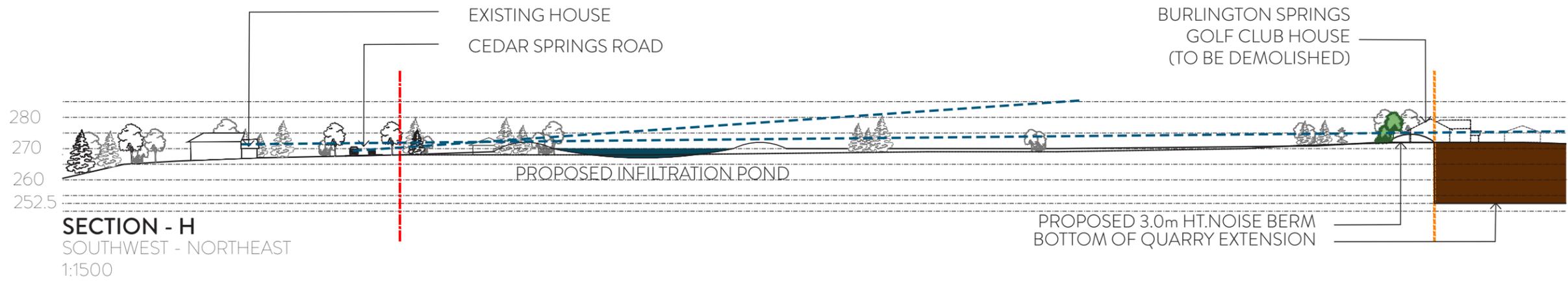
Burlington Quarry Extension  
 Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
 Town of Burlington  
 Halton Region



**Legend**

- Limit of Extraction
- Licence Boundary
- Existing Vegetation
- Line of Sight
- Area to be Excavated
- Proposed Vegetation
- Existing Grade to be Altered

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 SCALE: AS NOTED  
 FILE: 9135S  
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- Legend**
- Licence Boundary
  - Limit of Extraction
  - Contours with Elevation  
Metres above sea level (MASL)
  - Public Road
  - Fence  
1.2m post & wire fence unless otherwise noted
  - Water Feature
  - Lake / Pond  
Licence # 5499
  - Significant Woodlands
  - Woodlands
  - Wooded Feature
  - Wetland  
Surveyed by Savanta/MNRF in Accordance with  
OWES - Assumed Significant for Planning Purposes
  - Wetland  
MNRF Evaluated - Provincially Significant
  - Wetland  
MNRF Evaluated - Other  
(Non Provincially Significant)
  - Wetland  
MNRF - Unevaluated  
(Assumed Significant for Planning Purposes)
  - Beach
  - Pond
  - Swim Area
  - Lake
  - Wetland / Shoreline Wetland
  - Vertical Face
  - 3:1 slope (tree planting)
  - 2:1 slope (tree planting)
  - Setback - grassland & existing trees
  - Setback - forested - planted during operations
  - Setback - forested - planted when berms removed
  - Restored catchment area and ecological linkage (tree planting)
  - Gradual grade (tree planting & vernal pools) or islands
- 120m Offset From  
Licence Boundary
  - Existing Licence  
Existing Licence Boundary (solid line)  
Existing Limit of Extraction (dashed line)
  - Parcel Fabric
  - Diversion or Discharge Pipe  
Existing - Single Dash  
Proposed - Double Dash
  - Discharge Location
  - Sun-Canadian Pipe Line  
Pipe line location and easement
  - Jefferson Salamander  
Regulatory Boundary
  - Entrance / Exit  
Field / Property
  - Gate
  - Building/Structure
  - Proposed Final Grade  
and Slope
  - Final Elevation  
of Land and Lake (MASL)
  - Cross Sections



Figure 7  
Rehabilitation Plan

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

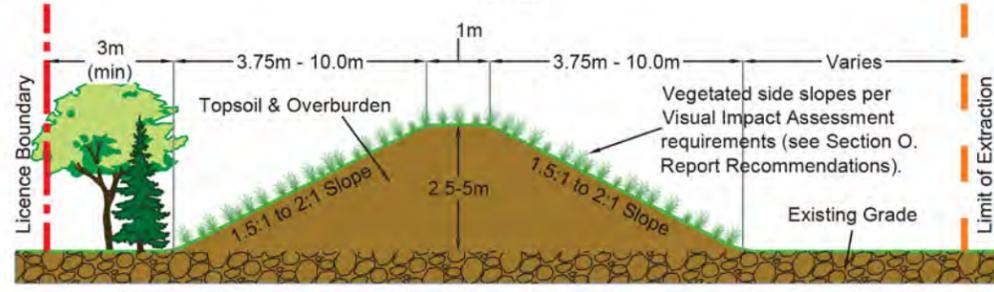
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FILE: 91355  
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-  Licence Boundary
-  Limit of Extraction
-  Contours with Elevation  
Metres above sea level (MASL)
-  Public Road
-  Fence  
1.2m post & wire fence unless otherwise noted
-  Exclusion Fence  
Reptile & Amphibian  
(Location offset for visibility purposes)
-  Water Feature
-  Significant Woodlands
-  Woodlands
-  Wooded Feature
-  Dripline  
Staked December 3, 2021 by Savanta  
and Region of Halton
-  Wetland  
Surveyed by Savanta/MNRF in Accordance with  
OWES - Assumed Significant for Planning Purposes
-  Wetland  
MNRF Evaluated - Provincially Significant
-  Wetland  
MNRF Evaluated - Other  
(Non Provincially Significant)
-  Wetland  
MNRF - Unevaluated  
(Assumed Significant for Planning Purposes)
-  Forested Setbacks
-  120m Offset From  
Licence Boundary
-  Existing Licence  
Existing Licenced Boundary (solid line)  
Existing Limit of Extraction (dashed line)
-  Parcel Fabric
-  Diversion or Discharge Pipe  
Existing - Single Dash  
Proposed - Double Dash
-  Discharge Location
-  Jefferson Salamander  
Regulatory Boundary
-  Sun-Canadian Pipe Line  
Pipe line location and easement
-  Entrance / Exit  
Operational - hollow  
Field / Property - hatch
-  Gate
-  General Direction of  
Excavation & Boundary
-  Berm - Acoustic
-  Berm - Hydrologic
-  Berm - Visual
-  Building/Structure
-  Quarry Floor  
Metres above sea level (MASL)



**Typical Acoustic & Visual Berm**  
N.T.S.



**Figure 8**  
**Operations Plan**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

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DRAWN: CC



**MHBC**  
PLANNING  
URBAN DESIGN  
& LANDSCAPE  
ARCHITECTURE



Figure 9A  
**Photo Simulation  
During Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

FILE: 91355

Photo Simulation During Quarry Operation - Viewpoint 22



Photo Simulation During Quarry Operation - Viewpoint 32

Figure 9B  
**Photo Simulation  
During Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

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Figure 9C  
**Photo Simulation  
During Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

FILE: 9135S





Photo Simulation During Quarry Operation - Viewpoint 50

Figure 9D  
**Photo Simulation  
During Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

FILE: 9135S



Figure 9E  
**Photo Simulation  
During Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

FILE: 91355

Photo Simulation During Quarry Operation - 2 Side Road Quarry Crossing Facing South



Photo Simulation During Quarry Operation - 2 Side Road Quarry Crossing Facing North

Figure 9F  
**Photo Simulation  
During Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

FILE: 91355



Photo Simulation Post Quarry Operation - Viewpoint 22

Figure 9G  
**Photo Simulation**  
**Post Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

FILE: 91355



Photo Simulation Post Quarry Operation - Viewpoint 32

Figure 9H  
**Photo Simulation**  
**Post Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

FILE: 9135S



Photo Simulation Post Quarry Operation - Viewpoint 43

Figure 91  
**Photo Simulation**  
**Post Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

FILE: 91355



Photo Simulation Post Quarry Operation - Viewpoint 50

Figure 9J  
**Photo Simulation**  
**Post Quarry Operations**

Burlington Quarry Extension  
Part Lot 1 & 2, Conc. 2 and Part Lot 17 & 18, Conc. 2,  
Town of Burlington  
Halton Region

DATE: May 2022

FILE: 91355

## 8.0 Future Rehabilitation

After extraction activities of the proposed extensions have ended, a rehabilitation strategy will be implemented in order to restore and enhance the subject landscapes after quarry operations have ceased. As shown in **Figure 7**, a multitude of landscape ecologies will be created enhance the open landscape character of the sites, while providing opportunities for recreation and the creation of natural habitats for a variety of species.

As part of the rehabilitation plan, visual and noise berms will be removed and gradually regraded to create a more natural grade change to the new topography on site. Improvements in planting and landform creation will end the need for visual mitigation and will create the desire for views into the rehabilitated extension lands. Any structures within the extensions that were not removed as part of the operations of the quarry will be removed as part of the rehabilitation plan.

Prior to extraction commencing in the West Extension, a pond will be built to the west of the proposed extraction area. It is recommended that the trees within the existing young conifer plantation in this area be retained insofar as is possible, and some transplanted as may be necessary to provide additional visual screening within the immediate area.

The overall goal of the proposed rehabilitation will be to restore the natural character of the proposed extensions and enhance the existing open landscape character of the area as to create a visually appealing, ecologically functional, and vibrant landscape.

# 9.0 Recommendations

It is recommended that the following mitigation measures be implemented for the two proposed Quarry Extensions:

- a) For both extension areas, existing vegetation located along the site perimeter and within the setback area should be retained where possible. Berms should be laid out in a way that favours the retention of existing vegetation where possible. Any and all areas marked for tree protection shall utilize appropriate tree protection hoarding and ensure that no construction activities, grading, or compaction occurs within the tree protection zone. This includes using these areas for the storage or staging of any materials or aggregates.
- b) Visual berms are to be installed as per the berm elevation detail and berm requirements as outlined in the noise report and as noted on the Mitigation Plan (**See Figure 5**).
- c) Visual berms are to be installed as outlined in this report and as noted on the Operations Plan (**See Figure 8**).
- d) Where berms are deemed to be required, they are to only be constructed where proposed (**See Figure 5**). Berms are to be constructed in a smooth, rolling manner with varying highpoints (respecting minimum height requirements), and variations along the berm frontage to create a more natural appearance. Berms should be seeded with a naturalizing mix of wildflowers and grasses to stabilize slopes and minimize mowing and maintenance.
- e) Tree protection fencing shall be installed at the locations shown on the Existing Vegetation Summary (**Figure 5A**). The fencing shall be installed in accordance with Notes 3 to 6 of the “Tree Protection Zone Detail” shown on Page 2 of 4 of the proposed Burlington Quarry Extension ARA Site Plans. No proposed works or grading shall occur within this established tree protection zone. Tree protection fencing shall remain in place until the completion of all proposed works found on the Mitigation Plan (**Figure 5**) and Operations Plan (**Figure 8**) are complete. In addition, trees marked for protection shall be monitored for a minimum period of two years after fencing has been removed to ensure that there is not a decline in their health. Should a significant decline in health or death of a tree be observed, it shall be removed and replaced with a species as noted in the planting recommendations of this section.

- f) Where proposed, trees should be planted as supplementary visual screening. This applies to the visual berms proposed for the South Extension (**See Figure 5**). Larger species will be planted along the visual berm on 2 Side Road while smaller species will be planted on the berm adjacent to the Camisle Golf Course. In addition, planting shall be proposed running parallel on either side of the north truck crossing entrance along 2 Side Road behind the sight triangle in order to reduce potential views that may open up from a removal of existing vegetation. This planting will run approximately 17m from the tree protection fence back to the limit of existing extraction.

Plantings are to be randomly spaced and staggered up on the berm up to one third of its maximum height to appear more natural, where possible. The proposed vegetation shall be laid out as prescribed in the below planting detail with attention paid to planting density and diversity of coniferous and deciduous species. All vegetation is to be selected for wind and salt tolerance, hardiness. Where appropriate, native species that complement the existing surroundings are to be utilized wherever possible.

Where large species are indicated, this shall mean deciduous trees of minimum 40mm caliper, coniferous trees of minimum 1.5m height, and shrub species of minimum 40cm height. Where small species are indicated, this shall mean deciduous tree whips of minimum 1.2m height, coniferous trees of minimum 0.6m height, and shrub species of minimum 20cm height (or bare root stock when in season). Planting shall be laid out as shown on the Mitigation Plan (**Figure 5**) and per the planting cell detail below.

Plant species may include, but are not limited to the following:

Trees

White Pine	Common Hackberry	Chokecherry
White Spruce	Paper Birch	Pin Oak
Sugar / Silver Maple	Trembling Aspen	Basswood
White Pine	White Spruce	White Cedar

Shrubs

Staghorn Sumac	Nannyberry	Common Ninebark
American Elder	Dogwood	Highbush Cranberry

- g) To ensure survival and positive growth rate, the vegetative screening is to be maintained and managed appropriately so that it remains an effective visual screen over time. Allowance of natural succession to occur is encouraged, in keeping with restoration objectives.

# PLANTING CELL DETAIL FOR PLANTED BERMS

For Large Species Planting on Berms.

Approx Area: 200m<sup>2</sup>

Cell A1- A4

34 Trees Total

- 1.2M Deciduous
- Deciduous 40mm cal.
- 0.6M Coniferous
- 1.2M Coniferous

+30 Shrubs Total

For Small Species Planting on Berms.

Approx Area: 150m<sup>2</sup>

Cell B1 - B3

28 Trees Total

- 1.2M Deciduous
- 0.6M Coniferous
- +21 Shrubs Total

## LEGEND



40mm Caliper Deciduous (+5.0m o/c)  
1.5m Height Coniferous (+3.0m o/c)



1.2m High Deciduous (+2.5m o/c)



0.6m High Coniferous (+2.5m o/c)

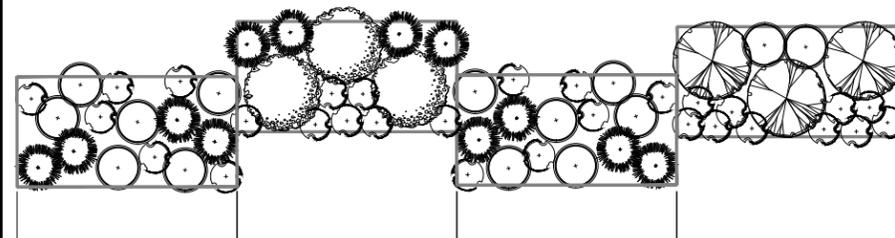


40cm High Shrubs (+1.5m o/c)



20cm High Shrubs (+1.5m o/c)

Extraction Limit Side



Cell A1

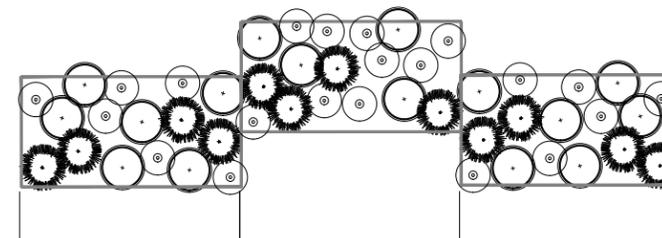
Cell A2

Cell A3

Cell A4

2 Side Road

Camilse Golf Course



Cell B1

Cell B2

Cell B3

Extraction Limit Side

Typical planting cells for berm planting.

Tree whips and saplings are to be planted at irregular +2.5m centres in a staggered fashion to maximize screening potential, and shrubs planted +1.5m on centre.

Planting cells will typically contain a higher ratio of deciduous plant material with trees (1.2m high deciduous tree whips and 0.6m height coniferous saplings), and shrub species (bareroot nursery stock or potted from 20-40cm in height).

Planting cells are to be implemented in a staggered layout (as illustrated) to provide an enhanced level of screening with the final concentration of coniferous versus deciduous planting within a plant cell to be determined on site to ensure that areas with the least amount of existing vegetation are filled to provide best screening potential.

- h) During the first year, it is recommended that the planted trees are watered and monitored until established. After the first year, it is recommended that the trees are inspected twice each year. Once in spring after leaf break, and once in fall prior to leaf drop, to ensure any trees which are in poor condition at the time, are fertilized, watered and monitored, as needed, to improve their health and vigor.
- i) If any of the planted trees die, they should be replaced yearly, preferably in spring or late summer. With annual maintenance and monitoring, the trees will have the best chance of survival, and overall, it is anticipated that the need for tree replacements during the life of the operation will be reduced.

# 10.0 Conclusions

It is our professional opinion that if the mitigation measures identified in this report are implemented, views from roadways and receptor homes into the subject lands will be effectively screened year-round in a way that maintains the open landscape character during quarry operations, and limits visual impacts.

Through our investigations, we conclude that the proposed Quarry Extensions will not adversely affect significant views, or changes to natural landscapes provided the recommendations outlined in this report are implemented. Furthermore, after quarry operations have ceased, the open landscape character of the proposed extension lands will be strengthened and enhanced through the implementation of the rehabilitation strategy (**See Figure 7**).

Visual screening measures are also outlined on the operations and rehabilitation site plans submitted with the applications and these shall be referenced in conjunction with this report. Please feel free to contact the undersigned with any questions regarding this report.

Respectfully submitted,

**MHBC Planning, Urban Design & Landscape Architecture**

*Report Prepared by:*



Nick A. Miele, BLA, OALA, CSLA, ISA  
Partner

# APPENDIX **A**

## Niagara Escarpment Plan 2020 - Definitions

**Compatible:** Where the building, structure, activity or use blends, conforms or is harmonious with the Escarpment environment.

**Escarpment environment:** The physical and natural heritage features, cultural heritage resources, and scenic resources associated with the Escarpment landscape.

**Height:** With respect to a building, means the greatest vertical distance between the point of lowest finished grade adjoining any exterior wall of a building and the highest point of the roof. With respect to a structure, means the greatest vertical distance between the point of lowest finished grade and the highest point or points of the structure.

**Natural scenery:** The existing scenery of the Escarpment environment associated with the continuous natural environment.

### Negative impact:

a) in regard to water, degradation to the quality or quantity of surface water or groundwater, key hydrologic features and their related hydrologic functions, due to single, multiple or successive development;

b) in regard to key and other natural heritage features, degradation that threatens the health and integrity of the natural features or ecological functions for which an area is identified due to single, multiple or successive development;

c) in regard to fish habitat, any permanent alteration to or destruction of fish habitat, except where, in conjunction with the appropriate authorities, it has been authorized under the Fisheries Act;

d) in regard to scenic resources, a degradation to the natural scenery and scenic quality due to single, multiple or successive development; and

e) in regard to cultural heritage resources, degradation or destruction of built heritage resources, cultural heritage landscapes, archaeological resources, including a visual impact, when heritage attributes include the visual setting of a cultural heritage resource and other features of significant cultural heritage value or interest, including heritage and archaeological sites of critical importance to Aboriginal peoples. Open landscape character: The system of rural features, both natural and human made, that makes up the rural environment, including forests, slopes, streams, valleylands, hedgerows, agricultural fields, agricultural buildings and other features of similar character and scale.

**Open landscape character:** The system of rural features, both natural and human-made, that makes up the rural environment, including forests, slopes, streams, valleylands, hedgerows, agricultural fields, agricultural buildings and other features of similar character and scale.

**Scenic quality:** A reference to the scenic rankings derived from the Niagara Escarpment Plan: A Landscape Evaluation Study and updates to the study. There are six rankings: Outstanding, Very Attractive, Attractive, Average, Low and Very Low.

**Scenic resource:** The general appearance of a place or landscape, or the features of a landscape, taking into consideration the visual condition and scenic quality, which vary by location and are dependent on features such as geology, vegetation, landforms, and human developments. The heritage attributes of protected heritage properties may also include or be, in themselves, scenic resources.

**Skylining:** Extending above the horizon line of the Escarpment brow, slope or other prominent landform and, where applicable, associated vegetation.

**Visual impact:** A change to the existing cultural and natural landscape from viewing points, usually associated with proposed development.

**Visual impact assessment:** A study in accordance with the NEC Visual Assessment Guidelines. (Note: in this case the words Technical Criteria have the same meaning as Guideline)

### **Other Terms Utilized in Visual Impact Assessment Studies**

**Digital Visibility Analysis:** A means for determining the area of visibility of an object from specific locations using Geographic Information Systems (GIS).

**Geographic Information Systems (GIS):** A computer-based tool that analyzes, stores, manipulates and visualizes geographic information, usually in a map.

**Viewshed:** The total surface area visible from an observer's viewpoint.

**Viewpoint:** A strategic viewing position from which a viewshed is identified.

**Foreground:** The immediate area in front of the viewer (observer) where landscape details can easily be discerned. This area extends out approximately 2km from the viewpoint.

**Background:** The distant landscape where patterns rather than details or features are seen. These distant areas lie beyond the foreground. Structures that skyline above the horizon line of the Escarpment landscape can be discerned as a distinct feature where they break the pattern of the landscape.

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# APPENDIX **B**



# CURRICULUMVITAE

**Nick A. Miele**, BLA, OALA, MALA, AALA, SALA, CSLA, ISA

## EDUCATION

1997  
Bachelor of Landscape  
Architecture, University of  
Toronto

Nick Miele, a Partner with MHBC, joined the firm in 2004. Mr. Miele has been responsible for designing and managing a broad range of project work locally and internationally for both public and private sector clients.

Mr. Miele's project experience ranges from large scale residential and commercial developments, community and urban design, institutional landscapes, recreational facilities, parks, public open spaces, environmental design and restorations.

Mr. Miele is an accredited Landscape Architect and is a full member in good standing with the Ontario Association of Landscape Architects, Manitoba Association of Landscape Architects, Alberta Association of Landscape Architects, Saskatchewan Association of Landscape Architects and Canadian Society of Landscape Architects as well as being an ISA Certified Arborist.

Highlights of Mr. Miele's career include being a member on an award winning team for environmental design in stormwater management (CSLA), and being a Lead Designer on a short listed team for designs for the 2008 summer olympic games in Beijing, People's Republic of China. At the OALA's 50<sup>th</sup> Anniversary AGM and Conference, Mr. Miele was awarded the David Erb Memorial Award, a high honour recognizing an OALA member who through their volunteer efforts has made an exceptional contribution towards advancing the profession of Landscape Architecture.

Mr. Miele is involved in overseeing all aspects of project development and management from planning and design through to implementation, construction contract administration, and project close-out.

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Examining Board Member (Current Chairperson), OALA, 2005 - present  
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# CURRICULUM VITAE

## Cornel Campbell, MLA, OALA, CSLA, B.URPL

Cornel Campbell, a project coordinator with MHBC, joined the firm in 2019.

Mr. Campbell's has previous experience working on a range of landscape projects from small scale-residential design to community master planning. Cornel has also previously worked as an environmental planning consultant, conducting environmental assessments in the Greater Toronto Area. In addition, he has experience in designing and constructing installations for various art/landscape design competitions. In 2019, Mr. Campbell was part of the first student team to ever win the Jardin du M tis International Garden Design Competition.

At MHBC, Mr. Campbell contributes to a variety of public and private sector projects including multi-family developments, subdivisions, neighborhood parks, and commercial and industrial developments. Cornel has a range of responsibilities including developing conceptual designs, drafting construction drawings, and contract administration.

## PROFESSIONAL ASSOCIATIONS

Full Member, Ontario Association of Landscape Architects (OALA)

## PROFESSIONAL DEVELOPMENT

Ryerson Planning Alumni Association Mentor, 2020 - Present

## PROFESSIONAL HISTORY

2019 - Present	<b>Landscape Architect</b> , MHBC Planning, Urban Design & Landscape Architecture
2018	<b>Landscape/Urban Design Intern</b> , The MBTW Group
2018	<b>Landscape Intern</b> , Sander Design
2015 - 2017	<b>Junior Environmental Planner</b> , Morrison Hershfield

## PROFESSIONAL EXPERIENCE

### Selected Parks and Open Space Projects

- Wyndham Manor Parkette - Oakville
- Bronte Beach Park Phase 1 Revitalization - Oakville

### Selected Residential Projects

- Various Private Residential Homes
- Block 47 Community Master Plan - Brampton

## CURRICULUM VITAE

Cornel Campbell, B.URPL, MLA

- Avenue and Brookdale Condominium - Toronto
- York Regional Affordable Housing Project - Stouffville (Ongoing)
- West Mall Condominium - Toronto (Ongoing)
- Johnson Street Condominium and Site Redevelopment - Barrie (Ongoing)
- King and Bond Subdivison - King Township (Ongoing)
- Dunfield Condominium Landscape Redevelopment - Toronto
- Renforth Drive Residential Development - Toronto (Ongoing)
- Balliol Ave Residential Development - Toronto (Ongoing)
- Kingston Road Multi-Residential Development - Toronto (Ongoing)
- Greenbriar Road Multi-Residential Development - Toronto (Ongoing)

### **Selected Visual Impact Assessments**

- Nelson Quarry VIA - Oakville (Ongoing)
- Upper's Quarry VIA - Niagara (Ongoing)
- 43 Purdue Court VIA - Niagara
- Milton Quarry VIA - Niagara (Ongoing)

### **Selected Industrial and Commercial Projects**

- Morningside Ave Industrial Development - Toronto
- Thirtieth Street Industrial Development - Toronto (Ongoing)
- Eighth Street Industrial Development - Toronto (Ongoing)
- Sleep Country Collingwood - Collingwood
- Danforth Stagemart- Toronto
- Birmingham Ave Industrial Development - Toronto
- Coronation Drive Industrial Development - Toronto (Ongoing)
- Creditstone Road Industrial Development - Toronto
- Woodstock Value Village - Woodstock
- James Snow Parkway - Milton

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