



Visual Impact Assessment Report Home Farm Development – Town of The Blue Mountains

June 2015

Prepared for: MacPherson Builders Prepared by: Seferian Design Group



Table of Contents

1	Executive Summary	1
2	Viewshed Analysis	2
3	Record Panoramic Images + Photographic Simulations	3
Appendix A	 Home Farm Development Multi-unit Residential Setbacks	18
Appendix B	 Terms of Reference for Visual Impact Assessment	20

EXECUTIVE SUMMARY

In February 2014, Seferian Design Group (SDG) was retained by MacPherson Builders to prepare a Visual Impact Assessment (VIA) for the Home Farm Development in the Town of The Blue Mountains, Ontario. The property is situated east of Grey County Road 19, south of Highway 26, and directly east of the Craigeith Ski Club.

SDG met with the Niagara Escarpment Commission (NEC) on February 26, 2014 in their Georgetown Office to discuss the requirements for VIA for the development. SDG submitted a VIA Terms of Reference, which was approved by the NEC on June 24, 2014. We have included the approved Terms of Reference within Appendix B. During our February 26, 2014 meeting with the NEC, three (3) critical visibility areas were identified for viewshed mapping, including:

1. North and South along Grey County Road 19;
2. Highway 26; and
3. Georgian Trail Easement.

The objective of the VIA study was to describe changes to views and landscape character and assess the visual impact of the Home Farm Development. The VIA study was carried out using a combination of desktop research and field work to establish the visual baseline. Sources of information comprise existing data from the municipality, NEC, survey mapping, and other relevant data.

Viewshed Analysis

Based on the approved Terms of Reference, SDG prepared a Viewshed Map for NEC review and approval (refer to Section 2.0). The purpose of the Viewshed Map was to objectively and accurately identify where proposed structures or built form would be visible from existing and proposed roads and public lands. For the purposes of this VIA study, in discussions with the NEC, the viewshed mapping extended out from the development a minimum of three (3) kilometres.

Ten (10) receptor points were identified on the Viewshed Map where visibility and Escarpment feature impacts from the Home Farm Development where a concern. Record Panoramic Images were also prepared for all ten receptor points which are included in Section 3.0. The Viewshed Map was approved by the NEC on January 7, 2015.



Photographic Simulations

Based on the approved Viewshed Map, field checks, a desktop analysis/digital terrain model, and the record panoramic images, it was determined that receptor points 2 through 6 required Photographic Simulations. These simulations were prepared to convey the change to the Escarpment landscape and open landscape character that would result with implementation of the Home Farm Development. Receptor Points 1, 7, 8, 9, and 10 did not require photographic simulations as there was no visual change to the Escarpment feature at these locations as a result of the Home Farm Development.

VIA Report

The VIA report evaluates each photographic simulation in terms of its visual impact assessment criteria, which includes; landscape character sensitivity, magnitude of landscape resource change, and magnitude of visual resource change. Each criterion above is discussed in greater detail on the Photography Simulation sheets (refer to Section 3.0). Existing vegetative buffer along CR 19 within Blocks 281 & 308 are contained on the subject lands and will be maintained, with the exception of minor vegetation removals at the intersection of Ekarenniondi Street.

This VIA report includes very specific recommendations that the NEC will request the Town of The Blue Mountains include in the final draft plan, zoning by-law, and servicing or subdivision agreements. This would include maximum building heights (MASL or equal), setbacks, buffer zones and view corridors (roads or open spaces). The report also includes recommendations to mitigate and manage potential impacts (i.e. screening, buffering/filtering) at each viewpoint.

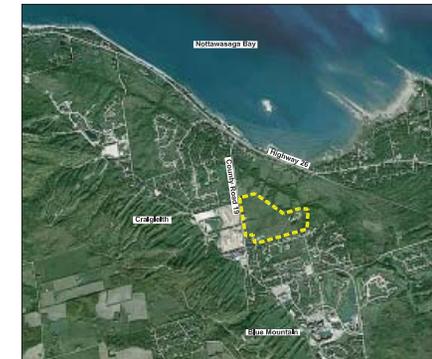
VIEWSHED ANALYSIS

The objectives of a Visual Impact Assessment are to simulate, from selected visual receptors/ viewpoint areas, the visual change to the Escarpment landscape and character, based on the proposed development.



HOMEFARM DEVELOPMENT VIEWSHED ANALYSIS

COUNTY ROAD 19, TOWN OF THE BLUE MOUNTAINS



- PROPOSED DEVELOPMENT
- VIEWSHED OF PROPOSED DEVELOPMENT
- NOT VISIBLE
- WOODED AREA
- PROPERTY LINE
- PLATER-MARTIN ARCHEOLOGICAL SITE
- RECEPTOR POINT & VIEW DIRECTION
- GEORGIAN TRAIL EASEMENT

ASSUMPTIONS

Proposed Development Structure Height = 10m (32.8 ft)
 Proposed Grade (confirmed by Higgins Engineering) = +1m (3.28 ft)
 Height of Trees and Hedgerows = 15m (50 ft)
 Viewer Height = 1.5m (5 ft)

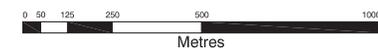
MASL = proposed grade + height to peak of roof of the built form
 = 1m + 10m
 = 11m (36ft)

Tree height was added to the digital elevation model and is taken into account in the viewshed model

Source of Information

5m Digital Elevation Model (DEM) Land Information Ontario (LIO)
 OLS Survey Provided by Higgins Engineering Limited (1m Interval & Spot Elevations)

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations of features nor as a guide to navigation.



Printed on June 5, 2015 | Map Created by Jeff Bonnett

This map is illustrative only. Do not rely on it being a precise indicator of routes, location of features, nor as a guide to navigation. Base derived from the Ontario Basic Mapping database. Map compiled and produced by Seferian Design Group.



PROJECT NO: 14-016

RECORD PANORAMIC IMAGES + PHOTOGRAPHIC SIMULATIONS



▲ PANORAMIC IMAGE 1



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

- PROPERTY LINE
- RECEPTOR POINT LOCATION
- RECEPTOR POINT NUMBER
- VIEWSHED
- GEORGIAN TRAIL EASEMENT
- WOODLOT/ FORESTED AREA
- ARCHEOLOGICAL SITE (PLATER-MARTIN BdHb-1)

RECEPTOR POINT INFORMATION

RECEPTOR POINT NUMBER: 1
DISTANCE FROM THE SITE: 312m (to closest point of site development)
GPS COORDINATES: N 43° 19.463'
 W 079° 48.106'
ELEVATION: 222.5m
VIEWSHED IMPACTS:
 No change at all will be seen from this receptor location. Existing vegetation/built structure (to remain unchanged) along the east side of County Road 19 will obstruct most. If not all of the proposed development behind.

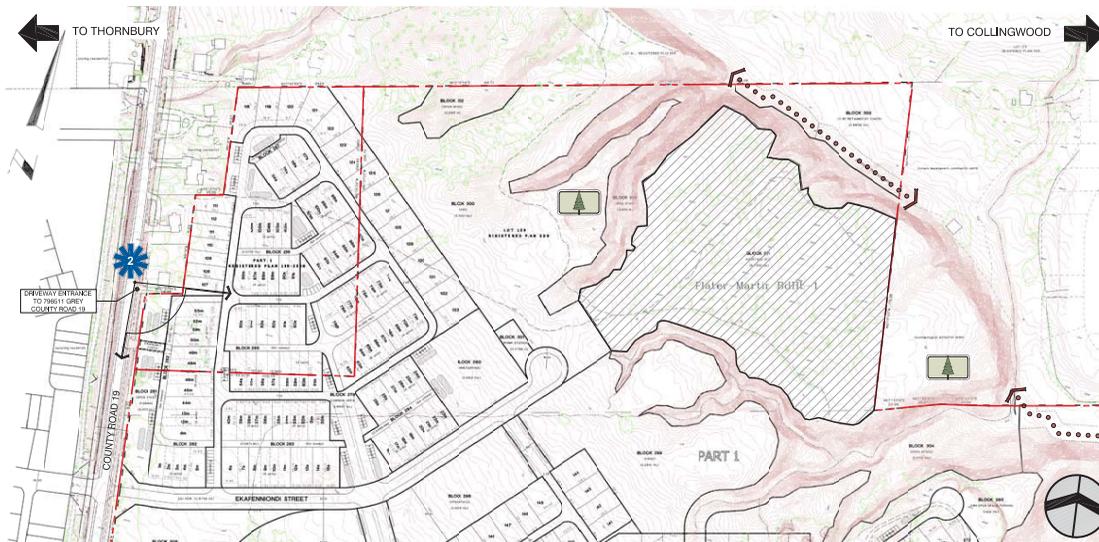
RECORD PANORAMIC IMAGE - RECEPTOR POINT 1
 HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
 PROJECT NO: 14-016





▲ PANORAMIC IMAGE 2



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

- PROPERTY LINE
- RECEPTOR POINT LOCATION
- RECEPTOR POINT NUMBER
- VIEWSHED
- GEORGIAN TRAIL EASEMENT
- WOODLOT/ FORESTED AREA
- ARCHEOLOGICAL SITE (PLATER-MARTIN Bdhb-1)

RECEPTOR POINT INFORMATION

RECEPTOR POINT NUMBER: 2
DISTANCE FROM THE SITE: 63m (to closest point of site development)
GPS COORDINATES: N 44° 30.984'
W 080° 19.436'
ELEVATION: 228.9m
VIEWSHED IMPACTS:
Existing vegetation and built structure (to remain unchanged) along the east side of County Road 19 will obstruct most of the proposed development behind and act as a buffer.

RECORD PANORAMIC IMAGE - RECEPTOR POINT 2
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
PROJECT NO: 14-016





▲ PHOTOGRAPHIC SIMULATION - IMAGE 2

VISUAL IMPACT ASSESSMENT CRITERIA	LANDSCAPE TYPES				COMMENTS
	1. ESCARPMENT SLOPES	2. OLD FIELD/SUCCESSIONAL WOODLAND	3. FORESTS, STREAMS, AND STREAM VALLEYS	4. EXISTING RESIDENTIAL DEVELOPMENT WITHIN THE ABUTTING LANDS	
	VALUE	VALUE	VALUE	VALUE	
LANDSCAPE CHARACTER SENSITIVITY	HIGH	LOW	LOW	HIGH	There would be no change to the views of the Escarpment slopes due to the development from CR 19. Views of the existing residential landscape will be visible from this receptor point, but could be mitigated by planting a coniferous buffer within open space block 281 to screen views of the adjacent residential development.
MAGNITUDE OF LANDSCAPE RESOURCE CHANGE	LOW	NO CHANGE	NO CHANGE	VERY LOW	Due to the proposed development, the magnitude of landscape resource change would have no direct physical change on the topography or vegetation and therefore the cumulative loss of visual access to the Escarpment slopes from the area of impact due to proposal would be low based upon the cumulative results from the applicable receptor points 2, 4, 5, 6.
MAGNITUDE OF VISUAL RESOURCE CHANGE	MEDIUM	NO CHANGE	NO CHANGE	NO CHANGE	There would be a medium visual resource change due to development on views to the Escarpment Slopes. The untouched areas to the east with undulating topography, woodland and streams could be considered nil (no change) and therefore the cumulative effect of visual access remains unchanged.

REFER TO APPENDIX B FOR VISUAL IMPACT ASSESSMENT CRITERIA FOR VALUE DEFINITIONS

PHOTOGRAPHIC SIMULATION IMAGE - RECEPTOR POINT 2
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
 PROJECT NO: 14-016





▲ PANORAMIC IMAGE 3



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

- PROPERTY LINE
- RECEPTOR POINT LOCATION
- RECEPTOR POINT NUMBER
- VIEWSHED
- GEORGIAN TRAIL EASEMENT
- WOODLOT/ FORESTED AREA
- ARCHEOLOGICAL SITE (PLATER-MARTIN BdHb-1)

RECEPTOR POINT INFORMATION

RECEPTOR POINT NUMBER: 3

DISTANCE FROM THE SITE: 81m (to closest point of site development)

GPS COORDINATES: N 44° 30.804'
W 080° 19.433'

ELEVATION: 231.3m

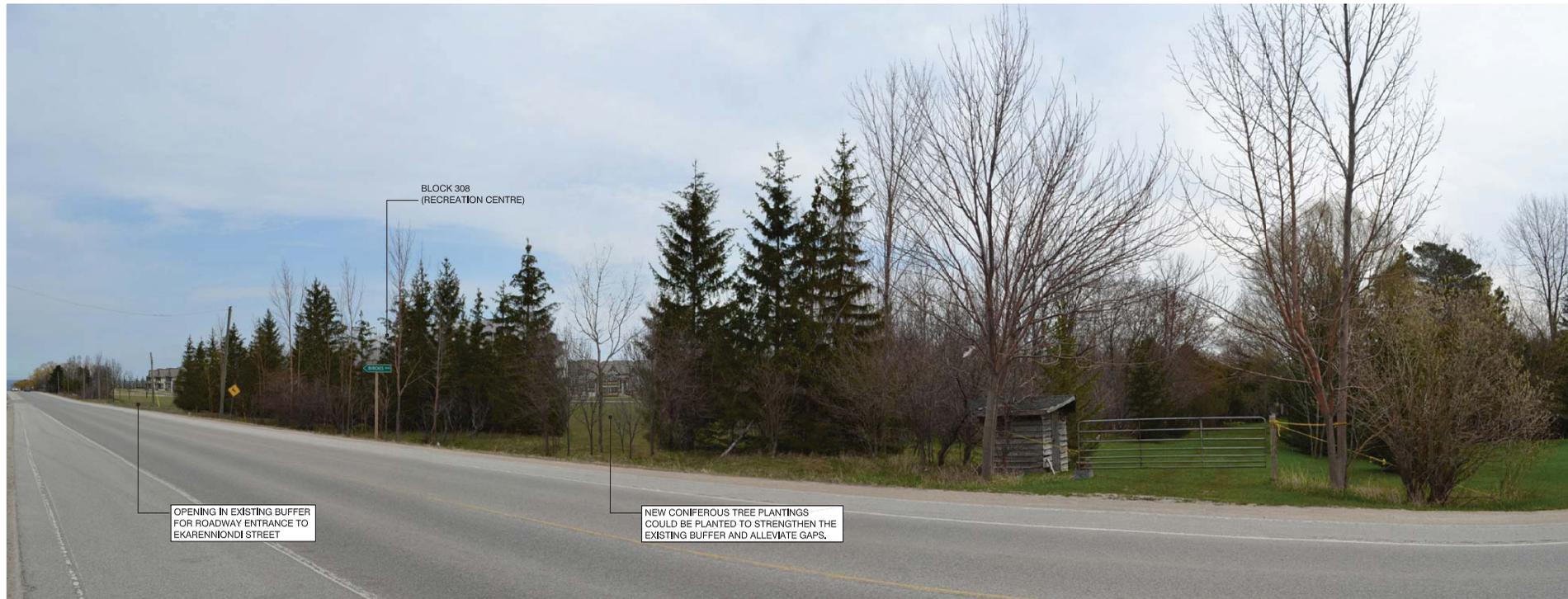
VIEWSHED IMPACTS:

Little change will be seen from this receptor location. Existing vegetation (to remain unchanged) along the east side of County Road 19 will obstruct most of the proposed development behind.

RECORD PANORAMIC IMAGE - RECEPTOR POINT 3
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
PROJECT NO: 14-016





▲ PHOTOGRAPHIC SIMULATION - IMAGE 3

VISUAL IMPACT ASSESSMENT CRITERIA	LANDSCAPE TYPES				COMMENTS
	1. ESCARPMENT SLOPES	2. OLD FIELD/SUCCESSIONAL WOODLAND	3. FORESTS, STREAMS, AND STREAM VALLEYS	4. EXISTING RESIDENTIAL DEVELOPMENT WITHIN THE ABUTTING LANDS	
	VALUE	VALUE	VALUE	VALUE	
LANDSCAPE CHARACTER SENSITIVITY	HIGH	LOW	LOW	HIGH	There would be no change to the views of the Escarpment slopes due to the development from CR 19. Views of the existing residential landscape will be visible from this receptor point, but could be mitigated by planting a coniferous buffer within recreation centre block 308 to screen views of the adjacent residential development.
MAGNITUDE OF LANDSCAPE RESOURCE CHANGE	LOW	NO CHANGE	NO CHANGE	VERY LOW	Due to the proposed development, the magnitude of landscape resource change would have no direct physical change on the topography or vegetation and therefore the cumulative loss of visual access to the Escarpment slopes from the area of impact due to proposal would be low based upon the cumulative results from the applicable receptor points 2, 4, 5, 6.
MAGNITUDE OF VISUAL RESOURCE CHANGE	MEDIUM	NO CHANGE	NO CHANGE	NO CHANGE	There would be a medium visual resource change due to development on views to the Escarpment Slopes. The untouched areas to the east with undulating topography, woodland and streams could be considered nil (no change) and therefore the cumulative effect of visual access remains unchanged.

REFER TO APPENDIX B FOR VISUAL IMPACT ASSESSMENT CRITERIA FOR VALUE DEFINITIONS

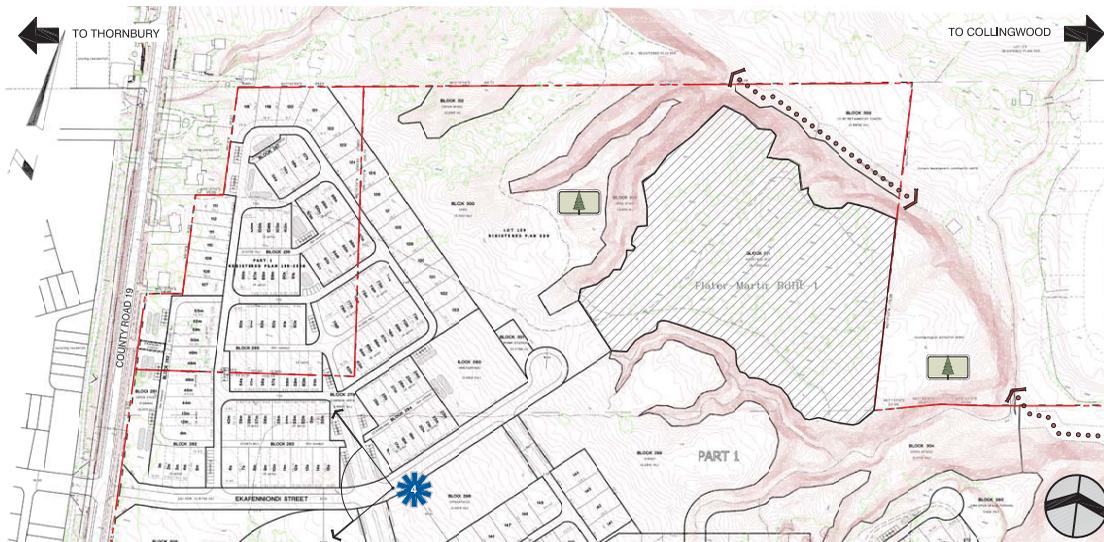
PHOTOGRAPHIC SIMULATION IMAGE - RECEPTOR POINT 3
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
 PROJECT NO: 14-016





▲ PANORAMIC IMAGE 4



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

-  PROPERTY LINE
-  RECEPTOR POINT LOCATION
-  RECEPTOR POINT NUMBER
-  VIEWSHED
-  GEORGIAN TRAIL EASEMENT
-  WOODLOT/ FORESTED AREA
-  ARCHEOLOGICAL SITE (PLATER-MARTIN Bdhb-1)

RECEPTOR POINT INFORMATION

RECEPTOR POINT NUMBER: 4
DISTANCE FROM THE SITE: 0m
GPS COORDINATES: N 44° 30.887'
W 080° 19.395'
ELEVATION: 221m
VIEWSHED IMPACTS:
Being situated on the interior of the development site, a great deal of change will be seen from this receptor location. Some of the escarpment views to the west and northwest will be partially obstructed by the proposed development. Views of the escarpment to the southwest will be better maintained.

RECORD PANORAMIC IMAGE - RECEPTOR POINT 4
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
PROJECT NO: 14-016





▲ PHOTOGRAPHIC SIMULATION - IMAGE 4

VISUAL IMPACT ASSESSMENT CRITERIA	LANDSCAPE TYPES				COMMENTS
	1. ESCARPMENT SLOPES	2. OLD FIELD/SUCCESSIONAL WOODLAND	3. FORESTS, STREAMS, AND STREAM VALLEYS	4. EXISTING RESIDENTIAL DEVELOPMENT WITHIN THE ABUTTING LANDS	
	VALUE	VALUE	VALUE	VALUE	
LANDSCAPE CHARACTER SENSITIVITY	HIGH	LOW	LOW	LOW	There would be minor changes to the views of the Escarpment slopes due to the development from receptor point 4. Views of the existing residential landscape will be slightly visible from this receptor point, but could be mitigated by internal subdivision plantings.
MAGNITUDE OF LANDSCAPE RESOURCE CHANGE	LOW TO VERY LOW	VERY HIGH	MEDIUM	VERY LOW	Due to the proposed development, the magnitude of landscape resource change would have a very high impact on the physical change on the topography and old field landscape because it will be removed to accommodate the development.
MAGNITUDE OF VISUAL RESOURCE CHANGE	MEDIUM	HIGH	MEDIUM	NO CHANGE TO VERY LOW	There would be a medium visual resource change due to development on views to the Escarpment Slopes. As the old field landscape will be removed to accommodate the development, magnitude of visual resource change will be high to medium. The cumulative change to the existing residential development will be very low to no change as some views will be slightly impacted by the development.

REFER TO APPENDIX B FOR VISUAL IMPACT ASSESSMENT CRITERIA FOR VALUE DEFINITIONS

PHOTOGRAPHIC SIMULATION IMAGE - RECEPTOR POINT 4
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
 PROJECT NO: 14-016





▲ PANORAMIC IMAGE 5



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

-  PROPERTY LINE
-  RECEPTOR POINT LOCATION
-  RECEPTOR POINT NUMBER
-  VIEWSHED
-  GEORGIAN TRAIL EASEMENT
-  WOODLOT/ FORESTED AREA
-  ARCHEOLOGICAL SITE (PLATER-MARTIN BdHb-1)

RECEPTOR POINT INFORMATION

RECEPTOR POINT NUMBER: 5

DISTANCE FROM THE SITE: 0m

GPS COORDINATES: N 44° 30.969'
W 080° 19.410'

ELEVATION: 222.6m

VIEWSHED IMPACTS:

Being situated on the western edge of the development site, minor changes will be seen from this receptor location. From this receptor point the majority of the escarpment views to the west and northwest will be maintained.

Views of the escarpment landscape will be partially obstructed to the southwest by the residential development.

RECORD PANORAMIC IMAGE - RECEPTOR POINT 5
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
PROJECT NO: 14-016





▲ PHOTOGRAPHIC SIMULATION - IMAGE 5

VISUAL IMPACT ASSESSMENT CRITERIA	LANDSCAPE TYPES				COMMENTS
	1. ESCARPMENT SLOPES	2. OLD FIELD/SUCCESSIONAL WOODLAND	3. FORESTS, STREAMS, AND STREAM VALLEYS	4. EXISTING RESIDENTIAL DEVELOPMENT WITHIN THE ABUTTING LANDS	
	VALUE	VALUE	VALUE	VALUE	
LANDSCAPE CHARACTER SENSITIVITY	HIGH	LOW	LOW	HIGH	There would be minor changes to the views of the Escarpment slopes due to the development from receptor point 5. Parts of the development will screen escarpment views to the south. Views of the existing residential landscape will be visible from this receptor point, but could be mitigated by planting a coniferous buffer within open space block 281.
MAGNITUDE OF LANDSCAPE RESOURCE CHANGE	MEDIUM	VERY HIGH	MEDIUM	MEDIUM	Due to the proposed development, the magnitude of landscape resource change would have a very high impact on the physical change on the topography and old field landscape because it will be removed to accommodate the development.
MAGNITUDE OF VISUAL RESOURCE CHANGE	MEDIUM	HIGH	MEDIUM	MEDIUM	There would be a medium visual resource change due to development on views to the Escarpment Slopes. As the old field landscape will be removed to accommodate the development, magnitude of visual resource change will be high to medium. The cumulative change to the existing residential development will be medium as will be visible from this receptor point location.

REFER TO APPENDIX B FOR VISUAL IMPACT ASSESSMENT CRITERIA FOR VALUE DEFINITIONS

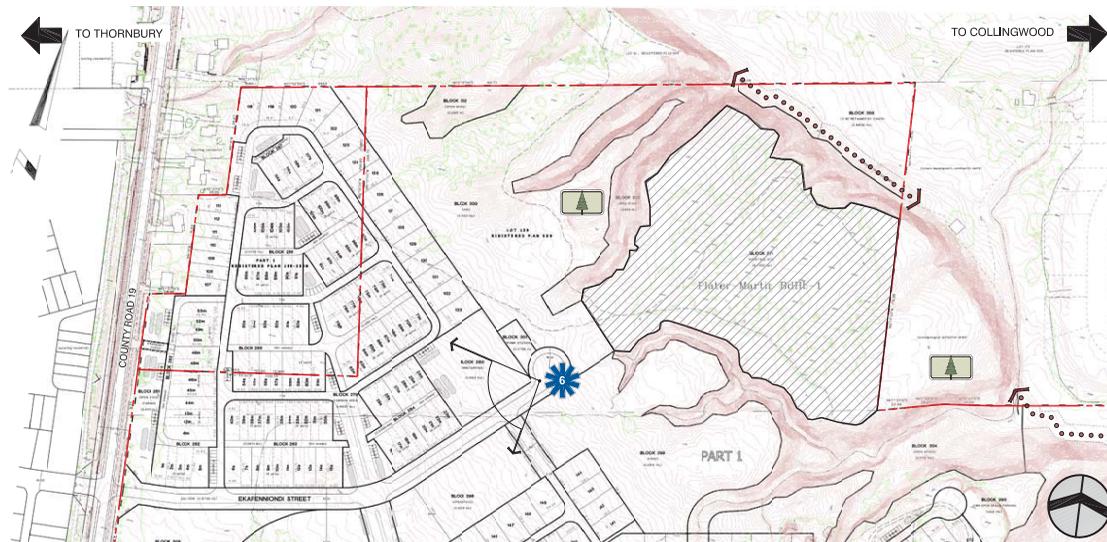
PHOTOGRAPHIC SIMULATION IMAGE - RECEPTOR POINT 5
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
 PROJECT NO: 14-016





▲ PANORAMIC IMAGE 6



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

- PROPERTY LINE
- RECEPTOR POINT LOCATION
- RECEPTOR POINT NUMBER
- VIEWSHED
- GEORGIAN TRAIL EASEMENT
- WOODLOT/ FORESTED AREA
- ARCHEOLOGICAL SITE (PLATER-MARTIN BdHb-1)

RECEPTOR POINT INFORMATION

RECEPTOR POINT NUMBER: 6
DISTANCE FROM THE SITE: 0m
GPS COORDINATES: N 44° 31.013'
W 080° 19.413'
ELEVATION: 211.2m
VIEWSHED IMPACTS:
Being situated on the eastern boundary of the proposed development, views of the escarpment will be partially reduced when looking west or northwest. Views of the escarpment will be better maintained when looking southwest due to the open space blocks along the southern side of Ekarennoni Street.

RECORD PANORAMIC IMAGE - RECEPTOR POINT 6
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
PROJECT NO: 14-016





▲ PHOTOGRAPHIC SIMULATION - IMAGE 6

VISUAL IMPACT ASSESSMENT CRITERIA	LANDSCAPE TYPES				COMMENTS
	1. ESCARPMENT SLOPES	2. OLD FIELD/SUCCESSIONAL WOODLAND	3. FORESTS, STREAMS, AND STREAM VALLEYS	4. EXISTING RESIDENTIAL DEVELOPMENT WITHIN THE ABUTTING LANDS	
	VALUE	VALUE	VALUE	VALUE	
LANDSCAPE CHARACTER SENSITIVITY	HIGH	LOW	LOW	LOW	There would be minor changes to the views of the Escarpment slopes due to the development from receptor point 6. Views of the existing residential landscape will be slightly visible from this receptor point, but could be mitigated by internal subdivision plantings.
MAGNITUDE OF LANDSCAPE RESOURCE CHANGE	LOW TO VERY LOW	VERY HIGH	MEDIUM	VERY LOW	Due to the proposed development, the magnitude of landscape resource change would have a very high impact on the physical change on the topography and old field landscape because it will be removed to accommodate the development.
MAGNITUDE OF VISUAL RESOURCE CHANGE	MEDIUM	HIGH	MEDIUM	NO CHANGE TO VERY LOW	There would be a medium visual resource change due to development on views to the Escarpment Slopes. As the old field landscape will be removed to accommodate the development, magnitude of visual resource change will be high to medium. The cumulative change to the existing residential development will be very low to no change as some views will be slightly impact by the development.

REFER TO APPENDIX B FOR VISUAL IMPACT ASSESSMENT CRITERIA FOR VALUE DEFINITIONS

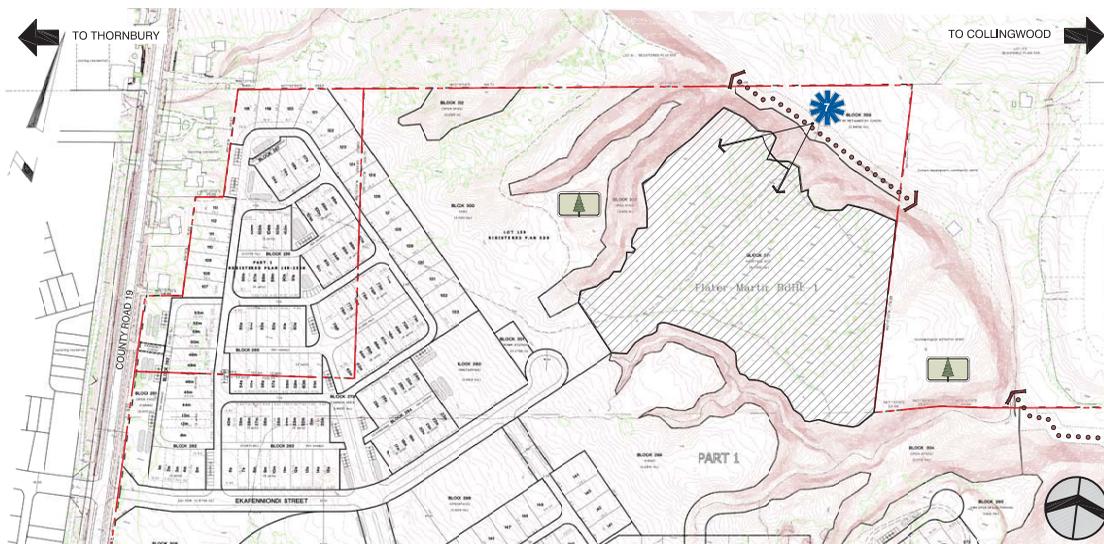
PHOTOGRAPHIC SIMULATION IMAGE - RECEPTOR POINT 6
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
 PROJECT NO: 14-016





▲ PANORAMIC IMAGE 7



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

- PROPERTY LINE
- RECEPTOR POINT LOCATION
- RECEPTOR POINT NUMBER
- VIEWSHED
- GEORGIAN TRAIL EASEMENT
- WOODLOT/ FORESTED AREA
- ARCHEOLOGICAL SITE (PLATER-MARTIN BdHb-1)

RECEPTOR POINT INFORMATION

RECEPTOR POINT NUMBER: 7
DISTANCE FROM THE SITE: 286m (to nearest point of development)
GPS COORDINATES: N 44° 31.153'
W080° 19.030'
ELEVATION: 190.5m
VIEWSHED IMPACTS:
No impact to viewshed due to existing elevations and vegetation (to remain unchanged).

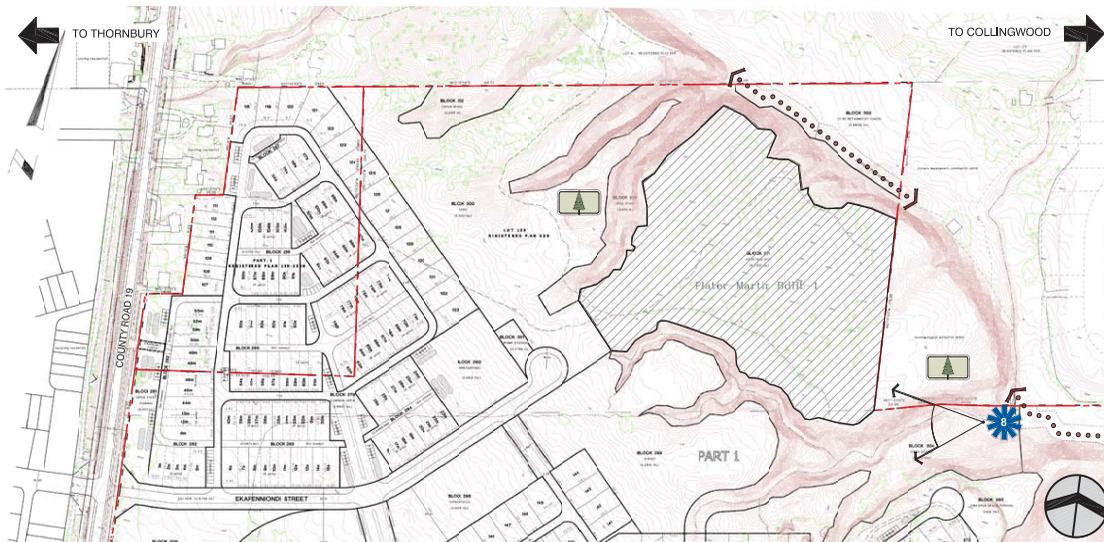
RECORD PANORAMIC IMAGE - RECEPTOR POINT 7
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
PROJECT NO: 14-016





▲ PANORAMIC IMAGE 8



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

-  PROPERTY LINE
-  RECEPTOR POINT LOCATION
-  RECEPTOR POINT NUMBER
-  VIEWSHED
-  GEORGIAN TRAIL EASEMENT
-  WOODLOT/ FORESTED AREA
-  ARCHEOLOGICAL SITE (PLATER-MARTIN BDHB-1)

RECEPTOR POINT INFORMATION

RECEPTOR POINT NUMBER: 8

DISTANCE FROM THE SITE: 325m (to nearest point of development)

GPS COORDINATES: N 44° 31.044'
W 080° 18.853'

ELEVATION: 198.1m

VIEWSHED IMPACTS:

No impact to viewshed due to existing elevations and vegetation (to remain unchanged).

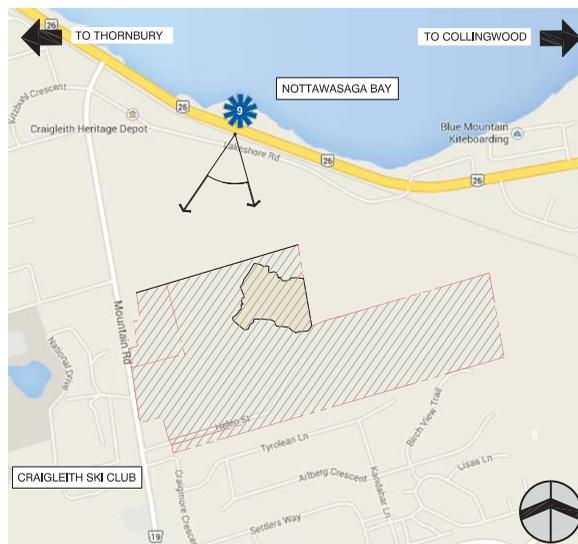
RECORD PANORAMIC IMAGE - RECEPTOR POINT 8
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
PROJECT NO: 14-016





▲ PANORAMIC IMAGE 9



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

-  HOME FARM DEVELOPMENT
-  RECEPTOR POINT LOCATION
-  RECEPTOR POINT NUMBER
-  VIEWSHED
-  ARCHEOLOGICAL SITE (PLATER-MARTIN BdHb-1)

RECEPTOR POINT INFORMATION

STATION POINT NUMBER: 9
DISTANCE FROM THE SITE: 631m (to nearest point of development)
GPS COORDINATES: N 44° 31.421'
W080° 19.259'
ELEVATION: 180.7m
VIEWSHED IMPACTS:
No impact to viewshed due to existing elevations and vegetation (to remain unchanged).

RECORD PANORAMIC IMAGE - RECEPTOR POINT 9
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
PROJECT NO: 14-016





▲ PANORAMIC IMAGE 10



▲ RECEPTOR POINT LOCATION PLAN

LEGEND

-  HOME FARM DEVELOPMENT
-  RECEPTOR POINT LOCATION
-  RECEPTOR POINT NUMBER
-  VIEWSHED
-  ARCHEOLOGICAL SITE (PLATER-MARTIN BdHb-1)

RECEPTOR POINT INFORMATION

RECEPTOR POINT NUMBER: 10

DISTANCE FROM THE SITE: 958m (to nearest point of development)

GPS COORDINATES: N 44° 31.290'
W 080° 18.549'

ELEVATION: 180.1m

VIEWSHED IMPACTS:
No impact to viewshed due to existing elevations and vegetation (to remain unchanged).

RECORD PANORAMIC IMAGE - RECEPTOR POINT 10
HOME FARM DEVELOPMENT - TOWN OF THE BLUE MOUNTAINS

DATE: JUNE 2015
PROJECT NO: 14-016



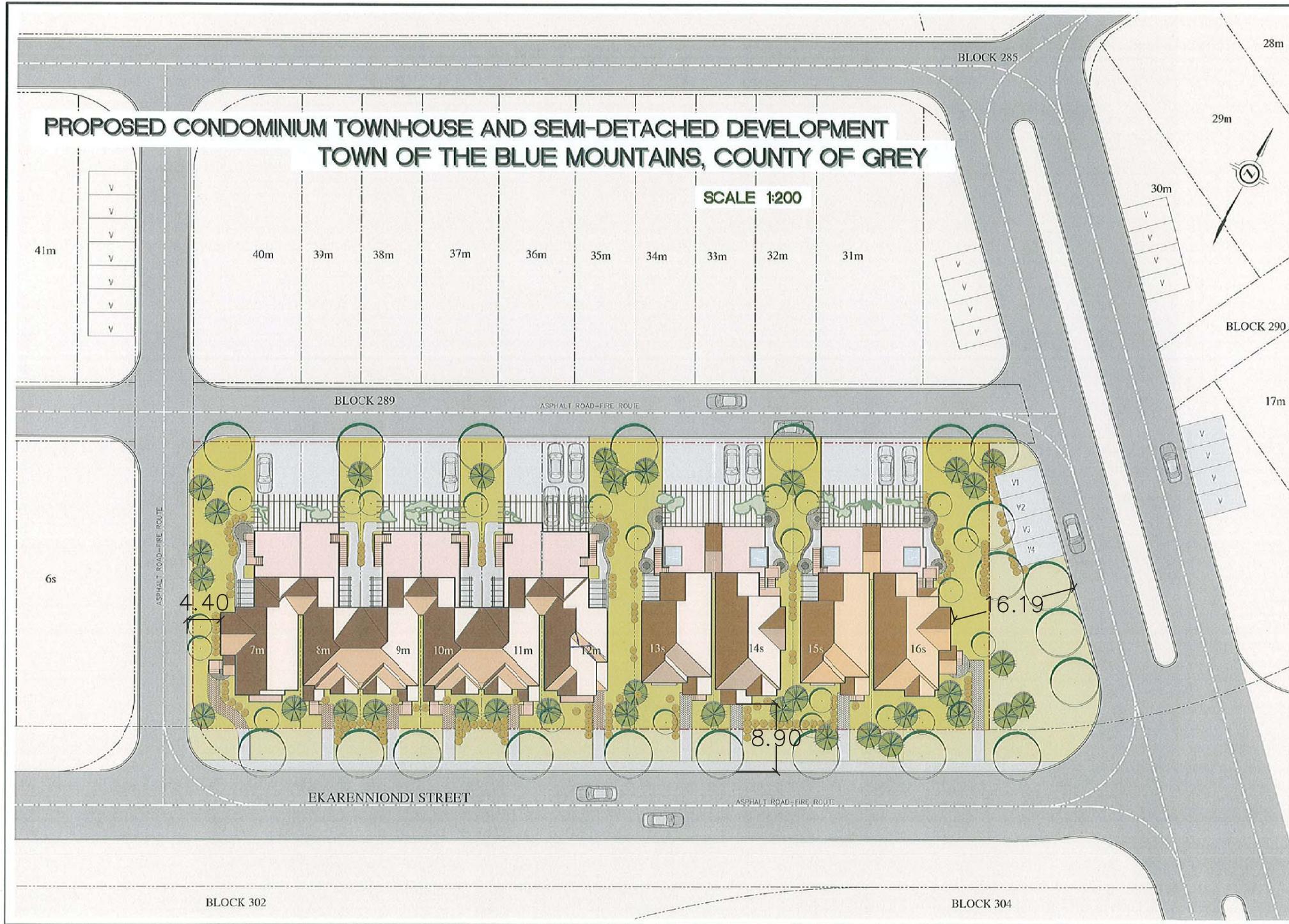


APPENDIX A

Home Farm Development Multi-unit Residential Setbacks

PROPOSED CONDOMINIUM TOWNHOUSE AND SEMI-DETACHED DEVELOPMENT TOWN OF THE BLUE MOUNTAINS, COUNTY OF GREY

SCALE 1:200



Date	Mat.	Description
03/06/14	CE	CE
03/06/14		
03/06/14		
03/06/14		

The Architect has not been retained to carry out structural review of the work and accepts no responsibility for the structural integrity of the development. It is the responsibility of the contractor to carry out the work in accordance with the approved drawings. Single pages of documents are not to be read in isolation of all pages of the Contract Documents. The contractor shall verify all dimensions of the Contract Documents. Any discrepancies prior to the commencement of the work. Under no circumstances shall the Contractor be held responsible for any errors or omissions in the drawings.

flanagan beresford & paterson architects
10101 10th Street, Suite 101
West Kelowna, BC V3L 1A5
Tel: (250) 865-2888 Fax: (250) 865-2889

MacPherson Master Builders
Home Farm
PROPOSED CONDOMINIUM TOWNHOUSE & SEMI-DETACHED DEVELOPMENT
TOWN OF THE BLUE MOUNTAINS
ONTARIO

Sheet: SITE PLAN
Scale: 1:200
Date: 14-12-03-SP1

----- Forwarded message -----

From: **Glenn Wellings** <glenn@wellingsplanning.ca>

Date: Thu, Feb 19, 2015 at 9:50 AM

Subject: RE: Home Farm -

To: Higgins Eng <higginsengineering@bellnet.ca>

Cc: Haig Seferian <haig@seferiandesign.com>, Russell

Higgins <russell@macphersonbuilders.com>

Great...thanks.

Haig, as a follow-up to our discussion yesterday please use 24 metre setback for recreation building setback from County Road 19.

Glenn

Glenn J. Wellings, MCIP, RPP
Wellings Planning Consultants Inc.
564 Emerald Street
Burlington, ON L7R 2N8

p. [905.681.1769](tel:905.681.1769)

f. [905.681.8741](tel:905.681.8741)

c. [416.988.0310](tel:416.988.0310)

w. www.wellingsplanning.ca

Please note that effective immediately my new e-mail address is glenn@wellingsplanning.ca. Please update your records accordingly. Thanks.

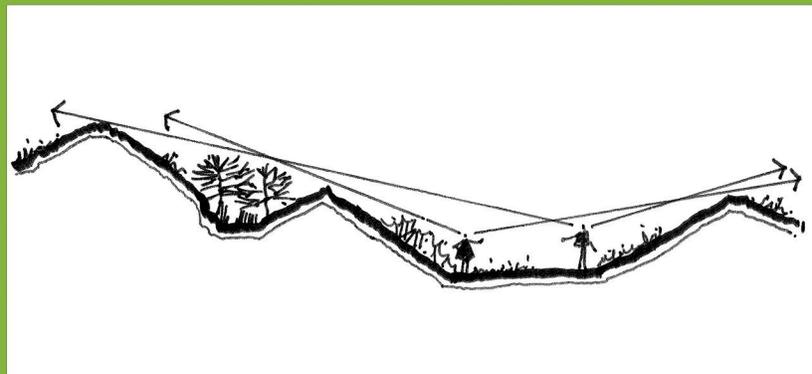




APPENDIX B

Terms of Reference for Visual Impact Assessment for the Home Farm Development – Town of the Blue Mountains

June 11, 2014 (revised) | Approved by the NEC on June 24, 2014



Terms of Reference for Visual Impact Assessment for the
Home Farm Development - Town of the Blue Mountains

Niagara Escarpment Commission | June 11, 2014 (revised)

Approved as red line NEC June 24, 2014



Contents

1.0 Introduction	Page 1
2.0 Purpose & Objectives (Terms of Reference)	Page 2
3.0 Visual Impact Assessment Criteria	Page 3
3.1 Landscape Character Sensitivity	Page 3
3.2 Magnitude of Landscape Resource Change	Page 4
3.3 Magnitude of Visual Resource Change	Page 4
4.0 Visual Receptor/ Viewpoint Locations	Page 5
5.0 Data Collection	Page 8
5.1 Background Data Collection	Page 8
5.2 Field Data Collection	Page 9
5.3 Digital Base Plan Preparation	Page 9
6.0 Preparation of Viewshed Mapping & Visual Simulations ..	Page 10
6.1 Viewshed Mapping	Page 10
6.2 Prepare Digital Terrain Model (DTM)	Page 10
6.3 Visual Simulation Methodology	Page 10
6.4 Final Image Creation	Page 11
6.5 Accuracy	Page 11
7.0 Visual Impact Assessment Report	Page 12

Glossary of Terms

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

Viewshed- A viewshed is the total area visible from an observer’s viewpoint.

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

Background- This is the distant landscape where patterns rather than details or features are seen. These distant areas lie beyond the foreground of approximately 2km.

Visual Shadow- Lands hidden by topography or vegetation from a viewpoint.

Viewshed Analysis- A technique used to overlay viewshed maps in order to identify and rank land units on the basis of degree of visibility.

1.0 Introduction

In February 2014, Seferian Design Group was retained by MacPherson Builders to prepare a Visual Impact Assessment (VIA) for a subdivision development (dubbed 'The Home Farm Development') in Town of Blue Mountains, Ontario. Located in the Town of Blue Mountains, the property is situated east of Grey County Road 19, south of Highway 26, and directly east of the Craigleith Ski Club. Refer to **Figure 1** for the site location.

Seferian Design Group met with the Niagara Escarpment Commission (NEC) on February 26, 2014 in their Georgetown Office to discuss the requirements for Visual Impact Assessment for the development. As a result of the meeting, our office was requested to submit a Visual Impact Assessment Work Plan for NEC and Town of Blue Mountains approval. Once the Work Plan is approval, Seferian Design Group will proceed with the VIA for the development.

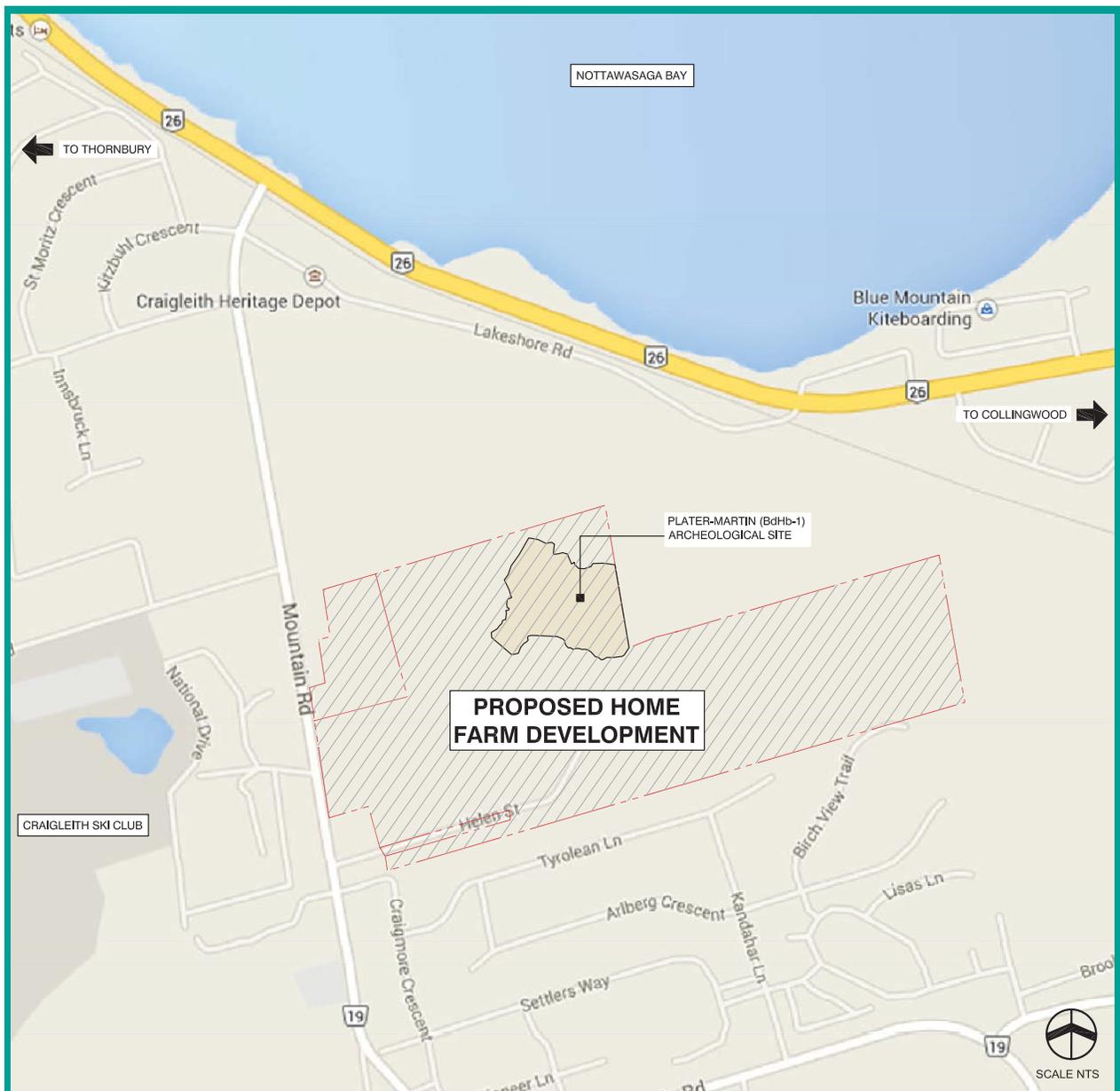


Figure 1 - Site Location Plan

The purpose of this study is to complete a VIA study for the Home Farm Development (plan of proposed subdivision Part Lot 20, Concession 2) proposed by MacPherson Builders in the Town of Blue Mountains, Ontario.

The VIA **objectives** are to prepare a digital viewshed model of the proposed development and then simulate, from selected visual receptors/viewpoint areas, the visual change to the Escarpment landscape and character, based on the proposed development. Additional objectives are listed below, in general accordance with the requirements for Visual Impact Assessment outlined within the [Niagara Escarpment Commission Visual](#)

[Assessment Guidelines \(July 17, 2008\)](#):

- **Develop a clear understanding of the site and its setting in respect of landscape character and visual amenity;**
- **Develop an understanding of the proposed development in terms of how this would relate to landscape character and visual amenity;**
- **Identify visual receptor sensitivity locations within the study area through the use of viewpoints;**
- **Identify all potential direct and indirect effects of the proposed development upon the open landscape character, visual quality, and the Escarpment feature;**
- **Conduct an evaluation of the environmental effects of the proposed development, using the Visual Impact Assessment criteria described in Section 3.0;**
- **Assess the significance of impacts on open landscape character and visual amenity at the viewpoints as a direct result of the development;**
- **Carry out an evaluation of any additional impact management actions that may be necessary to prevent, change or mitigate any negative environmental effects; and**
- **Prepare proposed mitigation recommendations for the proposed development based on the net environmental effects.**



Based on the viewshed mapping, the VIA study will evaluate each viewpoint area in terms of its Visual Impact Assessment criteria, which includes; landscape character sensitivity, magnitude of landscape resource change, viewer sensitivity, and magnitude of visual resource change. Each criterion is discussed in greater detail in Sections 3.1 to 3.4.

3.1 Landscape Character Sensitivity

Landscape character sensitivity is used to establish the capacity of the landscape to accommodate the type of development proposed. The methodology used to identify the landscape quality will be as follows:

- Establish baseline conditions (i.e. the character and sensitivity of the landscape, and the type and sensitivity of visual receptors). Landscape character sensitivity classification is a process of subdividing the landscape into distinct character areas with similar or shared characteristics, distinguishing them from other character areas that have different shared characteristics;
- Predict the magnitude of impact that the proposed development would bring, allowing for mitigation measures, upon the landscape and upon visual receptors;
- Key characteristics can then be identified, which can help to provide understanding of the sensitivity to change of a particular landscape character area; and
- Assess the significance of effect that would occur, by considering the predicted magnitude of change together with the sensitivity of the landscape or sensitivity of visual receptor respectively.

To understand the sensitivity of a landscape to change, the various characteristics/factors that make up a particular landscape character area must be identified and consideration given as to how these will be affected by the proposed development. Consideration is given to factors including:

- Physical components of landscape character, both natural and man-made (i.e. landform, land cover, enclosure, settlement pattern, and condition/quality);
- Aesthetic components of landscape character (i.e. scale, pattern, movement, complexity, nature of connections with adjacent landscapes, and skyline);
- Visual sensitivity of landscape character to the proposed change; and
- Perceptual components of landscape character (the value of the landscape), which include designated elements/features, rarity, conservation interest, cultural associations, scenic quality, amenity/recreational function, tranquillity, remoteness, and wildness.
- Policies of the Niagara Escarpment Plan (NEP), findings of the Landscape Evaluation Study, and the Craigeleith Camperdown Viewshed Study. See Appendix A with a list of critical policies.

Table 1: Landscape Character Sensitivity Level Criteria (indicative)

High	Key characteristic(s) of landscape very vulnerable and could be adversely impacted by the development; or areas of very strong positive character that are highly valued by virtue of their scenic quality.
Moderate to High	Areas that exhibit a positive character where valued features combine to give an experience of unity, richness and harmony and create a distinctive sense of place likely to be valued at a greater than local level.
Moderate	Areas that exhibit positive character but may have some evidence of alteration to/ degradation of/ erosion of features resulting in areas of more mixed character. Can also apply to areas with evidence of degraded character that remain valued by local communities.
Low to Moderate	Areas that are relatively bland or neutral in character with few/no notable features; and/or evidence of alteration to/ degradation of /erosion of features.
Low	Key characteristic(s) of landscape very robust and will not be adversely impacted by development; or areas that have been subject to substantial alteration, degradation, or erosion of features resulting in generally negative character.

3.2 Magnitude of Landscape Resource Change

The Niagara Escarpment Plan (NEP) policy aims to maintain the remaining natural features and the open, rural landscape character of the Escarpment and lands in its vicinity. The objective of the term 'enhancement' in the context of the Niagara Escarpment Plan (NEP) is defined as:

1. Maintaining and enhancing the open landscape character of Escarpment features;
2. Providing a buffer to prominent Escarpment features;
3. Maintaining natural areas of regional significance and cultural heritage features; and
4. Encouraging agriculture, forestry and recreation.

Table 2: Magnitude of Landscape Resource Change Criteria

Very High	Total loss or comprehensive enhancement of the landscape resource in the long term. Typically results in fundamental change.
High	Substantial loss or enhancement of the landscape resource in the medium to long term.
Medium	Partial loss/alteration or moderate enhancement of the landscape resource in the medium or short term.
Low	Slight loss/alteration or slight enhancement of the landscape resource in the short term.
Very Low	Minor loss/alteration or minor enhancement of the landscape resource.

The magnitude of change is concerned with the scale or degree of change to the landscape resource, the nature of the effect, and its duration, including whether it is temporary or permanent. Direct resource changes on the landscape character of the study area are brought about by the introduction of the proposed development and its effects on the key landscape characteristics (i.e. streams, wetlands, significant vegetation, agricultural fields / old fields, areas of the public domain with views to the landscape of the Escarpment, etc.).

3.3 Magnitude of Visual Resource Change

The magnitude of change in visual resource or amenity results from the scale of change in the view with respect to the loss or addition of features in the view and changes in the view composition, including proportion of the view occupied by the proposed development. Distance and duration of view must be considered. Other infrastructure features in the landscape and the backdrop to the development will all influence resource change.

Table 3: Magnitude of Visual Resource Change Criteria

High	Total loss or alteration to key elements/features/characteristics of the existing landscape or view and/or introduction of elements considered totally uncharacteristic when set within the attributes of the receiving landscape or view.
Medium	Partial loss or alteration to key elements/features/characteristics of the existing landscape or view and/or introduction of elements that may be prominent but not necessarily substantially uncharacteristic when set within the attributes of the receiving landscape/view.
No Change to Very Low	Minor to very minor loss or alteration to key elements/features/characteristics of the existing landscape or view and/or introduction of elements that may not be uncharacteristic when set within the attributes of the receiving landscape/view.
No Change	No loss or alteration to key elements/features/characteristics of the existing landscape or view.



The VIA study is intended to be an iterative process with the NEC and the Town of Blue Mountains. During our February 26, 2014 meeting with the NEC, three (3) critical visibility areas were identified for viewshed mapping within the VIA report. Those areas included:

1. **North and South along Grey County Road 19;**
2. **Highway 26; and**
3. **Georgian Trail Easement.**

The purpose of viewshed mapping is to objectively and accurately identify where proposed structures or built form would be visible from existing and proposed roads and public lands. Subject to the results of the viewshed mapping **eight (8)** visual receptors will be investigated. Initial receptor points were selected with the NEC but are subject to the viewshed mapping. Refer to Figures 2 and 3 for proposed locations.

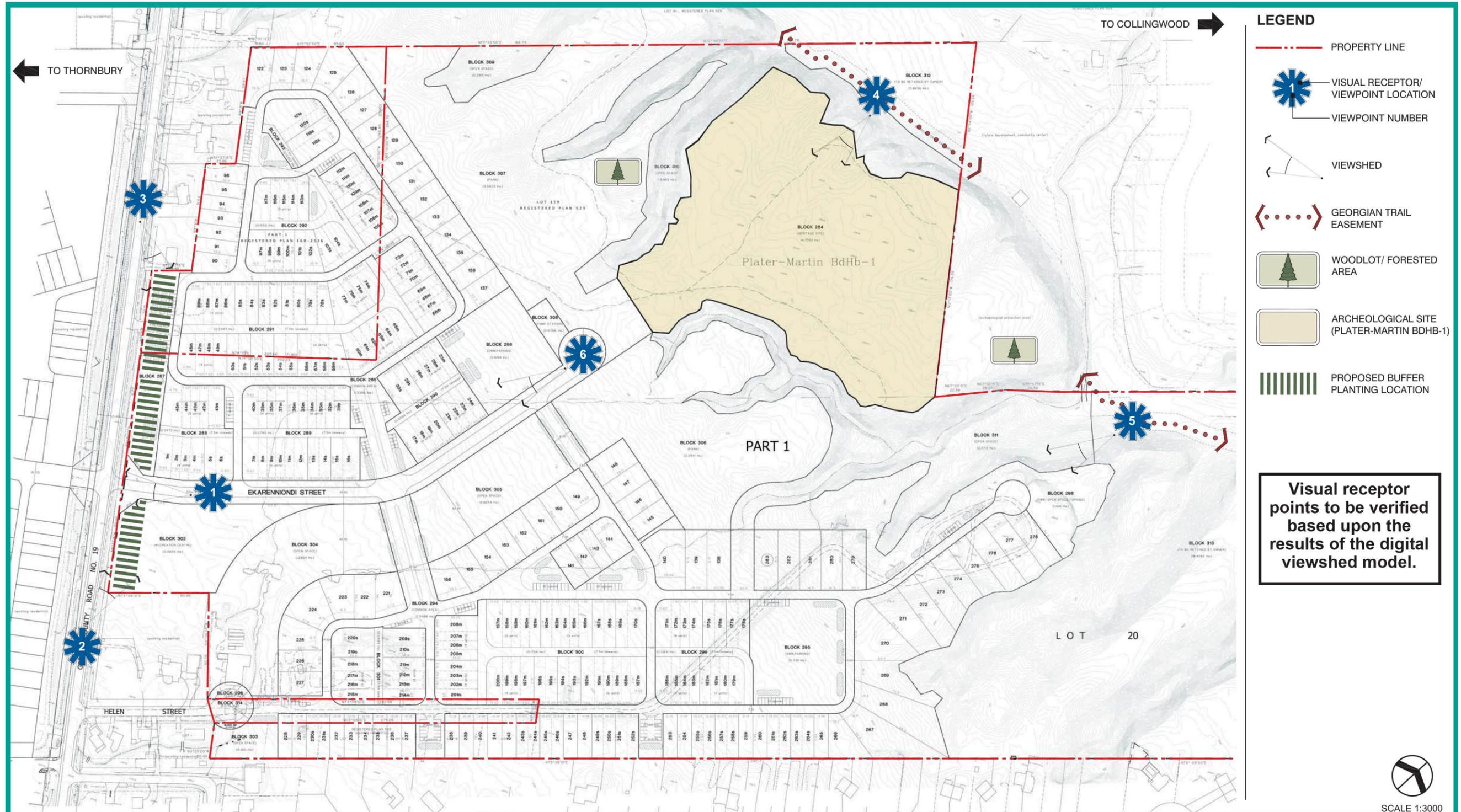


Figure 2 - Proposed Visual Receptor/Viewpoint Locations from Grey County Road 19 and Georgian Trail Easement

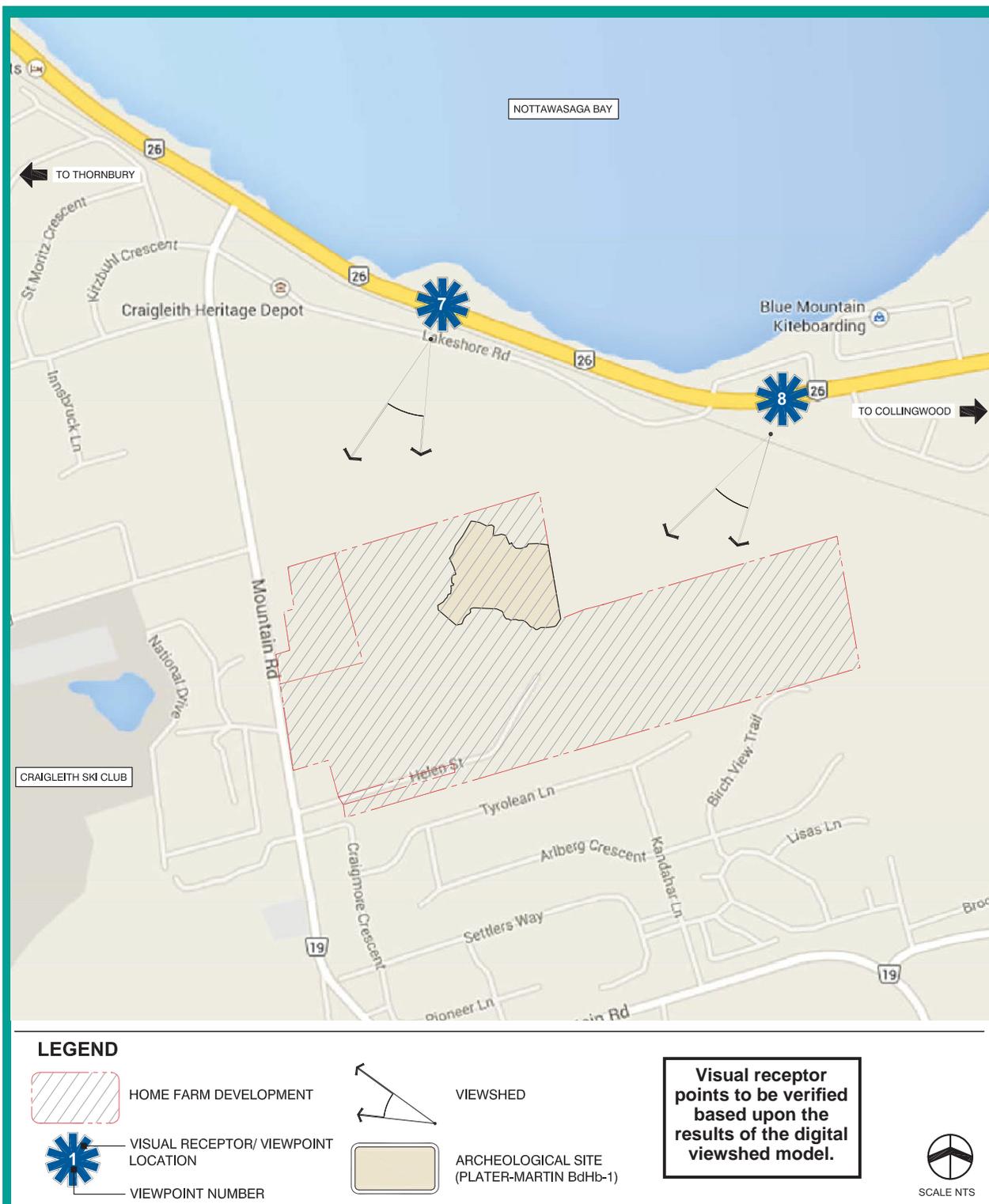


Figure 3 - Proposed Visual Receptor/ Viewpoint Locations from Highway 26

The objective of the VIA study is to describe changes to views and landscape character and assess the visual impact of the Home Farm Development. The VIA study will be carried out using a combination of desktop research and field work to establish the visual baseline. Sources of information comprise existing data from the municipality, NEC, survey mapping, and other relevant data.

The VIA study will identify representative viewpoints (described in Section 4.0) where the proposed development might be visible and include a description and assessment of the anticipated change and degree of impact over the project duration. Where required, mitigation will be identified in order to preserve the open landscape character, continuous natural environment, and the visual integrity of the Escarpment feature. Additional viewpoints may be required based upon, viewshed mapping of existing conditions, identification of current views to the Escarpment feature (slopes and brow), and the digital viewshed mapping of the proposed development.

The descriptions below are offered to provide assistance with the VIA study and assembly of background data. The specific methodology and applications denoted in the below text demonstrate an acceptable process that meets current NEC standards.

5.1 Background Data Collection

Relevant background and base information will be assembled including but not limited to:

- Topographic data for the existing and proposed conditions for the Home Farm Development;
- Topographic data for the existing and proposed conditions for the adjacent Orchard Development;
- Prior to the commencement of the modelling for the viewshed map the type of data set (i.e. contours, DEM spot elevations, or other) will be provided as an addendum for review and approval of the NEC. Topographic data (5m contour intervals) for 3km radius from the development (to Nottawasaga Bay) from the Land Information Ontario (LIO) site. This data source was recommended and coordinated with the Town of Blue Mountains;
- Current Draft Plan for the development (dated May 2014), prepared by Higgins Engineering Limited;
- Niagara Escarpment Commission Visual Assessment Guidelines (July 17, 2008);
- Craigeith Camperdown Viewshed Analysis (Blue Mountain), County of Grey, Township of Collingwood (1986);
- Town of Blue Mountains Official Plan (Section 3.10 - Open Landscape Character); and
- Niagara Escarpment Plan.

5.2 Field Data Collection

The first stage of the assessment includes field work and viewshed mapping (based on locations identified in Section 4.0 by the NEC on February 26, 2014). In the field, all of the viewpoint locations will be located by Seferian Design Group to record the global positioning system (GPS) data and any new locations identified through the viewshed mapping exercise.

Field visits will include site photography taken from the eight viewpoint locations looking onto the proposed development to establish the baseline photography/viewshed to be used as the “before” conditions as well as to be used to create the “after” conditions shown in the simulation. Field visits and site photography from the visual receptors/ viewpoint areas will be conducted in spring 2014, therefore, will reflect the ‘worst case’ visibility scenario (i.e. when there is little to no snow of the ground and when leaves are off the trees). Unless otherwise stated in the main body of the assessment report, the eye height of the viewer is assumed to be 1.5 to 1.6 metres.

Photographs will be taken with a DSLR camera with a 50mm/52mm lens, with a focal length set at 50mm/52mm to closely mimic the view seen by the human eye. A series of 50% overlapping photographs will be taken from each visual receptor/ viewpoint area. These images will then be stitched together in Photoshop to form a panoramic image for each area. No photographs will be taken using ‘Google Streetview’ as they do not currently meet NEC standards for photographs to document existing conditions or for the production of visual simulations.

5.3 Digital Base Plan Preparation

Using AutoCAD 2011, the digital base plan will be prepared by combining the topographic base data/survey for the existing and proposed conditions for the Home Farm Development, the topographic base data/survey for the existing and proposed conditions for the adjacent Orchard Development, and the topographic survey data for a 3km radius from the development (to Nottawasaga Bay) from the Land Information Ontario (LIO) site.

Using water bodies, roads, and the escarpment feature these three base files will be overlaid to create one digital base file for a 3km radius from the development. This digital base file will be used to generate the digital terrain model, viewshed mapping, and visual simulations.

6.1 Viewshed Mapping

A digital viewshed analysis is the preferred method. The purpose of viewshed mapping is to objectively and accurately identify where proposed structures or built form would be visible from existing and proposed roads and public lands. For the purposes of this assignment, in discussions with the NEC, the mapping will extend out from the subdivision a minimum of three (3) kilometres.

The viewshed mapping applications and data utilized for the viewshed mapping will be the following:

- Digital modeling program: ArcGIS 10.2.1 with Spatial Analyst, AutoCAD 2011, and SketchUp 8 Pro.
- NEC viewsheds will be produced by overlaying/combining the topographic data (i.e. 5m contours, spot elevations) for the existing and proposed conditions for the Home Farm Development, the topographic data (i.e. 5m contours, spot elevations) for the existing and proposed conditions for the adjacent Orchard Development, and the topographic data (i.e. 5m contours, spot elevations) from the Land Information Ontario (LIO) site. Using water bodies, vegetation, property lines/ parcel boundaries, roads, and the escarpment feature these three base files will be overlaid to create one digital base file.
- Parameters that will be used include tree heights (15m) and viewer height (1.6m)
- The viewshed map will contain the colour 'green' meaning the elements being modeled are visible, the 'pink' colour will identify areas where the elements would not be visible.
- The viewshed map will be field checked for accuracy and the findings/ revisions modeled into the program for a final viewshed map.

6.2 Prepare Digital Terrain Model (DTM)

1. Using the field data and the digital base plan, a digital terrain model (DTM) will be created in SketchUp and used as the basis for displaying actual visibility of the proposed development. This DTM will form a foundation from which the visual simulations will be generated.
2. Accuracy is dependent on the data set and prior to the commencement of the modelling for the viewshed map the type of data set (i.e. contours, DEM spot elevations, or other) will be provided as an addendum for review and approval of the NEC.
3. The proposed development/subdivision will then be mass modeled and inserted into the DTM.
4. The viewpoint locations will be plotted in the DTM to create the vantage points to be used as the simulated views. Images corresponding to the actual site photographs will be saved out from the SketchUp model
5. Using Adobe Photoshop, the site photographs will be compiled with the corresponding SketchUp images of the proposed development to create the final image simulations showing the proposed development in the existing terrain.

6.3 Visual Simulation Methodology

There are many software packages available that can be used in the creation of visual (photo) simulations although not all are necessarily currently capable of producing accurate results. For the purposes of this VIA, we will use AutoCAD 2011, SketchUp 8 Pro, and Adobe Suite applications.

Our methodology for creating the visual (photo) simulations will be as follows:

- Using the digital terrain model, the base mapping will include mass modeling of the existing structures, existing landmarks, existing large vegetation, existing topography (including the ski slopes and Escarpment feature), and municipal streets;
- Provide mass modeling of the proposed buildings within the development. Architectural information has been provided by the project architect;
- Select and map potential viewpoints/locations based on the results of field checked viewshed model and areas designated within Section 4.0 of these terms of reference;

- Within these locations, three dimensional images of the proposed building will be prepared and inserted into the site photographs to show before and after conditions;
- All viewpoint GPS coordinates will be recorded and provided;
- A tripod will be used atop the GPS location, squared to the position using a plumb-bob, camera height will be set between 1.5 to 1.6 metres;
- All locations will include an original site photograph, a digital model image of the view, and a photo simulation showing the proposed buildings/development within the existing landscape;
- All simulated images will reflect the impacts of development, on surrounding vegetation and the Escarpment feature;
- All information will be presented in both digital and hard copy;
- All base information will be provided through use of a digital site survey, Google Earth, GPS and site photography.

Each visual simulation will be accompanied by the original photograph indicating existing conditions. No embellished or altered photographs or photographic simulations will be used (or are deemed acceptable by the NEC).

6.4 Final Image Creation

To ensure accurate visual simulations, along with the DTM and proposed buildings, we will ensure that at least three (3) features that appear in the photograph from each viewpoint (i.e. trees, signs, building, utility poles, horizon, ground surface, etc.) will be accurately located in the visual simulation. From each viewpoint, a high resolution image that includes these features will be rendered. This raster image will be superimposed on the corresponding panoramic image by aligning three (3) or more common features to both the model and the photograph, resulting in an accurate simulation of the proposed conditions.

6.5 Accuracy

The visual simulations will be prepared to convey the change to the Escarpment landscape and open landscape character that would result with implementation of the proposed development from specific viewpoints. Visual simulations and modelling will be built using the most accurate and up-to-date information available. The data will be used responsibly and without prejudice. The results will not be purposely exaggerated nor diminished in any way and the results will be as accurate as the data modelling software will provide.



The VIA report will be structured to address each of the major objectives outlined previously in Section 2.0 of this work plan and will be in conjunction with the Niagara Escarpment Commission Visual Assessment Guidelines (July 17, 2008)

Submission of Final Visual Impact Assessment Report

Based on the above terms of reference for VIA, we anticipate three (3) submissions of the report to the NEC and Town of Blue Mountains for approval. They are as follows:

1. Once the digital viewshed model of the proposed development and recommendations for viewshed to be simulated have been created. This includes the viewshed mapping of existing conditions and photographs of record
2. After NEC comments regarding the first submission are provided, photographic simulations of the development from selected viewpoints shall be prepared and submitted for review. The NEC does not require architectural details such as materials and fenestration to be included in the simulations; building height, extents and form (roof line / balconies) are sufficient; and
3. After NEC review and revision from the second submission. Final document format will include a digital copy and two hard copies to the NEC.

The final VIA report will include very specific recommendations that the NEC will request the Town of Blue Mountains include in the final draft plan, zoning by-law, and servicing or subdivision agreements. This would include maximum building heights (MASL or equal), setbacks, buffer zones and view corridors (roads or open spaces).

The VIA report will also include recommendations to mitigate and manage potential impacts (i.e. screening, buffering/filtering) at each viewpoint. If required, these recommendations will be directly reflected in the visual simulations.

Purpose

The purpose of this Plan 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.

Objectives

The objectives of the 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*.

Part 2 Development Criteria:

2.2 General Development Criteria

The objective is to permit reasonable enjoyment by the owners of all lots that can sustain development.

1. Permitted uses may be allowed provided that:

- a) The long term capacity of the site can support the use without a substantial negative impact on Escarpment environmental features such as contours, water quality, water quantity, natural vegetation, soil, wildlife, population, visual attractiveness and cultural heritage features.
 - b) The cumulative impact of development will not have serious detrimental effects on the Escarpment environment (e.g. water quality, vegetation, soil, wildlife, and landscape).
4. Any development permitted should be designed and located in such a manner as to preserve the natural, visual and cultural characteristics of the area.
5. Where development involves new roads, road improvements or service corridors, their designation and alignment should be in harmony with the Escarpment landscape.
6. The design of subdivisions, condominiums or other similar forms of residential lot ownership within Urban Areas, Minor Urban Centres and Escarpment Recreation Areas should be in harmony with and maintain the existing character of the Escarpment landscape.

See also: Parts 2.4 Lot Creation; 2.13 Recreation and 2.15 Transportation and Utilities

See also: Appendix 2 Definitions (carrying capacity, compatible etc.)