

WENTWORTH LANDSCAPES

Lots 52-54 McDonald Drive, Picton

STORMWATER MANAGEMENT BRIEF

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1 Introduction

The purpose of this analysis is to review the proposed grading and drainage of the proposed development on Lots 52-54 within the Prince Edward Industrial Park and ensure that it is in general conformance with the recommendations of the Stormwater Management Report prepared by Greer Galloway Group Inc., dated January 2010.

2 Existing Site Conditions and Drainage

The site is presently vacant, and drains generally southwesterly to the existing roadside ditch on the northside of McDonald Drive. The site is bound by a developed industrial site to the west, and the millennium trail to the north.

McDonald Drive is constructed to a rural standard, with roadside ditches for drainage. Sanitary Sewer is to be provided to the property by the municipality, and water is readily available for this site.

The subject site is within the study area of the Prince Edward Industrial Park that was prepared for the County of Prince Edward Public Works Department for the North. The location of the subject property is within Area 8 described in the report.

3 Stormwater Management

The intent of the overall stormwater design was to provide quality and quantity control for the industrial development to minimize the impact of the existing and future development.

In general, the conveyance of post development runoff from the overall park development is to be overland, through a series of side and rear lot swales/ditches, road ditches and culvert crossings. Runoff quality and quantity treatment/control is achieved through the existing linear detention/retention pond located south of the subject site.

A notched weir controls the discharge of the pond to the swale along Lot 37 before it enters the road side ditch at MacStevens Drive. The proposed pond outlet structure is a 2 stage, rectangular, notched weir designed to maximize detention times for higher frequency, shorter duration storms, while reducing runoff volumes and limiting

peak flows to below predevelopment rates for storms up to and including the 100, 24 Hour Chicago Storm.

The proposed grading plan for the industrial park is provided as Appendix A. This plan has been used as a guide as part of the County's site plan approval process.

4 Proposed Development

The proposed development within the 2.1ha parcel consists of a 358m² industrial building, 280m² asphalt parking and 3800m² of gravel area. Only a portion of the site, approximately 20%, is to be developed at this time; the remainder of the site shall remain in the existing condition. The proposed imperviousness of the site is calculated as 21%.

The drainage and grading of the site is in accordance with the overall grading plan (Appendix A). The drainage from the site is directed to the southerly property limit, toward the roadside ditch. The proposed Grading Plan is provided as Appendix B for reference.

The adjacent site to the south is only partially developed and therefore no lot line swales currently exist. As the adjacent lot is developed and presumably built up from existing grade in accordance with the subdivision grading plan and form common swale along the property limit. In the interim condition drainage will flow toward the existing roadside ditch as intended.

The property to the north, Hydro One lands, is developed. As noted in the industrial park drainage study, these lands have provided independent on-site stormwater management and therefore a common swale along the property limit has not been provided as to not direct additional flows to the existing development. A shallow swale has been provided within the subject site along the northly property limit, where grade permits, in order to facilitate drainage to the road side ditch.

5 Conclusions

This report demonstrates that the proposed development is in general accordance with the recommendations of the Stormwater Management Report prepared by Greer Galloway Group Inc., dated January 2010. The grading and drainage of the proposed development shall be directed to the existing stormwater management facility for the purpose of quality and quantity control of post development flows.

APPENDIX A

Grading Plan and Site Plan
prepared by Greer Galloway Group Inc

APPENDIX B

Grading Plan