REGION OF OTTAWA CARLETON | REPORT
RÉGION D'OTTAWA CARLETON | RAPPORT

Our File/N/Réf. **50** 07-98-0055-B
Your File/V/Réf.

DATE 27 January 1999

TO/DEST. Co-ordinator, Planning and Environment Committee

FROM/EXP. Environment and Transportation Commissioner
Planning and Development Approvals Commissioner

SUBJECT/OBJET **STORMWATER FLOWING FROM HOME DEPOT SITE KANATA**

DEPARTMENTAL RECOMMENDATION

That the Planning and Environment Committee receive this report for information.

BACKGROUND

At the 24 November 1998 Planning and Environment Committee meeting, Councillor Munter requested that staff report on what steps can be taken to rectify the problem of stormwater flowing untreated from the Home Depot site on Palladium Drive into the Carp River, and further, what steps can be taken to ensure that other development in this business park, located at or near the Carp River, does not drain unfiltered into the river.

DISCUSSION

The Home Depot in the Terry Fox Business Park is situated on a block created through Draft Plan of Subdivision 06T-90019 and Registered Plan 4M-1012. Draft Plan 06T-90019 was draft approved 7 June 1991. Included in the draft approval conditions was a requirement to prepare a stormwater design plan for the approval of the Ministries of Natural Resources (MNR), Transportation (MTO) and Environment (MOE), the Mississippi Valley Conservation Authority (MVCA), the Region and the City of Kanata (i.e., Condition 52). This stormwater design plan was approved by the MNR, who was then the lead stormwater agency, on 26 August 1994. Subsequently, the MNR, the MTO, the MVCA, the Region and the City of Kanata cleared Condition 52 indicating their satisfaction with the stormwater design plan. The MOE indicated that no clearance letter would be forthcoming from them since their responsibilities had been delegated to the MVCA and the Region.

A stormwater design plan for a subdivision documents the design of a drainage system, including the definition of pre- and post-development drainage areas, flow rates, and quantity/quality control requirements. These control requirements depend on the nature of the receiving drainage system (e.g. existing sewers, streams, etc.) and typically involve runoff storage. Stormwater design plans for individual sites within a subdivision typically provide a greater level of detail (e.g. location of catchbasins, sewer sizes, design of site-specific controls, etc.).

In the letter indicating the MNR's approval of the stormwater design plan, the MNR confirmed that no specific water quality criteria were required to be met for the subdivision, but that "*soft water quality best management practices*" be implemented "wherever possible" in the final design of each site development.

"Soft water quality best management practices" are features in the drainage system which tend to improve water quality as a result of runoff infiltration, vegetative filtering, or sediment capture, but are generally not designed to meet a specific water quality objective. Examples of these measures include grass swales or ditches, deep manhole and catchbasin sumps, infiltration trenches, etc.

MNR also required a 30 m vegetative buffer between the Carp River and any development structures, including paved surfaces.

The local municipality is the approval authority for site plans, and there is no legal requirement for stormwater management reports for site plans to be circulated to the Region. Nonetheless, the Region was given an opportunity to comment on the stormwater management reports for the Home Depot site and the adjacent Fox-Queensway Business Park site. The first drafts of both reports did not have any regard for the recommendations in the 1994 report approved by MNR. As a result of our comments on the reports, amendments were prepared which proposed the following measures:

1. Strategically located "optimum deep" manhole and catchbasin sumps. These sumps range from 0.8 m to 2.5 m in depth, as compared to typical standard depths of about 0.3 m. The volume of these sumps were sized in consideration of potential sediment scouring and typical maintenance frequencies.
2. An enhanced drainage swale near the outlet to the Carp River. The width and slope of this swale was designed to maximise runoff infiltration and vegetative filtration of urban pollutants which may not be trapped in the "optimum deep" sumps.

These measures were designed by Dr. Paul Wisner, recognised as a leading expert in the field of stormwater quality management. The City of Kanata is responsible for verifying that the measures recommended in the report are implemented. Written confirmation that the measures have been implemented has been provided to the Region by the developer's consulting engineer (see Annex A).

Normally, the only opportunity for Regional comment on site plans will be at the time that a development application is circulated to the Planning and Development Approvals Department by

the area municipality. As stated above, the area municipality is the approval authority for site plans, and the best that the Region could do in these instances is to remind the City of Kanata of the requirement for "soft water quality best management practices" as documented in the 1994 report.

We would like to point out that the "site-by-site" approach approved by the MNR in 1994 is not consistent with current stormwater management planning practices. It is now understood that *subwatershed studies* are needed to identify the most efficient and effective stormwater management controls. This understanding is now reflectED in the current Regional Official Plan (ROP), which requires that such studies be undertaken to support Official Plan Amendment applications, or when they are identified as priorities through the watershed planning process (please refer to Section 5.3 of the ROP).

Subwatershed studies are planning level studies which consider the entire ecosystem within a natural drainage area in order to identify: the potential impacts of development; measures required to mitigate these impacts; and opportunities for enhancement of the environment.

We are promoting the subwatershed study approach wherever possible throughout the Region. Subwatershed study priorities are currently being reviewed by the regional *Water Quality Committee*, and would appear that the Carp River study is a high priority. The Region, however, cannot act without the co-operation of the local municipalities who are the operating authorities for essentially all stormwater management works in the Region.

The Water Quality Committee is a multi-agency group with a mandate to address cross-jurisdictional issues related to water quality in the region. The committee membership includes all area municipalities, the Region, provincial ministries, the conservation authorities, and interested federal agencies such as the NCC and Parks Canada.

In summary, the draft plan of subdivision approval and registration process did not fail insofar as imposing and clearing appropriate approval conditions. While a subwatershed study may have identified potentially more effective controls, the 1994 approval made such an option difficult to pursue and, more importantly, we do not anticipate that the business park will result in significant degradation of the river provided that the recommendations of the original stormwater design plan are strictly enforced by the City of Kanata, and that appropriate maintenance activities for any stormwater management works are carried out. It should be noted that recent constraints on Regional resources have led to a situation where the Environment and Transportation Department can no longer provide the resources to review site plans from a stormwater management perspective. The onus will lie entirely with the area municipality to ensure that water quality concerns associated with site plans are identified and addressed appropriately.

CONSULTATION

Not Applicable.

FINANCIAL IMPLICATIONS

Not Applicable.

Approved by
N. Tunnacliffe, MCIP, RPP

Approved by
M.J.E. Sheflin, P. Eng.

Annex A

Confirmation of Best Management Practice Implementation at the Home Depot Site and the Fox Queensway Lands (First Line Road)

NOVATECH
Engineering Consultants Ltd.

17-77 Auriga Drive
Nepean, Ontario
K2E 7Z7

Office: (613) 727-1658
Fax : (613) 727-6972

FAX ☐ TRANSMITTAL ☐

To RMOC

Date DEC 8, 1998

Your File

Our File 98006-2

Re HOME DEPOT

Attention CHRIS ROGERS

Total No. of Pages (including cover) 4

Fax No. 560.6006

Return Original to Sender: Yes ☐ No ☒

From. LEE JABLONSKI

Original to Follow: Yes ☐ No ☒

COMMENTS

THIS FAX CERTIFIES THAT THE OPTIMUM DEEP SUMPS HAVE BEEN INSTALLED AT THE KANATA HOME DEPOT SITE IN ACCORDANCE WITH THE STORM DRAINAGE REPORT PREPARED FOR THE SITE.

CONTACT ME SHOULD YOU HAVE ANY QUESTIONS.

LICENSED PROFESSIONAL ENGINEER
LEE R. JABLONSKI
8/12/98
PROVINCE OF ONTARIO

ENGINEERING SERVICES BRANCH
REC. DEC - 9 1998
FILE NO.
TO

C. STU MOXLEY KANATA 592.8183
NEIL ROBINSON HOME DEPOT 416.609.1970

☐ As Requested ☐ Review and Comment ☐ By Mail ☐ By Hand ☐ Rush
☐ For Your File ☐ Review as Noted ☐ By Fax ☐ To Be Picked Up ☐ By Courier

Per LEE JABLONSKI

Document Name:

NOVATECH ENGINEERING CONSULTANTS LTD.

CONSULTING ENGINEERS AND PLANNERS

December 8, 1998

Regional Municipality of Ottawa Carleton
Surface Water Quality Branch
111 Lisgar Street
Ottawa, Ontario
K2P 2L7

Attention: **Mr. Chris Rogers P. Eng.**
Surface Water Quality Branch

Dear Sir:

Re: **Fox-Queensway Lands**
Terry Fox Business Park
MMA File No. 06T-90019
Our File No.: 91005-2

This letter is to confirm that the Best Management Practices (BMP's) for the above noted development as identified in our June 23, 1998 letter have been implemented.

In particular we wish to note that storm manhole structure #907 as identified on the Novatech drawing set has been constructed as a deep sump structure.

Should you have any questions please contact the undersigned.

Yours truly,

NOVATECH ENGINEERING CONSULTANTS LTD.

Edson R. Donnelly, CET
Project Manager

ERD/mm

C. Stuart Moxley – City of Kanata

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