SUBJECT: Sanatorium Road and Stormwater Management Class Environmental Assessment (Ward 8) - (PW07091)

RECOMMENDATION:

(a) That the General Manager, Public Works, be authorized and directed to file the Sanatorium Road and Stormwater Management Municipal Class Environmental Assessment Environmental Study Report with the Municipal Clerk for a minimum 30 day public review period;

(b) That upon completion of the Class EA process, the General Manager, Public Works Department, be authorized and directed to proceed with the property surveys and detailed design for the recommend measures for the road and stormwater improvements, and land acquisition and construction should proceed upon approval of the 2008 capital budget;

(c) That upon completion of the Class EA process City Staff be authorized to complete cost sharing negotiations with Chedoke Health Corporation for any associated improvements;

(d) That Staff be authorized to initiate a sanitary sewer and water main under the Municipal Act for Sanatorium Road to be included with the road reconstruction;

(e) That upon completion of the Class EA process, the Manager, Real Estate and Property Management, be directed to proceed with the acquisition of lands and easements required to construct the recommended measures for the stormwater and road improvements and that all costs associated with these lands and easement acquisitions be funded from the 2008 capital budget, subject to approval of the 2008 capital budget.

Scott Stewart, C.E.T.
General Manager
Public Works
EXECUTIVE SUMMARY:

In recent years the City of Hamilton has been inspecting and maintaining the north-south portion of Sanatorium Road due to the deteriorated condition of the road, sidewalks and lack of municipal storm sewers for road drainage. Also, a number of flooding complaints were received during storm events on July 26th and August 19th, 2005 from areas throughout the City including a number of areas in the Mountview Neighbourhood. The stormwater component of this Environmental Assessment looks to evaluate implementation options for the area around the north-south portion of Sanatorium Road (see study area map in Appendix A).

In the fall of 2006 a Municipal Class Environmental Assessment was initiated to address the road deficiencies and to reduce flooding. (See photographs in Appendix B).

The Class EA study follows the planning and design process of the June 2000 Municipal Engineers Association (MEA) Municipal Class Environmental Assessment document for roads, water and wastewater projects. The preferred solution of the Class EA study is considered to be approved under the Environmental Assessment Act subject to a systematic evaluation and public screening process, including the public review period.

A number of functionally different road and stormwater solutions were identified and evaluated. As this project is a Schedule ‘C’ project, an analysis of the ‘alternative design concepts’ to implement the preferred solution was conducted.

An evaluation of the alternative solutions was undertaken based on natural, social, economic and technical criteria. Based on the evaluation, the improvements are to realign Sanatorium Road to meet a 50 km/h design speed, provide continuous sidewalks along both sides of Sanatorium Road, and on-street cycling lanes on Sanatorium Road from Rice Avenue to Redfern Avenue. This option is the most cost effective and improves pedestrian and cyclist safety. In the long term, as traffic warrants and based on future traffic forecasts associated with full build out of the area, it is recommended that Sanatorium Road/Rice Avenue/Chedmac Drive intersection be realigned and a modern roundabout be constructed. The realignment of this intersection will allow for the enlargement of Holbrook Park. Also, a modern roundabout is proposed, in the future and as traffic warrants, at the Sanatorium Road/Scenic Avenue intersection.

Additionally, the preferred stormwater design is a new enlarged inlet to the existing storm sewer on Sanatorium Road; new inlets and storm sewer in Holbrook Park connected to the West 33rd Street Storm sewer at Elmwood Avenue; the construction of a low berm on the north boundary of Holbrook Park; a connection between the existing Sanatorium Road storm sewer and a new storm sewer flowing north on Sanatorium Road; a new storm sewer on Sanatorium Road between Rice Avenue and Redfern Avenue and a new stormwater storage facility (“dry” pond) south of Redfern Avenue connected to the existing Tiffany Pond.

As part of the Municipal Class EA process, the City is required to place the project file on the public record for a minimum 30-day review period. Subject to comments received during the review period, approval of the 2008 Capital Budget and land availability, the City will proceed with Sanatorium Road reconstruction and Stormwater Management improvements.
BACKGROUND:
Sanatorium Road is currently constructed to a rural cross section with concrete and asphalt sidewalks. The condition of the pavement, culverts and sidewalks must be reviewed since the structural component of the roadway is deteriorating and the existing sidewalks require improvement and/or replacement. Sanatorium Road bisects Chedoke Health Corporation lands. Other adjacent land uses include an elementary school, park numerous retirement communities (and / or long term care facilities), a hockey arena and residential developments (including Columbia College residences). The present road alignment does not contain continuous sidewalks, and has driveways onto the roadway for which improved visibility should be considered.

There are currently a number of studies and background reports on the area. They are:

- Chedoke Master Plan currently being prepared by the Chedoke Health Corporation.
- Mountview Neighbourhood Storm Drainage Study currently being prepared by McCormick Rankin Corporation
- Previous Mountview Neighbourhood Plan Study and Traffic Study completed by Parker Consultants
- Details on the Stormwater Management Pond located at the South West corner of Sanatorium Road and Scenic Drive
- Storm Event Response Group (SERG) Study (currently underway)

The current Mountview Neighbourhood plan provides for a possible road alignment of Rice Avenue to Chedmac Drive through a horizontal curve to the west with the existing Sanatorium Road intersecting this new alignment on the outside of the curve on the north side (see Appendix A). There was a previous expectation that the lands formerly owned by the Chedoke Health Corporation would be completely developed with institutional and high-tech medical office research facilities, etc. This also included an “Olympic Size” Swimming Pool on the north side of the Twin Pad Arena. The road pattern was initially designed to bring traffic directly into this neighbourhood through a series of horizontal curve alignments with the intention of Sanatorium Road providing access to the Hospital only. There was also consideration at that time that Sanatorium Road could be closed and transferred to the Hospital.

The Mountview Neighbourhood has not developed in accordance with the intent noted above and is now primarily a neighbourhood containing single family homes with “extended care” home facilities for those with special needs (confirmed with Planning and Economic Development). The anticipated traffic into the internal neighbourhood consists mostly of local residents and users of the Twin Pad Arena. With this change in land use, the road realignments previously identified have not been recommended and the focus has shifted to retaining Sanatorium Road as a public highway and reconstructing the roadway to a complete urban cross section. Therefore, upon Council endorsement of this staff report and completion of the review period of the Environmental Study Report, Traffic Engineering and Operations proceed with the declaration and sale of the surplus land located on the southwest corner of the Rice Avenue/Chedmac Drive intersection.

The study area includes Sanatorium Drive from approximately 100 metres south of Chedmac Drive north to Scenic Drive. The study reviewed alternative improvements to the road, sidewalks and intersections and also identified the long term road pattern to
provide vehicle, transit, pedestrian and bicycle access to the various land uses in this neighbourhood. The two intersection improvements (Sanatorium/Rice/Chedmac and Sanatorium/Scenic) would be undertaken in the future as traffic warrants.

The need for stormwater management improvements was identified as part of the Mountview Storm Drainage Study, which was initiated following two storm events that occurred on July 26, 2005 and August 19, 2005 and local road drainage needs. A number of flooding complaints were received during these storms from areas throughout the City including a number of areas in the Mountview Neighbourhood. The purpose of the storm drainage study was to investigate the capacity of the storm drainage system and to identify potential remedial measures to address problem areas. The study area (see Appendix A) for the Sanatorium Road Stormwater Management EA is one of three target areas from the Mountview Drainage Study. Dialogue has been initiated with Culture & Recreation on the improvements (new berm at north end of park and new storm sewer to improve drainage in the park) to Holbrook Park to allow it to function as a proper dry detention facility. Culture and Recreation will continue to be involved in the design process to ensure the improvements suit the needs of the park users.

The stormwater component of this Environmental Assessment looks to evaluate the potential remedial measures with respect to implementation for the study area around the north-south leg of Sanatorium Road

Consultation was undertaken with the Chedoke Health Corporation, the land owner for much of the property within the study area and Hamilton Health Sciences, the lease holder of these lands. Chedoke Health Corporation has confirmed their support for the project.

Since the Hospital has, historically, been the primary owner of the lands within the study area much of the subsurface infrastructure is privately owned by the hospital and is nearing the end of its design life. During the reconstruction of the roadway it is recommended that the water main and sewer along the North-South portion of Sanatorium be replaced. It is recognized that the Hospital is the primary user of this infrastructure and, as such, has a financial responsibility for its replacement. Some land acquisition is required for the implementation of this project therefore there are opportunities to negotiate an agreement for the transfer of land and the replacement of subsurface infrastructure.

This Environmental Study Report documents the process followed to determine the recommended undertaking and the environmentally significant aspects of the improvements to Sanatorium Road and the stormwater management facilities within the area.

**Municipal Class Environmental Assessment**

The Schedule C planning process was followed for this project and requires Phases 1 through 4 of the EA Planning process to be completed:

- Phase 1 Problem Definition
- Phase 2 Identification and Evaluation of Alternative Solutions to determine a preferred solution
- Phase 3 Examine Alternative Methods of Implementing the Preferred Solution
Phase 4 Document a Summary of the Rationale, the Planning, Design and Consultation Process within an Environmental Study Report.

Public consultation is a key component of the Class Environmental Assessment process. The public were invited to provide comments for the proposed Road Reconstruction and Stormwater Management in the Notice of Study Commencement, and the First Public Information Centre (PIC), held March 22nd, 2007 was advertised in two separate issues of the Hamilton Spectator (At Your Service Section) on March 9 and 16, 2007. In addition a notice was published in the March 9th Brabant Mountain News and on the project website (www.hamilton.ca/sanatorium) advising of the study's Notice of Commencement and the first PIC. A second Public Information Centre was held on April 23rd, 2007, which was advertised in two separate issues of the Hamilton Spectator (At Your Service Section) on April 13 and April 20, 2007. A notice was also published in the Brabant Mountain News on April 13 and on the project website.

Additionally, a community update meeting, arranged by Councillor Whitehead’s office, was held on February 15th at the Chedoke Hospital Nash Auditorium to provide an update on the project.

Prior to each PIC a notice was mailed to the institutions and residents who reside in and around the study area. These residents as well as required agencies and City staff were also mailed the Notice of Study Commencement and PIC notices. Persons who attended the Mountview Drainage Study also received the notices.

The first PIC had 21 people sign in and attend and the second PIC had 20 people sign in and attend. Public input from the first PIC showed support for the preferred road solution and stormwater solution. At the second PIC the alternative design concept for the preferred solution was presented and evaluated. Based on comments and comment forms received there was support for the preferred road and stormwater alternative.

**ANALYSIS/RATIONALE:**

The Class EA study follows the planning and design process of the June 2000 Municipal Engineers Association (MEA) Municipal Class Environmental Assessment document for roads, water and wastewater projects. The City is completing the Municipal Class EA planning process applicable to Schedule ‘C’ projects. Schedule ‘C’ projects generally include the construction of new facilities and major expansions to existing facilities and are considered to have a potential for significant environmental effects. These projects are approved under the Environmental Assessment Act once the required four phase process is complete and subject to the public review period.

**Alternative Road Solutions**

The Class EA study identified the following list of alternative solutions to address the road component:

1. Do nothing;
2. Road Resurfacing;
3. Road reconstruction and localized improvements, including the addition of left turn lanes and upgraded traffic control at intersections;
4. Road realignment (including the possibility of land acquisition);
5. Chedmac Drive/Rice Avenue diversion;
6. Capacity/operational improvements at Rice Avenue/Chedmac Drive and Scenic Drive/Sanatorium Road;
7. Continuous centre left turn lane – screened out as projected traffic volumes do not warrant the improvement;
8. Widen Sanatorium Road to four lanes – screened out as projected traffic volumes do not warrant the improvement;
9. Make Sanatorium Road a private road – screened out as there will be a significant traffic volume increase on surrounding roads;
10. Traffic calming – screened out as existing speeds on Sanatorium Road are not a problem;
11. Sidewalk repair;
12. Sidewalk replacement;
13. Improve existing transit facilities (i.e. bus lay-by);
14. Construct dedicated transit lanes north bound and southbound on Sanatorium Road – screened out due to significant additional property required and “over design” on this roadway;
15. On-street cycling lanes on Sanatorium Road; and,
16. Multi-use use trail on Sanatorium Road. – screened out due to potential conflicts with pedestrians (rehabilitation patients) and cyclists, and automobiles and cyclists (driveway conflict points). Note: the preferred solution consists of commuter cycling lanes and continuous sidewalks along sanatorium, thereby meeting the same intent as this alternative.

Preferred Road Solution

Based on the evaluation, a combination of Alternatives 3, 4, 6, 12 and 15 is the preferred solution (see appendix C). Therefore, the preferred alternative is road reconstruction and localized improvements (where needed) with the provision of on-street cycling lanes, replacement of sidewalks to provide a continuous sidewalk along Sanatorium Road, improvement to existing transit facilities where required and intersection improvements to Sanatorium Road/Chedmac Drive/Rice Avenue and Scenic Drive/Sanatorium. This solution addresses the road and pedestrian facility deficiencies and has a relatively low cost. In addition, there are low to moderate natural environmental impacts and it will enhance pedestrian and recreational opportunities in the area.

Alternative Stormwater Solutions

The Class EA study identified the following list of alternative solutions to address the stormwater component:

1. Do nothing;
2. Backflow valves and/or sump pumps in flood prone areas – screened out as it only provides a partial solution and is implemented by individuals;
3. Construct berms at specified areas;
4. Provide stormwater storage on a per-lot basis – screened out as it is difficult to impose as a retrofit;
5. Inlet controls on roadways – screened out as it may make flooding worse at existing low points;
6. Install relief sewer along Sanatorium to handle additional flows;
7. Improvements on major system flow paths;
8. Retrofit Tiffany pond;
9. Retrofit pond north of Scenic Drive – screened out as additional capacity of pond may be required for new development and pond is outside Study Area;
10. Expand channel near Idlewyld property;
11. Create dry pond at Holbrook park (improve drainage over existing conditions);
12. Create new storage pond south of Tiffany pond; and,

Preferred Stormwater Solution

Based on the evaluation, a combination of Alternatives 3, 6, 7, 11 and 12 is the preferred solution (see appendix D). Therefore, the preferred alternative is a new stormwater inlet at Sanatorium Road/Chedmac intersection, road grading to direct overflows to Holbrook Park and a flow diversion structure in the existing storm sewer to direct some of the flow to the new Sanatorium Road storm sewer. The construction of a new berm on the north side of Holbrook Park to increase existing storage capacity and to reduce flooding to the properties to the north from flooding during major storm events. The construction of a new drainage inlet (at the north end of the park) and storm sewer connection to the West 33rd Street sewer (at Elmwood Avenue) will improve drainage within Holbrook Park during non-major storm events. A new, oversized storm sewer will direct diverted flows from the Sanatorium Road inlet to a new dry stormwater detention facility south of Redfern Avenue. This solution will assist with reducing the flooding within the study area and assists with stormwater improvement for the Mountview Neighbourhood.

Road ‘Alternative Design Concepts’

As this project is a Schedule ‘C’ project, the City is required to evaluate the conceptual design alternatives. The Class EA identified the following list of ‘alternative design concepts’ to address the road component:

1. 50 km/h design speed;
2. 60 km/h design speed;
3. Sanatorium/Rice/Chedmac Roundabout Design A;
4. Sanatorium/Rice/Chedmac Traffic Signals Design A;
5. Sanatorium/Rice/Chedmac Roundabout Design B; and,

Preferred Road Design Concept

Based on the evaluation, the short term improvements are to realign Sanatorium Road to meet a 50 km/h design speed, the provision of continuous sidewalks along both sides of Sanatorium Road, and on-street cycling lanes on Sanatorium Road. This option is the most cost effective and improves pedestrian and cyclist safety. In the long term, based on future traffic forecasts and as traffic warrants associated with full build out of the area, it is recommended that Sanatorium Road/Rice Avenue/Chedmac Drive intersection be realigned and a modern roundabout be constructed. This realignment would allow for the expansion of Holbrook Park. Also, a modern roundabout should be constructed, in the future and as traffic warrants, at the Sanatorium Road/Scenic Avenue intersection.
Stormwater ‘Alternative Design Concepts’

As this project is a Schedule ‘C’ project, the City is required to evaluate the conceptual design alternatives. The Class EA identified the following list of ‘alternative design concepts’ to address the stormwater component:

1. Holbrook Park and Sanatorium Inlet Modifications;
2. Sanatorium Road Drainage and Flow Diversion and Dry Stormwater Management Pond;
3. Sanatorium Road Drainage and Flow Diversion that includes major system flows (minor flows excluded) from Hospital Lands on the west side of Sanatorium Road and Dry Stormwater Management Pond; and
4. Sanatorium Road Drainage and Flow Diversion that includes major and minor system flows from Hospital Lands on the west side of Sanatorium Road and Dry Stormwater Management Pond.

Preferred Stormwater Design Concept

Based on the evaluation, the preferred stormwater design is a new enlarged inlet to the existing storm sewer on Sanatorium Road; new inlets and storm sewer in Holbrook Park connected to the West 33rd Street Storm sewer at Elmwood Avenue; the construction of a low berm on the north boundary of Holbrook Park; a connection between the existing Sanatorium Road storm sewer and a new storm sewer flowing north on Sanatorium Road; a new storm sewer on Sanatorium Road between Rice Avenue and Redfern Avenue; collection of storm runoff from the hospital lands in the new Sanatorium Rd. storm sewer and a new stormwater storage facility ("dry" pond), which requires land acquisition, south of Redfern Avenue connected to the existing Tiffany Pond.

ALTERNATIVES FOR CONSIDERATION:

The preferred alternative solution has been identified using an evaluation and screening process that fulfills the requirements of the MEA Municipal Class EA document for Schedule ‘C’ projects. Municipal projects of this category are considered to be approved under the Environmental Assessment Act provided that the project follows the Schedule ‘C’ planning and design process outlined in the MEA Municipal Class EA document.

The MEA Municipal Class EA document was approved under the Environmental Assessment Act. If the City does not follow the process outlined in the Municipal Class EA document, the City would be in violation of the document and as a result would have contravened the EA Act. The Ministry of Environment could revisit the approval of a project or take away the City’s right to use the Municipal Class EA document.

The preferred alternative solution is not normally reconsidered at the end of the process unless there is an issue that is proven to affect the outcome of the evaluation process. There are two alternatives for Council to consider with respect to the recommendations of this report:

(1) To file the Sanatorium Road and Stormwater Municipal Class Environmental Assessment Environmental Study Report with the City Clerk for a minimum 30 day public review period and proceed with implementation, subject to comments received and funding approval.
(2) To not file the Sanatorium Road and Stormwater Municipal Class Environmental Assessment Environmental Study Report with the City Clerk for a minimum 30 day public review period and, as a consequence, not proceed with implementation.

Should Council not wish to approve the filing of the environmental study report, the Municipal Class EA process will be considered by the provincial government as incomplete and the City will not have approval under provincial environmental legislation to implement the improvements required to rehabilitate the roadway and to provide additional stormwater storage and management within the Mountview Neighbourhood. The outcome would be equivalent to the do nothing alternative, which would not address the deteriorated conditions of the roadway and the alleviation of flooding in the area. Eventually the City would have to repeat the Class EA process, which would likely result in the same recommendations.

**FINANCIAL/STAFFING/LEGAL IMPLICATIONS:**

**Financial**

Design work for this project will be funded, in 2007, from Project ID 5180572290. Funding for project construction and property acquisition will be brought forward to Council as part of the 2008 Capital Budget Program. The estimated cost (excluding land / easement acquisition) for the reconstruction of Sanatorium Road is $1.1 million and the stormwater improvements are $2.5 million. The estimated cost for the Sanatorium/Rice/Chedmac intersection is $580,000; however, it should be noted that this improvement may only be required based on long term build-out of the neighbourhood and should not be budgeted for until traffic warrants. The roundabout at Scenic and Sanatorium should be constructed through development charges, if traffic counts warrant.

**Staffing**

There are no staffing implications.

**Legal**

Municipal undertakings such as road improvements, water and wastewater projects are subject to Ontario’s Environmental Assessment Act. The Act allows for the approval of Class Environmental Assessments and the municipality has the option of following the planning process set out in the Municipal Engineers Association Class Environmental Assessment (June 2000). This study has followed the Schedule C Planning and Design Process and will fulfill phase 1 to 4 of the Class EA process. The City is required to file the Environmental Study report on the public record for a minimum 30-day review period.

**POLICIES AFFECTING PROPOSAL:**

The recommendations of this report will not bind the corporation or alter or contravene any established City Policy.
Agency Consultation

The following City of Hamilton departments were contacted for this project:

- Hamilton Emergency Services
- Community Services (Culture & Recreation)
- Planning and Economic Development (Community Planning, Heritage and Development Planning)
- Public Works (Operations & Maintenance, Transit, Traffic Engineering & Operations, Waste Management, Capital Planning and Implementation, Forestry and Horticulture)

The following agencies were contacted for this project:

- Ministry of the Environment
- Ministry of Natural Resources
- Ministry of Culture
- Ministry of Community and Social Services
- Environment Canada
- Transport Canada
- Indian and Northern Affairs Canada
- Canadian Environment and Assessment Agency
- Bell Canada
- CN Rail
- Department of Fisheries and Oceans
- Ministry of Transportation
- Union Gas
- Horizon Utilities
- Hamilton Conservation Authority
- First Nations and Aboriginal Organizations
- Hamilton Health Sciences
- Chedoke Health Corporation
- Hamilton-Wentworth District School Board
- Columbia College
- Interval House
- Idlewyld Manor
- St. Peter’s Care Centre

The following agencies were contacted and provided comments:

- Ministry of Environment
- Transport Canada
- Idlewyld Manor
- Indian and Northern Affairs Canada
- City of Hamilton Forestry and Horticulture
- CN Rail
- Horizon Utilities
- Canadian Environment and Assessment Agency

All comments were addressed where appropriate.
CITY STRATEGIC COMMITMENT:

By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☑ Yes ☐ No
Opportunities for physical activity are supported and enhanced.
The preferred alternative allows for the provision of cycling lanes and continuous sidewalks along Sanatorium Road. Reduces flooding potential within the area.

Environmental Well-Being is enhanced. ☑ Yes ☐ No
Ecological function and the natural heritage system are protected.
The preferred alternative will allow for minimal disruption to the environmental features in the area.
Consumption of energy is reduced.
A sustainable transportation network provides many options or people and goods movement; vehicle dependency is reduced.
Improved stormwater management reduces erosion and flooding potential.

Economic Well-Being is enhanced. ☑ Yes ☐ No
Hamilton's high-quality environmental amenities are maintained and enhanced.
Local Economy, To promote Hamilton’s environment as a desirable place to live and work.
Land Use in the Urban Area, To use alternative modes of movement, such as walking, bicycling and public transit everyday.

Does the option you are recommending create value across all three bottom lines? ☑ Yes ☐ No
The preferred alternative addresses the present road deficiencies and improves stormwater management and minimizes the impact on all three bottom lines. It addresses the road and stormwater management deficiencies in a cost effective manner with little disruption to residents and the environmental area.

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☑ Yes ☐ No
The recommendations in this report have no impact on the desired results for this commitment. (e.g. life long learning, supportive workplace).
APPENDIX A

Map showing the location of the Storm Water Study Area, Holbrook Park, and Surplus Lands near Sanatorium Road and Scenic Drive. The map also indicates the proximity of the study areas to other streets and roads such as West 35th St, West 34th St, West 33rd St, and Rice Ave.
Sanatorium/Rice/Chedmac Intersection following storm event.