

13

TEMPORARY ROAD CLOSURES

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, March 24, 2006, from the Commissioner of Transportation and Works:

1. RECOMMENDATIONS

It is recommended that:

1. The Commissioner of Transportation and Works be authorized to exercise any of the powers of Regional Council for the temporary closure of the following roads:
 - a) Warden Avenue (Y.R. 65) from Vivian Road (Y.R. 74) to Doane Road (Y.R. 45) in the Towns of East Gwillimbury and Whitchurch-Stouffville.
 - b) 16th Avenue (Y.R. 73) between Markham By-Pass (Y.R. 48) and Reesor Road (Y.R. 70) in the Town of Markham.
2. The Regional Solicitor be authorized to prepare the necessary by-laws to give effect to the foregoing.

2. PURPOSE

The purpose of this report is to provide authorization for the Commissioner of Transportation and Works to temporarily close the specified Regional roads to through-traffic to accommodate construction projects.

3. BACKGROUND

In order to complete some roadwork activities, it is often necessary to temporarily close sections of a road to through-traffic. *The Municipal Act* allows municipal councils to delegate authority to temporarily close roads for the purposes of construction or maintenance.

It is difficult to pinpoint the required dates for the temporary closures, as the construction schedules often change because of delays, weather, and supply of materials. It is therefore appropriate to delegate the authority to temporarily close roads to the Commissioner of Transportation and Works. The following roadworks require temporary road closures for construction activities:

- Warden Avenue –Vivian Road to Doane Road Towns of East Gwillimbury and Whitchurch-Stouffville
- 16th Avenue – Markham By-Pass to Reesor Road Town of Markham

3.1 Warden Avenue – Vivian Road to Herald Road, Towns of East Gwillimbury and Whitchurch-Stouffville

The improvements at the Warden Avenue intersection with Davis Drive are scheduled for construction by late summer 2006 and completion by the end of 2006. The work includes full-depth reconstruction of the road, addition of turning lanes, extension of culverts on Davis Drive west of Warden Avenue, replacement of culverts on Warden Avenue south of Davis Drive and installation of partial illumination and traffic signals. Davis Drive will remain open for the duration of the contract. A location plan is attached (*See Attachment 1*).

3.2 Warden Avenue - Herald Road to Doane Road, Town of East Gwillimbury

The improvements at the Warden Avenue and Mount Albert Road intersection are scheduled for construction by late summer 2006 and completion by the end of 2006. The work includes full-depth reconstruction of the road, addition of turning lanes and installation of partial illumination and traffic signals. Mt. Albert Road will remain open for the duration of the contract. A location plan is attached (*See Attachment 2*).

3.3 16th Avenue – Existing Markham By-Pass to Reesor Road, Town of Markham

The improvement of 16th Avenue and construction of an intersection with the new Markham By-Pass is scheduled to start in the spring 2006 and be completed by the end of 2006. The work will include full depth reconstruction of the road, addition of turning lanes, partial illumination and traffic signals. A location plan is attached (*See Attachment 3*).

4. ANALYSIS AND OPTIONS

4.1 Rationale for Temporary Road Closures

Where possible, Regional staff co-ordinate the construction activities to keep the roads open to through traffic. However, it is not always feasible to maintain through-traffic because of the very nature of the work and it is often safer and more cost effective to complete the work under a temporary full road closure.

Temporary road closures, where implemented, reduce safety risks to both the travelling public and work crews and provide a work environment that enhances construction

quality. Furthermore, temporary closures significantly reduce the costs and time scheduled for any work, thus minimizing public impact and disruption when applied.

4.2 Public Notification and Mitigation

Notification of the temporary road closures will be placed on arterial and local roads two weeks prior to the closure period along with advertisements (for closures longer than two days) in the local newspapers. All emergency public service agencies (police, fire and ambulance) and public and school transit authorities will also be informed of the closures. Temporary road closure schedules will also be posted on the York Region website.

A detailed signage plan will be put in place for each closure to clearly identify detour routes. Measures will also be provided to maintain local access to residents, businesses, schools and other institutions. Property owners that will be directly affected by local access will also be advised by mail.

The duration period for all temporary road closures will be minimized by imposing timing constraints within the individual contracts for each project. Once a road closure is in effect, efficient utilization of the time period will be an obligation of the contractor to ensure that public impact and inconvenience is limited through effective work planning and operations.

Table 1 summarizes the expected durations and timing pertaining to each road closure recommended in this report.

Table 1
Temporary Road Closures

Location	Municipality	Duration	Timing
Warden Avenue Herald Road to Davis Drive	East Gwillimbury	2 weeks	July/ August 2006
Warden Avenue Davis Drive to Vivian Road	Whitchurch- Stouffville	4 weeks	July/ August 2006
Warden Avenue Doane Road to Mount Albert Road	East Gwillimbury	2 weeks	September/ October 2006
Warden Avenue Mount Albert Road to Herald Road	East Gwillimbury	2 weeks	September/ October 2006
16 th Avenue Markham By-Pass to Reesor Road	Markham	4 weeks	August to November 2006

4.2.1 Warden Avenue, Towns of East Gwillimbury and Whitchurch-Stouffville

Relative to Davis Drive, the traffic on Warden Avenue is light. Maintaining even a one-lane, two-way detour on Warden Avenue's existing narrow roadway platform will require costly overbuilding as well as the use of temporary concrete barriers. At the location for the new culverts on Warden Avenue, there would be a relatively high cost to maintain traffic while the construction activity, for which the detour is required, is relatively short. If the road is closed, it is estimated that culvert replacements can be completed in two weeks at each location, as compared to 12 weeks if left open with a detour. Other benefits are:

- Reduced environmental impacts due to less time required for in-water works.
- Safer work area for the contractor's work force.
- Less driver confusion regarding traffic flagging and negotiation of detour alignments.
- Less cost for detour construction and maintenance.

The exact closure dates and duration will be determined once the contract has been awarded and a contractor work schedule developed that minimizes the actual closure periods. The aquatic habitat in this area is deemed cold water and the permit for in-water works is restricted to July 1, 2006 to September 15, 2006. The closure to construct the culvert must be within that time period. The north and south legs of the intersection will not be closed at the same time. Local access will be maintained.

4.2.2 Warden Avenue, Town of East Gwillimbury

Relative to Mount Albert Road, the traffic on Warden Avenue is light. Maintaining even a one-lane, two-way detour on Warden Avenue's existing narrow roadway platform will require costly overbuilding as well as the use of temporary concrete barriers and flagging. It is estimated that the construction of detours and new roadway on a staged basis will require about three weeks at each location.

If the roadway is closed, the construction duration could be reduced to about two weeks. Added benefits would include:

- Safer work area for the contractor's work force.
- Less driver confusion regarding traffic flagging and negotiation of detour alignments.
- Less cost for detour construction and maintenance.

The exact closure dates and duration will be determined once the contract has been awarded and a contractor work schedule developed that minimizes the actual closure periods. The north and south legs of the intersection will not be closed at the same time. This section of Warden Avenue will not be closed at the same time as Warden Avenue at Davis Drive. Local access will be maintained.

4.2.3 16th Avenue, Town of Markham

The reconstruction of 16th Avenue, from the existing Markham By-Pass to Reesor Road will be completed concurrently with the construction of the third phase of the new Markham By-Pass planned to start in the spring of 2006. This will involve the

realignment of 16th Avenue and construction of an entirely new intersection on 16th Avenue.

Owing to the absence of existing residential or business driveways on this section of 16th Avenue, the existing low volume of through traffic and the availability of a detour route, the closure of 16th Avenue will enable prompt construction of the new intersection and the reconstruction of 16th Avenue, without incurring the need or expense for staged construction.

5. FINANCIAL IMPLICATIONS

The proposed temporary road closures are expected to result in a savings in construction cost, compared to the cost of maintaining traffic during construction. Funds for the works are included in the approved 10-Year Capital Plan for 2006.

6. LOCAL MUNICIPAL IMPACT

The construction of each of these projects will have a positive impact on the local communities through the improvement of the road and sewer infrastructure within each of the local municipalities.

The closure of any road creates an inconvenience to the travelling public. Regional staff will undertake a number of mitigative measures to ensure that this disruption is kept to a minimum.

Signage forewarning of the proposed temporary road closures will be placed well in advance of the road closure dates and residents will be advised directly by mail. Local traffic will be maintained at all times to provide access to business and residences.

Traffic management plans are incorporated in all Regional construction contracts. Advertisements (for closures longer than two days) will be placed in the local newspapers indicating the closure location and duration. Detour signs will be installed to properly guide motorists around the closure. Emergency services and school boards will be notified in advance of the closure to ensure no interruption in service provision.

Staff at each of the local municipalities have been contacted regarding these proposed temporary road closures and concur with the proposed closures. Local municipal staff will also be advised a minimum of two weeks prior to each specific closure.

7. CONCLUSION

Under *The Municipal Act*, Regional Council may delegate authority to temporarily close roads. It is, therefore, recommended that authorization be delegated to the Commissioner of Transportation and Works for the temporary closure of:

- Warden Avenue from Vivian Road to Doane Road, in the Towns of East Gwillimbury and Whitchurch-Stouffville.
- 16th Avenue between existing Markham By-Pass and Reesor Road in the Town of Markham.

The closure of these roads will allow for more cost effective and safe construction work to occur. Regional staff will take all necessary precautions to ensure that road closures are kept to a minimum and that appropriate notification is made to all that may be affected by these closures.

The Senior Management Group has reviewed this report.

(The attachments referred to in this clause were included in the agenda for the April 5, 2006 Committee meeting.)