Traffic Control and Protection Plan
For
Niagara Health System

St. Catharines Hospital Project No. SCS 17-006
Municipal Road and New Parking Lot

Rankin Job# 18-L5

The **Ministry of Transportation Book 7 - Temporary Conditions – Ontario Traffic Manual, January 2014,** and more specifically Table G – Decision Matrix: Typical Layouts on page 193 through 196 of the Manual will be the relevant guide for the Rankin Construction Inc.'s Traffic Protection Plan for this project. The attached schematics will constitute the traffic protection plan configurations that will be used by Rankin Construction Inc. and all subcontractors for the duration of the construction work on this project.

A copy of Temporary Conditions – Field Edition should be kept on site and referred to when proposed typical layouts are not appropriate. It might be necessary to design new typical layout in accordance with sound traffic engineering principles.

This Plan shall be reviewed with al personnel (General and Subcontractors) and the Site Superintendent shall ensure that the Plan is implemented correctly. The Plan shall be reviewed daily when Traffic Control Persons (Flagpersons) are being used on this project.

Type of Work: Road Construction

Short Duration: Stationary Maintenance, construction, or utility activities that require a separate workspace for more than 30 minutes and less than one 24 hour period.

Long Duration: Stationary Maintenance, construction, or utility activities that require a separate workspace for more than 24 hours

Road Configuration: Two-Lane Road – NON Freeway
Multi-Lane Road – NON Freeway

Traffic Protection Plan Configurations Required:

- Table A: Work Zone Component Dimensions: Very Short and Short Duration Work (Non-Freeways)
- Table B: Work Zone Component Dimensions: Long Duration Work

(Non-freeways)
- Figure 1: Component Areas for Temporary Conditions
- TL-01: Designated Construction Zone Signing
- TL-02: Designated Construction Zone Signing
- TL-05: Shoulder Work – Mobile Operation & Very Short Duration
- TL-06: Shoulder Work – Short Duration & Long Duration
- TL-07: Lane Encroachment – Mobile Operation & Very Short Duration
- TL-08: Lane Encroachment – Short Duration & Long Duration
- TL-09: Partial Lane Shift – Short Duration & Long Duration
- TL-14: Lane Encroachment – Short Duration & Long Duration
- TL-17: Partial Lane Shift – Long Duration
- TL-19: Lane Closed – Very Short Duration, Short Duration & Long Duration
- TL-20A: Lane Closed – Very Short Duration & Short Duration
- TL-20B: Lane Closed – Very Short Duration & Short Duration
- TL-20C: Lane Closed – Very Short Duration & Short Duration
- TL-22: Lane Closed or Occupied – Mobile Operations & Very Short Duration
- TL-23: Lane Closed – Short Duration & Long Duration
- TL-25: Left Lane Closed – Mobile Operations & Very Short Duration
- TL-26: Left Lane Closed – Short Duration & Long Duration

NOTE: COPIES OF APPLICABLE CONFIGURATIONS ARE INCLUDED WITH PLAN

Other Site Specific Considerations

(a) Identification of Hazards:
- Workers to be aware of the travelling public and construction traffic at all time.
- A Signal Person is required for Equipment Operators when working around line of sight obstructions and overhead power lines.
- A Signal Person is required to guide Dump Trucks and Concrete Trucks when trucks are reversing.

(b) Traffic Control Measures to be used:
- See section 1 above.

(c) Method of carrying out the set-up and removal of Traffic Control Measures:
- Set up work zone traffic control devices starting upstream end of work zone
- Removal lane closure to be carried out in reverse of Set-up

(d) Protective Clothing to be Worn by All personnel on Site:
- CSA Approved Safety Footwear protection
- CSA Approved Safety Head protection
- CSA Approved Safety Vest with reflective stripping

(e) Workers required for Traffic Control Operations:
- A minimum of two workers shall be used in any Traffic Control Operation. Though we are using RC Flagmen in the event of a failure Stop slow paddles shall be made available on site. If for any reason the visibility shall be

obstructed between the TCP's, two-way radios shall be utilized for proper communication.

(f) Distance a Worker is to remain away from delineators:

- Workers shall remain as far away as possible from Traffic Control Devices.

(g) Construction Traffic Entering and Exiting the Work Zone:

- Workers to be aware of the travelling public and construction traffic at all time.
- A Signal Person is required for Equipment Operators when working around line of sight obstructions and overhead power lines.
- A Signal Person is required for to guide Dump Trucks and Concrete Trucks when trucks are reversing.

(h) Inspection of Traffic Control Devices:

- The Supervisor, or an appointed alternate, shall inspect the Traffic Control Devices at a minimum frequency of twice daily.
- Once the Traffic Alteration is in place the Supervisor, or an appointed alternate, shall travel through the alteration with the Travelling Public to ensure that the Traffic Control Devices are adequate to provide safe passage for all vehicles.

(i) Traffic Flows with Regards to Work Schedule

- Traffic delays will be kept to a minimum with the use of typical layout for this scenario according to Ministry of Transportation – Temporary Conditions Manual

(j) Safety Procedure Working Near Hydro Lines

- When working near hydro lines a competent working will signal the operator to ensure that no object shall be brought closer to an energized overhead electrical conductor with a nominal phase-to-phase voltage rating set out in the table below:

Column 1 Nominal phase-to-phase voltage rating	Column 2 Minimum distance
750 to 150,000 volts	3 metres
150,000 to 250,000 volts	4.5 metres
more than 250,000 volts	6 metres

O. Reg. 627/05, s. 7.

- The equipment boom shall be at 90 degrees to the wires so that if the boom control was to fail (which could cause the boom to come down unexpectedly) the boom would fall be away from the wires.
- Swing the load away from the wires.
- Place "Danger to" signs in the area of the hydro wire hazard to warn about the danger of overhead wires.
- Place a sticker in cab to remind operator of the danger of overhead wires.
- Operate the equipment at a slower-than-normal rate in the vicinity of power lines.

- Exercise caution near long spans of overhead power lines, since wind can cause the power lines to sway laterally and reduce the clearance between the equipment and the power line.
- Exercise caution when traveling over uneven ground that could cause the equipment to weave or bob into power lines.
- Keep all personnel well away from the equipment whenever it is close to power lines.
- Prohibit persons from touching the equipment or its load until a signal person indicates that it is safe to do so.

**** When working near wires, conduct a daily tail gate safety meeting to review these procedures**.

(k) Procedures to Follow If Contact Occurs

To protect against electrical shock injury in the event of contact between equipment and an energized line, the CSA recommends the following:

- The equipment operator should remain inside the cab.
- All other personnel should keep away from the equipment and load, since the ground around the machine might be energized.
- The equipment operator should try to remove the machine from contact by moving it in the reverse direction from that which caused the contact.
- If the equipment cannot be moved away from contact, the operator should remain inside cab until the lines have been de-energized.