



BOX: 30
NICHOLAS ST. INTERCHANGE NORTH

SUMMARY OF EXISTING/FUTURE CONDITIONS

G - TIGHT CURVATURE FOR WB ON-RAMP
- DISTANCE BETWEEN WB ON-RAMP AT NICHOLAS STREET AND WB OFF-RAMP AT METCALFE TOO SHORT

T - NO IDENTIFIED PROBLEMS

S - HIGHER THAN EXPECTED COLLISION PROBABILITY FOR WB ON-RAMP AT GREENFIELD CONNECTION AND THROUGH TIGHT CURVE

PROBLEM IDENTIFICATION

- TIGHT CURVATURE OF WB ON-RAMP RESULTS IN SAFETY CONCERNS
- WEAVING BETWEEN TRAFFIC ENTERING WB QUEENSWAY AT NICHOLAS ST. AND TRAFFIC EXITING AT METCALFE ST. CAUSES CONGESTION AND SAFETY CONCERNS
- GREENFIELD CONNECTION MERGES IN CLOSE PROXIMITY TO TIGHT CURVE FOR WB ON-RAMP

SHORT LISTED ALTERNATIVES

1. DO NOTHING.
2. MINOR MODIFICATIONS:
- IMPLEMENT POSITIVE GUIDANCE MEASURES FOR GREENFIELD CONNECTION TO WB ON-RAMP
- INCREASE CURVATURE FOR WB ON-RAMP
3. MAJOR MODIFICATIONS:
- REALIGN QUEENSWAY TO THE SOUTH, IMPROVE INTERCHANGE RAMP ALIGNMENT AND PROVIDE SEPARATE WB ON-RAMP (SEE SKETCH 30)

BOX: 31
NICHOLAS ST. TO VANIER PKWY./RIVERSIDE DR.

SUMMARY OF EXISTING/FUTURE CONDITIONS

G - VERTICAL (CREST) CURVATURE EAST OF RIDEAU RIVER RESTRICTS STOPPING SIGHT DISTANCE
- NARROW MEDIAN AND OUTSIDE SHOULDER WIDTHS RESULT IN RESTRICTED STOPPING SIGHT DISTANCE
- HORIZONTAL CURVATURE TIGHTER THAN DESIRABLE
- INTERCHANGE SPACING LESS THAN DESIRABLE

T - EB AND WB QUEENSWAY CONGESTION DURING PEAK PERIODS

S - HIGHER THAN EXPECTED COLLISION PROBABILITY FOR EB & WB QUEENSWAY

PROBLEM IDENTIFICATION

- INSUFFICIENT THROUGH LANE CAPACITY FROM NICHOLAS ST. TO VANIER PKWY./RIVERSIDE DR.
- CLOSE SPACING OF INTERCHANGES CREATES WEAVING PROBLEMS WHICH RESULTS IN CONGESTION AND SAFETY CONCERNS (REFER TO BOXES 29/32/33)

SHORT LISTED ALTERNATIVES

1. DO NOTHING.
2. MINOR MODIFICATIONS:
- NO VIABLE MODIFICATIONS
3. MAJOR MODIFICATIONS:
- ADD 1 ADDITIONAL THROUGH LANE IN EACH DIRECTION FROM NICHOLAS ST. TO VANIER PKWY./RIVERSIDE DR. (8 BASIC LANES PLUS AUXILIARY LANES)

BOX: 28
O'CONNOR/METCALFE ST. INTERCHANGES

SUMMARY OF EXISTING/FUTURE CONDITIONS

G - DECELERATION LANE FOR EB OFF-RAMP TO O'CONNOR ST. TOO SHORT
- DISTANCE BETWEEN EB ON-RAMP AT METCALFE AND EB OFF-RAMP AT NICHOLAS STREET SHORTER THAN DESIRABLE

T - ALL RAMP TERMINAL INTERSECTIONS CONGESTED DURING PEAK PERIODS
- COMPLEX INTERSECTION GEOMETRY AFFECTS INTERSECTION CAPACITY

S - HIGHER THAN EXPECTED COLLISION PROBABILITY FOR METCALFE/ISABELLA AND CATHERINE/O'CONNOR INTERSECTIONS

PROBLEM IDENTIFICATION

- WEAVING BETWEEN TRAFFIC ENTERING EB QUEENSWAY AT METCALFE ST. AND TRAFFIC EXITING AT NICHOLAS ST. CAUSES CONGESTION AND SAFETY CONCERNS
- INSUFFICIENT EB THROUGH LANE CAPACITY ON ISABELLA ST. TO ACCOMMODATE EB TRAFFIC EXITING AT O'CONNOR ST.
- INSUFFICIENT CAPACITY FOR NB RIGHT TURN TO QUEENSWAY ON-RAMP AT METCALFE
- INSUFFICIENT WB THROUGH LANE CAPACITY ON CATHERINE ST. DUE TO SPLIT TRAFFIC SIGNAL PHASING REQUIRED TO ACCOMMODATE CATHERINE ST. AND WB OFF-RAMP TRAFFIC
- INSUFFICIENT CAPACITY FOR SOUTHBOUND THROUGH MOVEMENT ON O'CONNOR TO QUEENSWAY WB ON-RAMP
- INSUFFICIENT INTERSECTION CAPACITY RESULTS IN HIGHER THAN EXPECTED COLLISION PROBABILITY

SHORT LISTED ALTERNATIVES

1. DO NOTHING.
2. MINOR MODIFICATIONS:
- CUL-DE-SAC CATHERINE ST. ON EAST SIDE OF METCALFE
3. MAJOR MODIFICATIONS:
- CLOSE O'CONNOR STREET RAMP AND ACCOMMODATE MOVEMENTS ELSEWHERE (SEE SKETCHES 26-1, 26-2)
- IMPROVE EB METCALFE ON-RAMP CAPACITY BY ELIMINATING WEAVE WITH EASTBOUND OFF-RAMP TO NICHOLAS / LEES (SEE SKETCH 28)

BOX: 29
NICHOLAS ST. INTERCHANGE SOUTH

SUMMARY OF EXISTING/FUTURE CONDITIONS

G - DISTANCE BETWEEN METCALFE ST. ON-RAMP AND NICHOLAS ST. OFF RAMP IS TOO SHORT
- TIGHT CURVATURE FOR ALL RAMPS

T - EB OFF-RAMP/LEES AVE. INTERSECTION CONGESTION DURING PEAK PERIODS

S - HIGHER THAN EXPECTED COLLISION PROBABILITY FOR EB OFF-RAMP TO LEES AVE., LEES AVE./RAMP TERMINAL INTERSECTIONS AND LOOP RAMP

PROBLEM IDENTIFICATION

- TIGHT CURVATURE OF RAMPS RESULTS IN SAFETY CONCERNS
- WEAVING BETWEEN TRAFFIC ENTERING EB QUEENSWAY AT METCALFE ST. AND TRAFFIC EXITING AT NICHOLAS ST. CAUSES CONGESTION AND SAFETY CONCERNS
- STOP SIGN AT LEE'S AVE. MAKES ACCESS TO LEES AVE. DIFFICULT

SHORT LISTED ALTERNATIVES

1. DO NOTHING.
2. MINOR MODIFICATIONS:
- IMPLEMENT POSITIVE GUIDANCE MEASURES ON RAMPS AND IMPROVE SKID RESISTANCE / SUPERELEVATION
- REALIGN EB OFF-RAMP TO LEES AVE. TO LINE UP WITH CHESTNUT ST. & SIGNALIZE INTERSECTION
- INTERSECTION IMPROVEMENTS AT LEES AVE. / EB ON-RAMP, INCLUDING SIGNALIZATION (TO CITY OF OTTAWA FOR CONSULTATION/RESOLUTION)
3. MAJOR MODIFICATIONS:
- NO VIABLE MODIFICATIONS

NOTE - THE NICHOLAS ST. INTERCHANGE ALTERNATIVES MAY NEED TO BE REVIEWED DEPENDING UPON THE OUTCOME OF THE 'ALTA VISTA TRANSPORTATION CORRIDOR ENVIRONMENTAL ASSESSMENT STUDY'.