

Appendix C – STAMSON Noise Model Output File for Tunnel Alternative (Alternative 3)

DRAFT

STAMSON 5.0 NORMAL REPORT Date: 21-02-2007 01:14:41
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: thorold.te Time Period: Day/Night 16/8 hours
Description:

Road data, segment # 1: northbound (day/night)

Car traffic volume : 12800/2400 veh/TimePeriod
Medium truck volume : 640/480 veh/TimePeriod
Heavy truck volume : 640/240 veh/TimePeriod
Posted speed limit : 80 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: northbound (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 1.20 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: southbound (day/night)

Car traffic volume : 11317/2400 veh/TimePeriod
Medium truck volume : 656/480 veh/TimePeriod
Heavy truck volume : 656/240 veh/TimePeriod
Posted speed limit : 80 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: southbound (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 30.00 / 30.00 m
Receiver height : 1.20 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Source height = 1.67 m

Segment Leq : 68.38 dBA

Total Leq All Segments: 73.15 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 74.26

Note: this sound level appears in Table 5.2-2 in the main report.

STAMSON 5.0 SUMMARY REPORT Date: 03-03-2007 12:10:16
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: Time Period: Day/Night 16/8 hours
Description: NB + SB traffic at Entrance Portal - Near HWY 3

Road data, segment # 1: NB (day/night)

Car traffic volume : 14287/3260 veh/TimePeriod
Medium truck volume : 826/188 veh/TimePeriod
Heavy truck volume : 5983/1365 veh/TimePeriod
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: NB (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: SB (day/night)

Car traffic volume : 14221/3118 veh/TimePeriod
Medium truck volume : 1115/244 veh/TimePeriod
Heavy truck volume : 9496/2082 veh/TimePeriod
Posted speed limit : 80 km/h
Road gradient : 3 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: SB (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 30.00 / 30.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: NB (day)

Source height = 2.31 m

ROAD (0.00 + 77.86 + 0.00) = 77.86 dBA
Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-90 90 0.64 79.27 0.00 0.00 -1.42 0.00 0.00 0.00 77.86

Segment Leq : 77.86 dBA

Results segment # 2: SB (day)

Source height = 2.40 m

ROAD (0.00 + 75.72 + 0.00) = 75.72 dBA

Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-90 90 0.63 82.04 0.00 -4.92 -1.41 0.00 0.00 0.00 75.72

Segment Leq : 75.72 dBA

Total Leq All Segments: 79.93 dBA

Results segment # 1: NB (night)

Source height = 2.31 m

ROAD (0.00 + 74.61 + 0.00) = 74.61 dBA

Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-90 90 0.55 75.87 0.00 0.00 -1.26 0.00 0.00 0.00 74.61

Segment Leq : 74.61 dBA

Results segment # 2: SB (night)

Source height = 2.40 m

ROAD (0.00 + 72.56 + 0.00) = 72.56 dBA

Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-90 90 0.54 78.46 0.00 -4.64 -1.25 0.00 0.00 0.00 72.56

Segment Leq : 72.56 dBA

Total Leq All Segments: 76.72 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 79.93
(NIGHT): 76.72

STAMSON 5.0 NORMAL REPORT Date: 03-03-2007 12:40:56
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: Time Period: Day/Night 16/8 hours
Description: NB + SB traffic at Exit Portal - Near Malden st.

Road data, segment # 1: NB (day/night)

Car traffic volume : 3000/1124 veh/TimePeriod
Medium truck volume : 504/189 veh/TimePeriod
Heavy truck volume : 4726/1771 veh/TimePeriod
Posted speed limit : 80 km/h
Road gradient : 3 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: NB (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: SB (day/night)

Car traffic volume : 5665/1628 veh/TimePeriod
Medium truck volume : 1082/311 veh/TimePeriod
Heavy truck volume : 10368/2980 veh/TimePeriod
Posted speed limit : 80 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: SB (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 30.00 / 30.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: NB (day)

Source height = 2.40 m

ROAD (0.00 + 77.50 + 0.00) = 77.50 dBA
Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-90 90 0.63 78.92 0.00 0.00 -1.41 0.00 0.00 0.00 77.50

Segment Leq : 77.50 dBA

Results segment # 2: SB (day)

Source height = 2.40 m

ROAD (0.00 + 75.06 + 0.00) = 75.06 dBA
Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-90 90 0.63 81.39 0.00 -4.92 -1.41 0.00 0.00 0.00 75.06

Segment Leq : 75.06 dBA

Total Leq All Segments: 79.46 dBA

Results segment # 1: NB (night)

Source height = 2.40 m

ROAD (0.00 + 76.41 + 0.00) = 76.41 dBA
Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-90 90 0.54 77.66 0.00 0.00 -1.25 0.00 0.00 0.00 76.41

Segment Leq : 76.41 dBA

Results segment # 2: SB (night)

Source height = 2.40 m

ROAD (0.00 + 73.09 + 0.00) = 73.09 dBA
Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-90 90 0.54 78.99 0.00 -4.64 -1.25 0.00 0.00 0.00 73.09

Segment Leq : 73.09 dBA

Total Leq All Segments: 78.07 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 79.46
(NIGHT): 78.07