

## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

| Stn. |                                        | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |        |        |       |       |       |       |       |       |        |       |        |       |       |       |       |       |       |       |  | Model Output |  |  |
|------|----------------------------------------|------------------------------------------------------------------|--------|--------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--|--------------|--|--|
|      |                                        | 7                                                                | 8      | 9      | 10    | 11    | 12    | 13    | 14    | 15    | 16     | 17    | 18     | 19    | 20    | 21    | 22    | AM    | PM    | OP    |  |              |  |  |
| 1003 | LV                                     | 8,047                                                            | 10,460 | 11,774 | 9,504 | 8,908 | 8,786 | 6,625 | 8,046 | 9,068 | 10,069 | 9,244 | 10,717 | 8,963 | 8,470 | 7,201 | 6,122 |       |       |       |  |              |  |  |
|      | HV                                     | 1,560                                                            | 1,865  | 2,928  | 3,603 | 3,579 | 3,529 | 2,890 | 3,276 | 3,215 | 3,313  | 2,844 | 1,713  | 1,157 | 740   | 473   | 303   | 9,809 | 9,370 | 8,755 |  |              |  |  |
|      | SPD                                    | 52.0                                                             | 52.0   | 52.0   | 68.0  | 68.0  | 68.0  | 68.0  | 68.0  | 61.0  | 61.0   | 61.0  | 61.0   | 61.0  | 61.0  | 68.0  | 68.0  | 2,052 | 2,641 | 2,302 |  |              |  |  |
|      | total                                  | 9607                                                             | 12325  | 14701  | 13107 | 12487 | 12315 | 9515  | 11323 | 12280 | 13382  | 12089 | 12429  | 11120 | 9210  | 7674  | 6424  | 52    | 61    | 68    |  |              |  |  |
|      | % HV                                   | 16                                                               | 15     | 20     | 27    | 29    | 29    | 30    | 29    | 26    | 25     | 24    | 14     | 10    | 8     | 6     | 5     |       |       |       |  |              |  |  |
|      | BNL                                    | 82                                                               | 83     | 84     | 83    | 83    | 83    | 82    | 83    | 83    | 83     | 83    | 83     | 83    | 83    | 82    | 81    |       |       |       |  |              |  |  |
|      | % HV                                   | 2                                                                | 1      | 2      | 4     | 4     | 4     | 4     | 4     | 3     | 3      | 3     | 2      | 1     | 1     | 1     | 1     |       |       |       |  |              |  |  |
|      | Gradient 0                             | 0                                                                | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0     | 0      | 0     | 0     | 0     | 0     |       |       |       |  |              |  |  |
|      | Distance 20                            | -2                                                               | -2     | -2     | -2    | -2    | -2    | -2    | -2    | -2    | -2     | -2    | -2     | -2    | -2    | -2    | -2    |       |       |       |  |              |  |  |
|      | Surface p                              | -3.5                                                             | -3.5   | -3.5   | -3.5  | -3.5  | -3.5  | -3.5  | -3.5  | -3.5  | -3.5   | -3.5  | -3.5   | -3.5  | -3.5  | -3.5  | -3.5  |       |       |       |  |              |  |  |
|      | Angle 160                              | -0.5                                                             | -0.5   | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  |       |       |       |  |              |  |  |
|      | Facade Noise Levels dB(A)              | 79.6                                                             | 80.5   | 82.0   | 83.5  | 83.4  | 83.4  | 82.4  | 83.0  | 83.1  | 82.6   | 82.2  | 81.0   | 79.9  | 79.2  | 78.0  | 76.9  |       |       |       |  |              |  |  |
|      | HKPSG Exceedances                      | 9.6                                                              | 10.5   | 12.0   | 13.5  | 13.4  | 12.4  | 13.0  | 13.1  | 12.8  | 12.2   | 11.0  | 9.9    | 9.2   | 8.0   | 6.9   |       |       |       |       |  |              |  |  |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |        |        |       |       |       |       |       |       |        |       |        |       |       |       |       |       |       |       |  |              |  |  |
| 1004 | LV                                     | 2,360                                                            | 2,663  | 2,235  | 2,251 | 2,134 | 2,187 | 1,814 | 2,134 | 2,121 | 2,228  | 2,351 | 2,461  | 2,680 | 2,497 | 2,325 | 2,168 |       |       |       |  |              |  |  |
|      | HV                                     | 1,307                                                            | 1,756  | 1,861  | 2,055 | 1,932 | 1,811 | 1,838 | 1,941 | 2,010 | 1,803  | 1,474 | 1,146  | 921   | 867   | 815   | 767   | 2,424 | 2,268 | 2,269 |  |              |  |  |
|      | SPD                                    | 31.5                                                             | 31.5   | 31.5   | 35.0  | 35.0  | 35.0  | 35.0  | 35.0  | 35.0  | 36.0   | 36.0  | 36.0   | 36.0  | 35.0  | 35.0  | 35.0  | 1,768 | 1,364 | 1,503 |  |              |  |  |
|      | total                                  | 3666                                                             | 4419   | 4096   | 4306  | 4066  | 3999  | 3652  | 4075  | 4132  | 4031   | 3825  | 3608   | 3602  | 3363  | 3141  | 2933  | 32    | 36    | 35    |  |              |  |  |
|      | % HV                                   | 36                                                               | 40     | 45     | 48    | 48    | 45    | 50    | 48    | 49    | 45     | 39    | 32     | 26    | 26    | 26    | 26    |       |       |       |  |              |  |  |
|      | BNL                                    | 78                                                               | 79     | 78     | 79    | 78    | 78    | 78    | 78    | 78    | 78     | 78    | 78     | 78    | 77    | 77    | 77    |       |       |       |  |              |  |  |
|      | % HV                                   | 3                                                                | 4      | 4      | 5     | 4     | 4     | 5     | 4     | 5     | 4      | 4     | 3      | 2     | 2     | 2     | 2     |       |       |       |  |              |  |  |
|      | Gradient 0                             | 0                                                                | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0     | 0      | 0     | 0     | 0     | 0     |       |       |       |  |              |  |  |
|      | Distance 20                            | -2                                                               | -2     | -2     | -2    | -2    | -2    | -2    | -2    | -2    | -2     | -2    | -2     | -2    | -2    | -2    | -2    |       |       |       |  |              |  |  |
|      | Surface i                              | -1.0                                                             | -1.0   | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0   | -1.0  | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  |       |       |       |  |              |  |  |
|      | Angle 160                              | -0.5                                                             | -0.5   | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  |       |       |       |  |              |  |  |
|      | Facade Noise Levels dB(A)              | 79.9                                                             | 81.1   | 81.3   | 81.8  | 81.4  | 81.1  | 81.1  | 81.4  | 81.5  | 81.1   | 80.3  | 79.4   | 78.6  | 78.3  | 78.1  | 77.8  |       |       |       |  |              |  |  |
|      | HKPSG Exceedances                      | 9.9                                                              | 11.1   | 11.3   | 11.6  | 11.4  | 11.1  | 11.1  | 11.4  | 11.5  | 11.1   | 10.3  | 9.4    | 8.6   | 8.3   | 8.1   | 7.8   |       |       |       |  |              |  |  |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |        |        |       |       |       |       |       |       |        |       |        |       |       |       |       |       |       |       |  |              |  |  |
| 1017 | LV                                     | 1,827                                                            | 2,092  | 1,608  | 1,488 | 1,411 | 1,447 | 1,199 | 1,411 | 1,403 | 1,455  | 1,489 | 1,586  | 1,772 | 1,851 | 1,538 | 1,432 |       |       |       |  |              |  |  |
|      | HV                                     | 867                                                              | 1,127  | 1,220  | 1,379 | 1,297 | 1,216 | 1,234 | 1,303 | 1,349 | 1,195  | 935   | 750    | 618   | 582   | 547   | 515   | 1,904 | 1,430 | 1,501 |  |              |  |  |
|      | SPD                                    | 32.5                                                             | 32.5   | 32.5   | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 36.5   | 36.5  | 36.5   | 36.5  | 34.5  | 34.5  | 34.5  | 1,135 | 878   | 1,009 |  |              |  |  |
|      | total                                  | 2493                                                             | 3218   | 2828   | 2888  | 2708  | 2663  | 2433  | 2714  | 2752  | 2690   | 2404  | 2336   | 2391  | 2233  | 2085  | 1947  | 33    | 37    | 35    |  |              |  |  |
|      | % HV                                   | 35                                                               | 35     | 43     | 48    | 48    | 46    | 51    | 48    | 49    | 45     | 39    | 32     | 26    | 26    | 26    | 26    |       |       |       |  |              |  |  |
|      | BNL                                    | 76                                                               | 77     | 77     | 77    | 77    | 76    | 76    | 77    | 76    | 76     | 76    | 76     | 76    | 76    | 75    | 75    |       |       |       |  |              |  |  |
|      | % HV                                   | 3                                                                | 3      | 4      | 5     | 5     | 4     | 5     | 5     | 5     | 4      | 4     | 3      | 2     | 2     | 2     | 2     |       |       |       |  |              |  |  |
|      | Gradient 0                             | 0                                                                | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0     | 0      | 0     | 0     | 0     | 0     |       |       |       |  |              |  |  |
|      | Distance 8                             | 1                                                                | 1      | 1      | 1     | 1     | 1     | 1     | 1     | 1     | 1      | 1     | 1      | 1     | 1     | 1     | 1     |       |       |       |  |              |  |  |
|      | Surface i                              | -1.0                                                             | -1.0   | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0   | -1.0  | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  |       |       |       |  |              |  |  |
|      | Angle 160                              | -0.5                                                             | -0.5   | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  |       |       |       |  |              |  |  |
|      | Facade Noise Levels dB(A)              | 81.2                                                             | 82.4   | 82.6   | 83.0  | 82.7  | 82.5  | 82.5  | 82.8  | 82.9  | 82.4   | 81.4  | 80.6   | 80.0  | 79.7  | 79.4  | 79.1  |       |       |       |  |              |  |  |
|      | HKPSG Exceedances                      | 11.2                                                             | 12.4   | 12.6   | 13.0  | 12.7  | 12.5  | 12.5  | 12.8  | 12.9  | 12.4   | 11.4  | 10.6   | 10.0  | 9.7   | 9.4   | 9.1   |       |       |       |  |              |  |  |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |        |        |       |       |       |       |       |       |        |       |        |       |       |       |       |       |       |       |  |              |  |  |
| 1219 | LV                                     | 1,029                                                            | 1,854  | 1,826  | 1,314 | 1,257 | 1,441 | 1,313 | 1,429 | 1,538 | 1,567  | 1,790 | 1,919  | 2,044 | 1,538 | 1,157 | 870   |       |       |       |  |              |  |  |
|      | HV                                     | 767                                                              | 1,180  | 1,241  | 1,165 | 1,281 | 1,154 | 1,237 | 1,121 | 1,172 | 1,215  | 1,276 | 1,042  | 965   | 669   | 463   | 321   | 1,753 | 1,793 | 1,415 |  |              |  |  |
|      | SPD                                    | 35.0                                                             | 35.0   | 35.0   | 38.7  | 38.7  | 38.7  | 38.7  | 38.7  | 38.7  | 33.8   | 33.8  | 33.8   | 33.8  | 38.7  | 38.7  | 38.7  | 1,157 | 1,228 | 968   |  |              |  |  |
|      | total                                  | 1797                                                             | 3034   | 3067   | 2480  | 2538  | 2595  | 2550  | 2710  | 2782  | 3087   | 2961  | 3009   | 2208  | 1620  | 1191  |       | 35    | 34    | 39    |  |              |  |  |
|      | % HV                                   | 43                                                               | 39     | 40     | 47    | 50    | 44    | 48    | 44    | 43    | 44     | 42    | 35     | 32    | 30    | 29    | 27    |       |       |       |  |              |  |  |
|      | BNL                                    | 75                                                               | 77     | 77     | 76    | 76    | 76    | 76    | 76    | 77    | 77     | 77    | 77     | 77    | 76    | 74    | 73    |       |       |       |  |              |  |  |
|      | % HV                                   | 4                                                                | 4      | 4      | 4     | 5     | 4     | 5     | 4     | 4     | 4      | 4     | 3      | 3     | 3     | 3     | 2     |       |       |       |  |              |  |  |
|      | Gradient 3                             | 1                                                                | 1      | 1      | 1     | 1     | 1     | 1     | 1     | 1     | 1      | 1     | 1      | 1     | 1     | 1     | 1     |       |       |       |  |              |  |  |
|      | Distance 5                             | 2                                                                | 2      | 2      | 2     | 2     | 2     | 2     | 2     | 2     | 2      | 2     | 2      | 2     | 2     | 2     | 2     |       |       |       |  |              |  |  |
|      | Surface i                              | -1.0                                                             | -1.0   | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0   | -1.0  | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  |       |       |       |  |              |  |  |
|      | Angle 160                              | -0.5                                                             | -0.5   | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  |       |       |       |  |              |  |  |
|      | Facade Noise Levels dB(A)              | 82.7                                                             | 84.7   | 84.9   | 84.5  | 84.9  | 84.5  | 84.7  | 84.4  | 84.6  | 84.7   | 85.0  | 84.2   | 83.9  | 82.4  | 80.9  | 79.3  |       |       |       |  |              |  |  |
|      | HKPSG Exceedances                      | 12.7                                                             | 14.7   | 14.9   | 14.5  | 14.9  | 14.5  | 14.7  | 14.4  | 14.6  | 14.7   | 15.0  | 14.2   | 13.9  | 12.4  | 10.9  | 9.3   |       |       |       |  |              |  |  |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |        |        |       |       |       |       |       |       |        |       |        |       |       |       |       |       |       |       |  |              |  |  |
| 1404 | LV                                     | 4,016                                                            | 6,218  | 6,199  | 4,513 | 4,231 | 4,173 | 3,146 | 3,821 | 4,308 | 4,956  | 5,113 | 5,475  | 4,732 | 4,023 | 3,420 | 2,907 |       |       |       |  |              |  |  |
|      | HV                                     | 1,086                                                            | 1,499  | 2,131  | 2,400 | 2,384 | 2,350 | 1,924 | 2,182 | 2,141 | 2,311  | 2,230 | 1,246  | 771   | 493   | 315   | 202   | 5,831 | 5,183 | 4,158 |  |              |  |  |
|      | SPD                                    | 78.0                                                             | 78.0   | 78.0   | 82.5  | 82.5  | 82.5  | 82.5  | 82.5  | 82.5  | 78.5   | 78.5  | 78.5   | 78.5  | 82.5  | 82.5  | 82.5  | 1,638 | 2,071 | 1,533 |  |              |  |  |
|      | total                                  | 5102                                                             | 7707   | 8330   | 6913  | 6614  | 6523  | 5071  | 6003  | 6446  | 7267   | 7344  | 6721   | 5502  | 4515  | 3735  | 3109  | 78    | 79    | 83    |  |              |  |  |
|      | % HV                                   | 21                                                               | 19     | 26     | 35    | 36    | 36    | 38    | 36    | 33    | 32     | 30    | 19     | 14    | 11    | 8     | 6     |       |       |       |  |              |  |  |
|      | BNL                                    | 79                                                               | 81     | 81     | 81    | 80    | 80    | 79    | 80    | 80    | 81     | 81    | 80     | 80    | 79    | 78    | 77    |       |       |       |  |              |  |  |
|      | % HV                                   | 4                                                                | 4      | 5      | 6     | 6     | 6     | 6     | 6     | 5     | 5      | 4     | 3      | 3     | 3     | 3     | 2     |       |       |       |  |              |  |  |
|      | Gradient 0                             | 0                                                                | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0     | 0      | 0     | 0     | 0     | 0     |       |       |       |  |              |  |  |
|      | Distance 10                            | 0                                                                | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0     | 0      | 0     | 0     | 0     | 0     |       |       |       |  |              |  |  |
|      | Surface p                              | -3.5                                                             | -3.5   | -3.5   | -3.5  | -3.5  | -3.5  | -3.5  | -3.5  | -3.5  | -3.5   | -3.5  | -3.5   | -3.5  | -3.5  | -3.5  | -3.5  |       |       |       |  |              |  |  |
|      | Angle 160                              | -0.5                                                             | -0.5   | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  |       |       |       |  |              |  |  |
|      | Facade Noise Levels dB(A)              | 81.8                                                             | 83.4   | 84.4   | 84.8  | 84.7  | 84.7  | 83.7  | 84.3  | 84.4  | 84.5   | 84.4  | 82.7   | 81.2  | 80.2  | 79.0  | 77.9  |       |       |       |  |              |  |  |
|      | HKPSG Exceedances                      | 11.8                                                             | 13.4   | 14.4   | 14.8  | 14.7  | 14.7  | 13.7  | 14.3  | 14.4  | 14.5   | 14.4  | 12.7   | 11.2  | 10.2  | 9.0   | 7.9   |       |       |       |  |              |  |  |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |        |        |       |       |       |       |       |       |        |       |        |       |       |       |       |       |       |       |  |              |  |  |
| 1422 | LV                                     | 1,635                                                            | 2,793  | 2,509  | 1,778 | 1,667 | 1,644 | 1,240 | 1,505 | 1,696 | 1,966  | 2,069 | 2,186  | 1,884 | 1,585 | 1,347 | 1,145 |       |       |       |  |              |  |  |
|      | HV                                     | 492                                                              | 684    | 970    | 1,082 | 1,074 | 1,059 | 667   | 963   | 965   | 1,062  | 1,073 | 583    | 347   | 222   | 142   | 91    | 2,619 | 2,097 | 1,638 |  |              |  |  |
|      | SPD                                    | 63.0                                                             | 63.0   | 63.0   | 69.0  | 69.0  | 69.0  | 69.0  | 69.0  | 69.0  | 64.5   | 64.5  | 64.5   | 64.5  | 69.0  | 69.0  | 69.0  | 753   | 996   | 691   |  |              |  |  |
|      | total                                  | 2127                                                             | 3477   | 3579   | 2860  | 2741  | 2703  | 2107  | 2489  | 2661  | 3028   | 3142  | 2769   | 2211  | 1807  | 1489  |       |       |       |       |  |              |  |  |





| Third Comprehensive Transport Study (CTS-3)                                      |          |                                                                  |                                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
|----------------------------------------------------------------------------------|----------|------------------------------------------------------------------|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|-------|-------|--|
| Future Year Hourly Profile of Traffic Volume and Speed                           |          |                                                                  |                                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus |          |                                                                  |                                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
|                                                                                  |          | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |                                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Model Output             |       |       |  |
| Stn.                                                                             |          | 7                                                                | 8                                   | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | AM                       | PM    | OP    |  |
| 2002                                                                             | LV       | 2,657                                                            | 3,153                               | 2,572 | 2,121 | 1,968 | 2,306 | 2,268 | 2,242 | 2,289 | 2,451 | 2,912 | 3,235 | 3,174 | 3,295 | 3,421 | 3,551 |                          |       |       |  |
|                                                                                  | HV       | 779                                                              | 1,045                               | 1,312 | 1,399 | 1,377 | 1,335 | 1,368 | 1,271 | 1,260 | 1,083 | 897   | 886   | 783   | 620   | 490   | 388   | 3,007                    | 2,951 | 2,655 |  |
|                                                                                  | SPD      | 37.0                                                             | 37.0                                | 37.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 1,087                    | 881   | 1,028 |  |
|                                                                                  | total    | 3436                                                             | 4198                                | 3884  | 3520  | 3345  | 3641  | 3636  | 3513  | 3549  | 3534  | 3809  | 4121  | 3957  | 3915  | 3911  | 3939  | 37                       | 39    | 39    |  |
|                                                                                  | % HV     | 23                                                               | 25                                  | 34    | 40    | 41    | 37    | 38    | 36    | 36    | 31    | 24    | 21    | 20    | 16    | 13    | 10    |                          |       |       |  |
|                                                                                  | BNL      | 78                                                               | 78                                  | 78    | 78    | 77    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    |                          |       |       |  |
|                                                                                  | % HV     | 2                                                                | 2                                   | 3     | 4     | 4     | 4     | 4     | 3     | 3     | 3     | 2     | 2     | 1     | 1     | 0     | 0     |                          |       |       |  |
|                                                                                  | Gradient | 3                                                                | Gradient                            | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |                          |       |       |  |
|                                                                                  | Distance | 21                                                               | Distance                            | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3                       |       |       |  |
|                                                                                  | Surface  | 1                                                                | Surface                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                                                                            | 160      | angle                                                            | -0.5                                | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |  |
| Facade Noise Levels dB(A)                                                        |          | 78.7                                                             | 79.9                                | 80.6  | 80.8  | 80.7  | 80.8  | 80.7  | 80.4  | 80.4  | 79.9  | 79.3  | 79.4  | 78.9  | 78.2  | 77.6  | 77.0  | Average Level over 16 hr |       |       |  |
| HKPSG Exceedances                                                                |          | 8.7                                                              | 9.9                                 | 10.6  | 10.8  | 10.7  | 10.6  | 10.7  | 10.4  | 10.4  | 9.9   | 9.3   | 9.4   | 8.9   | 8.2   | 7.6   | 7.0   | 79.7                     |       |       |  |
|                                                                                  |          | 16                                                               | = number of hours exceeded 70 dB(A) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 2003                                                                             | LV       | 1,114                                                            | 1,320                               | 1,078 | 890   | 826   | 968   | 952   | 941   | 960   | 999   | 1,084 | 1,281 | 1,332 | 1,382 | 1,435 | 1,490 | 1,259                    | 1,099 | 1,114 |  |
|                                                                                  | HV       | 330                                                              | 406                                 | 540   | 610   | 600   | 582   | 596   | 554   | 549   | 469   | 380   | 381   | 341   | 270   | 214   | 169   | 422                      | 373   | 448   |  |
|                                                                                  | SPD      | 39.5                                                             | 39.5                                | 39.5  | 41.5  | 41.5  | 41.5  | 41.5  | 41.5  | 43.5  | 43.5  | 43.5  | 43.5  | 43.5  | 41.5  | 41.5  | 41.5  | 40                       | 44    | 42    |  |
|                                                                                  | total    | 1444                                                             | 1726                                | 1618  | 1500  | 1426  | 1550  | 1548  | 1495  | 1510  | 1468  | 1464  | 1662  | 1673  | 1653  | 1649  | 1659  |                          |       |       |  |
|                                                                                  | % HV     | 23                                                               | 24                                  | 33    | 41    | 42    | 38    | 39    | 37    | 36    | 32    | 26    | 23    | 20    | 16    | 13    | 10    |                          |       |       |  |
|                                                                                  | BNL      | 74                                                               | 75                                  | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 74    |                          |       |       |  |
|                                                                                  | % HV     | 2                                                                | 2                                   | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 2     | 2     | 2     | 1     | 0     | 0     |                          |       |       |  |
|                                                                                  | Gradient | 0                                                                | Gradient                            | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |  |
|                                                                                  | Distance | 21                                                               | Distance                            | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3                       |       |       |  |
|                                                                                  | Surface  | 1                                                                | Surface                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                                                                            | 160      | angle                                                            | -0.5                                | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |  |
| Facade Noise Levels dB(A)                                                        |          | 74.1                                                             | 75.0                                | 75.9  | 76.3  | 76.2  | 76.3  | 76.3  | 76.0  | 75.9  | 75.4  | 74.7  | 74.9  | 74.5  | 73.8  | 73.1  | 72.5  | Average Level over 16 hr |       |       |  |
| HKPSG Exceedances                                                                |          | 4.1                                                              | 5.0                                 | 5.9   | 6.3   | 6.2   | 6.2   | 6.3   | 6.0   | 5.9   | 5.4   | 4.7   | 4.9   | 4.5   | 3.8   | 3.1   | 2.5   | 75.2                     |       |       |  |
|                                                                                  |          | 16                                                               | = number of hours exceeded 70 dB(A) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 2004                                                                             | LV       | 2,657                                                            | 3,153                               | 2,572 | 2,121 | 1,968 | 2,306 | 2,268 | 2,242 | 2,289 | 2,451 | 2,912 | 3,235 | 3,174 | 3,295 | 3,421 | 3,551 | 3,007                    | 2,951 | 2,655 |  |
|                                                                                  | HV       | 779                                                              | 1,045                               | 1,312 | 1,399 | 1,377 | 1,335 | 1,368 | 1,271 | 1,260 | 1,083 | 897   | 886   | 783   | 620   | 490   | 388   | 1,087                    | 881   | 1,028 |  |
|                                                                                  | SPD      | 37.0                                                             | 37.0                                | 37.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 37                       | 39    | 39    |  |
|                                                                                  | total    | 3436                                                             | 4198                                | 3884  | 3520  | 3345  | 3641  | 3636  | 3513  | 3549  | 3534  | 3809  | 4121  | 3957  | 3915  | 3911  | 3939  |                          |       |       |  |
|                                                                                  | % HV     | 23                                                               | 25                                  | 34    | 40    | 41    | 37    | 38    | 36    | 36    | 31    | 24    | 21    | 20    | 16    | 13    | 10    |                          |       |       |  |
|                                                                                  | BNL      | 78                                                               | 78                                  | 78    | 78    | 77    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    |                          |       |       |  |
|                                                                                  | % HV     | 2                                                                | 2                                   | 3     | 4     | 4     | 4     | 4     | 3     | 3     | 3     | 2     | 2     | 1     | 1     | 0     | 0     |                          |       |       |  |
|                                                                                  | Gradient | 0                                                                | Gradient                            | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |  |
|                                                                                  | Distance | 21                                                               | Distance                            | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3                       |       |       |  |
|                                                                                  | Surface  | 1                                                                | Surface                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                                                                            | 160      | angle                                                            | -0.5                                | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |  |
| Facade Noise Levels dB(A)                                                        |          | 77.8                                                             | 79.0                                | 79.7  | 79.9  | 79.8  | 79.7  | 79.8  | 79.5  | 79.5  | 79.0  | 78.4  | 78.5  | 78.0  | 77.3  | 76.7  | 76.1  | Average Level over 16 hr |       |       |  |
| HKPSG Exceedances                                                                |          | 7.8                                                              | 9.0                                 | 9.7   | 9.9   | 9.8   | 9.7   | 9.8   | 9.5   | 9.5   | 9.0   | 8.4   | 8.5   | 8.0   | 7.3   | 6.7   | 6.1   | 78.8                     |       |       |  |
|                                                                                  |          | 16                                                               | = number of hours exceeded 70 dB(A) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 2005                                                                             | LV       | 2,360                                                            | 2,663                               | 2,235 | 2,251 | 2,134 | 2,187 | 1,814 | 2,134 | 2,121 | 2,228 | 2,351 | 2,451 | 2,680 | 2,497 | 2,325 | 2,166 | 2,424                    | 2,288 | 2,269 |  |
|                                                                                  | HV       | 1,307                                                            | 1,756                               | 1,861 | 2,055 | 1,932 | 1,811 | 1,838 | 1,941 | 2,010 | 1,803 | 1,474 | 1,146 | 921   | 867   | 815   | 767   | 1,768                    | 1,384 | 1,503 |  |
|                                                                                  | SPD      | 20.0                                                             | 20.0                                | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20                       | 20    | 20    |  |
|                                                                                  | total    | 3666                                                             | 4419                                | 4096  | 4306  | 4066  | 3999  | 3652  | 4075  | 4132  | 4031  | 3825  | 3608  | 3602  | 3363  | 3141  | 2933  |                          |       |       |  |
|                                                                                  | % HV     | 36                                                               | 40                                  | 45    | 48    | 48    | 45    | 50    | 48    | 49    | 45    | 39    | 32    | 26    | 26    | 26    | 26    |                          |       |       |  |
|                                                                                  | BNL      | 78                                                               | 79                                  | 78    | 79    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 77    | 77    |                          |       |       |  |
|                                                                                  | % HV     | 5                                                                | 5                                   | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 5     | 4     | 4     | 4     | 4     | 4     |                          |       |       |  |
|                                                                                  | Gradient | 0                                                                | Gradient                            | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |  |
|                                                                                  | Distance | 20                                                               | Distance                            | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2                       |       |       |  |
|                                                                                  | Surface  | 1                                                                | Surface                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                                                                            | 160      | angle                                                            | -0.5                                | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |  |
| Facade Noise Levels dB(A)                                                        |          | 81.3                                                             | 82.5                                | 82.7  | 83.1  | 82.8  | 82.6  | 82.6  | 82.9  | 83.0  | 82.6  | 81.7  | 80.7  | 79.9  | 79.5  | 79.4  | 79.1  | Average Level over 16 hr |       |       |  |
| HKPSG Exceedances                                                                |          | 11.3                                                             | 12.5                                | 12.7  | 13.1  | 12.8  | 12.6  | 12.6  | 12.9  | 13.0  | 12.6  | 11.7  | 10.7  | 9.9   | 9.6   | 9.4   | 9.1   | 81.9                     |       |       |  |
|                                                                                  |          | 16                                                               | = number of hours exceeded 70 dB(A) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 2009                                                                             | LV       | 2,516                                                            | 3,059                               | 2,563 | 2,027 | 1,868 | 1,866 | 1,879 | 1,934 | 2,245 | 2,088 | 2,199 | 2,944 | 3,119 | 2,439 | 1,908 | 1,492 | 2,635                    | 2,185 | 2,217 |  |
|                                                                                  | HV       | 1,033                                                            | 1,115                               | 1,134 | 1,120 | 1,182 | 1,149 | 1,123 | 1,142 | 1,205 | 1,163 | 792   | 904   | 875   | 634   | 460   | 333   | 1,080                    | 785   | 968   |  |
|                                                                                  | SPD      | 35.8                                                             | 35.8                                | 35.8  | 38.3  | 38.3  | 38.3  | 38.3  | 38.3  | 40.3  | 40.3  | 40.3  | 40.3  | 40.3  | 38.3  | 38.3  | 38.3  | 36                       | 40    | 38    |  |
|                                                                                  | total    | 3549                                                             | 4174                                | 3688  | 3148  | 3050  | 3015  | 3002  | 3075  | 3451  | 3250  | 2991  | 3848  | 3995  | 3074  | 2367  | 1825  |                          |       |       |  |
|                                                                                  | % HV     | 29                                                               | 27                                  | 31    | 36    | 39    | 38    | 37    | 37    | 35    | 36    | 26    | 23    | 22    | 21    | 19    | 18    |                          |       |       |  |
|                                                                                  | BNL      | 78                                                               | 78                                  | 78    | 77    | 77    | 77    | 77    | 77    | 78    | 77    | 77    | 78    | 78    | 77    | 76    | 75    |                          |       |       |  |
|                                                                                  | % HV     | 3                                                                | 2                                   | 3     | 3     | 4     | 4     | 4     | 4     | 3     | 3     | 2     | 2     | 2     | 2     | 1     | 1     |                          |       |       |  |
|                                                                                  | Gradient | 6                                                                | Gradient                            | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 1     |                          |       |       |  |
|                                                                                  | Distance | 10                                                               | Distance                            | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |  |
|                                                                                  | Surface  | 1                                                                | Surface                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                                                                            | 160      | angle                                                            | -0.5                                | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |  |
| Facade Noise Levels dB(A)                                                        |          | 83.2                                                             | 83.6                                | 83.5  | 83.4  | 83.6  | 83.4  | 83.4  | 83.4  | 83.7  | 83.6  | 82.2  | 82.9  | 82.8  | 81.4  | 80.1  | 78.8  | Average Level over 16 hr |       |       |  |
| HKPSG Exceedances                                                                |          | 13.2                                                             | 13.6                                | 13.5  | 13.4  | 13.6  | 13.4  | 13.4  | 13.4  | 13.7  | 13.6  | 12.2  | 12.9  | 12.8  | 11.4  | 10.1  | 8.8   | 82.9                     |       |       |  |
|                                                                                  |          | 16                                                               | = number of hours exceeded 70 dB(A) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 2019                                                                             | LV       | 1,029                                                            | 1,613                               | 1,744 | 1,375 | 1,315 | 1,508 | 1,374 | 1,495 | 1,609 | 1,563 | 1,523 | 1,821 | 2,139 | 1,609 | 1,210 | 910   | 1,525                    | 1,525 | 1,480 |  |
|                                                                                  | HV       | 353                                                              | 399                                 | 519   | 588   | 648   | 582   | 624   | 565   | 591   | 552   | 408   | 424   | 486   | 337   | 234   | 162   | 391                      | 392   | 488   |  |
|                                                                                  | SPD      | 25.0                                                             | 25.0                                | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 25                       | 25    | 25    |  |
|                                                                                  | total    | 1382                                                             | 2012                                | 2263  | 1963  | 1961  | 2090  | 1998  | 2060  | 2200  | 2116  | 1930  | 2245  | 2625  | 1946  | 1444  | 1072  |                          |       |       |  |
|                                                                                  | % HV     | 26                                                               | 20                                  | 23    | 30    | 33    | 28    | 31    | 27    | 26    | 21    | 19    | 19    | 17    | 16    | 15    |       |                          |       |       |  |
|                                                                                  | BNL      | 74                                                               | 75                                  | 76    | 75    | 75    | 75    | 75    | 75    | 76    | 75    | 75    | 76    | 76    | 75    | 74    | 73    |                          |       |       |  |
|                                                                                  | % HV     | 3                                                                | 2                                   | 2     | 3     | 4     | 3     | 3     | 3     | 3     | 3     | 2     | 2     | 2     | 1     | 1     | 1     |                          |       |       |  |
|                                                                                  | Gradient | 0                                                                | Gradient                            | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |  |
|                                                                                  | Distance | 12                                                               | Distance                            | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1                       |       |       |  |
|                                                                                  | Surface  | 1                                                                | Surface                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                                                                            | 160      | angle                                                            | -0.5                                | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |  |
| Facade Noise Levels dB(A)                                                        |          | 76.7                                                             | 77.5                                | 78.5  | 78.8  | 79.2  | 78.8  | 79.1  | 78.7  | 78.9  | 78.7  | 77.5  | 77.8  | 78.4  | 78.8  | 75.3  | 73.8  | Average Level over 16 hr |       |       |  |
| HKPSG Exceedances                                                                |          | 6.7                                                              |                                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |

## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

| Stn. |          | Hour Start / 2-Hourly Traffic Volume (veh.) or Speed (km/hr) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Model Output |       |       |
|------|----------|--------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|-------|-------|
|      |          | 7                                                            | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | AM           | PM    | OP    |
| 2033 | LV       | 425                                                          | 673   | 722   | 566   | 541   | 620   | 565   | 615   | 662   | 601   | 430   | 544   | 880   | 662   | 498   | 375   | 636          | 431   | 609   |
|      | HV       | 356                                                          | 578   | 587   | 530   | 583   | 525   | 562   | 510   | 533   | 516   | 440   | 413   | 439   | 304   | 211   | 148   | 567          | 423   | 440   |
|      | SPD      | 21.5                                                         | 21.5  | 21.5  | 22.0  | 22.0  | 22.0  | 22.0  | 22.0  | 22.5  | 22.5  | 22.5  | 22.5  | 22.5  | 22.0  | 22.0  | 22.0  | 22           | 23    | 22    |
|      | total    | 781                                                          | 1251  | 1309  | 1096  | 1124  | 1145  | 1128  | 1125  | 1195  | 1117  | 870   | 1058  | 1319  | 966   | 709   | 521   |              |       |       |
|      | % HV     | 46                                                           | 46    | 45    | 48    | 52    | 46    | 50    | 45    | 45    | 46    | 51    | 39    | 33    | 31    | 30    | 28    |              |       |       |
|      | BNL      | 71                                                           | 73    | 73    | 73    | 73    | 73    | 73    | 73    | 73    | 73    | 72    | 72    | 73    | 72    | 71    | 69    |              |       |       |
|      | % HV     | 5                                                            | 8     | 5     | 6     | 5     | 6     | 5     | 5     | 5     | 5     | 6     | 5     | 4     | 4     | 4     | 4     |              |       |       |
|      | Gradient | 3                                                            | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     |              |       |       |
|      | Distance | 8                                                            | 8     | 8     | 8     | 8     | 8     | 8     | 8     | 8     | 8     | 8     | 8     | 8     | 8     | 8     | 8     |              |       |       |
|      | Surface  | 1                                                            | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |              |       |       |
| 2201 | LV       | 2,223                                                        | 2,696 | 2,263 | 1,792 | 1,652 | 1,650 | 1,661 | 1,709 | 1,985 | 1,832 | 1,870 | 2,562 | 2,758 | 2,157 | 1,686 | 1,319 | 2,322        | 1,858 | 1,960 |
|      | HV       | 1,109                                                        | 1,203 | 1,220 | 1,201 | 1,268 | 1,232 | 1,204 | 1,224 | 1,292 | 1,262 | 906   | 995   | 939   | 680   | 493   | 357   | 1,155        | 898   | 1,038 |
|      | SPD      | 33.5                                                         | 33.5  | 33.5  | 37.0  | 37.0  | 37.0  | 37.0  | 37.0  | 38.3  | 38.3  | 38.3  | 38.3  | 38.3  | 37.0  | 37.0  | 37.0  | 34           | 38    | 37    |
|      | total    | 3,332                                                        | 3,899 | 3,483 | 2,994 | 2,919 | 2,881 | 2,866 | 2,934 | 3,277 | 3,094 | 2,776 | 3,557 | 3,696 | 2,837 | 2,179 | 1,676 |              |       |       |
|      | % HV     | 33                                                           | 31    | 35    | 40    | 43    | 43    | 42    | 39    | 41    | 33    | 28    | 25    | 24    | 23    | 21    |       |              |       |       |
|      | BNL      | 77                                                           | 78    | 78    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 78    | 78    | 77    | 76    | 74    |       |              |       |       |
|      | % HV     | 3                                                            | 3     | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 3     | 2     | 2     | 2     | 2     |       |              |       |       |
|      | Gradient | 3                                                            | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     |       |              |       |       |
|      | Distance | 10                                                           | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    |       |              |       |       |
|      | Surface  | 1                                                            | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |       |              |       |       |
| 2215 | LV       | 1,635                                                        | 2,793 | 2,609 | 1,778 | 1,667 | 1,644 | 1,240 | 1,505 | 1,696 | 1,956 | 2,069 | 2,186 | 1,864 | 1,585 | 1,347 | 1,145 | 2,619        | 2,097 | 1,638 |
|      | HV       | 492                                                          | 684   | 970   | 1,082 | 1,074 | 1,059 | 867   | 983   | 965   | 1,062 | 1,073 | 583   | 347   | 222   | 142   | 91    | 753          | 996   | 691   |
|      | SPD      | 63.0                                                         | 63.0  | 63.0  | 69.0  | 69.0  | 69.0  | 69.0  | 69.0  | 69.0  | 64.5  | 64.5  | 64.5  | 64.5  | 69.0  | 69.0  | 69.0  | 63           | 65    | 69    |
|      | total    | 2,127                                                        | 3,477 | 3,579 | 2,860 | 2,741 | 2,703 | 2,107 | 2,489 | 2,661 | 3,028 | 3,142 | 2,769 | 2,211 | 1,807 | 1,489 | 1,236 |              |       |       |
|      | % HV     | 23                                                           | 20    | 27    | 38    | 39    | 39    | 41    | 40    | 36    | 35    | 34    | 21    | 16    | 12    | 10    | 7     |              |       |       |
|      | BNL      | 75                                                           | 78    | 78    | 77    | 77    | 77    | 75    | 76    | 76    | 77    | 77    | 77    | 76    | 75    | 74    | 73    |              |       |       |
|      | % HV     | 3                                                            | 3     | 4     | 5     | 5     | 5     | 5     | 5     | 5     | 4     | 3     | 2     | 2     | 2     | 2     |       |              |       |       |
|      | Gradient | 0                                                            | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |              |       |       |
|      | Distance | 20                                                           | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    |       |              |       |       |
|      | Surface  | 1                                                            | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |       |              |       |       |
| 3001 | LV       | 4,636                                                        | 4,951 | 5,097 | 5,214 | 4,765 | 5,189 | 4,752 | 5,318 | 5,426 | 5,121 | 5,414 | 6,108 | 6,229 | 5,431 | 5,952 | 6,288 | 4,804        | 5,337 | 5,450 |
|      | HV       | 1,610                                                        | 1,240 | 1,828 | 1,786 | 2,073 | 1,750 | 1,954 | 2,096 | 2,037 | 1,983 | 1,422 | 1,282 | 954   | 812   | 624   | 539   | 1,255        | 1,425 | 1,528 |
|      | SPD      | 54.5                                                         | 54.5  | 54.5  | 50.5  | 50.5  | 50.5  | 50.5  | 50.5  | 50.5  | 52.0  | 52.0  | 52.0  | 52.0  | 50.5  | 50.5  | 50.5  | 55           | 52    | 51    |
|      | total    | 6,246                                                        | 6,191 | 6,925 | 7,000 | 6,838 | 6,939 | 6,706 | 7,414 | 7,463 | 7,104 | 6,836 | 7,390 | 7,183 | 6,243 | 6,576 | 6,827 |              |       |       |
|      | % HV     | 26                                                           | 20    | 24    | 26    | 30    | 25    | 29    | 28    | 27    | 28    | 21    | 17    | 13    | 13    | 9     | 8     |              |       |       |
|      | BNL      | 80                                                           | 80    | 80    | 81    | 81    | 81    | 80    | 81    | 81    | 81    | 81    | 81    | 81    | 80    | 80    | 81    |              |       |       |
|      | % HV     | 3                                                            | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 2     | 2     | 1     | 1     | 0     | 0     |              |       |       |
|      | Gradient | 3                                                            | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     |       |              |       |       |
|      | Distance | 21                                                           | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    |       |              |       |       |
|      | Surface  | 1                                                            | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |       |              |       |       |
| 3002 | LV       | 4,002                                                        | 4,400 | 4,001 | 3,810 | 2,454 | 2,250 | 2,072 | 2,315 | 2,894 | 3,991 | 3,457 | 4,232 | 3,283 | 2,322 | 2,847 | 2,711 | 3,914        | 3,721 | 3,015 |
|      | HV       | 1,721                                                        | 2,045 | 2,392 | 2,796 | 3,472 | 3,027 | 2,984 | 3,648 | 3,462 | 2,925 | 2,487 | 2,582 | 2,272 | 1,470 | 910   | 848   | 1,996        | 2,353 | 2,515 |
|      | SPD      | 56.5                                                         | 56.5  | 56.5  | 56.5  | 56.5  | 56.5  | 56.5  | 56.5  | 56.5  | 55.5  | 55.5  | 55.5  | 55.5  | 56.5  | 56.5  | 56.5  | 57           | 56    | 57    |
|      | total    | 5,722                                                        | 6,445 | 6,393 | 6,606 | 5,926 | 5,277 | 5,056 | 5,963 | 6,356 | 6,916 | 5,944 | 6,814 | 5,556 | 3,793 | 3,757 | 3,560 |              |       |       |
|      | % HV     | 30                                                           | 32    | 37    | 42    | 59    | 57    | 59    | 61    | 54    | 42    | 42    | 38    | 41    | 39    | 24    | 24    |              |       |       |
|      | BNL      | 80                                                           | 80    | 80    | 80    | 80    | 79    | 78    | 80    | 80    | 81    | 80    | 81    | 80    | 78    | 78    | 78    |              |       |       |
|      | % HV     | 4                                                            | 4     | 4     | 5     | 6     | 6     | 6     | 6     | 6     | 5     | 5     | 4     | 5     | 4     | 3     | 3     |              |       |       |
|      | Gradient | 9                                                            | 9     | 9     | 9     | 9     | 9     | 9     | 9     | 9     | 9     | 9     | 9     | 9     | 9     | 9     |       |              |       |       |
|      | Distance | 10                                                           | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    |       |              |       |       |
|      | Surface  | 1                                                            | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |       |              |       |       |
| 3010 | LV       | 1,056                                                        | 1,716 | 1,586 | 1,293 | 1,188 | 1,237 | 1,307 | 1,345 | 1,489 | 1,365 | 1,071 | 1,438 | 1,552 | 1,239 | 989   | 789   | 1,563        | 1,143 | 1,260 |
|      | HV       | 495                                                          | 568   | 793   | 833   | 835   | 837   | 746   | 918   | 874   | 790   | 702   | 815   | 485   | 363   | 272   | 204   | 586          | 587   | 648   |
|      | SPD      | 20.0                                                         | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 16           | 20    | 20    |
|      | total    | 1,551                                                        | 2,284 | 2,380 | 2,127 | 2,023 | 2,074 | 2,053 | 2,261 | 2,263 | 2,155 | 1,773 | 2,054 | 2,037 | 1,602 | 1,260 | 993   |              |       |       |
|      | % HV     | 32                                                           | 25    | 33    | 39    | 41    | 40    | 36    | 41    | 37    | 37    | 37    | 37    | 37    | 37    | 37    | 37    |              |       |       |
|      | BNL      | 74                                                           | 76    | 76    | 75    | 75    | 75    | 75    | 76    | 76    | 76    | 75    | 75    | 75    | 74    | 73    | 72    |              |       |       |
|      | % HV     | 4                                                            | 3     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 4     | 3     | 3     | 3     |       |              |       |       |
|      | Gradient | 0                                                            | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |              |       |       |
|      | Distance | 15                                                           | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    |       |              |       |       |
|      | Surface  | 1                                                            | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |       |              |       |       |

## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)/MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

| Stn.                      |          | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       | Model Output |  |  |
|---------------------------|----------|------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|-------|--------------|--|--|
|                           |          | 7                                                                | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | AM                       | PM    | OP           |  |  |
| 3012                      | LV       | 2,050                                                            | 2,063 | 2,142 | 2,154 | 2,141 | 2,033 | 1,924 | 2,254 | 2,323 | 2,358 | 2,433 | 2,969 | 2,740 | 2,189 | 1,748 | 1,396 |                          |       |              |  |  |
|                           | HV       | 970                                                              | 1,286 | 1,557 | 1,878 | 1,853 | 1,696 | 1,587 | 1,799 | 1,967 | 1,788 | 1,482 | 1,420 | 1,041 | 726   | 506   | 352   | 1,842                    | 2,418 | 2,197        |  |  |
|                           | SPD      | 29.0                                                             | 29.0  | 29.0  | 28.5  | 28.5  | 28.5  | 28.5  | 28.5  | 28.5  | 28.0  | 28.0  | 28.0  | 28.0  | 28.5  | 28.5  | 28.5  | 1,290                    | 1,432 | 1,370        |  |  |
|                           | total    | 3020                                                             | 3349  | 3699  | 4032  | 3994  | 3729  | 3512  | 4052  | 4291  | 4146  | 3895  | 4369  | 3781  | 2914  | 2254  | 1749  | 29                       | 28    | 29           |  |  |
|                           | % HV     | 32                                                               | 38    | 42    | 47    | 46    | 45    | 45    | 44    | 46    | 43    | 38    | 32    | 28    | 25    | 22    | 20    |                          |       |              |  |  |
|                           | BNL      | 77                                                               | 77    | 78    | 78    | 78    | 78    | 78    | 78    | 79    | 78    | 78    | 79    | 78    | 77    | 76    | 75    |                          |       |              |  |  |
|                           | % HV     | 3                                                                | 4     | 4     | 5     | 5     | 5     | 5     | 4     | 5     | 4     | 4     | 3     | 3     | 2     | 2     | 2     |                          |       |              |  |  |
|                           | Gradient | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |              |  |  |
|                           | Distance | 10                                                               | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |              |  |  |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |              |  |  |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |              |  |  |
| Facade Noise Levels dB(A) |          | 81.2                                                             | 82.3  | 83.1  | 83.9  | 83.9  | 83.5  | 83.2  | 83.7  | 84.1  | 83.8  | 83.0  | 82.9  | 81.7  | 80.2  | 78.7  | 77.2  | 82.6                     |       |              |  |  |
| HKPSG Exceedances         |          | 11.2                                                             | 12.3  | 13.1  | 13.9  | 13.9  | 13.5  | 13.2  | 13.7  | 14.1  | 13.8  | 13.0  | 12.9  | 11.7  | 10.2  | 8.7   | 7.2   |                          |       |              |  |  |
| 16                        |          | = number of hours exceeded 70 dB(A)                              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |              |  |  |
| 3204                      | LV       | 5,214                                                            | 5,649 | 5,192 | 4,983 | 3,209 | 2,942 | 2,709 | 3,028 | 3,785 | 5,141 | 4,243 | 5,368 | 4,293 | 3,037 | 3,723 | 3,546 | 5,025                    | 4,567 | 3,942        |  |  |
|                           | HV       | 2,046                                                            | 2,527 | 2,878 | 3,290 | 4,086 | 3,562 | 3,512 | 4,293 | 4,074 | 3,462 | 3,014 | 3,076 | 2,674 | 1,730 | 1,071 | 998   | 2,466                    | 2,851 | 2,959        |  |  |
|                           | SPD      | 41.0                                                             | 41.0  | 41.0  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 35.0  | 35.0  | 35.0  | 35.0  | 42.5  | 42.5  | 42.5  | 41                       | 35    | 43           |  |  |
|                           | total    | 7261                                                             | 8176  | 8070  | 8273  | 7294  | 6504  | 6221  | 7320  | 7858  | 8603  | 7257  | 8443  | 6967  | 4767  | 4794  | 4544  |                          |       |              |  |  |
|                           | % HV     | 28                                                               | 31    | 36    | 40    | 56    | 55    | 56    | 59    | 52    | 40    | 42    | 36    | 38    | 36    | 22    | 22    |                          |       |              |  |  |
|                           | BNL      | 81                                                               | 81    | 81    | 81    | 81    | 80    | 80    | 81    | 81    | 82    | 81    | 81    | 81    | 79    | 79    | 79    |                          |       |              |  |  |
|                           | % HV     | 3                                                                | 3     | 3     | 4     | 5     | 5     | 5     | 5     | 4     | 4     | 4     | 4     | 4     | 4     | 2     | 2     |                          |       |              |  |  |
|                           | Gradient | 6                                                                | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |                          |       |              |  |  |
|                           | Distance | 10                                                               | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |              |  |  |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |              |  |  |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |              |  |  |
| Facade Noise Levels dB(A) |          | 86.3                                                             | 87.1  | 87.5  | 88.1  | 88.8  | 88.2  | 88.1  | 89.0  | 88.8  | 88.2  | 87.6  | 87.8  | 87.1  | 85.3  | 83.7  | 83.5  | 87.4                     |       |              |  |  |
| HKPSG Exceedances         |          | 16.3                                                             | 17.1  | 17.5  | 18.1  | 18.8  | 18.2  | 18.1  | 19.0  | 18.8  | 18.2  | 17.6  | 17.8  | 17.1  | 15.3  | 13.7  | 13.5  |                          |       |              |  |  |
| 16                        |          | = number of hours exceeded 70 dB(A)                              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |              |  |  |
| 3212                      | LV       | 3,746                                                            | 4,571 | 4,534 | 4,075 | 4,235 | 4,481 | 4,186 | 4,481 | 4,387 | 4,520 | 4,097 | 4,757 | 4,979 | 4,220 | 3,576 | 3,031 | 4,447                    | 4,025 | 4,252        |  |  |
|                           | HV       | 2,045                                                            | 2,244 | 2,520 | 2,659 | 2,634 | 2,802 | 2,675 | 2,629 | 2,881 | 2,685 | 2,517 | 2,298 | 1,867 | 1,331 | 948   | 676   | 2,344                    | 2,421 | 2,164        |  |  |
|                           | SPD      | 33.5                                                             | 33.5  | 33.5  | 36.0  | 36.0  | 36.0  | 36.0  | 36.0  | 36.0  | 35.0  | 35.0  | 35.0  | 35.0  | 36.0  | 36.0  | 36.0  | 34                       | 35    | 36           |  |  |
|                           | total    | 5790                                                             | 6814  | 7053  | 6734  | 6869  | 7284  | 6860  | 7110  | 7267  | 7285  | 6614  | 7055  | 6846  | 5550  | 4525  | 3707  |                          |       |              |  |  |
|                           | % HV     | 35                                                               | 33    | 36    | 39    | 38    | 39    | 38    | 39    | 37    | 40    | 37    | 38    | 33    | 27    | 24    | 21    |                          |       |              |  |  |
|                           | BNL      | 80                                                               | 81    | 81    | 80    | 81    | 81    | 81    | 81    | 81    | 81    | 80    | 81    | 81    | 80    | 79    | 78    |                          |       |              |  |  |
|                           | % HV     | 3                                                                | 3     | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 2     | 2     | 2     | 1     |                          |       |              |  |  |
|                           | Gradient | 3                                                                | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |                          |       |              |  |  |
|                           | Distance | 12                                                               | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1                       |       |              |  |  |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |              |  |  |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |              |  |  |
| Facade Noise Levels dB(A) |          | 84.5                                                             | 85.0  | 85.4  | 85.6  | 85.5  | 85.8  | 85.6  | 85.6  | 85.9  | 85.6  | 85.4  | 85.1  | 84.3  | 83.0  | 81.6  | 80.3  | 84.9                     |       |              |  |  |
| HKPSG Exceedances         |          | 14.5                                                             | 15.0  | 15.4  | 15.6  | 15.5  | 15.8  | 15.6  | 15.6  | 15.9  | 15.8  | 15.4  | 15.1  | 14.3  | 13.0  | 11.6  | 10.3  |                          |       |              |  |  |
| 16                        |          | = number of hours exceeded 70 dB(A)                              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |              |  |  |
| 3214                      | LV       | 1,819                                                            | 2,010 | 3,415 | 2,758 | 1,594 | 2,919 | 1,791 | 3,832 | 2,024 | 2,723 | 3,682 | 2,851 | 3,223 | 3,546 | 3,707 | 3,438 | 2,602                    | 3,345 | 2,794        |  |  |
|                           | HV       | 940                                                              | 1,178 | 1,533 | 2,303 | 2,407 | 1,883 | 2,459 | 1,779 | 2,292 | 1,807 | 1,263 | 1,311 | 754   | 507   | 397   | 570   | 1,215                    | 1,304 | 1,518        |  |  |
|                           | SPD      | 22.0                                                             | 22.0  | 22.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 22                       | 20    | 20           |  |  |
|                           | total    | 2759                                                             | 3188  | 4948  | 5061  | 4001  | 4802  | 4250  | 5612  | 4315  | 4530  | 4945  | 4162  | 3978  | 4053  | 4104  | 4008  |                          |       |              |  |  |
|                           | % HV     | 34                                                               | 37    | 31    | 46    | 60    | 39    | 58    | 32    | 53    | 40    | 26    | 31    | 19    | 13    | 10    | 14    |                          |       |              |  |  |
|                           | BNL      | 77                                                               | 77    | 79    | 79    | 78    | 79    | 78    | 80    | 79    | 79    | 79    | 78    | 78    | 78    | 78    | 78    |                          |       |              |  |  |
|                           | % HV     | 4                                                                | 5     | 4     | 6     | 7     | 5     | 7     | 4     | 6     | 5     | 4     | 4     | 2     | 1     | 0     | 1     |                          |       |              |  |  |
|                           | Gradient | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |              |  |  |
|                           | Distance | 12                                                               | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1                       |       |              |  |  |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |              |  |  |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |              |  |  |
| Facade Noise Levels dB(A) |          | 81.2                                                             | 82.2  | 83.4  | 85.4  | 85.5  | 84.6  | 85.6  | 84.5  | 85.4  | 84.4  | 83.1  | 83.1  | 81.0  | 79.7  | 78.9  | 80.1  | 83.5                     |       |              |  |  |
| HKPSG Exceedances         |          | 11.2                                                             | 12.2  | 13.4  | 15.4  | 15.5  | 14.6  | 15.6  | 14.5  | 15.4  | 14.4  | 13.1  | 13.1  | 11.0  | 9.7   | 8.9   | 10.1  |                          |       |              |  |  |
| 16                        |          | = number of hours exceeded 70 dB(A)                              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |              |  |  |
| 3219                      | LV       | 1,004                                                            | 756   | 884   | 926   | 908   | 985   | 662   | 1,064 | 937   | 972   | 1,127 | 1,413 | 1,348 | 1,063 | 840   | 664   | 710                      | 1,119 | 1,004        |  |  |
|                           | HV       | 372                                                              | 468   | 577   | 623   | 567   | 600   | 611   | 536   | 552   | 439   | 334   | 238   | 171   | 123   | 88    |       | 382                      | 422   | 420          |  |  |
|                           | SPD      | 45.5                                                             | 45.5  | 45.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 42.5  | 45                       | 43    | 43           |  |  |
|                           | total    | 1376                                                             | 1116  | 1350  | 1503  | 1531  | 1552  | 1461  | 1875  | 1473  | 1524  | 1566  | 1747  | 1584  | 1234  | 963   | 752   |                          |       |              |  |  |
|                           | % HV     | 27                                                               | 32    | 35    | 38    | 41    | 37    | 41    | 36    | 36    | 28    | 19    | 15    | 14    | 13    | 12    |       |                          |       |              |  |  |
|                           | BNL      | 74                                                               | 73    | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 74    | 75    | 74    | 73    | 72    | 71    |                          |       |              |  |  |
|                           | % HV     | 3                                                                | 3     | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 2     | 1     | 1     | 1     | 0     |                          |       |              |  |  |
|                           | Gradient | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |              |  |  |
|                           | Distance | 12                                                               | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1                       |       |              |  |  |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |              |  |  |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |              |  |  |
| Facade Noise Levels dB(A) |          | 76.7                                                             | 76.3  | 77.4  | 78.1  | 78.4  | 78.1  | 78.2  | 78.4  | 77.9  | 78.0  | 77.2  | 76.5  | 75.4  | 74.0  | 72.8  | 71.5  | 77.0                     |       |              |  |  |
| HKPSG Exceedances         |          | 6.7                                                              | 6.3   | 7.4   | 8.1   | 8.4   | 8.1   | 8.2   | 8.4   | 7.9   | 8.0   | 7.2   | 6.5   | 5.4   | 4.0   | 2.8   | 1.5   |                          |       |              |  |  |
| 16                        |          | = number of hours exceeded 70 dB(A)                              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |              |  |  |
| 3223                      | LV       | 3,395                                                            | 4,833 | 4,494 | 4,459 | 3,934 | 4,558 | 4,279 | 4,580 | 4,465 | 4,383 | 4,234 | 5,503 | 4,723 | 3,993 | 3,376 | 2,854 | 4,299                    | 4,408 |              |  |  |



## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr)

| Stn.                      |          | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |       |       |       |       |       |        |       |       |       |       |       |       |       |       |                          | Model Output |       |       |
|---------------------------|----------|------------------------------------------------------------------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|--------------|-------|-------|
|                           |          | 7                                                                | 8     | 9     | 10    | 11    | 12    | 13     | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22                       | AM           | PM    | OP    |
| 3235                      | LV       | 1,857                                                            | 1,895 | 1,750 | 1,376 | 1,214 | 1,379 | 1,282  | 1,318 | 1,333 | 1,341 | 1,511 | 1,674 | 1,953 | 1,596 | 1,305 | 1,067                    | 1,721        | 1,461 | 1,481 |
|                           | HV       | 961                                                              | 754   | 911   | 797   | 834   | 804   | 836    | 821   | 973   | 842   | 791   | 735   | 734   | 521   | 369   | 262                      | 766          | 738   | 745   |
|                           | SPD      | 43.5                                                             | 43.5  | 43.5  | 45.5  | 45.5  | 45.5  | 45.5   | 45.5  | 45.5  | 45.5  | 45.5  | 45.5  | 45.5  | 45.5  | 45.5  | 45.5                     | 44           | 46    | 46    |
|                           | total    | 2818                                                             | 2649  | 2661  | 2173  | 2049  | 2182  | 2098   | 2139  | 2306  | 2183  | 2301  | 2409  | 2687  | 2117  | 1874  | 1329                     |              |       |       |
|                           | % HV     | 34                                                               | 28    | 34    | 37    | 41    | 37    | 40     | 38    | 42    | 39    | 34    | 31    | 27    | 25    | 22    | 20                       |              |       |       |
|                           | BNL      | 77                                                               | 78    | 78    | 76    | 75    | 76    | 75     | 76    | 76    | 76    | 76    | 76    | 76    | 75    | 74    | 73                       |              |       |       |
|                           | % HV     | 3                                                                | 3     | 3     | 4     | 4     | 4     | 4      | 4     | 4     | 4     | 3     | 3     | 3     | 2     | 2     | 2                        |              |       |       |
|                           | Gradient | 6                                                                | 2     | 2     | 2     | 2     | 2     | 2      | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2                        |              |       |       |
|                           | Distance | 15                                                               | -1    | -1    | -1    | -1    | -1    | -1     | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1                       |              |       |       |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |              |       |       |
| Facade Noise Levels dB(A) |          | 81.5                                                             | 80.6  | 81.3  | 80.7  | 80.8  | 80.7  | 80.8   | 80.8  | 81.4  | 80.9  | 80.7  | 80.5  | 80.6  | 79.3  | 77.9  | 76.6                     | 80.5         |       |       |
| HKPSG Exceedances         |          | 11.5                                                             | 10.6  | 11.3  | 10.7  | 10.8  | 10.7  | 10.8   | 10.8  | 11.4  | 10.9  | 10.7  | 10.5  | 10.6  | 9.3   | 7.9   | 6.6                      |              |       |       |
|                           |          | 16 = number of hours exceeded 70 dB(A)                           |       |       |       |       |       |        |       |       |       |       |       |       |       |       |                          |              |       |       |
| 3402                      | LV       | 1,311                                                            | 2,034 | 1,781 | 1,681 | 1,483 | 1,719 | 1,613  | 1,727 | 1,684 | 1,706 | 1,830 | 2,214 | 1,781 | 1,506 | 1,273 | 1,076                    | 1,909        | 1,906 | 1,594 |
|                           | HV       | 461                                                              | 552   | 746   | 1,021 | 1,010 | 907   | 959    | 939   | 918   | 943   | 841   | 664   | 476   | 399   | 335   | 281                      | 534          | 625   | 738   |
|                           | SPD      | 27.3                                                             | 27.3  | 27.3  | 26.3  | 26.3  | 26.3  | 26.3   | 26.3  | 26.3  | 26.0  | 26.0  | 26.0  | 26.0  | 26.3  | 26.3  | 26.3                     | 27           | 26    | 26    |
|                           | total    | 1771                                                             | 2585  | 2527  | 2703  | 2494  | 2626  | 2572   | 2666  | 2602  | 2649  | 2472  | 2876  | 2257  | 1905  | 1608  | 1357                     |              |       |       |
|                           | % HV     | 25                                                               | 21    | 30    | 38    | 41    | 35    | 37     | 35    | 35    | 36    | 26    | 23    | 21    | 21    | 21    | 21                       |              |       |       |
|                           | BNL      | 75                                                               | 76    | 76    | 77    | 76    | 76    | 76     | 76    | 76    | 76    | 76    | 76    | 77    | 76    | 75    | 74                       |              |       |       |
|                           | % HV     | 3                                                                | 2     | 3     | 4     | 4     | 4     | 4      | 4     | 4     | 4     | 3     | 2     | 2     | 2     | 2     | 2                        |              |       |       |
|                           | Gradient | 6                                                                | 2     | 2     | 2     | 2     | 2     | 2      | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2                        |              |       |       |
|                           | Distance | 21                                                               | -3    | -3    | -3    | -3    | -3    | -3     | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3                       |              |       |       |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |              |       |       |
| Facade Noise Levels dB(A) |          | 77.5                                                             | 78.4  | 79.5  | 80.8  | 80.7  | 80.3  | 80.5   | 80.4  | 80.4  | 80.5  | 79.0  | 79.3  | 77.9  | 77.1  | 76.3  | 75.6                     | 79.3         |       |       |
| HKPSG Exceedances         |          | 7.5                                                              | 8.4   | 9.5   | 10.8  | 10.7  | 10.3  | 10.5   | 10.4  | 10.4  | 10.5  | 9.0   | 9.3   | 7.9   | 7.1   | 6.3   | 5.6                      |              |       |       |
|                           |          | 16 = number of hours exceeded 70 dB(A)                           |       |       |       |       |       |        |       |       |       |       |       |       |       |       |                          |              |       |       |
| 3403                      | LV       | 1,257                                                            | 1,772 | 1,659 | 1,656 | 1,461 | 1,692 | 1,589  | 1,701 | 1,658 | 1,657 | 1,703 | 2,121 | 1,754 | 1,482 | 1,253 | 1,060                    | 1,576        | 1,773 | 1,589 |
|                           | HV       | 416                                                              | 539   | 689   | 906   | 897   | 805   | 851    | 833   | 815   | 870   | 687   | 639   | 422   | 354   | 297   | 250                      | 522          | 669   | 656   |
|                           | SPD      | 32.0                                                             | 32.0  | 32.0  | 31.0  | 31.0  | 31.0  | 31.0   | 31.0  | 31.0  | 27.0  | 27.0  | 27.0  | 27.0  | 31.0  | 31.0  | 31.0                     | 32           | 27    | 31    |
|                           | total    | 1673                                                             | 2311  | 2348  | 2562  | 2357  | 2498  | 2440   | 2534  | 2473  | 2527  | 2390  | 2760  | 2176  | 1837  | 1551  | 1309                     |              |       |       |
|                           | % HV     | 25                                                               | 23    | 29    | 35    | 38    | 32    | 35     | 33    | 33    | 34    | 29    | 23    | 19    | 19    | 19    | 19                       |              |       |       |
|                           | BNL      | 74                                                               | 76    | 76    | 76    | 76    | 76    | 76     | 76    | 76    | 76    | 76    | 77    | 76    | 75    | 74    | 73                       |              |       |       |
|                           | % HV     | 2                                                                | 2     | 3     | 3     | 4     | 3     | 3      | 3     | 3     | 4     | 3     | 2     | 2     | 1     | 1     | 1                        |              |       |       |
|                           | Gradient | 6                                                                | 2     | 2     | 2     | 2     | 2     | 2      | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2                        |              |       |       |
|                           | Distance | 21                                                               | -3    | -3    | -3    | -3    | -3    | -3     | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3                       |              |       |       |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |              |       |       |
| Facade Noise Levels dB(A) |          | 76.8                                                             | 78.0  | 78.9  | 80.0  | 79.9  | 79.5  | 79.7   | 79.7  | 79.6  | 80.1  | 79.2  | 79.0  | 77.4  | 76.4  | 75.7  | 74.9                     | 78.7         |       |       |
| HKPSG Exceedances         |          | 6.8                                                              | 8.0   | 8.9   | 10.0  | 9.9   | 9.5   | 9.7    | 9.7   | 9.6   | 10.1  | 9.2   | 9.0   | 7.4   | 6.4   | 5.7   | 4.9                      |              |       |       |
|                           |          | 16 = number of hours exceeded 70 dB(A)                           |       |       |       |       |       |        |       |       |       |       |       |       |       |       |                          |              |       |       |
| 3404                      | LV       | 585                                                              | 971   | 813   | 735   | 649   | 752   | 706    | 755   | 736   | 781   | 952   | 1,058 | 779   | 659   | 557   | 471                      | 864          | 991   | 697   |
|                           | HV       | 242                                                              | 356   | 416   | 509   | 504   | 453   | 478    | 468   | 458   | 508   | 456   | 389   | 237   | 199   | 167   | 140                      | 345          | 444   | 368   |
|                           | SPD      | 34.0                                                             | 34.0  | 34.0  | 39.5  | 39.5  | 39.5  | 39.5   | 39.5  | 39.5  | 35.0  | 35.0  | 35.0  | 35.0  | 39.5  | 39.5  | 39.5                     | 34           | 35    | 40    |
|                           | total    | 827                                                              | 1328  | 1228  | 1245  | 1153  | 1204  | 1184   | 1223  | 1194  | 1289  | 1408  | 1447  | 1016  | 858   | 724   | 611                      |              |       |       |
|                           | % HV     | 29                                                               | 27    | 34    | 41    | 44    | 38    | 40     | 38    | 38    | 39    | 32    | 27    | 23    | 23    | 23    | 23                       |              |       |       |
|                           | BNL      | 71                                                               | 73    | 73    | 73    | 73    | 73    | 73     | 73    | 73    | 73    | 73    | 74    | 74    | 72    | 72    | 71                       |              |       |       |
|                           | % HV     | 3                                                                | 2     | 3     | 4     | 4     | 4     | 4      | 4     | 4     | 4     | 3     | 2     | 2     | 2     | 2     | 2                        |              |       |       |
|                           | Gradient | 6                                                                | 2     | 2     | 2     | 2     | 2     | 2      | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2                        |              |       |       |
|                           | Distance | 21                                                               | -3    | -3    | -3    | -3    | -3    | -3     | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3                       |              |       |       |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |              |       |       |
| Facade Noise Levels dB(A) |          | 74.3                                                             | 76.1  | 76.5  | 77.3  | 77.2  | 76.8  | 77.0   | 77.0  | 76.9  | 77.3  | 77.0  | 76.4  | 74.4  | 73.7  | 73.0  | 72.2                     | 76.1         |       |       |
| HKPSG Exceedances         |          | 4.3                                                              | 6.1   | 6.5   | 7.3   | 7.2   | 6.8   | 7.0    | 7.0   | 6.9   | 7.3   | 7.0   | 6.4   | 4.4   | 3.7   | 3.0   | 2.2                      |              |       |       |
|                           |          | 16 = number of hours exceeded 70 dB(A)                           |       |       |       |       |       |        |       |       |       |       |       |       |       |       |                          |              |       |       |
| 3405                      | LV       | 4,865                                                            | 4,952 | 4,784 | 4,716 | 3,006 | 2,784 | 2,564  | 2,865 | 3,582 | 4,792 | 3,756 | 4,923 | 4,063 | 2,874 | 3,524 | 3,355                    | 4,405        | 4,042 | 3,731 |
|                           | HV       | 1,890                                                            | 2,413 | 2,686 | 3,009 | 3,737 | 3,258 | 3,212  | 3,926 | 3,726 | 3,157 | 2,713 | 2,795 | 2,446 | 1,583 | 979   | 913                      | 2,355        | 2,567 | 2,707 |
|                           | SPD      | 41.8                                                             | 41.8  | 41.8  | 42.8  | 42.8  | 42.8  | 42.8   | 42.8  | 42.8  | 42.3  | 42.3  | 42.3  | 42.3  | 42.8  | 42.6  | 42.8                     | 42           | 42    | 43    |
|                           | total    | 6755                                                             | 7365  | 7449  | 7725  | 6774  | 6042  | 5776   | 6792  | 7308  | 7949  | 6469  | 7718  | 6509  | 4457  | 4503  | 4268                     |              |       |       |
|                           | % HV     | 28                                                               | 33    | 36    | 39    | 55    | 54    | 56     | 58    | 51    | 40    | 42    | 36    | 38    | 36    | 22    | 21                       |              |       |       |
|                           | BNL      | 80                                                               | 81    | 81    | 81    | 81    | 80    | 80     | 81    | 81    | 81    | 80    | 81    | 80    | 79    | 79    | 79                       |              |       |       |
|                           | % HV     | 3                                                                | 3     | 4     | 4     | 5     | 5     | 5      | 5     | 5     | 4     | 4     | 4     | 4     | 4     | 2     | 2                        |              |       |       |
|                           | Gradient | 3                                                                | 1     | 1     | 1     | 1     | 1     | 1      | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1                        |              |       |       |
|                           | Distance | 10                                                               | 0     | 0     | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0                        |              |       |       |
|                           | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0   | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
| Angle                     | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5   | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |              |       |       |
| Facade Noise Levels dB(A) |          | 85.0                                                             | 86.0  | 86.3  | 86.8  | 87.5  | 86.9  | 86.8   | 87.7  | 87.5  | 87.0  | 86.3  | 86.5  | 85.9  | 84.1  | 82.5  | 82.2                     | 84.2         |       |       |
| HKPSG Exceedances         |          | 15.0                                                             | 16.0  | 16.3  | 16.8  | 17.5  | 16.9  | 16.8   | 17.7  | 17.5  | 17.0  | 16.3  | 16.5  | 15.9  | 14.1  | 12.5  | 12.2                     |              |       |       |
|                           |          | 16 = number of hours exceeded 70 dB(A)                           |       |       |       |       |       |        |       |       |       |       |       |       |       |       |                          |              |       |       |
| 3406                      | LV       | 3,552                                                            | 3,344 | 2,237 | 2,121 | 1,928 | 1,832 | 2,040  | 2,224 | 2,414 | 2,386 | 2,878 | 3,522 | 3,140 | 2,791 | 2,481 | 2,205                    | 2,841        | 2,892 | 2,485 |
|                           | HV       | 917                                                              | 1,045 | 1,259 | 1,487 | 1,390 | 1,245 | 1,412  | 1,479 | 1,408 | 1,351 | 1,117 | 1,127 | 1,048 | 783   | 585   | 437                      | 1,007        | 1,109 | 1,151 |
|                           | SPD      | 61.5                                                             | 61.5  | 61.5  | 64.0  | 64.0  | 64.0  | 64.0   | 64.0  | 64.0  | 61.5  | 61.5  | 61.5  | 61.5  | 64.0  | 64.0  | 64.0                     | 62           | 62    | 64    |
|                           | total    | 4469                                                             | 4389  | 3496  | 3609  | 3318  | 3077  | 3452</ |       |       |       |       |       |       |       |       |                          |              |       |       |



## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

|      |                           | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |          |       |       |       |       |       |       |       |       |       |       |       |       |       |      |          |  |  |  |  |  | Model Output |  |  |
|------|---------------------------|------------------------------------------------------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|----------|--|--|--|--|--|--------------|--|--|
| Stn. |                           | 7                                                                | 8        | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22   | AM PM OP |  |  |  |  |  |              |  |  |
| 3434 | LV                        | 878                                                              | 1,272    | 1,266 | 1,124 | 1,032 | 1,075 | 1,136 | 1,169 | 1,294 | 1,167 | 936   | 1,253 | 1,349 | 1,077 | 859   | 686  |          |  |  |  |  |  |              |  |  |
|      | HV                        | 439                                                              | 637      | 717   | 726   | 728   | 730   | 650   | 799   | 762   | 693   | 626   | 543   | 423   | 317   | 237   | 178  |          |  |  |  |  |  |              |  |  |
|      | SPD                       | 25.5                                                             | 25.5     | 25.5  | 26.0  | 26.0  | 26.0  | 26.0  | 26.0  | 26.0  | 26.0  | 26.0  | 26.0  | 26.0  | 26.0  | 26.0  | 26.0 |          |  |  |  |  |  |              |  |  |
|      | total                     | 1317                                                             | 1809     | 1983  | 1850  | 1761  | 1805  | 1786  | 1968  | 2056  | 1880  | 1561  | 1795  | 1772  | 1393  | 1096  | 863  |          |  |  |  |  |  |              |  |  |
|      | % HV                      | 33                                                               | 30       | 36    | 39    | 41    | 40    | 36    | 41    | 37    | 37    | 40    | 30    | 24    | 23    | 22    | 21   |          |  |  |  |  |  |              |  |  |
|      | BNL                       | 73                                                               | 75       | 75    | 75    | 75    | 75    | 75    | 75    | 75    | 75    | 74    | 75    | 75    | 74    | 73    | 72   |          |  |  |  |  |  |              |  |  |
|      | % HV                      | 4                                                                | 3        | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 2     | 2     | 2     | 2    |          |  |  |  |  |  |              |  |  |
|      | Gradient                  | 6                                                                | Gradient | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2    |          |  |  |  |  |  |              |  |  |
|      | Distance                  | 10                                                               | Distance | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    |          |  |  |  |  |  |              |  |  |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0 |          |  |  |  |  |  |              |  |  |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5 |          |  |  |  |  |  |              |  |  |
|      | Facade Noise Levels dB(A) | 79.8                                                             | 80.8     | 81.9  | 81.9  | 81.9  | 81.9  | 81.4  | 82.3  | 82.1  | 81.7  | 81.2  | 80.8  | 79.9  | 78.6  | 77.4  | 76.2 |          |  |  |  |  |  |              |  |  |
|      | HKPSG Exceedances         | 9.8                                                              | 10.8     | 11.9  | 11.9  | 11.9  | 11.9  | 11.4  | 12.3  | 12.1  | 11.7  | 11.2  | 10.8  | 9.9   | 8.6   | 7.4   | 6.2  |          |  |  |  |  |  |              |  |  |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |      |          |  |  |  |  |  |              |  |  |
|      |                           |                                                                  |          |       |       |       |       |       |       |       |       |       |       |       |       |       |      |          |  |  |  |  |  |              |  |  |
| 3436 | LV                        | 1,000                                                            | 931      | 1,114 | 1,174 | 1,220 | 1,291 | 1,206 | 1,291 | 1,264 | 1,299 | 1,038 | 1,300 | 1,434 | 1,216 | 1,030 | 873  |          |  |  |  |  |  |              |  |  |
|      | HV                        | 931                                                              | 1,130    | 1,190 | 1,164 | 1,153 | 1,227 | 1,171 | 1,151 | 1,261 | 1,170 | 1,114 | 1,011 | 818   | 583   | 415   | 296  |          |  |  |  |  |  |              |  |  |
|      | SPD                       | 24.3                                                             | 24.3     | 24.3  | 25.3  | 25.3  | 25.3  | 25.3  | 25.3  | 25.3  | 25.5  | 25.5  | 25.5  | 25.5  | 25.3  | 25.3  | 25.3 |          |  |  |  |  |  |              |  |  |
|      | total                     | 1931                                                             | 2061     | 2304  | 2338  | 2373  | 2518  | 2377  | 2442  | 2525  | 2489  | 2152  | 2311  | 2252  | 1798  | 1448  | 1169 |          |  |  |  |  |  |              |  |  |
|      | % HV                      | 48                                                               | 55       | 52    | 50    | 49    | 49    | 49    | 47    | 50    | 47    | 52    | 44    | 36    | 32    | 29    | 25   |          |  |  |  |  |  |              |  |  |
|      | BNL                       | 75                                                               | 75       | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 75    | 74    | 73   |          |  |  |  |  |  |              |  |  |
|      | % HV                      | 5                                                                | 6        | 6     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 4     | 4     | 3     | 3    |          |  |  |  |  |  |              |  |  |
|      | Gradient                  | 0                                                                | Gradient | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    |          |  |  |  |  |  |              |  |  |
|      | Distance                  | 12                                                               | Distance | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1   |          |  |  |  |  |  |              |  |  |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0 |          |  |  |  |  |  |              |  |  |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5 |          |  |  |  |  |  |              |  |  |
|      | Facade Noise Levels dB(A) | 80.7                                                             | 81.5     | 81.5  | 81.5  | 81.5  | 81.5  | 81.5  | 81.5  | 81.5  | 81.5  | 81.3  | 80.9  | 80.1  | 78.7  | 77.3  | 75.9 |          |  |  |  |  |  |              |  |  |
|      | HKPSG Exceedances         | 10.7                                                             | 11.5     | 11.7  | 11.5  | 11.5  | 11.8  | 11.5  | 11.5  | 11.9  | 11.5  | 11.3  | 10.9  | 10.1  | 8.7   | 7.3   | 5.9  |          |  |  |  |  |  |              |  |  |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |      |          |  |  |  |  |  |              |  |  |
|      |                           |                                                                  |          |       |       |       |       |       |       |       |       |       |       |       |       |       |      |          |  |  |  |  |  |              |  |  |
| 3450 | LV                        | 378                                                              | 974      | 925   | 839   | 635   | 678   | 620   | 710   | 686   | 644   | 808   | 872   | 875   | 770   | 752   | 698  |          |  |  |  |  |  |              |  |  |
|      | HV                        | 463                                                              | 759      | 653   | 971   | 943   | 896   | 804   | 957   | 1,053 | 959   | 782   | 785   | 552   | 461   | 372   | 347  |          |  |  |  |  |  |              |  |  |
|      | SPD                       | 20.0                                                             | 20.0     | 20.0  | 20.5  | 20.5  | 20.5  | 20.5  | 20.5  | 20.5  | 20.0  | 20.0  | 20.0  | 20.0  | 20.5  | 20.5  | 20.5 |          |  |  |  |  |  |              |  |  |
|      | total                     | 841                                                              | 1733     | 1777  | 1809  | 1578  | 1575  | 1424  | 1667  | 1738  | 1603  | 1589  | 1637  | 1428  | 1231  | 1123  | 1045 |          |  |  |  |  |  |              |  |  |
|      | % HV                      | 55                                                               | 44       | 48    | 60    | 60    | 57    | 56    | 57    | 61    | 60    | 49    | 47    | 39    | 37    | 33    | 33   |          |  |  |  |  |  |              |  |  |
|      | BNL                       | 71                                                               | 75       | 75    | 74    | 74    | 74    | 74    | 74    | 75    | 74    | 74    | 74    | 74    | 73    | 73    | 72   |          |  |  |  |  |  |              |  |  |
|      | % HV                      | 7                                                                | 6        | 6     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 6     | 6     | 5     | 5     | 4     | 4    |          |  |  |  |  |  |              |  |  |
|      | Gradient                  | 0                                                                | Gradient | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    |          |  |  |  |  |  |              |  |  |
|      | Distance                  | 8                                                                | Distance | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1    |          |  |  |  |  |  |              |  |  |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0 |          |  |  |  |  |  |              |  |  |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5 |          |  |  |  |  |  |              |  |  |
|      | Facade Noise Levels dB(A) | 79.7                                                             | 81.9     | 82.4  | 82.8  | 82.6  | 82.4  | 82.0  | 82.7  | 83.1  | 82.8  | 82.0  | 81.9  | 80.6  | 79.7  | 78.8  | 78.5 |          |  |  |  |  |  |              |  |  |
|      | HKPSG Exceedances         | 9.7                                                              | 11.9     | 12.4  | 12.8  | 12.6  | 12.4  | 12.0  | 12.7  | 13.1  | 12.8  | 12.0  | 11.9  | 10.6  | 9.7   | 8.8   | 8.5  |          |  |  |  |  |  |              |  |  |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |      |          |  |  |  |  |  |              |  |  |
|      |                           |                                                                  |          |       |       |       |       |       |       |       |       |       |       |       |       |       |      |          |  |  |  |  |  |              |  |  |
| 3457 | LV                        | 446                                                              | 284      | 287   | 356   | 338   | 371   | 388   | 401   | 427   | 398   | 302   | 405   | 477   | 336   | 351   | 335  |          |  |  |  |  |  |              |  |  |
|      | HV                        | 120                                                              | 123      | 229   | 284   | 249   | 235   | 234   | 243   | 227   | 214   | 193   | 165   | 94    | 62    | 49    | 36   |          |  |  |  |  |  |              |  |  |
|      | SPD                       | 35.5                                                             | 35.5     | 35.5  | 34.0  | 34.0  | 34.0  | 34.0  | 34.0  | 34.0  | 35.0  | 35.0  | 35.0  | 35.0  | 34.0  | 34.0  | 34.0 |          |  |  |  |  |  |              |  |  |
|      | total                     | 567                                                              | 407      | 517   | 620   | 587   | 606   | 622   | 643   | 654   | 612   | 495   | 569   | 571   | 399   | 399   | 371  |          |  |  |  |  |  |              |  |  |
|      | % HV                      | 21                                                               | 30       | 44    | 43    | 42    | 39    | 38    | 38    | 35    | 35    | 39    | 29    | 16    | 16    | 12    | 10   |          |  |  |  |  |  |              |  |  |
|      | BNL                       | 70                                                               |          |       |       |       |       |       |       |       |       |       |       |       |       |       |      |          |  |  |  |  |  |              |  |  |





## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

|      |                                        | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Model Output             |       |       |
|------|----------------------------------------|------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|-------|-------|
|      |                                        | 7                                                                | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | AM                       | PM    | OP    |
| 3626 | LV                                     | 900                                                              | 1,504 | 1,286 | 1,227 | 1,274 | 1,251 | 1,220 | 1,401 | 1,506 | 1,404 | 1,610 | 1,835 | 2,058 | 2,060 | 2,062 | 2,064 | 1,413                    | 1,679 | 1,540 |
|      | HV                                     | 774                                                              | 791   | 935   | 1,014 | 1,028 | 981   | 1,055 | 998   | 1,030 | 1,015 | 852   | 847   | 832   | 694   | 580   | 484   | 781                      | 825   | 888   |
|      | SPD                                    | 21.5                                                             | 21.5  | 21.5  | 21.0  | 21.0  | 21.0  | 21.0  | 21.0  | 21.0  | 20.5  | 20.5  | 20.5  | 20.5  | 21.0  | 21.0  | 21.0  | 22                       | 21    | 21    |
|      | total                                  | 1674                                                             | 2295  | 2221  | 2242  | 2302  | 2232  | 2275  | 2398  | 2535  | 2420  | 2463  | 2582  | 2890  | 2754  | 2641  | 2548  |                          |       |       |
|      | % HV                                   | 46                                                               | 34    | 42    | 45    | 45    | 44    | 46    | 42    | 41    | 42    | 35    | 32    | 29    | 25    | 22    | 19    |                          |       |       |
|      | BNL                                    | 74                                                               | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 77    | 77    | 76    |                          |       |       |
|      | % HV                                   | 6                                                                | 4     | 5     | 6     | 5     | 5     | 6     | 5     | 5     | 5     | 5     | 4     | 4     | 3     | 3     | 2     |                          |       |       |
|      | Gradient 0                             | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |
|      | Distance 10                            | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |
|      | Surface 1                              | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
|      | Angle 160                              | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |
|      | Facade Noise Levels dB(A)              | 81.0                                                             | 81.2  | 81.8  | 82.2  | 82.3  | 82.1  | 82.4  | 82.2  | 82.3  | 82.4  | 81.7  | 81.7  | 81.7  | 80.9  | 80.2  | 79.5  | Average Level over 16 hr |       |       |
|      | HKPSG Exceedances                      | 11.0                                                             | 11.2  | 11.8  | 12.2  | 12.3  | 12.1  | 12.4  | 12.2  | 12.3  | 12.4  | 11.7  | 11.7  | 11.7  | 10.9  | 10.2  | 9.5   | 81.7                     |       |       |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |
| 3635 | LV                                     | 1,325                                                            | 1,934 | 1,916 | 1,692 | 1,554 | 1,618 | 1,709 | 1,759 | 1,947 | 1,759 | 1,305 | 1,824 | 2,030 | 1,620 | 1,293 | 1,032 | 1,875                    | 1,392 | 1,648 |
|      | HV                                     | 699                                                              | 796   | 1,118 | 1,180 | 1,183 | 1,185 | 1,057 | 1,298 | 1,238 | 1,099 | 921   | 840   | 687   | 514   | 385   | 288   | 821                      | 902   | 918   |
|      | SPD                                    | 29.0                                                             | 29.0  | 29.0  | 29.0  | 29.0  | 29.0  | 29.0  | 29.0  | 29.0  | 31.0  | 31.0  | 31.0  | 31.0  | 29.0  | 29.0  | 29.0  | 29                       | 31    | 29    |
|      | total                                  | 2024                                                             | 2730  | 3034  | 2872  | 2737  | 2804  | 2766  | 3057  | 3185  | 2858  | 2226  | 2664  | 2717  | 2135  | 1678  | 1320  |                          |       |       |
|      | % HV                                   | 35                                                               | 29    | 37    | 41    | 43    | 42    | 38    | 42    | 39    | 38    | 41    | 32    | 25    | 24    | 23    | 22    |                          |       |       |
|      | BNL                                    | 75                                                               | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 76    | 76    | 77    | 75    | 74    | 73    |                          |       |       |
|      | % HV                                   | 4                                                                | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 2     | 2     | 2     | 2     |                          |       |       |
|      | Gradient 0                             | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |
|      | Distance 10                            | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |
|      | Surface 1                              | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
|      | Angle 160                              | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |
|      | Facade Noise Levels dB(A)              | 79.8                                                             | 80.4  | 81.8  | 81.9  | 81.9  | 81.9  | 81.5  | 82.3  | 82.2  | 81.5  | 80.7  | 80.5  | 79.8  | 78.7  | 77.5  | 76.3  | Average Level over 16 hr |       |       |
|      | HKPSG Exceedances                      | 9.8                                                              | 10.4  | 11.8  | 11.9  | 11.9  | 11.9  | 11.5  | 12.3  | 12.2  | 11.5  | 10.7  | 10.5  | 9.8   | 8.7   | 7.5   | 6.3   | 80.8                     |       |       |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |
| 3636 | LV                                     | 1,787                                                            | 2,473 | 2,537 | 2,325 | 2,136 | 2,224 | 2,349 | 2,417 | 2,676 | 2,535 | 2,230 | 2,767 | 2,790 | 2,227 | 1,777 | 1,418 | 2,397                    | 2,379 | 2,265 |
|      | HV                                     | 1,043                                                            | 1,264 | 1,700 | 1,731 | 1,734 | 1,738 | 1,549 | 1,904 | 1,816 | 1,629 | 1,414 | 1,259 | 1,007 | 754   | 565   | 423   | 1,304                    | 1,385 | 1,346 |
|      | SPD                                    | 20.0                                                             | 20.0  | 20.0  | 22.0  | 22.0  | 22.0  | 22.0  | 22.0  | 22.0  | 20.5  | 20.5  | 20.5  | 20.5  | 22.0  | 22.0  | 22.0  | 20                       | 21    | 22    |
|      | total                                  | 2831                                                             | 3737  | 4237  | 4056  | 3870  | 3962  | 3899  | 4321  | 4492  | 4164  | 3644  | 4027  | 3798  | 2981  | 2342  | 1841  |                          |       |       |
|      | % HV                                   | 37                                                               | 34    | 40    | 43    | 45    | 44    | 40    | 44    | 40    | 39    | 39    | 31    | 27    | 25    | 24    | 23    |                          |       |       |
|      | BNL                                    | 77                                                               | 78    | 78    | 78    | 78    | 78    | 78    | 79    | 79    | 78    | 78    | 78    | 78    | 77    | 76    | 75    |                          |       |       |
|      | % HV                                   | 5                                                                | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 4     | 4     | 3     | 3     | 3     |                          |       |       |
|      | Gradient 6                             | 2                                                                | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |                          |       |       |
|      | Distance 10                            | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |
|      | Surface 1                              | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
|      | Angle 160                              | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |
|      | Facade Noise Levels dB(A)              | 84.5                                                             | 85.3  | 86.6  | 86.2  | 86.2  | 86.2  | 85.7  | 86.6  | 86.4  | 86.3  | 85.7  | 85.2  | 84.4  | 82.9  | 81.8  | 80.4  | Average Level over 16 hr |       |       |
|      | HKPSG Exceedances                      | 14.5                                                             | 15.3  | 16.6  | 16.2  | 16.2  | 16.2  | 15.7  | 16.6  | 16.4  | 16.3  | 15.7  | 15.2  | 14.4  | 12.9  | 11.6  | 10.4  | 85.3                     |       |       |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |
| 3637 | LV                                     | 1,959                                                            | 2,156 | 1,750 | 1,874 | 1,761 | 1,825 | 1,731 | 1,890 | 1,956 | 2,070 | 2,405 | 2,522 | 2,649 | 2,210 | 2,108 | 2,005 | 1,933                    | 2,344 | 2,031 |
|      | HV                                     | 875                                                              | 764   | 1,245 | 1,332 | 1,455 | 1,259 | 1,198 | 1,252 | 1,359 | 1,293 | 913   | 1,004 | 699   | 462   | 473   | 373   | 849                      | 969   | 1,022 |
|      | SPD                                    | 21.0                                                             | 21.0  | 21.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 21                       | 18    | 19    |
|      | total                                  | 2834                                                             | 2920  | 2994  | 3207  | 3218  | 3084  | 2929  | 3142  | 3315  | 3363  | 3318  | 3526  | 3349  | 2673  | 2581  | 2378  |                          |       |       |
|      | % HV                                   | 31                                                               | 26    | 42    | 42    | 45    | 41    | 41    | 40    | 41    | 38    | 28    | 28    | 21    | 17    | 18    | 16    |                          |       |       |
|      | BNL                                    | 77                                                               | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 78    | 77    | 76    | 76    |                          |       |       |
|      | % HV                                   | 4                                                                | 3     | 5     | 5     | 6     | 5     | 5     | 5     | 5     | 5     | 4     | 4     | 3     | 2     | 2     | 2     |                          |       |       |
|      | Gradient 0                             | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |
|      | Distance 12                            | -1                                                               | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |                          |       |       |
|      | Surface 1                              | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
|      | Angle 160                              | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |
|      | Facade Noise Levels dB(A)              | 81.2                                                             | 80.7  | 82.6  | 83.1  | 83.4  | 82.8  | 82.6  | 82.8  | 83.2  | 83.0  | 81.6  | 82.0  | 80.6  | 79.0  | 79.0  | 78.1  | Average Level over 16 hr |       |       |
|      | HKPSG Exceedances                      | 11.2                                                             | 10.7  | 12.6  | 13.1  | 13.4  | 12.8  | 12.6  | 12.8  | 13.2  | 13.0  | 11.5  | 12.0  | 10.6  | 9.0   | 9.0   | 8.1   | 81.9                     |       |       |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |
| 3641 | LV                                     | 2,941                                                            | 2,980 | 2,876 | 2,853 | 1,837 | 1,684 | 1,551 | 1,734 | 2,167 | 2,929 | 2,378 | 3,042 | 2,458 | 1,739 | 2,132 | 2,030 | 2,651                    | 2,559 | 2,257 |
|      | HV                                     | 935                                                              | 1,123 | 1,304 | 1,514 | 1,681 | 1,639 | 1,617 | 1,976 | 1,875 | 1,578 | 1,318 | 1,386 | 1,231 | 796   | 493   | 459   | 1,096                    | 1,247 | 1,362 |
|      | SPD                                    | 37.5                                                             | 37.5  | 37.5  | 37.5  | 37.5  | 37.5  | 37.5  | 37.5  | 37.5  | 37.0  | 37.0  | 37.0  | 37.0  | 37.0  | 37.5  | 37.5  | 38                       | 37    | 38    |
|      | total                                  | 3875                                                             | 4103  | 4180  | 4367  | 3718  | 3324  | 3168  | 3709  | 4042  | 4507  | 3696  | 4428  | 3689  | 2535  | 2625  | 2489  |                          |       |       |
|      | % HV                                   | 24                                                               | 27    | 31    | 35    | 51    | 49    | 51    | 53    | 46    | 35    | 36    | 31    | 33    | 31    | 19    | 18    |                          |       |       |
|      | BNL                                    | 78                                                               | 78    | 78    | 79    | 78    | 77    | 77    | 78    | 78    | 79    | 78    | 79    | 78    | 76    | 76    | 76    |                          |       |       |
|      | % HV                                   | 2                                                                | 2     | 3     | 3     | 5     | 5     | 5     | 5     | 4     | 3     | 3     | 3     | 3     | 3     | 1     | 1     |                          |       |       |
|      | Gradient 6                             | 2                                                                | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |                          |       |       |
|      | Distance 12                            | -1                                                               | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |                          |       |       |
|      | Surface 1                              | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
|      | Angle 160                              | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |                          |       |       |
|      | Facade Noise Levels dB(A)              | 82.3                                                             | 83.0  | 83.5  | 84.1  | 84.8  | 84.2  | 84.1  | 85.0  | 84.8  | 84.3  | 83.5  | 83.8  | 83.2  | 81.4  | 79.8  | 79.6  | Average Level over 16 hr |       |       |
|      | HKPSG Exceedances                      | 12.3                                                             | 13.0  | 13.5  | 14.1  | 14.8  | 14.2  | 14.1  | 15.0  | 14.8  | 14.3  | 13.5  | 13.8  | 13.2  | 11.4  | 9.8   | 9.6   | 83.5                     |       |       |
|      | 16 = number of hours exceeded 70 dB(A) |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |
| 3652 | LV                                     | 274                                                              | 442   | 386   | 379   | 393   | 386   | 376   | 432   | 464   | 472   | 565   | 866   | 635   | 635   | 636   | 637   | 415                      | 694   | 475   |
|      | HV                                     | 399                                                              | 476   | 505   | 499   | 506   | 483   | 519   | 491   | 507   | 508   | 453   | 431   | 409   | 342   | 285   | 238   | 470                      | 438   | 437   |
|      | SPD                                    | 24.3                                                             | 24.3  | 24.3  | 24.3  | 24.3  | 24.3  | 24.3  | 24.3  | 24.3  | 23.3  | 23.3  | 23.3  | 23.3  | 24.3  | 24.3  | 24.3  | 24                       | 23    | 24    |
|      | total                                  | 673                                                              | 917   | 892   | 878   | 899   | 869   | 895   | 923   | 971   | 980   | 1118  | 1097  | 1044  | 977   | 921   | 875   |                          |       |       |
|      | % HV                                   | 59                                                               | 52    | 57    | 57    | 56    | 56    | 58    | 53    | 52    | 52    | 40    | 39    | 39    | 35    | 31    | 27    |                          |       |       |
|      | BNL                                    | 70                                                               | 72    | 72    | 72    | 72    | 72    | 72    | 72    | 72    | 72    | 73    | 73    | 72    | 72    | 72    | 72    |                          |       |       |
|      | % HV                                   | 6                                                                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |



## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(B15100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

Model Output

AM PM DP

| 2011CTS3(815100)/MAIN MODEL RUN-V105 SCH Prac Hourly Traffic Volume (veh.) or Speed (km/hr) |          |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Model Outputs |       |       |
|---------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|-------|-------|
|                                                                                             |          | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | AM            | PM    | DP    |
| Stn.                                                                                        |          | 7                                                                | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    |       |       |               |       |       |
| 3806                                                                                        | LV       | 2,810                                                            | 3,331 | 3,067 | 2,845 | 2,829 | 2,685 | 2,542 | 2,977 | 3,069 | 3,078 | 3,031 | 3,824 | 3,619 | 2,891 | 2,309 | 1,845 | 2,974 | 3,013 | 2,902         |       |       |
|                                                                                             | HV       | 1,474                                                            | 2,082 | 2,407 | 2,805 | 2,767 | 2,533 | 2,371 | 2,686 | 2,938 | 2,678 | 2,213 | 2,134 | 1,555 | 1,084 | 755   | 526   | 2,068 | 2,168 | 2,046         |       |       |
|                                                                                             | SPD      | 67.0                                                             | 67.0  | 67.0  | 67.0  | 67.0  | 67.0  | 67.0  | 67.0  | 67.0  | 65.0  | 65.0  | 65.0  | 65.0  | 67.0  | 67.0  | 67.0  | 67    | 65    | 67            |       |       |
|                                                                                             | total    | 4,284                                                            | 5,393 | 5,475 | 5,650 | 5,595 | 5,218 | 4,913 | 5,663 | 6,007 | 5,756 | 5,244 | 5,958 | 5,174 | 3,975 | 3,064 | 2,371 |       |       |               |       |       |
|                                                                                             | % HV     | 34                                                               | 38    | 44    | 50    | 49    | 48    | 47    | 49    | 47    | 42    | 36    | 30    | 27    | 25    | 22    |       |       |       |               |       |       |
|                                                                                             | BNL      | 79                                                               | 80    | 80    | 80    | 80    | 79    | 79    | 80    | 80    | 80    | 79    | 80    | 79    | 78    | 77    | 76    |       |       |               |       |       |
|                                                                                             | % HV     | 5                                                                | 5     | 5     | 6     | 6     | 6     | 6     | 6     | 6     | 5     | 5     | 5     | 4     | 4     | 4     | 3     |       |       |               |       |       |
|                                                                                             | Gradient | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |               |       |       |
|                                                                                             | Distance | 20                                                               | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    |       |               |       |       |
|                                                                                             | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |               |       |       |
| Angle                                                                                       | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |       |       |               |       |       |
| Facade Noise Levels dB(A)                                                                   |          | 81.8                                                             | 83.1  | 83.5  | 84.2  | 84.1  | 83.7  | 83.5  | 84.0  | 84.4  | 83.9  | 83.2  | 83.2  | 82.0  | 80.7  | 79.3  | 77.9  |       |       |               |       |       |
| HKPSG Exceedances                                                                           |          | 11.8                                                             | 13.1  | 13.6  | 14.2  | 14.1  | 13.7  | 13.5  | 14.0  | 14.4  | 13.9  | 13.2  | 13.2  | 12.0  | 10.7  | 9.3   | 7.9   |       |       |               |       |       |
| 16 = number of hours exceeded 70 dB(A)                                                      |          |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2,551         | 2,539 | 2,143 |
| 3807                                                                                        | LV       | 2,380                                                            | 2,715 | 2,360 | 1,977 | 1,939 | 2,102 | 1,839 | 2,271 | 2,000 | 2,102 | 2,556 | 3,099 | 2,873 | 2,270 | 1,793 | 1,417 | 2,551 | 2,539 | 2,143         |       |       |
|                                                                                             | HV       | 1,148                                                            | 1,070 | 1,418 | 1,798 | 1,943 | 1,770 | 1,870 | 1,907 | 1,673 | 1,697 | 1,288 | 1,011 | 741   | 532   | 382   | 275   | 1,133 | 1,238 | 1,310         |       |       |
|                                                                                             | SPD      | 20.0                                                             | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 16    | 14    | 14            |       |       |
|                                                                                             | total    | 3,528                                                            | 3,785 | 3,778 | 3,775 | 3,882 | 3,872 | 3,709 | 4,178 | 3,673 | 3,800 | 3,845 | 4,111 | 3,614 | 2,802 | 2,176 | 1,691 |       |       |               |       |       |
|                                                                                             | % HV     | 33                                                               | 28    | 38    | 48    | 50    | 46    | 50    | 46    | 45    | 45    | 34    | 25    | 20    | 19    | 18    | 16    |       |       |               |       |       |
|                                                                                             | BNL      | 78                                                               | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 77    | 76    | 74    |       |       |               |       |       |
|                                                                                             | % HV     | 4                                                                | 4     | 5     | 6     | 6     | 6     | 6     | 6     | 6     | 5     | 5     | 3     | 3     | 2     | 2     | 2     |       |       |               |       |       |
|                                                                                             | Gradient | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |               |       |       |
|                                                                                             | Distance | 20                                                               | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    |       |               |       |       |
|                                                                                             | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |               |       |       |
| Angle                                                                                       | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |       |       |               |       |       |
| Facade Noise Levels dB(A)                                                                   |          | 80.7                                                             | 80.5  | 81.6  | 82.5  | 82.9  | 82.5  | 82.7  | 82.8  | 82.2  | 82.3  | 81.2  | 80.3  | 79.1  | 77.7  | 76.3  | 75.0  |       |       |               |       |       |
| HKPSG Exceedances                                                                           |          | 10.7                                                             | 10.5  | 11.5  | 12.5  | 12.9  | 12.5  | 12.7  | 12.8  | 12.2  | 12.3  | 11.2  | 10.3  | 9.1   | 7.7   | 6.3   | 5.0   |       |       |               |       |       |
| 16 = number of hours exceeded 70 dB(A)                                                      |          |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1,866         | 2,146 | 1,907 |
| 3814                                                                                        | LV       | 1,980                                                            | 1,773 | 1,824 | 1,759 | 1,725 | 1,871 | 1,636 | 2,021 | 1,780 | 1,850 | 2,161 | 2,895 | 2,557 | 2,020 | 1,586 | 1,261 | 1,866 | 2,146 | 1,907         |       |       |
|                                                                                             | HV       | 733                                                              | 584   | 866   | 1,197 | 1,294 | 1,178 | 1,245 | 1,269 | 1,114 | 1,136 | 877   | 680   | 493   | 354   | 254   | 183   | 619   | 843   | 872           |       |       |
|                                                                                             | SPD      | 20.0                                                             | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20    | 18    | 18            |       |       |
|                                                                                             | total    | 2,713                                                            | 2,358 | 2,690 | 2,956 | 3,019 | 3,049 | 2,881 | 3,290 | 2,893 | 2,986 | 3,038 | 3,375 | 3,050 | 2,374 | 1,850 | 1,443 |       |       |               |       |       |
|                                                                                             | % HV     | 27                                                               | 25    | 32    | 40    | 43    | 39    | 43    | 39    | 38    | 38    | 29    | 20    | 16    | 15    | 14    | 13    |       |       |               |       |       |
|                                                                                             | BNL      | 77                                                               | 76    | 76    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 76    | 75    | 74    |       |       |               |       |       |
|                                                                                             | % HV     | 4                                                                | 3     | 4     | 5     | 6     | 5     | 6     | 5     | 5     | 5     | 4     | 3     | 2     | 2     | 1     | 1     |       |       |               |       |       |
|                                                                                             | Gradient | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |               |       |       |
|                                                                                             | Distance | 12                                                               | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |       |               |       |       |
|                                                                                             | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |               |       |       |
| Angle                                                                                       | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |       |       |               |       |       |
| Facade Noise Levels dB(A)                                                                   |          | 80.7                                                             | 79.8  | 81.3  | 82.6  | 82.9  | 82.6  | 82.8  | 82.9  | 82.3  | 82.4  | 81.4  | 80.6  | 79.3  | 78.0  | 76.6  | 75.2  |       |       |               |       |       |
| HKPSG Exceedances                                                                           |          | 10.7                                                             | 9.8   | 11.3  | 12.6  | 12.9  | 12.6  | 12.8  | 12.9  | 12.3  | 12.4  | 11.4  | 10.6  | 9.3   | 8.0   | 6.6   | 5.2   |       |       |               |       |       |
| 16 = number of hours exceeded 70 dB(A)                                                      |          |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2,395         | 2,748 | 2,683 |
| 3818                                                                                        | LV       | 2,063                                                            | 2,468 | 2,650 | 2,553 | 2,611 | 2,523 | 2,516 | 2,743 | 2,778 | 2,783 | 2,724 | 2,895 | 3,015 | 2,710 | 2,733 | 2,772 | 2,395 | 2,748 | 2,683         |       |       |
|                                                                                             | HV       | 721                                                              | 1,009 | 1,061 | 1,263 | 1,179 | 1,255 | 1,151 | 1,098 | 1,129 | 1,114 | 1,015 | 1,112 | 1,009 | 812   | 707   | 654   | 947   | 1,018 | 1,028         |       |       |
|                                                                                             | SPD      | 20.0                                                             | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  | 15    | 16    | 15            |       |       |
|                                                                                             | total    | 2,784                                                            | 3,477 | 3,711 | 3,815 | 3,789 | 3,778 | 3,666 | 3,841 | 3,908 | 3,897 | 3,740 | 4,007 | 4,024 | 3,522 | 3,440 | 3,426 |       |       |               |       |       |
|                                                                                             | % HV     | 26                                                               | 29    | 29    | 33    | 31    | 33    | 31    | 29    | 29    | 29    | 27    | 28    | 25    | 23    | 21    | 19    |       |       |               |       |       |
|                                                                                             | BNL      | 77                                                               | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    |       |       |               |       |       |
|                                                                                             | % HV     | 4                                                                | 4     | 4     | 5     | 4     | 5     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 3     | 2     | 2     |       |       |               |       |       |
|                                                                                             | Gradient | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |               |       |       |
|                                                                                             | Distance | 5                                                                | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |       |               |       |       |
|                                                                                             | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |               |       |       |
| Angle                                                                                       | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |       |       |               |       |       |
| Facade Noise Levels dB(A)                                                                   |          | 83.2                                                             | 84.6  | 84.9  | 85.6  | 85.3  | 85.5  | 85.2  | 85.0  | 85.1  | 85.1  | 84.7  | 85.1  | 84.7  | 83.8  | 83.3  | 83.0  |       |       |               |       |       |
| HKPSG Exceedances                                                                           |          | 13.2                                                             | 14.6  | 14.9  | 15.6  | 15.3  | 15.5  | 15.2  | 15.0  | 15.1  | 15.1  | 14.7  | 15.1  | 14.7  | 13.8  | 13.3  | 13.0  |       |       |               |       |       |
| 16 = number of hours exceeded 70 dB(A)                                                      |          |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1,089         | 1,159 | 1,306 |
| 3818                                                                                        | LV       | 645                                                              | 1,195 | 1,423 | 1,199 | 1,192 | 1,273 | 1,164 | 1,333 | 1,286 | 1,138 | 1,161 | 1,443 | 1,642 | 1,445 | 1,410 | 1,310 | 1,089 | 1,159 | 1,306         |       |       |
|                                                                                             | HV       | 519                                                              | 974   | 1,001 | 1,036 | 1,006 | 957   | 858   | 1,021 | 1,124 | 1,033 | 868   | 833   | 590   | 492   | 397   | 370   | 949   | 881   | 790           |       |       |
|                                                                                             | SPD      | 22.5                                                             | 22.5  | 22.5  | 24.5  | 24.5  | 24.5  | 24.5  | 24.5  | 24.5  | 23.5  | 23.5  | 23.5  | 23.5  | 24.5  | 24.5  | 24.5  | 23    | 24    | 25            |       |       |
|                                                                                             | total    | 1,164                                                            | 2,168 | 2,424 | 2,235 | 2,198 | 2,230 | 2,022 | 2,354 | 2,410 | 2,171 | 2,029 | 2,276 | 2,232 | 1,937 | 1,807 | 1,680 |       |       |               |       |       |
|                                                                                             | % HV     | 45                                                               | 45    | 41    | 46    | 46    | 43    | 42    | 43    | 47    | 48    | 43    | 37    | 26    | 25    | 22    | 22    |       |       |               |       |       |
|                                                                                             | BNL      | 73                                                               | 76    | 76    | 76    | 76    | 76    | 75    | 76    | 76    | 76    | 75    | 76    | 76    | 75    | 75    | 74    |       |       |               |       |       |
|                                                                                             | % HV     | 5                                                                | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 4     | 3     | 3     | 2     | 2     |       |       |               |       |       |
|                                                                                             | Gradient | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |               |       |       |
|                                                                                             | Distance | 12                                                               | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |       |               |       |       |
|                                                                                             | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |               |       |       |
| Angle                                                                                       | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |       |       |               |       |       |
| Facade Noise Levels dB(A)                                                                   |          | 78.4                                                             | 81.2  | 81.3  | 81.1  | 81.0  | 80.8  | 80.4  | 81.1  | 81.5  | 81.3  | 80.5  | 80.4  | 79.1  | 78.2  | 77.4  | 77.1  |       |       |               |       |       |
| HKPSG Exceedances                                                                           |          | 8.4                                                              | 11.2  | 11.3  | 11.1  | 11.0  | 10.8  | 10.4  | 11.1  | 11.5  | 11.3  | 10.5  | 10.4  | 9.1   | 8.2   | 7.4   | 7.1   |       |       |               |       |       |
| 16 = number of hours exceeded 70 dB(A)                                                      |          |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1,330         | 1,482 | 1,334 |
| 3820                                                                                        | LV       | 799                                                              | 1,416 | 1,167 | 1,063 | 1,104 | 1,083 | 1,056 | 1,213 | 1,304 | 1,223 | 1,421 | 1,605 | 1,783 | 1,784 | 1,786 | 1,788 | 1,330 | 1,482 | 1,334         |       |       |
|                                                                                             | HV       | 888                                                              | 915   | 1,075 | 1,160 | 1,176 | 1,123 | 1,207 | 1,141 | 1,178 | 1,151 | 935   | 951   | 952   | 795   | 663   | 553   | 903   | 905   | 1,016         |       |       |
|                                                                                             | SPD      | 21.5                                                             | 21.5  | 21.5  | 21.0  | 21.0  | 21.0  | 21.0  | 21.0  | 21.0  | 21.5  | 21.5  | 21.5  | 21.5  | 21.0  | 21.0  | 21.0  | 22    | 22    | 21            |       |       |
|                                                                                             | total    | 1,687                                                            | 2,330 | 2,242 | 2,224 | 2,280 | 2,206 | 2,264 | 2,355 | 2,482 | 2,374 | 2,356 | 2,556 | 2,735 | 2,579 | 2,449 | 2,341 |       |       |               |       |       |
|                                                                                             | % HV     | 53                                                               | 39    | 48    | 52    | 52    | 51    | 53    | 48    | 47    | 48    | 40    | 37    | 35    | 31    | 27    | 24    |       |       |               |       |       |
|                                                                                             | BNL      | 74                                                               | 78    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    |       |       |               |       |       |
|                                                                                             | % HV     | 6                                                                | 5     | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 5     | 5     | 4     | 4     | 4     | 3     |       |       |               |       |       |
|                                                                                             | Gradient | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |               |       |       |
|                                                                                             | Distance | 10                                                               | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |               |       |       |
|                                                                                             | Surface  | 1                                                                | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |               |       |       |
| Angle                                                                                       | 160      | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |       |       |       |       |       |       |       |       |       |       |       |       |               |       |       |

2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

[illegible]

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## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

| Stn. |                           | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |  | Model Output |  |  |
|------|---------------------------|------------------------------------------------------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--------------|--|--|
|      |                           | 7                                                                | 8        | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | AM    | PM    | OP    |  |  |  |              |  |  |
| 4203 | LV                        | 1,233                                                            | 1,911    | 1,821 | 1,540 | 1,414 | 1,473 | 1,556 | 1,601 | 1,772 | 1,613 | 1,232 | 1,686 | 1,848 | 1,475 | 1,177 | 939   | 1,852 | 1,314 | 1,500 |  |  |  |              |  |  |
|      | HV                        | 561                                                              | 579      | 872   | 971   | 973   | 975   | 869   | 1,068 | 1,019 | 896   | 731   | 679   | 565   | 423   | 317   | 237   | 597   | 716   | 755   |  |  |  |              |  |  |
|      | SPD                       | 23.0                                                             | 23.0     | 23.0  | 22.5  | 22.5  | 22.5  | 22.5  | 22.5  | 22.5  | 20.5  | 20.5  | 20.5  | 20.5  | 22.5  | 22.5  | 22.5  | 23    | 21    | 23    |  |  |  |              |  |  |
|      | total                     | 1795                                                             | 2489     | 2693  | 2510  | 2387  | 2448  | 2425  | 2669  | 2791  | 2509  | 1963  | 2365  | 2413  | 1898  | 1494  | 1176  |       |       |       |  |  |  |              |  |  |
|      | % HV                      | 31                                                               | 23       | 32    | 39    | 41    | 40    | 36    | 40    | 36    | 36    | 37    | 29    | 23    | 22    | 21    | 20    |       |       |       |  |  |  |              |  |  |
|      | BNL                       | 75                                                               | 76       | 77    | 76    | 76    | 76    | 76    | 76    | 77    | 76    | 75    | 76    | 76    | 75    | 74    | 73    |       |       |       |  |  |  |              |  |  |
|      | % HV                      | 4                                                                | 3        | 4     | 5     | 5     | 5     | 4     | 5     | 4     | 5     | 5     | 4     | 3     | 3     | 2     | 2     |       |       |       |  |  |  |              |  |  |
|      | Gradient                  | 0                                                                | 0        | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |       |  |  |  |              |  |  |
|      | Distance                  | 10                                                               | Distance | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |       |  |  |  |              |  |  |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |       |       |  |  |  |              |  |  |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |       |       |       |  |  |  |              |  |  |
|      | Facade Noise Levels dB(A) | 79.5                                                             | 79.8     | 81.4  | 81.8  | 81.8  | 81.8  | 81.4  | 82.2  | 82.1  | 81.9  | 81.0  | 80.8  | 80.1  | 78.5  | 77.3  | 76.1  |       |       |       |  |  |  |              |  |  |
|      | HKPSG Exceedances         | 9.5                                                              | 9.8      | 11.4  | 11.8  | 11.8  | 11.8  | 11.4  | 12.2  | 12.1  | 11.9  | 11.0  | 10.8  | 10.1  | 8.5   | 7.3   | 6.1   |       |       |       |  |  |  |              |  |  |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |  |              |  |  |
| 4204 | LV                        | 1,609                                                            | 1,989    | 2,089 | 1,971 | 2,016 | 1,948 | 1,942 | 2,118 | 2,145 | 2,139 | 2,063 | 2,214 | 2,328 | 2,092 | 2,110 | 2,140 | 1,931 | 2,079 | 2,072 |  |  |  |              |  |  |
|      | HV                        | 849                                                              | 907      | 955   | 1,137 | 1,062 | 1,130 | 1,036 | 989   | 1,017 | 1,012 | 949   | 1,020 | 909   | 732   | 637   | 589   | 851   | 952   | 926   |  |  |  |              |  |  |
|      | SPD                       | 22.2                                                             | 22.2     | 22.2  | 20.5  | 20.5  | 20.5  | 20.5  | 20.5  | 21.0  | 21.0  | 21.0  | 21.0  | 21.0  | 20.5  | 20.5  | 20.5  | 22    | 21    | 21    |  |  |  |              |  |  |
|      | total                     | 2258                                                             | 2896     | 3043  | 3109  | 3078  | 3078  | 2979  | 3107  | 3163  | 3151  | 3012  | 3234  | 3237  | 2824  | 2747  | 2729  |       |       |       |  |  |  |              |  |  |
|      | % HV                      | 29                                                               | 31       | 31    | 37    | 35    | 37    | 35    | 32    | 32    | 32    | 32    | 32    | 26    | 26    | 23    | 22    |       |       |       |  |  |  |              |  |  |
|      | BNL                       | 76                                                               | 77       | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    | 77    |       |       |       |  |  |  |              |  |  |
|      | % HV                      | 4                                                                | 4        | 4     | 5     | 5     | 5     | 5     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 3     | 3     |       |       |       |  |  |  |              |  |  |
|      | Gradient                  | 0                                                                | 0        | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |       |  |  |  |              |  |  |
|      | Distance                  | 5                                                                | Distance | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |       |       |       |  |  |  |              |  |  |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |       |       |  |  |  |              |  |  |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |       |       |       |  |  |  |              |  |  |
|      | Facade Noise Levels dB(A) | 82.3                                                             | 83.7     | 83.9  | 84.9  | 84.7  | 84.9  | 84.6  | 84.4  | 84.5  | 84.4  | 84.1  | 84.4  | 84.0  | 83.2  | 82.7  | 82.4  |       |       |       |  |  |  |              |  |  |
|      | HKPSG Exceedances         | 12.3                                                             | 13.7     | 13.9  | 14.9  | 14.7  | 14.9  | 14.6  | 14.4  | 14.5  | 14.4  | 14.1  | 14.4  | 14.0  | 13.2  | 12.7  | 12.4  |       |       |       |  |  |  |              |  |  |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |  |              |  |  |
| 4205 | LV                        | 1,327                                                            | 1,821    | 1,738 | 1,759 | 1,552 | 1,798 | 1,688 | 1,807 | 1,781 | 1,719 | 1,624 | 2,143 | 1,983 | 1,575 | 1,332 | 1,126 | 1,620 | 1,691 | 1,667 |  |  |  |              |  |  |
|      | HV                        | 369                                                              | 518      | 624   | 786   | 778   | 698   | 738   | 722   | 707   | 729   | 504   | 515   | 366   | 307   | 258   | 216   | 501   | 491   | 568   |  |  |  |              |  |  |
|      | SPD                       | 27.0                                                             | 27.0     | 27.0  | 24.5  | 24.5  | 24.5  | 24.5  | 24.5  | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  | 24.5  | 24.5  | 24.5  | 27    | 25    | 25    |  |  |  |              |  |  |
|      | total                     | 1696                                                             | 2339     | 2362  | 2545  | 2329  | 2497  | 2426  | 2529  | 2488  | 2447  | 2128  | 2669  | 2229  | 1882  | 1589  | 1342  |       |       |       |  |  |  |              |  |  |
|      | % HV                      | 22                                                               | 22       | 26    | 31    | 33    | 28    | 30    | 29    | 30    | 30    | 24    | 19    | 16    | 16    | 16    | 16    |       |       |       |  |  |  |              |  |  |
|      | BNL                       | 74                                                               | 76       | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 75    | 76    | 76    | 75    | 74    | 73    |       |       |       |  |  |  |              |  |  |
|      | % HV                      | 2                                                                | 2        | 3     | 3     | 4     | 3     | 3     | 3     | 3     | 3     | 2     | 2     | 1     | 1     | 1     | 1     |       |       |       |  |  |  |              |  |  |
|      | Gradient                  | 3                                                                | Gradient | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |       |       |       |  |  |  |              |  |  |
|      | Distance                  | 10                                                               | Distance | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |       |       |  |  |  |              |  |  |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |       |       |       |  |  |  |              |  |  |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |       |       |       |  |  |  |              |  |  |
|      | Facade Noise Levels dB(A) | 78.4                                                             | 79.8     | 80.5  | 81.6  | 81.5  | 81.2  | 81.4  | 81.3  | 81.2  | 81.3  | 79.8  | 80.1  | 78.8  | 78.1  | 77.3  | 76.5  |       |       |       |  |  |  |              |  |  |
|      | HKPSG Exceedances         | 8.4                                                              | 9.8      | 10.5  | 11.6  | 11.5  | 11.2  | 11.4  | 11.3  | 11.2  | 11.3  | 9.8   | 10.1  | 8.8   | 8.1   | 7.3   | 6.5   |       |       |       |  |  |  |              |  |  |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |  |              |  |  |
| 4208 | LV                        | 3,779                                                            | 4,523    | 4,201 | 3,643 | 4,012 | 4,129 | 4,129 | 4,320 | 4,155 | 3,901 | 4,102 | 4,200 | 5,178 | 4,579 | 4,841 | 4,483 | 4,447 | 4,025 | 4,252 |  |  |  |              |  |  |
|      | HV                        | 2,051                                                            | 2,243    | 2,488 | 2,459 | 2,572 | 2,867 | 2,741 | 2,772 | 2,812 | 2,794 | 2,437 | 2,320 | 1,549 | 1,322 | 1,048 | 915   | 2,344 | 2,421 | 2,164 |  |  |  |              |  |  |
|      | SPD                       | 33.5                                                             | 33.5     | 33.5  | 36.0  | 36.0  | 36.0  | 36.0  | 36.0  | 36.0  | 35.0  | 35.0  | 35.0  | 35.0  | 35.0  | 36.0  | 36.0  | 34    | 35    | 36    |  |  |  |              |  |  |
|      | total                     | 5829                                                             | 6766     | 6690  | 6102  | 6584  | 6997  | 6871  | 7092  | 6967  | 6695  | 6540  | 6519  | 6727  | 5901  | 5867  | 5398  |       |       |       |  |  |  |              |  |  |
|      | % HV                      | 35                                                               | 33       | 37    | 40    | 39    | 41    | 40    | 39    | 40    | 42    | 37    | 35    | 23    | 22    | 18    | 17    |       |       |       |  |  |  |              |  |  |
|      | BNL                       | 80                                                               | 81       | 80    | 80    | 80    | 81    | 81    | 81    | 81    | 80    | 80    | 80    | 80    | 80    | 80    | 80    |       |       |       |  |  |  |              |  |  |
|      | % HV                      | 3                                                                | 3        | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 2     | 2     | 1     | 1     |       |       |       |  |  |  |              |  |  |
|      | Gradient                  | 3                                                                | Gradient | 1     | 1     | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |  |              |  |  |

## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed.

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

| Stn.                                   |             | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          | Model Output |       |       |
|----------------------------------------|-------------|------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|--------------|-------|-------|
|                                        |             | 7                                                                | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22                       | AM           | PM    | OP    |
| 4214                                   | LV          | 4,895                                                            | 4,363 | 4,371 | 4,135 | 4,055 | 4,397 | 3,846 | 4,750 | 4,183 | 4,253 | 4,554 | 6,041 | 6,010 | 4,748 | 3,751 | 2,963                    | 4,099        | 4,523 | 4,482 |
|                                        | HV          | 1,650                                                            | 1,426 | 1,993 | 2,638 | 2,851 | 2,597 | 2,744 | 2,798 | 2,455 | 2,505 | 1,938 | 1,501 | 1,087 | 761   | 561   | 403                      |              |       |       |
|                                        | SPD         | 55.5                                                             | 55.5  | 55.5  | 53.0  | 53.0  | 53.0  | 53.0  | 53.0  | 53.0  | 53.5  | 53.5  | 53.5  | 53.5  | 53.0  | 53.0  | 53.0                     |              |       |       |
|                                        | total       | 6345                                                             | 5789  | 6363  | 6773  | 6907  | 6993  | 6590  | 7548  | 6638  | 6758  | 6492  | 7542  | 7097  | 5528  | 4311  | 3366                     |              |       |       |
|                                        | % HV        | 26                                                               | 25    | 31    | 39    | 41    | 37    | 42    | 37    | 37    | 37    | 30    | 20    | 15    | 14    | 13    | 12                       |              |       |       |
|                                        | BNL         | 80                                                               | 80    | 80    | 81    | 81    | 81    | 80    | 81    | 80    | 80    | 80    | 81    | 81    | 80    | 79    | 77                       |              |       |       |
|                                        | % HV        | 3                                                                | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 2     | 1     | 1     | 1     | 1                        |              |       |       |
|                                        | Gradient 0  | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0                        |              |       |       |
|                                        | Distance 12 | -1                                                               | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1                       |              |       |       |
|                                        | Surface 1   | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
|                                        | Angle 160   | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5                     |              |       |       |
| Facade Noise Levels dB(A)              |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Average Level over 16 hr |              |       |       |
| HKPSG Exceedances                      |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 84.0                     |              |       |       |
| 16 = number of hours exceeded 70 dB(A) |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |              |       |       |
| 4217                                   | LV          | 3,286                                                            | 3,531 | 3,143 | 2,402 | 2,119 | 2,406 | 2,202 | 2,301 | 2,327 | 2,366 | 2,769 | 2,987 | 3,409 | 2,786 | 2,278 | 1,862                    | 3,207        | 2,678 | 2,550 |
|                                        | HV          | 1,550                                                            | 1,175 | 1,455 | 1,297 | 1,357 | 1,307 | 1,361 | 1,335 | 1,583 | 1,383 | 1,349 | 1,222 | 1,194 | 847   | 601   | 427                      |              |       |       |
|                                        | SPD         | 30.0                                                             | 30.0  | 30.0  | 35.3  | 35.3  | 35.3  | 35.3  | 35.3  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 35.3  | 35.3  | 35.3                     |              |       |       |
|                                        | total       | 4835                                                             | 4707  | 4597  | 3698  | 3477  | 3713  | 3563  | 3637  | 3910  | 3749  | 4118  | 4209  | 4603  | 3834  | 2879  | 2288                     |              |       |       |
|                                        | % HV        | 32                                                               | 25    | 32    | 35    | 39    | 35    | 38    | 37    | 40    | 37    | 33    | 29    | 26    | 23    | 21    | 19                       |              |       |       |
|                                        | BNL         | 79                                                               | 79    | 79    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 79    | 78    | 77    | 76                       |              |       |       |
|                                        | % HV        | 3                                                                | 2     | 3     | 3     | 4     | 3     | 4     | 4     | 4     | 4     | 3     | 2     | 2     | 2     | 2     | 1                        |              |       |       |
|                                        | Gradient 6  | 2                                                                | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2                        |              |       |       |
|                                        | Distance 10 | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0                        |              |       |       |
|                                        | Surface 1   | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
|                                        | Angle 160   | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5                     |              |       |       |
| Facade Noise Levels dB(A)              |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Average Level over 16 hr |              |       |       |
| HKPSG Exceedances                      |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 83.9                     |              |       |       |
| 16 = number of hours exceeded 70 dB(A) |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |              |       |       |
| 5001                                   | LV          | 3,647                                                            | 3,275 | 2,390 | 2,203 | 1,969 | 2,167 | 1,952 | 1,901 | 1,991 | 2,534 | 2,868 | 4,412 | 3,909 | 3,117 | 2,485 | 1,981                    | 2,908        | 2,979 | 2,600 |
|                                        | HV          | 1,548                                                            | 1,142 | 2,673 | 2,862 | 2,983 | 2,487 | 2,561 | 3,172 | 3,311 | 3,078 | 2,279 | 2,181 | 1,776 | 1,248 | 874   | 614                      |              |       |       |
|                                        | SPD         | 37.0                                                             | 37.0  | 37.0  | 38.0  | 38.0  | 38.0  | 38.0  | 38.0  | 38.0  | 35.5  | 35.5  | 35.5  | 35.5  | 38.0  | 38.0  | 38.0                     |              |       |       |
|                                        | total       | 5296                                                             | 5418  | 5064  | 5065  | 4951  | 4634  | 4612  | 5074  | 5302  | 5612  | 5147  | 6593  | 5685  | 4363  | 3360  | 2595                     |              |       |       |
|                                        | % HV        | 31                                                               | 40    | 53    | 57    | 60    | 53    | 58    | 63    | 62    | 55    | 44    | 33    | 31    | 29    | 26    | 24                       |              |       |       |
|                                        | BNL         | 79                                                               | 80    | 79    | 79    | 79    | 79    | 79    | 79    | 79    | 80    | 79    | 80    | 80    | 79    | 77    | 76                       |              |       |       |
|                                        | % HV        | 3                                                                | 4     | 5     | 5     | 5     | 5     | 5     | 6     | 6     | 5     | 4     | 3     | 3     | 3     | 2     | 2                        |              |       |       |
|                                        | Gradient 0  | 0                                                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0                        |              |       |       |
|                                        | Distance 50 | -6                                                               | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6                       |              |       |       |
|                                        | Surface 1   | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
|                                        | Angle 160   | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5                     |              |       |       |
| Facade Noise Levels dB(A)              |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Average Level over 16 hr |              |       |       |
| HKPSG Exceedances                      |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 78.5                     |              |       |       |
| 16 = number of hours exceeded 70 dB(A) |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |              |       |       |
| 5002                                   | LV          | 4,632                                                            | 3,635 | 2,818 | 2,511 | 2,516 | 2,419 | 2,414 | 2,747 | 2,496 | 2,945 | 3,176 | 4,333 | 4,003 | 2,956 | 2,184 | 1,613                    | 3,296        | 3,182 | 2,885 |
|                                        | HV          | 1,208                                                            | 1,228 | 1,510 | 1,869 | 1,827 | 1,592 | 1,564 | 1,738 | 1,980 | 1,774 | 1,388 | 1,497 | 1,477 | 921   | 574   | 358                      |              |       |       |
|                                        | SPD         | 64.2                                                             | 64.2  | 64.2  | 63.5  | 63.5  | 63.5  | 63.5  | 63.5  | 63.5  | 63.2  | 63.2  | 63.2  | 63.2  | 63.5  | 63.5  | 63.5                     |              |       |       |
|                                        | total       | 5840                                                             | 4863  | 4328  | 4380  | 4343  | 4011  | 3978  | 4485  | 4476  | 4719  | 4585  | 5830  | 5490  | 3878  | 2758  | 1971                     |              |       |       |
|                                        | % HV        | 21                                                               | 25    | 35    | 43    | 42    | 40    | 39    | 39    | 44    | 38    | 30    | 26    | 27    | 24    | 21    | 18                       |              |       |       |
|                                        | BNL         | 80                                                               | 79    | 79    | 79    | 79    | 78    | 78    | 79    | 79    | 79    | 79    | 80    | 80    | 78    | 77    | 75                       |              |       |       |
|                                        | % HV        | 3                                                                | 4     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 4     | 4     | 4     | 3     | 3     | 3                        |              |       |       |
|                                        | Gradient 3  | 1                                                                | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1                        |              |       |       |
|                                        | Distance 60 | -7                                                               | -7    | -7    | -7    | -7    | -7    | -7    | -7    | -7    | -7    | -7    | -7    | -7    | -7    | -7    | -7                       |              |       |       |
|                                        | Surface 1   | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
|                                        | Angle 160   | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5                     |              |       |       |
| Facade Noise Levels dB(A)              |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Average Level over 16 hr |              |       |       |
| HKPSG Exceedances                      |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 78.0                     |              |       |       |
| 16 = number of hours exceeded 70 dB(A) |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |              |       |       |
| 5003                                   | LV          | 3,168                                                            | 3,089 | 2,227 | 1,936 | 1,920 | 1,903 | 1,920 | 1,911 | 2,096 | 2,091 | 2,613 | 3,319 | 2,795 | 2,193 | 1,720 | 1,349                    | 2,806        | 2,559 | 2,149 |
|                                        | HV          | 1,202                                                            | 1,354 | 1,561 | 2,325 | 2,232 | 1,799 | 1,774 | 1,849 | 1,765 | 1,698 | 1,787 | 1,531 | 1,355 | 1,069 | 844   | 686                      |              |       |       |
|                                        | SPD         | 83.5                                                             | 83.5  | 83.5  | 84.0  | 84.0  | 84.0  | 84.0  | 84.0  | 84.0  | 82.0  | 82.0  | 82.0  | 82.0  | 84.0  | 84.0  | 84.0                     |              |       |       |
|                                        | total       | 4371                                                             | 4443  | 3787  | 4260  | 4152  | 3702  | 3694  | 3780  | 3861  | 3789  | 4401  | 4851  | 4150  | 3262  | 2564  | 2015                     |              |       |       |
|                                        | % HV        | 28                                                               | 30    | 41    | 55    | 54    | 49    | 48    | 49    | 46    | 45    | 41    | 32    | 33    | 33    | 33    | 33                       |              |       |       |
|                                        | BNL         | 79                                                               | 79    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 78    | 79    | 79    | 78    | 77    | 76    | 75                       |              |       |       |
|                                        | % HV        | 5                                                                | 5     | 6     | 7     | 7     | 7     | 7     | 7     | 7     | 6     | 5     | 5     | 5     | 6     | 6     | 6                        |              |       |       |
|                                        | Gradient 3  | 1                                                                | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1                        |              |       |       |
|                                        | Distance 43 | -5                                                               | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5                       |              |       |       |
|                                        | Surface 1   | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
|                                        | Angle 160   | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5                     |              |       |       |
| Facade Noise Levels dB(A)              |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Average Level over 16 hr |              |       |       |
| HKPSG Exceedances                      |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 80.8                     |              |       |       |
| 16 = number of hours exceeded 70 dB(A) |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |              |       |       |
| 5005                                   | LV          | 1,731                                                            | 1,597 | 1,160 | 962   | 810   | 885   | 773   | 918   | 914   | 886   | 1,051 | 1,548 | 1,659 | 1,523 | 1,398 | 1,283                    | 1,387        | 1,064 | 1,183 |
|                                        | HV          | 459                                                              | 400   | 389   | 444   | 413   | 355   | 333   | 292   | 350   | 373   | 488   | 372   | 277   | 214   | 166   | 128                      |              |       |       |
|                                        | SPD         | 49.0                                                             | 49.0  | 49.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0                     |              |       |       |
|                                        | total       | 2190                                                             | 1998  | 1549  | 1406  | 1223  | 1220  | 1108  | 1209  | 1265  | 1260  | 1539  | 1920  | 1936  | 1737  | 1563  | 1411                     |              |       |       |
|                                        | % HV        | 21                                                               | 20    | 26    | 32    | 34    | 29    | 30    | 24    | 28    | 30    | 32    | 19    | 14    | 12    | 11    | 9                        |              |       |       |
|                                        | BNL         | 76                                                               | 75    | 74    | 74    | 73    | 73    | 73    | 73    | 73    | 73    | 74    | 75    | 75    | 75    | 74    | 74                       |              |       |       |
|                                        | % HV        | 2                                                                | 2     | 3     | 3     | 4     | 3     | 3     | 3     | 3     | 3     | 3     | 2     | 1     | 1     | 0     | 0                        |              |       |       |
|                                        | Gradient 3  | 1                                                                | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1                        |              |       |       |
|                                        | Distance 12 | -1                                                               | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1                       |              |       |       |
|                                        | Surface 1   | -1.0                                                             | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |              |       |       |
|                                        | Angle 160   | -0.5                                                             | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5                     |              |       |       |
| Facade Noise Levels dB(A)              |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Average Level over 16 hr |              |       |       |
| HKPSG Exceedances                      |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 77.6                     |              |       |       |
| 16 = number of hours exceeded 70 dB(A) |             |                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |              |       |       |

## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

|      |                           | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |  |  |  |  | Model Output |       |       |  |
|------|---------------------------|------------------------------------------------------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|--------------|-------|-------|--|
|      |                           | 7                                                                | 8        | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    |  |  |  |  |  |  | AM           | PM    | OP    |  |
| 5012 | LV                        | 4,593                                                            | 4,523    | 3,241 | 3,052 | 2,601 | 2,572 | 2,863 | 2,915 | 3,124 | 3,749 | 4,413 | 5,160 | 5,061 | 4,040 | 3,225 | 2,574 |  |  |  |  |  |  | 3,985        | 4,304 | 3,456 |  |
|      | HV                        | 3,062                                                            | 3,728    | 4,385 | 4,486 | 4,675 | 4,252 | 4,378 | 5,575 | 5,246 | 4,746 | 3,896 | 3,767 | 3,050 | 2,419 | 1,919 | 1,522 |  |  |  |  |  |  | 3,587        | 3,824 | 3,851 |  |
|      | SPD                       | 48.5                                                             | 48.5     | 48.5  | 62.0  | 62.0  | 62.0  | 62.0  | 62.0  | 62.0  | 62.0  | 62.0  | 62.0  | 62.0  | 62.0  | 62.0  | 62.0  |  |  |  |  |  |  | 49           | 55    | 62    |  |
|      | total                     | 7655                                                             | 8252     | 7625  | 7537  | 7276  | 6824  | 7241  | 8491  | 8371  | 8495  | 8310  | 8927  | 8110  | 6459  | 5144  | 4097  |  |  |  |  |  |  |              |       |       |  |
|      | % HV                      | 40                                                               | 45       | 58    | 60    | 64    | 62    | 60    | 66    | 63    | 56    | 47    | 42    | 38    | 37    | 37    | 37    |  |  |  |  |  |  |              |       |       |  |
|      | BNL                       | 81                                                               | 81       | 81    | 81    | 81    | 81    | 81    | 81    | 81    | 81    | 81    | 81    | 81    | 80    | 79    | 78    |  |  |  |  |  |  |              |       |       |  |
|      | % HV                      | 4                                                                | 5        | 5     | 6     | 6     | 6     | 6     | 7     | 6     | 6     | 5     | 5     | 4     | 5     | 5     | 5     |  |  |  |  |  |  |              |       |       |  |
|      | Gradient                  | 6                                                                | Gradient | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |  |  |  |  |  |  |              |       |       |  |
|      | Distance                  | 50                                                               | Distance | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |  |  |  |  |  |  |              |       |       |  |
|      | Surface                   | 1                                                                | Surface  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |  |  |  |  |  |  |              |       |       |  |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |  |  |  |  |  |  |              |       |       |  |
|      | Facade Noise Levels dB(A) | 82.0                                                             | 82.7     | 83.3  | 84.0  | 84.1  | 83.7  | 83.9  | 84.9  | 84.6  | 83.9  | 83.2  | 83.1  | 82.3  | 81.7  | 80.7  | 79.7  |  |  |  |  |  |  |              |       |       |  |
|      | HKPSG Exceedances         | 12.0                                                             | 12.7     | 13.3  | 14.0  | 14.1  | 13.7  | 13.9  | 14.9  | 14.6  | 13.9  | 13.2  | 13.1  | 12.3  | 11.7  | 10.7  | 9.7   |  |  |  |  |  |  |              |       |       |  |
|      |                           | 16 = number of hours exceeded 70 dB(A)                           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |  |  |  |  |              |       |       |  |
| 5016 | LV                        | 979                                                              | 1,084    | 885   | 768   | 735   | 752   | 583   | 719   | 794   | 753   | 974   | 988   | 912   | 706   | 715   | 669   |  |  |  |  |  |  | 990          | 915   | 775   |  |
|      | HV                        | 1,578                                                            | 1,734    | 2,292 | 2,680 | 2,465 | 1,864 | 2,431 | 2,624 | 2,572 | 2,532 | 1,973 | 2,083 | 1,525 | 1,099 | 793   | 545   |  |  |  |  |  |  | 1,718        | 1,965 | 1,945 |  |
|      | SPD                       | 69.8                                                             | 69.8     | 69.8  | 69.3  | 69.3  | 69.3  | 69.3  | 69.3  | 69.3  | 69.3  | 67.5  | 67.5  | 67.5  | 69.3  | 69.3  | 69.3  |  |  |  |  |  |  | 70           | 68    | 69    |  |
|      | total                     | 2,557                                                            | 2,818    | 3,177 | 3,448 | 3,201 | 2,616 | 3,013 | 3,343 | 3,366 | 3,285 | 2,947 | 3,071 | 2,438 | 1,805 | 1,508 | 1,215 |  |  |  |  |  |  |              |       |       |  |
|      | % HV                      | 62                                                               | 62       | 72    | 78    | 77    | 71    | 81    | 78    | 76    | 77    | 67    | 68    | 63    | 61    | 63    | 65    |  |  |  |  |  |  |              |       |       |  |
|      | BNL                       | 76                                                               | 77       | 77    | 78    | 77    | 76    | 77    | 77    | 77    | 77    | 77    | 77    | 76    | 75    | 74    | 73    |  |  |  |  |  |  |              |       |       |  |
|      | % HV                      | 7                                                                | 7        | 7     | 8     | 8     | 7     | 8     | 8     | 8     | 7     | 7     | 7     | 7     | 7     | 6     | 5     |  |  |  |  |  |  |              |       |       |  |
|      | Gradient                  | 0                                                                | Gradient | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |  |  |  |  |  |  |              |       |       |  |
|      | Distance                  | 12                                                               | Distance | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |  |  |  |  |  |  |              |       |       |  |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |  |  |  |  |  |  |              |       |       |  |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |  |  |  |  |  |  |              |       |       |  |
|      | Facade Noise Levels dB(A) | 83.4                                                             | 83.9     | 85.0  | 85.6  | 85.2  | 84.0  | 85.1  | 85.5  | 85.4  | 85.2  | 84.2  | 84.5  | 83.2  | 81.9  | 80.6  | 79.1  |  |  |  |  |  |  |              |       |       |  |
|      | HKPSG Exceedances         | 13.4                                                             | 13.9     | 15.0  | 15.6  | 15.2  | 14.0  | 15.1  | 15.5  | 15.4  | 15.2  | 14.2  | 14.5  | 13.2  | 11.9  | 10.6  | 9.1   |  |  |  |  |  |  |              |       |       |  |
|      |                           | 16 = number of hours exceeded 70 dB(A)                           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |  |  |  |  |              |       |       |  |
| 5018 | LV                        | 1,784                                                            | 1,632    | 1,364 | 1,023 | 849   | 870   | 922   | 882   | 909   | 1,038 | 1,097 | 1,588 | 1,289 | 1,089 | 921   | 779   |  |  |  |  |  |  | 1,458        | 1,119 | 1,082 |  |
|      | HV                        | 1,328                                                            | 1,161    | 1,377 | 1,676 | 1,558 | 1,381 | 1,387 | 1,538 | 1,524 | 1,491 | 1,154 | 1,213 | 887   | 641   | 463   | 334   |  |  |  |  |  |  | 1,130        | 1,137 | 1,210 |  |
|      | SPD                       | 25.0                                                             | 25.0     | 25.0  | 23.5  | 23.5  | 23.5  | 23.5  | 23.5  | 23.5  | 23.5  | 23.5  | 23.5  | 23.5  | 23.5  | 23.5  | 23.5  |  |  |  |  |  |  | 25           | 24    | 24    |  |
|      | total                     | 3,112                                                            | 2,794    | 2,740 | 2,699 | 2,407 | 2,251 | 2,308 | 2,420 | 2,432 | 2,529 | 2,250 | 2,802 | 2,175 | 1,730 | 1,384 | 1,113 |  |  |  |  |  |  |              |       |       |  |
|      | % HV                      | 43                                                               | 42       | 50    | 62    | 65    | 61    | 60    | 64    | 63    | 59    | 51    | 43    | 41    | 37    | 33    | 30    |  |  |  |  |  |  |              |       |       |  |
|      | BNL                       | 77                                                               | 77       | 77    | 77    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 75    | 74    | 73    | 73    |  |  |  |  |  |  |              |       |       |  |
|      | % HV                      | 5                                                                | 5        | 5     | 6     | 7     | 6     | 6     | 6     | 6     | 6     | 6     | 5     | 5     | 4     | 4     | 4     |  |  |  |  |  |  |              |       |       |  |
|      | Gradient                  | 0                                                                | Gradient | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |  |  |  |  |  |  |              |       |       |  |
|      | Distance                  | 8                                                                | Distance | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |  |  |  |  |  |  |              |       |       |  |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |  |  |  |  |  |  |              |       |       |  |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  |  |  |  |  |  |  |              |       |       |  |
|      | Facade Noise Levels dB(A) | 85.3                                                             | 84.7     | 85.4  | 86.4  | 86.0  | 85.5  | 85.5  | 86.0  | 85.9  | 85.9  | 84.8  | 85.1  | 83.7  | 82.4  | 81.0  | 79.7  |  |  |  |  |  |  |              |       |       |  |
|      | HKPSG Exceedances         | 15.3                                                             | 14.7     | 15.4  | 16.4  | 16.0  | 15.5  | 15.5  | 16.0  | 15.9  | 15.9  | 14.8  | 15.1  | 13.7  | 12.4  | 11.0  | 9.7   |  |  |  |  |  |  |              |       |       |  |
|      |                           | 16 = number of hours exceeded 70 dB(A)                           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |  |  |  |  |              |       |       |  |
| 5019 | LV                        | 1,545                                                            | 1,606    | 1,595 | 1,392 | 1,185 | 1,408 | 1,467 | 1,189 | 1,429 | 1,683 | 1,629 | 1,821 | 1,888 | 1,819 | 1,388 | 1,190 |  |  |  |  |  |  | 1,539        | 1,623 | 1,480 |  |
|      | HV                        | 1,425                                                            | 1,576    | 2,005 | 2,278 | 2,421 | 2,129 | 2,388 | 2,302 | 2,152 | 2,272 | 2,051 | 1,884 | 1,227 | 1,092 | 971   | 864   |  |  |  |  |  |  | 1,525        | 1,953 | 1,836 |  |
|      | SPD                       | 46.0                                                             | 46.0     | 46.0  | 43.5  | 43.5  | 43.5  | 43.5  | 43.5  | 43.5  | 43.5  | 38.0  | 38.0  | 38.0  | 43.5  | 43.5  | 43.5  |  |  |  |  |  |  | 46           | 38    | 44    |  |
|      | total                     | 2,970                                                            | 3,181    | 3,600 | 3,671 | 3,606 | 3,537 | 3,855 | 3,491 | 3,581 | 3,965 | 3,680 | 3,704 | 3,115 | 2,710 |       |       |  |  |  |  |  |  |              |       |       |  |





## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

|                           |          | Hour Start / 2-Hour Traffic Volume (veh.) or Speed (km/hr) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Model Output             |       |       |  |
|---------------------------|----------|------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|-------|-------|--|
| Stn.                      |          | 7                                                          | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | AM                       | PM    | OP    |  |
| 5269                      | LV       | 2,755                                                      | 3,050 | 2,020 | 1,612 | 1,599 | 1,585 | 1,599 | 1,592 | 1,746 | 1,745 | 2,196 | 2,775 | 2,328 | 1,826 | 1,433 | 1,124 | 2,771                    | 2,150 | 1,790 |  |
|                           | HV       | 1,810                                                      | 1,934 | 2,131 | 3,056 | 2,934 | 2,365 | 2,332 | 2,431 | 2,320 | 2,219 | 2,293 | 1,969 | 1,781 | 1,406 | 1,109 | 875   | 1,878                    | 2,170 | 2,056 |  |
|                           | SPD      | 75.5                                                       | 75.5  | 75.5  | 77.5  | 77.5  | 77.5  | 77.5  | 77.5  | 77.5  | 75.5  | 75.5  | 75.5  | 75.5  | 77.5  | 77.5  | 77.5  | 76                       | 76    | 78    |  |
|                           | total    | 4364                                                       | 4984  | 4151  | 4668  | 4533  | 3950  | 3931  | 4023  | 4066  | 3963  | 4489  | 4765  | 4110  | 3232  | 2542  | 1999  |                          |       |       |  |
|                           | % HV     | 37                                                         | 39    | 51    | 65    | 65    | 60    | 59    | 60    | 57    | 56    | 51    | 42    | 43    | 43    | 44    | 44    |                          |       |       |  |
|                           | BNL      | 79                                                         | 79    | 78    | 79    | 79    | 78    | 78    | 78    | 78    | 78    | 79    | 79    | 78    | 77    | 76    | 75    |                          |       |       |  |
|                           | % HV     | 5                                                          | 6     | 6     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 6     | 6     | 6     | 6     | 6     | 6     |                          |       |       |  |
|                           | Gradient | 6                                                          | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |                          |       |       |  |
|                           | Distance | 43                                                         | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5                       |       |       |  |
|                           | Surface  | 1                                                          | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                     | 160      | -0.5                                                       | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |  |
| Facade Noise Levels dB(A) |          | 81.4                                                       | 82.2  | 82.3  | 83.8  | 83.6  | 82.7  | 82.7  | 82.8  | 82.7  | 82.4  | 82.6  | 82.2  | 81.7  | 80.8  | 79.8  | 78.7  | 82.2                     |       |       |  |
| HKPSG Exceedances         |          | 11.4                                                       | 12.2  | 12.3  | 13.8  | 13.6  | 12.7  | 12.7  | 12.8  | 12.7  | 12.4  | 12.6  | 12.2  | 11.7  | 10.8  | 9.8   | 8.7   |                          |       |       |  |
|                           |          | 16 = number of hours exceeded 70 dB(A)                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 5270                      | LV       | 4,555                                                      | 4,676 | 3,256 | 2,738 | 2,716 | 2,691 | 2,716 | 2,702 | 2,964 | 2,987 | 3,883 | 4,797 | 3,953 | 3,101 | 2,432 | 1,908 | 4,248                    | 3,802 | 3,039 |  |
|                           | HV       | 1,868                                                      | 2,164 | 2,445 | 3,582 | 3,439 | 2,772 | 2,733 | 2,850 | 2,720 | 2,606 | 2,710 | 2,341 | 2,088 | 1,648 | 1,300 | 1,026 | 2,102                    | 2,564 | 2,410 |  |
|                           | SPD      | 80.5                                                       | 80.5  | 80.5  | 82.0  | 82.0  | 82.0  | 82.0  | 82.0  | 82.0  | 79.5  | 79.5  | 79.5  | 79.5  | 82.0  | 82.0  | 82.0  | 81                       | 80    | 82    |  |
|                           | total    | 6423                                                       | 6840  | 5701  | 6320  | 6154  | 5463  | 5449  | 5552  | 5684  | 5593  | 6593  | 7138  | 6041  | 4749  | 3733  | 2934  |                          |       |       |  |
|                           | % HV     | 29                                                         | 32    | 43    | 57    | 56    | 51    | 50    | 51    | 48    | 47    | 41    | 33    | 35    | 35    | 35    | 35    |                          |       |       |  |
|                           | BNL      | 80                                                         | 81    | 80    | 80    | 80    | 80    | 80    | 80    | 80    | 80    | 80    | 81    | 80    | 79    | 78    | 77    |                          |       |       |  |
|                           | % HV     | 5                                                          | 5     | 6     | 7     | 7     | 7     | 7     | 7     | 7     | 6     | 6     | 5     | 6     | 6     | 6     | 6     |                          |       |       |  |
|                           | Gradient | 9                                                          | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |  |
|                           | Distance | 43                                                         | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5    | -5                       |       |       |  |
|                           | Surface  | 1                                                          | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                     | 160      | -0.5                                                       | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |  |
| Facade Noise Levels dB(A) |          | 81.0                                                       | 81.5  | 81.6  | 83.1  | 82.9  | 82.1  | 82.0  | 82.2  | 82.0  | 81.7  | 82.0  | 81.7  | 81.1  | 80.3  | 79.2  | 78.2  | 81.5                     |       |       |  |
| HKPSG Exceedances         |          | 11.0                                                       | 11.5  | 11.6  | 13.1  | 12.9  | 12.1  | 12.0  | 12.2  | 12.0  | 11.7  | 12.0  | 11.7  | 11.1  | 10.3  | 9.2   | 8.2   |                          |       |       |  |
|                           |          | 16 = number of hours exceeded 70 dB(A)                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 5279                      | LV       | 4,802                                                      | 3,802 | 3,090 | 2,762 | 2,324 | 2,483 | 2,217 | 2,830 | 2,624 | 2,821 | 3,501 | 4,737 | 4,762 | 4,370 | 4,011 | 3,681 | 3,302                    | 3,544 | 3,395 |  |
|                           | HV       | 2,118                                                      | 1,375 | 1,658 | 2,185 | 2,034 | 1,747 | 1,640 | 1,438 | 1,726 | 1,666 | 1,855 | 1,510 | 1,364 | 1,055 | 817   | 832   | 1,312                    | 1,571 | 1,566 |  |
|                           | SPD      | 52.5                                                       | 52.5  | 52.5  | 58.0  | 58.0  | 58.0  | 58.0  | 58.0  | 58.0  | 55.0  | 55.0  | 55.0  | 55.0  | 58.0  | 58.0  | 58.0  | 53                       | 55    | 56    |  |
|                           | total    | 6920                                                       | 5178  | 4747  | 4947  | 4359  | 4230  | 3857  | 4268  | 4350  | 4287  | 5355  | 6247  | 6126  | 5426  | 4828  | 4313  |                          |       |       |  |
|                           | % HV     | 31                                                         | 27    | 35    | 44    | 47    | 41    | 43    | 35    | 40    | 39    | 32    | 24    | 22    | 19    | 17    | 15    |                          |       |       |  |
|                           | BNL      | 81                                                         | 79    | 79    | 79    | 79    | 78    | 78    | 78    | 79    | 79    | 79    | 80    | 80    | 80    | 79    | 79    |                          |       |       |  |
|                           | % HV     | 3                                                          | 3     | 4     | 5     | 5     | 5     | 5     | 4     | 5     | 4     | 4     | 3     | 3     | 2     | 2     | 2     |                          |       |       |  |
|                           | Gradient | 6                                                          | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |                          |       |       |  |
|                           | Distance | 50                                                         | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6    | -6                       |       |       |  |
|                           | Surface  | 1                                                          | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                     | 160      | -0.5                                                       | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |  |
| Facade Noise Levels dB(A) |          | 80.8                                                       | 79.1  | 79.6  | 80.9  | 80.5  | 80.0  | 79.7  | 79.3  | 80.0  | 79.7  | 79.8  | 79.8  | 79.5  | 78.7  | 77.9  | 77.0  | 79.6                     |       |       |  |
| HKPSG Exceedances         |          | 10.8                                                       | 9.1   | 9.6   | 10.9  | 10.6  | 10.0  | 9.7   | 9.3   | 10.0  | 9.7   | 9.8   | 9.8   | 9.5   | 8.7   | 7.9   | 7.0   |                          |       |       |  |
|                           |          | 16 = number of hours exceeded 70 dB(A)                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 5404                      | LV       | 3,062                                                      | 3,123 | 2,087 | 1,783 | 1,594 | 1,755 | 1,580 | 1,539 | 1,612 | 2,126 | 2,755 | 3,852 | 3,165 | 2,523 | 2,012 | 1,504 | 2,772                    | 2,862 | 2,105 |  |
|                           | HV       | 1,545                                                      | 1,958 | 2,487 | 2,701 | 2,815 | 2,328 | 2,511 | 2,994 | 3,125 | 2,929 | 2,240 | 2,095 | 1,676 | 1,176 | 825   | 579   | 1,939                    | 2,145 | 2,147 |  |
|                           | SPD      | 42.0                                                       | 42.0  | 42.0  | 46.0  | 46.0  | 46.0  | 46.0  | 46.0  | 46.0  | 38.0  | 38.0  | 38.0  | 38.0  | 46.0  | 46.0  | 46.0  | 42                       | 38    | 46    |  |
|                           | total    | 4607                                                       | 5081  | 4574  | 4484  | 4409  | 4083  | 4091  | 4533  | 4737  | 5054  | 4995  | 5947  | 4841  | 3700  | 2837  | 2183  |                          |       |       |  |
|                           | % HV     | 34                                                         | 39    | 54    | 60    | 64    | 57    | 61    | 66    | 66    | 58    | 45    | 35    | 35    | 32    | 29    | 27    |                          |       |       |  |
|                           | BNL      | 79                                                         | 79    | 79    | 79    | 79    | 78    | 78    | 79    | 79    | 79    | 79    | 80    | 79    | 78    | 77    | 76    |                          |       |       |  |
|                           | % HV     | 3                                                          | 4     | 5     | 6     | 6     | 5     | 6     | 6     | 6     | 5     | 4     | 3     | 3     | 3     | 3     | 3     |                          |       |       |  |
|                           | Gradient | 0                                                          | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |  |
|                           | Distance | 25                                                         | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3                       |       |       |  |
|                           | Surface  | 1                                                          | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                     | 160      | -0.5                                                       | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |  |
| Facade Noise Levels dB(A) |          | 78.9                                                       | 80.8  | 81.6  | 82.0  | 82.1  | 81.4  | 81.7  | 82.4  | 82.6  | 82.2  | 81.2  | 81.1  | 80.1  | 78.9  | 77.4  | 75.0  | 81.0                     |       |       |  |
| HKPSG Exceedances         |          | 9.9                                                        | 10.8  | 11.6  | 12.0  | 12.1  | 11.4  | 11.7  | 12.4  | 12.6  | 12.2  | 11.2  | 11.1  | 10.1  | 8.9   | 7.4   | 6.0   |                          |       |       |  |
|                           |          | 16 = number of hours exceeded 70 dB(A)                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 5405                      | LV       | 3,507                                                      | 3,840 | 3,131 | 3,022 | 2,928 | 2,833 | 2,803 | 3,062 | 3,232 | 3,124 | 3,619 | 4,108 | 3,955 | 3,566 | 3,213 | 2,895 | 3,583                    | 3,588 | 3,223 |  |
|                           | HV       | 1,403                                                      | 1,347 | 1,738 | 1,955 | 1,907 | 1,818 | 1,830 | 1,888 | 1,898 | 1,814 | 1,552 | 1,388 | 1,276 | 1,047 | 859   | 705   | 1,376                    | 1,503 | 1,551 |  |
|                           | SPD      | 50.5                                                       | 50.5  | 50.5  | 50.5  | 50.5  | 50.5  | 50.5  | 50.5  | 50.5  | 49.5  | 49.5  | 49.5  | 49.5  | 50.5  | 50.5  | 50.5  | 51                       | 50    | 51    |  |
|                           | total    | 4910                                                       | 5187  | 4870  | 4977  | 4835  | 4651  | 4633  | 4950  | 5129  | 4938  | 5171  | 5496  | 5232  | 4612  | 4072  | 3600  |                          |       |       |  |
|                           | % HV     | 29                                                         | 26    | 36    | 39    | 39    | 39    | 38    | 37    | 37    | 37    | 30    | 25    | 24    | 23    | 21    | 20    |                          |       |       |  |
|                           | BNL      | 79                                                         | 79    | 79    | 79    | 79    | 79    | 79    | 79    | 79    | 79    | 79    | 80    | 79    | 79    | 78    | 78    |                          |       |       |  |
|                           | % HV     | 3                                                          | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 3     | 3     | 2     | 2     | 2     |                          |       |       |  |
|                           | Gradient | 6                                                          | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |                          |       |       |  |
|                           | Distance | 25                                                         | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3                       |       |       |  |
|                           | Surface  | 1                                                          | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0                     |       |       |  |
| Angle                     | 160      | -0.5                                                       | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |  |
| Facade Noise Levels dB(A) |          | 81.7                                                       | 81.7  | 82.4  | 82.9  | 82.8  | 82.6  | 82.6  | 82.7  | 82.8  | 82.6  | 82.1  | 81.8  | 81.5  | 80.8  | 80.0  | 79.2  | 82.0                     |       |       |  |
| HKPSG Exceedances         |          | 11.7                                                       | 11.7  | 12.4  | 12.9  | 12.8  | 12.6  | 12.6  | 12.7  | 12.8  | 12.6  | 12.1  | 11.8  | 11.5  | 10.8  | 10.0  | 9.2   |                          |       |       |  |
|                           |          | 16 = number of hours exceeded 70 dB(A)                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |
| 5406                      | LV       | 4,359                                                      | 4,673 | 4,337 | 3,998 | 3,174 | 3,244 | 3,032 | 3,621 | 3,683 | 4,099 | 4,704 | 5,310 | 4,691 | 4,074 | 3,538 | 3,073 | 4,375                    | 4,646 | 3,826 |  |
|                           | HV       | 3,012                                                      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |  |















## Third Comprehensive Transport Study (CTS-3)

## Future Year Hourly Profile of Traffic Volume and Speed

## 2011CTS3(815100)MAIN MODEL RUN-V105 SCII Prac Med Fleet Budget Toll with New Bus

| Stn. |                           | Hour Start / 2-way Hourly Traffic Volume (veh.) or Speed (km/hr) |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Model Output             |       |       |
|------|---------------------------|------------------------------------------------------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|-------|-------|
|      |                           | 7                                                                | 8        | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | AM                       | PM    | OP    |
| 6057 | LV                        | 2,326                                                            | 1,809    | 1,411 | 1,263 | 1,266 | 1,217 | 1,214 | 1,382 | 1,256 | 1,484 | 1,611 | 2,187 | 2,014 | 1,487 | 1,099 | 811   | 1,641                    | 1,513 | 1,452 |
|      | HV                        | 600                                                              | 548      | 728   | 953   | 931   | 812   | 797   | 886   | 1,010 | 921   | 768   | 792   | 753   | 470   | 293   | 183   | 544                      | 760   | 733   |
|      | SPD                       | 42.8                                                             | 42.8     | 42.8  | 42.3  | 42.3  | 42.3  | 42.3  | 42.3  | 41.5  | 41.5  | 41.5  | 41.5  | 41.5  | 42.3  | 42.3  | 42.3  | 43                       | 42    | 42    |
|      | total                     | 2926                                                             | 2357     | 2139  | 2217  | 2197  | 2029  | 2012  | 2268  | 2265  | 2404  | 2379  | 2979  | 2767  | 1957  | 1391  | 994   |                          |       |       |
|      | % HV                      | 21                                                               | 23       | 34    | 43    | 42    | 40    | 40    | 39    | 45    | 38    | 32    | 27    | 27    | 24    | 21    | 18    |                          |       |       |
|      | BNL                       | 77                                                               | 76       | 76    | 76    | 76    | 75    | 75    | 76    | 76    | 76    | 76    | 77    | 77    | 75    | 74    | 72    |                          |       |       |
|      | % HV                      | 2                                                                | 2        | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 2     | 3     | 2     | 2     | 1     |                          |       |       |
|      | Gradient                  | 3                                                                | Gradient | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |                          |       |       |
|      | Distance                  | 12                                                               | Distance | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |                          |       |       |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
| 6059 | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |
|      | Facade Noise Levels dB(A) | 79.8                                                             | 79.3     | 80.1  | 81.1  | 81.0  | 80.5  | 80.4  | 80.9  | 81.3  | 81.0  | 80.4  | 80.7  | 80.5  | 78.6  | 75.7  | 74.8  | 80.1                     |       |       |
|      | HKPSG Exceedances         | 9.8                                                              | 9.3      | 10.1  | 11.1  | 11.0  | 10.5  | 10.4  | 10.9  | 11.3  | 11.0  | 10.4  | 10.7  | 10.5  | 8.6   | 6.7   | 4.8   |                          |       |       |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |
|      | LV                        | 1,404                                                            | 1,405    | 1,231 | 1,134 | 1,086 | 1,111 | 860   | 1,061 | 1,172 | 1,086 | 1,292 | 1,390 | 1,347 | 1,042 | 1,055 | 988   | 1,283                    | 1,216 | 1,144 |
|      | HV                        | 919                                                              | 957      | 1,315 | 1,581 | 1,454 | 1,099 | 1,433 | 1,547 | 1,517 | 1,485 | 1,135 | 1,215 | 900   | 648   | 468   | 322   | 949                      | 1,142 | 1,147 |
|      | SPD                       | 38.8                                                             | 38.8     | 38.8  | 39.0  | 39.0  | 39.0  | 39.0  | 39.0  | 38.5  | 38.5  | 38.5  | 38.5  | 38.5  | 39.0  | 39.0  | 39.0  | 39                       | 39    | 39    |
|      | total                     | 2323                                                             | 2363     | 2546  | 2714  | 2540  | 2210  | 2294  | 2609  | 2589  | 2571  | 2428  | 2605  | 2247  | 1690  | 1523  | 1310  |                          |       |       |
|      | % HV                      | 40                                                               | 41       | 52    | 58    | 57    | 50    | 62    | 59    | 56    | 58    | 47    | 47    | 40    | 38    | 31    | 25    |                          |       |       |
|      | BNL                       | 76                                                               | 76       | 76    | 77    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 76    | 74    | 74    | 73    |                          |       |       |
| 6201 | % HV                      | 4                                                                | 4        | 5     | 5     | 5     | 6     | 5     | 5     | 5     | 4     | 4     | 4     | 4     | 3     | 2     |       |                          |       |       |
|      | Gradient                  | 0                                                                | Gradient | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |
|      | Distance                  | 21                                                               | Distance | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    | -3    |                          |       |       |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |
|      | Facade Noise Levels dB(A) | 78.1                                                             | 78.2     | 79.5  | 80.2  | 79.8  | 78.7  | 79.7  | 80.1  | 80.0  | 79.9  | 78.9  | 79.2  | 78.0  | 76.6  | 75.3  | 73.9  | 78.8                     |       |       |
|      | HKPSG Exceedances         | 8.1                                                              | 8.2      | 9.5   | 10.2  | 9.8   | 8.7   | 9.7   | 10.1  | 10.0  | 9.9   | 8.9   | 9.2   | 8.0   | 6.6   | 5.3   | 3.9   |                          |       |       |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |
|      | LV                        | 4,478                                                            | 4,977    | 4,506 | 4,063 | 3,226 | 3,296 | 3,081 | 3,679 | 3,743 | 4,174 | 4,824 | 5,419 | 4,787 | 4,140 | 3,596 | 3,123 | 4,680                    | 4,765 | 5,888 |
|      | HV                        | 3,081                                                            | 3,363    | 4,409 | 5,230 | 4,974 | 5,161 | 4,782 | 5,408 | 5,341 | 4,992 | 3,890 | 3,304 | 2,524 | 1,931 | 1,477 | 1,129 | 3,407                    | 3,717 | 3,880 |
| 6203 | SPD                       | 56.0                                                             | 56.0     | 56.0  | 56.0  | 56.0  | 56.0  | 56.0  | 56.0  | 56.0  | 55.0  | 55.0  | 55.0  | 55.0  | 56.0  | 56.0  | 56.0  | 56                       | 55    | 56    |
|      | total                     | 7559                                                             | 8341     | 8915  | 9293  | 8200  | 8457  | 7834  | 9088  | 9083  | 9166  | 8715  | 8723  | 7292  | 6071  | 5073  | 4252  |                          |       |       |
|      | % HV                      | 41                                                               | 40       | 49    | 56    | 61    | 61    | 61    | 60    | 59    | 54    | 45    | 38    | 35    | 32    | 29    | 27    |                          |       |       |
|      | BNL                       | 81                                                               | 81       | 82    | 82    | 81    | 81    | 81    | 82    | 82    | 82    | 82    | 82    | 81    | 80    | 79    | 78    |                          |       |       |
|      | % HV                      | 5                                                                | 5        | 5     | 6     | 6     | 6     | 6     | 6     | 6     | 5     | 4     | 4     | 4     | 3     | 3     |       |                          |       |       |
|      | Gradient                  | 0                                                                | Gradient | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |
|      | Distance                  | 15                                                               | Distance | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |                          |       |       |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |
|      | Facade Noise Levels dB(A) | 85.2                                                             | 85.5     | 86.5  | 87.2  | 86.9  | 87.1  | 86.7  | 87.3  | 87.3  | 87.0  | 86.0  | 85.5  | 84.4  | 83.4  | 82.3  | 81.3  | 85.9                     |       |       |
| 6213 | HKPSG Exceedances         | 15.2                                                             | 15.5     | 16.5  | 17.2  | 16.9  | 17.1  | 16.7  | 17.3  | 17.3  | 17.0  | 16.0  | 15.5  | 14.4  | 13.4  | 12.3  | 11.3  |                          |       |       |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |
|      | LV                        | 2,481                                                            | 3,176    | 2,864 | 2,728 | 2,291 | 2,342 | 1,699 | 2,142 | 2,385 | 2,536 | 2,714 | 2,980 | 2,588 | 1,851 | 1,998 | 2,097 | 2,885                    | 2,754 | 2,339 |
|      | HV                        | 1,038                                                            | 1,209    | 1,541 | 1,952 | 1,965 | 1,686 | 1,689 | 1,844 | 1,790 | 1,906 | 1,368 | 1,577 | 1,284 | 1,000 | 851   | 764   | 1,130                    | 1,380 | 1,527 |
|      | SPD                       | 35.0                                                             | 35.0     | 35.0  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 34.5  | 35                       | 35    | 35    |
|      | total                     | 3519                                                             | 4385     | 4405  | 4679  | 4255  | 4028  | 3568  | 3986  | 4175  | 4442  | 4082  | 4557  | 3872  | 2851  | 2849  | 2861  |                          |       |       |
|      | % HV                      | 30                                                               | 28       | 35    | 42    | 46    | 42    | 47    | 46    | 43    | 43    | 34    | 35    | 33    | 35    | 30    | 27    |                          |       |       |
|      | BNL                       | 78                                                               | 79       | 79    | 79    | 78    | 78    | 78    | 78    | 78    | 79    | 78    | 79    | 78    | 77    | 77    | 77    |                          |       |       |
|      | % HV                      | 3                                                                | 3        | 3     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 3     | 3     | 3     | 3     | 2     |       |                          |       |       |
|      | Gradient                  | 3                                                                | Gradient | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |                          |       |       |
| 6215 | Distance                  | 12                                                               | Distance | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |                          |       |       |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |
|      | Facade Noise Levels dB(A) | 81.7                                                             | 82.4     | 83.3  | 84.2  | 84.2  | 83.6  | 83.5  | 83.9  | 83.8  | 84.1  | 82.8  | 83.4  | 82.5  | 81.4  | 80.8  | 80.5  | 83.0                     |       |       |
|      | HKPSG Exceedances         | 11.7                                                             | 12.4     | 13.3  | 14.2  | 14.2  | 13.6  | 13.5  | 13.9  | 13.8  | 14.1  | 12.8  | 13.4  | 12.5  | 11.4  | 10.8  | 10.5  |                          |       |       |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |
|      | LV                        | 2,069                                                            | 2,593    | 2,271 | 1,754 | 1,492 | 1,774 | 1,648 | 1,498 | 1,799 | 2,258 | 2,651 | 2,602 | 2,377 | 2,038 | 1,748 | 1,499 | 2,484                    | 2,642 | 1,864 |
|      | HV                        | 1,604                                                            | 1,917    | 2,306 | 2,514 | 2,872 | 2,349 | 2,635 | 2,540 | 2,375 | 2,470 | 2,114 | 2,015 | 1,354 | 1,205 | 1,072 | 954   | 1,856                    | 2,013 | 2,026 |
|      | SPD                       | 48.0                                                             | 48.0     | 48.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 50.0  | 46.0  | 46.0  | 46.0  | 46.0  | 50.0  | 50.0  | 50.0  | 48                       | 46    | 50    |
|      | total                     | 3672                                                             | 4510     | 4577  | 4268  | 4164  | 4123  | 4483  | 4037  | 4174  | 4728  | 4785  | 4618  | 3732  | 3243  | 2820  | 2452  |                          |       |       |
|      | % HV                      | 44                                                               | 43       | 50    | 59    | 64    | 57    | 59    | 63    | 57    | 52    | 44    | 44    | 36    | 37    | 38    | 39    |                          |       |       |
|      | BNL                       | 78                                                               | 79       | 79    | 79    | 78    | 78    | 79    | 78    | 78    | 79    | 79    | 79    | 78    | 77    | 77    | 76    |                          |       |       |
|      | % HV                      | 4                                                                | 4        | 5     | 6     | 6     | 5     | 6     | 5     | 5     | 4     | 4     | 4     | 4     | 4     | 4     | 4     |                          |       |       |
|      | Gradient                  | 0                                                                | Gradient | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                          |       |       |
|      | Distance                  | 30                                                               | Distance | -4    | -4    | -4    | -4    | -4    | -4    | -4    | -4    | -4    | -4    | -4    | -4    | -4    | -4    |                          |       |       |
|      | Surface                   | 1                                                                | Surface  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  | -1.0  |                          |       |       |
|      | Angle                     | 160                                                              | angle    | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | -0.5  | Average Level over 16 hr |       |       |
|      | Facade Noise Levels dB(A) | 79.3                                                             | 80.1     | 80.8  | 81.1  | 81.3  | 80.9  | 81.3  | 81.1  | 80.9  | 81.0  | 80.4  | 80.2  | 78.6  | 78.3  | 77.8  | 77.2  | 80.2                     |       |       |
|      | HKPSG Exceedances         | 9.3                                                              | 10.1     | 10.8  | 11.1  | 11.3  | 10.9  | 11.3  | 11.1  | 10.9  | 11.0  | 10.4  | 10.2  | 8.6   | 8.3   | 7.8   | 7.2   |                          |       |       |
|      | 16                        | = number of hours exceeded 70 dB(A)                              |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                          |       |       |