

# **CONSTRUCTION NOISE MONITORING SUMMARY REPORT**

**OCTOBER 1 – OCTOBER 31, 2017**

**VIRGINIA AVENUE TUNNEL RECONSTRUCTION PROJECT  
WASHINGTON, DC**

**Prepared for:  
CSX Transportation**

**Prepared by:  
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**October 2017**

# **VIRGINIA AVENUE TUNNEL RECONSTRUCTION**

## **Construction Noise Monitoring Summary**

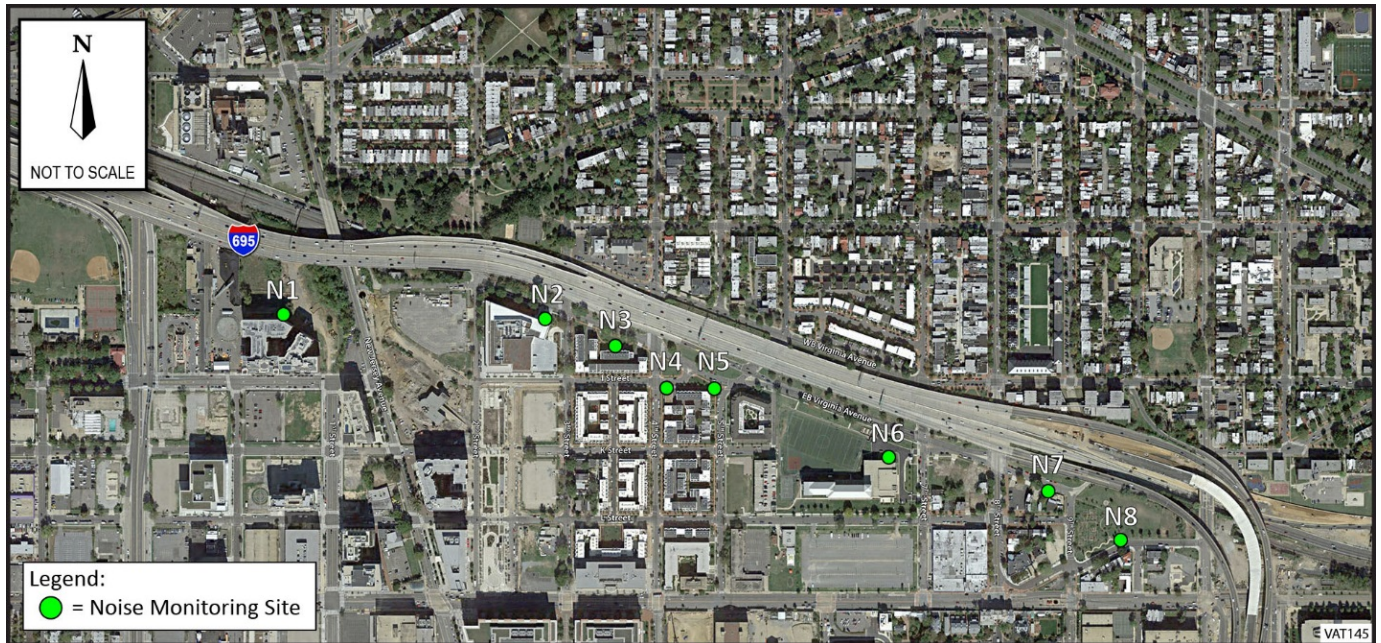
The Project Team has prepared this noise monitoring report as part of the ongoing efforts to comply with the commitments presented in the Virginia Avenue Tunnel Reconstruction Final Environmental Impact Statement (FEIS) and Section 4(f) Evaluation (May 2014) and further detailed in the Record of Decision (ROD), November, 2014. The project sponsor has agreed to a number of environmental commitments as mitigation for environmental impacts that will result from the Virginia Avenue Tunnel Reconstruction Project. The commitments are divided between those related to construction of the Project and those related to the restoration of affected areas upon project completion of the Selected Alternative. These environmental commitment measures are mitigations which avoid the impact altogether by not taking a certain action or parts of an action; minimize impacts by limiting the degree or magnitude of the action and its implementation; rectify the impact by repairing, rehabilitating, or restoring the affected environment; reduce or eliminating the impact over time by preservation and maintenance operations during the life of the action; or compensate for the impact by replacing or providing substitute resources or environments. This construction noise monitoring summary report is intended to fulfill aspects of the noise monitoring commitments contained in the ROD for the Virginia Avenue Tunnel reconstruction.

The Project Team has installed perimeter noise monitoring stations adjacent to various buildings within the Project limits. These monitoring stations are intended to monitor construction noise associated with the Project. Construction noise will be monitored throughout the Project's construction. Sophisticated monitoring devices have been installed at eight locations to ensure the construction activities are performed in compliance with the permitted noise levels. The monitoring devices will record the level of the sound and automatically report the data back to the Project Engineers.

### **Methodology of Construction Noise Monitoring**

Construction sound level data was collected for the reporting period October 1 – October 31, 2017. Eight fixed noise monitoring locations have been measured continuously to monitor sound levels since the beginning of major construction activities in May 2015. Sound level data was collected every minute for the duration of the noise monitoring period. The locations of the monitoring stations are depicted in Figure 1 and the addresses described in Table 1.

**Figure 1. Noise Monitoring Locations**



**Table 1. Noise Monitoring Locations Description**

| Site ID | Noise Monitoring Location   |
|---------|---|
| N1      | West of New Jersey Avenue SE  |
| N2      | Corner of 3 <sup>rd</sup> Street and Virginia Avenue SE                                       |
| N3      | Between 3 <sup>rd</sup> Street and 4 <sup>th</sup> Street SE, in front of townhomes           |
| N4      | Corner of 4 <sup>th</sup> Street SE and I Street SE   |
| N5      | Corner of 5 <sup>th</sup> Street and Virginia Avenue SE, in front of Capper Senior Apartments |
| N6      | Adjacent to fence of Marine Corps Recreation Facility on 6 <sup>th</sup> Street SE            |
| N7      | Between 8 <sup>th</sup> and 9 <sup>th</sup> Streets SE, in front of commercial buildings      |
| N8      | Within Virginia Avenue Park   |

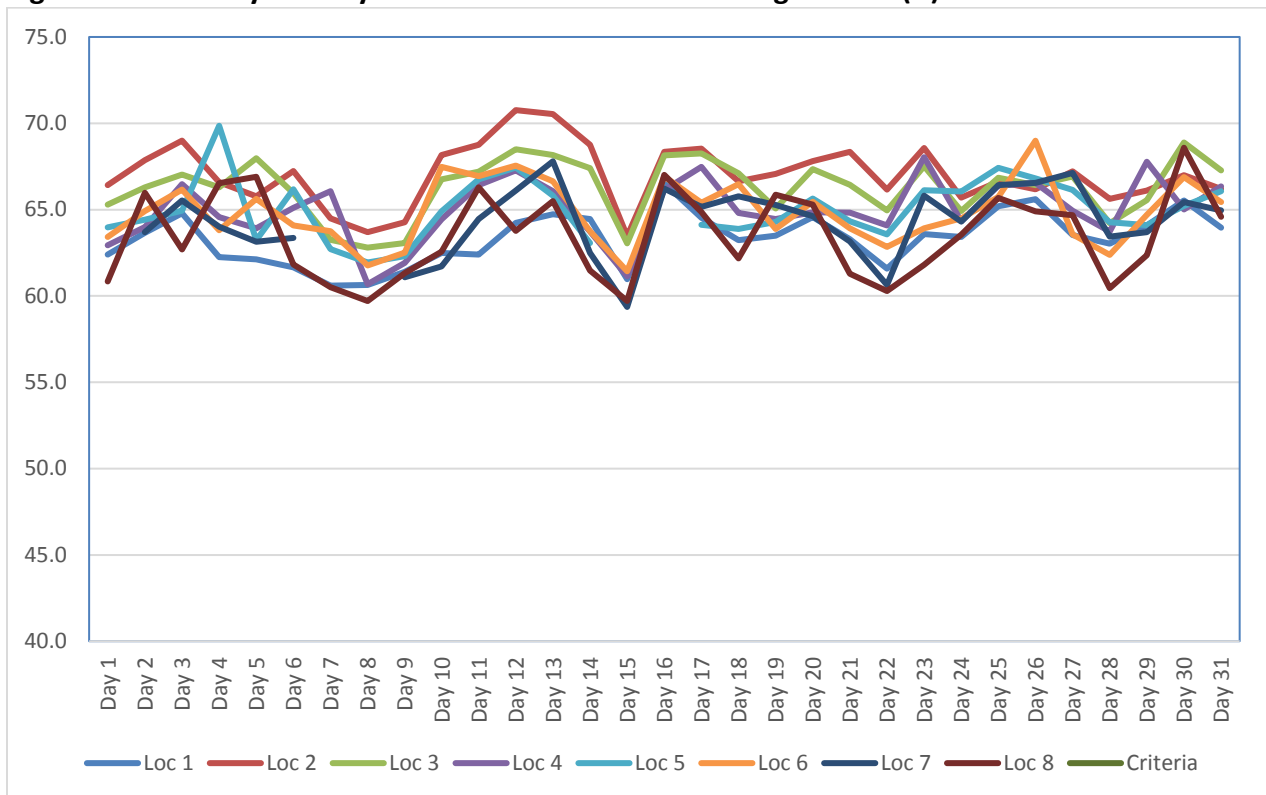
**Noise Data Summary Charts**

Table 2 presents the results of the sound levels measured during the month of October 2017. The daily sound levels results are plotted in Figure 2 and show how the measured levels compare to the established noise criteria. There were no exceedances of the daily sound level criteria. Table 3 represents the number of 1-hour exceedances that occurred during the month, and when applicable, the reason for the exceedance and the corrective action taken by the team. As reported in the table there were no exceedances recorded during the month.

**Table 2. Construction Noise Monitoring Results (30-Day Exceedances) – October 2017**

| Site ID | Noise Monitoring Location  | Construction Monitoring |                       |                     |
|---------|--|-------------------------|-----------------------|---------------------|
|         |  | 30-Day Leq dB(A)        | 30-Day Criteria dB(A) | Exceedance (Yes/No) |
| N1      | West of New Jersey Avenue SE   | 64                      | 80                    | No                  |
| N2      | Corner of 3 <sup>rd</sup> Street and Virginia Avenue SE  | 67                      | 80                    | No                  |
| N3      | Between 3 <sup>rd</sup> Street and 4 <sup>th</sup> Street SE (in front of townhomes)           | 67                      | 80                    | No                  |
| N4      | Corner of 4 <sup>th</sup> Street and I Street SE   | 65                      | 80                    | No                  |
| N5      | Corner of 5 <sup>th</sup> Street and Virginia Avenue SE (in front of Capper Senior Apartments) | 65                      | 80                    | No                  |
| N6      | Adjacent to fence of Maine Corps Recreation Facility on 6 <sup>th</sup> Street SE              | 65                      | 80                    | No                  |
| N7      | Between 8 <sup>th</sup> and 9 <sup>th</sup> Streets SE (in front of commercial buildings)      | 65                      | 80                    | No                  |
| N8      | Within Virginia Avenue Park  | 64                      | 80                    | No                  |

**Figure 2. Summary of Daily Construction Noise Monitoring Data dB(A) – October 2017**



*Note that Monitoring Location 5 did not record data on October 15 and 16 due to power losses from cloud coverage to the solar panel (fall). Monitoring Location 7 did not record data on October 1, 7 and 8 due to power losses from cloud coverage to the solar panel (fall).*

**Table 3. Construction Noise Monitoring Results (1-hour Exceedances) – October 2017**

| Site ID | Noise Monitoring Location   | Number of 1-hour Exceedances | Date | Time | Source | Corrective Action Taken |
|---------|---|------------------------------|------|------|--------|-------------------------|
| N1      | West of New Jersey Avenue SE  | 0                            | N/A  | N/A  | N/A    | N/A                     |
| N2      | Corner of 3 <sup>rd</sup> Street and Virginia Avenue SE   | 0                            | N/A  | N/A  | N/A    | N/A                     |
| N3      | Between 3 <sup>rd</sup> Street and 4 <sup>th</sup> Street SE<br>(in front of townhomes)           | 0                            | N/A  | N/A  | N/A    | N/A                     |
| N4      | Corner of 4 <sup>th</sup> Street and I Street SE  | 0                            | N/A  | N/A  | N/A    | N/A                     |
| N5      | Corner of 5 <sup>th</sup> Street and Virginia Avenue SE<br>(in front of Capper Senior Apartments) | 0                            | N/A  | N/A  | N/A    | N/A                     |
| N6      | Adjacent to fence of Marine Corps<br>Recreation Facility on 6 <sup>th</sup> Street SE             | 0                            | N/A  | N/A  | N/A    | N/A                     |
| N7      | Between 8 <sup>th</sup> and 9 <sup>th</sup> Streets SE<br>(in front of commercial buildings)      | 0                            | N/A  | N/A  | N/A    | N/A                     |
| N8      | Within Virginia Avenue Park   | 0                            | N/A  | N/A  | N/A    | N/A                     |