

CONSTRUCTION NOISE MONITORING SUMMARY REPORT

JANUARY 1 – JANUARY 31, 2016

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

**Prepared for:
CSX Transportation**

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January 2016

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 January 1 –January 31, 2016. 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

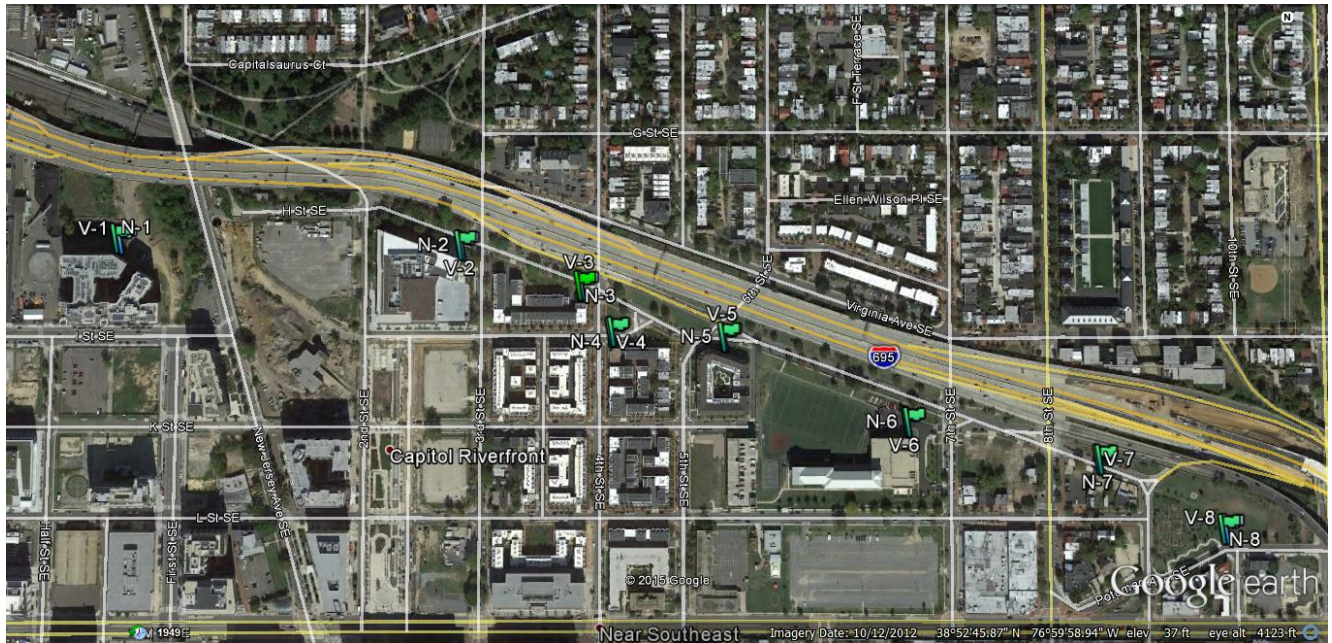


Table 1. Noise Monitoring Locations Description

Site ID	Noise Monitoring Location
N1	West of New Jersey Avenue SE
N2	Corner of 3 rd Street and Virginia Avenue SE
N3	Between 3 rd Street and 4 th Street SE, in front of Townhomes
N4	Corner of 4 th Street SE and I Street SE
N5	Corner of 5 th Street and Virginia Avenue SE, in front of Capper Senior Apartments
N6	Adjacent to fence of Marine Corps Recreation Facility on 6 th Street SE
N7	In front of Building on 7 th Street SE
N8	Within Virginia Avenue Park

Noise Data Summary Charts

Table 2 presents the results of the sound levels measured during the month of January, 2016. 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, as well as the reason for the exceedance and the corrective action taken by the team. Three 1-hour exceedances occurred – in each case corrective actions were taken before the ensuing hour.

Table 2. Construction Noise Monitoring Results – January 2016

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	67	80	No
N2	Corner of 3 rd Street and Virginia Avenue SE	70	80	No
N3	Between 3 rd Street and 4 th Street SE, in front of Townhomes	68	80	No
N4	Corner of 4 th Street and I Street SE	66	80	No
N5	Corner of 5 th Street and Virginia Avenue SE, in front of Capper Senior Apartments	68	80	No
N6	Adjacent to fence of Maine Corps Recreation Facility on 6 th Street SE	66	80	No
N7	In front of Building on 7 th Street SE	71	80	No
N8	Within Virginia Avenue Park	67	80	No

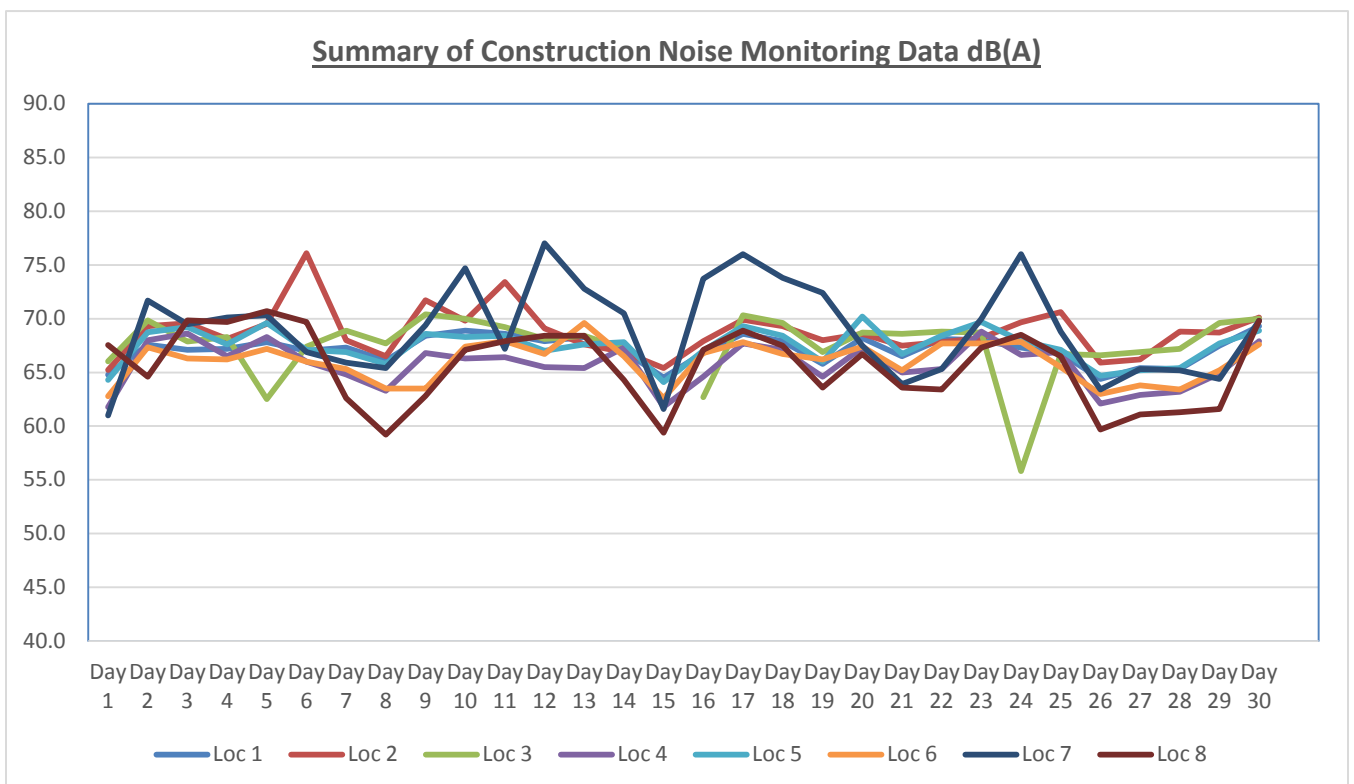


Figure 2. Summary of Daily Construction Noise Monitoring Data dB(A) – January 2016

Table 3. Construction Noise Monitoring Results (Number of 1-hour Exceedances) – January 2016

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 rd Street and Virginia Avenue SE	0	N/A	N/A	N/A	N/A
N3	Between 3 rd Street and 4 th Street SE, in front of Townhomes	0	N/A	N/A	N/A	N/A
N4	Corner of 4 th Street and I Street SE	0	N/A	N/A	N/A	N/A
N5	Corner of 5 th Street and Virginia Avenue SE, in front of Capper Senior Apartments	0	N/A	N/A	N/A	N/A
N6	Adjacent to fence of Marine Corps Recreation Facility on 6 th Street SE	0	N/A	N/A	N/A	N/A
N7	In front of Building on 7 th Street SE	3	January 12	9 am – 10 am	Drilling operations; back-up alarms; barking dogs	Cease construction operations
			January 15	12 am – 1 pm	Unloading of steel beams	Modify unloading procedure
			January 17	10 am – 11 am	Drilling operations	Additional acoustical shielding
N8	Within Virginia Avenue Park	0	N/A	N/A	N/A	N/A

Noise Monitoring During Demolition Activities

Demolition of a 370-foot section of the existing tunnel between the west portal and 3rd Street, S.E. began on Monday, January 18, 2016 and is estimated to continue into late March or early April. This work requires close integration with rail operations and trains must be stopped while the work is occurring. As a result, demolition activities started at 5:30 am (as compared to the normal work day start time of 7:00 am). To assure noise levels associated with the demolition activities were not exceeding established criteria, noise monitoring was conducted at three additional locations around the project area as shown in Figure 3.

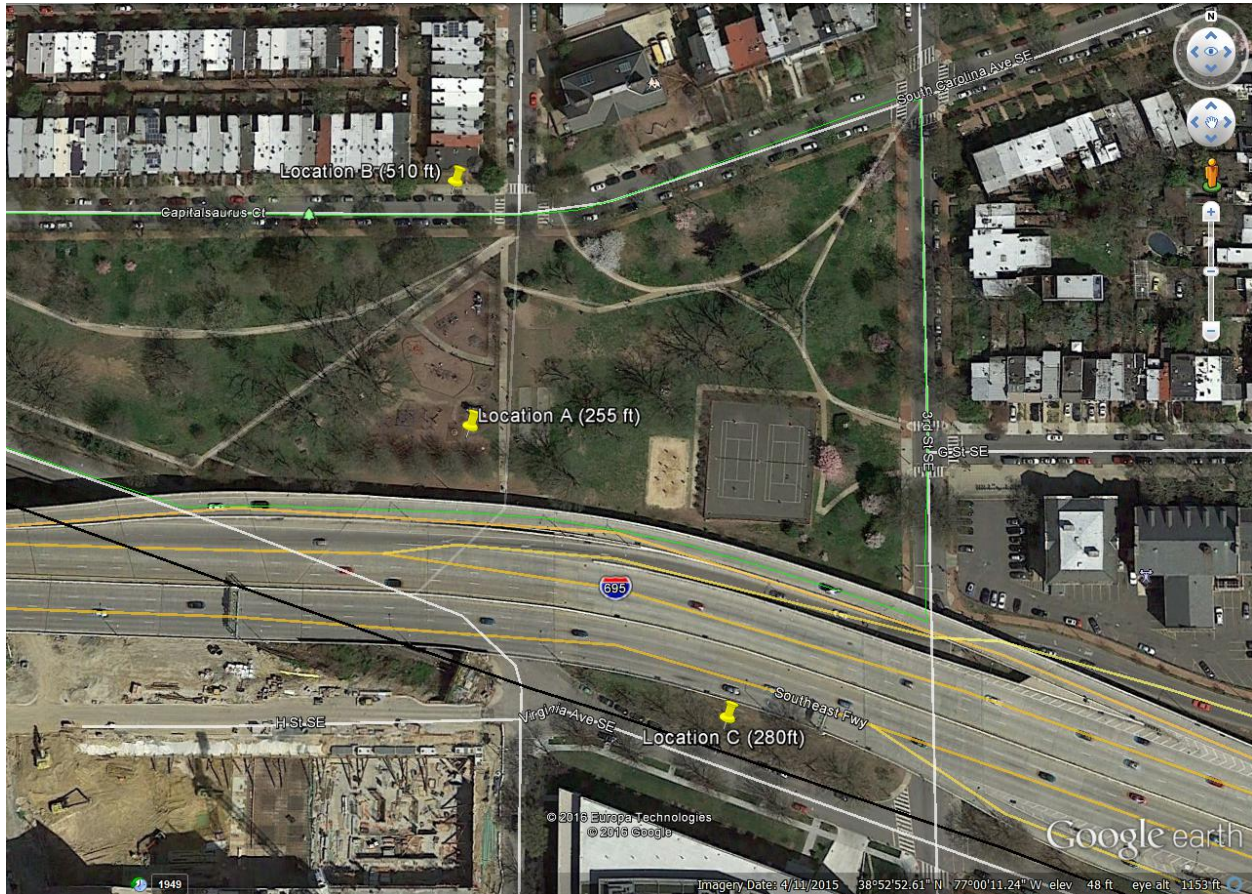


Figure 3. Noise Monitoring Locations during Demolition Activities

Supplemental monitoring was conducted between January 18th and January 20th. The results of the monitoring show that the equivalent sound levels “Leq(h)” did not exceed the established criteria of 80 dB (as required by project commitments in the ROD). The measured sound levels were reported to be only slightly above (1 dB) the background or ambient sound levels at Locations A and B. Similarly, the measured sound levels at Location C (nearest the demolition activities) were only 2 dB above the background/ambient sound levels and the equivalent sound levels “Leq(h)” sound levels did not exceed the established criteria. Furthermore, additional acoustic blankets were installed at the corner of 2nd Street and Virginia Avenue to further reduce sound levels at nearby residences and commercial buildings.