

EXECUTION VERSION

I-395 Project

Exhibit C-3

Technical Requirements

Attachment 1.0c

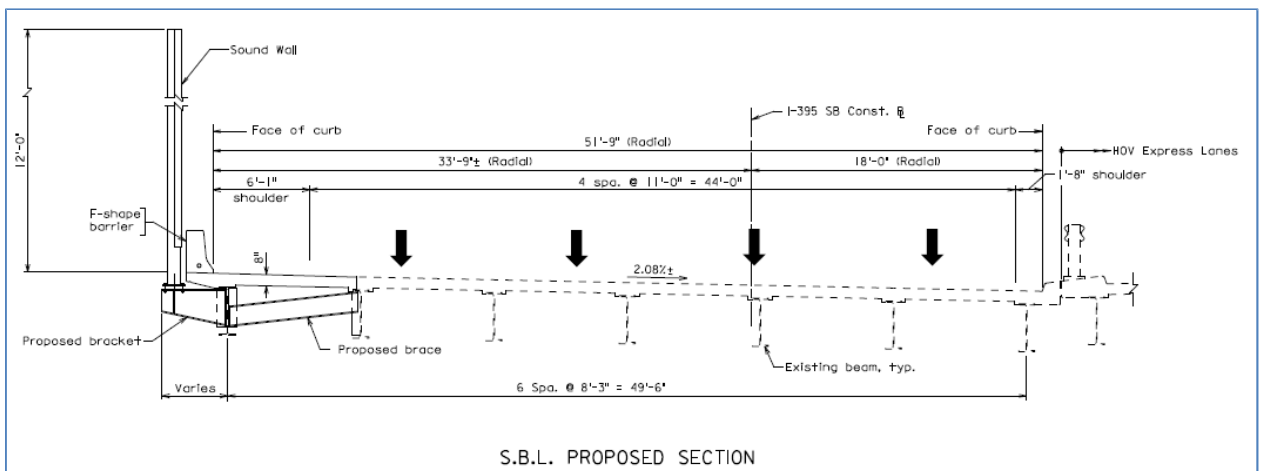
Seminary Road Sound Barrier Scope of Work

SEMINARY ROAD SOUND BARRIER SCOPE OF WORK

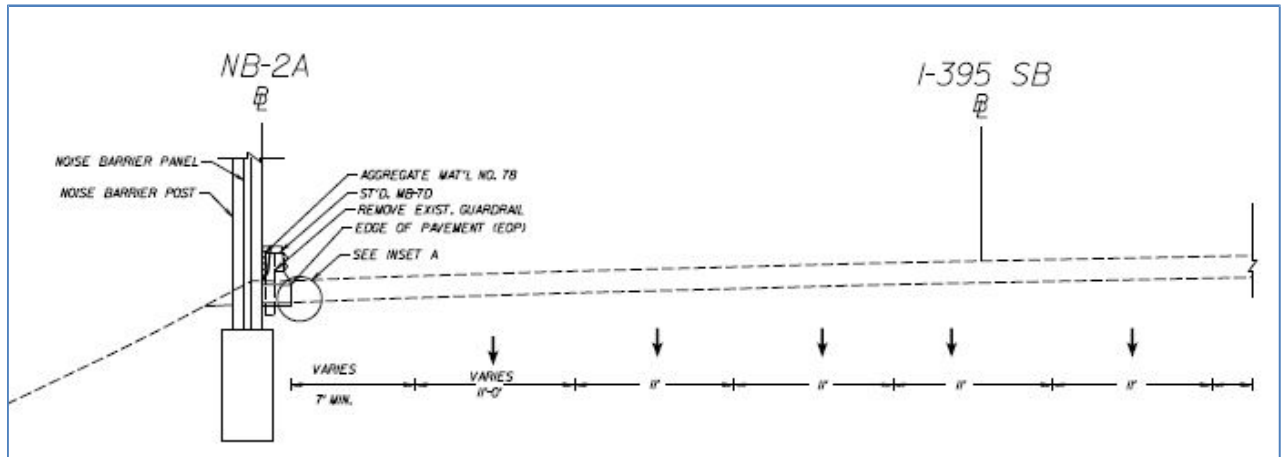
The Seminary Road HOV Ramp Sound Barrier scope includes design and installation of sound barriers on the bridge carrying I-395 southbound over Sanger Avenue as well as installing sound barriers from a point just south of the Sanger Avenue Bridge to the Duke Street Interchange, all as generally shown in the RFP Conceptual Plans included in this scope of work as Appendix A. The Design-Builder will be responsible for design and construction of the following:

1. **Sound Barrier and Bridge Modifications at Sanger Avenue:** Sound barrier design and installation and associated bridge work shall be provided in general conformance with the RFP Conceptual Plans (Appendix A to Attachment 1.0b) (Project number 0395-100-722). The Design-Builder shall complete the design of the sound barrier, sound barrier supports, and all associated bridge modifications required to implement the proposed sound barrier. The Design-Builder shall also perform and provide load rating calculations for the bridge modifications complying with the requirements outlined in the Technical Requirements.
2. **New Sound Barrier – South of Sanger Avenue to Duke Street Interchange:** The Design-Builder shall design and install the sound barrier consistent with the location and details indicated in the RFP Conceptual Plans (Appendix A to Attachment 1.0b) (Project number 0395-100-736). The north end of the new sound barrier shall tie into the existing sound barrier located just south of the Sanger Avenue Bridge.

The general locations of the sound barriers described above are indicated in the RFP Conceptual Plans. Selected sheets from the RFP Conceptual Plans highlighting the sound barrier locations are attached to this scope of work as Appendix A for reference. Schematic sections for the locations noted above are as follows:



Proposed Condition – Sanger Avenue Bridge



Proposed Condition - South of Sanger Avenue to Quantrell Avenue

Seminary Road HOV Ramp Sound Barrier Management, Quality and Safety

The Design-Builder shall be responsible for the overall management and administration of the Seminary Road HOV Ramp Sound Barrier work, including but not limited to:

- Developing and maintaining a project schedule and managing the adherence to the schedule, including an on-time Final Completion.
- Overall performance and management of the project quality and ensuring construction meets the Quality Plans and project requirements.
- Overall project safety, including worker safety and the safety of the traveling public.
- Effective communication and coordination with the Design-Builder's staff and subcontractors, the Concessionaire, the Department, other Contractors working in the area, and third party organizations.

Geotechnical

The Design-Builder shall collect appropriate data for geotechnical evaluation and prepare a Geotechnical Report for the Concessionaire's and the Department's approval. The Design-Builder shall be responsible for obtaining any Regulatory Approvals required for any borings needed in performance of the Design-Builder's geotechnical investigation.

The Design-Builder shall perform pavement related work, including but not limited to the following:

- Demolition and removal of existing shoulder pavement and subgrade, including undercut as required,
- Installation of temporary pavement as needed for Maintenance of Traffic,
- Reconstruction of portions of the existing shoulder pavement,

- While the Department will provide final milling and overlay for the southbound General Purpose Lanes following Project Completion, the Design-Builder is responsible for any milling and overlay associated with implementation of the selected MOT approach.
- Providing any required ground improvements and slope stabilization measures

Structural

The Design-Builder shall be responsible for the design and construction of the following structural elements, including but not limited to:

- Modifications to the bridge carrying I-395 over Sanger Avenue
- Removal and replacement of existing substandard guardrails with proposed concrete barriers,
- Design and construction of proposed light poles and miscellaneous lighting structures,
- Repair and/or replacement of existing lighting structures,
- Design and construction of sound barriers at approved locations,
- Removal and disposal of existing structures as required.

Signing and Pavement Markings

The Design-Builder shall be responsible for coordinating the sound barriers with the existing and proposed signing design for the Duke-Edsall Widening and 395 Express Lanes Projects.

The Design-Builder shall design and construct all pavement markings, markers, and delineators as required. All existing pavement markings and markers that do not conform to the final traffic patterns shall be eradicated and removed.

Maintenance Of Traffic

The Design-Builder shall be responsible for developing and implementing a Maintenance of Traffic Plan that has been approved by the Concessionaire and the Department.

Lighting

The Design-Builder shall be responsible for the design and construction of continuous lighting of the southbound I-395 general purpose lanes within the limits of the sound barriers to be installed between the existing sound barrier terminus located just south of Sanger Avenue the northern limits of the Duke-Edsall Widening Project. Existing lighting can be reused and considered part of the continuous lighting of the SB I-395 lanes if demonstrated to be in good working order.

Public Information and Communication Services

The Design-Builder shall provide the services of a Public Information Manager and adequate staff to support the Concessionaire and the Department on community outreach and information activities. The Design-Builder will have primary responsibility for performing the project- specific day-to-day activities associated with the Design-Build activities.

The Design-Builder will be required to attend and participate in public meetings as needed to provide updated technical information to the public. The Design-Builder will also be asked to work in partnership with the Concessionaire in dealing with property owner issues to ensure a swift result and minimal impact.

Sound Barriers

The Design-Builder shall be responsible for the design and construction of required sound barriers noted herein.

The Design-Builder shall provide permanent noise mitigation and final sound barriers in compliance with the Virginia State Noise Abatement Policy and the Highway Traffic Noise Impact Analysis Guidance Manual. The final barrier location(s) and dimension(s) shall be per the Approved Noise Studies for Projects 0395-100-722 and 0395-100-736. Where sound barrier locations must be shifted from that shown in the noted studies, the Design-Builder shall design and construct the sound barriers to comply with the following:

- 1) Where sound barriers are shifted up-slope from that indicated in the studies, the Design- Builder shall maintain the sound barrier height as shown in the studies.
- 2) Where sound barriers are shifted down-slope from that indicated in the studies, the Design-Builder shall hold the sound barrier attenuation elevation when setting the top of the sound barrier.

The Design-Builder shall coordinate the sound barrier continuation with adjacent projects.

Drainage and Storm Water Management

The Design-Builder shall be responsible for the design and construction of the integrated stormwater conveyance system (including but not limited to culverts, junction boxes, storm sewers, erosion control, sediment control, outfall conveyance channels through the project area) to meet all applicable hydraulic requirements, including current Federal Emergency Management Administration (FEMA), Federal Highway Administration (FHWA), and VDOT guidelines and standards as described in the VDOT Drainage Manual, Hydraulic Design Advisories and applicable Informational and Instructional Memoranda.

Utilities

The Design-Builder shall be responsible for all utility work necessary for the construction of the sound barriers noted herein, including the identification and avoidance or adjustment (if necessary) of conflicting utilities. Utility work includes all items necessary to provide new services, perform relocation(s) or adjustments and associated coordination with utility owners.

Transportation Management Plan

The Design-Builder shall be responsible for the preparation of the Transportation Management Plan (TMP) in accordance with the Department's guidance and standards for all proposed work. The TMP shall document how traffic shall be managed during the construction of the project. The Design-Builder shall coordinate all work in accordance with the TMP. The phases in the Design-Builder's sequence of construction shall be followed unless the Design-Builder submits and secures Department and Concessionaire approval for an alternate sequence of construction.

Coordination with Third Parties

The Design-Builder shall be responsible for coordination with the affected public and private entities (third parties) and local jurisdictions necessary for the design and construction of the sound barriers and other work included herein, including but not limited to: The Department, City of Alexandria, Fairfax County, Federal Highway Administration, and utility owners.

Anticipated Environmental Services

The Design-Builder shall ensure that the environmental commitments and all conditions of regulatory approvals made in the approved NEPA Document(s) are implemented. The Design- Builder shall be responsible for compliance with pre-construction, construction-related, and post- construction permit conditions.

The Design-Builder shall develop and implement a comprehensive Environmental Management Plan (EMP). Additionally, the Design-Builder is responsible for, but not limited to, a Stormwater Pollution Prevention Plan (SWPPP), an Erosion and Sediment Control (ESC) Plan, a Stormwater Management (SWM) Plan; and performing the Work in accordance with these approved plans and related specifications and standards.

APPENDIX A – RFP CONCEPTUAL PLANS

- RFP Conceptual Plan Sheets (Annotated Sheets 12, 13, 14, 15 from the Duke-Edsall Widening RFP Conceptual Plans dated January 9, 2017).