DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY | 1100 4th STREET, SW | SUITE 310 | WASHINGTON, DC 20024

August 23, 2013

MEMORANDUM

To: Faisal Hameed
Manager, Project Development and Environment Division
District Department of Transporation

RE: Draft EIS for the CSX Virginia Ave Tunnel Reconstruction

The following is a compilation of comments generated by multiple departments within District of Columbia Water and Sewer Authority (DC Water) on the Draft EIS dated July 2, 2013 for the Virginia Avenue Tunnel Reconstruction.

General:

The Draft EA presents 4 options, one is to do nothing and the other three are to build a new tunnel both wider and taller than the existing in one form or another. The three tunnel reconstruction options are about equal in impact to the DC Water infrastructure.

DC Water does not have a preference for one alternative over the other.

This is a Draft EIS and is not completely in sync with conceptual plans that have been submitted to DC Water for review and comment by the CSX Design group. There are significant discrepancies on work proposed at the west tunnel portal over the existing Tiber Creek Sewer. This Draft EIS references a proposed relocation of the Tiber Creek Trunk Sewer. DC Water understands the concept has been revised to eliminate sewer relocation and bridge the Railroad over the existing sewer. Design review and modifications to concept are underway.

Additionally, and most importantly, the CSX design team has submitted draft plans for constructing an inverted siphon to carry the 54" combined sewer between 5th at 7th Streets under the proposed tunnel and onto property fronting the Marine Barracks Recreation facility. DC Water is in the process of evaluating that proposed option but has not agreed with it as yet. The assumption that utilities can be relocated as presented in the utility conflict table in Chapter 5 is misleading and requires further evaluation before feasibility is proven. The statement that there are no impacts to the Marine facility is misleading due to greatly increased maintenance of an inverted siphon facility and pumping facility. The facilities would require much more frequent DC Water

access to the manholes on the downstream side that are located within the fenced in area of the Marine barracks. .

In our opinion there are significant utility conflicts that are as yet unresolved and may prove infeasible and/or unacceptable.

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT:

While the major purpose of this EIS is to address construction options and potential environmental impacts of each there are several inconsistencies when compared with water main and sewer modifications previously presented in draft format to the DC Water.

The following comments are referenced by chapter and page number:

- Executive Summary page # S-13
  Table S-1 Water Resources Post-Construction
  At this time no draft plans for the indicated "storm water management system" which would drain roadways and connect to the public sewer system have been presented to DC Water.

- Executive Summary page # S-17
  Table S-1 Utilities Construction
  Dozens of storm and sanitary sewers, water mains … would require relocation, protection, or support-in-place. It should be noted in this comment the proposed modification of a 54" combined sewer, realigning this facility to an "inverted siphon" under the new tunnel, will have a major impact on future maintenance of this essential public facility and funding for this additional maintenance will be significant.

  The impacts of the proposed work must be monitored with post-construction inspection and mitigation since additional structural support will be required to protect the DC Water utility lines. In addition, DC Water requires the pre-construction and post-construction CCTV and structural analysis showing no impact to DC Water utility lines during construction. Also, DC Water recommends that the plans and approach to their "relocation" and "protection" is vetted through DC Water early in their design process so that DC Water has the opportunity to work with CSX to achieve an acceptable plan.

- Chapter #1 Introduction page #1-9
  1.3 Planning Process
  It should be noted a permit from DC Water is also required for any replacement or modification of public water mains or storm, combination, and sanitary sewers.

- Chapter #4 Affected Environment page #4-77
  4.14 Utilities
  Ownership of water and sewer facilities should be revised as follows.
  Depending on a number of factors, water and sewer facilities are owned by either the District of Columbia or by DC Water. Although ownership varies, DC Water operates and maintains water and sewer facilities.

- Chapter #5 Environmental Consequences page #5-37 & 5-38
  5.8.1 Construction Impacts
  Reference to dewatering activities near potential contaminated zones:
  In addition to a DDOE permit if contaminated effluent is to be pumped to a sanitary (or combined) sewer a "Pretreatment Permit" from DC Water is required. (Page# 5-38 indicates only required permission from DC Water)

- Chapter #5 Environmental Consequences page #5-48
  5.12.1 Construction Impacts
  Reference to the relocation of Tiber Creek Sewer may no longer be applicable as revised concept calls for tunnel to bridge existing facility. Please ensure consistency among all documents.

- Chapter #5 Environmental Consequences page #5-54
  5.14 Utilities
  The EIS report shall include the impacts of post-construction and mitigation since additional structural support are proposed to protect the DC Water utility lines such as Tiber Creek Sewer. In addition, DC Water requires the pre-construction and post-construction CCTV and structural analysis showing no impact to DC Water utility lines during construction.

  5.14.1 Construction Impacts
  Add the following:
  It should be noted 3" thru 20" watermains along the alignment of this project were constructed over 100 years ago, between 1885 and 1905, utilizing "lead joint cast iron" pipe. Replacement is essential to prevent failure of these lines during adjacent excavation and heavy construction.

- Chapter #5 Environmental Consequences page #5-56
  Table 5-17 Water Lines Affected by the Build Alternatives
  Item* "F"
  - Revise 20" Water Line to "Replace and Support-in-Place
  - Revise Two 12" Water Lines to "Replace one 12" main and Support- In-Place. Second 12" Line no longer in service will not require replacement.

- Chapter #5 Environmental Consequences page #5-57
  Figure 5-4 Water Lines Affected by the Build Alternatives
  Relocate letter (D) from between 4th and 5th Streets.
  This should reflect proposed replacement between 3rd and 4th Streets.

- Chapter #5 Environmental Consequences page #5-62
  5.14.2 Post Construction Impacts
  Add the following :
  Proposed relocation of a 54" combination sewer east of 5th Street beneath new tunnels as an "Inverted Siphon" will provide a facility requiring frequent regular maintenance into perpetuity by DC Water. Electric power supply for pumps to dewater siphons for periodic cleaning will require a monthly power supply bill.

- Chapter #5 Environmental Consequences page #5-85
  5.19 Permits and Approvals
  Add DC Water to listing of required permits and approvals:
  - Design and construction plan approvals
  - Water main and sewer relocations
  - Support in place of water mains
  - Contaminated ground water discharge to sewer system
  - Review of Excavation/Sheeting and Shoring Permits

- Appendix F Vibration Analysis
  - The section on Vibration analysis does not cover potential impact to the surrounding utilities. The track will be in close proximity to several of the DC Water utilities, most especially the Tiber Creek Sewer which may have less than 6" of clearance. We request that the EIS address the potential impacts of vibration (both construction and long term railroad operation) on existing aged utilities as well as on future either relocated or protected utilities.

- Upon vibration impact analysis, isolation layer may be required to minimize long term impact to the masonry sewers as they have no steel reinforcement.

- For construction purposes DC Water has vibration isolation requirements in order to protect existing infrastructure. This in general requires the pre-augering of piles or sheet piles to a depth below the utility so as not to load the utility. This would typically be for any work with 50LF or our utility.