

**AVOIDANCE AND MINIMIZATION OF IMPACTS AT PS&E (100%)**

In order to reduce wetland impacts and soil disturbance at final review, the design team is proposing a noise wall alignment which utilizes a range of varying grades and slopes to accommodate both the existing I-95 southbound roadway and the future widening/relocation of I-95 southbound general-purpose lanes. The varying grades and slopes range from the minimum to maximum slopes permissible while maintaining positive drainage throughout the project limits. In areas where impacts to environmental features was unavoidable, the proposed noise wall was aligned adjacent to the existing/future I-95 shoulder. Grass swales for stormwater management are proposed between the edge of shoulder and the noise barrier, in an area being disturbed regardless, therefore avoiding additional impacts to the environmental features located just beyond the limits of cut and fill. A grade beam was also proposed over the existing drainage culvert to avoid additional impacts to the Waters of the US, wetlands, and 100-year floodplain which would've been required if the existing culvert were modified to accommodate the noise wall. Damage to the right-of-way fencing has been identified and repairs are proposed where impacts to the environmental features can be avoided. Additionally, the proposed storm drain design made efforts to replicate existing drainage patterns by maintaining or reducing outfall volumes for all but one outfall located within the limits of the project. The one outfall that will have a slight increase in volume outfalls into a concrete lined channel. The slight increase is a result of a drainage area transfer caused by the proposed noise wall alignment's avoidance and minimization efforts and the small amount of new impervious area being added by the proposed noise wall. Several additional avoidance and minimization measures are also being implemented, where feasible, including reshaping of attenuation facilities and tightening of tree protection and erosion and sediment control device boundaries. Redundant erosion and sediment control measures are proposed to provide secondary protection from sediment laden runoff from entering wetlands and Waters of the US.

---