Where existing noise barriers are being relocated, I-66 EMP will make every effort to minimize impact and:

1. If possible, build a replacement barrier prior to demolishing the existing noise barrier
2. If not possible, begin construction of a new noise barrier within 60 days of demolition of an existing noise barrier and complete new barrier within 240 days from the start of demolition, unless extenuating conditions are demonstrated.

As a part of the design process, a corridor-wide final design noise study will be performed to determine the location and heights of any additional noise walls that may be required or if modifications to existing noise walls are needed.

Where We Were (NEPA and Preliminary Design)

- Identify noise receptors
- Perform noise measurements at representative receptors along the corridor
- Perform noise modeling
- Identify impacts
- Design and assess mitigation
- Present noise study results and preliminary noise wall locations at public hearings

Where We Are (Design)

- Confirm previously identified noise receptors and add new receptors where needed
  - Confirm Common Noise Environments (CNE) – typically within 500 feet of the highway
  - Confirm noise sensitive receptors within each CNE
- Perform additional noise monitoring where appropriate
- Develop final design noise model
  - Develop noise models of future roadway conditions using computer modeling by incorporating the roadway design, design year traffic volumes and speeds, noise sensitive receptors, topography, and ground type
  - Re-validate noise model with noise measurements data where appropriate
  - Compute design-year sound levels
- Identify impacts (is noise mitigation warranted?)
  - VDOT noise abatement criteria
    - 66 decibels or greater for residents, parks, schools; or,
    - 10 decibel increase above existing
- Design, assess, and optimize mitigation (typically noise walls)
  - Is the wall feasible?
    - Does it work acoustically (do 50 percent or more of the impacted receptors receive a 5 decibel or more noise reduction?)
    - Can it be constructed (are there safety, drainage, utilities, maintenance issues?)
  - Is the wall reasonable?
    - Cost-effectiveness (1,600 maximum square feet or less per benefited receptor)
    - Design goal (7 decibels of noise reduction at 1 impacted receptor)
- Present noise study results for wall locations at public hearings
- Finalize noise barrier designs
- Solicit public input from benefited property owners and renters (voting process) (2018)
  - 50 percent or more of the solicited receptors within a community must be in favor of a proposed noise barrier for that noise barrier to be considered further
  - Options presented for noise wall treatments
- Incorporate approved noise walls into the final construction plans