

NOISE AND VIBRATION SCREENING DISTANCES

APPENDIX 3.4-A

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Table 3.4-A-1
Noise Screening Distances for High-Speed Train (HST) Alternative

| Speed (miles per hour) | Type of Corridor | Land Use—Ambient | Distance ¹ (feet) |
|---------------------------|------------------|----------------------|------------------------------|
| ≥125 | Existing Rail | Urban/Noisy Suburban | 450 |
| | | Quiet Suburban/Rural | 900 |
| | Existing Highway | Urban/Noisy Suburban | 450 |
| | | Quiet Suburban/Rural | 700 |
| <125 | New Rail | Urban/Noisy Suburban | 450 |
| | | Quiet Suburban/Rural | 900 |
| | Any | Urban/Noisy Suburban | 375 |
| | | Quiet Suburban/Rural | 750 |
| Station ² | Any | Urban/Noisy Suburban | 225 |
| | | Quiet Suburban/Rural | 450 |

Ambient noise threshold for suburban/rural is 55 to 60 day-night average level (L_{dn}).
¹ Measured from centerline of track.
² For a distance of 0.25 mile in either direction from center of station.

Table 3.4-A-2
Vibration Screening Distances for HST Alternative

| Speed (miles per hour) | Receptor Type | Distance* (feet) |
|---------------------------|--|------------------|
| ≥125 | Special Facilities (e.g., concert halls, research) | 750 |
| | Residential | 220 |
| | Institutional (e.g., schools, public buildings) | 160 |
| <125 | Category 1 (e.g., concert halls, research) | 600 |
| | Category 2 (e.g., residences, theaters, auditoria) | 200 |
| | Category 3 (e.g., schools, public buildings) | 120 |

* Measured from centerline of track.

Table 3.4-A-3
Noise Screening Distances for Highways

| Number of Lanes | Distance* (feet) |
|-----------------|------------------|
| 2 | 242 |
| 4 | 335 |
| 6 | 390 |
| 8 | 455 |
| 10 | 510 |
| 12 | 580 |
| 14 | 640 |
| 16 | 715 |

* Measured from centerline of highway.