# APPENDIX E: NOISE IMPACTS

Representative operational noise assessment results at each of the long-term noise measurement sites are presented in Table E-1 and operational noise impact locations are depicted on Figures E-1 through E-16.

**Table E-1 Representative Noise Assessment Results**

| Noise Meas. Site[1] | Rec. Num | Land Use Cat. | Dist. to Near Track (feet) | Civ. Sta. Num. | Track Type | Train Speed (mph) | Speed Regime[3] | Sub-source SEL (dBA)[4] | | | | Shielding Adjustment (dB) | Project Noise Level (dBA) | Existing Noise Level (dBA) | Noise Impact Criteria (dBA) | | Impact Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Propulsion | | Wheel-Rail | | | | | | | |
| | | | | | | | | NB | SB | NB | SB | | | | Mod. | Sev. | |
| LT1 | 6681 | 2 | 227 | S243+00 | At-grade | 50 | HS | 72 | 74 | 72 | 55 | 0 | 49 | 67 | 62 | 68 | -- |
| LT2 | N/A[2] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| LT3 | 6211 | 2 | 121 | SBN 504+00 | At-grade | 90 | HS | 78 | 78 | 84 | 84 | 0 | 58 | 74 | 65 | 72 | -- |
| LT4 | 6062 | 2 | 26 | SBN 555+00 | At-grade | 79 | HS | 89 | 89 | 94 | 94 | 0 | 69 | 67 | 62 | 67 | Severe |
| LT5 | 5860 | 2 | 113 | SBN 567+00 | At-grade | 79 | HS | 79 | 79 | 84 | 84 | 0 | 58 | 75 | 65 | 73 | -- |
| LT6 | 5422 | 2 | 278 | SBN 597+00 | At-grade | 70 | HS | 72 | 72 | 76 | 76 | 0 | 51 | 67 | 62 | 67 | -- |
| LT7 | 5268 | 2 | 129 | SBN 622+00 | At-grade | 70 | HS | 78 | 78 | 82 | 82 | 0 | 56 | 82 | 65 | 75 | -- |
| LT8 | 4921 | 2 | 71 | SBN 660+00 | At-grade | 70 | HS | 82 | 82 | 86 | 86 | 0 | 61 | 77 | 65 | 75 | -- |
| LT9 | 4838 | 2 | 515 | SBN 840+00 | Elevated structure | 45 | HS | 70 | 70 | 69 | 70 | 0 | 50 | 63 | 59 | 65 | -- |
| LT10 | 4683 | 2 | 101 | SBN 874+00 | Elevated structure | 45 | HS | 80 | 81 | 80 | 80 | 0 | 60 | 68 | 62 | 68 | -- |
| LT11 | 4394 | 2 | 104 | SBN 982+00 | At-grade | 79 | HS | 79 | 79 | 84 | 84 | 0 | 59 | 68 | 63 | 68 | -- |
| LT12 | 4353 | 2 | 104 | SBN 987+00 | At-grade | 79 | HS | 79 | 79 | 84 | 84 | 0 | 59 | 76 | 65 | 74 | -- |
| LT13 | 3987 | 2 | 99 | SBN 1030+00 | At-grade | 79 | HS | 80 | 80 | 85 | 85 | 0 | 59 | 70 | 64 | 69 | -- |
| LT14 | 3801 | 2 | 130 | SBN 1060+00 | At-grade | 79 | HS | 78 | 78 | 83 | 83 | 0 | 57 | 68 | 63 | 68 | -- |
| LT15 | 3190 | 2 | 109 | SBN 1106+00 | At-grade | 75 | HS | 78 | 79 | 83 | 83 | 0 | 58 | 64 | 60 | 65 | -- |
| LT16 | 3384 | 2 | 29 | SBN 1095+00 | At-grade | 75 | HS | 88 | 88 | 93 | 93 | 0 | 67 | 72 | 65 | 71 | Moderate |
| LT17 | 2574 | 2 | 331 | SBN 1187+00 | At-grade | 79 | HS | 71 | 71 | 76 | 76 | 5 | 45 | 71 | 65 | 70 | -- |
| LT18 | 2391 | 2 | 131 | SBN 1232+00 | At-grade | 79 | HS | 78 | 77 | 83 | 82 | 0 | 57 | 67 | 62 | 68 | -- |
| LT19 | 2315 | 2 | 38 | SBN 1239+00 | At-grade | 79 | HS | 84 | 87 | 89 | 72 | 0 | 62 | 68 | 63 | 68 | -- |
| LT20 | 7108 | 2 | 99 | SBN 1265+00 | At-grade | 79 | HS | 80 | 79 | 85 | 84 | 0 | 58 | 74 | 65 | 72 | -- |
| LT21 | 7066 | 2 | 62 | SBN 1260+00 | At-grade | 79 | HS | 82 | 83 | 86 | 88 | 0 | 62 | 60 | 58 | 63 | Moderate |
| LT22 | 1970 | 2 | 48 | SBN 1334+00 | At-grade | 55 | HS | 82 | 85 | 84 | 67 | 0 | 59 | 75 | 65 | 73 | -- |
| LT23 | N/A[2] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| LT24 | 2377 | 2 | 380 | SBN 1331+00 | At-grade | 55 | HS | 70 | 70 | 72 | 71 | 5 | 42 | 68 | 63 | 68 | -- |
| LT25 | 1134 | 2 | 60 | SOC 1388+00 | At-grade | 79 | HS | 83 | 82 | 88 | 86 | 0 | 62 | 69 | 64 | 69 | -- |
| LT26 | N/A[1] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| LT27 | 758 | 2 | 21 | SOC 1422+00 | At-grade | 79 | HS | 91 | 87 | 96 | 92 | 0 | 69 | 61 | 58 | 64 | Severe |
| LT28 | 522 | 2 | 31 | SOC 1436+00 | At-grade | 90 | HS | 88 | 85 | 94 | 91 | 0 | 67 | 61 | 58 | 64 | Severe |
| LT29 | 108 | 2 | 42 | SOC 1461+00 | At-grade | 90 | HS | 86 | 84 | 92 | 90 | 0 | 65 | 61 | 58 | 64 | Severe |
| LT30 | 7245 | 2 | 30 | SOC 1483+00 | At-grade | 90 | HS | 85 | 88 | 91 | 74 | 0 | 64 | 62 | 59 | 64 | Moderate |

| Noise Meas. Site[1] | Rec. Num | Land Use Cat. | Dist. to Near Track (feet) | Civ. Sta. Num. | Track Type | Train Speed (mph) | Speed Regime[3] | Sub-source SEL (dBA)[4] | | | | Shielding Adjustment (dB) | Project Noise Level (dBA) | Existing Noise Level (dBA) | Noise Impact Criteria (dBA) | | Impact Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Propulsion | | Wheel-Rail | | | | | | | |
| | | | | | | | | NB | SB | NB | SB | | | | Mod. | Sev. | |
| LT31 | 5 | 2 | 180 | SOC 1577+00 | At-grade | 70 | HS | 75 | 75 | 79 | 79 | 0 | 54 | 71 | 65 | 70 | -- |

[1] The locations of the noise measurement sites are depicted on Figure 5-4 of the *Los Angeles to Anaheim Project Section Noise and Vibration Technical Report*.
[2] There are no sensitive noise receptors associated with this noise measurement site.
[3] HS = high-speed; VHS = very high-speed
[4] Only Propulsion and Wheel-Rail sub-sources are included in this table. Aerodynamic sub-sources are only considered for train speeds above 150 mph, and there are no train speeds above 150 mph in this section of the project.
dB = decibel; dBA = A-weighted decibel; mph = miles per hour; N/A = not applicable; NB = northbound; SB = southbound; SEL = sound exposure level

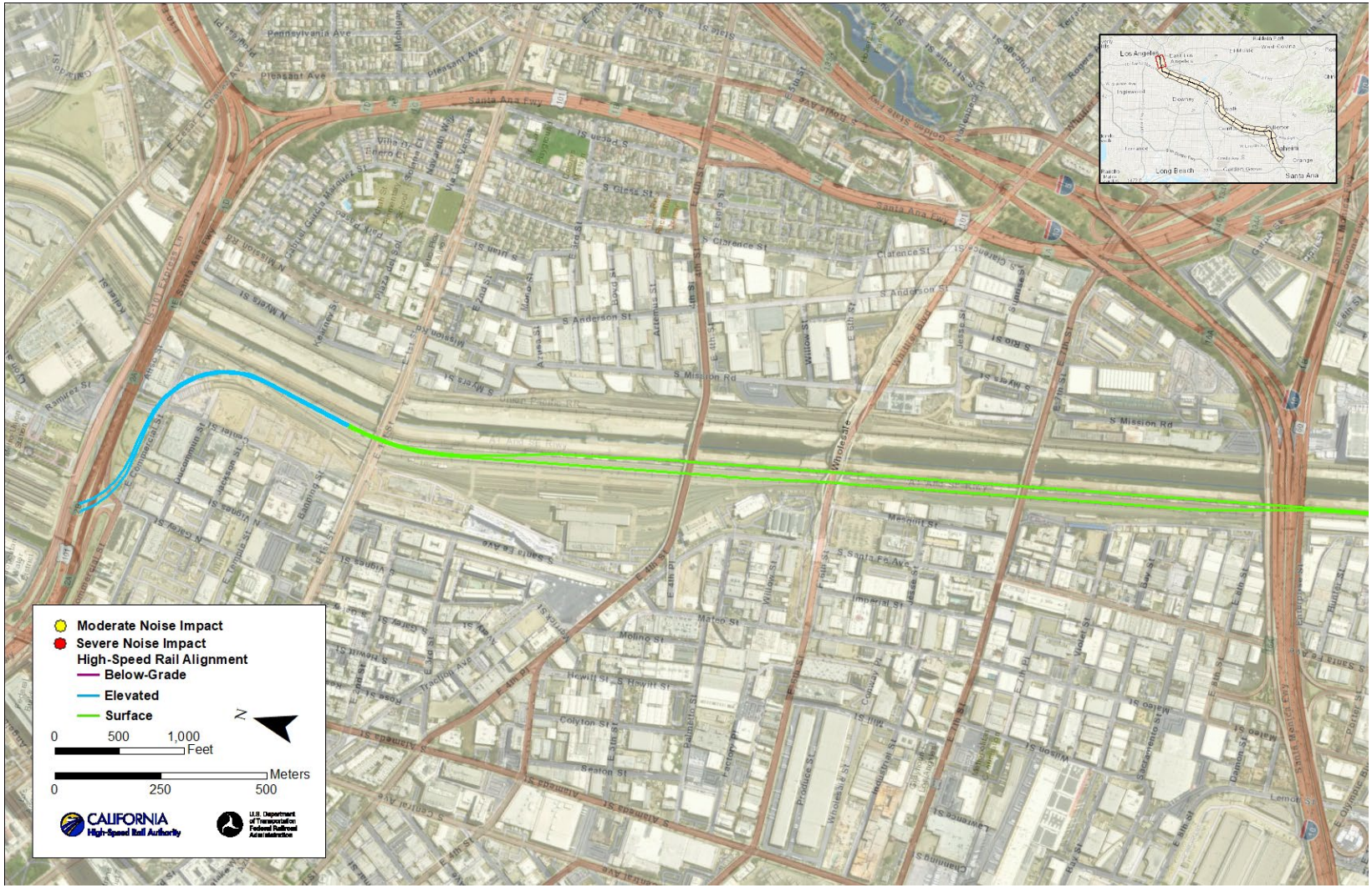



**Figure E-1 Noise Impacts**

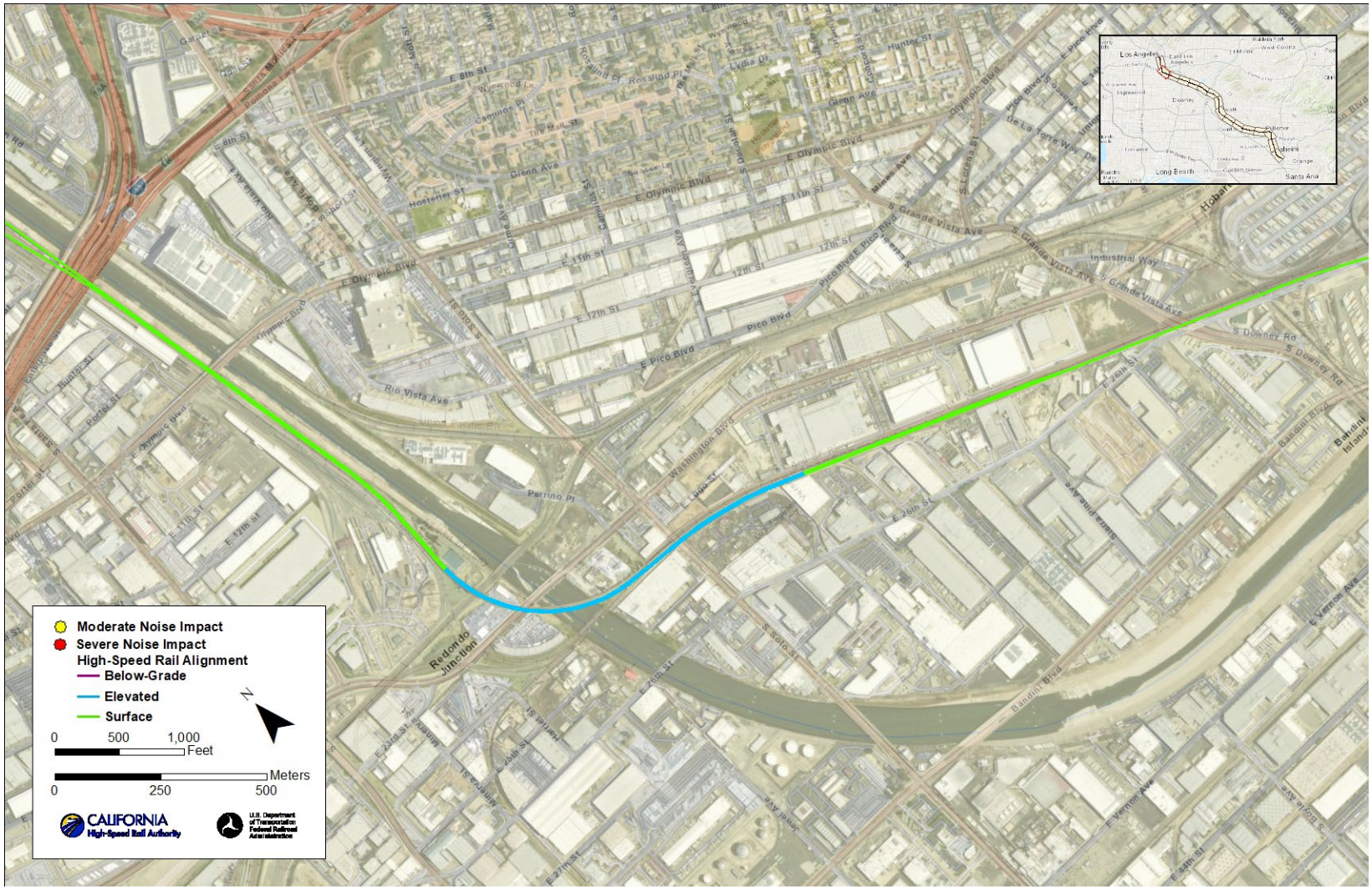



**Figure E-2 Noise Impacts**

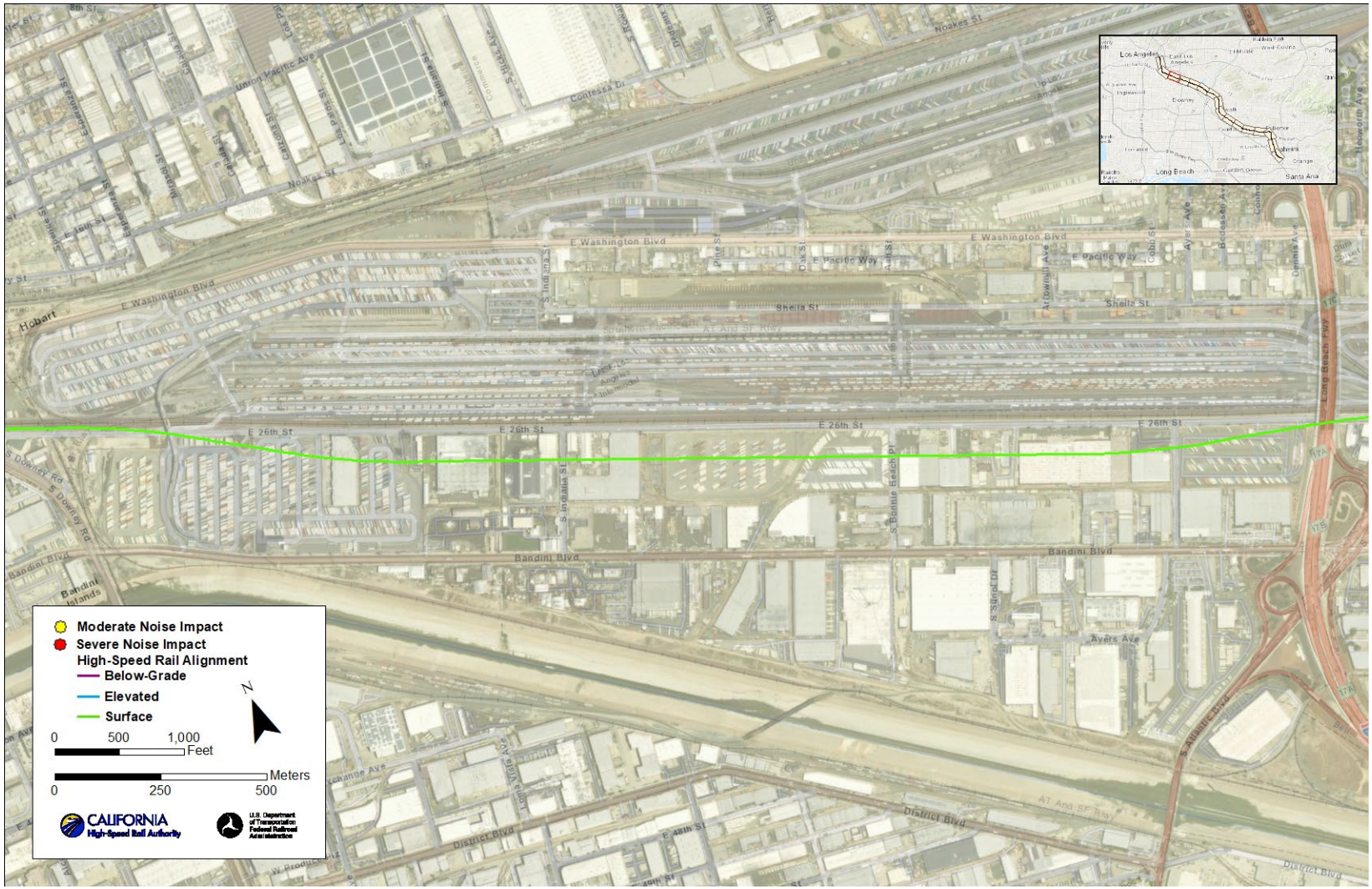



**Figure E-3 Noise Impacts**

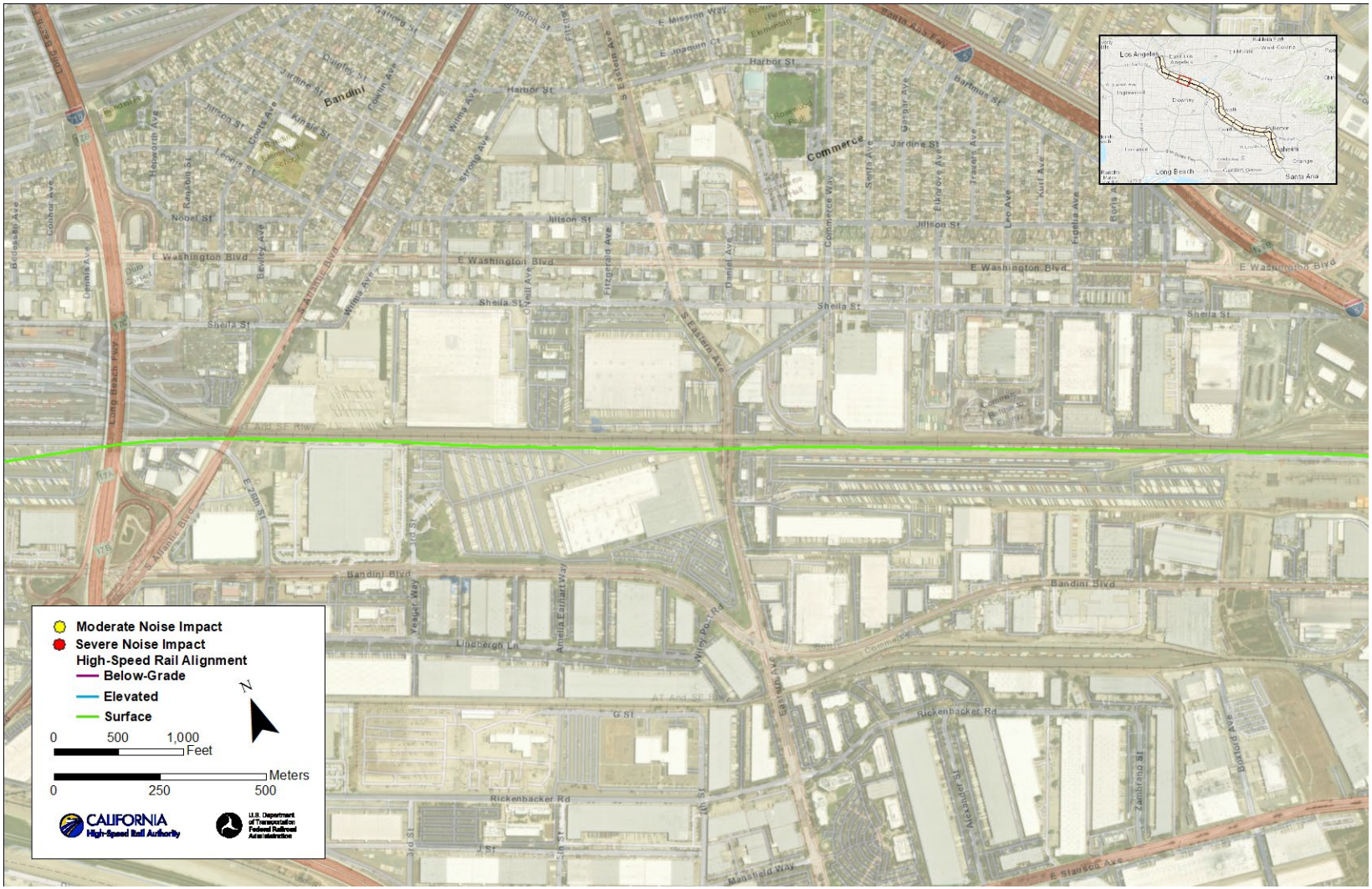



**Figure E-4 Noise Impacts**




**Figure E-5 Noise Impacts**




**Figure E-6 Noise Impacts**




**Figure E-7 Noise Impacts**

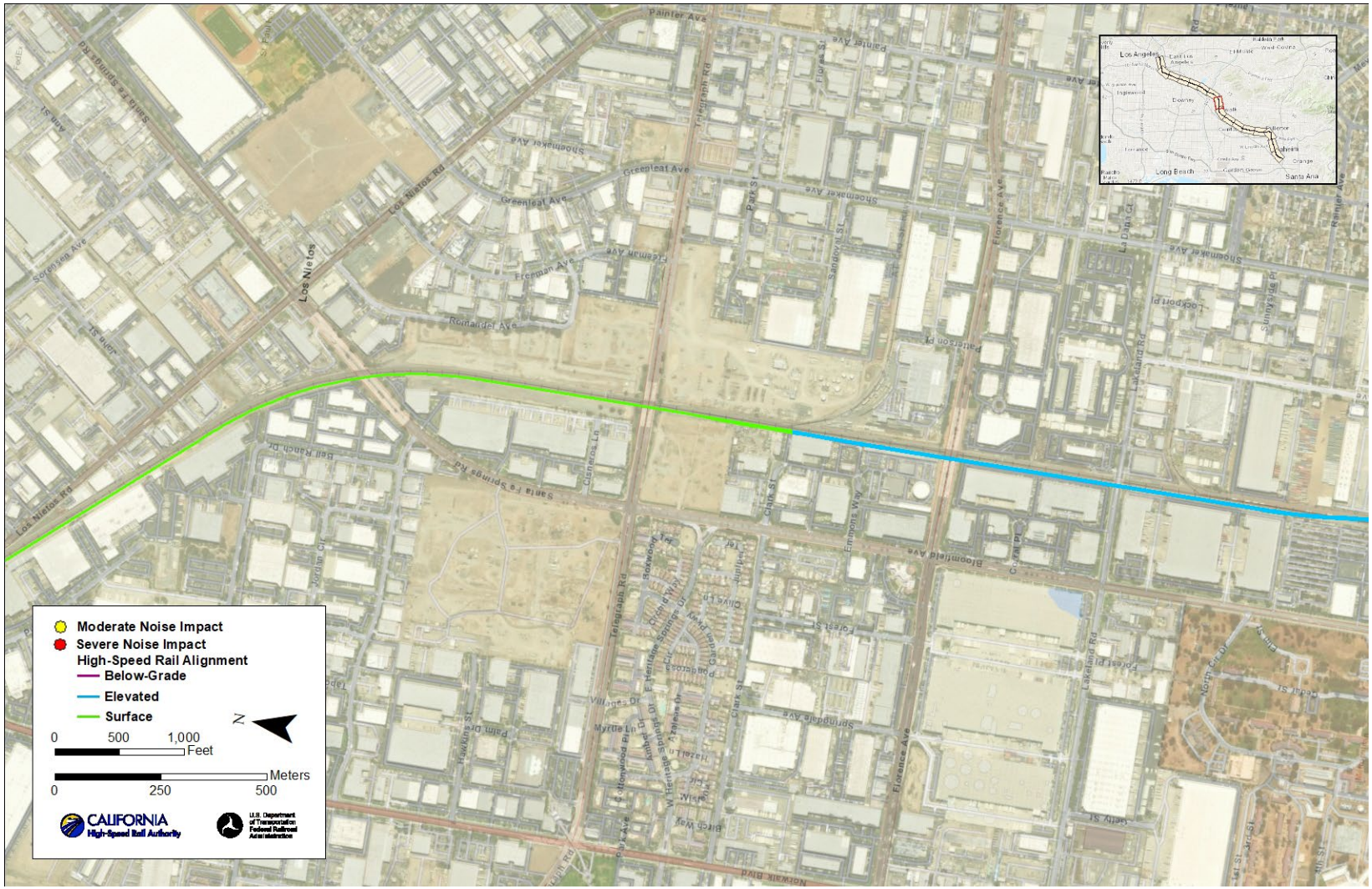



**Figure E-8 Noise Impacts**




**Figure E-9 Noise Impacts**




**Figure E-10 Noise Impacts**




**Figure E-11 Noise Impacts**

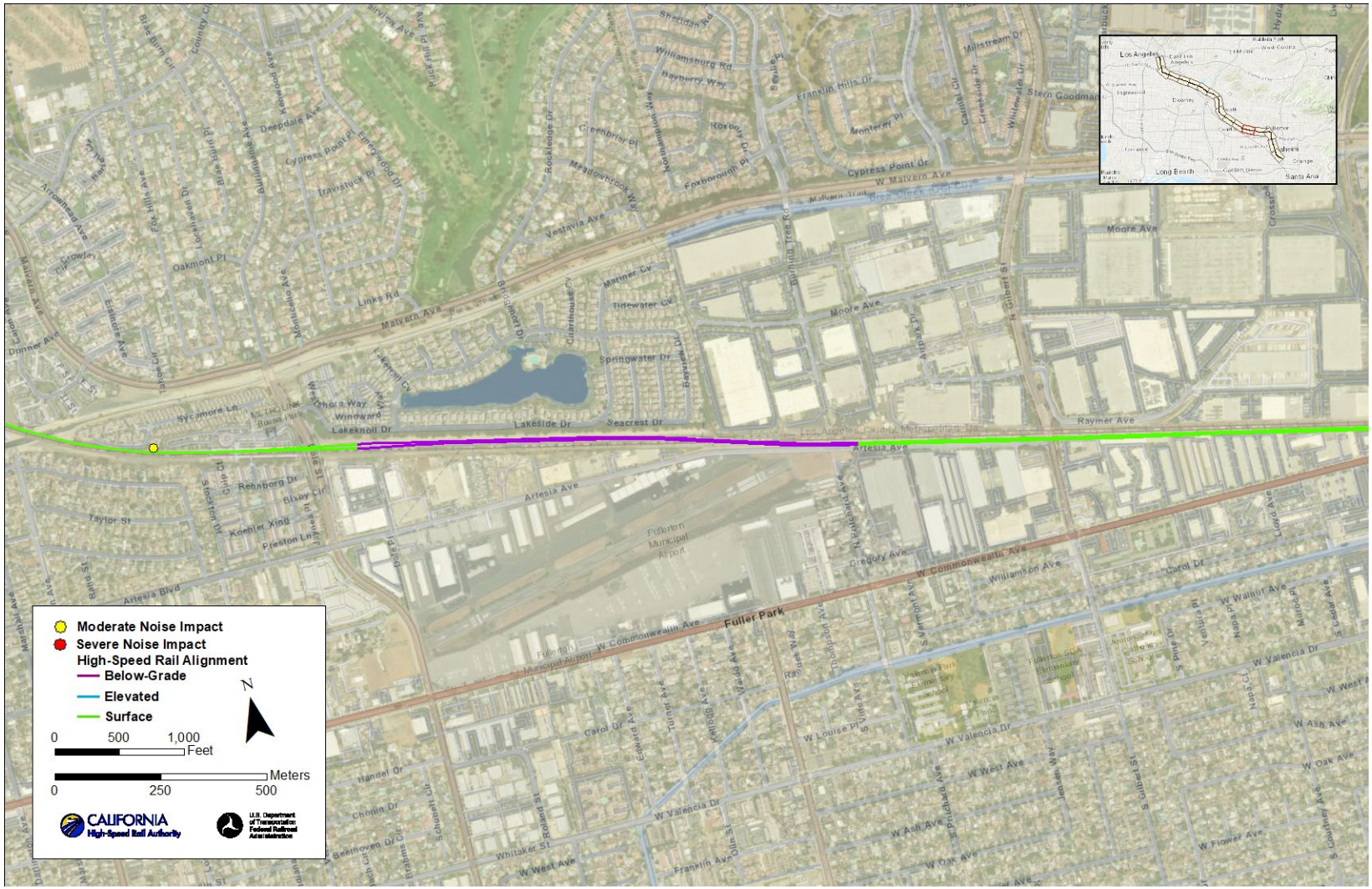



**Figure E-12 Noise Impacts**

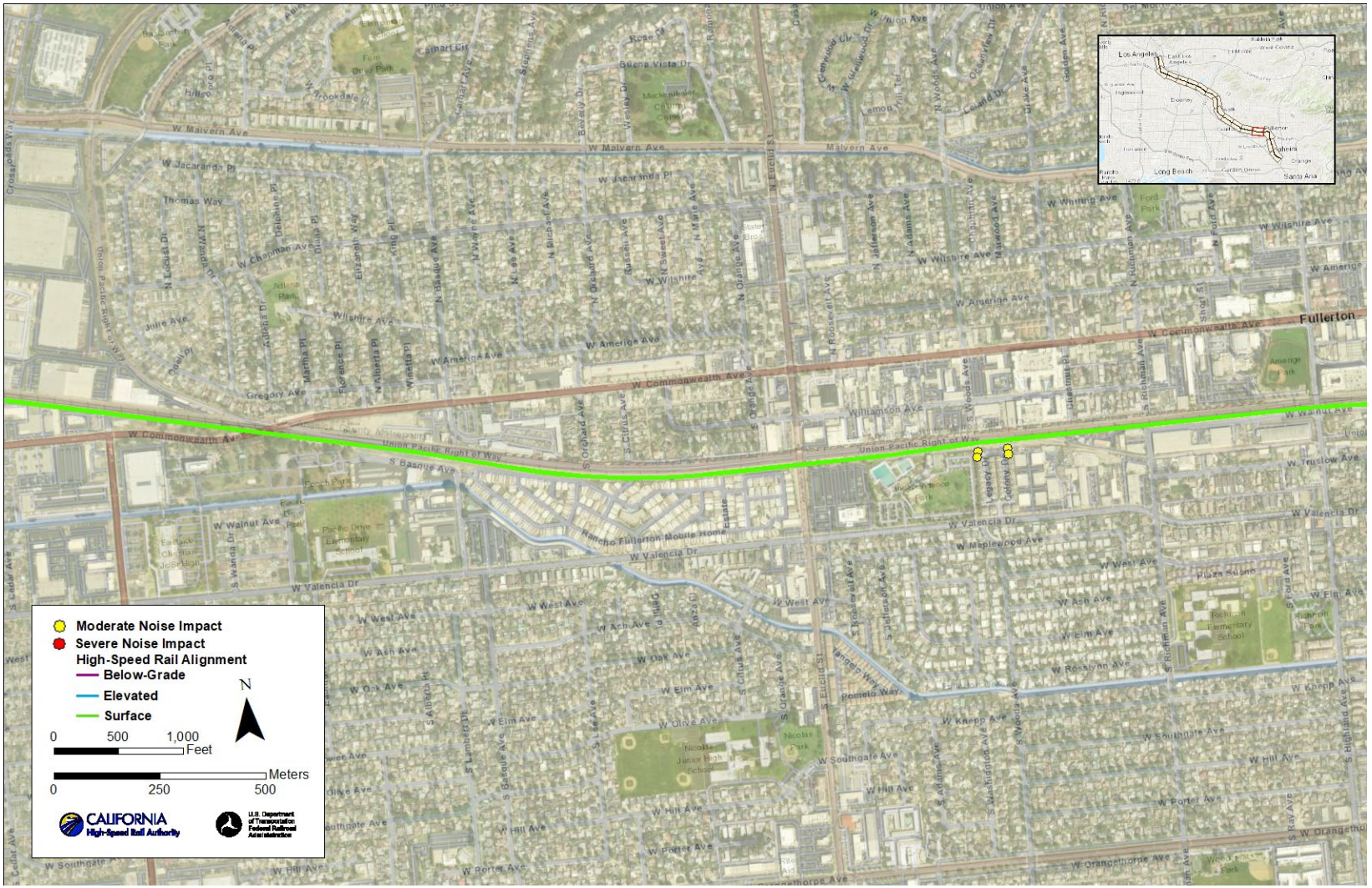



**Figure E-13 Noise Impacts**

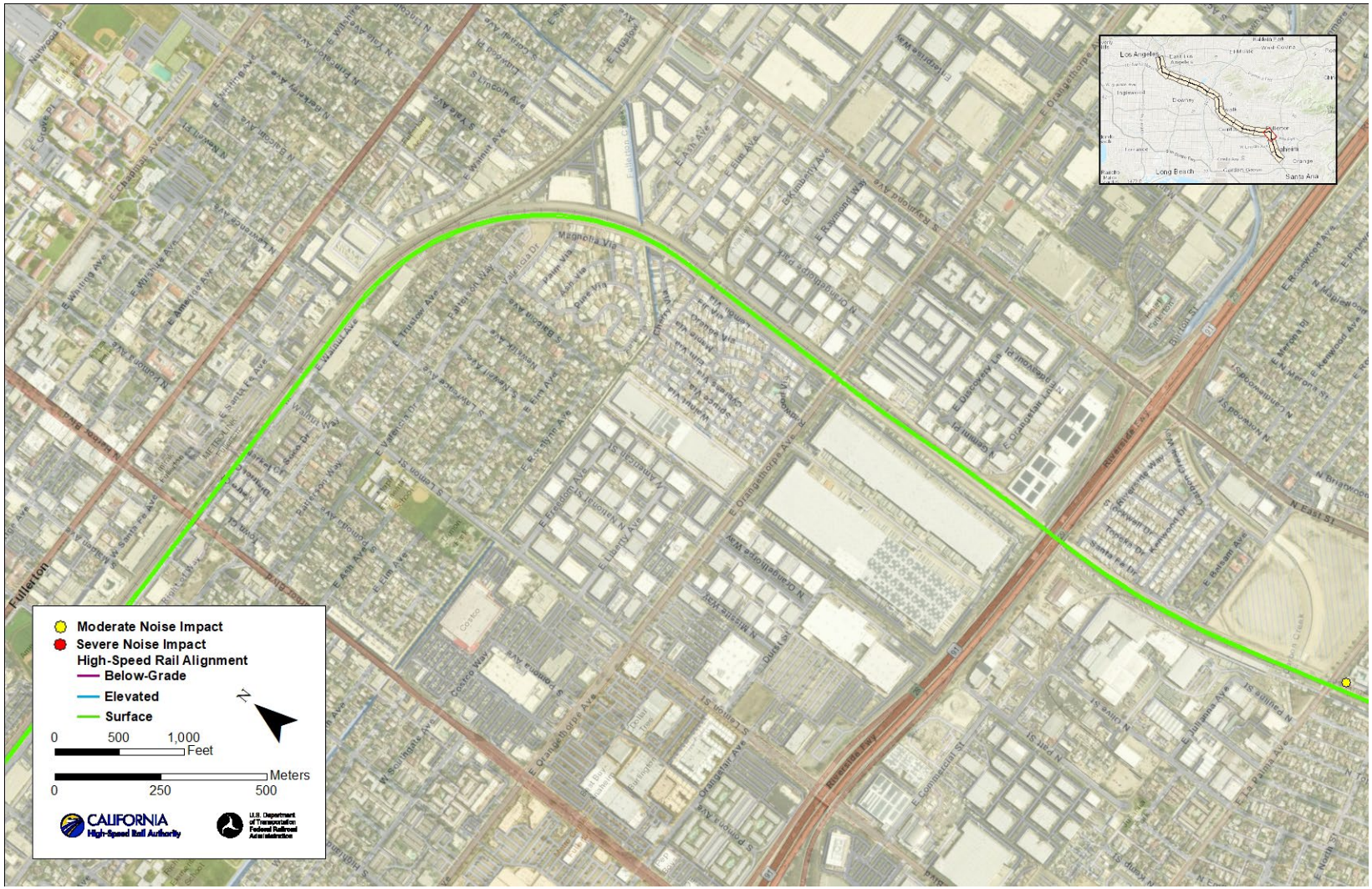



**Figure E-14 Noise Impacts**

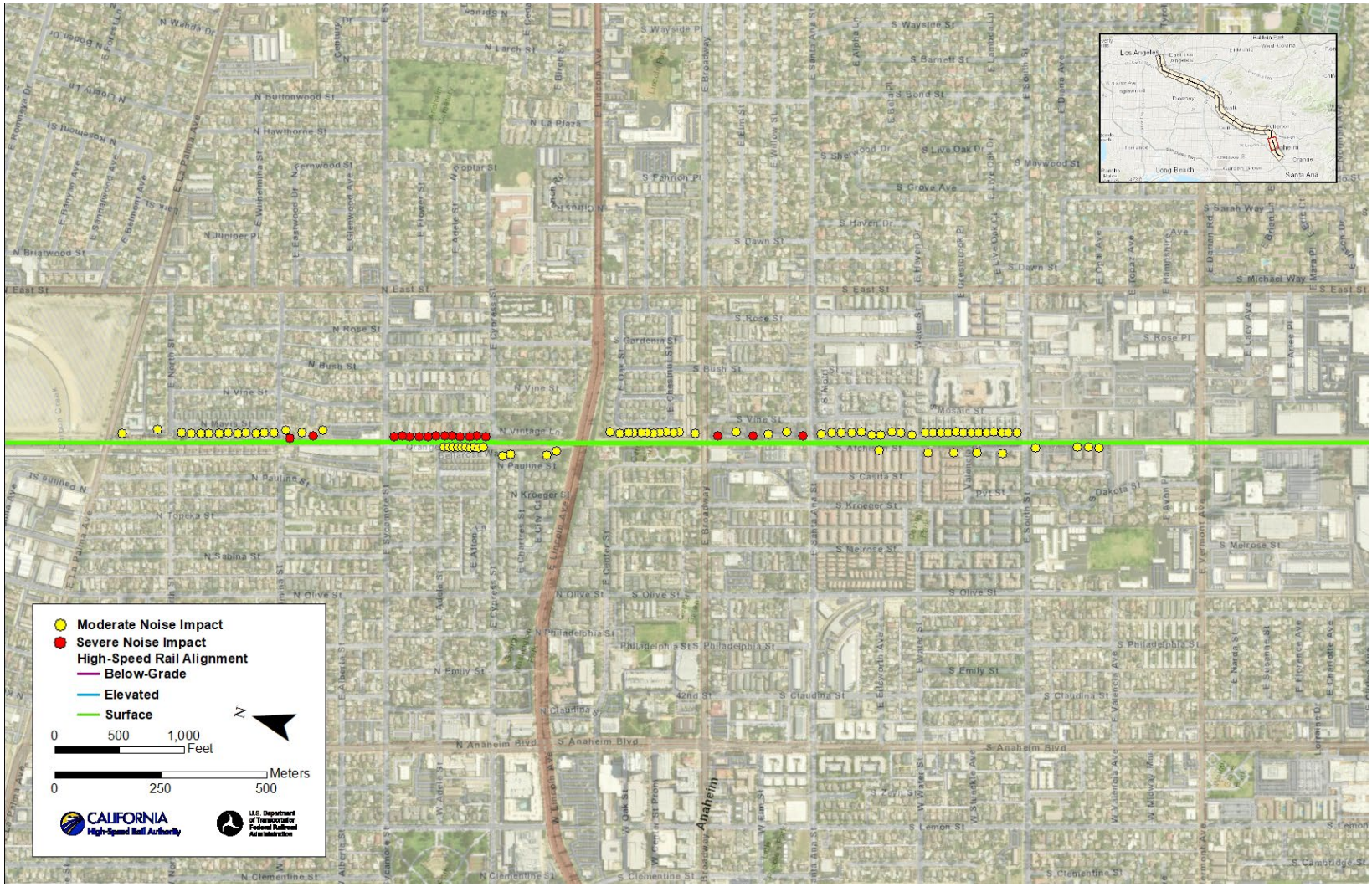



**Figure E-15 Noise Impacts**

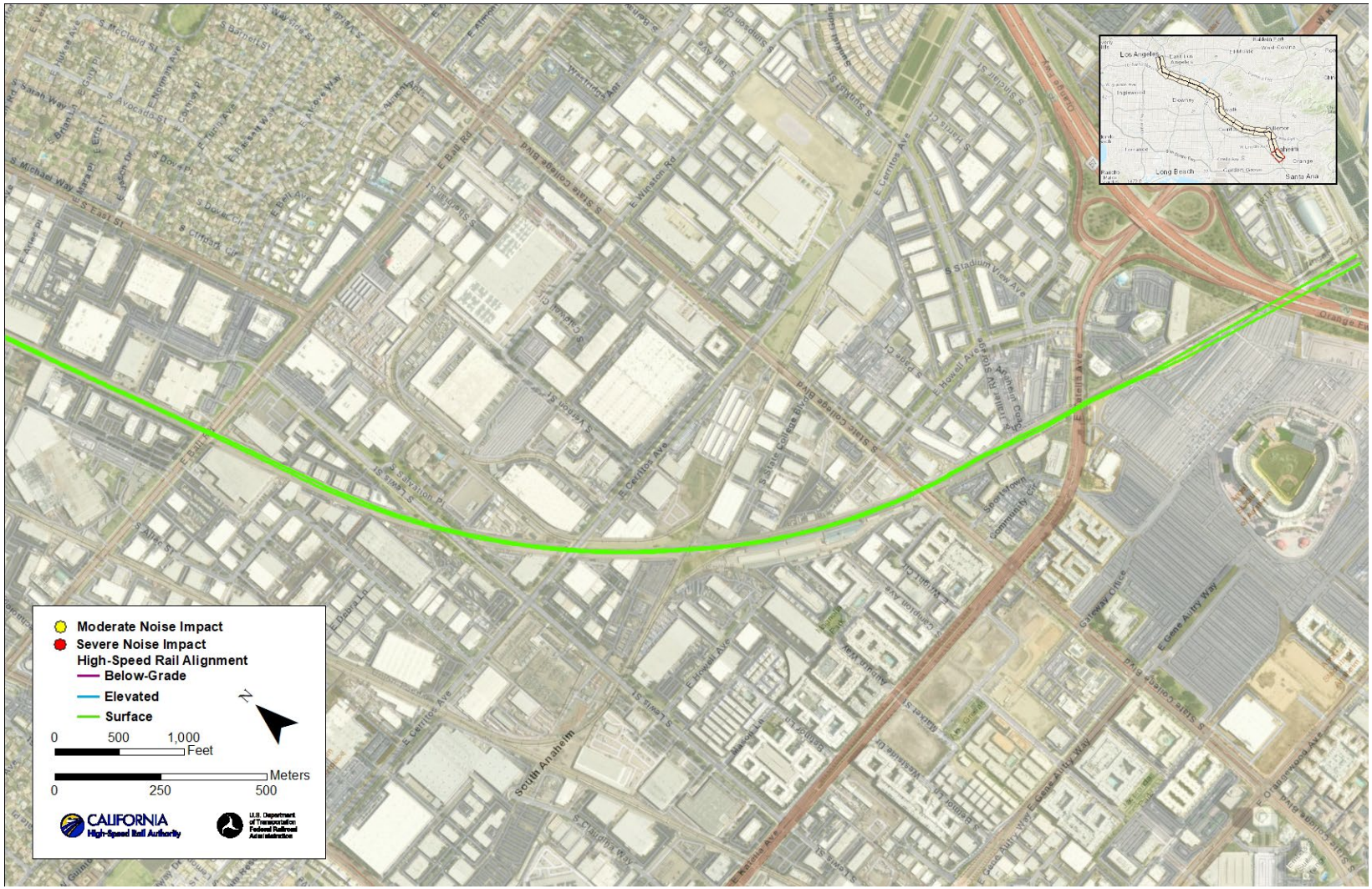



**Figure E-16 Noise Impacts**