

Appendix F.
Noise Modeling Output



Appendices

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Average Construction Noise Levels - Seashore Village

Construction Noise at 50 Feet (dBA Leq) FTA Measurement Distance 50

| Construction Phase | All Applicable Equipment in Use ¹ | Minimum Required Equipment in Use ¹ |
|----------------------------|--|--|
| Ground Clearing/Demolition | 83 | 83 |
| Excavation | 88 | 75 |
| Foundation Construction | 81 | 81 |
| Building Construction | 81 | 65 |
| Finishing and Site Cleanup | 88 | 72 |

Construction Noise at 120 Feet (dBA Leq) Average Feet at Site: 120

| Construction Phase | All Applicable Equipment in Use ¹ | Minimum Required Equipment in Use ¹ |
|----------------------------|--|--|
| Ground Clearing/Demolition | 75 | 75 |
| Excavation | 80 | 67 |
| Foundation Construction | 73 | 73 |
| Building Construction | 73 | 57 |
| Finishing and Site Cleanup | 80 | 64 |

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA, December 31, 1971.
Based on analysis for Domestic Housing

Construction Vibration - Seashore Village

| Construction generated Vibration | | Average Vibration Levels | | Truck Passbys | 25 | Feet |
|----------------------------------|--|--|---------------------------------|---|-----|------|
| | | | | Construction Equipment | 120 | Feet |
| Equipment | Approximate Velocity Level at 25 ft, VdB | Approximate RMS a Velocity at 25 ft, inch/second | Approximate Velocity Level, VdB | Approximate RMS a Velocity at 180 ft, inch/second | | |
| Small bulldozer | 58 | 0.003 | 44 | 0.0003 | | |
| Jackhammer | 79 | 0.035 | 65 | 0.0033 | | |
| Loaded trucks | 86 | 0.076 | 86 | 0.0760 | | NA |
| | | Criteria | 80 | 0.2 | | |

Average vibration levels based on the average distance of construction activities to the closest residential receptor for each construction phase

| Construction generated Vibration | | Maximum Vibration Levels | | Construction Equipment | 8 | Feet |
|----------------------------------|--|--|---------------------------------|---|---|------|
| Equipment | Approximate Velocity Level at 25 ft, VdB | Approximate RMS a Velocity at 25 ft, inch/second | Approximate Velocity Level, VdB | Approximate RMS a Velocity at 340 ft, inch/second | | |
| Small bulldozer | 58 | 0.003 | 68 | 0.0166 | | |
| Jackhammer | 79 | 0.035 | 89 | 0.1933 | | |
| | | Criteria | 80 | 0.2 | | |

Maximum vibration levels based on the distance of the closest residential receptor to the closest proposed residential building

¹ Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (May 2006).

Seashore Village - Sound Levels on Pacific Coast Highway

Sound Levels

ATMOSPHERICS: 68 deg F, 50% RH

Receiver

Name

| | Lden Calculated dBA Building Façade | Noise Compatibility Threshold | | Windows Open | Windows Closed |
|---|---|-------------------------------|----------|-----------------|-------------------|
| | | Exterior | Interior | | |
| At Project Site | 67.3 | 65 | 45 | 55.3 | 43.3 |
| At Project Site with a 9-Foot Wall on Jamboree | 59.1 | 65 | 45 | 47.1 | 35.1 |

Society of Automotive Engineers (SAE) International. 1971, October. House Noise-Reduction Measurements for Use in Studies of Aircraft Flyover Noise. SAE publication AIR 1081.

Seashore Village - Pacific Coast Highway

INPUT: ROADWAYS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

| Roadway | | Points | | | | | Segment Pvmt Type |
|-----------------|-------|---------|----------------------------|-----------|-----|----|-------------------------|
| Name | Width | Name | No. Coordinates (pavement) | X | Y | Z | |
| | ft | | | ft | ft | ft | |
| Link1_WB_right | 16 | point1 | 1 | -2,501.00 | 45 | 0 | Average |
| | | point2 | 2 | -3,500.00 | 45 | 0 | |
| Link1_WB_middle | 16 | point3 | 3 | -2,501.00 | 29 | 0 | Average |
| | | point4 | 4 | -3,500.00 | 29 | 0 | |
| Link1_WB_left | 16 | point5 | 5 | -2,501.00 | 13 | 0 | Average |
| | | point6 | 6 | -3,500.00 | 13 | 0 | |
| Link1_EB_left | 16 | point7 | 7 | -3,500.00 | -13 | 0 | Average |
| | | point8 | 8 | -2,501.00 | -13 | 0 | |
| Link1_EB_middle | 16 | point9 | 9 | -3,500.00 | -29 | 0 | Average |
| | | point10 | 10 | -2,501.00 | -29 | 0 | |
| Link1_EB_right | 16 | point11 | 11 | -3,500.00 | -45 | 0 | Average |
| | | point12 | 12 | -2,501.00 | -45 | 0 | |

Seashore Village - Pacific Coast Highway

INPUT: RECEIVERS

Receiver

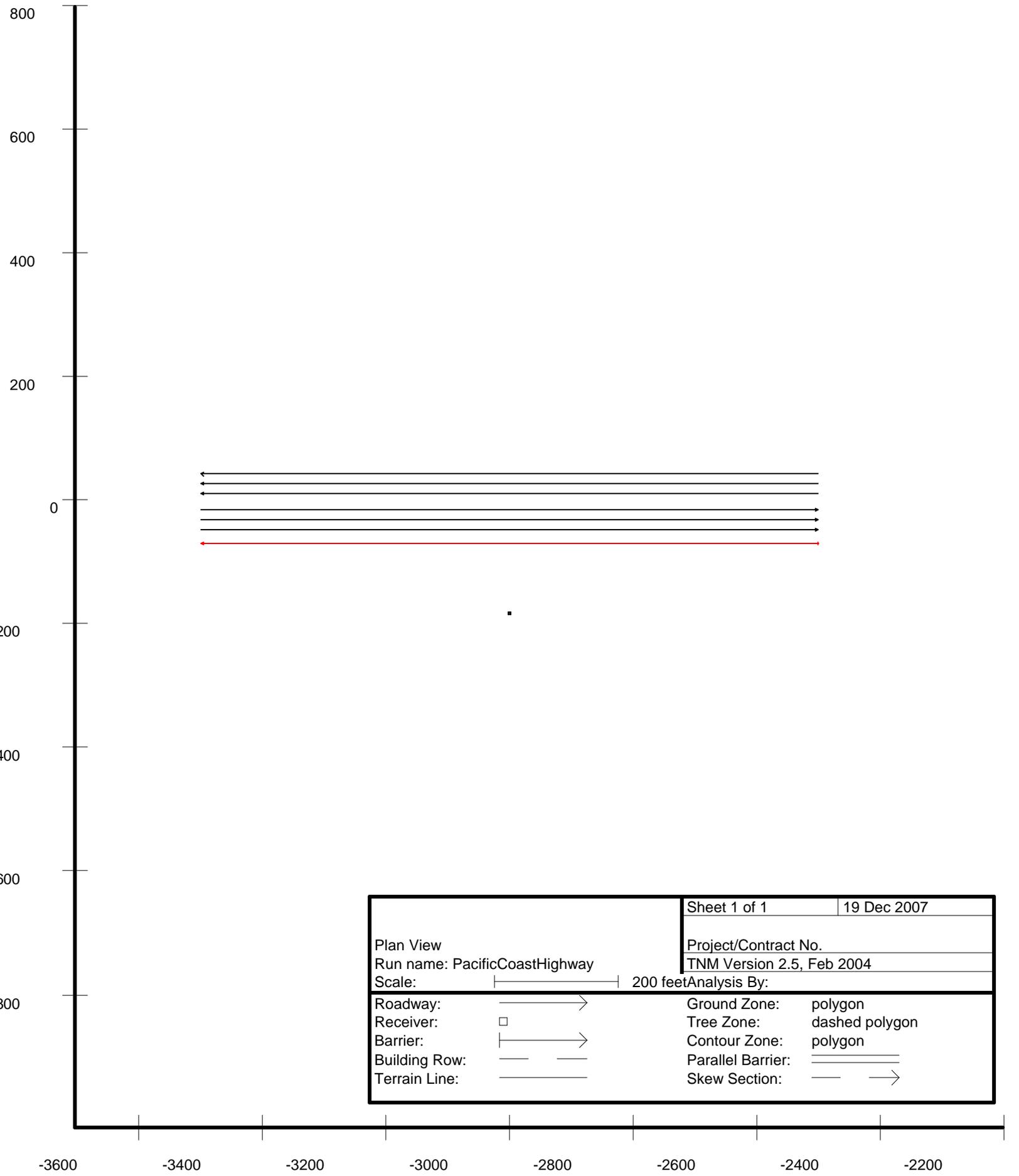
| Name | No. | Coordinates (ground) | | | Height above Ground |
|-----------------|-----|----------------------|------|----|---------------------------|
| | | X | Y | Z | |
| | | ft | ft | ft | ft |
| At Project Site | 1 | -3,000.00 | -180 | 0 | 4.92 |

Seashore Village - Traffic Levels on Pacific Coast Highway

INPUT: TRAFFIC FOR Lden

| Roadway Name | Points Name | Segment | ADT | Autos | | | | MTrucks | | | | HTrucks | | | | Buses | | | | Motorcycles | | | | |
|-----------------|-------------|---------|-----------|-------|----|----|-----|---------|----|----|-----|---------|----|----|-----|-------|----|----|-----|-------------|----|----|-----|--|
| | | | veh/24hrs | %D | %E | %N | S | %D | %E | %N | S | %D | %E | %N | S | %D | %E | %N | S | %D | %E | %N | S | |
| | | | | % | % | % | mph | % | % | % | mph | % | % | % | mph | % | % | % | mph | % | % | % | mph | |
| Link1_WB_right | point1 | | 8333 | 99 | 99 | 99 | 45 | 1 | 1 | 1 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | point2 | | | | | | | | | | | | | | | | | | | | | | | |
| Link1_WB_middle | point3 | | 8333 | 99 | 99 | 99 | 45 | 1 | 1 | 1 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | point4 | | | | | | | | | | | | | | | | | | | | | | | |
| Link1_WB_left | point5 | | 8333 | 99 | 99 | 99 | 45 | 1 | 1 | 1 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | point6 | | | | | | | | | | | | | | | | | | | | | | | |
| Link1_EB_left | point7 | | 8333 | 99 | 99 | 99 | 45 | 1 | 1 | 1 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | point8 | | | | | | | | | | | | | | | | | | | | | | | |
| Link1_EB_middle | point9 | | 8333 | 99 | 99 | 99 | 45 | 1 | 1 | 1 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | point10 | | | | | | | | | | | | | | | | | | | | | | | |
| Link1_EB_right | point11 | | 8333 | 99 | 99 | 99 | 45 | 1 | 1 | 1 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | point12 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 49998 | ADT | | | | | | | | | | | | | | | | | | | | |

Based on Roadway Volumes within the City of Newport Beach. 2006. *City of Newport Beach General Plan Update EIR.*



| | | | |
|---|---|---------------------------|-------------|
| Plan View | | Sheet 1 of 1 | 19 Dec 2007 |
| Run name: PacificCoastHighway | | Project/Contract No. | |
| Scale:  200 feet | | TNM Version 2.5, Feb 2004 | |
| Analysis By: | | | |
| Roadway:  | Ground Zone: polygon | | |
| Receiver:  | Tree Zone: dashed polygon | | |
| Barrier:  | Contour Zone: polygon | | |
| Building Row:  | Parallel Barrier:  | | |
| Terrain Line:  | Skew Section:  | | |