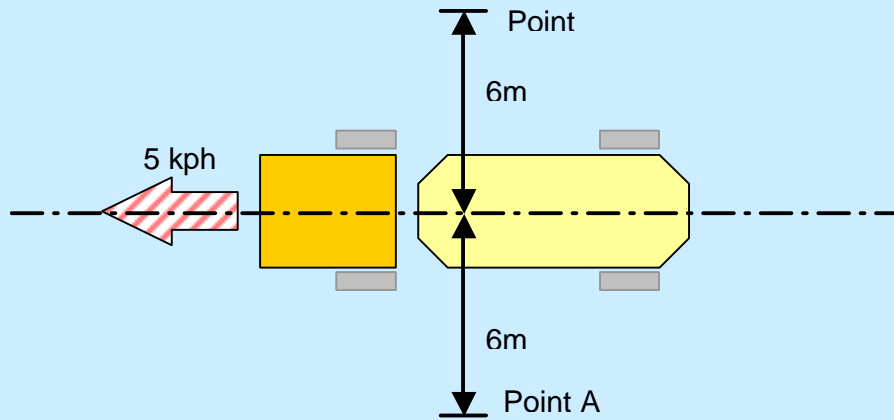


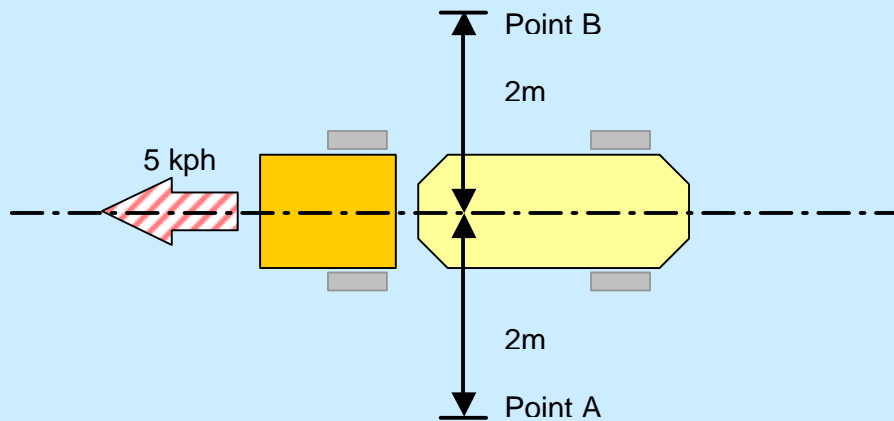
Movement of Concrete Lorry Mixer of 5 kph



| Position | L_{max} dB(A)* |
|-------------------------|------------------|
| A | 78 |
| B | 76.1 |
| Background | 65 |
| Sound Power Level SWL = | |

* Maximum value was selected to calculate the SWL

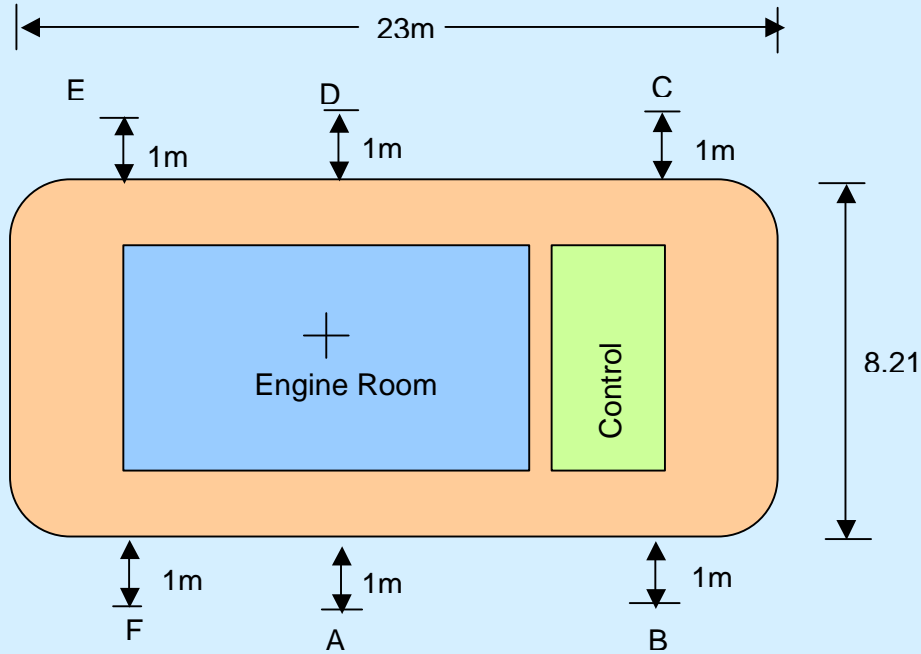
Movement of Cement Tanker of 5 kph



| Position | L_{max} dB(A)* |
|---------------|------------------|
| A | 84.5 |
| B | 81.4 |
| Background | 65 |
| SWL = 98dB(A) | |

* Maximum value was selected to calculate the SWL

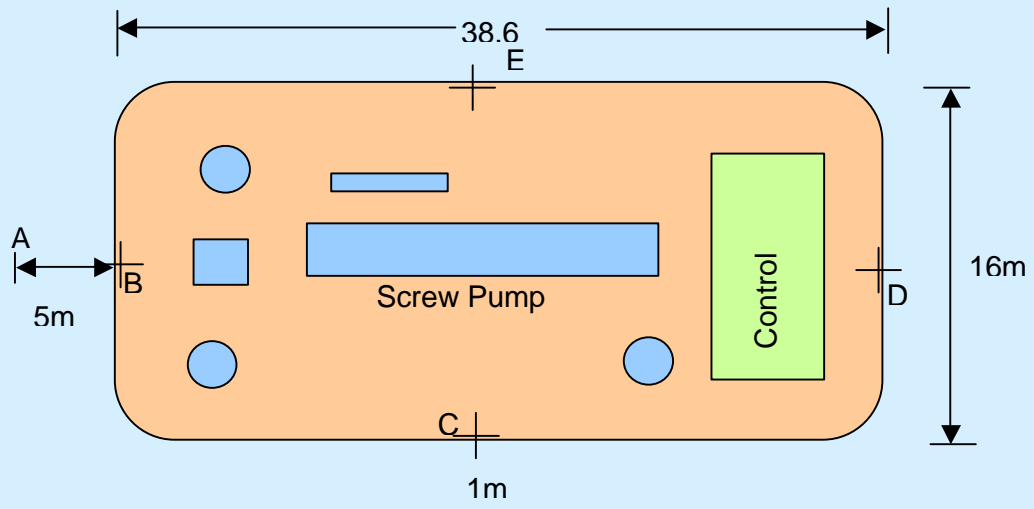
Pumping Barge



| Position | $L_{eq(5 \text{ min})}$ dB(A)* |
|----------------|--------------------------------|
| A | 93.5 |
| B | 85.9 |
| C | 85.5 |
| D | 94 |
| E | 83.9 |
| F | 82 |
| Background | 68 |
| SWL = 116dB(A) | |

* Maximum value was selected to calculate the SWL

Screw Pumping Barge

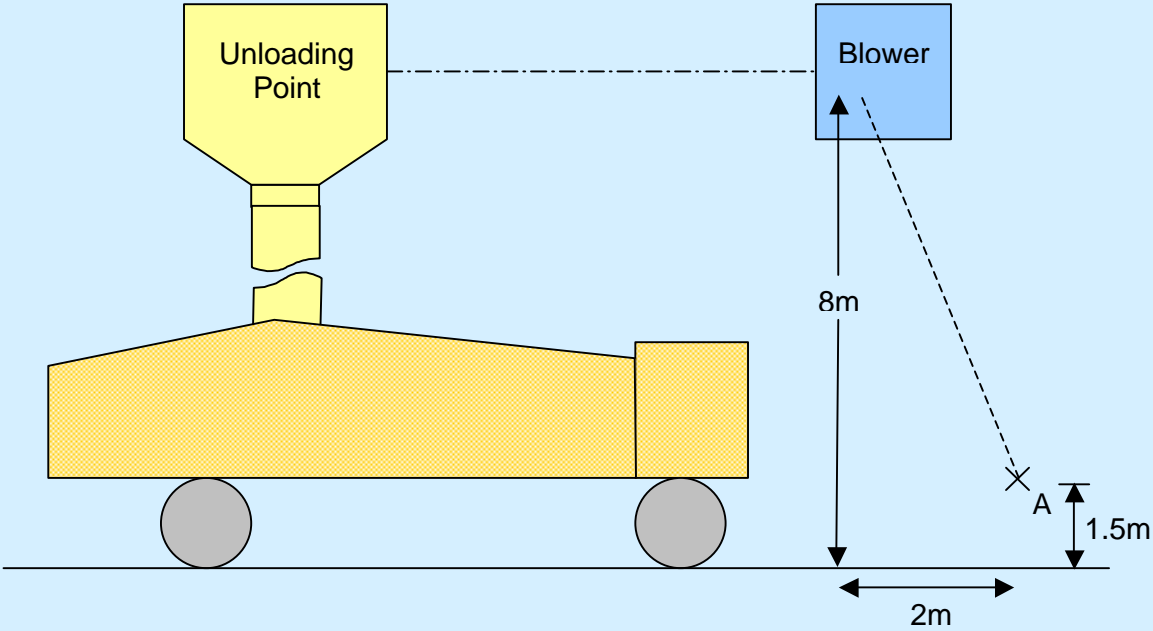


| Position | $L_{eq(5 \text{ min})}$ dB(A)* |
|----------------|--------------------------------|
| A | 66.4 |
| B | 68.1 |
| C | 75.2 |
| D | 68.2 |
| E | 76.2 |
| Background | 56 |
| SWL = 102dB(A) | |

* Maximum value was selected to calculate the SWL

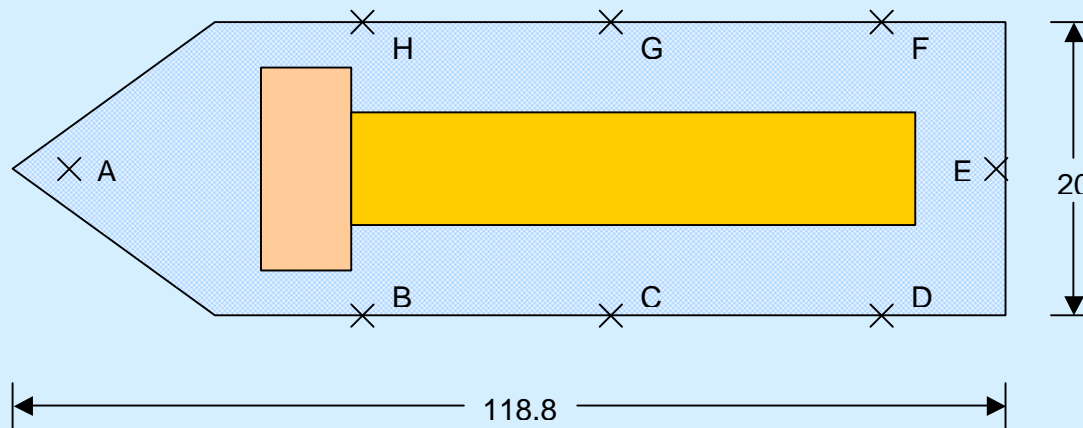


Cement Unloading



| Position | $L_{eq(5 \text{ min})}$ dB(A) |
|----------|-------------------------------|
| A | 82 SWL = 108dB(A) |

Ocean Vessel



| Position | $L_{eq(5 \text{ min})} \text{dB(A)}^*$ |
|-----------------------------|--|
| A | 65.8 |
| B | 87.8 |
| C | 91 |
| D | 70.3 |
| E | 64.7 |
| F | 74.6 |
| G | 97.6 |
| H | 83.5 |
| Background | 58 |
| SWL from G side = 126 dB(A) | |

* Maximum value was selected to calculate SWL

Appendix 5f
Construction Noise Impact

| PME Inventory | | No mitigation | | | | With Mitigation | | | | |
|------------------------------|--------|-----------------|---------------|------------|------------------|-----------------|---------------|------------|----------------|------------------|
| Ground Excavation | | CNP Code | Number | SWL | Total SWL | Code | Number | SWL | Barrier | Total SWL |
| Equipment | | | | | | | | | | |
| Excavator | CNP028 | 1 | 122 | 122 | BS5228:C8.13 | 1 | 110 | 0 | | 110 |
| Drilling Rig | CNP167 | 1 | 114 | 114 | CNP167 | 1 | 114 | 5 | | 109 |
| Dumper | CNP066 | 1 | 106 | 106 | CNP066 | 1 | 106 | 0 | | 106 |
| | | Total | | 122.7 | Total | | | | | 113 |
| Setting of Foundation | | CNP Code | Number | SWL | Total SWL | CNP Code | Number | SWL | Barrier | Total SWL |
| Equipment | | | | | | | | | | |
| Concrete Lorry Mixer | CNP044 | 2 | 109 | 112 | CNP044 | 2 | 109 | 0 | | 112 |
| Concrete Pump | CNP047 | 1 | 109 | 109 | CNP047 | 1 | 109 | 0 | | 109 |
| Vibratory Poker | CNP173 | 3 | 102 | 107 | CNP173 | 3 | 102 | 0 | | 107 |
| | | Total | | 115 | Total | | | | | 115 |
| Silos Erection | | CNP Code | Number | SWL | Total SWL | CNP Code | Number | SWL | Barrier | Total SWL |
| Equipment | | | | | | | | | | |
| Sky crane | CNP048 | 1 | 112 | 112 | CNP 048 | 1 | 112 | 0 | | 112 |
| Electric Saw | CNP205 | 1 | 101 | 101 | CNP205 | 1 | 101 | 0 | | 101 |
| | | Total | | 112 | Total | | | | | 112 |
| | | Max | | 122.7 | Max | | | | | 115 |

Sound pressure at the NSR (No mitigation)

| NSR | Description | Notional source Distance | Façade | Terrain | Construction Impact |
|-----|------------------------------------|--------------------------|--------|-------------------|---------------------|
| | | | | | dB(A) |
| 1 | Fortune Garden | 304 | 3 | 0 | 68.1 |
| 2 | Tycoon Place | 408 | 3 | 0 | 65.5 |
| 3 | Village House | 208 | 3 | 10 ^[1] | 61.4 |
| 4 | Sha Lan Villa | 284 | 3 | 10 ^[2] | 58.7 |
| 5 | Wu York Yu Care and Attention Home | 620 | 3 | 10 ^[3] | 51.9 |
| 6 | TWGHs PSL | 728 | 3 | 10 ^[4] | 50.5 |
| 7 | Casa Marina III | 128 | 3 | 0 | 75.6 |
| 7a | Casa Marina III | 152 | 3 | 0 | 74.1 |

Note [1]: Shielded by Hill Terrain

[2]: Shielded by Casa Marina III

[3]: Shielded by Casa Marina III

[4]: Shielded by Casa Marina III and NSR5

Sound pressure at the NSR (With mitigation)

| NSR | Description | Notional source Distance | Façade | Terrain | Construction Impact |
|-----|------------------------------------|--------------------------|--------|-------------------|---------------------|
| | | | | | dB(A) |
| 1 | Fortune Garden | 304 | 3 | 0 | 59.9 |
| 2 | Tycoon Place | 408 | 3 | 0 | 57.4 |
| 3 | Village House | 208 | 3 | 10 ^[1] | 53.2 |
| 4 | Sha Lan Villa | 284 | 3 | 10 ^[2] | 50.5 |
| 5 | Wu York Yu Care and Attention Home | 620 | 3 | 10 ^[3] | 43.7 |
| 6 | TWGHs PSL | 728 | 3 | 10 ^[4] | 42.3 |
| 7 | Casa Marina III | 128 | 3 | 0 | 67.4 |
| 7a | Casa Marina III | 152 | 3 | 0 | 65.9 |

Note [1]: Shielded by Hill Terrain

[2]: Shielded by Casa Marina III

[3]: Shielded by Casa Marina III

[4]: Shielded by Casa Marina III and NSR5

Appendix 5g

Operational Noise Impact (Without Mitigated Measure)

| SPL at Fortune Garden (NSR1) | | | | | | | | | | SPL Breakdown dBA | |
|---|----------|---------|----------|----------|----------|---------|-----------|---------|--------|-------------------|--|
| Item | Code | SWL dBA | Distance | façade C | Terrain | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge | Measured | 116 | 376.0 | 3.0 | 0.0 | 0.0 | 100.0 | 59.5 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 356.0 | 3.0 | 0.0 | 0.0 | 55.0 | 52.4 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 440.0 | 3.0 | 0.0 | 0.0 | 100.0 | 50.1 | | ✓ | |
| Concrete Lorry Mixing Bay | Measured | 107 | 434.0 | 3.0 | 0.0 | 0.0 | 100.0 | 49.3 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 334.0 | 3.0 | 0.0 | 0.0 | 100.0 | 48.5 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 428.0 | 3.0 | 0.0 | 0.0 | 100.0 | 54.4 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 300.0 | 3.0 | 0.0 | 0.0 | 100.0 | 53.5 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 304.0 | 3.0 | 0.0 | 0.0 | 100.0 | 47.1 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 376.0 | 3.0 | 0.0 | 0.0 | 100.0 | 53.7 | | ✓ | |
| | | | | | | | | Total | 63.2 | 60.0 | |
| SPL at Tycoon Place (NSR2) | | | | | | | | | | SPL Breakdown dBA | |
| Item | Code | SWL dBA | Distance | façade C | Terrain | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge | Measured | 116 | 478.0 | 3.0 | 0.0 | 0.0 | 100.0 | 57.4 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 452.0 | 3.0 | 0.0 | 0.0 | 55.0 | 50.3 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 544.0 | 3.0 | 0.0 | 0.0 | 100.0 | 48.3 | | ✓ | |
| Concrete Lorry Mixing Bay | Measured | 107 | 528.0 | 3.0 | 0.0 | 0.0 | 100.0 | 47.6 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 444.0 | 3.0 | 0.0 | 0.0 | 100.0 | 46.1 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 532.0 | 3.0 | 0.0 | 0.0 | 100.0 | 52.5 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 408.0 | 3.0 | 0.0 | 0.0 | 100.0 | 50.8 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 404.0 | 3.0 | 0.0 | 0.0 | 100.0 | 45.9 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 458.0 | 3.0 | 0.0 | 0.0 | 100.0 | 52.8 | | ✓ | |
| | | | | | | | | Total | 61.3 | 58.2 | |
| SPL at Village House (NSR3) | | | | | | | | | | SPL Breakdown dBA | |
| Item | Code | SWL dBA | Distance | façade C | Terrain* | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge | Measured | 116 | 222.0 | 3.0 | 10.0 | 0.0 | 100.0 | 54.1 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 208.0 | 3.0 | 10.0 | 0.0 | 55.0 | 47.1 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 230.0 | 3.0 | 10.0 | 0.0 | 100.0 | 45.8 | | ✓ | |
| Concrete Lorry Mixing Bay | Measured | 107 | 212.0 | 3.0 | 10.0 | 0.0 | 100.0 | 45.5 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 252.0 | 3.0 | 10.0 | 0.0 | 100.0 | 41.0 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 226.0 | 3.0 | 10.0 | 0.0 | 100.0 | 49.9 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 238.0 | 3.0 | 10.0 | 0.0 | 100.0 | 45.5 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 184.0 | 3.0 | 10.0 | 0.0 | 100.0 | 39.3 | ✓ | | |

| | | | | | | | | | | |
|---|----------|---------|----------|----------|----------|---------|-----------|---------|--------|----------|
| Concrete Lorry Mixer movement | Measured | 101.5 | 184.0 | 3.0 | 10.0 | 0.0 | 100.0 | 46.8 | | ✓ |
| NSR3 is shielded by the hill terrain | | | | | | | Total | 57.7 | 55.0 | 54.3 |
| SPL at Sha Lan Villa (NSR4) | | | | | | | | | | |
| Item | Code | SWL dBA | Distance | façade C | Terrain* | Barrier | | SPL dBA | Cement | Concrete |
| Pumping Barge | Measured | 116 | 248.0 | 3.0 | 10.0 | 0.0 | 100.0 | 53.1 | ✓ | |
| Cement Unloading (2 point) | Measured | 111 | 262.0 | 3.0 | 10.0 | 0.0 | 55.0 | 45.1 | ✓ | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 198.0 | 3.0 | 10.0 | 0.0 | 100.0 | 47.1 | | ✓ |
| Concrete Lorry Mixing Bay | Measured | 107 | 196.0 | 3.0 | 10.0 | 0.0 | 100.0 | 46.2 | | ✓ |
| Derrick Barge | CNP061 | 104 | 294.0 | 3.0 | 10.0 | 0.0 | 100.0 | 39.7 | | ✓ |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 204.0 | 3.0 | 10.0 | 0.0 | 100.0 | 50.8 | | ✓ |
| Concrete Batching Plant (West) | CNP022 | 108 | 314.0 | 3.0 | 10.0 | 0.0 | 100.0 | 43.1 | | ✓ |
| Cement tanker movement | Measured | 98.5 | 224.0 | 3.0 | 10.0 | 0.0 | 100.0 | 38.4 | ✓ | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 188.0 | 3.0 | 10.0 | 0.0 | 100.0 | 46.7 | | ✓ |
| Note: NSR4 was shielded by Casa Marina III | | | | | | | Total | 57.3 | 53.9 | 54.6 |
| SPL at WYY Centre (NSR5) | | | | | | | | | | |
| Item | Code | SWL dBA | Distance | façade C | Terrain* | Barrier | % on time | SPL dBA | Cement | Concrete |
| Pumping Barge | Measured | 116 | 588.0 | 3.0 | 10.0 | 0.0 | 100.0 | 45.6 | ✓ | |
| Cement Unloading (2 point) | Measured | 111 | 612.0 | 3.0 | 10.0 | 0.0 | 55.0 | 37.7 | ✓ | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 522.0 | 3.0 | 10.0 | 0.0 | 100.0 | 38.7 | | ✓ |
| Concrete Lorry Mixing Bay | Measured | 107 | 532.0 | 3.0 | 10.0 | 0.0 | 100.0 | 37.5 | | ✓ |
| Derrick Barge | CNP061 | 104 | 624.0 | 3.0 | 10.0 | 0.0 | 100.0 | 33.1 | | ✓ |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 530.0 | 3.0 | 10.0 | 0.0 | 100.0 | 42.5 | | ✓ |
| Concrete Batching Plant (West) | CNP022 | 108 | 662.0 | 3.0 | 10.0 | 0.0 | 100.0 | 36.6 | | ✓ |
| Cement tanker movement | Measured | 98.5 | 584.0 | 3.0 | 10.0 | 0.0 | 100.0 | 34.3 | ✓ | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 512.0 | 3.0 | 10.0 | 0.0 | 100.0 | 42.3 | | ✓ |
| Note: NSR5 is shielded by Casa Marina III | | | | | | | Total | 50.0 | 46.5 | 47.4 |
| SPL at PSL Centre (NSR6) | | | | | | | | | | |
| Item | Code | SWL dBA | Distance | façade C | Terrain* | Barrier | % on time | SPL dBA | Cement | Concrete |
| Pumping Barge | Measured | 116 | 676.0 | 3.0 | 10.0 | 0.0 | 100.0 | 44.4 | ✓ | |
| Cement Unloading (2 point) | Measured | 111 | 700.0 | 3.0 | 10.0 | 0.0 | 55.0 | 36.5 | ✓ | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 608.0 | 3.0 | 10.0 | 0.0 | 100.0 | 37.3 | | ✓ |
| Concrete Lorry Mixing Bay | Measured | 107 | 620.0 | 3.0 | 10.0 | 0.0 | 100.0 | 36.2 | | ✓ |

| | | | | | | | | | | | |
|---|----------|---------|----------|--------|---------|---------|-----------|---------|--------|----------|------|
| Derrick Barge | CNP061 | 104 | 712.0 | 3.0 | 10.0 | 0.0 | 100.0 | 32.0 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 616.0 | 3.0 | 10.0 | 0.0 | 100.0 | 41.2 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 752.0 | 3.0 | 10.0 | 0.0 | 100.0 | 35.5 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 672.0 | 3.0 | 10.0 | 0.0 | 100.0 | 33.7 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 600.0 | 3.0 | 10.0 | 0.0 | 100.0 | 41.6 | | ✓ | |
| Note: NSR6 is shielded by Casa Marina III and NSR5 | | | | | | | | Total | 48.9 | 45.4 | 46.3 |
| SPL on Casa Marina III (NSR7) | | | | | | | | | | | |
| Item | Code | SWL dBA | Distance | Façade | Terrain | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge | Measured | 116 | 100.0 | 3.0 | 0.0 | 0.0 | 100.0 | 71.0 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 108.0 | 3.0 | 0.0 | 0.0 | 55.0 | 62.8 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 68.0 | 3.0 | 0.0 | 0.0 | 100.0 | 66.4 | | ✓ | |
| Concrete Lorry Mixing Bay | Measured | 107 | 56.0 | 3.0 | 0.0 | 0.0 | 100.0 | 67.1 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 140.0 | 3.0 | 0.0 | 0.0 | 100.0 | 56.1 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 68.0 | 3.0 | 0.0 | 0.0 | 100.0 | 70.4 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 162.0 | 3.0 | 0.0 | 0.0 | 100.0 | 58.8 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 74.0 | 3.0 | 0.0 | 0.0 | 100.0 | 53.2 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 54.0 | 3.0 | 0.0 | 0.0 | 100.0 | 62.1 | | ✓ | |
| | | | | | | | | Total | 75.8 | 71.7 | 73.6 |
| SPL on Casa Marina III (NSR7a) | | | | | | | | | | | |
| Item | Code | SWL dBA | Distance | Façade | Terrain | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge | Measured | 116 | 121.6 | 3.0 | 0.0 | 0.0 | 100.0 | 69.3 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 140.0 | 3.0 | 0.0 | 0.0 | 55.0 | 60.5 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 56.0 | 3.0 | 0.0 | 0.0 | 100.0 | 68.1 | | ✓ | |
| Concrete Lorry Mixing Bay | Measured | 107 | 62.0 | 3.0 | 0.0 | 0.0 | 100.0 | 66.2 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 162.0 | 3.0 | 0.0 | 0.0 | 100.0 | 54.8 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 64.0 | 3.0 | 0.0 | 0.0 | 100.0 | 70.9 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 194.0 | 3.0 | 0.0 | 0.0 | 100.0 | 57.3 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 108.0 | 3.0 | 0.0 | 0.0 | 100.0 | 51.6 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 48.0 | 3.0 | 0.0 | 0.0 | 100.0 | 62.6 | | ✓ | |
| | | | | | | | | Total | 75.5 | 69.9 | 74.1 |

Note [1]: Cement unloading will take 6 minutes. As there will be 11 cement tankers/ hour and two unloading points (i.e. 5.5 veh/ 30min or 2.75veh/30min / 1 unloading point), the operational period for unloading will be 16.5min (6min. × 2.75) per half an hour. The % on time is $16.5/30 \times 100\% = 55\%$

Note [2]: Truck movement was calculated according to BS5228: Part 1: 1997 according to equation $L_{eq} = L_{WA} - 33 + 10\log Q - 10\log V - 10\log d$ where L_{WA} is the Sound Power Level of the Plant, Q is the number of vehicles per hour (11 veh/h for cement tanker; 31 veh/h for concrete lorry mixer), V is the average speed (5kph), d is the distance

Appendix 5h

Operational Noise Impact – With Mitigation Measures

| SPL at Fortune Garden (NSR1) | | | | | | | | | | SPL breakdown dB(A) | |
|--|----------|---------|----------|----------|----------|---------|-----------|---------|--------|---------------------|------|
| Item | Code | SWL dBA | Distance | façade C | Terrain | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge (Electric Screw Pump Type) | Measured | 102 | 376.0 | 3.0 | 0.0 | 0.0 | 100.0 | 45.5 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 356.0 | 3.0 | 0.0 | 10.0 | 55.0 | 42.4 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 440.0 | 3.0 | 0.0 | 0.0 | 100.0 | 50.1 | | ✓ | |
| Concrete Lorry Mixing Bay | CNP044 | 109 | 434.0 | 3.0 | 0.0 | 0.0 | 100.0 | 51.3 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 334.0 | 3.0 | 0.0 | 0.0 | 100.0 | 48.5 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 428.0 | 3.0 | 0.0 | 0.0 | 100.0 | 54.4 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 300.0 | 3.0 | 0.0 | 0.0 | 100.0 | 53.5 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 304.0 | 3.0 | 0.0 | 0.0 | 100.0 | 47.1 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 376.0 | 3.0 | 0.0 | 0.0 | 100.0 | 53.7 | | ✓ | |
| | | | | | | | | Total | 60.6 | 50.2 | 60.2 |
| SPL at Tycoon Place (NSR2) | | | | | | | | | | SPL breakdown dB(A) | |
| Item | Code | SWL dBA | Distance | façade C | Terrain | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge (Electric Screw Pump Type) | Measured | 102 | 478.0 | 3.0 | 0.0 | 0.0 | 100.0 | 43.4 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 452.0 | 3.0 | 0.0 | 10.0 | 55.0 | 40.3 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 544.0 | 3.0 | 0.0 | 0.0 | 100.0 | 48.3 | | ✓ | |
| Concrete Lorry Mixing Bay | CNP044 | 109 | 528.0 | 3.0 | 0.0 | 0.0 | 100.0 | 49.6 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 444.0 | 3.0 | 0.0 | 0.0 | 100.0 | 46.1 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 532.0 | 3.0 | 0.0 | 0.0 | 100.0 | 52.5 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 408.0 | 3.0 | 0.0 | 0.0 | 100.0 | 50.8 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 404.0 | 3.0 | 0.0 | 0.0 | 100.0 | 45.9 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 458.0 | 3.0 | 0.0 | 0.0 | 100.0 | 52.8 | | ✓ | |
| | | | | | | | | Total | 58.8 | 48.5 | 58.4 |
| SPL at Village House (NSR3) | | | | | | | | | | SPL breakdown dB(A) | |
| Item | Code | SWL dBA | Distance | façade C | Terrain* | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge (Electric Screw Pump Type) | Measured | 102 | 222.0 | 3.0 | 10.0 | 0.0 | 100.0 | 40.1 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 208.0 | 3.0 | 10.0 | 10.0 | 55.0 | 37.1 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 230.0 | 3.0 | 10.0 | 0.0 | 100.0 | 45.8 | | ✓ | |
| Concrete Lorry Mixing Bay | CNP044 | 109 | 212.0 | 3.0 | 10.0 | 0.0 | 100.0 | 47.5 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 252.0 | 3.0 | 10.0 | 0.0 | 100.0 | 41.0 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 226.0 | 3.0 | 10.0 | 0.0 | 100.0 | 49.9 | | ✓ | |

| | | | | | | | | | | | |
|---|----------|---------|----------|----------|----------|---------|-----------|---------|--------|----------|------|
| Concrete Batching Plant (West) | CNP022 | 108 | 238.0 | 3.0 | 10.0 | 0.0 | 100.0 | 45.5 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 184.0 | 3.0 | 10.0 | 0.0 | 100.0 | 39.3 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 184.0 | 3.0 | 10.0 | 0.0 | 100.0 | 46.8 | | ✓ | |
| NSR3 is shielded by the hill | | | | | | | | Total | 54.9 | 43.8 | 54.6 |
| SPL at Sha Lan Villa (NSR4) | | | | | | | | | | | |
| Item | Code | SWL dBA | Distance | façade C | Terrain* | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge (Electric Screw Pump Type) | Measured | 102 | 248.0 | 3.0 | 10.0 | 0.0 | 100.0 | 39.1 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 262.0 | 3.0 | 10.0 | 10.0 | 55.0 | 35.1 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 198.0 | 3.0 | 10.0 | 0.0 | 100.0 | 47.1 | | ✓ | |
| Concrete Lorry Mixing Bay | CNP044 | 109 | 196.0 | 3.0 | 10.0 | 0.0 | 100.0 | 48.2 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 294.0 | 3.0 | 10.0 | 0.0 | 100.0 | 39.7 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 204.0 | 3.0 | 10.0 | 0.0 | 100.0 | 50.8 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 314.0 | 3.0 | 10.0 | 0.0 | 100.0 | 43.1 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 224.0 | 3.0 | 10.0 | 0.0 | 100.0 | 38.4 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 188.0 | 3.0 | 10.0 | 0.0 | 100.0 | 46.7 | | ✓ | |
| Note: NSR4 was shielded by Casa Marina III | | | | | | | | Total | 55.2 | 42.6 | 55.0 |
| SPL at WYY Centre (NSR5) | | | | | | | | | | | |
| Item | Code | SWL dBA | Distance | façade C | Terrain* | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge (Electric Screw Pump Type) | Measured | 102 | 588.0 | 3.0 | 10.0 | 0.0 | 100.0 | 31.6 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 612.0 | 3.0 | 10.0 | 10.0 | 55.0 | 27.7 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 522.0 | 3.0 | 10.0 | 0.0 | 100.0 | 38.7 | | ✓ | |
| Concrete Lorry Mixing Bay | CNP044 | 109 | 532.0 | 3.0 | 10.0 | 0.0 | 100.0 | 39.5 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 624.0 | 3.0 | 10.0 | 0.0 | 100.0 | 33.1 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 530.0 | 3.0 | 10.0 | 0.0 | 100.0 | 42.5 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 662.0 | 3.0 | 10.0 | 0.0 | 100.0 | 36.6 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 584.0 | 3.0 | 10.0 | 0.0 | 100.0 | 34.3 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 512.0 | 3.0 | 10.0 | 0.0 | 100.0 | 42.3 | | ✓ | |
| Note: NSR5 is shielded by Casa Marina III | | | | | | | | Total | 48.0 | 36.7 | 47.6 |
| SPL at PSL Centre (NSR6) | | | | | | | | | | | |
| Item | Code | SWL dBA | Distance | façade C | Terrain* | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge (Electric Screw Pump Type) | Measured | 102 | 676.0 | 3.0 | 10.0 | 0.0 | 100.0 | 30.4 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 700.0 | 3.0 | 10.0 | 10.0 | 55.0 | 26.5 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 608.0 | 3.0 | 10.0 | 0.0 | 100.0 | 37.3 | | ✓ | |

| | | | | | | | | | | | |
|---|----------|---------|----------|--------|---------|---------|-----------|---------------------|--------|----------|------|
| Concrete Lorry Mixing Bay | CNP044 | 109 | 620.0 | 3.0 | 10.0 | 0.0 | 100.0 | 38.2 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 712.0 | 3.0 | 10.0 | 0.0 | 100.0 | 32.0 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 616.0 | 3.0 | 10.0 | 0.0 | 100.0 | 41.2 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 752.0 | 3.0 | 10.0 | 0.0 | 100.0 | 35.5 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 672.0 | 3.0 | 10.0 | 0.0 | 100.0 | 33.7 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 600.0 | 3.0 | 10.0 | 0.0 | 100.0 | 41.6 | | ✓ | |
| Note: NSR6 is shielded by Casa Marina III and NSR5 | | | | | | | | Total | 46.9 | 35.9 | 46.5 |
| SPL on Casa Marina III (NSR7a) | | | | | | | | SPL breakdown dB(A) | | | |
| Item | Code | SWL dBA | Distance | Façade | Terrain | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge (Electric Screw Pump Type) | Measured | 102 | 121.6 | 3.0 | 0.0 | 0.0 | 100.0 | 55.3 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 140.0 | 3.0 | 0.0 | 10.0 | 55.0 | 50.5 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 56.0 | 3.0 | 0.0 | 0.0 | 100.0 | 68.1 | | ✓ | |
| Concrete Lorry Mixing Bay | CNP044 | 109 | 62.0 | 3.0 | 0.0 | 0.0 | 100.0 | 68.2 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 162.0 | 3.0 | 0.0 | 0.0 | 100.0 | 54.8 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 64.0 | 3.0 | 0.0 | 0.0 | 100.0 | 70.9 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 194.0 | 3.0 | 0.0 | 0.0 | 100.0 | 57.3 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 108.0 | 3.0 | 0.0 | 0.0 | 100.0 | 51.6 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 48.0 | 3.0 | 0.0 | 0.0 | 100.0 | 62.6 | | ✓ | |
| | | | | | | | | Total | 74.5 | 57.8 | 74.5 |
| SPL on Casa Marina III (NSR7) | | | | | | | | SPL breakdown dB(A) | | | |
| Item | Code | SWL dBA | Distance | Façade | Terrain | Barrier | % on time | SPL dBA | Cement | Concrete | |
| Pumping Barge (Electric Screw Pump Type) | Measured | 102 | 100.0 | 3.0 | 0.0 | 0.0 | 100.0 | 57.0 | ✓ | | |
| Cement Unloading (2 point) | Measured | 111 | 108.0 | 3.0 | 0.0 | 10.0 | 55.0 | 52.8 | ✓ | | |
| Concrete Batching Plant (East) | CNP 022 | 108 | 68.0 | 3.0 | 0.0 | 0.0 | 100.0 | 66.4 | | ✓ | |
| Concrete Lorry Mixing Bay | CNP044 | 109 | 56.0 | 3.0 | 0.0 | 0.0 | 100.0 | 69.1 | | ✓ | |
| Derrick Barge | CNP061 | 104 | 140.0 | 3.0 | 0.0 | 0.0 | 100.0 | 56.1 | | ✓ | |
| Concrete Lorry Washing Bay (2 vehicles) | CNP044 | 112 | 68.0 | 3.0 | 0.0 | 0.0 | 100.0 | 70.4 | | ✓ | |
| Concrete Batching Plant (West) | CNP022 | 108 | 162.0 | 3.0 | 0.0 | 0.0 | 100.0 | 58.8 | | ✓ | |
| Cement tanker movement | Measured | 98.5 | 74.0 | 3.0 | 0.0 | 0.0 | 100.0 | 53.2 | ✓ | | |
| Concrete Lorry Mixer movement | Measured | 101.5 | 54.0 | 3.0 | 0.0 | 0.0 | 100.0 | 62.1 | | ✓ | |
| | | | | | | | | Total | 74.3 | 59.6 | 74.2 |

Note [1]: Cement unloading will take 6 minutes. As there will be 11 cement tankers/ hour and two unloading points (i.e. 5.5 veh/ 30min or 2.75veh/30min / 1 unloading point), the operational period for unloading will be 16.5min (6min. × 2.75) per half an hour. The % on time is $16.5/30 \times 100\% = 55\%$

Note [2]: Truck movement was calculated according to BS5228: Part 1: 1997 according to equation $L_{eq} = L_{WA} - 33 + 10\log Q - 10\log V - 10\log d$ where L_{WA} is the Sound Power Level of the Plant, Q is the number of vehicles per hour (11 veh/h for cement tanker; 31 veh/h for concrete lorry mixer), V is the average speed (5kph), d is the distance