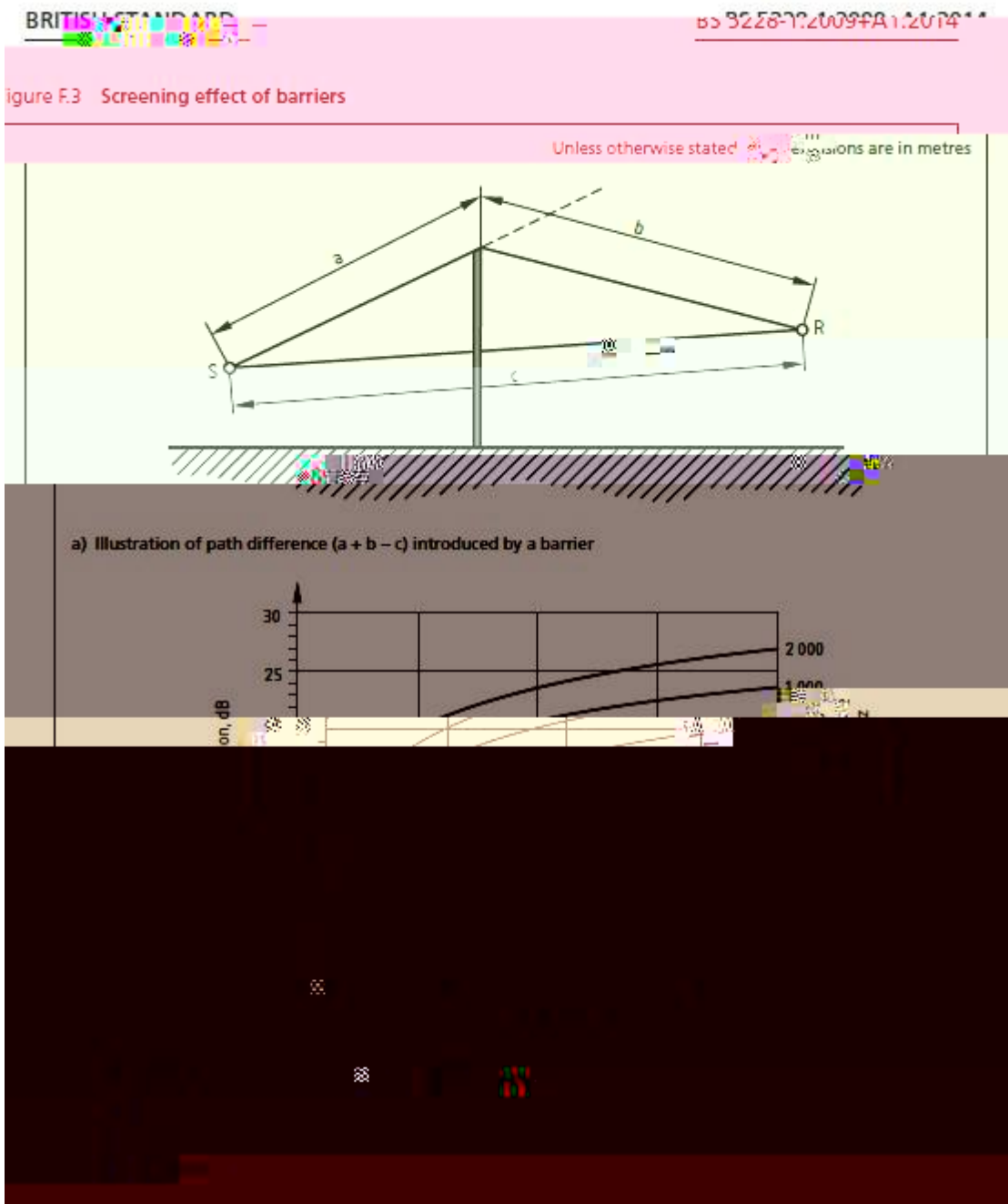


The Phase 1 calculations for the original scheme included simultaneous extraction and infilling, whereas for the revised scheme extraction and infilling will not occur simultaneously in Phase 1.

Although the summary sheets present the barrier attenuation and soft ground attenuation, only the highest value of these are used in the calculations (not both).

With regard to the barrier attenuation, the calculation spreadsheet include allowance for the consideration of frequency in the assessment of barrier attenuation. Spectrum shapes (octave bands from 125 Hz to 2 kHz) for the noise sources are included. The path length difference is calculated, using distances and height information for the source, receiver and barrier. The path length difference is used to calculate the barrier attenuation in specific octave bands following standard equations and the guidance in Annex F of BS 5228 (see Figure 1 below), which also provides an upper limit for barrier attenuation. The octave band barrier attenuation is used



Note that the terms in the calculation spreadsheet of processing plant processing plant have been used in both calculations, however the processing plant noise sources for the revised scheme calculations use the lower noise levels and reduced source heights.

2. How conveyor noise was assessed in the original scheme given that para 6.2 CD1.07 Appendix D refers to plant item

The sound power level of the conveyor is assumed to be 74 dB L_{WA} per metre.

Calculations have been undertaken at various perpendicular distances along the bridleway from the crossover point with the conveyor: at 1m, 2m, 4m, 6m, 8m and 10m.

The corresponding unscreened angles of view of the conveyor in the gap between bunds 9 and 10 are respectively 35°, 50°, 55°, 50°, 30° and 15°.

Table 3b: Total Conveyor and Processing Plant Noise Level (Original Scheme)					
	Western Side	Eastern Side	Combined Level dB L_{Aeq,T}		
Distance from conveyor crossover point	Calculated unscreened level from conveyor dB L_{Aeq,T}	Calculated level from processing plant & integral conveyors 6m bund dB L_{Aeq,T}	Rider on horseback	Horse	Pedestrian
1m	62	Rider on horseback: 50 dB Horse: 49 dB Pedestrian:48 dB	62	62	62
2m	60		61	61	61
4m	58		59	58	58
6m	56		57	56	56
8m	52		54	54	54
10m	48		52	51	51

Comparison of the combined levels between the revised scheme with 3m bund and original scheme with 6m bund, on the bridleway in the vicinity of the field conveyor show a difference of up to 3 dB between the schemes for a rider on horseback, up to 1 dB between the schemes for a horse and no difference for a pedestrian.

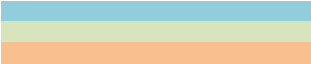
Rachel Canham

Response to Query 1: Calculation summary sheet for the Bungalow, Phase 1, original scheme

NRS Aggregates Limited

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Response to Query 1: Calculation summary sheet for the Bungalow, Phase 1, revised scheme, reduced bund heights



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