



Ref: P4528/L02a/AGB

23 May 2023

To:	Oli Butler	of:	Kier
Cc:	As per email distribution list	of:	

Dear Oli

Elizabeth Street, Cheetham Hill – Additional Addendum to Noise Impact Assessment.

As discussed, find below AEC's additional addendum to the previously issued noise impact assessment.

1.0 INTRODUCTION AND BACKGROUND

- 1.1 This letter forms an additional addendum to the noise impact assessment report (P4528-R1b-AGB) that was previously issued 20 April 2022 in relation to the application for the construction of 9 light industrial / commercial / warehouse units on a site off Elizabeth St, Cheetham Hill, Manchester. The proposals are for 24-hour operation of the units over seven days per week.
- 1.2 After submission of AEC's report an addendum was prepared (AEC ref. P4528/L01a/AGB) and issued by AEC on 29 June 2022, which responded to points raised in Manchester City Council's (MCC) Draft Planning Conditions 14 to 17 which were associated with noise.
- 1.3 Planning permission was granted and Kier has requested that AEC respond to planning conditions 15 and 16, which are detailed below.
- 1.4 Planning condition 15 states:

'Prior to any above ground works, a scheme and noise report shall be submitted for approval in writing by the City Council, as Local Planning Authority to acoustically insulate and limit the breakout noise for the development. Where entertainment noise is proposed, the L_{Aeq} (entertainment noise) shall be controlled to 5dB below the L_{90} (without entertainment noise) in each octave band at the façade of the nearest noise sensitive location.

- (a) *The buildings hereby approved shall be acoustically insulated in accordance with the details approved for part (a) of this planning condition and be in place prior to the first use of the buildings hereby approved.*
- (b) *Prior to the first use of the development, a verification report will be required to validate that the work undertaken conforms to the recommendations and requirements approved as part (a) of this planning condition. The verification report shall include post completion testing to confirm the noise criteria has been met. In instances of non-conformity, these shall be detailed along with mitigation measures required to ensure compliance with the noise criteria. A verification report and measures shall be agreed until such a time as the development complies with part (a) of this planning condition.*

Any mitigation measures shall be implemented in accordance with a timescale to be agreed with the City Council, as Local Planning Authority.

1.5 Planning condition 16 states:

'Prior to any above ground works, a Noise Management Plan (NMP), to assess noise from all servicing / delivery activities associated with the proposed development including use of the loading bays, service yards, loading docks, roller shutters and fork lift trucks shall be submitted for approval by writing by the City Council as Local Planning Authority.

The approved plan, including any agreed mitigation measures, shall be implemented prior to the first use of the development and thereafter retained and maintained for as long as the development is in use'

- 1.6 AEC contacted Graham Souter (EHO with MCC) and he indicated that he was almost satisfied with the information to date but wanted to see a some tweaks / additional comments relating to the NMP and he was seeking clarification of a couple of points on the noise assessment. These are discussed below and are to be considered along with the noise assessment and first report addendum.

2.0 PLANNING CONDITION 15

- 2.1 Graham Souter has confirmed that there is no requirement to consider entertainment noise or even comment that there isn't any as part of the development. Furthermore, he confirmed that MCC was satisfied with the noise break-out assessment based on an internal noise level of 75dBL_{Aeq} with the units.
- 2.2 However, Graham has requested further details with regard to the acoustic fence. With reference to the Fletcher Rae Architect's Drawing number 21039-FRA-XX-XX-DR-A-90-0029, relating to the acoustic fence, the following is included on the (see Figure 1 below).

Figure 1 – Details of Acoustic Fence Included on Architect's Drawing

Product Reference: **Jacksons 12K Environfence**

- Height to match security fencing to boundary
- Heavy duty planed treated timber to form a V-join between boards
- No gaps permitted (including to ground)
- Minimum Mass of 10kg/m² required
- Refer to Acousticians NIA for specific performance requirements
- Posts set in concrete at 2410mm centres
- Steel spur support to manufacturer's standard details
- Windloadings to engineer's details



**** Fence foundation posts to avoid 6m membrane zone.**

- 2.3 With reference to the Jackson's Fencing brochure, Figure 2, below, presents the key features for the 12K Envirofence.

Figure 2 – Key Features of the 12K Envirofence

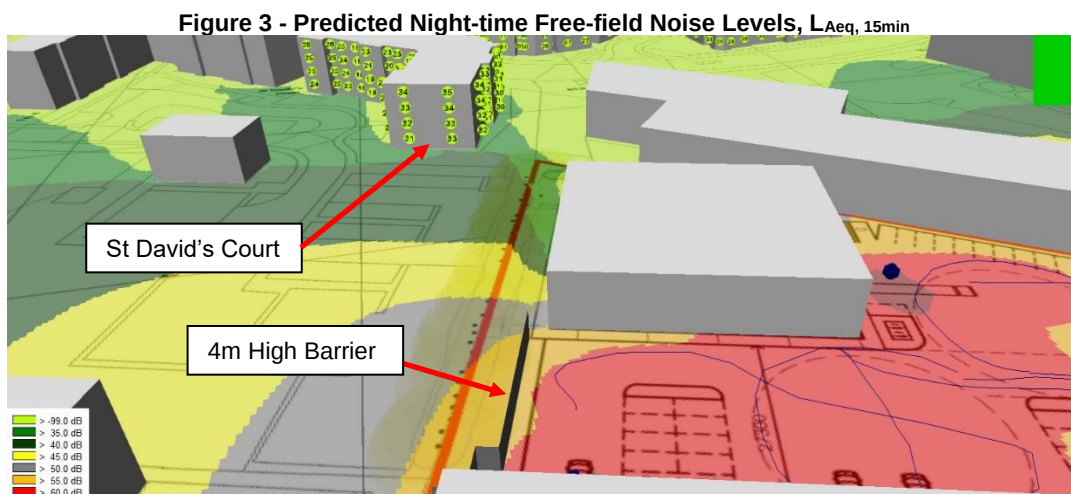


Key Features	Benefits
Reflective barrier type	Lower cost
Timber construction	Timber façade offers low visual impact
10-12kg per sqm superficial mass	Meets minimum planning specification for 10-12kg per sqm superficial mass for an acoustic barrier
Lighter weight boards with same 125mm cover face as Jakoustic® barriers	Fast and easy to install
Jakcure® vacuum pressure treated	25 year guarantee
Planed timber finish	Suitable for installation on uneven and sloping ground
Flat face anti-climb design	Timber conforms fully to the EUTR (European Timber Regulations)

- 2.4 As can be seen above, the fence meets the surface weight requirements of at least 10kg/m² which has been calculated using the footnote on page 14 of The Department of Transport's 'Calculation of Road Traffic Noise' 1988 (CRTN) which states that the superficial mass requirements for a barrier can be calculated using (where A is the required reduction in dB):

$$m \text{ (mass per unit area)} = 3 \times \text{Antilog}_{10} [-(A + 10)/14] \text{ kg/m}^2$$

- 2.5 In terms of barrier heights, the requirements were calculated using CadnaA environmental noise modelling software which predicated the noise levels from all sources associated with the site based on a 4m high barrier. This was included in the original addendum as a 3D plot showing the predicted noise levels affecting St David's Court. It is repeated as Figure 3, below.



- 2.6 In addition to the above, the barrier height calculation has been included as Appendix A which demonstrates that the upper floors of St David's Court are fully screened from the service yard area.
- 2.7 In terms of maintenance, Kier and the design team has confirmed the following:
- The fence has a 25-year guarantee;
 - The site will have a management company and it will be their responsibility to check the condition of the fence annually;
 - any repairs will be arranged by the management company and will be dealt with as a matter of urgency;
 - any repairs will be like for like and the management company will be aware of this;
 - Servicing charges will cover the cost of repairs.

3.0 PLANNING CONDITION 16

- 3.1 Regarding the NMP point 2 relating to forklift truck use being avoided at night and where used, this should be for no more than 3 minutes in any hour, it has been confirmed that the noise management plan has already been provided to Eversheds and it will be drafted into the estate lease which will be used by all tenants. As such, it will be a tenant's obligation and it is reasonable to expect tenants to act in a professional and responsible manner.
- 3.2 However, in addition to the above, periodic late evening / night-time checks would be undertaken by the landlord / management company and checks would be made should complaints be made. This is considered a reasonable and proportionate approach.
- 3.3 With regard to points 7 & 8 of the NMP confirming that forks must be secured and forklifts driven with care at all times to ensure there are no significant impacts of the forks on the ground, it is considered unreasonable to expect daily or weekly checks as this would require a person in full time employment to undertake such tasks. However, this too will be subject to period checks by the landlord / management company and any offenders will be reminded of their responsibilities under the noise management plan in the tenancy agreement. Repeat offenders could lose their tenancy should the offences result in specific and verified noise complaints to the site or the landlord, and their actions in breach of the tenancy agreement do not cease.
- 3.4 With regard to points 5 & 6 of the NMP, relating to the surface of the service yard being in good condition, again, this will be the responsibility of the landlord / management company. Checks will occur annually. Furthermore, tenants will be encouraged to report any issues with the surface deteriorating and any works will be undertaken as a matter of urgency. Furthermore, additional checks will be made should complaints be received or the management company becomes aware of potential issue.
- 3.5 The above has been included in an inspection / maintenance section of the NMP. Furthermore, the correct reference for times relating to late evenings and night-time has now been included on the NMP which is issued as a separate document.

Yours sincerely



Andrew Burke

Checked by: DMT

Appendix A – Barrier Calculation

	Date:		18 May 2023								
	Consultant:		AGB								
	Contract No:		P4528								
	Client:		Kier								
Project:			Elizabeth St								
BARRIER CALCULATION											
Source											
Noise Level:	35	dB	at	80	m						
Height:	2	m	(above datum)								
Point=2, Line =1	2										
Receiver											
Distance from source:	80	m									
Height:	12	m	(above datum)								
Barrier Details											
Barrier Height:	4	m	(above datum)								
Source to barrier distance:	12	m									
Barrier to receiver distance:	68	m									
Path Difference (delta):	0.093	m									
Zone:	SHADOW										
Barrier Loss											
Octave Band Centre Frequency,Hz	63	125	250	500	1000	2000	4000	8000	dBA		
Fresnel Number (N)	0.0	0.1	0.1	0.3	0.5	1.1	2.2	4.4			
Insertion loss	5.6	6.1	7.1	8.6	10.8	13.4	16.4	18.0			
Barrier Attenuation											
Octave Band Centre Frequency,Hz	63	125	250	500	1000	2000	4000	8000	dBA		
Source sound pressure level,dB	32	31	30	29	29	29	25	25	34.8		
Distance correction,dB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Other correction(s),dB											
Resultant Receiver Sound Level,dB	32.0	31.0	30.0	29.0	29.0	29.0	25.0	25.0	34.8		
Barrier Insertion Loss,dB	5.6	6.1	7.1	8.6	10.8	13.4	16.4	18.0			
Resultant Receiver Sound Level,dB	26.4	24.9	22.9	20.4	18.2	15.6	8.6	7.0	23.3		
Barrier Attenuation,dBA									11.5		