

# The Orchard, Cutlers Green, Thaxted, , CM6 2QA

UTT/23/0684/FUL – CONDITION 3

ALUN DESIGN CONSULTANCY

### Condition 3

o development shall commence until full details of any glazed elements and mechanical ventilation is submitted to the Local Planning Authority for written approval.

REASON: To ensure future occupiers enjoy a good acoustic environment, in accordance with Policy ENV10 of the Uttlesford Local Plan (adopted 2005).

### Proposed External Glazing

A glazing configuration which equates to an overall sound reduction performance of 39dB Rw is proposed to bedrooms and other habitable area(living rooms/kitchens).

Double glazed, with 6.8mm Acoustic glass/ 16 spacer /6mm IGU sealed units see below.

#### COMPARISON CHART

The charts below show comparisons between various types of glass and insulated glass units and also between the Rw, Rw+C & Rw+Ctr indices.

Single Glass	Rw	Rw+C	Rw+Ctr
6.4mm Laminated Safety Glass	32 dB	31 dB	29 dB
6.8mm Laminated Safety Glass	33 dB	31 dB	29 dB
10.8mm Laminated Safety Glass	34 dB	33 dB	31 dB
6.8mm Acoustic Laminated	35 dB	34 dB	32 dB
8.8mm Acoustic Laminated	37 dB	36 dB	33 dB
10.8mm Acoustic Laminated	38 dB	37 dB	36 dB
12.8mm Acoustic Laminated	39 dB	39 dB	37 dB
16.8mm Acoustic Laminated	40 dB	40 dB	38 dB

Double Glazed Units	Rw	Rw+C	Rw+Ctr
4mm / 20 spacer / 4mm IGU	31 dB	30 dB	25 dB
6mm / 16 spacer / 6mm IGU	31 dB	30 dB	27 dB
8mm / 16 spacer / 6mm IGU	35 dB	33 dB	29 dB
10mm / 16 spacer / 6mm IGU	40 dB	38 dB	35 dB
6.8mm Acoustic / 16 spacer / 6mm IGU	38 dB	36 dB	33 dB
8.8mm Acoustic / 16 spacer / 6mm IGU	41 dB	38 dB	34 dB
10.8mm Acoustic / 16 spacer / 6mm IGU	41 dB	39 dB	35 dB
12.8mm Acoustic / 16 spacer / 6mm IGU	41 dB	40 dB	36 dB
16.8mm Acoustic / 16mm spacer / 16.8mm Acoustic	48 dB	46 dB	42 dB

Triple Glazed Units	Rw	Rw+C	Rw+Ctr
4mm / 8mm spacer / 4mm / 8mm spacer / 4mm	31 dB	30 dB	27 dB
4mm / 10mm spacer / 4mm / 10mm spacer / 4mm	32 dB	31 dB	26 dB

Secondary Glazing	Rw	Rw+C	Rw+Ctr
6 / 100 / 4	46 dB		37 dB
6 / 150 / 4	47 dB		39 dB
10 / 200 / 6	49 dB		45 dB

## Proposed Ventilation

Background ventilation will be provided by a Mechanical Ventilation with Heat Recovery (MVHR) system. Therefore trickle vents will not be proposed to provide background ventilation.

MVHR's louvre/ductwork will result in any external noise intrusion via this pathway to be negligible compared to that of the external noise break-in via the window glazing and the façade.

Any intermittent local extract fans to be fitted with acoustic extract grilles, - e.g. Greenwood Acoustic Wall ventilator, MA3051, which produces a noise reduction rating of 55 39dB Rw



### Performance

#### Key

MA3051

NIR 1975

#### Acoustic performance

**D<sub>n,e,w</sub>**: Average weighted performance across frequency range

**C**: Pink noise

**C<sub>tr</sub>**: Road noise

