



PROJECT TECHNICAL MEMORANDUM

JOB TITLE : City South, Manchester
REF : HT: 29581/PTM2
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FROM : Tom Bonnert
ISSUED TO : BWP Consultants

Hann Tucker Associates

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RE: CITY SOUTH, MANCHESTER PLANNING STATEMENT - ACOUSTIC STANDARDS & INITIAL ASSESSMENT

1.0 Introduction

Hann Tucker has instructed to inform on the refurbishment works at City South, Manchester that will be subject to replacement of portions of the external façade as part of external cladding remediation works.

The existing internal building fabric is to be retained and is understood to remain effectively untreated, with the exception of new interface details with any new cladding.

Given that remedial works are to comprise the partial/full removal of elements of the external building fabric, this has the potential to affect the sound insulation performance regarding external noise intrusion.

This memo provides a summary of the proposed criteria applicable to the proposed refurbishment works, as well as a comparison of the existing vs. proposed façade elements with regards to acoustic performance.

2.0 Review of Acoustic Design Criteria

2.1.1 Local Authority Requirements (1999/2000)

Since the original planning permission, and subsequent construction of the building, acoustic standards applicable both nationally and locally have undergone a number of revisions which ultimately have resulted in noise criteria more onerous than that which informed the assessment of the original scheme in 1999/2000.



As such, the proposed works are required to be no worse than that of the original construction rather than needing to comply with current regulations. As such, reference has been made to planning documents obtained from the original consent and condition discharge.

With reference the noise study submitted to discharge Planning Condition 3 attached the original consent in 1999, the following noise criteria was agreed.

Considering the advice contained within the preceding paragraphs the acceptable internal noise criteria levels for this development would be:

Daytime (07:00 hrs to 23:00 hrs) = 45 dB(A) $L_{Aeq,16hr}$

Night-time (23:00 hrs to 07:00 hrs) = 35 dB(A) $L_{Aeq,8hr}$

3.0 External Building Fabric Proposals

The following sections outline an initial review of the existing façade build-ups against proposals to inform this planning statement.

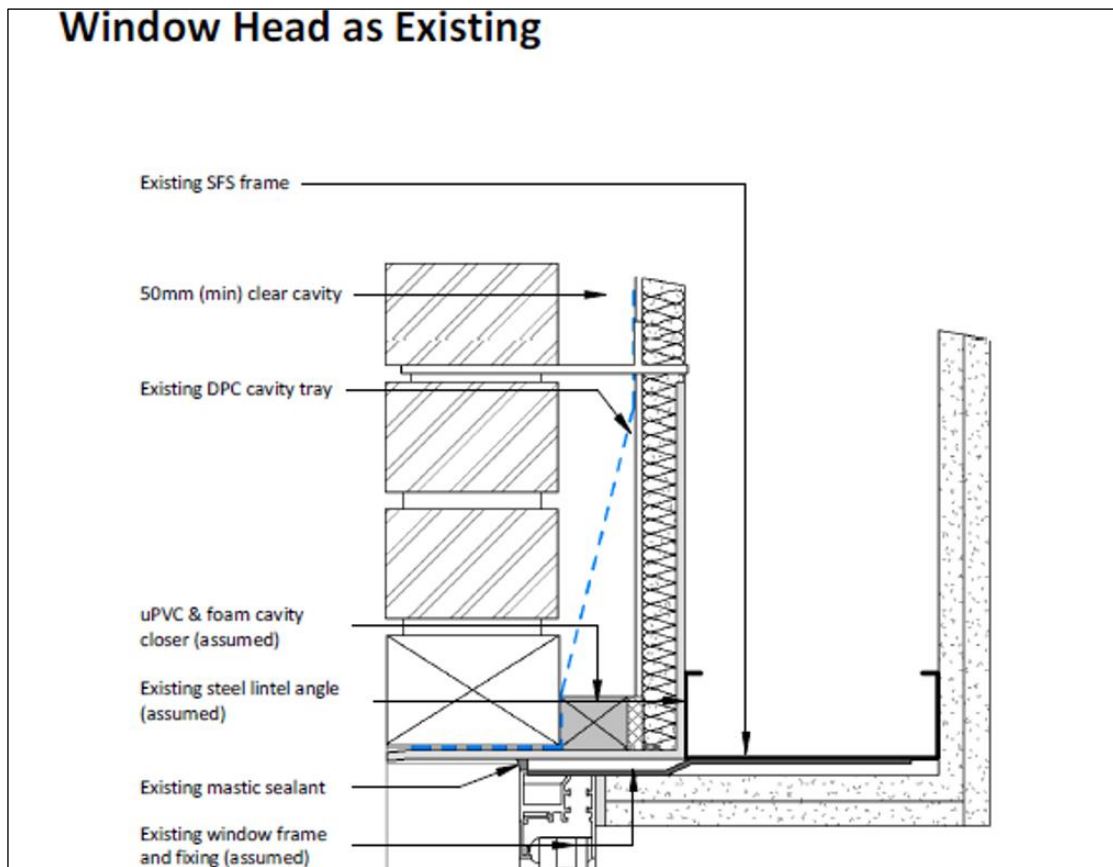
3.1 Existing vs. Proposed Build-ups

3.1.1 External Walls

The following figure illustrates the existing construction of external walls at City South.

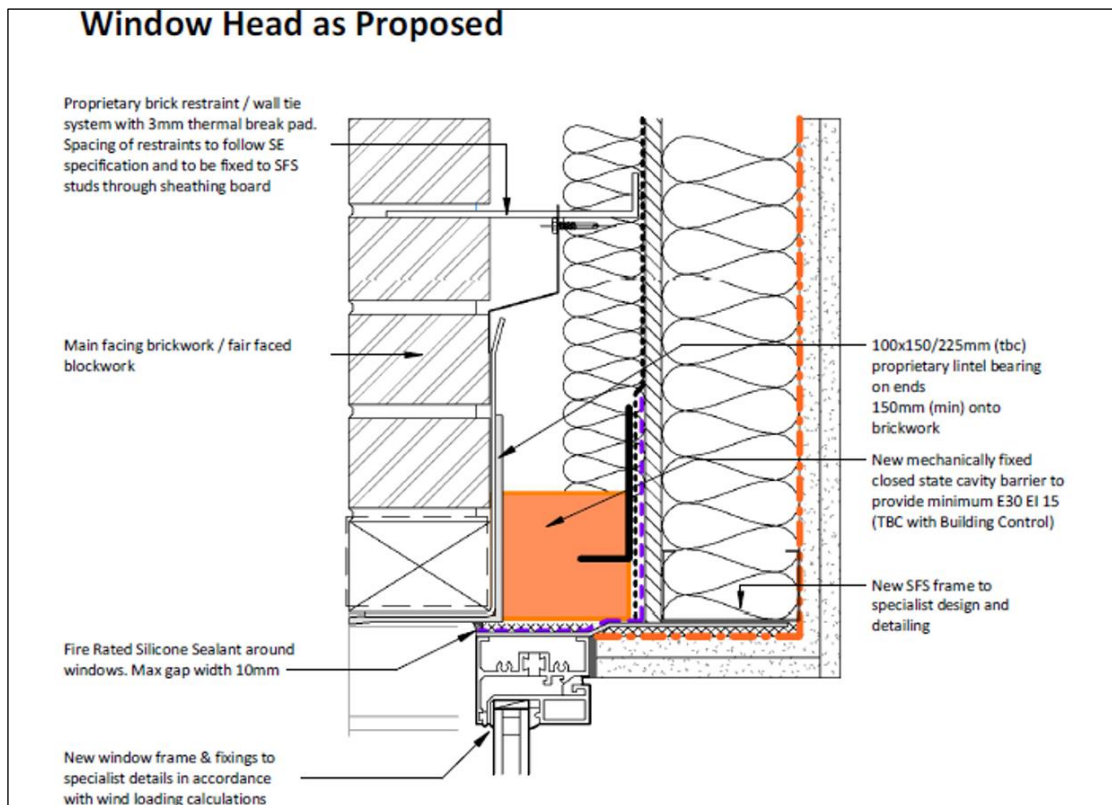


Window Head as Existing



Existing external walls, City South

The following figure illustrates the proposed construction of external walls at City South following completion of the refurbishment works.



Proposed external walls, City South

Based on the above construction build-ups, the proposed external wall is considered to provide a greater level of acoustic performance with regards to control of noise intrusion from external noise sources. Generally, the build-up is considered to be a like-for-like build-up, however critically the proposed build-up incorporates an additional layer of cement particle/sheathing board to the outer side of the insulated SFS zone. As such, the proposals are considered commensurate with any planning obligations.

3.1.2 External Glazing

The glazing specification included in the original planning condition discharge note states a minimum specification of 4mm glass, 12 mm air-gap, 4mm glass. Although not prescribed, this build-up would be expected to achieve a sound insulation performance of 27 dB $R_w + C_{tr}$, which shall ultimately inform any replacement glazing acoustic performance.

The proposed glazing system is expected to comprise, as a minimum, a 4mm / 12mm / 4mm double glazed glass configuration. This is considered to be the lowest performing, most conventional double glazing that could reasonably be procured, and would be considered a like-for-like build-up considered commensurate with any planning obligations.



3.2 Ongoing Acoustic Design

This memo serves as a planning statement to confirm the current refurbishment proposals are as a minimum, like-for-like to the existing.

Ultimately, ongoing acoustic design advice regarding the proposed façade will be provided as the design progresses to allow detailed reviews of the construction proposals. Notwithstanding, all detailed specifications relevant to external glazing, external walls, and ventilation proposals, will be developed to ensure an equivalent (or better) acoustic performance to that of the existing facade performance.

Yours sincerely

Tom Bonnert
for HANN TUCKER ASSOCIATES