LAND AT THE FORMER KING BILLY PUBLIC HOUSE, 26-28 LONGBROOK STREET, EXETER, DEVON

(Centred on NGR SX 9232 9296)

Heritage Statement

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> On behalf of: Pure Projects Ltd

> > Document No: ACD2826/2/1

Date: December 2023



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Heritage Statement

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The document was commissioned by Pure Projects Ltd, and managed on their behalf by David Legg of Jefferson Heard, and for AC archaeology by Andrew Passmore. The report illustrations were prepared by Stella Smith. The document incorporates technical information and project communications from Jefferson Heard, Ashcroft Demolition, Pure Projects Ltd, and Hydrock.

The views and recommendations expressed in this report are those of AC archaeology and are presented in good faith on the basis of professional judgement and on information currently available.

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1. INTRODUCTION (Fig. 1)

- **1.1** This Heritage Statement has been prepared by AC archaeology in December 2023 to support a Section 73 application for regularising the demolition of a boundary wall adjacent to the former King Billy public house, 26-28 Longbrook Street, Exeter, Devon (centred on NGR SX 9232 9296; Fig. 1). The document has been commissioned by Pure Projects Ltd on behalf of Rengen Developments Ltd.
- **1.2** The demolition of the wall took place in early 2023 as part the wider demolition of the derelict King Billy public house, works that formed the first part of the redevelopment of the site and the adjacent plot (Exeter City Council planning reference 20/1769/FUL), a scheme comprising 'ground floor commercial units (Use classes A1, A3 and A4) with 108 bed space student accommodation above over 6 and 7 storeys (Renewal of unimplemented planning permission 17/0750/FUL)'. Both the applications referred to above were supported by a Heritage Statement prepared by Salmon Planning (Marsh 2017).
- **1.3** The development site is located on the eastern side of Longbrook Street between the John Lewis building and 34 Longbrook Street. Prior to demolition works commencing it comprised the derelict former King Billy public house building, which was constructed in the 1960s, as well as the former Shepherd's Garage site on Longbrook Street (nos 30-32). The garage was demolished in 2007 and that part of the site has remained vacant, enclosed by hoardings. The demolished wall formed the rear boundary of this plot, separating it from the service yard of the John Lewis building.
- **1.4** The site is situated at around 43m (above Ordnance Datum), on land with a general trend of sloping down to the northeast. Longbrook Street is at a lower level to Sidwell Street, and the demolished wall formed part of a longer boundary dividing the properties along these highways. Buildings on Longbrook Street are/were terraced into the hillside, and the wall boundary forms/formed a revetment to the higher land to the east. The underlying solid geology comprises sandstone of the Whipton Formation, a sedimentary bedrock formed between 298.9 and 252.2 million years ago during the Permian period (British Geological Survey online viewer 2023).

Designations

1.5 The site is not located within any of Exeter's Conservation Areas, and the boundary wall is not designated as a Listed Building. Is it also not included on Exeter City Council's 2012 *Quicklist* of Listed Buildings including Buildings of Local Importance (also known as Locally Listed Buildings).

2. AIMS

- 2.1 Guidance on the scope of the document, and other required information, was set out in an email from Goran Molin, project Manager (Planning) at Exeter City Council to the project team dated 4 December 2023, and in a follow up telephone conversation between AC archaeology and Owen Cambridge, the Exeter City Council Principal Project Manager (Heritage). The document was to include the following:
 - A statement of date of the wall, and specifically the demolished section;
 - A statement on the significance on the wall;
 - A justification for the wall's demolition;
 - A statement on how the remains of the wall are going to be prepared and manage to be retained (to include drawings of what was proposed and what is

now going to be retained, including the below-ground surface treatment of the levelled ground; and

• A statement on what parts of the wall that are going to be retained below ground, and whether any external changes in ground level are now requirement.

3. THE BOUNDARY WALL: HISTORY AND STATEMENT OF SIGNIFICANCE (Fig. 2)

Summary history of the wall

- **3.1** A history of nos 30-32 Longbrook Street was prepared by the Exeter Museums Archaeological Field Unit (EMAFU) in 1994 (Collings and Matthews 1994), which included recording the rear boundary wall on its exterior face (Fig. 2). The work identified a documented history of the property from the mid 17th-century onwards. Fabric analysis of the rear wall suggested that the earliest, lower elements dated to the 16th or 17th century, and therefore the line of boundary had been in existence from this period. All the other masonry related to later phases of rebuilding, heightening, strengthening and other alterations dating from the 18th century onwards.
- **3.2** The length of the boundary wall to the north of the former garage property was recorded by AC archaeology in 2012 when the adjacent bank against the structure (located within the service yard of the John Lewis Building) was removed (Kerr-Peterson and Passmore 2012). This work identified that the lowest parts of the wall here (which did not extend southwards above ground to the rear of nos 30-32 Longbrook Street) were of 14th- or 15th-century date. Phases of 18th- and 19th-century rebuilding were again identified, along with a little 20th-century fabric, a period when it was suggested that the top of the wall was lowered.

Statement of significance – guidance

- **3.3** Advice on the criteria to be used in assessing the significance of heritage assets, as well as an outline methodology, is included in Historic England's Managing Significance in Decision-Taking in the Historic Environment, Historic Environment Good Practice Advice in Planning: 2 (2015), as well as the earlier English Heritage guidance Conservation Principles Policies and guidance for the sustainable management of the historic environment (English Heritage 2008). This guidance states that heritage assets are considered to have significance based on their evidential, historical, aesthetic or communal value. The National Planning Policy Framework (Department for Levelling up, Housing and Communities, 2023) also includes the criteria of architectural and artistic value, and states that setting can also contribute to an asset's significance. Additional guidance is contained within Historic England's Statements of Significance: Analysing Significance in Heritage Assets (2019).
- **3.4** In addition to the above documents Historic England's *The Setting of Heritage Assets, Historic Environment Good Practice Advice in Planning: 3* (Historic England 2017) and the *NPPF Planning Practice Guidance* (Ministry of Housing, Communities & Local Government 2019) have been used to assess the contribution of setting to significance.

Statement of significance

3.5 The boundary wall (as a whole) has/had evidential value in illustrating the development of the boundary of historic properties between Sidwell Street and Longbrook Street. The value of the upstanding fabric is illustrated in the previous

work of the EMAFU and AC archaeology (summarised above and in Fig. 2). However, as a boundary wall it is largely featureless, with the numerous recorded elements representing phases of rebuilding, alteration and repair. Other than the 20th-century doorway it does not contain any architectural features, such as fireplaces, windows or other openings. This is to be expected given its primary function as a boundary between numerous properties, and thus limits is evidential/architectural value. This value is further diminished by the lack of clear dating evidence in the masonry (which is also not helped by the absence of datable architectural features). Limited broad dating can be determined from the materials used (specifically stone and then brick and then concrete and cement), and their stratigraphic relationships within the wall. However, the principal dating evidence for the earliest (medieval) fabric comes from the excavations of associated foundation trenches and datable underlying soils.

- **3.6** The wall does not have any aesthetic or artistic value associated with its architecture.
- **3.7** The boundary wall has/had historical illustrative value, as it can/could be visually read as a boundary wall. This value is also associated with its setting, as the wall can/could be viewed in its landscape context dividing the properties on Sidwell street (now the service yard to the John Lewis building) and Longbrook Street.
- **3.8** The wall has historical associative value with the historic associated properties on Sidwell Street and Longbrook Street, the histories of some of which have been researched by the EMAFU. However, assessment of the fabric of the wall against the researched properties has not been carried out.
- **3.9** No communal values associated with its use or appreciation by third parties have been identified.
- **3.10** Two aspects of its setting contribute towards its significance. The first, as noted above, relates to its topographic position as a boundary between historic properties on Sidwell Street and Longbrook Street. This aspect of its setting is still appreciable in the current landscape specifically in relation to the Longbrook Street properties, but less so to the north (although it is more visible from here) due to the post-war redevelopment of Sidwell Street, and the change to the character of the townscape here.
- **3.11** The second aspect is the natural topography of the area, which slopes down both broadly from the south to the north, and historically from east to west although this is less clear in the current landscape. In relation to the latter the wall acts as a revetment to the higher ground within the present service yard of the John Lewis building, with the Sidwell Street buildings being or having been terraced into the hillside at a lower level (equivalent to the dropping level of Longbrook Street).
- **3.12** In conclusion, although not designated and not located within a designated area, due to its age and planning requirements for previous archaeological investigation the wall can be considered to be a non-designated heritage asset (i.e. that it merits consideration within the planning process). Although some of its lowest parts are of medieval date, the majority is/was of 18th- and 19th-century date, and of limited architectural interest. The identified heritage values above are all low, with none providing a greater contribution to the wall's overall significance than the others. It is therefore concluded that the wall is of *low significance*, that is an asset of local interest, but compromised by in part poor preservation and poor survival of contextual associations, and one with low heritage values.

4. JUSTIFICATION FOR THE REMOVAL OF THE WALL (Fig. 3)

- **4.1** A length of the boundary wall at the rear of the site was removed in early 2023 as part of the demolition of the adjacent King Billy public house (Fig. 3). The consented proposals included the removal of the south wall of the vacant garage plot, which was a 1960s wall forming the back of the public house. On removal of this wall the demolition contractor noted that the historic boundary wall 'was reliant on the newer building to maintain it's integrity and stability'. In subsequent discussions concerns over the safety of the workforce working on the site were raised, and the wall was subsequently removed. Initially the 19th-century upper parts were removed (context 515 on Fig. 2) but safety concerns remained. The retained earlier masonry was subsequently removed to ground level, with this demolition extending northwards to the north jamb of the existing 20th-century doorway within the wall. This left a stub of masonry also continuing northwards beyond the property. This retained masonry was subsequently deemed to be safe by the project's structural engineer.
- **4.2** Removal of the boundary wall on these safety grounds was approved by the council in an email from Chris Cummings, Principal Project Manager (Development Management), Exeter City Council to David Legg of Jefferson Heard dated 10 March 2023.

5. MANAGEMENT OF THE WALL (Figs 2 and 4)

- **5.1** The proposals for the new building involve a new rear (eastern) wall to be constructed within the footprint of the vacant plot, inside of the historic line of the boundary (Fig 4). The retained upstanding stub of wall will be left *in situ*, and conserved so that it can be seen from land to the rear (both within the current property and, along with the masonry to the north, from the service yard of the John Lewis building).
- **5.2** Limited conservation of the upper brickwork took place following demolition by applying a cement finish to the exposed courses of brick (context 515) to stop water penetration into the mortar bonding. Detailed proposals for further conservation and any local repairs have not ben drawn up, but it is anticipated that this may require limited removal of stonework above the doorway (context 536 on Fig. 2), along with repointing in lime mortar of the exposed stonework along the break of the demolition above, and if necessary within, the jamb of the door.
- **5.3** To the south, where the wall has been demolished the top of the footings, as currently visible, will be left exposed, and will be visible as a townscape feature within the yard to the rear of the new building. The upper course of stonework will need to be conserved, and it is anticipated that some rebuilding will be required where there has been localised collapse into the currently vacant plot below (see Fig. 2).
- **5.4** It is proposed that this conservation work will be preceded by a phase of historic building recording that will investigate the surviving interior face of the wall, both above ground and below-ground. The results of this investigation are likely to inform the conservation works.
- **5.5** The consented scheme includes two openings in the rear wall of the new building, one utilising the 20th-century opening within the historic wall and another newly created to the south. Here stone capping will be introduced into the top of the wall foundations to form flat walkways out to the site boundary (see Fig. 4).

5.6 As noted above all surviving below-ground elements of the wall, which currently form a revetment to the yard to the east, will be retained, and with conservation and repair works as necessary to allow the wall to be exposed. The new rear wall of the building is to be located inside the line of this wall. As with the rest of the building here the foundation substructure will consist of reinforced concrete pile caps and ground beams supported off the piles. It is proposed that the ground floor will utilise ground bearing lightly reinforced concrete slabs. The foundations for the new rear wall will therefore be separate to the remains of the adjacent historic boundary wall. Where necessary, investigative test pits will be excavated to ensure the proposed works do not adversely affect the existing surrounding structures including the rear boundary wall. A plan of the foundation design, and the specification notes providing guidance to the specialist piling contractor, is included as Appendix 1.

6. SOURCES CONSULTED

Printed and unprinted sources

Collings, A. G., and Matthews, A., 1994. Archaeological Evaluation of 30/32 Longbrook Street, Exeter, EMAFU Report No. 94.32.

Department for Levelling up, Housing and Communities, 2023. National Planning Policy Framework.

English Heritage, 2008. Conservation Principles – Policies and guidance for the sustainable management of the historic environment.

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Historic England, 2017. The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning: 3 (Second Edition).

Historic England, 2019. Statements of Heritage Significance: Analysing Significance in Heritage Assets. Historic England Advice Note 12.

Kerr-Peterson, K., and Passmore, A., 2012. 1-11 Sidwell Street, Exeter, Devon, NGR SX 92322 92966, Results of an archaeological watching brief and recording, Condition 4 of planning permission no. 11/0332/03, AC archaeology Doc. No. ACD368/2/1.

Marsh, A., 2017. Heritage Statement, Land at 30/32 Longbrook Street and the King Billy public house, Exeter. Salmon Planning unpublished document.

Ministry of Housing, Communities and Local Government, 2019. Planning Practice Guidance [Online]. Available at:

Websites (Accessed December 2023)

British Geological Survey http://geologyviewer.bgs.ac.uk/

National Heritage List for England https://historicengland.org.uk/listing/the-list/



Fig.1: Location of site





		<u> </u>
	New opening in wall as approved In application ref. 2017/99/PL Exposed existing wall above ground level to rear. Existing, modified, opening in wall as approved in approved ref.	ete retaining wall ; park ng site level nd eastern face of

East (Rear) Elevation - As Approved Ref: 23/0069/NMA



East (Rear) Elevation - Proposed





Appendix 1 The piling documentation





Pile Layout

Refer to drawing 26941-HYD-XX-F1-DR-S-1000 for pile cap and ground beam foundation information.

Pile Schedule				
		Cut Off Level		
Reference	Diameter	(all T.B.C.)		
0001	0.450 m	38.265 m		
0002	0.450 m	38.265 m		
0004	0.450 m	38.265 m		
0005	0.450 m	38.265 m		
0006	0.450 m	38.265 m		
0007	0.450 m	38.265 m		
0009	0.450 m	38.265 m		
0010	0.450 m	39.315 m		
0011	0.450 m	39.315 m		
0012	0.450 m	39.315 m		
0013	0.450 m	38.265 m		
0015	0.450 m	38.265 m		
0016	0.450 m	38.265 m		
0017	0.450 m	39.015 m		
0018	0.450 m	38.790 m		
0019	0.450 m	39.315 m		
0021	0.450 m	39.315 m		
0022	0.450 m	39.315 m		
0023	0.450 m	38.265 m		
0024	0.450 m	38.265 m		
0025	0.450 m	39.015 m		
0027	0.450 m	38.790 m		
0028	0.450 m	38.790 m		
0029	0.450 m	39.315 m		
0030	0.450 m	39.315 m		
0032	0.450 m	39.240 m		
0033	0.450 m	39.240 m		
0034	0.450 m	39.015 m		
0035	0.450 m	39.015 m		
0036	0.450 m	39.015 m		
0037	0.450 m	39.315 m 39.315 m		
0039	0.450 m	39.315 m		
0040	0.450 m	39.315 m		
0041	0.450 m	39.240 m		
0042	0.450 m	39.240 m		
0043	0.450 m	39.465 m		
0044	0.450 m	39.240 m		
0046	0.450 m	39.240 m		
0047	0.450 m	39.015 m		
0048	0.450 m	39.015 m		
0049	0.450 m	39.015 m		
0050	0.450 m	39.690 m		
0052	0.450 m	39.465 m		
0053	0.450 m	39.465 m		
0054	0.450 m	39.465 m		
0055	0.450 m	39.465 m		
0057	0.450 m	39.240 m		
0058	0.450 m	39.465 m		
0059	0.450 m	39.240 m		
0060	0.450 m	39.465 m		
0062	0.450 m	39.540 m		
0063	0.450 m	39.690 m		
0064	0.450 m	39.690 m		
0065	0.450 m	39.465 m		
0065	0.450 m	39.465 m		
0068	0.450 m	39.465 m		
0069	0.450 m	39.465 m		
0070	0.450 m	39.540 m		
0071	0.450 m	39.540 m		
0072	0.450 M	39.540 m		
0074	0.450 m	39.540 m		
0075	0.450 m	39.540 m		
0076	0.450 m	39.915 m		
007/	0.450 m	39.915 m		
0079	0.450 m	39.690 m		
0080	0.450 m	39.690 m		
0081	0.450 m	39.690 m		
0082	0.450 m	39.690 m		
0083	0.450 m	39.915 m		
0085	0.450 m	39.690 m		
0086	0.450 m	39.915 m		
0087	0.450 m	39.915 m		
0088	0.450 m	39.915 m		
0089	0.450 m	39.915 m		
0091	0.450 m	39.915 m		
0092	0.450 m	39.915 m		



NOTES

1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.

2. This drawing is to be read in conjunction with all relevant engineers' and service engineers' drawings and specifications. This drawing is copyright.

3. Refer to drawing 26941-HYD-XX-XX-DR-S-0001 for the General Specification Notes.

REVISIONS	
P01 First Issue - RIBA Stage 3 30.05.2023 N. Firth I Rev. Revision Notes Date Drawn By Checked	R. Bath Approved By
Hydrock Plympton Plymouth PL7 5BP	
t: +44(0)1752 347515 e: plymouth@hydrock.cd	om
Pure Projects Ltd	
PROJECT	
Longbrook Street Student Accommodation, Exeter	
TITLE	
Pile Schedule	
HYDROCK PROJECT NO. SCALE @ A1	
	status
DRAWING NO. 26941-HYD-XX-F1-DR-S-1001	revision P01

BRIEF STRUCTURAL SPECIFICATION NOTES

1.00 GENERAL

1.01 This drawing is to be read with all other structural drawings, architect's drawings, other consultant's drawings and specifications. This drawing should be regarded as a contract document. The notes are intended as a summary of key structural requirements however reference should also be made to the drawings and to the specification.

1.02 All structural work shall be completed to the satisfaction of the appointed Building Inspector for the Local Authority.

1.03 All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the architect & engineer for verification. Figured dimensions only are to be taken from the drawings. Where dimensions or any other information is found to conflict between engineer's or other consultant's drawings, this is to be reported to the engineer as soon as discovered.

1.04 Where works are not constructed in conformance with the specification or drawings the contractor must provide any testing required to demonstrate conformity or provide proposals for remedial works to be agreed by engineer. Remedial works to be carried out to engineer's satisfaction.

1.05 See architect's drawings for setting out dimensions not shown on structural drawings.

1.06 Holes of maximum dimensions equal to or less than 200mm are not shown on the structural drawings (reference shall be made to builders work drawings).

2.00 STRUCTURAL PRINCIPLES

2.01 The new student accommodation is a maximum nine storey building comprising loadbearing light gauge steel framing, in conjunction with hot rolled steelwork where necessary. The superstructure will be designed and detailed by a specialist supplier and supported off substructure designed by Hydrock.

The substructure will consist of reinforced concrete pile caps and ground beams supported off piles. The ground floor will utilise ground bearing lightly reinforced concrete slabs wherever feasible.

2.02 Lateral stability of the building is achieved through the light gauge steel framing transferring resultant lateral forces into the first floor concrete deck. Diaphragm action of the composite metal deck transfers horizontal forces into the hot-rolled cross braced steel frames below. The piled substructure will be designed to transfer resultant vertical and horizontal forces into the ground.

3.00 DISPROPORTIONATE COLLAPSE

3.01 The maximum nine storey building is deemed to be Class 2B as per Building Regulations Approved Document A. The requirements for horizontal and vertical ties will be dealt with by the specialist light gauge steel designer as part of their superstructure design works.

4.00 FOUNDATIONS AND GROUND WORKS

4.01 The pile design will be undertaken by a piling specialist based on a performance specification provided by Hydrock. The piling specialist should make the client aware if further geotechnical investigation is required to verify the pile designs.

4.02 Temporary excavations in Made Ground should be supported or battered to a safe angle. Refer to the geotechnical site investigation for further information regarding temporary excavations. Temporary support and excavations are to the Contractor's design.

4.03 The site is not considered to be in a radon affected area.

4.04 The location of the site suggests there could be a high risk of UXO. A third party specialist UXO report should be undertaken to clarify the best approach to manging this rick.

4.05 The proposed building is located directly adjacent to existing properties, hence Party Wall agreements are likely to be required prior to commencing work. Furthermore, excavations associated with the piled substructure may require localised underpinning. Trial pits are required adjacent to party walls to confirm depth of existing third party foundations. The findings will inform any potential underpinning works required. 4.06 The drainage design will require off-site works within the public highway. Permits and approvals associated with this are excluded from Hydrock scope of works.

5.00 TEMPORARY WORKS DURING CONSTRUCTION

5.01 The contractor shall be responsible for the stability of the structure during construction (i.e., all temporary conditions) including effects of hoists where these are supported and/or restrained by the structure.

5.02 The contractor is responsible for the design and installation of all temporary works for structural support during erection, and shall provide all necessary calculations. All additional members required by the trade contractor shall be deemed to be included by the contractor and shall be removed from site upon completion of the permanent structure.

5.03 The contractor shall provide a full method statement and this must be signed off and agreed with the engineer prior to work starting on any

5.04 The contractor shall immediately inform the architect and engineer of any changes as a result of unexpected conditions being encountered.

6.00 STRUCTURAL STEELWORK

6.01 Structural steelwork is to be fabricated and erected in accordance with the latest edition of the National Structural Steelwork Specification (NSSS) / BS EN 1090-1 and BS EN 1090-2 in accordance with Execution Class 2. 6.02 Refer to third party superstructure designer for details.

7.00 STRUCTURAL CONCRETE

7.01 The following designated concrete mixes shall be used conforming to BS 8500:

- Reinforced foundations: RC32/40
- Ground floor slab: RC32/40
- External concrete elements: PAV2 Mass concrete: GEN3 UNO
- Blinding: GEN0

7.02 Ready mixed concrete to be supplied from BRMCA accredited plant.

7.03 Lowest minimal cover (to BS 8500-1:2006):

- for concrete cast against blinding = 50mm - for concrete cast directly against the soil = 75mm

7.04 75mm thick blinding concrete is to be placed under all reinforced concrete in contact with the ground.

7.05 All concrete to be mechanically vibrated.

7.06 Transportation, placement and curing: Place concrete within the temperature range 5°C to 30°C. Do not place on frozen surfaces. Ensure works free from obstructions/water. Avoid contamination, do not add additional water, prevent segregation and loss of ingredients, place in one continuous operation up to construction joints. Fully compact concrete to full depth to remove entrapped air until bubbles cease to appear at top surface. Do not use pokers to make concrete flow horizontally into position. Re-vibrate concrete to remove plastic settlement cracks. 7.07 Curing: Prevent loss of moisture on all surfaces. Retain formwork for specified curing period. Cover top surfaces immediately after placing with

suitable sheeting or curing compounds at no impediment to subsequent finish for specified curing period (allow for subsequent light sand blasting prior to applying surface finishes). Curing period = 5 days. 7.08 Mesh reinforcement to be high yield (fy = 500 N/mm²) to BS4483, ductility grade B. All reinforcement to be supplied with CARES certificate.

Prior to concrete placement ensure reinforcement is clean and free from oil, loose rust and other substances that may impair the bond with the concrete.

7.09 Lap lengths for mesh = 400mm (avoid 4-layer build up - use mesh with flying ends as necessary).

7.10 Concrete surface finishes in accordance with BS EN 13670 as follows:

- Ground Floor Slab ordinary finish to N.S.C.S., but able to receive vinyl overlay.
- Retaining walls ordinary finish to N.S.C.S.
- Foundations basic unformed finish.

7.11 Openings shown on Hydrock structural drawings are to be checked by contractor against relevant service builders work drawings prior to construction. Any discrepancies must be drawn to the attention of the architect/engineer.

7.12 No cutting or removal of placed concrete is permitted without prior agreement of structural engineer.

7.13 Tolerances and workmanship of structural concrete is to be in accordance with the National Structural Concrete Specification (NSCS) 4th Edition typically to execution class 2 and refer to the specific requirements for flatness as outlined in the TO BS 8204.

7.14 Pour sizes are to be determined by the contractor and to the approval of the engineer. Infill pours between rigid restraints should be avoided or minimise where possible. The contractor must provide a detailed sequence for the approval of the contract administrator taking into account programme, specification formwork usage, cranage, deliveries, protection, curing and continuity of work.

7.15 For details of all builders work penetrations into and through substructure or envelope, refer to the civil, service engineer's and trade contractor's drawings.

7.16 For manhole/sump locations, sizes and setting out refer to civil engineer's drawings.

8.00 COLD FORMED STEELWORK

8.01 All design to be the responsibility of the SFS/light gauge steel manufacturer. Design to be in struct accordance with all applicable British Standards and Eurocodes.

9.00 MASONRY

- 9.01 Min compressive strength of masonry to walls as follows;
- Brickwork • Durability class F2, S2

 - Blockwork
 - Mortar designation above DPC (iii) M4

 Mortar designation below DPC (ii) M6 9.02 Maximum dry weight o any block unit must not be greater than 20kg

providing temporary support requirements.

required by manufacturer's recommendations. All lintels to be stainless steel. 9.05 For head restraint and movement joints refer to Hydrock drawings. All fixings into masonry t comply with manufacturers guidelines.

part ties to suit the cavity width.

9.07 Ties to have a minimum 50mm embedment into mortar bed. Unless specified otherwise by the Architect, ties to be staggered and spaced at 450mm vertically and 900mm horizontally (at unbounded edges, floors and openings space at 225mm horizontally and vertically). Ties to be stainless

steel.

brickwork.

10.00 SUBCONTRACTOR DESIGNED ITEMS

10.01 Design for the following items are to be forwarded by the relevant sub-contractor to design team or proprietary item manufacturer: - All steel work connections including base plates, holding down bolts, thermal break details and steel to steel connections; - Light gauge steel frame and associated hot rolled steelwork for third party superstructure design;

- Cladding and their fixings;
- PV System and their support framework; - Gas membrane/Radon protection if required;
- Scheduling of lintels;
- Waterproofing system;
- Temporary works;

10.02 Design calculations to be submitted for technical review allowing for a period of two weeks for return of comments prior to commencement of fabrication drawings without adversely affecting construction programme.

11.00 CDM

11.01 Residual risks are identified on drawings using the '!' symbol. Refer to Hydrock Designer's Risk Assessment for further information regarding hazards, risks, mitigation and potential residual risks. 11.02 The main contractor's proposed method statements shall be submitted to the engineer for review at least two weeks prior to commencement

- of the works for the following areas: - Concrete pour sequence for the substructure, including the ground floor slab.
- Vibration limits - All works adjacent to third party structures.
- Works within the public highway

11.03 Steel frame will not be stable until floor, bracing and roof diaphragms are complete. Contractor to assess requirement for temporary bracing and design and install as required. Refer to specialist superstructure designer for their specific assumptions and requirements.

11.04 Working at height:

provided at roof levels. -Site workers, materials and equipment exposed to high wind loading on the roofs. Contractor to review construction sequence to works on the roofs to provide a safe method to carry out works with these conditions. 11.05 In addition to the above, the contractor must comply with all standard HSE requirements.

12.00 DEMOLITION

13.00 MOVEMENTS AND TOLERANCES

13.01 Refer to third party specialist for superstructure movements and tolerances considered within their design.

14.00 LOADINGS

EIGHTH TO FIRST FLOOR

Dead load not to exceed

Common areas in blocks of flats Self contained dwelling units/Modular student accomo Stairs

GROUND FLOOR

Finishes 150mm thick RC slab (TBC)

Public area/cafe Stair

Communal area

Refer to load map drawings (S-6000 series) for loading details on all floors.

necessary.

7.3N/mm sq.

7.3N/mm sq.

9.03 Temporary stability of walls and structure in new building during construction to be considered by contractor. Contractor responsible for 9.04 Lintels to have minimum 150mm bearing (or as otherwise specified on drawings) on full bed of mortar on full block. Lintels to be propped as

9.06 All cavity walls to be tied with Type 2 ties in accordance with DD140: part 2. Wide cavities greater than 100mm are to be tied with Type 2 two

9.08 10mm wide movement joints to be provided at maximum 7.0m c/c or 3.5m from a return or change in direction for blockwork and 12m c/c for

- Contractor must provide adequate man-safe devices or safe working platforms for the installation of roof structure. Edge protection to be

12.01 The following notes are for the benefit of a future demolition contractor at the end of the life of the building. - See above in section 2 for structural principles of the building for description of how building is stabilised. - Note the concrete ground floor and roof diaphragms stabilise the building.

- Demolish structure from the top down, on a floor-by-floor basis. Demolish cantilevers prior to backspan elements. - Foundations to be grubbed out, apart from those required for support of third party structure.

14.01 The following characteristic actions have been used as a general basis for the design in accordance with BS EN 1991-1-1:2002

	<u>Permanent</u>	<u>Variable</u>
	3.20 kN/m²	
odation		3.00 kN/m² 1.50 kN/m² 3.00 kN/m²

1.80 kN/m² 3.75 kN/m²

5.00 kN/m² 4.00 kN/m² 3.00 kN/m²

14.02 Wind loads should be calculated in accordance with BS EN 1991-1-4. Specialist sub-contractors to calculate specific panel/roof pressures as



SIGN CONVENTION FOR LOAD TABLES







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