

EXETER
COLLEGE
OXFORD

A New Quad at Walton Street
Building Appraisal

March 2013

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**Exeter College. Oxford, Walton Street Quadrangle
1913 Ruskin Building - Building Appraisal**

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1 Introduction

Exeter College Oxford purchased a site in 2011 to create a new college campus additional to the original Exeter College Campus. The site they have purchased is currently the site of Ruskin College, who vacated the site in October 2012. The campus is located on the junction of Worcester Place and Walton Street in Oxford.

The existing Ruskin Building was built in 1913 and later extended in the 1930's, 1960's and again in the 1980's. As part of the proposed redevelopment of the site, the original 1913 building is to be adapted while the later editions are to be demolished down to basement level to facilitate the new building structure. The new structure is to be five storeys high with the top three storeys housing student accommodation; the lower floor contains a number of study rooms and shared learning spaces.

An initial visual site inspection of the Ruskin building was undertaken on 2nd February 2012. This inspection comprised a non-intrusive general inspection of structural condition on the interior and exterior of the buildings. As this is an operational College with students occupying study and accommodation spaces, not every room was accessible on the day but the majority of the building was surveyed.

Ground investigation works were carried out in April 2012 to reveal existing footings.

A second visual inspection was carried out on 17th October 2012 after the building was vacated. This examined the interior spaces only, and the internal roof structure was observed as part of this survey.

At present there is little structure exposed due to the presence of floor, wall and ceiling finishes and so site investigation works and some opening up works are proposed to take place in addition to these visual surveys. Findings from these works will be used to validate the findings from this report prior to the development taking place.

2 Site background

2.1 Original 1913 Ruskin Building

Construction began on the original building in 1913 and the college was opened in February 1913 (see Figure 1 1913 Ruskin Building) The building is an L-Shape but the original plans were to construct a U shaped building around a quadrangle which was to be opened to the south. Although the building was extended a number of times between the 1930's and the 1980's the full U shape was never realised.

The 1913 structure is formed of load bearing brickwork façade walls partly faced in stone which support floor beams which span between external walls and lines of internal steel posts concealed within corridor walls. There are a number of loadbearing internal walls primarily in the front portion of the block which contain chimney flues.

Appendix 1 contains a full set of drawings showing existing structural arrangement for all buildings on the site.

Appendix 2 contains original drawings and archive material for the Ruskin Building obtained from the Oxfordshire History Centre.

2.2 1930's Building

The original building was first extended to add an additional three bays to the Worcester Place elevation. The architectural form here echoes that of the original 1913 building. The structural form is also as per the original 1913 building with loadbearing external brickwork walls supporting floor beams which span between these walls and internal steel columns. The roof and rear elevation has been locally rebuilt where the two ages of building meet. Refer to section 3.2.10.



Figure 1 1913 Ruskin Building fronting Walton Street

2.3 1960's Building

Figure 2 shows the age of building structures on the site.

In the 1960s the college was extended a second time with the construction of a reinforced concrete (RC) framed building which faces on to Worcester Place. The building is a three storeys plus an undercroft. The undercroft level ties in with the basement level of the original building due to a significant level drop along Worcester Place. The layout is similar to the original adjacent buildings with the top two floors incorporating student accommodation while the lower floor houses a dining hall and kitchen spaces.

The building is an RC framed structure with 'fin' columns supporting deep beams which run across the full depth of the building front to back. Concrete floor slabs span between beams. The majority of the external elevations are clad in precast concrete panels hung from each floor level.

There is a single storey building located on the site behind the main building within the garden area and it is thought that this was built during the 1960s also. This building has an accessible flat roof and the construction is similar to that of the 1960s extension.

The flat roof is supported by a series of concrete or steel encased downstand beams which span across the width of the building. These are thought to be supported on columns concealed within walls, although some walls may also be loadbearing. Downstand RC beams also span over the corridor space, which ties the 1913/1930's building to this single storey structure. These beams would appear to load directly into the existing masonry of the Ruskin Building.

It is worth noting that at the time this single storey building was constructed the existing boundary wall was altered to facilitate it. The new building created a little court yard to the rear of the main building enclosed on the southern side by the existing boundary wall but the wall along with the new building prevent light from entering the space. To overcome this, three of the existing infilled brick panels of the boundary wall were removed in the location of the court yard and replaced with wrought iron screens.

2.4 1980's Buildings

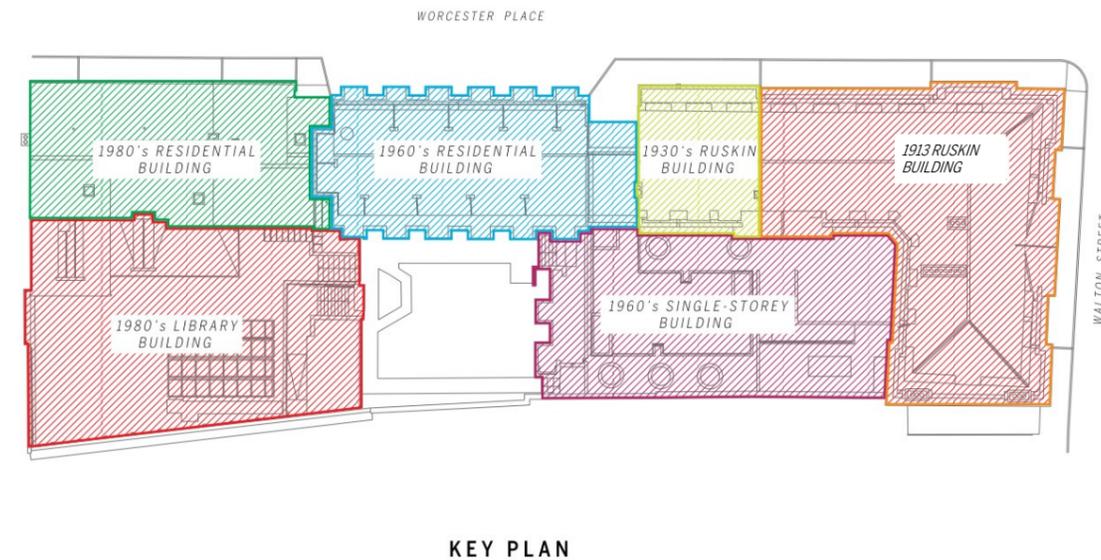
In the 1980s another extension was added following the purchase of some of the remaining two storey cottages along Worcester Place. The extension included a two storey block facing out onto Worcester Place in the location of the cottages with a single storey library built up against the Worcester College wall at the south west corner of the site.

The two storey block which is used for student accommodation is constructed of loadbearing masonry with concrete floors (exact form to be confirmed). The building has a pitched roof; the structure of this is currently unknown but it is likely to be formed in timber or light-gauge steel trusses.

The library is an RC framed building with downstand beams and columns visible within the library space. The library has an accessible flat roof which is currently used as an outdoor space by students and staff.

The library sits at basement level in relation to the rest of the site due to the steep fall along Worcester Place. The finished ground level in the adjacent Worcester College site varies but at its maximum is approximately 1.5 metres higher than the finished floor level of the library. It is evident that the internal walls of the library are blockwork and the boundary wall to the site is brickwork so it is likely that there is an additional element within the cavity formed between these two skins which acts as a retaining structure to accommodate the level difference between the two sites. The presence and form of this retaining structure in this location is to be confirmed by opening up works (currently assumed as a RC wall)

As the library structure has been built tight up against the Worcester College stone wall temporary works may be required to ensure its stability during construction of the proposed Exeter College buildings.



KEY PLAN
Figure 2 Key plan showing age of building structures

3 Assessment of Original (1913) Ruskin Building

3.1 Overview

The L-shaped building was the first phase of what was intended to be a U-shaped structure which was to sit around one end of a quadrangle. In the 1930's the northern wing of the building was extended to the west (see Figure 3).

The front elevations face onto Walton Street and Worcester Place. The Worcester College site abuts the building to the south with a boundary wall separating the two sites which varies in age along its length.

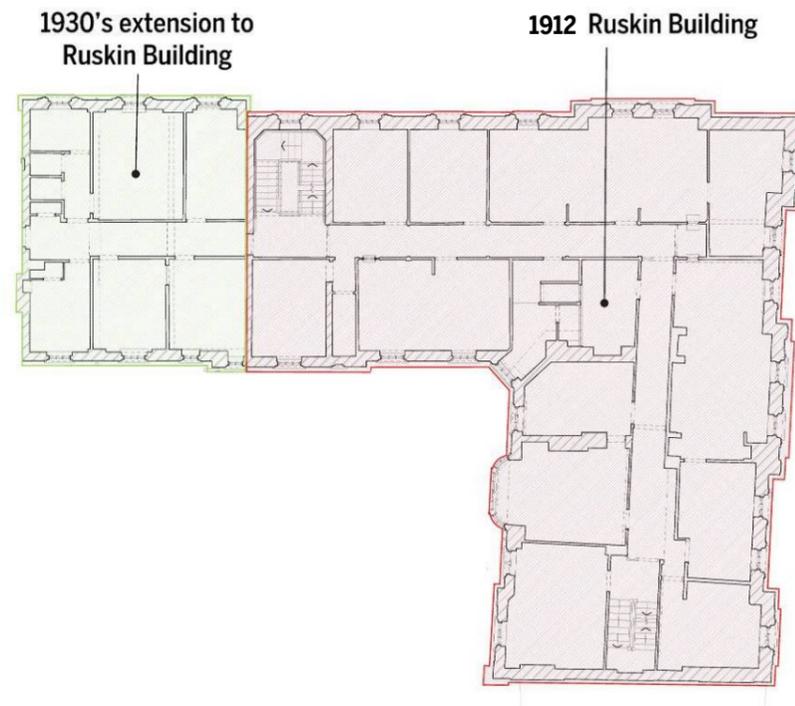


Figure 3 Ruskin Extension

Basement levels are present under each 'wing' of the building and house storage/plant spaces. An electricity substation (installed circa 1950's) is located within the basement at the south-eastern corner of the building adjacent to Walton Street.

Ground levels of the building are raised from adjacent street level by approximately 1.1m in order to provide high-level windows/vents in the basement spaces underneath. At ground level, the northern wing of the building comprises a large, open-plan common room/lecture hall. The southern wing is split into smaller spaces used for offices (or similar). An entrance lobby separates the northern and southern wings and originally lead directly out into a garden space partially enveloped by the L-shaped plan of the building. To provide access directly to the garden from street level, the lobby was originally set below the adjacent northern and southern wing room levels. A later intervention raised the lobby level locally in order to provide direct access into the common room/lecture hall.

First floor comprises generally small office spaces throughout the building which are arranged around a centrally running corridor. Second and third floors are arranged in a similar manner to first floor but with

rooms used as student study bedrooms. The third floor student bedrooms are set within a mansard roof which sits back relative to the masonry walls below.

Vertical circulation is provided via staircases at the ends of each wing of the original 1913 building.

The upper floor bedrooms, which are arranged around the central corridor, appear to be structurally unaltered from the original construction. However, when constructing the 1930's extension works to the original roof and rear elevation have been locally re-constructed. Refer to section 3.2.10.

3.2 Structure

3.2.1 Overview

The form of the 1913 Ruskin Building structure is typical for the age in which it was built. Loadbearing perimeter masonry walls, comprising solid brick piers partly faced in stone on the front elevation, support steel floor beams that span between external walls and internal steel columns. At two locations in the southern wing of the building internal loadbearing masonry walls (housing chimney flues) support steel beams. Concrete filler joist floors are present at all levels throughout the building. The internal steel columns are transferred onto deep steel transfer beams at first floor level of the Worcester Place wing, creating open-plan spaces at ground floor level.

3.2.2 Foundations

Solid brickwork walls form all the loadbearing vertical structure at basement level. Given the age of the building, these walls will likely corbel out at their base and sit on concrete strip footings.

The form, dimensions and extents of the foundations were confirmed during site investigation works that took place in April '12. The drawings contained in Appendix 1 incorporate the results of these investigations. The footings are founded on made ground comprising clayey, gravelly sand with occasional brick fragments.

3.2.3 Basement Level

Basement levels are set approximately 1.1m-1.5m below adjacent street level. The loadbearing perimeter and internal walls of the superstructure extend down to form the retaining structure at the extents of the basement space.

Loadbearing masonry walls are also provided within the spaces in order to pick up steel columns above and support the ground floor slab.

A ground bearing concrete slab forms the basement floor, thickness varied ranging from 150mm to 350mm thick.

The ground water level was found to be at the underside of the basement slab within the made ground layer.

3.2.4 Ground Floor

Ground floor is set approximately 1.1m above adjacent street level in order that high-level windows and vents in the basements can be accommodated. As street level varies, the finished floor level of the north wing is approximately 0.45m lower than the south wing.

As the basement areas below only partially cover the footprint of the building, the ground floor construction varies (see Figure 4).



Figure 4 Ground Floor Structural Arrangement

The ground floor structure above basement areas is formed using filler joists spanning between loadbearing masonry walls and/or downstanding steel primary beams (see figure 5 for an indicative sketch detail of this form of construction). The primary steels span into loadbearing basement internal/perimeter masonry walls.

At areas without a basement underneath, the floor is assumed to be a ground bearing concrete slab.

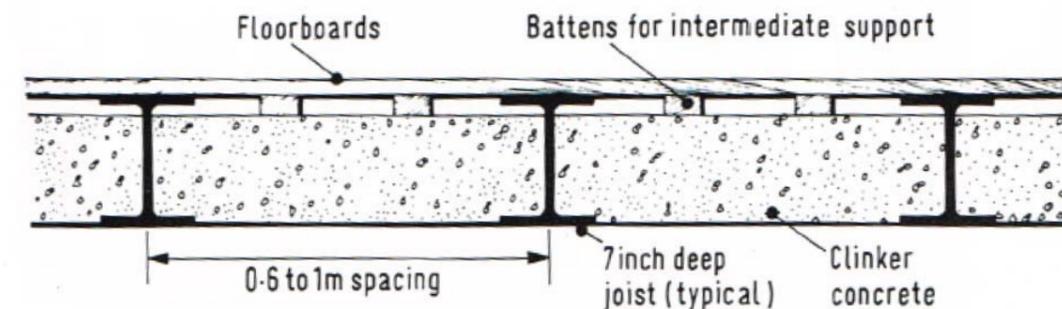


Figure 5 Filler Joist Floor Detail

The common room/lecture hall spaces to the north of the building are open plan with the only structure in this area being the loadbearing perimeter walls. The southern side of the building comprises smaller office space and features internal masonry walls (which house chimney flues) as well as steel column sections (see Figure 4) which are embedded within partition walls. The

form of the steel column sections will be confirmed following opening up works as will their exact location which has currently been inferred by cross-reference of successive floor plans.

An intervention at ground floor locally raised the level of the existing entrance lobby in order to provide direct access to the common room/lecture hall. The construction of this appears to be lightweight, possibly formed in timber. Stone entrance steps are also provided from street level to reach the heightened lobby level.

The southern side of the building was originally accessed from the original lower lobby level. As the aforementioned intervention heightened the level, a number of stairs are now hidden from view, boxed out in timber.

3.2.5 First Floor

In the southern wing of the building the orientation of the steel primary beams which pick up the filler joist first floor is to be confirmed. The support conditions for these beams appears to vary throughout this wing due to the presence of two internal loadbearing masonry chimney crosswalls, two steel internal columns in addition to perimeter loadbearing masonry walls. The assumed locations and orientation of the primary steels and filler joist infill are shown in Figure 6.

The northern wing of the building is set on a more regular grid with steel columns at approximately 3.0m centres flanking an internal centrally-running corridor. Column sections are embedded within the assumed hollow block partition walls and as such the section shape and size are currently unknown. To create the open plan common room/lecture hall space at ground level, these columns are picked up on a large grid of downstand beams which transfer all vertical loads back to the perimeter loadbearing masonry walls as shown in Figure 6.

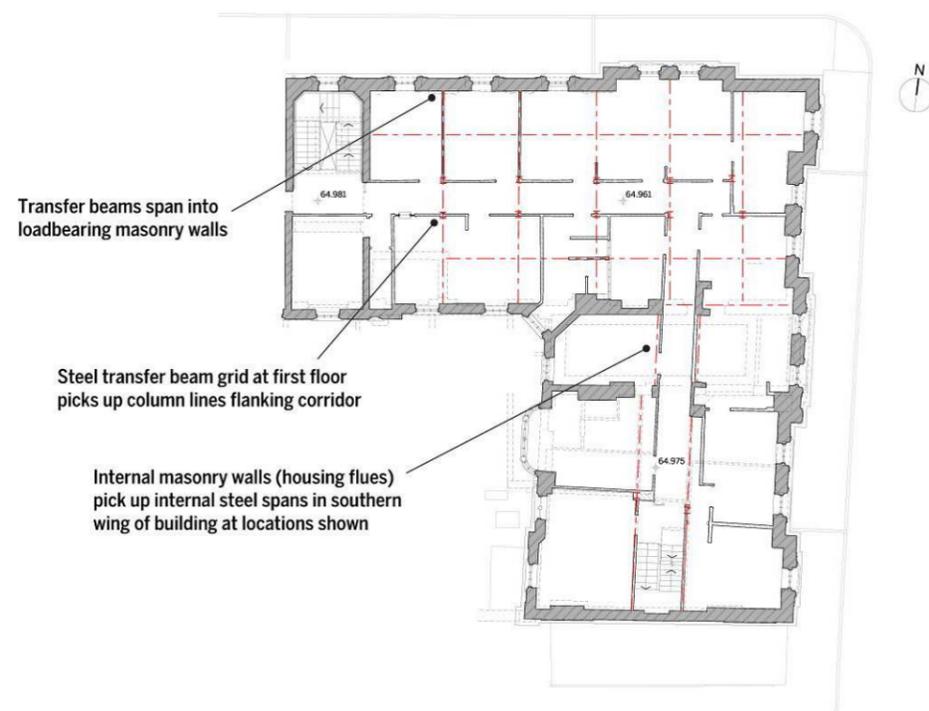


Figure 6 First Floor Schematic

3.2.6 Second Floor

The column grid at second floor of the northern wing replicates that at first floor. Steel beams spanning between external loadbearing masonry walls and the internal column line pick up filler joist infill. The form of the internal partition walls is to be confirmed, but from initial inspection they appear to be of clay hollow pot (or similar) construction.

The second floor structure appears to be as per first floor in the southern wing of the building.

3.2.7 Third Floor/Roof

The third floor is set within a single-storey mansard roof which has a footprint slightly smaller than the levels below to accommodate perimeter guttering and cornice detail. Within the southern wing, the loadbearing chimney walls penetrate through these spaces although it is unclear whether the two internal steel columns rise to this level to prop the roof structure above. The floor structure is as per levels below.

The northern wing steel columns rise into the third floor space (within the centrally running corridor) to prop the roof structure above. The floor structure in this area is filler joists supported from primary steels spanning between steel columns as per second floor level.

The framing of the mansard roof is formed from timber pitched rafters supported by steel triangular frames on either side of the corridor walls. These steel frames transfer load back into the external and corridor walls, refer to images on page 20. In certain locations several beams are located to transfer loads from the triangular steel frames where the geometry requires a transfer load back to the external and corridor walls, these beams can be seen in red on the images on page 20. The roof also houses the chimney stacks and provides the location where they transverse from one side of the corridor to the other again these can be seen in the images on page 20.

Triangular stone pediments feature on both the front and rear facades. These are a continuation of the loadbearing perimeter masonry facades with projecting stone raking/horizontal cornices and are restrained back to the mansard roof. Refer to images on page 13.

3.2.8 Staircases

Stair structures are present at the end of each wing of the building.

In the northern wing the stairs are enveloped by solid brick walls. The stairs are formed in concrete and are supported by downstand stringer and landing beams. The landing beams load directly into the adjacent loadbearing masonry. It is assumed that the downstands are formed from concrete encased steel beam sections.

The stairs within the superstructure of the southern wing are formed in timber. At basement level these are formed in concrete.

Additional stairs are present to accommodate the level difference between ground floor lobby and the southern wing of the building. These are formed in concrete and span between loadbearing walls underneath as well as ground level filler joist floor. As discussed previously, the lobby has been raised from its original level and as such much of this staircase has been infilled with timber carcassing, although the original structure below remains in place.

3.2.9 Stability

The loadbearing masonry internal and perimeter walls act as stiff shear walls when loaded in plane. Lateral forces are transmitted to these stiff elements at each level via diaphragm action within the concrete filler joist floors and subsequently to the foundations and ground. It is assumed that the filler joist floors are tied into the walls (e.g. built into the brickwork to provide a key between floor and wall) to transfer this load.

3.2.10 1930's Extension interface with 1913 Building

The 1930's extension to the Ruskin Building was built to the west of the stairwell in the northern wing. The internal and external structural arrangements of the extension are very similar to the original with steel internal columns and external loadbearing masonry walls supporting steel beams.

The new structure appears to be rigidly tied into the original buildings with brickwork toothed in on both façades. Secondary beams are assumed to span between internal column lines of the 1930's building into the loadbearing masonry perimeter stair wall of the 1913 building.

The rear elevation interface between the 1913 and the 1930's extension has been rather crudely toothed together particularly at ground floor level where the join is laterally displaced. The pediment as roof level appears to have been rebuilt in the 1930's as the join between the two ages of building straddles this pediment.

4 Commentary on Adaption of 1913 Ruskin Building

The Ruskin building is to be adapted in order to accommodate the uses proposed by Exeter College, and to bring the building up-to-date in terms of energy efficiency, acoustic performance and other requirements of current Building Regulations.

4.1 Required Alterations

The Architect has confirmed that current Building Regulations dictate the following important changes to the existing building:

- A lift is required to provide access to the upper levels of the building;
- The existing corridors at upper levels have a clear width of typically 1245mm between existing steel columns. For compliance with Part M of the Regulations, these walls need to be a minimum of 1500mm for DDA access, so the existing corridor column arrangement is unworkable;
- Both staircases within the existing building do not comply with Part K or Part M of the Regulations, as they are too narrow at 846mm and 1100mm respectively. 1200mm is the minimum width required for compliance. In addition, none of the existing stairs provide wheelchair refuge points (1400mm x 900mm on plan), nor will they accommodate the flow during a fire evacuation. There is currently not a protected lobby on every floor, and bedrooms are currently accessed off the southern stair protected lobby at 2nd floor level. For these reasons the staircases and adjacent layouts need re-constructing;
- DDA compliant bedroom provision is not currently provided in the existing arrangement, nor is adequate bathroom provision for the student rooms. Within the existing building depth there is insufficient room to accommodate these requirements without a significant reduction in the number of student bedrooms.
- The existing masonry facades require 150mm depth of internal insulation to comply with energy performance requirements of Part L;

By increasing the depth of building footprint along the Worcester Place wing from (internal dimensions) 9,790mm to 10,290mm, compliant corridor widths, adequate bathroom provision, thermal insulation and DDA compliant bedrooms can be accommodated.

4.2 Required Structural Alterations

The structural implications of the proposed adaptations are principally:

- Ground floor level in the main entrance lobby is to be returned to street level (as per original construction);
- Ground floor level along the Worcester Lane wing of the building is to be lowered to provide level access across the ground floor ;
- Roof extension, which requires re-construction of the roof structure ;

- Re-arrangement of student rooms at first floor to roof level for Building Regulations compliance, impacting on the internal steel columns buried within the corridor walls;
- Re-location and re-arrangement of stairwells at each end of the 1913 wings for Building Regulations compliance;
- Insertion of a new lift core from basement to 3rd floor level;
- Lowering of basement level under the 1930's and western – end of 1913 building;
- Adjustment or removal of brick chimney stacks within upper floors to meet space requirements and reflect the new energy strategy;
- Re-construction of the rear façade in order to accommodate spatial requirements needed for Building Regulations compliance;
- Forming openings through existing filler joist floors for new vertical services risers.

4.3 Implications of Structural Alterations

The existing arrangement of internal steel columns, filler joist floors and chimney stacks require significant structural alterations to meet the objectives described above. A detailed study has been carried out to consider the options available which incorporate the structural works described above. Refer to a separate report by Stockley "*Structural Interventions to the Ruskin Building*".

Section 5 of this report records the structural condition survey carried out on the Ruskin Building during 2012 and refreshed in January 2013. As a general observation, the front elevations of the building are of higher construction quality and have been better maintained than the rear elevations and gable end wall adjacent to Worcester College.

5 Survey Record

1913 Ruskin Building	Site Photograph	Element Condition	Additional Comments
Front Façade Stone Lintels		<p>Minor cracking is present at the bearing of a single stone lintel on the eastern façade. This cracking appears to be isolated to the location shown and is of no structural concern.</p>	<p>The cracking may have been due to slight rotation resulting from the loadbearing nature of the lintel, to the minor joint opening of the stonework above which may have translated into the lintel or to localised movement of foundations.</p>
Front Façade Brickwork		<p>The brickwork throughout the front facade generally appears to be in good condition.</p> <p>Efflorescence is present at a number of locations close to downpipes and where high level perimeter guttering has failed/become blocked.</p> <p>Penetrations are also present at discrete points within the brickwork due to the lack of repair works undertaken following fixings (e.g. for downpipes) being removed.</p>	

Front Façade
Stonework

The stonework generally appears to be in good condition.

Where stone is exposed (e.g. at outstands – especially at low level), edges locally are worn and subject to minor spalling.

At some locations (notably close to lintels) joints have opened to a minor degree and contain slightly recessed mortar joints.

Some staining is visible adjacent to downpipes.

A small penetration with associated spalling (resulting from a previous fixing directly into the façade) is also present within the stone at a single location on the northern façade.

Rear Façade
Brickwork

Generally the brickwork is in reasonable condition.

Efflorescence is more prevalent over the rear façade due to the larger number of downpipes which are fixed to it.

Exposed penetrations are also present at discrete points within the brickwork due to the lack of repair works undertaken following fixings being removed (e.g. for downpipes).

Localised patch repairs have been undertaken following the installation of modern services connected into the downpipes on the façade.

A single brick within a flat arch lintel at ground level has cracked and started to spall where its edges are exposed

Perimeter
Coping

Coping stones running along the perimeter of the building are generally in fair condition although a number are stained due to presence of water within the perimeter gutter that may have leaked or overflowed if blocked.

The moisture present within the gutter has allowed vegetation to grow within the joints of a number of the stone leading them to open up and displace relative to adjacent stones.

A small number of the dentils have spalled at their edges.



Tie-in between 1930's and 1913 building



The 1913 Ruskin building was extended to the west in the 1930's using an identical structural form. The extension is keyed directly into the existing masonry facades to form a single homogenous skin.

The interface between buildings is clear on the northern side as the 1930's building sits proud of the original by approximately 450mm.

It is currently unclear where the interface between extension and original building is on the southern façade. From reference to floorplans the interface appears to sit underneath the triangular pediment to the left hand side of the central circular window. There is a *slight* difference in the colour of the bricks partially along this line though this cannot be traced over the full height. The pediment was added in the 1930's as it appears to straddle both the original building and the extension.

Pediments



Three stone pediments feature on the building. The stonework generally appears to be in good condition. The very edges of the pediments (directly adjacent to perimeter coping) are subject to the similar staining as the perimeter coping.

The base of the pediment on the rear façade has a small amount of vegetation growing on the surface with a minor crack on the east side.

A single on the top of the round pediment on the north elevation appears to be slightly dislodged relative to the adjacent stones with wider joints and signs of water seeping through the joint.

The triangular pediment on the northern wing of the building was built with the 1930's extension. The exact alignment of the interface of these two buildings on the southern façade is not immediately clear. It would appear that this pediment straddles the two ages of construction suggesting that it is a later addition.





Gable End Wall to 1913 Ruskin Building

Element Condition

The brickwork has at some stage been re-pointed using a cement mortar, presumably over the original lime mortar. There is an area of spalled brickwork approximately 600x600mm at 2nd floor level which has considerable frost damage. Below first floor level stone cornicing, the brickwork appears to be a different type to above cornice level and is masked in large parts by Worcester College's materials shed which abuts the wall. The window opening at this level is also blocked off by this shed, and therefore condition of the wall at this lower level is unclear. There is some salt staining below eaves level stonework.

Additional Comments

The condition of this wall is variable, and mortar joints unsympathetically re-pointed in cement mortar.

<p>Floor Construction (Basement Plant Room – northern wing)</p>		<p>Steelwork is visible at two locations, both within basement level looking up at ground floor.</p> <p>At one location, primary steel beams span between basement masonry walls and pick up a masonry wall above as well as a filler joist floor. These steels are doubled-up I sections with bottom flanges exposed. The filler joist floor spans into this main beam and contains smaller I sections at 3' centres with clinker concrete spanning between.</p> <p>The condition of masonry at locations of beam bearing is poor.</p> <p>The condition of the visible steelwork (lower flange) is uniformly rusted with signs of spalling at the edges of the flanges throughout.</p>	
<p>Floor Construction (Basement – southern wing)</p>		<p>A single steel ground floor beam is visible from basement level in the northern wing of the 1913 building. Similarly to the location mentioned above, this beam loads directly into masonry walls on either side.</p> <p>The visible areas of the beam (bottom flange) are uniformly rusted. The filler joist floor has generally been plastered over although small areas remain exposed during post drilling of service conduits.</p> <p>Concrete encased steel downstand beams are also visible within other rooms in the southern wing. A masonry corbel detail is used at one location to reach out and pick up the beam. It is unclear why this is not built into the wall as appears to be done at other locations.</p>	



Stair Access to southern wing



Stair access was required between original lobby level and the ground floor of the southern wing. The concrete stair structure cuts into the loadbearing walls below as shown on the adjacent image. As the lobby level has been raised from its original standing, these stairs have been infilled/framed out but still remain underneath.

Basement Retaining Walls (southern wing)



Basement retaining walls are formed in loadbearing masonry. They appear to be in reasonable condition.

At the base of return locations within the electricity sub-station there are signs of localised damage.

Basement
Retaining Walls
(northern
wing)



A plant/boiler room is present on the western edge of the northern wing of the building. This is shared between 1913 and 1930's buildings (it is to be confirmed whether the whole basement space formed part of the original 1913 scheme).

The retaining walls are formed in masonry with no visible signs of damp throughout. Penetrations are made through the walls have been roughly cut with loose and cracked bricks in the immediate vicinity of the hole.

The walls (and roof) throughout are covered in a black residue, possibly soot expelled by old boilers.

Substation



An electricity substation is present within the basement under the southern wing adjacent to the pavement. It has been suggested that this was installed in 1950's (tbc)

Access to the substation is solely via the Ruskin Building southern internal staircase.

Vents out to street level are provided at high level.

Roof Structure
Original Ruskin
Building



The roof structure is formed from timber rafters picked up on triangular steel frames located either side of the corridor walls, the structure appears to be in good condition overall.

There is one area where there is a bit of damage along the ridge line caused by water ingress this can be seen in the third image here.

Steel triangulated frames prop the timber rafters to the pitched roof and direct load into the steel columns embedded in the central corridor walls below.

Chimneys
Ruskin Roof



The original Ruskin roof space houses the chimney stacks and provides the location where they traverse from one side of the corridor to the other. These are in good condition.

Appendix 1
Existing Drawings



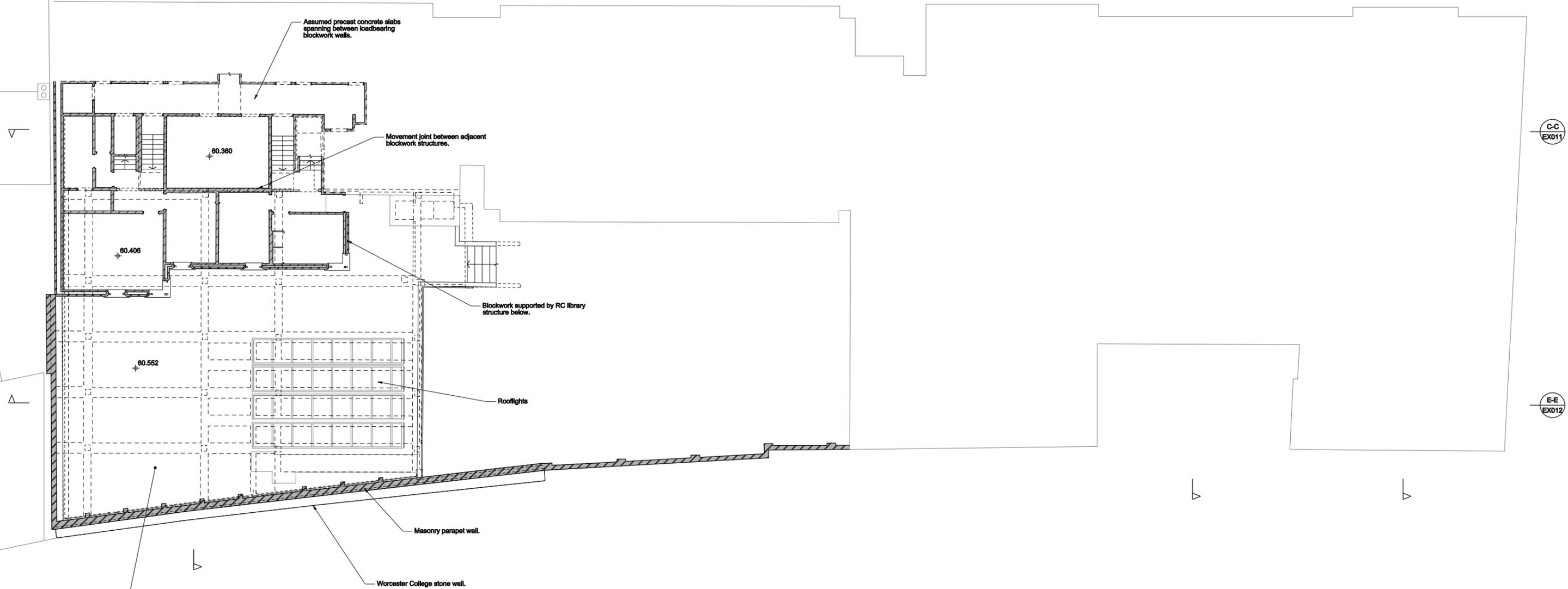
A-A
EX010

B-B
EX010

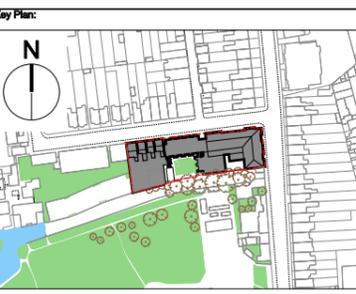
D-D
EX011

C-C
EX011

E-E
EX012



Library structure formed from reinforced concrete slabs and downstand beams spanning onto reinforced concrete columns.



Notes:
This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and the specification.
This drawing should not be scaled.
All dimensions are to be verified by the contractor on site. All discrepancies should be reported to the C.A. prior to the commencement of the works.
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Notes Continued:
This drawing has been produced using a combination of survey information supplied at competition stage and on site visual inspections.
All information shown on these drawings is to be checked on site for verification.
The accuracy of the information contained on these drawings can not be guaranteed.

Key

	Existing RC element
	Existing brickwork
	Existing blockwork
	Existing steel beam
	Existing structure under
	Existing levels

59.039

Notes Continued:

07.12.12	P02	Issued for Information	IS	NC
30.03.12	P02	Issued for Information	IS	NC
02.03.12	P01	Issued for Information	IS	NC
Date:	Rev:	Description:	Drawn:	Check:

Project:
Exeter College
Oxford

Title:
Existing Plan at 60.50m
Mezzanine Level

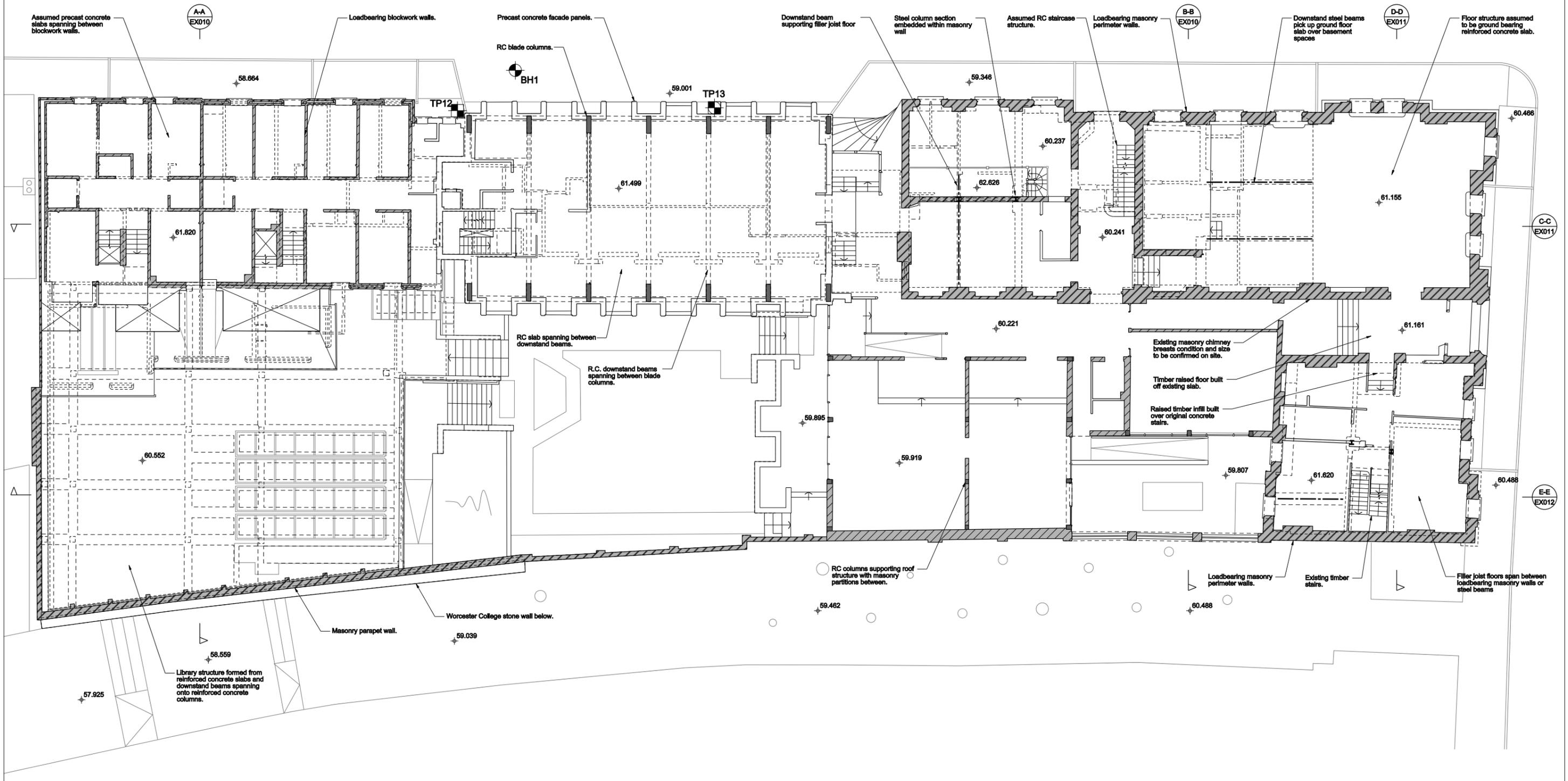
Status:
INFORMATION

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Scale:	Date:	Drawn:	Checked:	Job Number:	Drawing Number:	Revision:
1:100@A1 1:200@A3	Mar 2012	IS	NC	521/01	(EX) 002	P02



Notes:
 This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and the specification.
 This drawing should not be scaled.
 All dimensions are to be verified by the contractor on site. All discrepancies should be reported to the C.A. prior to the commencement of the works.
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Notes Continued:
 This drawing has been produced using a combination of survey information supplied at competition stage and on site visual inspections.
 All information shown on these drawings is to be checked on site for verification.
 The accuracy of the information contained on these drawings can not be guaranteed.

Key

	Existing RC element
	Existing brickwork
	Existing blockwork
	Existing steel beam
	Existing structure under
59.039	Existing levels

Key

	Trial pit location
--	--------------------

07.12.12	P03	Issued for Information	IS	NC
07.06.12	P03	Trial pit locations added	IS	NC
30.03.12	P02	Issued for Information	IS	NC
02.03.12	P01	Issued for Information	IS	NC
Date:	Rev:	Description:	Drawn:	Check:

Project:
 Exeter College
 Oxford

Title:
 Existing Plan at 62.00m
 Ground Floor Level

Scale: 1:100@A1
 1:200@A3

Date: Mar 2012

Drawn: IS

Checked: NC

Job Number: 521/01

Drawing Number: (EX) 003

Revision: P03

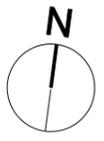
STOCKLEY

MANCHESTER
 Carver's Warehouse, 77 Dale Street,
 Manchester, M1 2DF
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LONDON
 18 Bowling Green Lane,
 London, EC1R 8SP
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INFORMATION



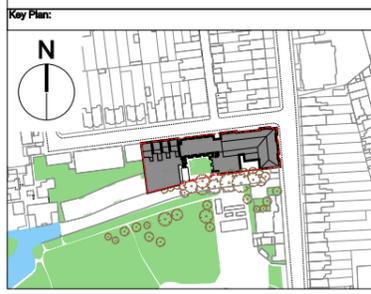
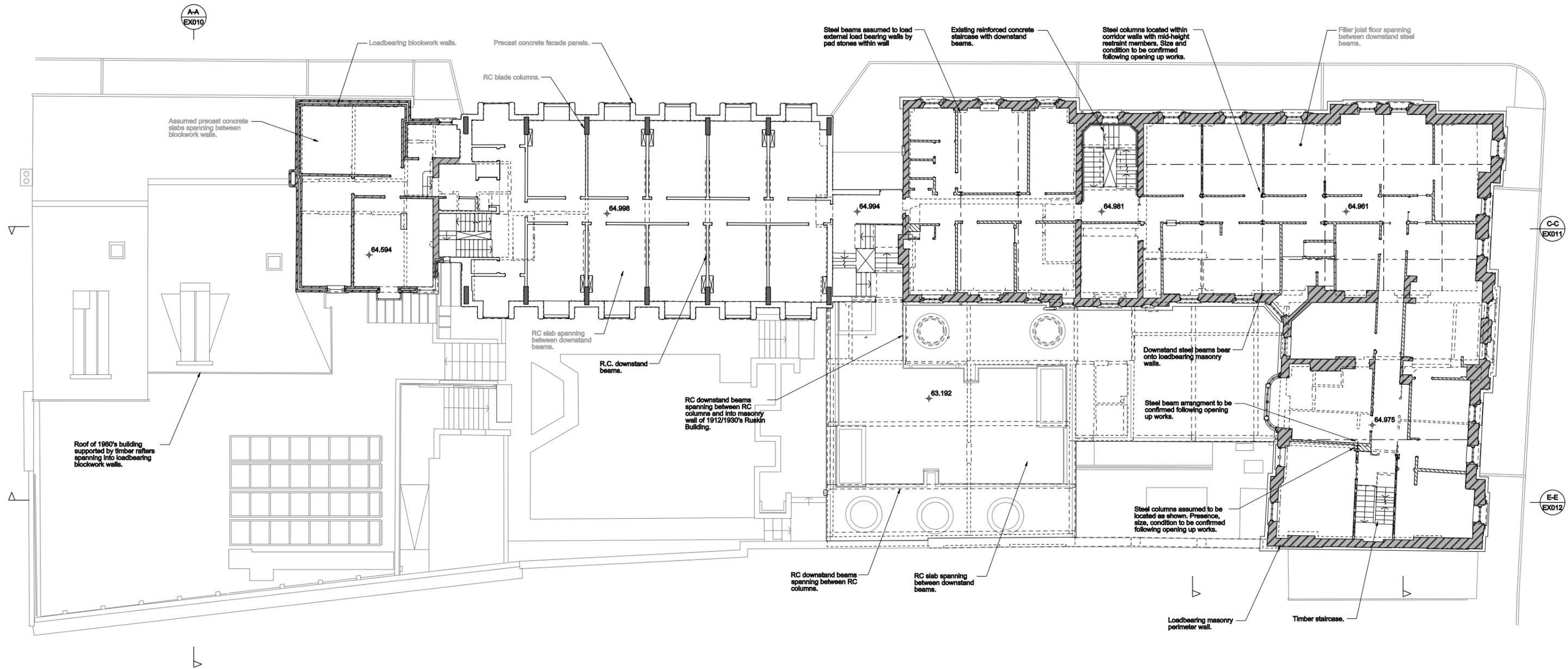
A-A
EX010

B-B
EX010

D-D
EX011

C-C
EX011

E-E
EX012



Notes:
 This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and the specification.
 This drawing should not be scaled.
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Notes Continued:
 This drawing has been produced using a combination of survey information supplied at competition stage and on site visual inspections.
 All information shown on these drawings is to be checked on site for verification.
 The accuracy of the information contained on these drawings can not be guaranteed.

Key

	Existing RC element
	Existing brickwork
	Existing blockwork
	Existing steel beam
	Existing structure under
	Existing levels

Notes Continued:

07.12.12	P03	Issued for Information	IS	NC
30.03.12	P02	Issued for Information	IS	NC
02.03.12	P01	Issued for Information	IS	NC
Date:	Rev:	Description:	Drawn:	Chkd:

Project:
 Exeter College
 Oxford

Title:
 Existing Plan at 65.00m
 First Floor Level

Scale: 1:100@A1
 1:200@A3

Date: Mar 2012

Drawn: IS

Checked: NC

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INFORMATION

Status:

Job Number:	521/01
Drawing Number:	(EX) 004
Revision:	P03



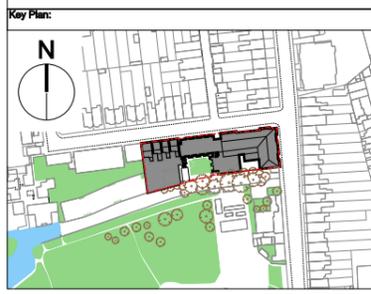
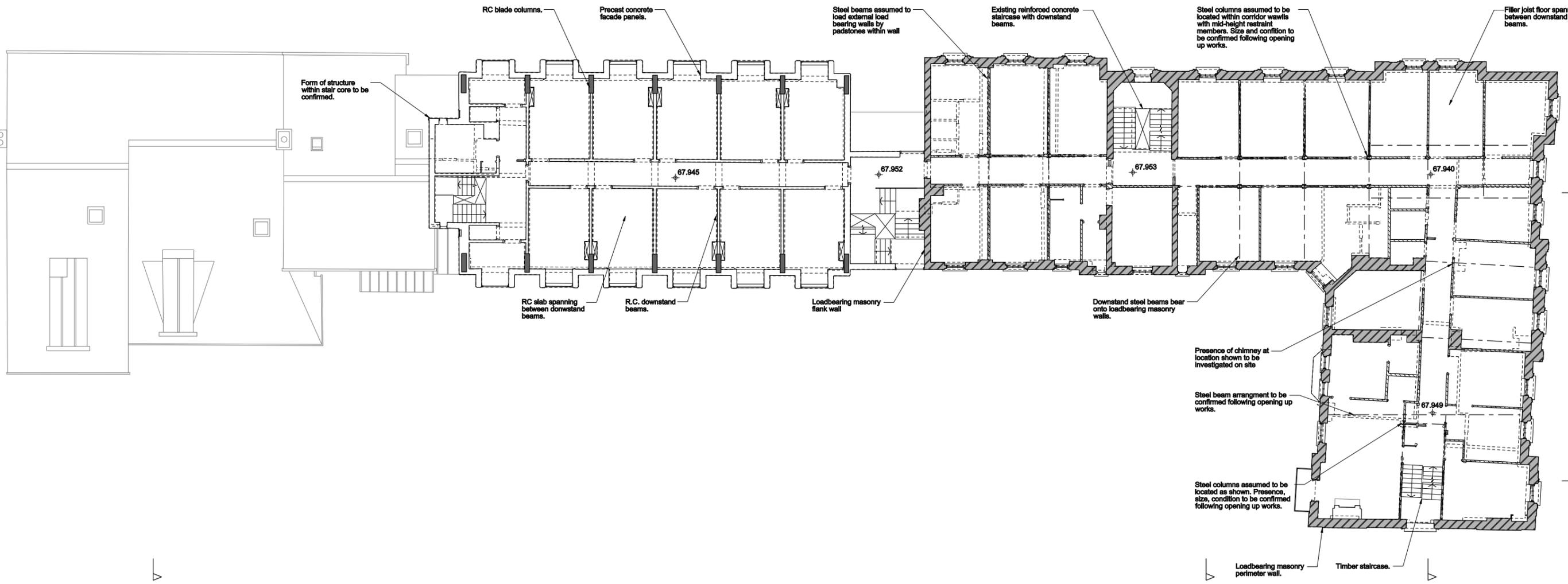
A-A
EX010

B-B
EX010

D-D
EX011

C-C
EX011

E-E
EX012



Notes:
This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and the specification.
This drawing should not be scaled.
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Notes Continued:
This drawing has been produced using a combination of survey information supplied at competition stage and on site visual inspections.
All information shown on these drawings is to be checked on site for verification.
The accuracy of the information contained on these drawings can not be guaranteed.

Notes Continued:

Key	
	Existing RC element
	Existing brickwork
	Existing blockwork
	Existing steel beam
	Existing structure under
	Existing levels

59.039

Notes Continued:

Date	Rev	Description	IS	NC
07.12.12	P03	Issued for Information	IS	NC
30.03.12	P02	Issued for Information	IS	NC
02.03.12	P01	Issued for Information	IS	NC

Date	Rev	Description	IS	NC
07.12.12	P03	Issued for Information	IS	NC
30.03.12	P02	Issued for Information	IS	NC
02.03.12	P01	Issued for Information	IS	NC

Project:
Exeter College
Oxford

Title:
Existing Plan at 68.00m
Second Floor Level

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INFORMATION

Status:	Job Number:	Drawing Number:	Revision:
	521/01	(EX) 005	P03



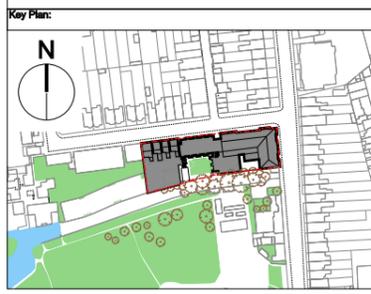
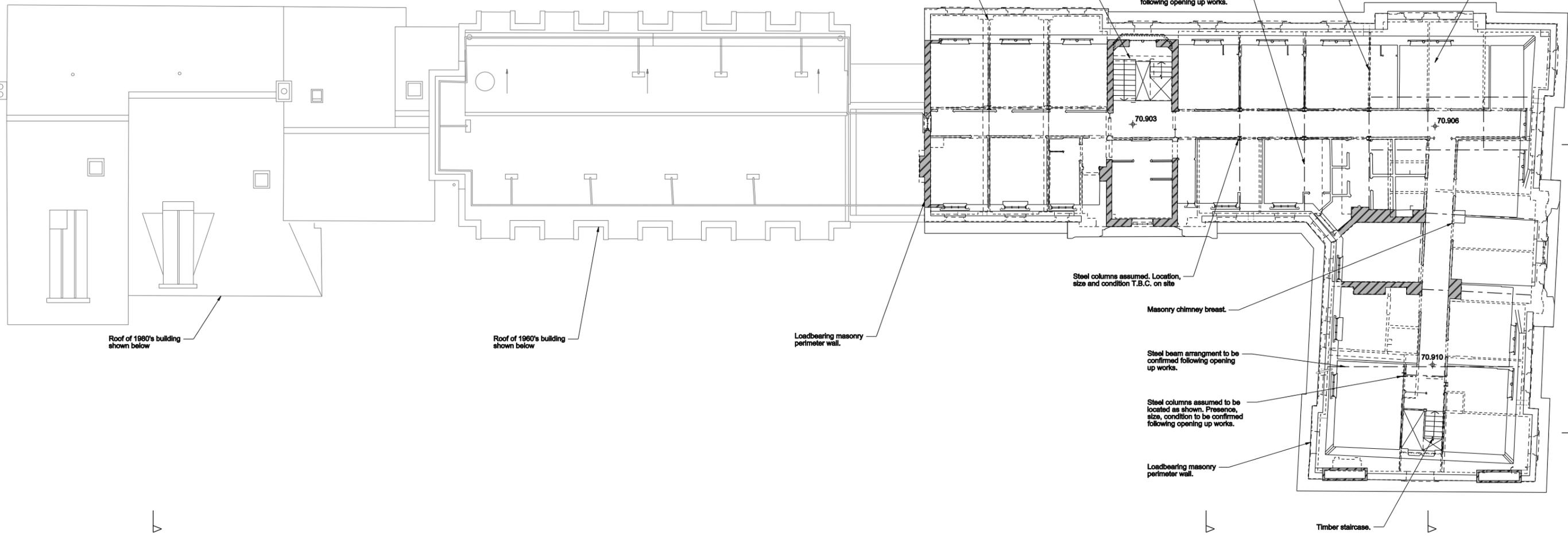
A-A
EX010

B-B
EX010

D-D
EX011

C-C
EX011

E-E
EX012



Notes:
This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and the specification.
This drawing should not be scaled.
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Notes Continued:
This drawing has been produced using a combination of survey information supplied at competition stage and on site visual inspections.
All information shown on these drawings is to be checked on site for verification.
The accuracy of the information contained on these drawings can not be guaranteed.

Key

	Existing RC element
	Existing brickwork
	Existing blockwork
	Existing steel beam
	Existing structure under
\pm 59.039	Existing levels

Notes Continued:

07.12.12	P03	Issued for Information	IS	NC
30.03.12	P02	Issued for Information	IS	NC
02.03.12	P01	Issued for Information	IS	NC
Date:	Rev:	Description:	Drawn:	Check:

Project:
Exeter College
Oxford

Title:
Existing Plan at 71.00m
Third Floor Level

Date: Mar 2012
Scale: 1:100@A1
1:200@A3
Drawn: IS
Checked: NC

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INFORMATION

Status:	Job Number:	Drawing Number:	Revision:
	521/01	(EX) 006	P03



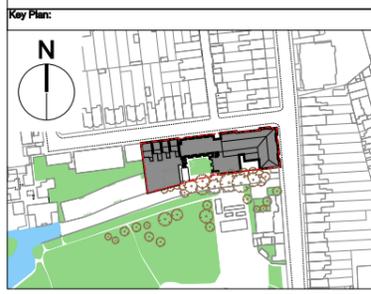
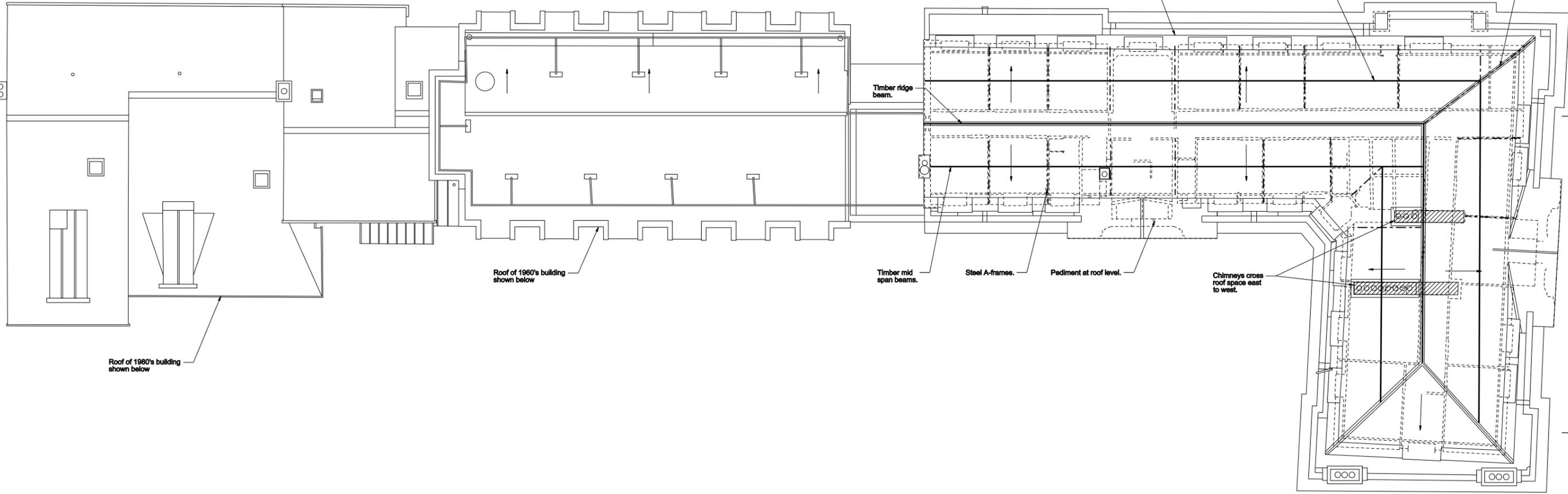
A-A
EX010

B-B
EX010

D-D
EX011

C-C
EX011

E-E
EX012



Notes:
This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and the specification.
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All information shown on these drawings is to be checked on site for verification.
The accuracy of the information contained on these drawings can not be guaranteed.

Key

	Existing RC element
	Existing brickwork
	Existing blockwork
	Existing steel beam
	Existing structure under
	Existing levels

59.039

Notes Continued:

07.12.12	P03	Issued for Information	GB	NC
30.03.12	P02	Issued for Information	IS	NC
02.03.12	P01	Issued for Information	IS	NC
Date:	Rev:	Description:	Drawn:	Check:

Project:
Exeter College
Oxford

Title:
Existing Plan at 77.00m
Roof Level

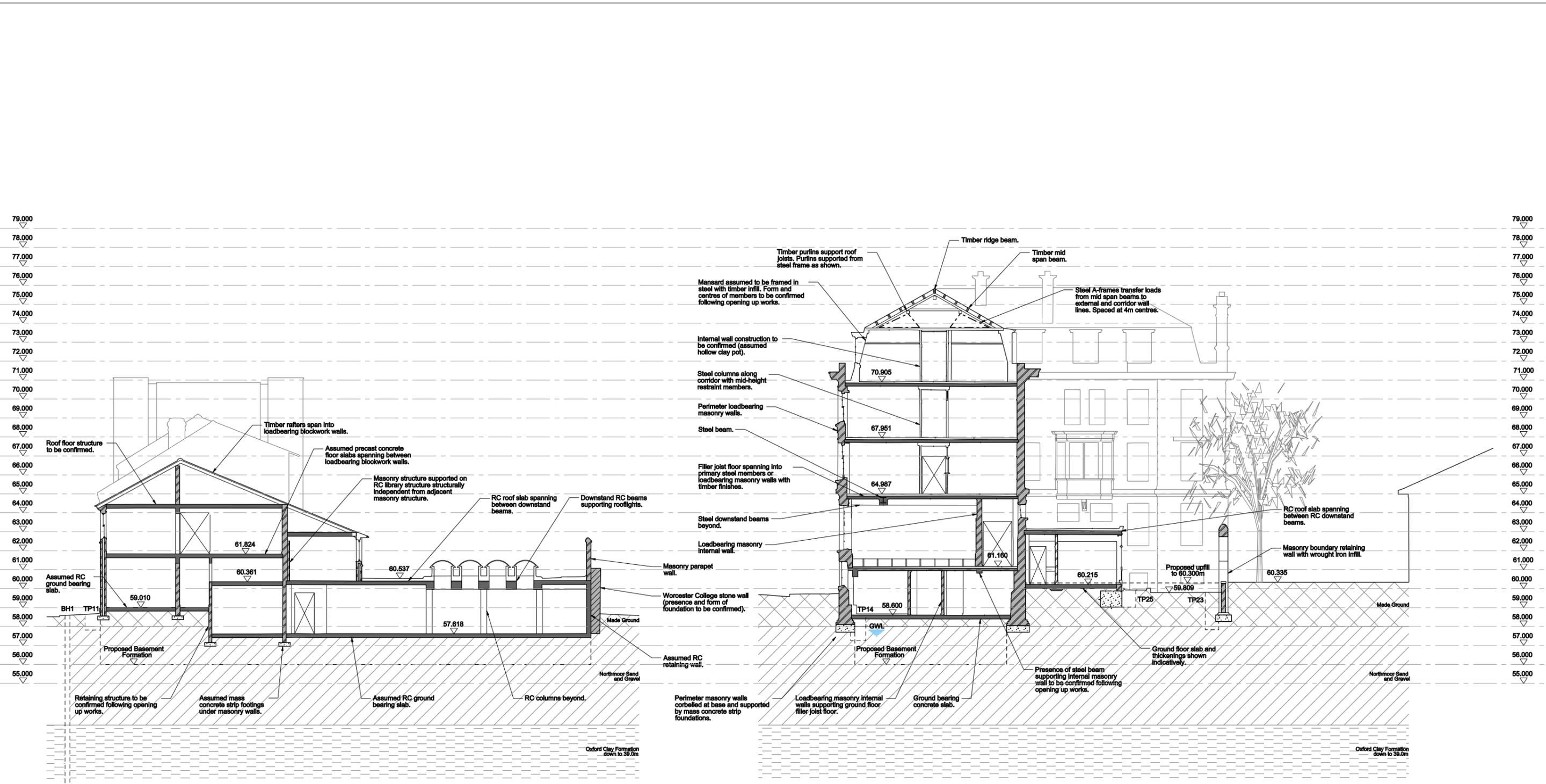
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Manchester, M1 2DF
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LONDON
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London, EC1R 8SP
Tel: 020 7393 2077
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INFORMATION

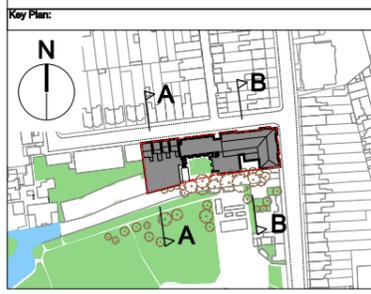
Status:	Job Number:	Drawing Number:	Revision:
	521/01	(EX) 007	P03

Scale:	Date:	Drawn:	Checked:	Job Number:	Drawing Number:	Revision:
1:100@A1 1:200@A3	Mar 2012	IS	NC	521/01	(EX) 007	P03



Section A-A

Section B-B



Notes:
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 The accuracy of the information contained on these drawings can not be guaranteed.
 For section locations refer to Stockley drawing number (EX)001 - (EX)007.

Key

	Existing RC element
	Existing brickwork
	Existing blockwork
	Existing steel beam
	Proposed formation level for re-development
	Groundwater encountered in site investigation

Notes Continued:

07.12.12	P03	Issued for Information	GB	NC
07.06.12	P02	Trial pit locations added	IS	NC
07.04.12	P01	Issued for Information	IS	NC
Date:	Rev:	Description:	Drawn:	Checked:

Project:
 Exeter College
 Oxford

Title:
 Existing Section A-A and B-B

Status:
 INFORMATION

STOCKLEY

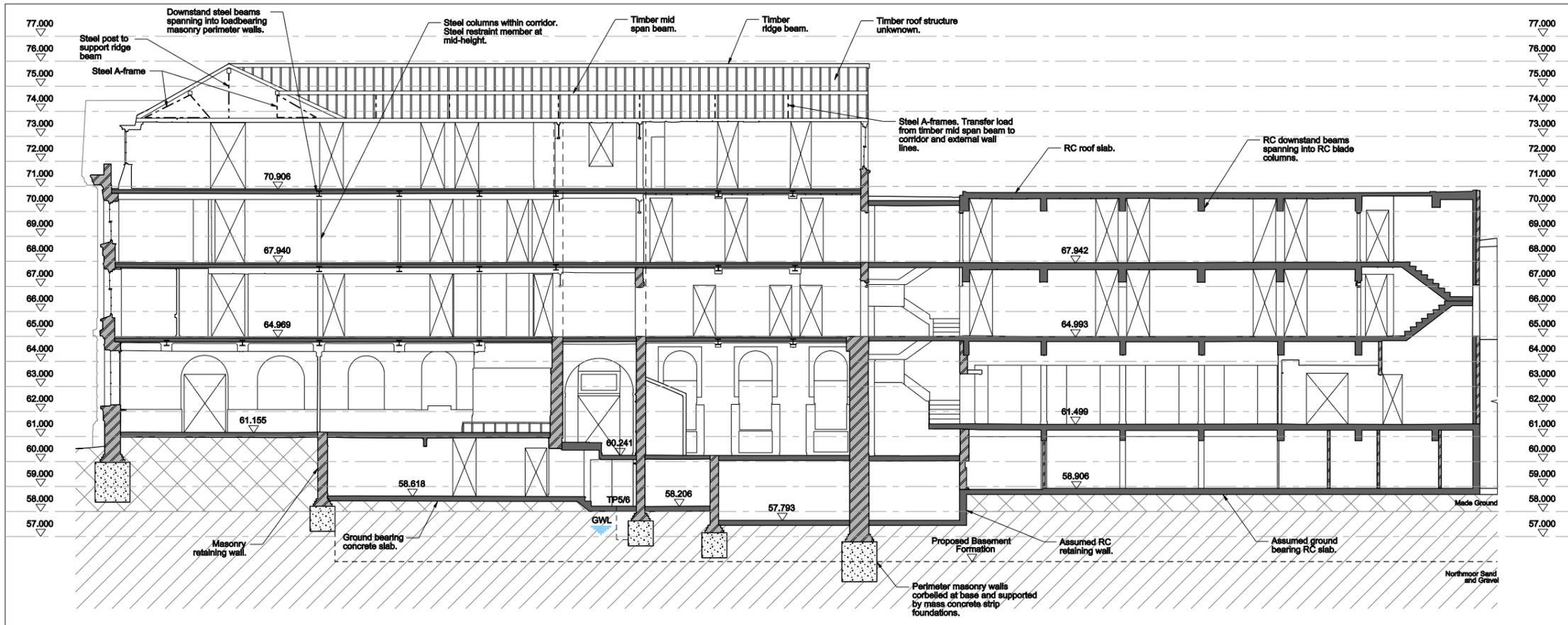
MANCHESTER
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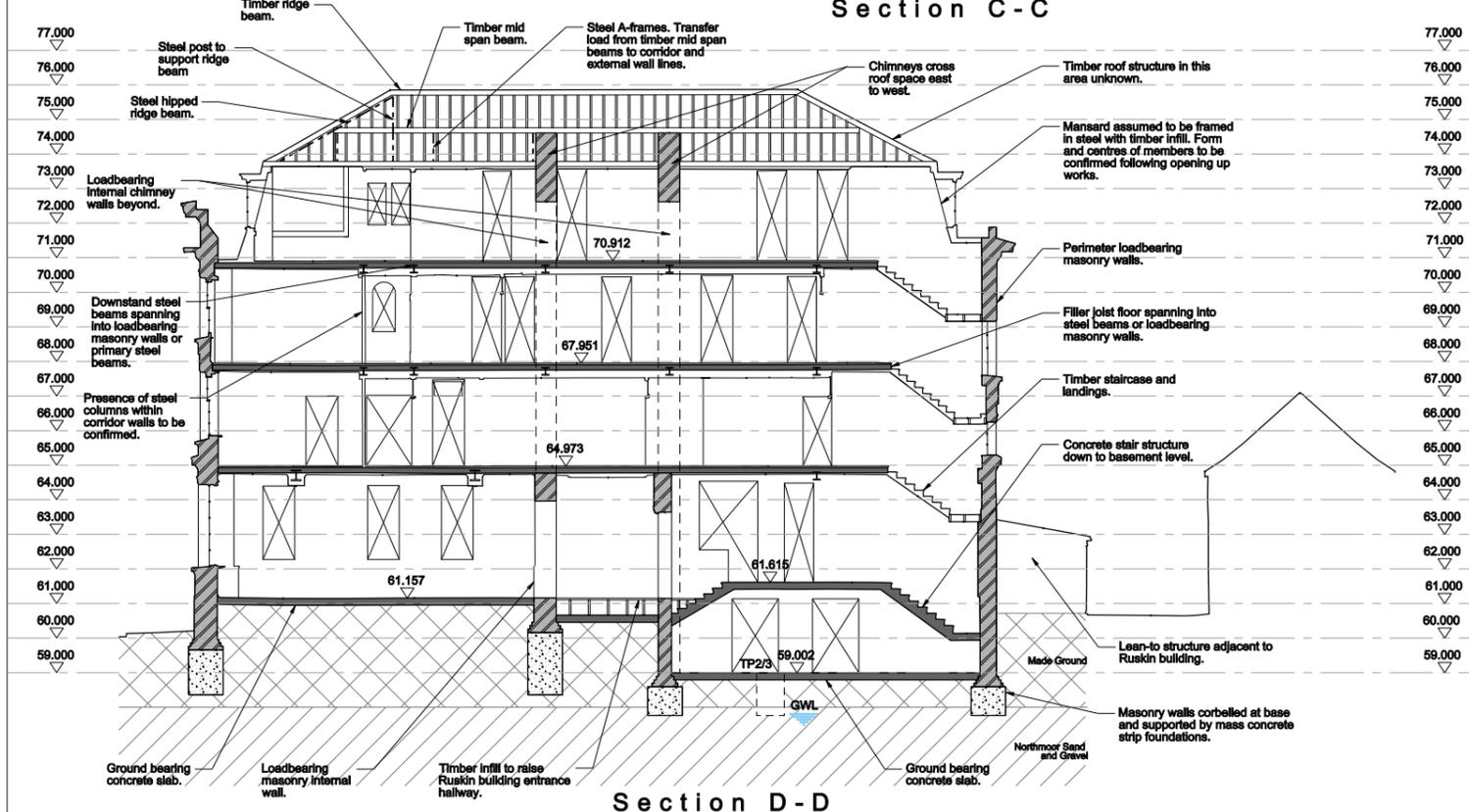
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Job Number:	Drawing Number:	Revision:
521/01	(EX) 010	P03

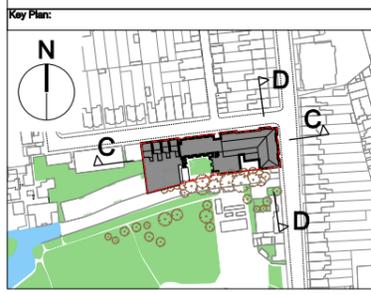
Scale:	Date:	Drawn:	Checked:	Job Number:	Drawing Number:	Revision:
1:100@A1 1:200@A3	Mar 2012	IS	NC	521/01	(EX) 010	P03



Section C-C



Section D-D



Notes:
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Notes Continued:
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 All information shown on these drawings is to be checked on site for verification.
 The accuracy of the information contained on these drawings can not be guaranteed.
 For section locations refer to Stockley drawing number (EX)001 - (EX)007.

Key

	Existing RC element
	Existing brickwork
	Existing blockwork
	Existing steel beam
	Proposed formation level for re-development
	Groundwater encountered in site investigation

07.12.12	P03	Issued for Information	GB	NC
07.06.12	P02	Issued for Information	IS	NC
07.04.12	P01	Issued for Information	IS	NC
Date:	Rev:	Description:	Drawn:	Chk'd:

Project: Exeter College Oxford

Title: Existing Section C-C and D-D

Scale: 1:100@A1
1:200@A3

Date: Mar 2012

Drawn: IS

Checked: NC

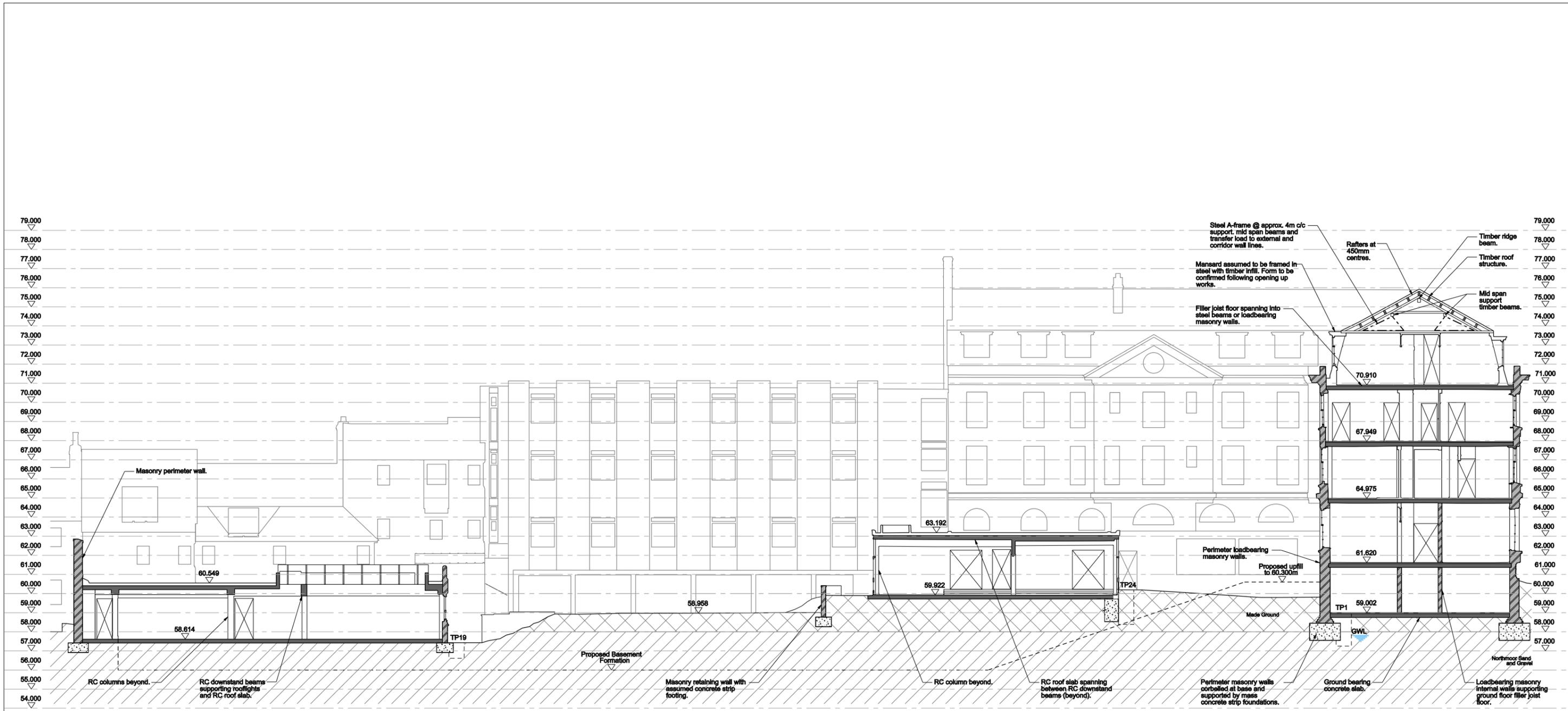
Job Number: 521/01

Drawing Number: (EX) 011

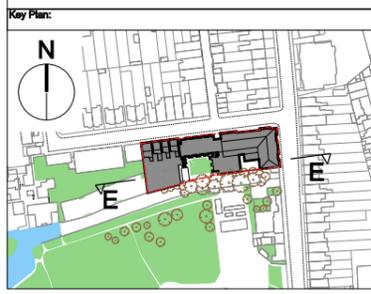
Revision: P03

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INFORMATION



Section E-E



Notes:
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Notes Continued:
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 All information shown on these drawings is to be checked on site for verification.
 The accuracy of the information contained on these drawings can not be guaranteed.
 For section locations refer to Stockley drawing number (EX)001 - (EX)007.

Key

	Existing RC element
	Existing brickwork
	Existing blockwork
	Existing steel beam
	Proposed formation level for re-development
	Groundwater encountered in site investigation

Notes Continued:

06.12.12	P03	Issued for Information	GB	NC
07.06.12	P02	Trial pit locations added	IS	NC
07.04.12	P01	Issued for Information	IS	NC
Date:	Rev:	Description:	Drawn:	Check:

Project:
 Exeter College
 Oxford

Title:
 Existing Section E-E

Status:
 INFORMATION

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LONDON
 18 Bowling Green Lane
 London, EC1R 8SP
 T: 020 7393 8977

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 www.stockley.co.uk

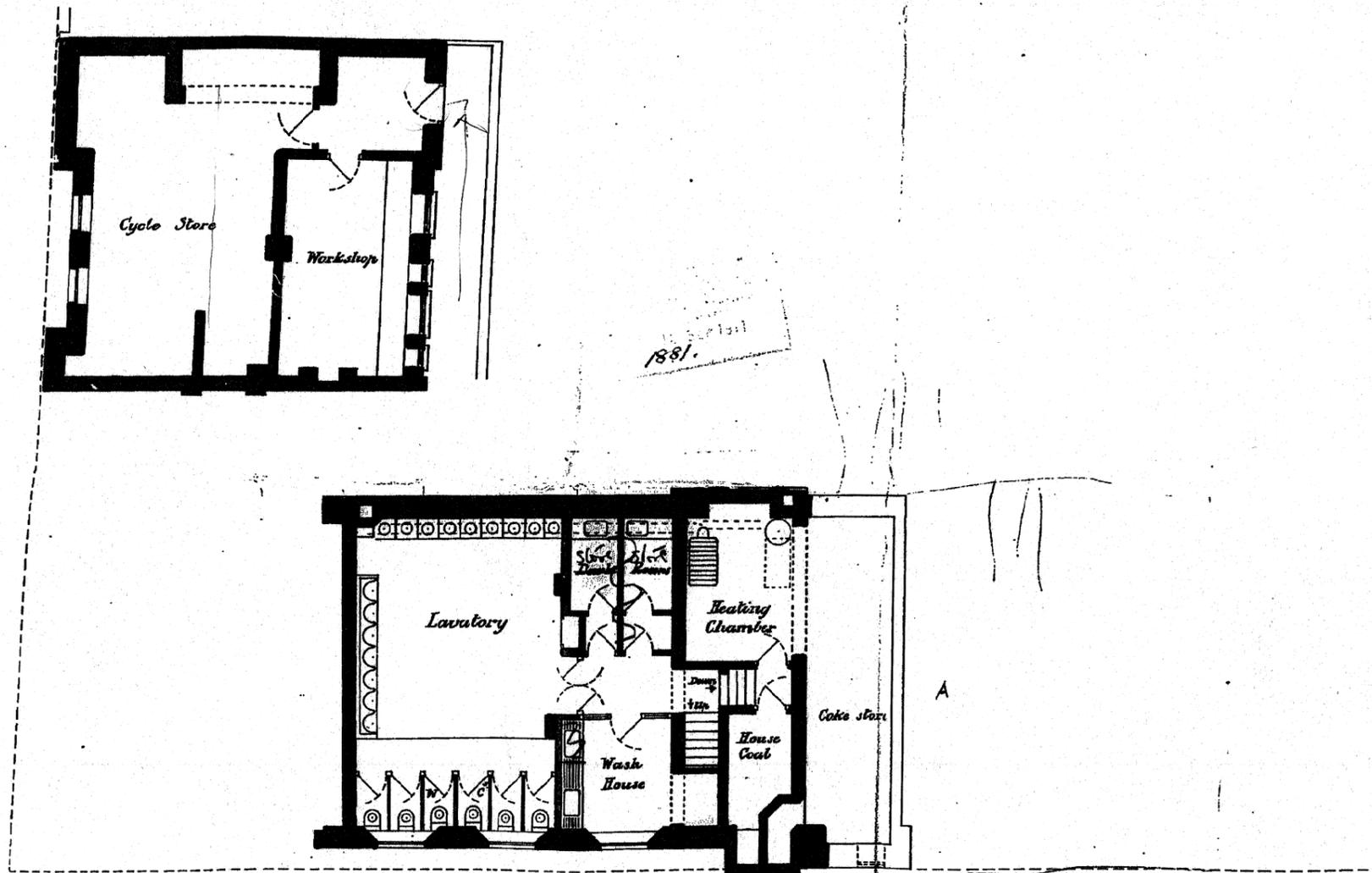
INFORMATION

Job Number:	Drawing Number:	Revision:
521/01	(EX) 012	P03

Scale:	Date:	Drawn:	Checked:	Job Number:	Drawing Number:	Revision:
1:100@A1 1:200@A3	Mar 2012	IS	NC	521/01	(EX) 012	P03

Appendix 2
Archive Drawings

RUSKIN COLLEGE



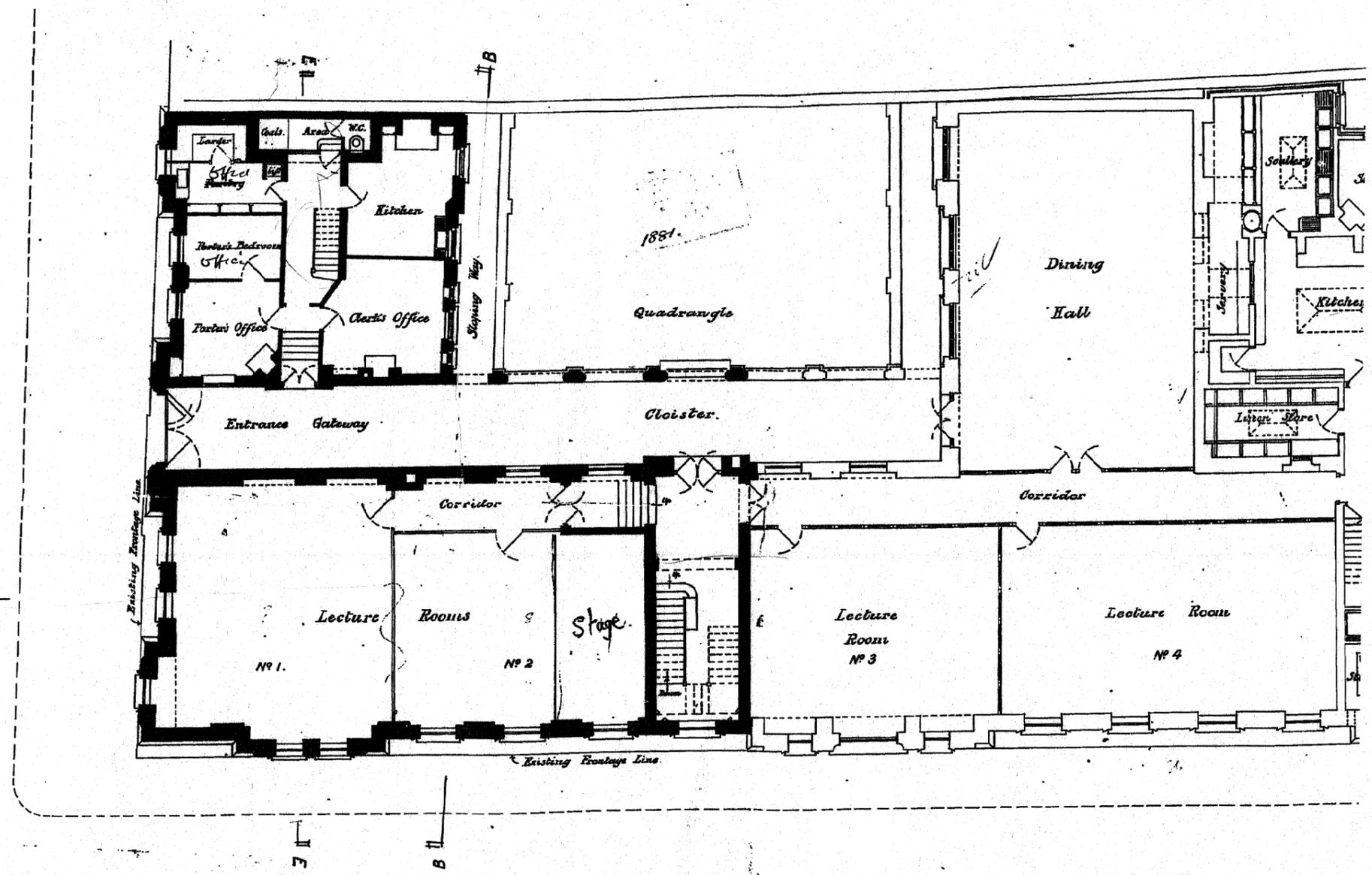
BASEMENT PLAN

SCALE: EIGHT FEET TO AN INCH

stairs relocated

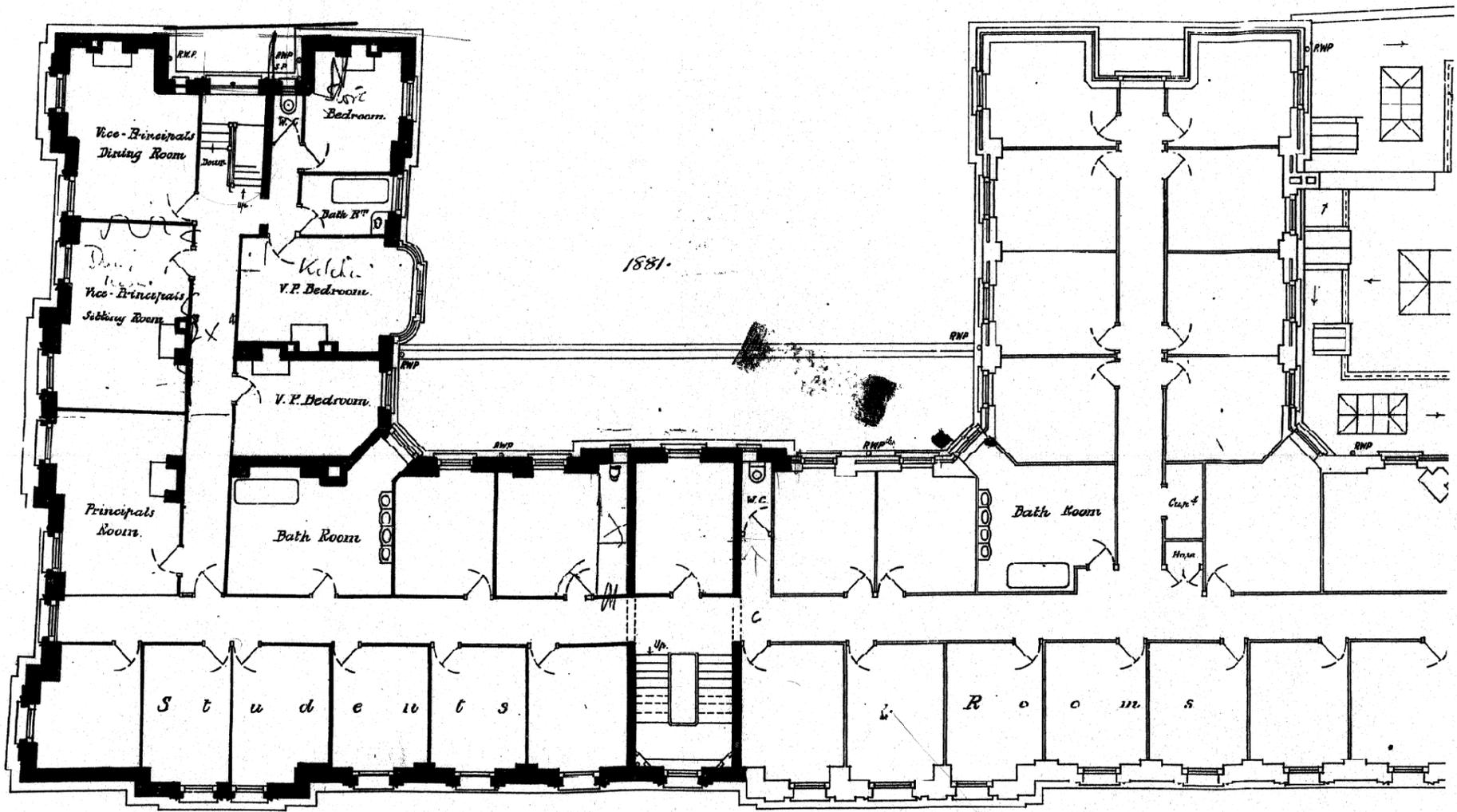
RUSKIN COLLEGE

Section



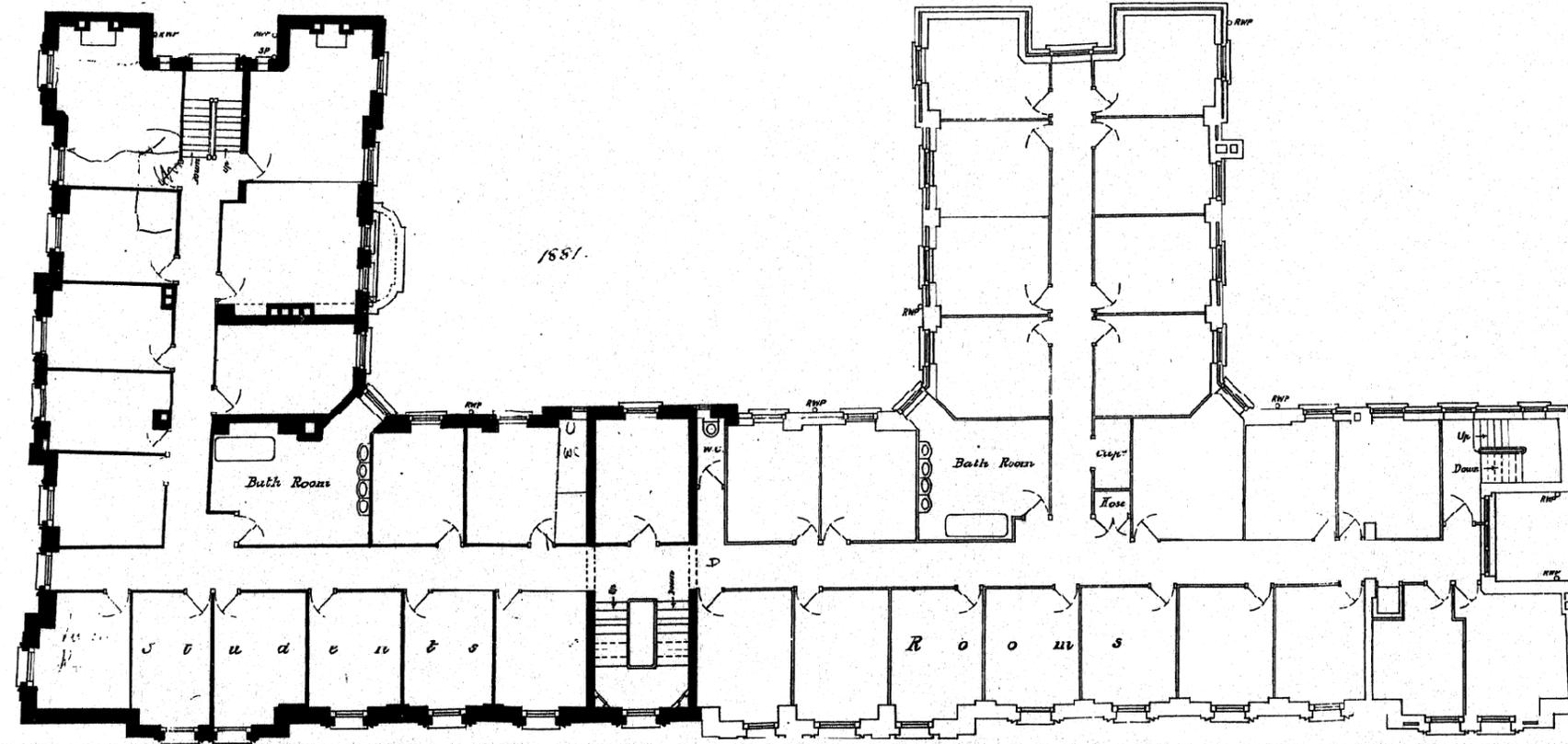
GROUND PLAN

RUSKIN COLLEGE



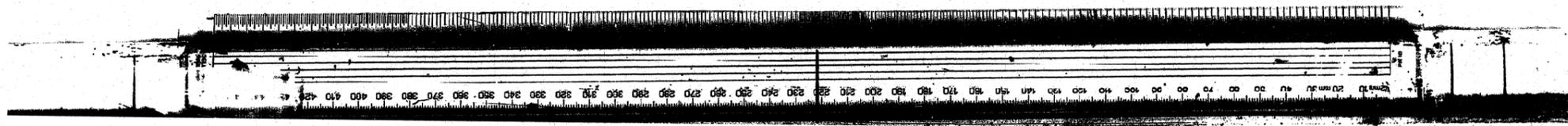
FIRST FLOOR PLAN

RUSKIN COLLEGE

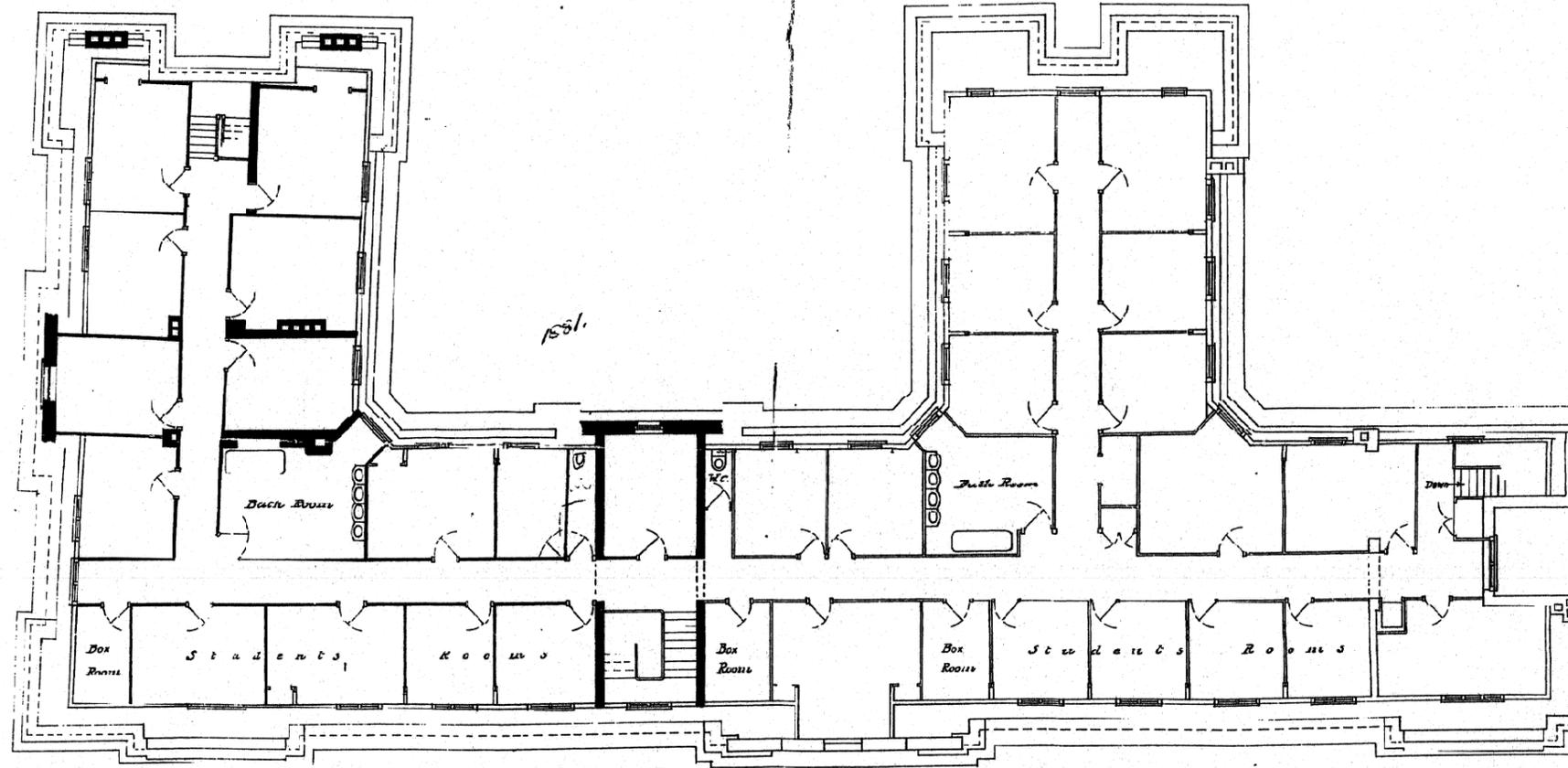


SECOND FLOOR PLAN

SCALE: EIGHT FEET IN AN INCH



RUSKIN COLLEGE



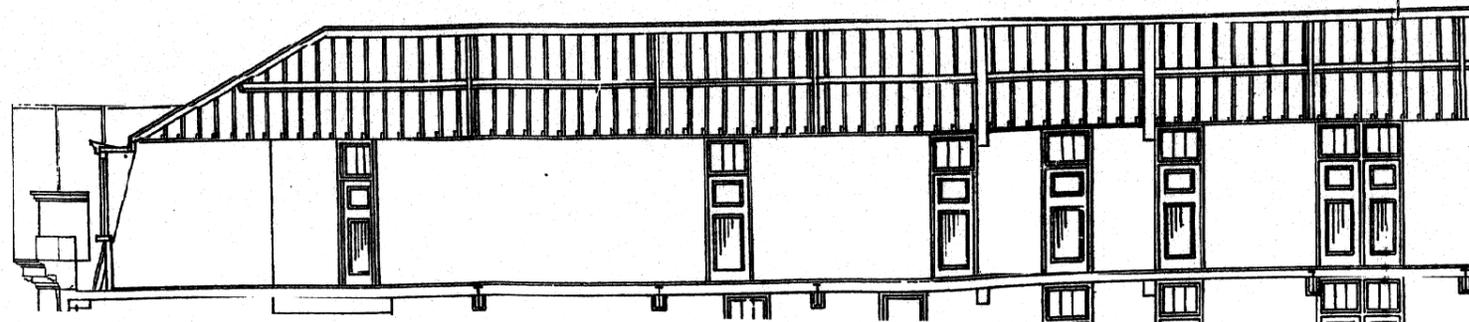
THIRD FLOOR PLAN

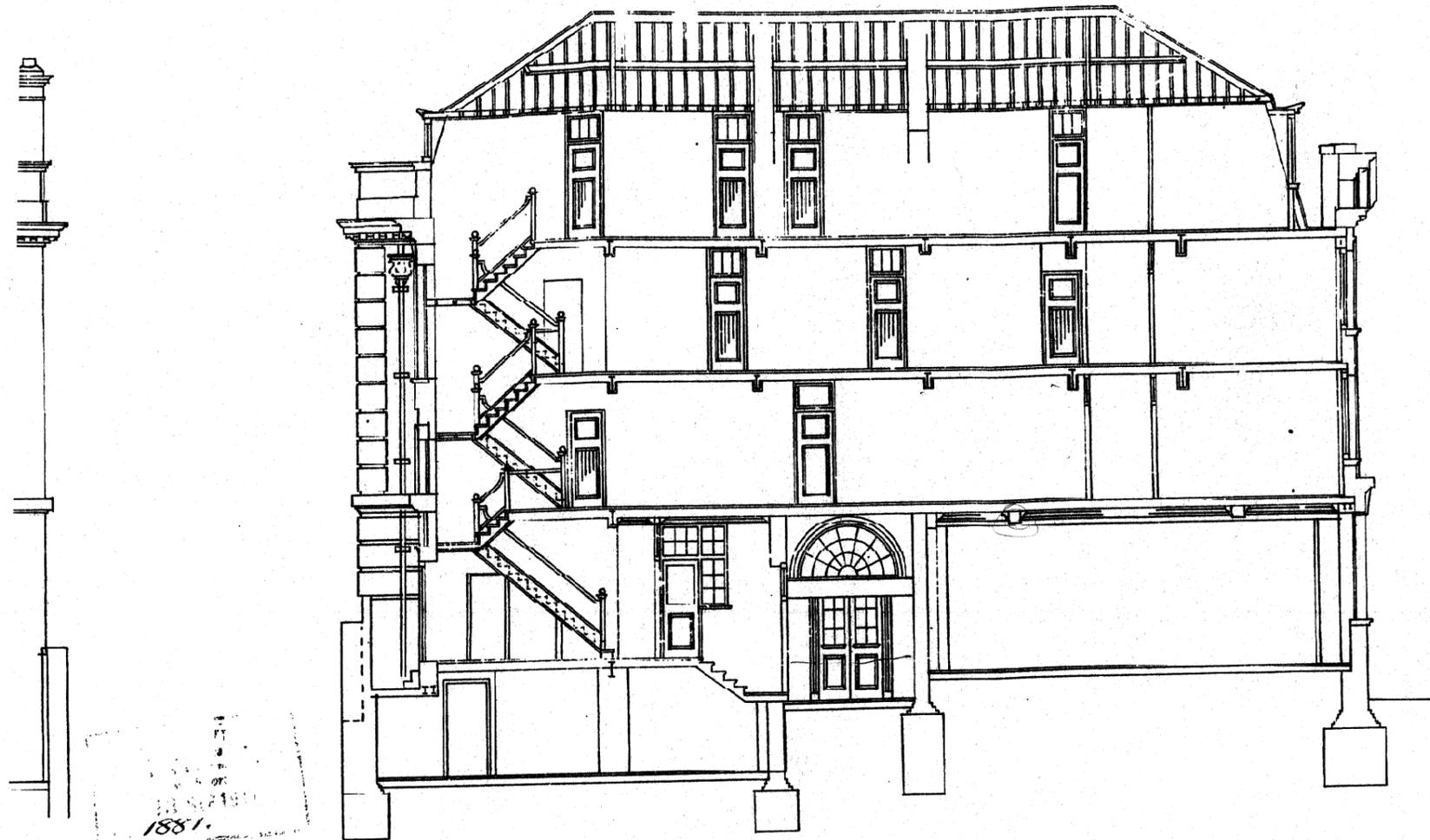
SCALE: EIGHT FEET TO AN INCH

RUSKIN COLLEGE



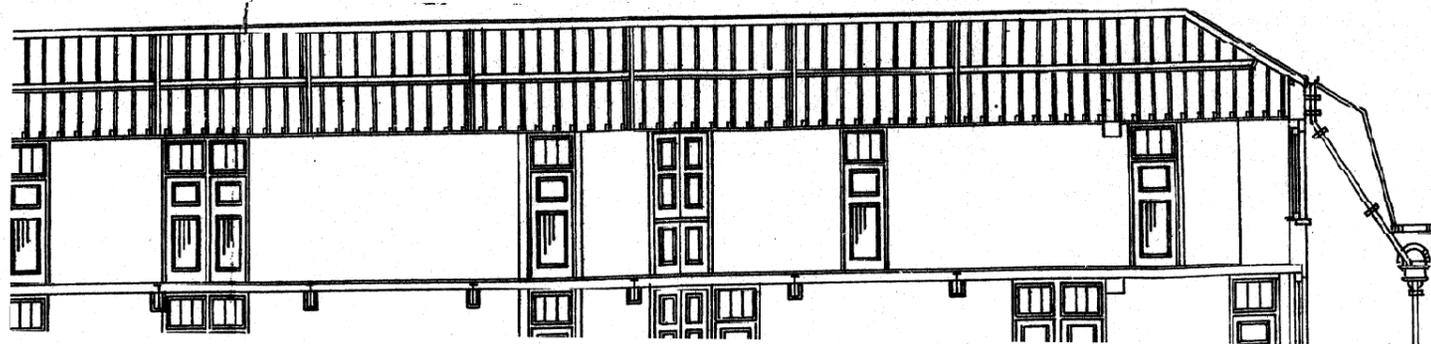
SECTION B B



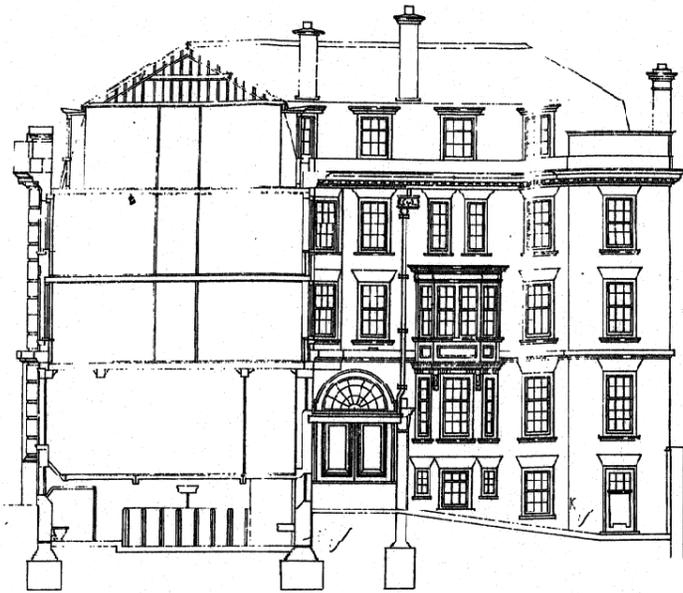


1881.

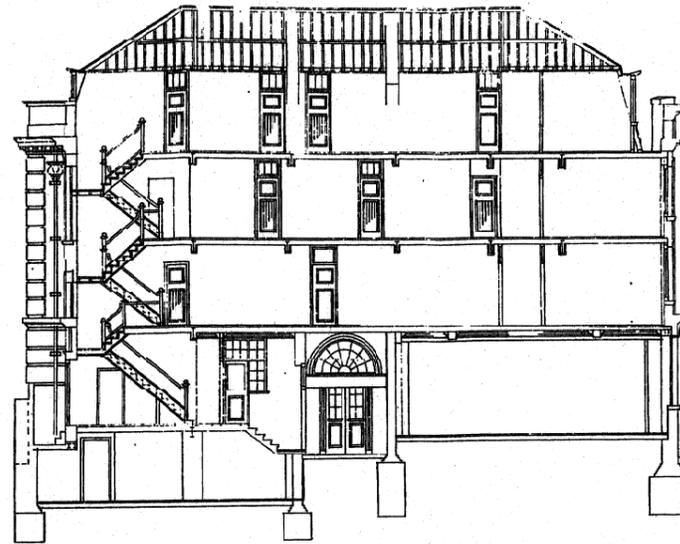
SECTION E E



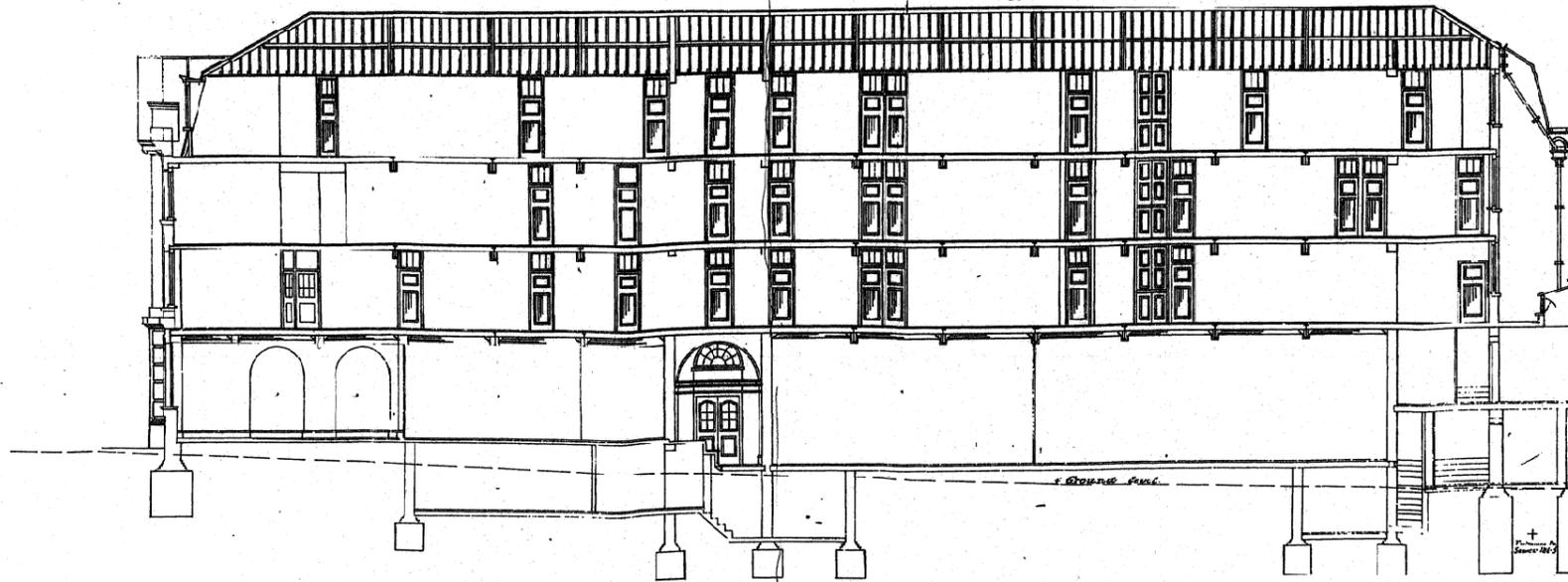
RUSKIN COLLEGE



SECTION B B

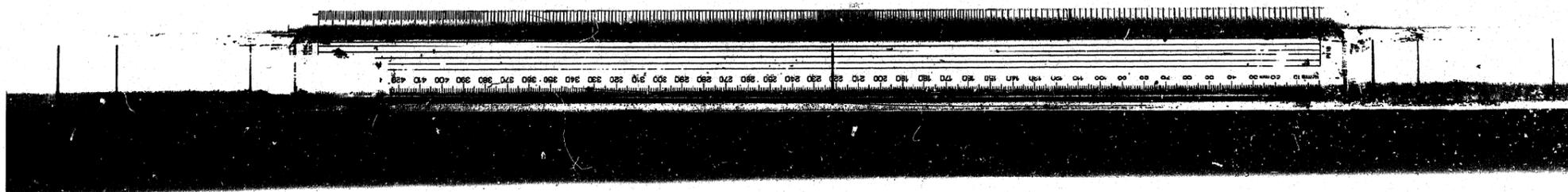


SECTION E E



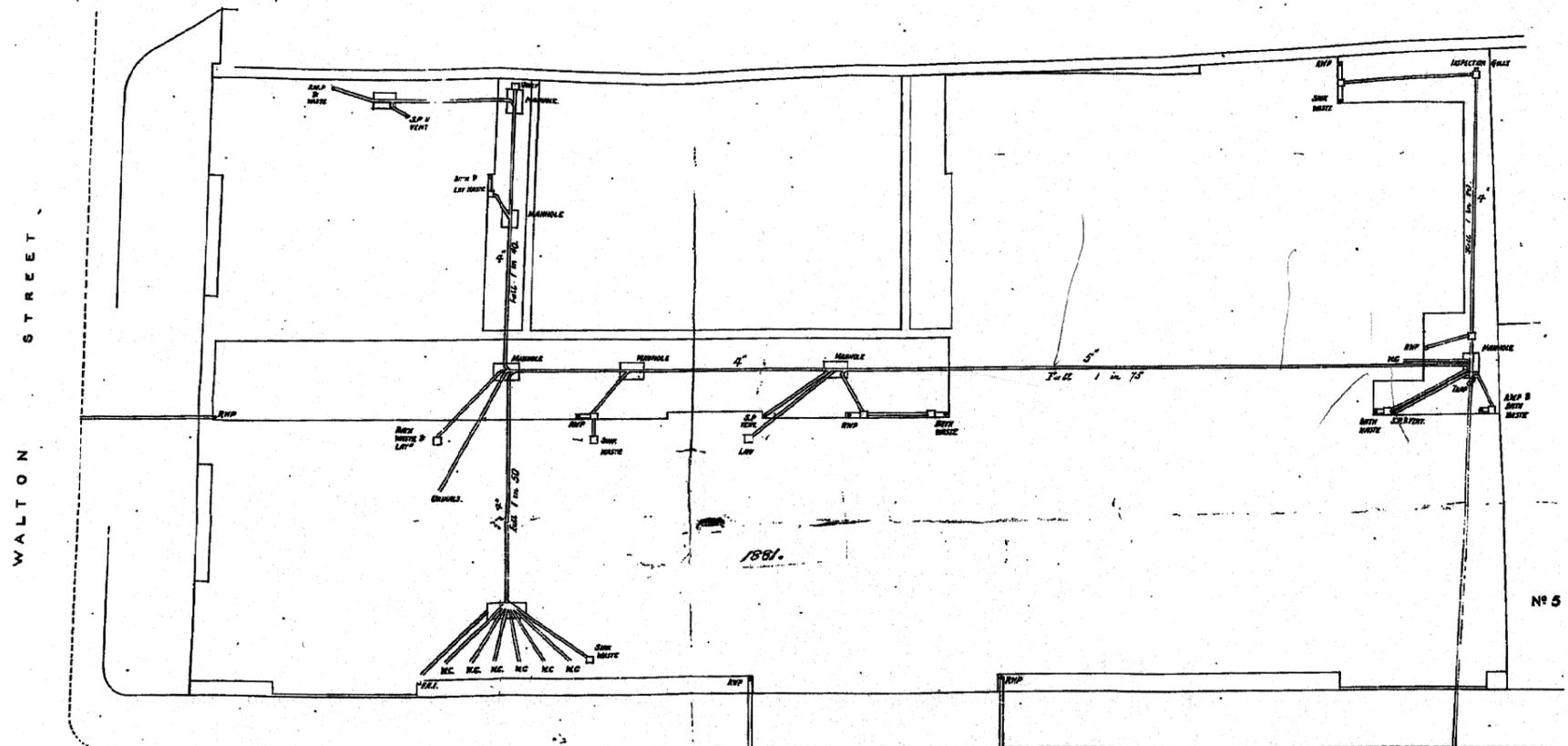
SECTION F F

SCALE: Eight Feet to an Inch



RUSKIN COLLEGE

WORCESTER COLLEGE GROUNDS



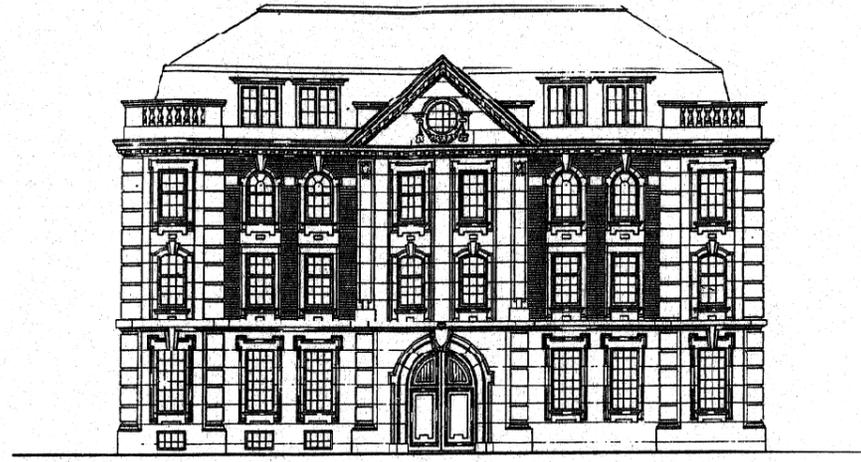
WORCESTER PLACE

BLOCK PLAN

Eight Feet to 1/4"

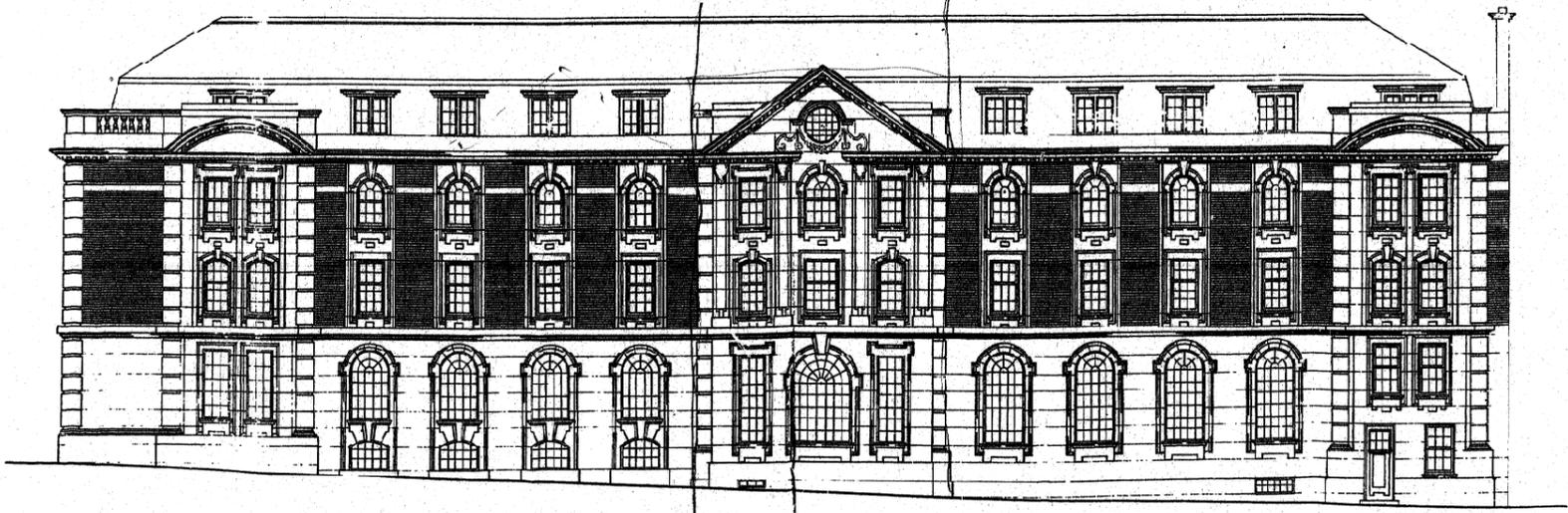
JOSEPH A. SMITHSON,
ARCHT.
25 Queen St., Cambridge, Mass.
1881

· RUSKIN · COLLEGE · OXFORD ·



1881

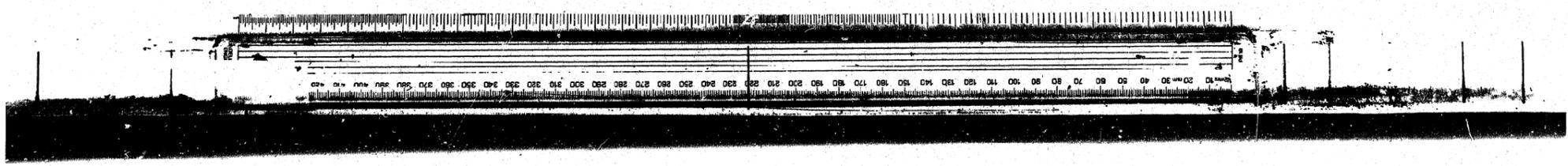
· ELEVATION TO WALTON STREET ·



· ELEVATION TO WORCESTER PLACE ·

· 1/8" SCALE ·

JOSEPH & SMITHEN
ARCHT. & C.
83 QUEEN ST CHEAPSIDE, E.C.



TELEGRAMS, CORNERSTONE, LONDON. - TELEPHONE 6022 BANK.

25, Queen Street,
Cheapside.

London, E.C. 4.
11th September 1911.

JOSEPH & SMITHEN,
ARCHITECTS
&
SURVEYORS.

DICTATED BY
L.M.
FILE NO. M.

Dear Sir,

Rush College.

We have to thank you for your letter of the 5th instant and are obliged to you for pointing out to us where our drawings do not comply with the Bye-laws. We therefore agree to make the following amendments as arranged with you to-day.

1. To thicken the North and South walls of basement to 2'6" and the cross walls to 1'6".
2. All walls below ground level to have vertical damp course.
3. Vice-Principal's Sitting Room chimney back to be 9".
4. All windows of habitable rooms to be one-tenth of floor area.
5. Nicholes and gullies to be outside the buildings and surface water drains to be separate.
6. All doors to large Lecture rooms to open out.
7. Every habitable room will be provided with a ventilator.

Yours faithfully,



W. H. White Esq. M.I.C.E.
City Engineer's Office,
OXFORD.

TELEGRAMS, CORNERSTONE, LONDON. - TELEPHONE 6082 BANK.

85, Queen Street,
Cheapside,

London, 18th. August. 1911.
E.C.

J. SMITHEM,
ARCHITECTS
&
SURVEYORS.
L. W.
R. L.

Dear Sir,

Building Notice.

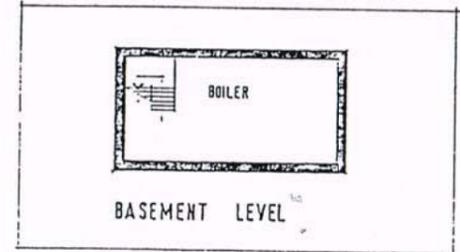
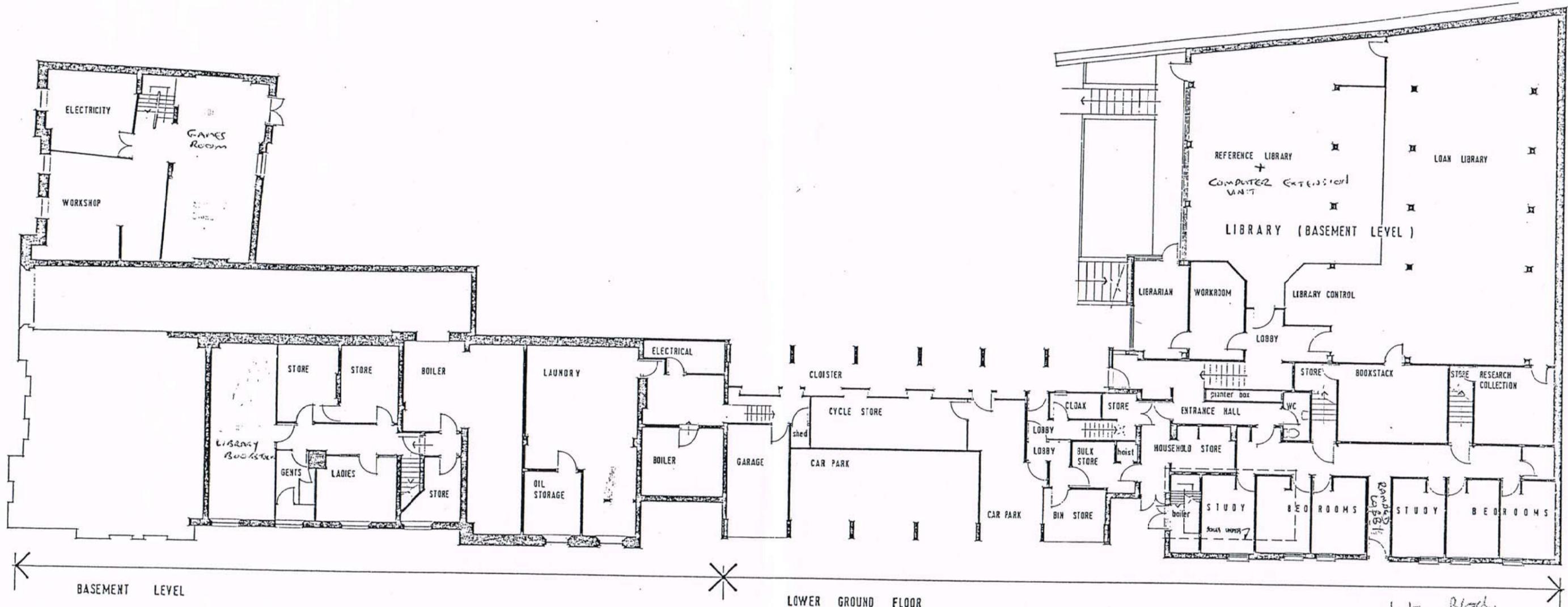
We herewith send you complete plans and sections of the above together with the Building Notice, for the approval of your Council. We shall return it a week if, in the event of your requiring any explanation or variation, you would communicate with us before bringing the matter before your Council formally, when we should be happy to come down and see you thereon.

It is proposed to erect in the first instance that portion only coloured red, but of course the whole of the dwellings will have to be put in under the first contract.

Yours faithfully,

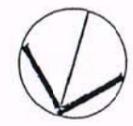
W. H. White

W. H. White Esq.
City Engineer,
OXFORD.



Kilmer Blvd.

THIS SURVEY DRAWING IS LARGELY BASED UPON DRAWINGS SUPPLIED BY RUSKIN COLLEGE AND IS NOT THE RESULT OF A FULL MEASURED SURVEY. CRITICAL DIMENSIONS MUST BE CHECKED ON SITE.



Rev: _____ Ides: _____
 RUSKIN COLLEGE, WALTON STREET, OXFORD.
 SURVEY PLAN AS EXISTING.
 MARCH 1990.

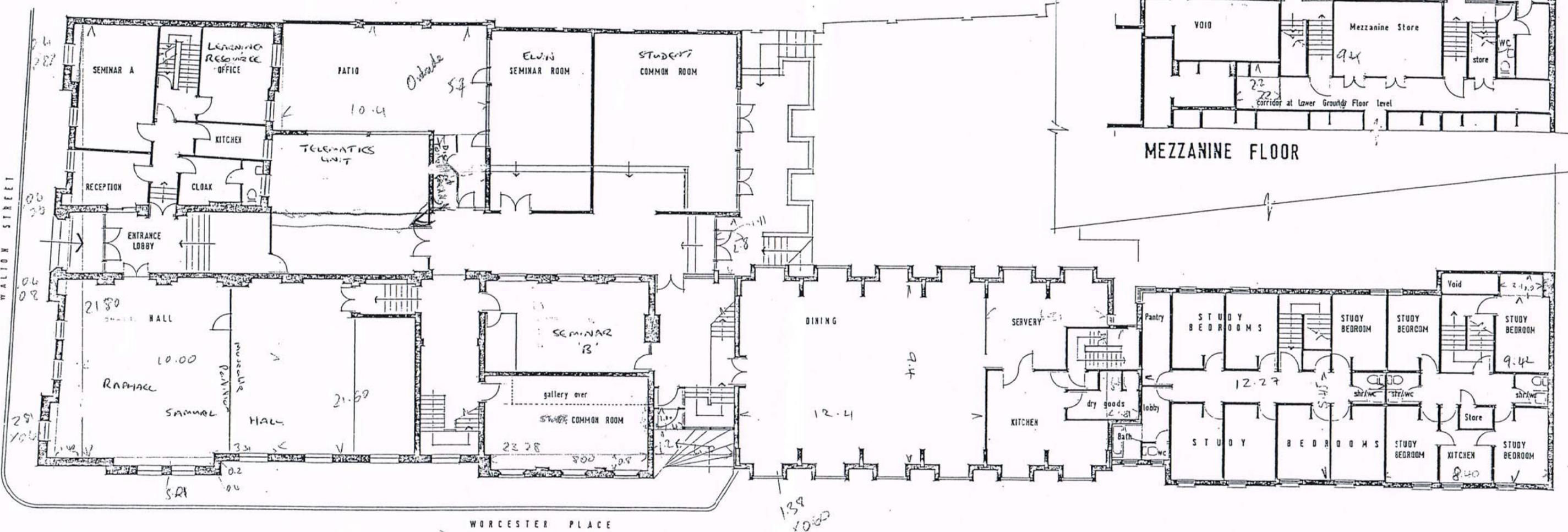
BASEMENT and LOWER GROUND FLOOR

Scale	Date	Drawn
1:100	March 1990	JW

Job No.	Dwg No.	Rev
901	1	

WEST and WADDY
 Chartered Architects

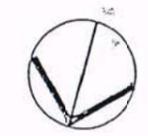
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 Abingdon, Oxfordshire, OX14 3HN Tel: 0235 23119



GROUND FLOOR

WORCESTER PLACE

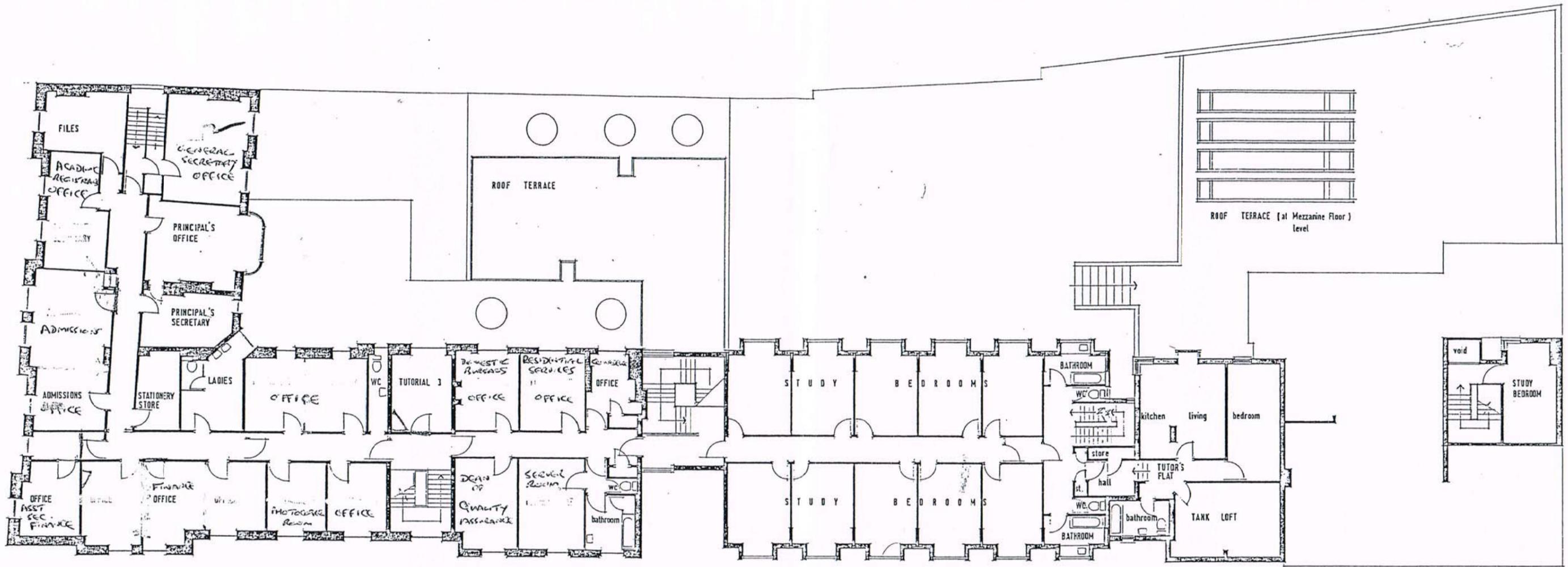
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Rev			Date		
RUSKIN COLLEGE, WALTON STREET, OXFORD.					
SURVEY PLANS AS EXISTING. MARCH 1990.					
GROUND FLOOR and MEZZANINE FLOOR PLANS					
Scale	Date	Drawn			
1:100	March 1990	JW			
Dwg No	Dwg No	Rev			
901	2				

1:200

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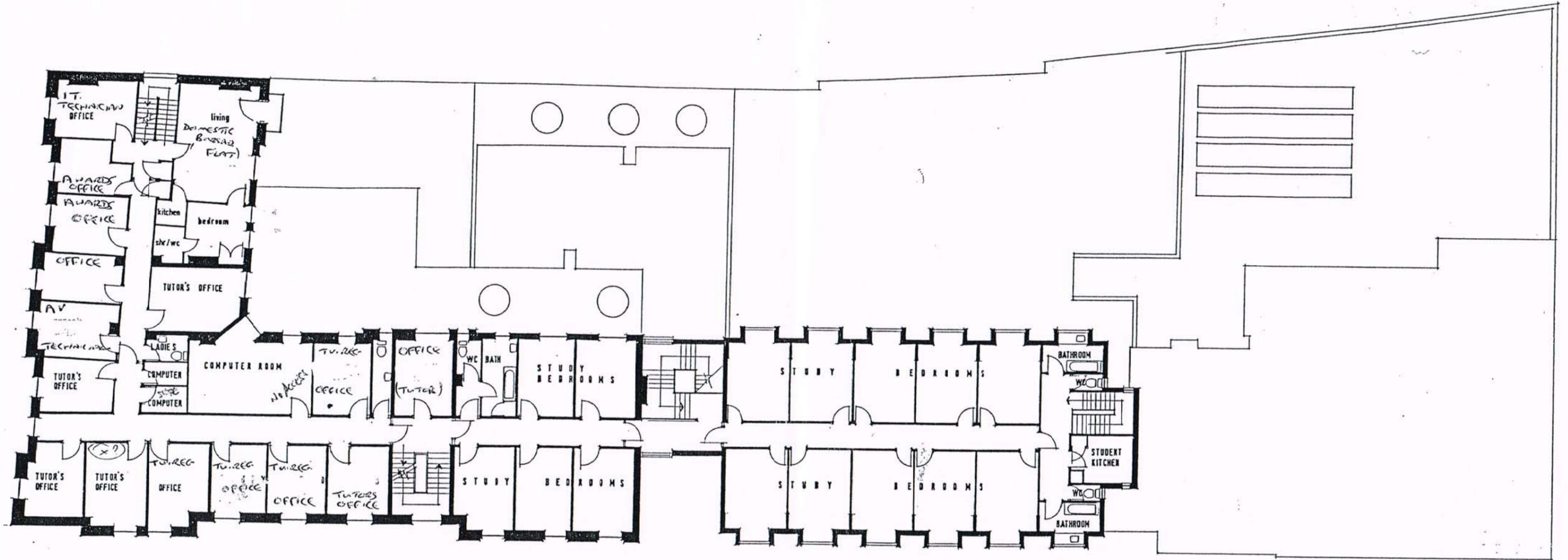


Rev. 1	Date	
RUSKIN COLLEGE, WALTON STREET, OXFORD.		
SURVEY PLANS AS EXISTING, MARCH 1990.		
FIRST FLOOR PLAN		
Scale	Date	Drawn
1:100	March 1990	JW

Dwg No	Rev.
901	3

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Rev.	Date

RUSKIN COLLEGE, WALTON STREET, OXFORD.
 SURVEY PLANS AS EXISTING.
 MARCH 1990.

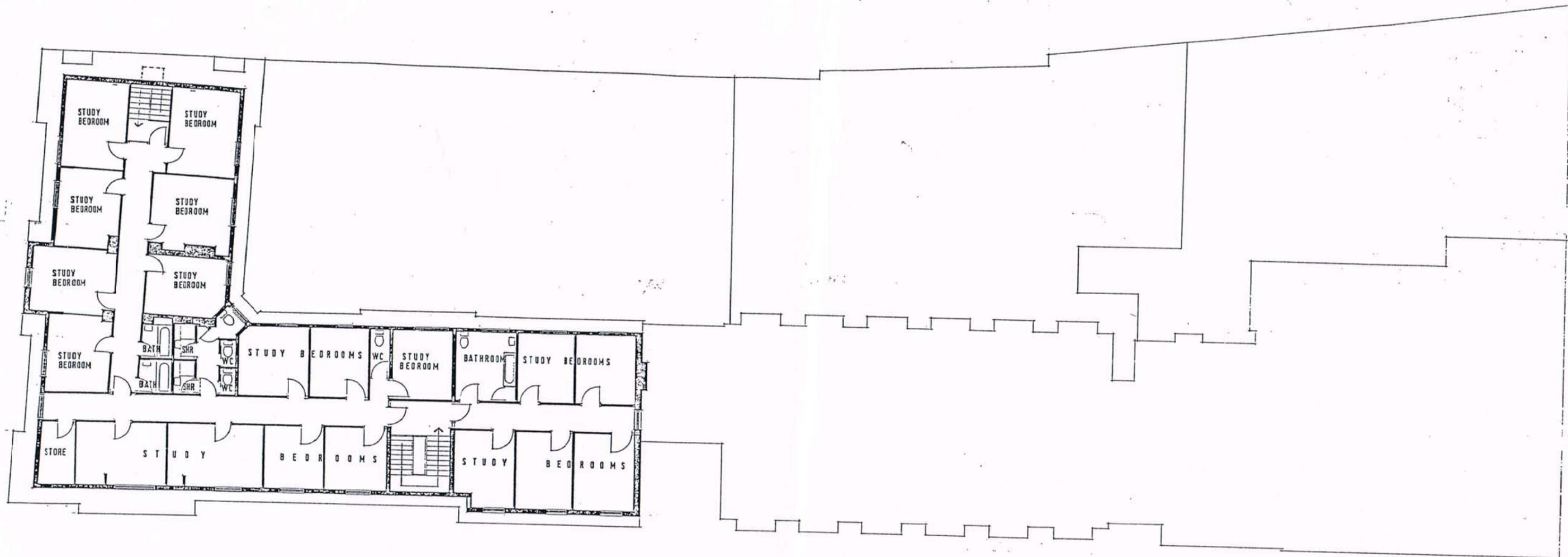
SECOND FLOOR PLAN

Scale	Date	Drawn
1:100	March 1990	JW

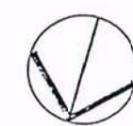
Job No.	Dwg. No.	Rev.
901	4	

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Rev.	Date	
RUSKIN COLLEGE, WALTON STREET, OXFORD.		
SURVEY PLANS AS EXISTING.		
MARCH 1990.		
THIRD FLOOR PLAN		
Scale	Date	Drawn
1:100	March 1990	JW
Job No.	Draw No.	Rev.
901	5	
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