APPENDIX 5: M&E Outline Services Strategy by MWL

20-22 Theobald’s Road
M&E Outline Services Strategy

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Project Details

Project Name: Theobald's Road
Project Reference: J2452
Client: Fernglen Properties Ltd
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-	03/08/2018	CD, RL,MA	TT	JH	For Planning Application
1	26/10/2018	CD, HM	MTM	JH	For Planning Application
For and on behalf of MWL					

Contents

SCOPE

This report provides an outline of the services strategy proposed for 20-22 Theobald's Road.

INCOMING SERVICES

Mains Water

Thames water is the network supplier in the area.

It is proposed that two bulk water supplies will feed the residential units, one for 20 Theobald's Road and one for 22 Theobald's Road.

Electricity

UK Power Networks (UKPN) are the network operators in the area.

Extra High Voltage (EHV) cables rated at 66kv, high voltage (HV) cables rated at 11kv and low voltage (LV) cables rated at 400V are located in the area. Depending on the capacity of the existing connection (to be confirmed during the detailed design stage), it shall be retained or upgraded to match the new requirements.

Telecoms

Telecommunication specialist shall provide a detailed design to deliver high quality fibre broadband connection to all residential units.

Gas

There will be no gas provision to the residential units.

MECHANICAL INSTALLATION

Above Ground Drainage

The strategy for the above ground drainage, will be to use the existing soil stack locations, as to minimise any alterations to the fabric of the building.

Heating Services

Heating to the residential units shall be via appropriately sized electrical heating elements, located within each room. There will be no boiler provision in order to avoid altering the façade (flues terminations).

Each room shall be capable of local temperature control.

Ventilation Services

The residential units shall be ventilated via a decentralised MEV system. All bathrooms and kitchens shall be fitted with individual extract fan. The extract fans shall be ceiling mounted and ducted straight to the outside. The kitchen hobs shall also be supplied with recirculating cooker hoods, which require not penetrations to the outside.

Where possible, existing façade penetrations are to be utilised, to minimise alterations to the building fabric.

Water Services

Both mains water supplies shall be boosted, via appropriately sized booster sets and break tanks. The equipment will be located within the vaults, below the sidewalk and will have individual meters for each unit. The boosted water shall feed all appliances with the units and also, all hot water cylinders.

Hot water to the units shall be provided via communal unvented electrical immersion hot water cylinders. The cylinders are to be located within the vaults, in the same space as the booster units. The systems shall be complete with a hot water recirculation pump, in order to provide instantaneous hot water to the taps.

ELECTRICAL INSTALLATION

Electrical Supply and Distribution

Each flat shall be supplied with an individually metered supply. Cables and multiway heads to individual meters will be supplied and installed by the chosen supplier; the electrical contractor will be required to provide all cable trays and containment.

Electrical Installations in Dwellings

Consumer units to be located in the hallway. Standard domestic electrical power and lighting circuits using twin and earth cables.

Double socket outlets provided in all rooms for small power requirements. Multigang type grid switches to be installed for kitchen appliances. Power also provided for extract fans

Lighting to be provided to suit previous appearance of the listed building, using wall lights and pendant sets as appropriate.

Electrical Installation in Landlord's Areas

Main switchgear and distribution boards to be located in dedicated electrical intake room. General purpose small power to be provided for cleaning (lockable sockets) and for supplying entry phone, CCTV and television installations, if required.

Lighting to be provided to common parts, generally using low energy LED fittings controlled using presence-detecting controls, with daylight cut-offs controls where appropriate. Emergency lighting to be provided to means of escape.

External lighting to be provided to all entrances and exits. All external lighting shall be provided with PIR and photocell control.

Telephones

Openreach installation to be provided to all dwellings. Cables shall be free issued by Openreach for installation by contractor.

Distribution to be below ground in ducts and then to rise up within the communal stair core of the residential building to the flat.

Door Entry and Security

All units to be provided with video door entry systems, with panels at each main entrance and monitors in units hallways. Resident access using key fobs and proximity readers at each main entrance.

Smoke Detection

Fire alarm system to be provided to meet fire strategy requirements.

20 Theobald's Road, London, WC1X 8PF

Energy Strategy Report – Planning Submission

Author: Lysimachi Iliadi

Checked by: Alex Mozaffari

INTRODUCTION-REQUIREMENTS

This Energy Strategy Report has been produced to support the application to Camden Council, by Fernglen Properties Ltd (owners), for the approval of planning permission and listed building consent in respect of the refurbishment works on the lower ground flat and the upper floor flats of a 4-storey house on 20 Theobald's Road.

No 20 is part of the terrace of No's 12-22 Theobald's Road, London, WC1X, granted as a Grade II Listed Building, located within the Bloomsbury Conservation Area and under the London Borough of Camden.

The proposed scheme aims to redesign the flats to create one-bedroom flats at lower-ground, ground and first floor levels and a three-bedroom maisonette at the second and third floor.

SAP Calculations have been undertaken to examine the proposed energy requirements in accordance with Building Regulations Part L1B (2010 edition, including 2013 and 2016 amendments). The proposed scheme consists of minor fabric alterations which don't erode the historical significance of this Statutorily Listed Building Grade II. All the energy efficiency measures considered aim to address the National, Regional, Local Policies including CC1, CC2 and SPG3 of Camden's Local Plan.

As the property is considered a listed building, there is not a mandatory requirement for compliance with Building Regulations Part L, however the aim should be to improve the energy efficiency as far as reasonably practical, ensuring that the proposed works do not alter the character or appearance of the historic building.

DESIGN SPECIFICATIONS - APPROACH

The SAP methodology has been used to calculate the energy consumption and resultant CO_2 emissions for No. 20 of Theobald's Road as estimated for the existing current state of the building (DER-Existing). Afterwards, integrated passive and active design improvements were being implemented on the calculations to estimate the impact that will have on the energy demand and resultant CO_2 emissions (DER – Proposed).

Assumed U-Values were being used based on the age band of the building (in accordance with BRE) to represent the base case existing model's fabric performance, as it can be seen on the first column of Table 1.

As the building is Listed, with significant historic features, character and appearance, the fabric will be retained, revealed and repaired as necessary with some minimal upgrades. As mentioned in table 1, insulation will be incorporated on the internal floors (suspended timber) covering the existing cavity layer to provide noise diminution. The proposed U-Value considered (0.25 W/m^2K) is based on the limiting fabric parameters values stated on Table 3 (b) of Part L1B.

Also, the Front Elevation's windows at ground to second floor already have a secondary glazing and it is proposed to install a secondary glazing on the front elevation of all the floor levels to enhance their thermal and noise performance.

Building Element	Base Case - Existing Fabric Parameters	Proposed Improvements – Improved Fabric Parameters
External Walls	0.6 W/m^{2}K	0.6 W/m^{2}K
Roofs	0.4 W/m^{2}K	0.4 W/m^{2}K
Floors	1.2 W/m^{2}K (All floors)	0.25 W/m^{2}K (Internal Floors) / 1.2 W/m^{2}K (Lower Ground)
Windows: U-value/ G-value	1.8 W/m^{2}K (Front Elevation)/76%– GF to 2nd Floor 4.8 W/m^{2}K (Other Elevations)/85%	1.8 W/m^{2}K (Front Elevation)/76% - All Floor Levels (LG to 3rd Floor) 4.8 W/m^{2}K (Other Elevations)/85%
Doors	4.8 W/m^{2}K	4.8 W/m^{2}K

Table 1: Comparison of Fabric Specifications between the Base Case Existing Fabric Parameters and the Proposed Improved Fabric Values.

The proposed scheme includes electric underfloor heating/electric radiators whereas the hot water for all the flats will be provided via a communal hot water cylinder (Table 2).

The units would be naturally ventilated with updated intermittent extract fans on all the wet rooms (bathrooms and kitchens) and equipped with energy efficient lighting fittings throughout as mentioned on the following table.

Services	Base Case - Existing Services	Proposed Improvements – Services
Space Heating	Electric Radiators	Electric Heating (Underfloor and/or Radiators)
Hot Water	Immersion Cylinder (GF to 3rd Floor) Instantaneous Electric (Basement)	Communal Single Immersion Cylinder (Electric) – (Serving all floors)
Mechanical Cooling	None	None
PV Panels	None	None
Ventilation	Natural Ventilation-Intermittent Extract Fans on Wet Rooms	Natural Ventilation-Intermittent Extract Fans on Wet Rooms
Lighting	Fluorescent lighting everywhere	100% have luminous efficacy ≥ 45 lm/W (Low-Energy)

Table 2: Comparison of Systems Specification between the Base Case Systems and the Proposed Improved Systems.

SUMMARY OF THE RESULTS

The result of the SAP calculations for all the flats on 20 Theobalds Road is illustrated in the following figure (Figure 1), which compares the average area-weighted Dwelling Emission Rate (DER) of the current existing building with the average area-weighted Dwelling Emission Rate (DER) of the improved proposed building.

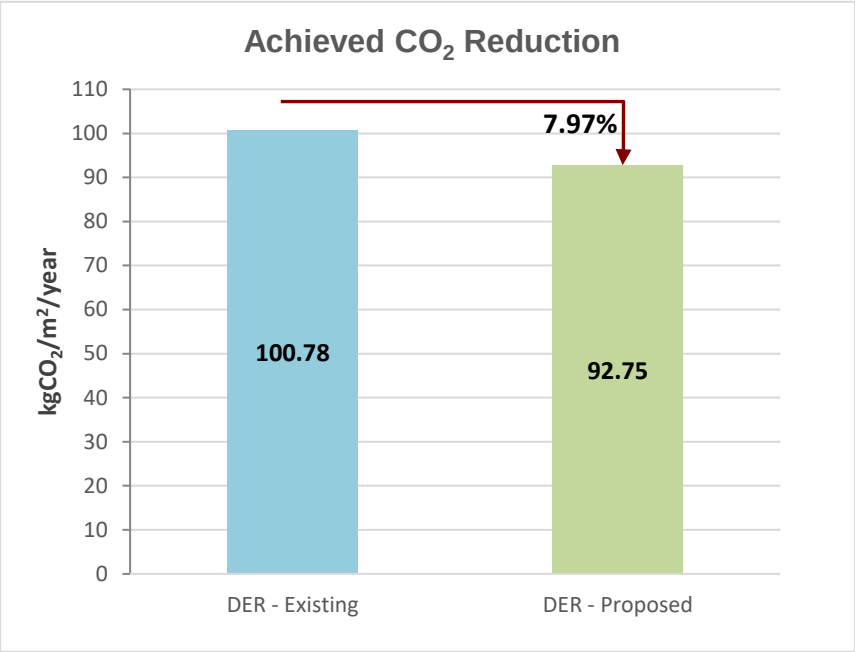

Figure 1: Achieved CO_2 reduction after the implementation of the proposed improvements to the existing building.

Also, the total regulated carbon dioxide (CO_2) emissions of Unit 20 by incorporating all the improvements have been calculated to 25.18 CO2 tonnes per annum, compared to 27.36 CO2 tonnes per annum of the current existing building baseline emissions (Table 3).

Unit 20 CO_2 Emissions		
	CO_2 EMISSIONS / ANNUM (TONNES)	% IMPROVEMENTS
Baseline -Existing	27.36	-
Proposed Changes	25.18	7.97%
Overall CO_2 Emissions Reduction		7.97%

Table 3: Achieved CO_2 emissions in tonnes for the existing & proposed buildings.

Figure 1 and table 3 confirms that by incorporating a combination of feasible passive measures along with the replacement of outdated services and provision of LED lighting throughout, a reduction of 7.97% in CO_2 emissions has been achieved compared to the current ones.

As mentioned in the previous paragraphs, Listed Buildings are exempt from the minimum energy efficiency requirements proposed in Part L1B and therefore further improvements are not necessary since a sensible and pragmatic approach was considered to improve the overall fabric and energy efficiency of this historic building.

APPENDIX 6: Heritage Impact Schedule

20 Theobalds Road, London WC1

Heritage Impact Schedule

To be read in conjunction with Architect's Drawings

The schedule contains a summary of the remediation, repair and alteration works proposed in the Planning and Listed Building Applications for the conversion of the property from a house in multiple occupation to 4 dwelling flats.

The proposals are to be considered in the context of the special interest and surviving architectural features of this Grade II Listed building. Where proposed demolitions or alterations are described, an assessment of their impact is made on the heritage asset or its architectural features. These are based on their value and significance as described in the English Heritage Guidance "*London Terrace Houses 1660 to 1860*."

Directions / locations of building elements, i.e. left, right, front, back are given as if facing the property from Theobalds Road.

Building Survey & Recording of the interior by Mike McGill MRICS, MSc (Hist Cons), IHBC February 2018.

Schedule Ref: 1806.601a

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Ref	LOCATION/ ELEMENT	PROPOSED WORKS	IMPACT ON HERITAGE ASSET
DEMOLITIONS & STRIPPING OUT			
	1. Basement Level	Front Bedroom and Adjoining Storeroom: Dismantle modern built-in cupboard to LH wall and remove. Demolish partition forming storeroom and back of shower room and W.C.	Positive / Neutral impact on significance of the building. This alteration removes modern accretions which undermined the reading of the plan form of the former domestic space.
		Shower Room: Strip out and disconnect shower cubicle and associated pipework. Modern flush-finished timber door removed and timber framed and plasterboard partition demolished.	Positive / Neutral impact on significance of the building. The removal of the small cubicles opens the plan form to bring it closer to its original layout while still providing necessary sanitary facilities.
		WC: Strip out and disconnect toilet pan and hand basin and associated pipework. Modern flush timber door removed and timber framed and plasterboard partition demolished.	Positive impact as described above.
		Kitchen & Dining Area: Unauthorised timber framed plasterboard nib partition and partition to lobby carefully dismantled and removed. Associated flush faced timber doors removed.	Highly positive impact on the significance of the building; this will recover the original plan form layout of the original kitchen / domestic room.
		Back Bedrooms (3nr): Unauthorised timber framed plasterboard partitions carefully dismantled and removed. Associated flush faced timber doors also removed.	Highly positive as described above.
	2. Ground Floor	Front Bedroom: Unauthorised timber framed plasterboard partition carefully taken down. Associated poor quality modern door removed.	Highly positive impact on the significance of the building; this will recover the original plan form layout of the principle rooms. Removal of partition will allow original chimney piece and hearth to be properly read within the room.
		Shower Room / WC: Strip out and disconnect toilet pan, hand basin, shower cubicle and associated pipework. Dropped plaster-board and timber ceiling taken down and disposed. Modern 4 panel door removed and unauthorised timber framed partition demolished.	Highly positive impact on the property, will recover the original plan form layout and height of a principal room; will also reveal original spine wall with its high quality door case and wall paneling. Original timber paneling to left and back walls will also be revealed.

Ref	LOCATION/ ELEMENT	PROPOSED WORKS	IMPACT ON HERITAGE ASSET
		Flat Lobby and Kitchen: Unauthorised timber framed plasterboard nib partition and worktop dismantled and removed. Partitions and shelving to lobby, water heater cupboard (and its over-cupboard) and kitchen carefully dismantled and removed. Kitchen units removed from original historic wall panelling. Associated poor quality flush faced timber doors and panelled door to over-cupboard all removed.	Highly positive impact. These removals will allow the surviving high quality door case and cornice to be fully read along with wall paneling to front and right walls. Revealing the blocked lateral doorway to Nr22 will also articulate the earlier commercial use of the building
		Back Bedrooms (3nr): Unauthorised timber framed plasterboard partitions carefully taken down and demolished. Associated poor quality flush faced timber doors removed. Unauthorised timber mezzanine structure and its associated supporting posts and balustrade all dismantled and removed.	Highly positive impact on the significance of the building; will recover the original plan form layout of a principle room. The original wall paneling and chimney piece will be fully revealed to the room.
		Generally: Strip out redundant and/or poorly fitted services from walls and ceilings. e.g. cabling, plastic conduit, light fittings etc	Positive impact on the aesthetic appearance of the interior through the removal of piecemeal services clutter. The original high quality joinery and decorative plasterwork will be clearly expressed without incongruous features.
		Entrance Hall: Take down and remove the partition that forms ground to first floor stairwell enclosure. The return partition and blocked doorway enclosing the top of the ground to basement stairwell is to be also taken down.	Highly positive impact on the significance of the ground floor space. The original spatial qualities of the main entrance hall to the house will be restored. The original cast iron stair balustrade will also be revealed and fully seen within the hall.
3. First Floor		Front Bedroom: Unauthorised timber framed plasterboard partition carefully taken down. Associated poor quality flush-faced timber door removed.	Highly positive impact on the significance of the building; this will recover the original plan form layout of a principle room.
		Shower Room / WC: Strip out and disconnect toilet pan, hand basin, shower cubicle and associated pipework. Dropped plaster-board and timber ceiling taken down and disposed. Modern flush-faced timber door removed and unauthorised timber framed partition demolished.	Highly positive impact as stated above. The original full room height will also be restored.

Ref	LOCATION/ ELEMENT	PROPOSED WORKS	IMPACT ON HERITAGE ASSET
		Stairwell & Landing: Modern timber-framed and plasterboard partitions to be demolished to full height and removed.	Positive. Wil restore the openness of the original stairwell planform and allow the original balustrade to be seen.
		Flat Lobby and Kitchen: Unauthorised timber framed plasterboard nib partition and worktop dismantled and removed. Partitions and shelving to lobby, water heater cupboard (and its over-cupboard) and kitchen carefully dismantled and removed. Kitchen units removed from original historic wall panelling. Associated poor quality flush faced timber doors and panelled door to over-cupboard all removed.	Highly positive impact. These removals will allow the surviving pair of high quality door cases and cornice to be fully read along with wall paneling to front and right walls. Revealing the blocked lateral doorway to Nr22 will also articulate the earlier commercial use of the building.
		Back Bedrooms (3nr): Unauthorised timber framed and plasterboard partitions carefully taken down and removed. Associated poor quality flush faced timber doors removed. Unauthorised timber mezzanine structure and its associated supporting posts and balustrade all dismantled and removed. Dismantle and dispose the 2nr integrated cupboards fitted at each end of the back (bay) wall.	Highly positive impact on the significance of the building; this will recover the original plan form layout of a principle room. Removal of fittings will reveal the original composition of the internal elevation. Removal of mezzanines and partitions will allow to entirety of the original decorative plasterwork patterns to the ceiling. The high quality carved stone and marble chimney piece will also be properly seen within the room.
		Generally: Strip out redundant and/or poorly fitted services from walls and ceilings. e.g. cabling, plastic conduit, light fittings etc	Positive impact on the aesthetic appearance of the interior through the removal of piecemeal services clutter. The original high quality joinery and decorative plasterwork will be clearly expressed without incongruous features.
4. Second Floor		Front Left Room: Take down unauthorised timber framed plasterboard partition. Construct new full height timber-framed partition further back to room to form new kitchen space. Reverse existing door swing and replace modern door with new six flat-panel painted timber door. Install new free floor-standing kitchen units.	Positive / Neutral impact on the significance of the building. This removal will enlarge the room, closer to its original layout.

Ref	LOCATION/ ELEMENT	PROPOSED WORKS	IMPACT ON HERITAGE ASSET
		Shower Room / WC: Strip out and disconnect toilet pan, hand basin, shower cubicle and associated pipework. Partially take down separating timber framed plasterboard partition. Poor quality timber doors with planted mouldings removed. New painted timber six flat-panel door to be fitted.	Positive / Neutral Impact as stated above. Poor quality and faux Georgian joinery fixtures removed.
		Landing & Stairwell: Partially cut back and take down balustrading partition to align with flat entrance lobby enclosure. Poor quality modern timber door (with planted mouldings removed). New painted timber six flat-panel door fitted with swing reversed inwards.	Positive Impact. Will partially restore the openness of the original stairwell planform and allow the original balustrade to be seen. Incongruous looking modern door removed.
		Kitchen and Flat Lobby: Unauthorised timber framed plasterboard partition and nib taken down and removed. All kitchen units, wall cupboards, shelves and worktops dismantled and removed. Poor quality flush faced timber door removed. Laminated plank floor covering stripped up and disposed.	Positive Impact. This will help recover the original plan form layout this back room. Removal of fittings clutter will reveal the internal elevations.
		Back Bedrooms (3nr): Unauthorised timber framed plasterboard partitions carefully taken down and demolished. Associated poor quality flush faced timber doors all removed. Modern fixtures removed from under-stair alcove.	Highly positive impact on the significance of the building; this will recover the original plan form layout the original back room. Partitions removal will allow the reading of the original moulded plaster cornice around the room. Removal of fittings will reveal the timber dado paneling to the walls.The original stone and marble chimney piece will also be properly seen within the room.
		Back Left Room: Carefully remove book-shelving fitted within original chimney piece opening.	Positive: Will remove an incongruous looking feature to the original chimney piece.
		Generally: Strip out redundant and/or poorly fitted services from walls and ceilings. e.g. cabling, plastic conduit, light fittings etc	Positive impact on the aesthetic appearance of the interior through the removal of piecemeal services clutter. The original high quality joinery and decorative plasterwork will be clearly expressed without incongruous features.

Ref	LOCATION/ ELEMENT	PROPOSED WORKS	IMPACT ON HERITAGE ASSET
5.	**Attic Storey**	Front Left & Front Middle Rooms: Modern timber framed plasterboard dividing partition taken down and removed. Built in cupboard over chimney piece carefully dismantled and removed.	Positive impact on the significance of the building. This will help recover the original plan form layout of the room which would have been the original domestic servants living quarters. Removal of the incongruous cupboard from a good quality marble chimney piece will allow this historic feature to be properly seen within the room.
		Front Right Room: Remove poor quality room-interconnecting double doors and infill the opening with insulated timber-framework with skimmed plaster-boarded facing.	Positive / Neutral impact. The doors are poor quality so removes a feature that is not in keeping with the architectural style of the house.
		Bedroom Corridor: Modern timber framed plasterboard dividing partition taken down and removed. Associated 2nr flush faced timber doors removed.	Positive impact on the significance of the building. This reverse the muddled plan form to recover the original plan form layout. The modern doors are poor quality so removes features that are not in keeping with the architectural style of the house.
		Kitchen and Entrance Lobby: Timber framed plasterboard partitions separating back room taken down and removed. Associated flush faced timber door removed. Kitchen floor and wall units removed.	Positive Impact: This removal reinstates the original plan form of the back room and the incongruous looking modern door removed. Wall clutter is also removed.
		Back Left Room: Modern timber framed plasterboard (perpendicular to party wall) partition carefully taken down. Associated 2nr panelled doors removed.	Positive impact as described above.
		Back Right Room: Strip out water heater and associated services and demolish storage cupboard. Strip out bathroom, handbasin, WC and shower cubicle.	Positive / Neutral Impact: The cupboard removal partially reinstates the original plan form of the back room.
		Landing Area: Remove modern door (with planted mouldings) and door-stops from the top of staircase.	Neutral impact. The door is of poor quality and not in keeping with the interior. There is a question mark as to whether there was originally a simple 4 panel door in this position.

Ref	LOCATION/ ELEMENT	PROPOSED WORKS	IMPACT ON HERITAGE ASSET
ALTERATIONS, ADDITIONS & REPAIRS			
6.	**Generally**	Joinery & Decorative Plaster Work: Missing elements to be pieced into match the profiles of the adjoining work. Paint removed from ceiling cornice to recover their mouldings using chemical poultice.	The ground and first floor rooms retain nearly all of their high quality architectural features which contribute significantly to the buildings special interest. Their careful restoration will greatly reinstate the architectural integrity on the interior.
7.	**Basement Level**	Replace all internal flush modern doors with traditional four-flat-panel painted timber doors. Construct new timber framed and plasterboard partition to form new bedroom and to enclose doorway into former WC. Emulsion on plaster skim finish. Fit painted wood skirting fitted to partition both sides, profile to match existing adjacent. Back Room: Freestanding kitchen units and shower room to be fitted adjacent to right hand wall. Skirtings to be retained.	Positive / Neutral Impact: Replacement four panel doors will be more in keeping with original joinery style to these lower status rooms. New partition will provide necessary sanitary facilities to the dwelling while simplifying the previously muddled plan-form. Kitchen and shower room units location will have no impact on architectural features.
8.	**Ground Floor**	Front Room: Repair moisture damaged historic panelling within the removed shower room / WC. Fix permanently shut the door separating the front room from hallway and apply white intumescent paint as undercoat to both sides.	Neutral / positive impact. Replacement features on a like for like basis. Reuse of the existing service riser for new service runs will reduce the need to make new openings or cutting into historic fabric
		Front / Back Room: Make and hang new 6 panel timber door into original opening frame. Profile and mouldings to match the surviving historic door adjacent (which leads from the hall to the back room). Back Room: Install free standing kitchen and shower room unit. Services to be run behind free standing units on top of existing floor. Overhaul sash windows to ensure proper opening to ventilate Living / Dining Room. Fit air extractor grill at high level above WC, finished flush with panel.	Highly positive impact on the significance of the interior. Reinstatement of a reproduction door in facsimile to the original will reinstate the designed symmetrical pairing with the adjoining surviving door. Kitchen units freestanding location will have no impact on architectural features. Fully operational sash windows critical to achieving ventilation/ air change requirements of the Building Regulations. Some minor loss of fabric to create opening for soil pipe extract and mechanical air extract. Visual impact is mitigated as it would be at high level and set behind the freestanding units.

Ref	LOCATION/ ELEMENT	PROPOSED WORKS	IMPACT ON HERITAGE ASSET
9. First Floor		Front / Back Room: Make and hang new 6 panel timber door into existing original frame. Profile and mouldings to match surviving door adjacent.	Highly positive impact on the significance of the interior. Reinstatement of a reproduction door in facsimile to the original will reinstate the designed symmetrical pairing with the adjoining surviving door.
		Back Room: To the retained fixed lateral door to Nr 22 Theobald Road: Paint door face with clear intumescent paint to achieve 60 minute fire resisting construction. Overhaul sash windows to ensure proper opening to ventilate Living Dining Room.	Retention of the later door opening provides physical evidence of the building's former lateral connection to Nr20 Theobalds Road. Fire upgrading prevents fire spread between the buildings without harming visual appearance
		Back Room: Install free standing kitchen and shower room unit. Services to be run behind free standing units on top of existing floor. Overhaul sash windows to ensure proper opening to ventilate Living / Dining Room. Fit air extractor grill at high level above WC, finished flush with panel.	Kitchen units freestanding location will have no impact on architectural features. Fully operational sash windows critical to achieving ventilation/ air change requirements of the Building Regulations. Some minor loss of fabric to create opening for soil pipe extract and mechanical air extract. Visual impact is mitigated as it would be at high level and set behind the freestanding units. Overhaul sash windows to ensure proper opening to ventilate room
10. Second Floor		Front Left Room: Construct new full height timber-framed partition further back into room to form new kitchen space; emulsion on plaster skim finish. Fit painted wood skirting to partition both sides, profile to match existing adjacent. New painted timber six flat-panel door to be fitted. Install free standing kitchen units along the left (party) wall with the units scrolled cut to accommodate the retained dado rail and skirting joinery. Services to be run through floor voids. Overhaul sash windows to ensure proper opening to ventilate room.	Minor impact: Second floor rooms are less architecturally important; so some intervention in plan form can be considered. The subdivision of the room is justifiable in order to provide sanitary facilities to the dwelling. The existing room has no surviving chimney piece; thus Kitchen units will not impact on architectural features or loss of fabric. The units are a reversible addition to the wall. Chimney breast would still be readable within the room. Fully operational sash windows critical to achieving ventilation/ air change requirements of the Building Regulations.

Ref	LOCATION/ ELEMENT	PROPOSED WORKS	IMPACT ON HERITAGE ASSET
		Front Left Room Contd: Fix permanently shut the door separating the front room from stair landing and apply white intumescent paint as undercoat to both sides. Reverse existing door swing and replace modern door with new six flat-panel painted timber door.	Fixing shut door is a reversible alteration allowing the door to be opened and used again in the future; thus this has neutral impact.
		New W.C: New sanitary fixtures to be installed, using existing ducting and service runs. New painted timber six flat-panel door to be fitted	The subdivision of the room is justifiable at 2nd floor level in order to provide sanitary facilities to the dwelling. Replacement panel doors have a positive impact as their style is in keeping with the character of the house.
		Back Room: Make and hang new painted timber six flat-panel door to doorway of reinstated back room.	Replacement panel door here will have a positive impact as the style is in keeping with the character of the house.
		Landing & Stairwell: New painted timber six flat-panel door and frame fitted to flat entrance with door swing reversed inwards. Door and frame to match existing fixed door and frame to front room / stairwell.	Positive impact as stated above.
11. Attic Storey		Front Right Room: Remove poor quality room-interconnecting double doors and infill the opening with insulated timber-framework with skimmed plaster-boarded facing. Retain existing door architrave surround and fit new painted timber skirting to both sides of infilled doorway to match adjacent moulding profile.	Positive / Neutral impact. The modern doors are poor quality so removes a feature that is not in keeping with the architectural style of the house. Infilling opening allows proper use of the two rooms as separate bedrooms. Retention of door surround will articulate former opening between the rooms as part of a layer of the house's history. The works will remove the muddled plan form and return it closer to its original layout, designed for domestic staff living quarters.
		Front Right Room: Fit new painted timber four flat-panel door to retained doorway; door swing reversed. Remove modern glass blocks from spine wall-partition and infill with insulated timber-framework, plaster-boarded and plaster skimmed level to the existing adjacent surface.	A new timber panel door here will have a positive impact as the style is in keeping with the character of the house. Removing the glass blocks and making good the partition-wall will return it to its original appearance.

Ref	LOCATION/ ELEMENT	PROPOSED WORKS	IMPACT ON HERITAGE ASSET
		Front left room: existing wall between front and rear room to be moved slightly to the back to accommodate new ensuite bathroom, that will reuse the existing service stack.	The minor loss of fabric and subdivision of the room is justifiable at 3nd floor level in order to provide adequate sanitary facilities to the dwelling – neutral imapct.
		Back Right Room: Make new opening in partition to form new doorway to bathroom. Door to be plain four panel painted timber door with simple ogee profile architrave. Former bathroom doorway blocked up with insulated timber-framework with skimmed plaster-boarded facing. New painted timber skirting fitted to both sides of infilled doorway to match adjacent skirting profile. New bath and sanitary fixtures to be installed, using existing ducting and service runs.	Neutral Impact: Simplifies the muddled plan form of this lower status room while better utilising the space for the main bathroom for the dwelling. The replacement panel door will have a positive impact as their style would be in keeping with the original lower status of the room. Reuse of service runs will have a neutral impact on the fabric of the building; while replacement of dilapidated waste pipes may reduce risk of water damage to plaster and timber elements in the near future.
		Rear casement windows and front sash windows to be overhauled and refurbished.	Positive impact as this will conserve the authentic window types to this attic storey.

END OF SCHEDULE

APPENDIX 7: Method Statement for Partitions & Fixtures Removal

Method Statement

For the Removal of Internal Partition-Walls and other Fixtures at:

20 Theobalds Road, London WC1

Document Ref: 1806.602.

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INTRODUCTION

This document sets out the building works methodology for the removal of a range of partition-walls and other fixtures to the interior which have been deemed illegal or unauthorised by Camden Borough Council. The property is a Grade II listed building and as such is statutorily protected under the Town and Country Planning (Listed Buildings and Conservation Areas) Act of 1990.

1. PRELIMINARY WORK

1.1 The building contractor who is to undertake the works shall conduct a full health and safety risk assessment of the project prior to the commencement of the demolition and stripping out works. In accordance with Health and Safety Executive (HSE) guidelines, a suitably competent person must assess the likely presence or asbestos containing materials at the property and carry out a "Refurbishment / demolition survey" for asbestos containing materials prior to the commencement of the works. Where asbestos containing materials are identified, these are to be removed prior to the commencement of the works by a licensed asbestos contractor.

1.2 The works described below are classed as a "Construction Project and are therefore required to comply with the Construction (Design and Management) Regulations 2015 (CDM). In accordance with the CDM regulations, the contractor undertaking the works is to produce a health and safety risk assessment and method statement for the execution of the works. The document is to be supplied for the attention of the building owner, employer, (or their agents) and any property occupants at least 7 days prior to the commencement of the works. The contractor is required to notify the Health & Safety Executive by completing and submitting the HSE Form F10 "Notification of construction project" before the commencement of the works.

1.3 Clear all floors and rooms of all loose materials, rubbish, furniture and fittings to allow full and unhindered access to execute the works. Cut and lift all floor coverings adjacent to the partitions to be removed, including underlay timber sheeting. Cart all away to a licensed dump.

1.4 The contractor undertaking the demolition of the internal partitions shall review the supplied drawings and take down only those partitions shown on the architects drawings. Any enquiries with regards to the scope or method of the demolitions are to be made directly to the supervising surveyor or architect.

2. ACCESS, SAFETY AND SECURITY PROVISIONS

2.1 Provide and maintain while the works are being carried out, all boarding, screens and barriers necessary to keep the building secure, to contain/ control dust emanating from the demolitions and to remove all waste material from the property using safe and controlled methods so not to cause hazard or harm to occupiers or pedestrians. All waste material must be transferred to a licenced waste facility. Provide and run mechanical dust extraction direct to atmosphere for the duration of the demolitions.

2.2 . Where electrical, water, waste, gas services run close to or are connected with the partitions to be demolished, ensure all the relevant existing supply services are capped off, disconnected and made safe. Note that services may be hidden with the partitions.

2.3 Provide safe access platforms and / or robust step ladders to allow for the safe working at height to carry out the works herein described.

3. DEMOLITION WORKS

3.1 Expose Partition Abutments:
Using a knife and fine toothed mini-saw carefully scroll-cut sections of the facing plasterboard where it abuts the ceiling cornice, dado rail, chimney piece, skirting, panel moulding or other architectural features. Carefully remove the opposing sides of plasterboard to reveal the abutment of the timber framework / noggins. Leave the framework insitu for inspection by the project surveyor or architect for further instruction.

Following the verification that the partition timbers are not fixed to the architectural features by either mechanically or adhesive means, take down the partitions as follows:
Cut back and remove the plasterboard to fully reveal the near-most vertical stud to its full height. Carefully cut through the stud at approx 500mm centres working from top to bottom and carefully remove the sections and ease away the attached noggins from the abutting wall, skirtings, cornice, dado rail etc. Continue to remove approx 600m wide section of partition to its full room height.

Following the removal of the vertically abutting sections, carefully cut and remove the plaster board to both sides where it is fixed to the head plate and sole plate timbers along its full length. Reveal sufficient areas to establish the method of the plates' abutment to projecting architectural features, i.e. decorative ceiling mouldings. Leave the timber plates in situ for inspection by the project surveyor or architect as previously described. Ensure that the head and sole plates are firmly fixed into the ceiling / floor joists above prior to the removal of the supporting studwork.

3.1 Take Down Partitions: Carefully strip off the remaining plaster board from both sides, noting the presence of any services and make safe as previously described and in 4.1. Carefully cut and dismantle the partition framework using hand tools only and remove and bag-up any in-filled mineral wool insulation. Ensure due care when dismantling the framework so not to cause damage to adjoining architectural features. Provide suitable propping from floor to head plate where necessary to stabilise. Strip off any skirtings to the partitions, de-nail all removed timbers, and cart all away.

3.2 Take down Mezzanine Floor Structures
Lift off and dispose the soft furnishing material from the mezzanine floors to expose the supporting timber framework. Note any service runs and where in-situ, disconnect and strip out as described in 4.1. Dismantle the timber framework, carefully releasing all screwed or nailed connections where they are fixed to the main (party) walls, floor and ceiling. Ensure all the adjacent timber and plaster finishes to be retained are not damaged during removal. Remove all fixing screws and nails from the removed structure and cart all timbers away.

4. SERVICES

4.1 Strip Out Electrical Installations: Prior to the demolition works, locate the consumer unit / fuse board and isolate the electrical supply to installations fixed to or adjacent to the partition to be demolished. During the removal of plasterboard and timbers, tie and secure back any electrical cabling, switches, sockets etc that are fixed to the partition so that they present no hazard to persons.

Following the removal of all partitions materials from site, an NICEIC registered electrician shall within 48 hours strip out all the residual electrical cabling and disconnect and remove all the electrical installations previously attached to the partitions; the electrician is to leave all remaining electrical installations safe.

5. REINSTATEMENT AND MAKING GOOD

On the completion of the above works, any historic architectural features that have been removed or damaged due to the installation of the partitions are to be reinstated or repaired; the works should be undertaken in for each architectural feature / element as follows:

5.1 Make Good Surfaces: Infill all fixing or services-run holes in ceilings, walls and floors where exposed by the removal of the partitions. To the walls and ceilings in-fill holes and indents using a proprietary plaster of Paris or similar paste and run in level and smooth to the adjacent surface. Rub down when cured to match surface finish of the adjacent ready for decoration.

5.2 Repair & Reinstate Decorative Plaster Features: For damaged or missing sections of decorative ceiling work, remake and reinstate in facsimile in plaster of Paris using a combination of or either of fine-hand tools, silicone mould and timber / zinc template of the adjacent work. Notwithstanding the template method, copy and form the original profile or embellishment (dentils etc) by removing all paint from an adjacent matching section. The location to be used to make for the template is to be approved in advance by the local authority conservation officer. The paint shall be removed from the plaster feature using a chemical poultice such as Peelaway and finally cleaned off with fine pick tools and soft brush with warm soapy water. Strictly follow the manufacturer's guidance and health and safety requirements for the application of the Poultice sheet. Reinstate the plaster detail as above described, and for new cornice, run-in situ in a minimum 2 coat work with hessian backing, Ensure perfect jointing to the adjoining work. When fully cured, remove any surface imperfections from the plasterwork to ensure a smooth finish, ready for decoration.

5.3 Make Good / Reinstate Joinery: Piece in missing or repair damaged joinery features that are original to the building. i.e. skirtings, dado rail, panel mouldings, architraves etc Make suitable template and reinstate in facsimile to perfectly match the adjacent profile in kiln dried slow-grown softwood. Fix the new joinery element using lost head stainless steel nails into the existing timber-grounds. Where grounds are missing, glue or mechanically fix new slow-grown softwood grounds direct to brickwork to ensure the secure fixing of reinstated joinery. Ensure perfect mitred jointing between the new and old work. For damaged joinery, infill holes or indents with 2-pack resin and bring level and smooth to match the adjacent surfaces. Remake damaged mouldings using 2-pack resin or piece in new softwood to match the existing profile, ensuring good jointing. Rub down with fine grade sandpaper ready for redecoration.

5.4 Clean Chimney Pieces: Carefully lift off the adhered caulk, plaster or silicone sealant residues from the marble surface of the chimney pieces using a plastic edged scraper. Gently use a plastic tipped tool for removal of the sealants from fine carved details. Metal edged scrapers and filling knifes are not to be used. Clean down the surface using a small soft bristle brush or tooth brush in warm soapy water.

APPENDIX 8: Opening-Up and Investigative Works

APPENDIX 5- OPENING UP WORKS

All photographs of the site were taken between September and October 2018. The photographs of each room are given a reference on the associated floor plans.

The opening-up works have revealed, and confirmed our expectation, that the remaining historic fabric in No 20 has been altered in the past. The floorboards appear to either be modern, or a patchy combination of modern and historic floorboards. Similarly, most ceilings appear to be modern plasterboards and brickwork throughout has been covered with a thick hard layer of what appears to be a cementitious plaster. It has also revealed some potential structural issues with the historic load bearing timber beams and joists – this is explained in detail within the structural engineer's report – and addressing the appropriate way to preserve and protect the historic fabric as much as possible.

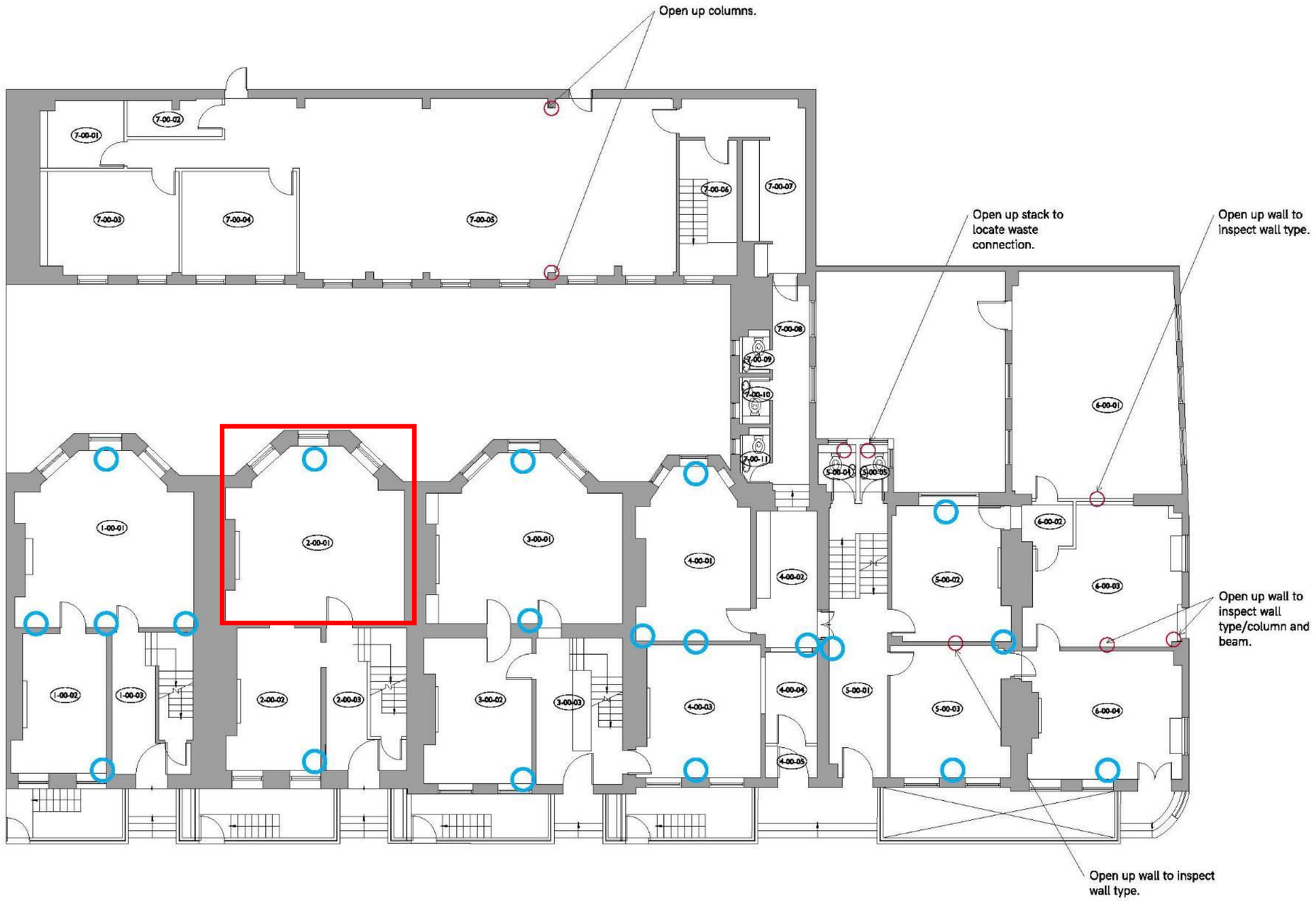

Figure 1*:* Number 20 - ground floor plan key showing location of opening up **(2-00-01)**

GF - 2-00-01

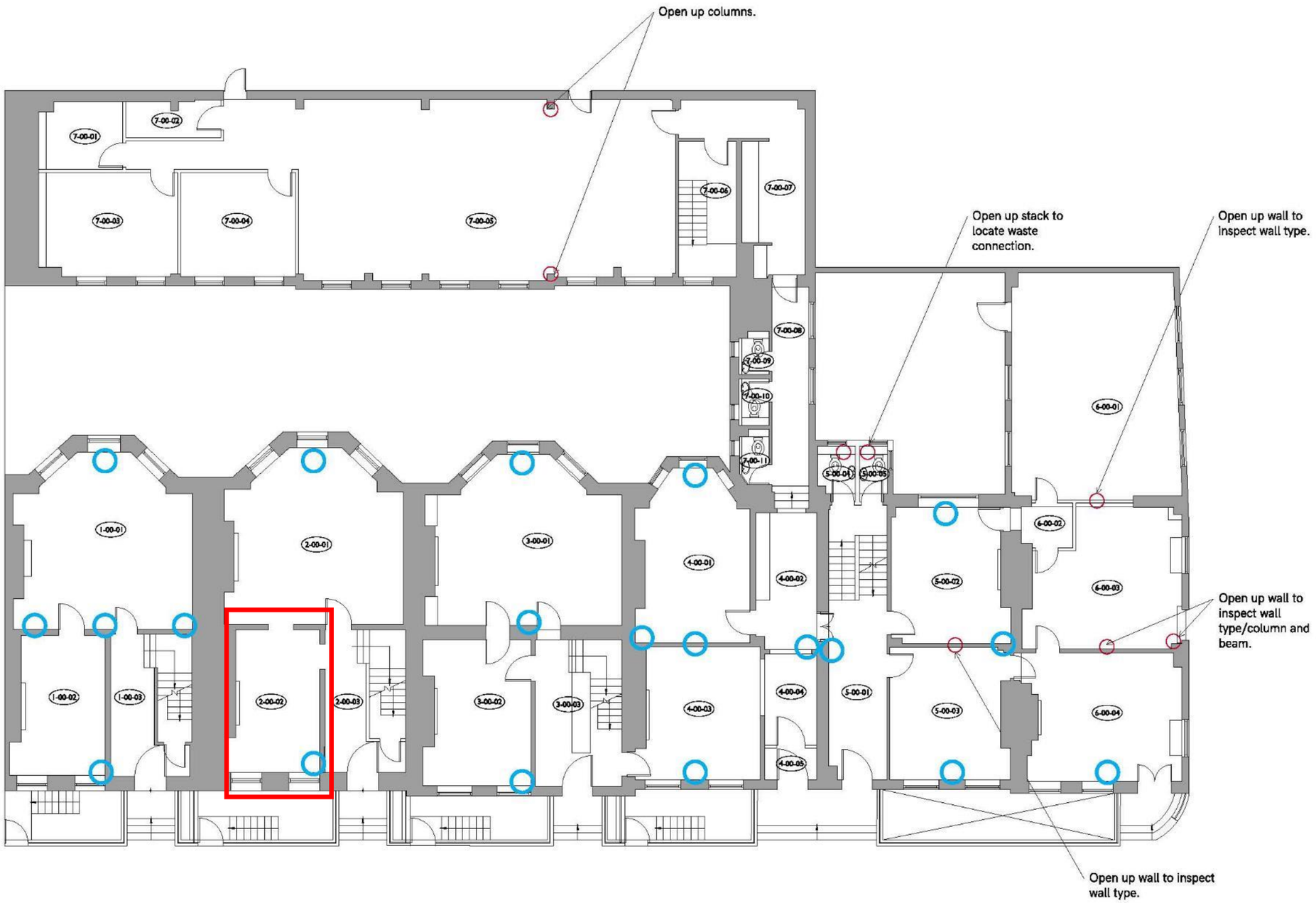

Figure 2*:* Number 20 - ground floor plan key showing location of opening up **(2-00-03)**

GF - 2-00-03

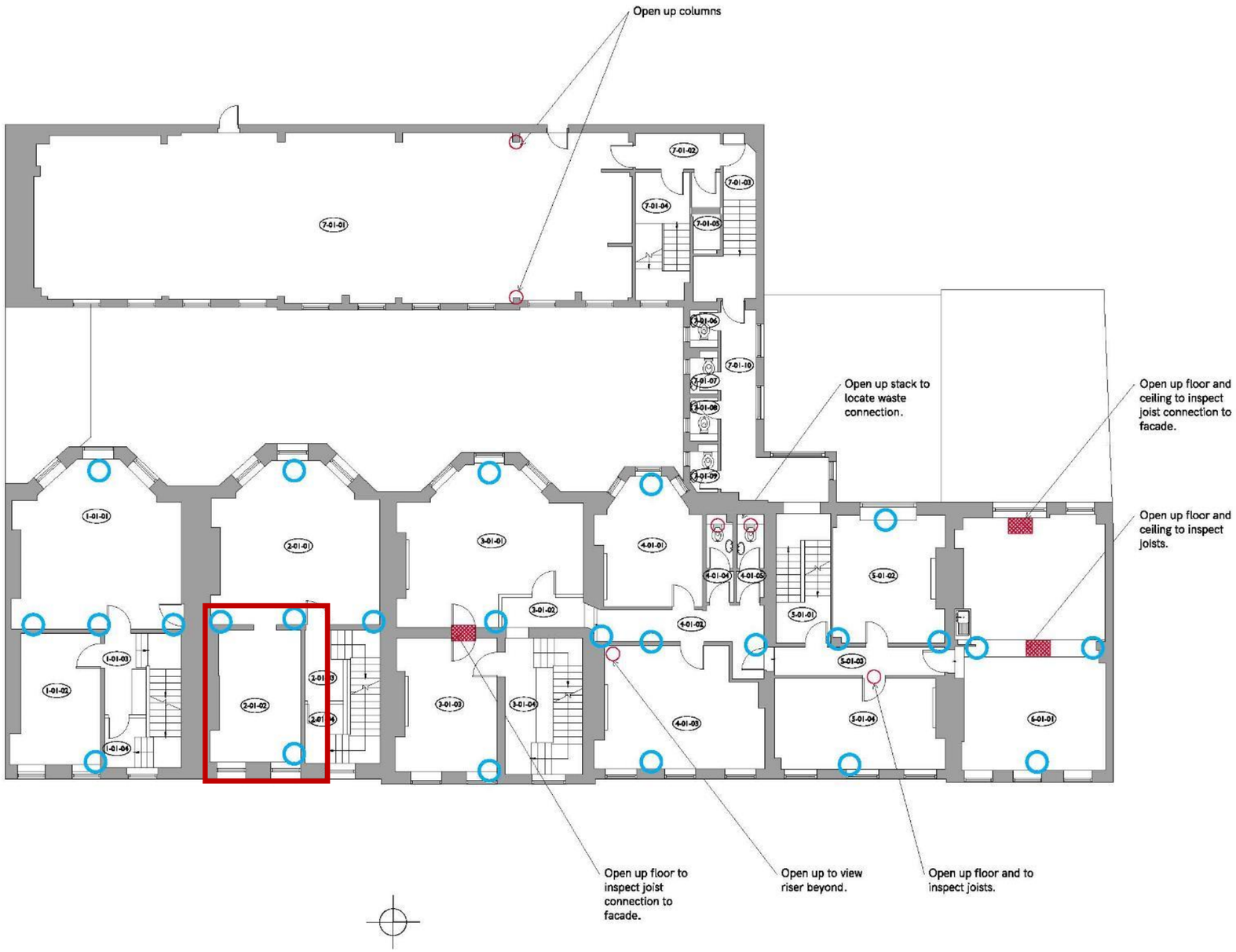

Figure 3: Number 20 - first floor plan key showing location of opening up

1F - 2-01-01

1F - 2-01-02