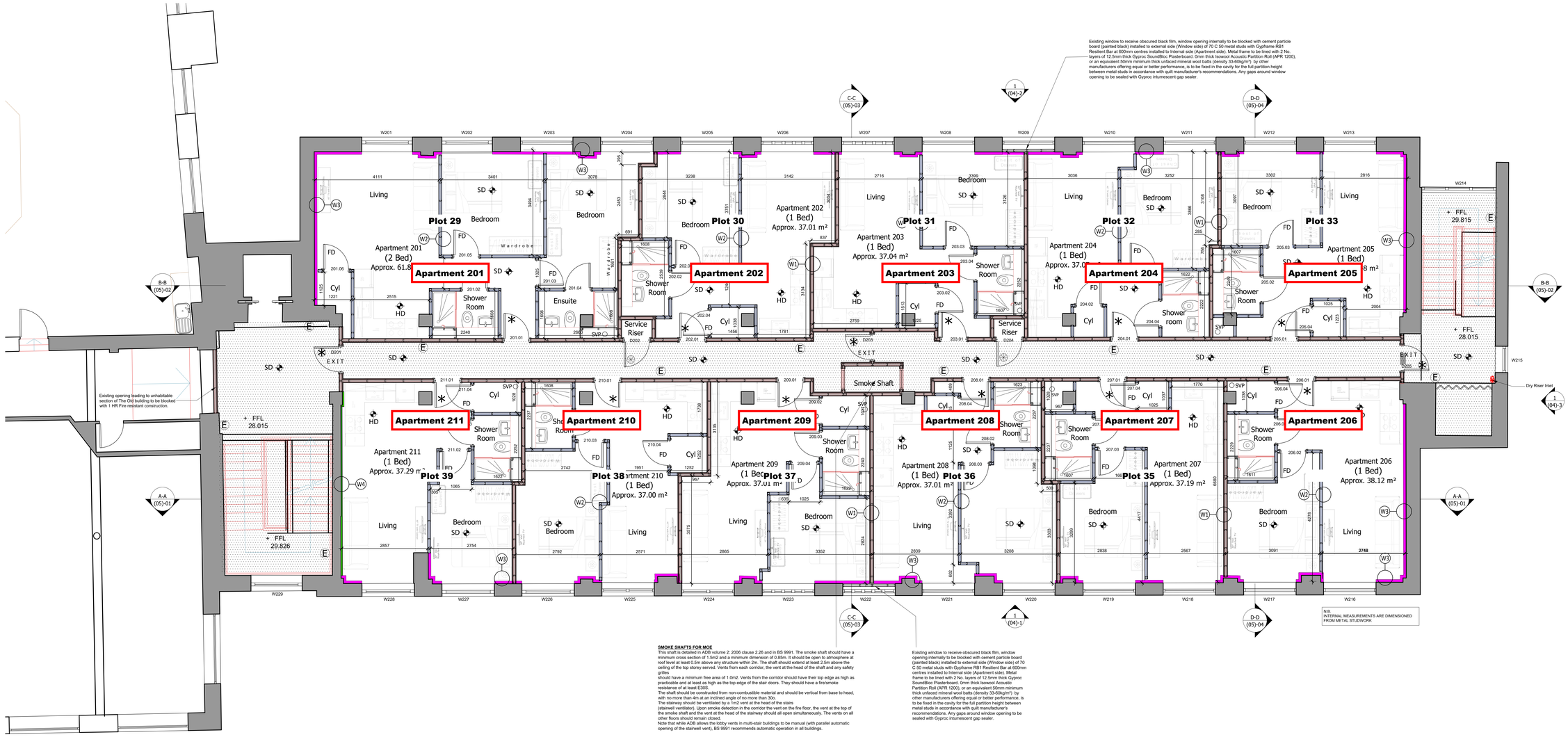

N.B.
INTERNAL MEASUREMENTS ARE DIMENSIONED FROM METAL STUDWORK

SMOKE SHAFTS FOR MOE
This shaft is detailed in ADB volume 2: 2006 clause 2.26 and in BS 9991. The smoke shaft should have a minimum cross section of 1.5m2 and a minimum dimension of 0.85m. It should be open to atmosphere at roof level at least 0.5m above any structure within 2m. The shaft should extend at least 2.5m above the ceiling of the top storey served. Vents from each corridor, the vent at the head of the shaft and any safety grilles
should have a minimum free area of 1.0m2. Vents from the corridor should have their top edge as high as practicable and at least as high as the top edge of the stair doors. They should have a fire/smoke resistance of at least E30S.
The shaft should be constructed from non-combustible material and should be vertical from base to head, with no more than 4m at an inclined angle of no more than 30o.
The stairway should be ventilated by a 1m2 vent at the head of the stairs
(stairwell ventilator). Upon smoke detection in the corridor the vent on the fire floor, the vent at the top of the smoke shaft and the vent at the head of the stairway should all open simultaneously. The vents on all other floors should remain closed.
Note that while ADB allows the lobby vents in multi-stair buildings to be manual (with parallel automatic opening of the stairwell vent), BS 9991 recommends automatic operation in all buildings.

Existing window to receive obscured black film, window opening internally to be blocked with cement particle board (painted black) installed to external side (Window side) of 70 C 50 metal studs with Gyframe RB1 Resilient Bar at 600mm centres installed to Internal side (Apartment side). Metal frame to be lined with 2 No. layers of 12.5mm thick Gyproc SoundBloc Plasterboard. 0mm thick Isowool Acoustic Partition Roll (APR 1200), or an equivalent 50mm minimum thick unfaced mineral wool batts (density 33-60kg/m³) by other manufacturers offering equal or better performance, is to be fixed in the cavity for the full partition height between metal studs in accordance with quilt manufacturer's recommendations. Any gaps around window opening to be sealed with Gyproc intumescent gap sealer.

1 PROPOSED SECOND FLOOR PLAN (LEVEL 02)

Scale: 1:50

Key

FIRE KEY

- FD FD30 (30 minute rated fire door)
- FD30S (30 minute rated fire door fitted with self closing device & smoke seals)
- FD30 (self closing with vision panel)
- FD30 (keep locked)
- FD60 (keep locked)
- Exit door - complete with push bar and / or paddle release system
- FD 30 sc - complete with magnetic release catches
- Break glass for FIRE ALARM

FIRE KEY Cont.

- Fire extinguisher position
- Emergency Lighting
- EXIT Exit Signage
- SD Smoke Detector
- HD Rising Heat Detector
- Primary Fire Escape Route
- Area of fire compartmentation / protected area

NOTE

All electrical installation work to comply with the current edition of the IEE Wiring Regulations. Existing wiring to be checked & modified / upgraded as necessary.

New electric consumer unit feed & individual meters to each room to be repositioned & is installed by utilities specialist. Any YEDL upgrade to be assessed and undertaken by main contractor. Contractor to allow for full management of installation.

N.B.
Upon completion, Contractor to undertake compartment sound testing between party walls & floors as required under Part E of Building Regulations.

N.B.
Upon completion, Contractor to arrange compliance sound testing to ensure, compliance is achieved.

N.B.
Prior to commencement, Contractor to arrange for Pre completion sound testing to establish required level of sound insulation between floors to achieve compliance as required under Part E of Building Regulation.

N.B.
Drainage design layout to M & E Engineer's details.

N.B.
Prior to commencement, Contractor to arrange for SAP5 calculations to be done.

SEPARATING WALL CONSTRUCTION REF (W1) -

METAL STUD FRAME CONSTRUCTION

135mm overall thick partition between plasterboard external faces to be formed from GypWall 'Resilient ' system or equal proprietary metal stud acoustic separating partition and plasterboard lining system by other manufacturers, comprising Gyframe 70 S 50 'C' Studs spaced at 600mm centres with Gyframe RB1 Resilient Bar at 600mm centres to one side. Metal frame to be lined with 2 No. layers of 12.5mm thick Gyproc SoundBloc Plasterboard. 50mm thick Isowool Acoustic Partition Roll (APR 1200), or an equivalent 50mm minimum thick unfaced mineral wool batts (density 33-60kg/m³) by other manufacturers offering equal or better performance, is to be fixed in the cavity for the full partition height between metal studs in accordance with quilt manufacturer's recommendations.

Linings on both sides are to comprise an inner layer of 12.5mm thick Gyproc SoundBloc plasterboard fixed vertically onto metal stud and an outer layer of 12.5mm thick Gyproc SoundBloc plasterboard fixed horizontally. Outer plasterboard layers are to be finished over with scrim and plaster skim finish.

Separating walls to be taken up to underside of kept existing floor soffit and fire stopped with Gyproc intumescent gap sealer or compressed mineral wool as required.

Partition construction to achieve a sound reduction value of 62dB and a minimum one-hour (60 minutes) fire resistance.

INTERNAL PARTITION WALLS REF (W2)

100 mm nom. overall thick comprising nom. Gyframe 70 S 50 'C' Studs spaced @ upto 600mm centres and lined on both sides with 12.5mm thick Gyproc WallBoard, scrim and plaster skim. Sound resisting partitions to have min 50mm thick acoustic quilt between studs (density in excess of 10kg/m²).

Alternatively all internal stud partitions may be finished with 15mm thick Gyproc SoundBloc plasterboard and skim finish to both sides without sound attenuating quilt instead .

All above to achieve 40dB minimum sound reduction.

EXTERNAL WALL TREATMENT REF (W3) -

Internal face of all existing external walls to be lined with 130mm thick Superfoil SFNC external wall insulation system comprising 25mm thick GL1 GypLyner Lining Channel fixed to internal face of existing external walls. 20mm thick Superfoil SFNC is to be fixed to lining channels before a second layer of 25mm thick GL1 GypLyner Lining Channel are installed, followed by a second layer of 20mm thick Superfoil SFNC to be fixed to lining channels. Third layer of 25mm thick GL1 GypLyner Lining Channels are then to be installed, followed by 12.5mm thick Gyproc WallBoard, scrim and plaster skim.

All fixing methods are to strictly comply with Superfoil Manufacturer's installation details.

Thermal upgrade of external walls to achieve a U-value of 0.30 W/m²K or better.

TREATMENT TO EXISTING RETAINED/KEPT INTERNAL PARTITION WALLS (W4) -

Existing internal masonry partition walls where retained/kept are to be lined with an acoustic lining to be installed over the inside face of retained internal partition walls forming separating walls between apartments and the corridor i.e. on the apartment side face of the proposed separating walls.

Acoustic lining to comprise 25mm X 47mm timber/ metal studs fixed to apartment side face of existing internal wall. Gyframe RB1 Resilient Bar at 600mm centres are to be fixed to timber/ metal studs, finished with 12.5mm thick Gyproc SoundBloc plasterboard & skim plaster.

Fire Spread
a) Ceilings - be 12.5mm plasterboard and Artex or skim and scrim finish unless otherwise noted.
b) Fire protection around steel beams to comprise 2 No. layers of 12.5 mm thick plasterboard, with staggered jointing between each layer, to offer minimum 1 hour fire resistance. outmost layer to be finished with 3mm plaster skim.

Above Ground Drainage:
All work to comply with Approved Document H1 and BS EN 12056-2: 2000.
Waste pipe sizes to be:

Washbasins and Bidets 32 diam with 75mm deep trap;
Baths & Showers 40 diam with 50mm deep trap;
Sinks, Washing Machines 40 diam with 75mm deep trap;
WC Pan (min) 75 diam with 50mm deep trap.

All traps to be re-sealable. Sanitary fittings at ground floor level may connect directly into the drainage system providing that the invert from the floor to the drain is less than 1300mm. Branch discharge pipes to stacks to be at least 450mm above invert of tail of drain.

Mechanical Ventilation
MVHR system to provide both supply and extract air to all studio apartments and ensuites. Supply and extract vent locations to be determined. M&E Engineer to detail duct runs and sizes to conform to Part F Building Regs. and designed in accordance with Chartered Institution of Building Services Engineers (CIBSE) guidance. Air inlets are to be provided to Bathrooms where there are no opening window lights equivalent to 5% of floor area of the relevant room present, e.g. 10mm gap under doors.

SMOKE SHAFTS FOR MOE
This shaft is detailed in ADB volume 2: 2006 clause 2.26 and in BS 9991. The smoke shaft should have a minimum cross section of 1.5m2 and a minimum dimension of 0.85m. It should be open to atmosphere at roof level at least 0.5m above any structure within 2m. The shaft should extend at least 2.5m above the ceiling of the top storey served. Vents from each corridor, the vent at the head of the shaft and any safety grilles
should have a minimum free area of 1.0m2. Vents from the corridor should have their top edge as high as practicable and at least as high as the top edge of the stair doors. They should have a fire/smoke resistance of at least E30S.
The shaft should be constructed from non-combustible material and should be vertical from base to head, with no more than 4m at an inclined angle of no more than 30o.
The stairway should be ventilated by a 1m2 vent at the head of the stairs
(stairwell ventilator). Upon smoke detection in the corridor the vent on the fire floor, the vent at the top of the smoke shaft and the vent at the head of the stairway should all open simultaneously. The vents on all other floors should remain closed.
Note that while ADB allows the lobby vents in multi-stair buildings to be manual (with parallel automatic opening of the stairwell vent), BS 9991 recommends automatic operation in all buildings.

APARTMENT ENTRY DOORSETS

All apartment entry doors allowing direct access in each apartment shall be certificated to meet the security requirements of British Standards publication PAS 24: 2016 : Enhanced security performance requirements for doorsets and windows in the UK.' through compliance either

- via the traditional UK PAS 24 test methodology; or

- via BS EN 1627: 2011 Resistance Class 3 (which references BS EN 1628, 1629 and 1630), with additional test criteria to address known criminal methods of entry within the UK (which are not catered for within the European Standards).

Note: Doorsets satisfying other standards that provided similar or better performance are also acceptable and these include:

- STS 201 Issue 5: 2013
- LPS 1175 Issue 7.2 (2014) Security Rating 2+
- STS 202 Issue 3 (2011) Burglary Rating 2
- LPS 2081 Issue 1 (2015) Security Rating B+

Each apartment entry door will be fitted with PAS 24:2016 DKT hardware, this being lockable hardware with key operation from the outside with non-key lockable hardware on the inside e.g. thumb-turn in order for occupants to facilitate unlocking the door from the inner face without a key where the doors are the only means of escape from each apartment. The lockable hardware shall be via cylinder locks to BS 10621 and certified to either *BSI Kitemark* or *BM TRADA Q Mark.*

There will be a manual override facility internally on the front door to facilitate ease of evacuation/ escape in an emergency from the building.
All apartment entry doors must be fit for purpose and shall be certificated to the relevant material standard i.e. BS 644:2009 (timber) and meet the performance requirements of and certificated to BS 6375:Part 1, 2 and relevant sections of Part 3.
All apartment entry doors installed with SBD developments shall be certified under one of the following qualified third party Certification Authorities as previously described for Secured External Door ExD01.

Each apartment entry door shall be provided with door viewer/eye hole suitable for timber doors as a means of viewing callers. Door viewers are to meet the requirements with Door & Hardware Federation Technical Specification 002 (TS 002) and must be fitted between 1200mm and 1500mm high from the bottom of each door.

Each apartment entry door shall be fitted with a door chain or door limiter meeting the requirements with Door & Hardware Federation Technical Specification 003 (TS 003). All such devices to suit fitting to timber doors and be installed in accordance with the manufacturer's recommendations.

All designed to BS 7950: 1997 and be BSI/BBA Certified;

Each apartment entry doorset frame is to be mechanically fixed to the structure of the building in strict accordance with the doorset manufacturer's installation instructions.

Lightweight steel twin stud framed separating/compartment walls are to incorporate resilient layers to reduce the risk of anyone breaking through the wall and accessing the locking system for each apartment entry door. The resilient layer should expanded metal or similar resilient material fixed behind plasterboard linings. The resilient layer should be to the full height for each apartment entry door and extend upto 600mm either side of each apartment entry doorset.

Each apartment entry door is to be a 30-minute (half-hour) fire rated doorset certified under BWF CERTIFIRE Scheme comprising a door leaf, a door frame fitted with intumescent fire seals, and fire rated ironmongery all having the same minimum fire rating in order to maintain the overall fire integrity. All entry doors are to be fitted with self closing devices.

NEW FIRE RATED DOORSETS

New and replacement fire rated doorsets are to be certified under BWF CERTIFIRE Scheme as offering either at least 30 minutes (half hour) or 60 minutes (one hour) where noted.

Each fire-rated doorset is to consist of a door leaf, a door frame fitted with intumescent fire seals, and fire rated ironmongery all having the same minimum fire rating in order to maintain the overall fire integrity.

Intumescent fire seals are to be fitted in a continuous uninterrupted groove cut into the entire frame where possible or in the head and sides of of the door.

Where smoke seals are needed in addition to fire seals, these need to be intumescent fire seals fitted with integral nylon pile brush strips appropriate to the required fire rating of the doorset.

Vision panels are to be fitted with glass panes offering at least the same fire resistance and integrity as the fire rating for the doorset.

Essential ironmongery to all doors to include hinges, door closing devices, locks and latches all manufactured to have a minimum fire rating equal to that for manufactured both fire-rated door leaf and door frames.

Half-hour rated Fire Doorset

30-minute rated fire doorsets (FD30) are to have timber doors at least 44mm thick in softwood timber frames. Intumescent fire seals fitted into doorsets are to be at least in 15mm x 4mm in size.

Half-hour rated fire doors with vision panels are to be glazed with either Georgian wired glass or a proprietary fire protection glass offering at least 30 minutes fire integrity (E), as advised by Building Control, to BS EN 13501-2 e.g. Pilkington Pyrostop or equivalent by other glass manufacturers offering the same performance.

All half-hour fire rated ironmongery including fire door hinges may be in brass or stainless steel Grade 11 to BS EN 1935:2002. At least 3 No. hinges must be used for each door.

SCALE BAR - METERS
1:50 0 1 2 3 4

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Notes

Rev.	Description	Date	Dwn by	Chkd by
P5	Apartment numbers & door numbers updated following Client's comments.	08.12.22	JA	JC
P4	Window opening blocking note added to windows where abutting partywall.	07.12.22	JA	JC
P3	Drawing updated to suit comments made in Fire Solutions Document.	30.11.22	JA	JC
P2	Positions & handing of Cpt cupboard & entrance doors adjusted to suit comments made by HCG during DTM.	28.11.22	JA	JC
P1	First preliminary drawing.	11.11.22	JA	JC

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Project Address
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41 Great Horton Road
Bradford BD7 1AH

Client
City Wide

Status
Preliminary

Project
The Old Building

Title
Proposed Second Floor Plan (Level 02)

Scale at A0: 1 : 50
Drawn: JA
Date: 11/11/2022
Checked: JC

Drawing No.: P00056 - A(03)02-04-P5
Revision