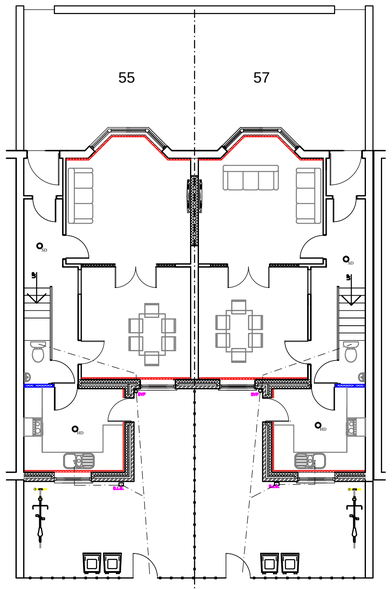
Physical infrastructure for high-speed electronic communications networks

Buildings to be equipped with high-speed-ready in-building physical infrastructure, up to a network termination point for high-speed electronic communications networks.
So that copper or fibre-optic cables or wireless devices capable of delivering broadband speeds greater than 30 Mbps can be installed. A suitable position for at least one network termination point should be provided for dwelling as well as a suitable access point

Part Q-Security
Confirmation required that all doors and windows are to be installed in accordance with the advice stated in PAS24:2012 or alternatively comply with the requirements set out in Approved Document Q-Appendix B,
Doors to be manufactured to a design that has been shown by test to meet the requirements of British Standard publication PAS PAS24:2012 or designed and manufactured in accordance with Appendix B or Approved Document Q
For example:
Doors to be fitted with a viewer, door chain and mechanically fixed as the manufacturer's installation guide.
The door set should be manufactured from solid or laminated timber with a minimum density of 600kg/m3.
Any panel in the door must be a min15mm thick and suitably secured in place.
The smaller dimension of the panel must be no larger than 230mm in either width or height.
Main front doors should be fitted with multipoint locking system.
Windows:
Any part of a window or doorway, which is within 2m vertically of an accessible level surface such as the ground or basement level, or an access balcony, or windows within 2m vertically of a flat or sloping roof (with a pitch of less than 30 degrees) that is within 3.5m of ground level should be secure windows in accordance with paragraphs 2.2 and 2.3 of Approved Document Q
Windows to be made to a design that has been shown by test to meet the security requirements of British Standards publication PAS 24:2012
Frames to be mechanically fixed to the structure of the building in accordance with manufacturer's installation instructions.



Proposed Ground Floor Plan
1:100

Foundations
600x175mm concrete strip footing at depth to match existing foundations and to the satisfaction of Building Control. Foundation to have A393 mesh in the bottom face with 50mm cover.

New cavity walls
To achieve min U Value of 0.28W/m2k
K-Rend, applied in accordance with manufacturers instructions, onlightweight block, K value 0.16 or lower. Ensure a 50mm clear residual cavity and inner leaf constructed using 100mm lightweight block, K value 0.16. Internal finish to be 67.5mm Kingspan Koltherm K17 insulated dryling board with 3mm skim finish. Walls to be built with 1:1:6 cement mortar.

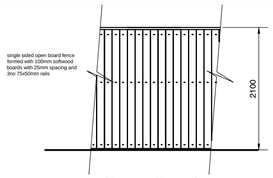
Walls below ground level
All new walls to have Class A blockwork below ground level or alternatively semi engineering brickwork in 1:4 masonry cement or equal approved specification. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes.

DPC
Provide horizontal strip polymer (hyload) damp proof course to both internal and external skins minimum 150mm above external ground level. New DPC to be made continuous with existing DPCand with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed.

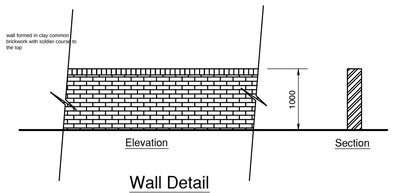
Wall ties
All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm ctrs horizontally, 450mm vertically and 225mm ctrs at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS EN 845

Cavities
Provide cavity trays over openings. All cavities to be closed at eaves and around openings using Thermabate or similar non combustible insulated cavity closers. Provide vertical DPCs around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres.

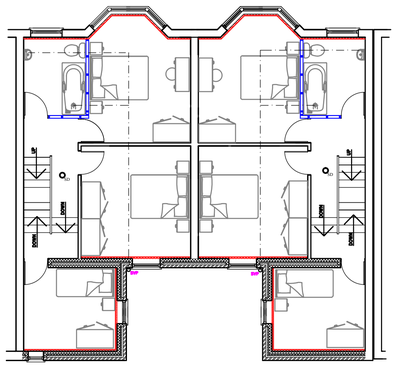
Existing to new wall
Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abuts the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.



Fence Detail
1:50



Wall Detail
1:50



Proposed First Floor Plan
1:100

Electrical Works.
All electrical works required to meet the requirements of Part P of the Approved Document must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BRE certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of the certificate will be given to Building Control on completioN.

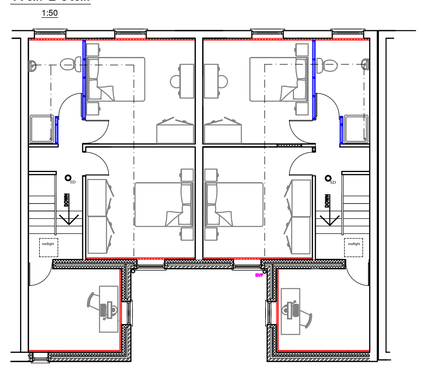
Background and purge ventlation
Controllable background ventilation via trickle vents to be provided to new habitable rooms at a min rate of 5000mm2 and to kitchens and bathroomsa at a rate of 2500mm2.
For purge ventilation windows to have an openable area in excess of $1/_{20}$th of the floor area.
Internal doors should be provided with a 10mm gap below the door to aid air circulation.

Mechanical Extraction to kitchens and bathrooms
Kitchens to have mechanical ventilation with an extract rating of 60l/s and bathrooms to have mechanical ventilation with an extract rating of 15l/s. Vents to be ducted directly to external air and provide 10mm gap under doors to aid air circulation.

Internal lighting
Install low energy light fittings that only take lamps having a luminous efficacy greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens. Not less than 3 energy efficient light fittings per four of all the light fittings within the dwelling spaces to comply with Part L of the Approved Document.

Fixed external lighting
External light fittings to be fitted as calculated in the DER and in compliance with the Domestic Building Services Compliance Guide.
Light fitting to be either:
lamp capacity not greater than 100 lamp-watts per light fitting and provided with automatic movement detecting devices (PIR) and automatic daylight sensors ensuring lights shut off automatically when not required
Or
lamp efficacy greater than 45 lumens per circuit-watt; fitted with manual controls and automatic daylight cut off sensors so that lights switch off when daylight is sufficient.

Solid waste storage (refuse)
Adequate provision shall be made for the collection of waste as required by the Waste Collection Authority.
Refuse storage areas to be sited within 25m of the waste collection point and placed so that the residents do not need to carry refuse more than 30m. Refuse storage area to be positioned away from any windows and ventilators and are not to impede access into the dwelling.



Proposed Second Floor Plan
1:100

MEANS OF ESCAPE - Escape windows
Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. Windows to have an unobstructed openable area of 450mm high x 450mm wide, minimum 0.33m sq. The bottom of the openable area should be not more than 1100mm above the floor. The window should enable the person to reach a place free from danger from fire.

MEANS OF ESCAPE - Fire doors
Form a protected escape stairway by providing half hour fire resistance to all partitions as well as floors and ceilings above and below rooms. Stairway to be protected at all levels - from second floor rooms then leading directly to an external door at ground level (no inner rooms allowed). All doors on to the stairway must be FD30 rated fire doors to BS 476-22:1987 or the European equivalent BS EN 1634 (fitted with intumescent strips rebated around sides & top of door or frame if required by Building Control).

Smoke detection
Mains operated linked smoke alarm detection system to BS EN 14604 and BS 5839-6:2019 to at least a Grade D category LD3 standard to be mains powered with battery back up to be placed on each storey with an additional interlinked heat detector at ceiling level in kitchens. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/ storeys and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

Above Ground Drainage
All new above ground drainage and plumbing to comply with BS EN 12056-2:2000 for sanitary pipework. All drainage to be in accordance with part H of the Building Regulations. Wastes to have 75mm deep anti vac bottle traps and rodding eyes to be provided at changes of direction.

Size of wastes pipes and max length of branch connections (if max length is exceeded then anti vacuum traps to be used)
Wash basin - 1.7m for 32mm pipe 3m for 40mm pipe
Bath/shower - 3m for 40mm pipe 4m for 50mm pipe
W/c - 6m for 100mm pipe for single WC
All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m.
Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.
Waste pipes not to connect within 200mm of the WC connection. Supply hot and cold water to all fittings as appropriate.

Rainwater drainage
New rainwater goods to be new 110mm upvc half round gutters taken to and connected into 68mm dia upvc downpipes

Water efficiency
The estimated water consumption is not to exceed 125 litres per day per person in accordance with Approved Document G2. Water efficiency to be calculated using the 'Water Efficiency Calculator for New Dwellings' and results submitted to Building Control before works commence on site.

Cold water supply
There must be a suitable installation for the provision of a wholesome water supply to be provided to washbasins, baths, wc's, showeres and any place where drinking water is drawn off and to any sink provided in areas where food is being served.

Hot water supply
All bathrooms, washbasins, baths and showers to be provided with adequate hot and cold water supply in accordance with Approved Document G3. A washbasin with hot and cold water supply to be provided in or adjacent to all rooms containing a wc. A sink with hot and cold water to be provided to any area where food is prepared.

Control of water temperature
The installation of a hot water supply to comply with Approved Document G3. All baths and showers are to be fitted with thermostatic mixing valve to ensure that the temperature of the water delivered to the bath is limited to 48deg C.

Hot water storage systems
Hot water storage systems to be designed and installed in accordance with BS 12897. Hot water vessels, cisterns etc to be adequately supported. Any hot water storage system including any cistern or other vessel shall incorporate precautions to ensure suitable pressure relief and that any discharge from safety devices is safely conveyed to where it is visible but will not cause harm to persons in or about the building. Precautions to be in place to prevent stored water exceeding 100deg C. Hot water vessels to be fitted with a non self resetting energy cut out to instantly disconnect the power supply.
Outlets from domestic hot water storage vessels to be fitted with an in-line valve to prevent water temperatures exceeding 60deg C.
All pipes carrying hot water to be insulated where they pass through unheated spaces. Hot water storage system to be provided with suitable warning labels.
Relevant certificates for the heating system ie Benchmark Certificate and Commissioning Certificates for fixed building services are to be given to the building owner and a copy supplied to Building Control on completion.

Energy Performance Certificates and Dwellings Emission Rates
A registered Energy Performance Certificate accompanied by a recommendation report in compliance with SAP 2009 and Regulation 29 is to be given to the owner of the building and submitted to Building Control no later than 5 days after the work has been completed.
If required, the annual CO2 emission rate of the completed dwelling calculated using SAP 2009 to be submitted to Building Control in compliance with SAP 2009 and Approved Document L1A before works commence on site.

Existing ground floor
Remove suspended and solid floors from ground floor level and replace with insulated solid floor.To meet min U Value of 0.22W/m2K
Solid ground floor to consist of 150mm consolidated well-rammed hardcore. Blinded with 50mm sand blinding. Provide a 1200 gauge polythene DPM, DPM to be lapped in with DPC in walls. Floor to be insulated over DPM with 75mm Kingspan Kooltherm K103.
25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed, provide 100mm ST2 or Gen2 ground bearing slab concrete mix to conform to BS 8500-2 over VCL. Finish with 65mm sand/cement finishing screed with light mesh reinforcement.
Where drain runs pass under new floor, provide A142 mesh 1.0m wide within bottom of slab min 50mm concrete cover over length of drain.

Floor penetrations.
Pipe services and ducts which pass through seperating floors should be surrounded with 25mm sound absorbent mineral wooland enclosed in a duct of 2 layers of Gyproc FireLine board. Seal the joint between the casing and ceiling with tape.
Gas services may require ventilation and should be installed in accordance with Gas Safety (Installation and Use) Regulations 1998.

Upgrade existing pitched roof
To achieve U-value of0.18 Wm2K.
Existing roof structure to be assessed by a Structural Engineer and any alterations to be in accordance with Engineers details.
75mm Kingspan Kooltherm between rafters and 55mm under rafters. Fix 12.5mm foil backed plasterboard (joints staggered) and 5mm skim coat of finishing plaster to underside of all ceilings.
Provide a cavity of 25mm by fixing battens between plasterboard and under rafter insulation.
Maintain a 50mm air gap above insulation to ventilate the roof. Provide opening at eaves level at least equal to a continuous strip 25mm wide and opening at ridge equal to a continuous strip 5mm wide to promote ventilation or provide equivalent high and low level tile vents installed in accordance withmanufacturers details.

Upgrading uninsulated external cavity wall.
To achieve a U-value of 0.28W/m2K.
The existing external walls must be assessed for stability and be free from defects. Provide 67.5mm Kinspan Kooltherm K17 insulated dry lining board with 3mm skim.
Plasterboard to be bonded to the existing wall using dot and dab. Tape joints and seal perimeter edges with mastic. Provide a vapour control layer.

Pipes passing through seperating walls.
Provide adequate fire stopping where pipes pas through walls using proprietory systems including acoustic intumescent sealant, intumescent collars and fire sleeves to ensure the appropriate level of fire and sound resistance is maintained.

Windows and doors
New windows to be double glazed with 16mm Argon filled gap and soft coat low e glass.
Window Energy Rating should be Band C or better and to achieve U value of 1.6W/m2K.
New external doors to achieve a U value of 1.8W/m2K. Glazed areas to be double glazed with 16mm Argon filled gap and soft coat low e glass.
Safety glazing to be installed in critical areas, toughened or laminated safety glass to BS 6206 and Part N of the Approved Document, if within 1500mm of the floor to doors and adjacent panels within 300mm of the door and to windows within 800mm of floor level.

General Notes

CDM REGULATIONS 2015
The client must abide by the Construction Design and Management Regulations 2015. The client must appoint a contractor, if more than one contractor is to be involved, the client will need to appoint (in writing) a principal designer (to plan, manage and coordinate the planning and design work) and a principal contractor (to plan, manage and coordinate the construction and ensure there are arrangements in place for managing and organising the project).

Domestic clients
The domestic client is to appoint a principal designer and a principal contractor when there is more than one contractor, if not your duties will automatically transferred to the contractor or principal contractor.

The designer can take on the duties, provided there is a written agreement between you and the designer to do so.

The Health and Safety Executive is to be notified as soon as possible before construction work starts if the works:

(a) Last longer than 30 working days and has more than 20 workers working simultaneously at any point in the project.
Or:
(b) Exceeds 500 person days.

PARTY WALL ACT
The owner, should they need to do so under the requirements of The Party Wall Act 1996, has a duty to serve a Party Structure Notice on any adjoining owner if building work on , to or near an existing Part Wall involves any of the following:
* Support of beam
* Insertion of DPC through wall
* Raising a wall or cutting of projections
* Demolition and rebuilding
* Underpinning
* Insertion of lead flashings
* Excavations within 3m of an existing structure where the new foundations will go deeper than existing foundations, or within 6m of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.
APart Wall Agreement is to be in place prior to the start of work on site

THERMAL BRIDGING
Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new building fabric.

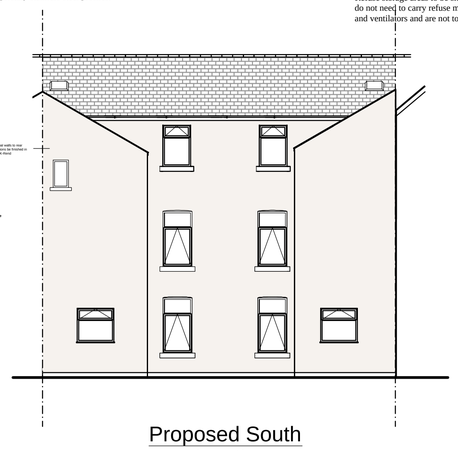
All dimensions are in millimetres unless otherwise stated.
No dimensions to be scaled from this drawing.
It is the responsibility of the Contractor to check all sizes, site dimensions and positions of drains and services prior to setting out or shop work. Any discrepancies to be reported to the contact details below.
Liability shall not be taken for any defects in this drawing unless, prior to commencement,this drawing and all its dimensions have been so checked and verified
Proposed floor levels will be no lower than existing floor levels and flood prorection measures in accordance with Environment Agency guidelines will be incorporated into the build.

Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of works and as required by the Building Control Surveyor.

Wall Key

- existing masonry wall
- internally insulated external wall
- cavity wall
- new internal masonry wall
- full height stud partition wall

Proposed North Elevation
1:100



Proposed South Elevation
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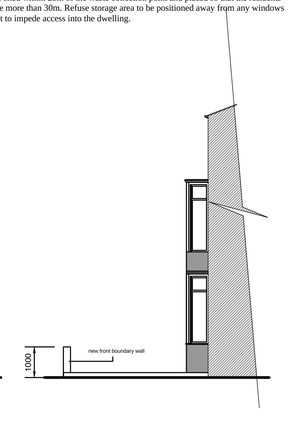

Proposed Front West Elevation
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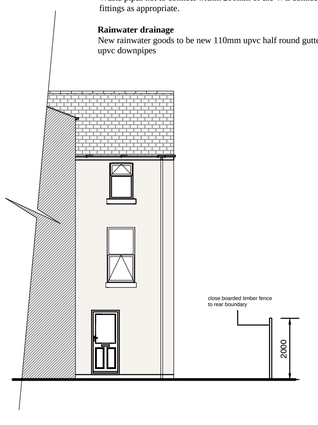

Proposed Rear West Elevation
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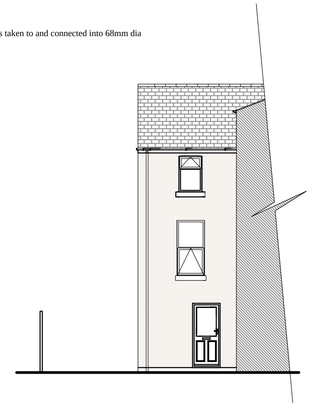

Proposed Rear East Elevation
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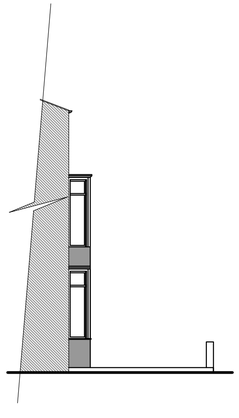

Proposed Front East Elevation
1:100

Rev.	Date	Amendment
B	11/5/2021	Re-construction of rear out riggers and internal layout changes.
A	1/2/2021	Bays added

Client
Blackpool Housing Company Ltd

Drawing title
Proposed Plans and Elevations

Project
Use of premises as 2No dwellings

55-57 Banks Street
Blackpool FY1 2BE

Scale As shown @ A1	Date 30/10/2020
Drawn	Drg.No. B/20/86/02

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