PRIMARY AND SECONDARY HEATING SYSTEMS (NEW AND REPLACEMENT SYSTEMS)
Primary refers to main heating and hot water system, eg main boiler.
Secondary refers to localised heating provisions, eg gas fire / solid fuel fire / stoves.
The efficiency and controls for both types of systems, whether as a new installation or replacement for an existing system must be designed, installed and commissioned in strict accordance with the "Domestic Heating Compliance Guide" published by the Department for Communities and Local Government. The contractor shall check with the boiler manufacturer as to the appropriate controls to be used to achieve Approved Document L1 compliance.

Any new gas boiler to be min 86% SEDBUK condensing wall mounted with balanced flue / stainless steel guard to outlet.

Liquid condensate to discharge to a suitable foul drain, condensate pipework as per manufacturers instructions, insulated where external and 75mm deep trap to prevent smells entering building.

Flues to discharge in accordance with manufacturers instructions and to meet Approved Document J of the Building Regulations.

Completion certificate - Copy of boiler Building Regulation Compliance Certificate from Gas Safe / OFTEC / HETAS registered installer to be provided to Building Control and Occupier.

All new radiators to be fitted with thermostatic valves and all new pipework to be fully insulated in accordance with "Domestic Heating Compliance Guide".

MECHANICAL VENTILATION
Kitchen to be mechanically extracted via fan capable of 60 litres per sec extract rate or via cooker hood capable of 30 litres per sec extract rate, ducted to external air.

Bathroom / WCs to be mechanically extracted via fan capable of 15 litres per sec extract ducted to external air, 15 min over run and linked to light switch to rooms with no windows.

Replacement air to be provided to rooms with extract fans by under cutting doors by 10mm.

Mechanical ventilation systems to be of an energy efficient type on compliance with Table 3 of the Approved Document of the Building Regulations, Provide heat recovery systems to achieve minimum 66% heat recovery.

Fans to be positioned so as to provide reasonable access for maintenance, fans to suit duct length, diameter and no, of bends. Ducts to be insulated / contain condensation traps as necessary and be fitted with back draught devices as necessary.

Mechanical extract rates in new dwellings to be measured on site and notice of compliance with Part F of the Building Regulations to be provided to Building Control.

Extract fan

FOUNDATIONS
Foundations generally, unless noted otherwise by structural engineers design, 600mm wide x min 200mm thick concrete, to be taken down to a minimum depth of 900mm below finished ground level or to a suitable bearing strata which ever the greater, and to a depth to prevent damage by tree roots, actual depth to be agreed on site with Building Control Officer.

Foundations to be taken down to the invert level of any drains passing within 1m.

RC lintels to be provided over drains passing through walls.

Walls below ground level to be filled with lean mix concrete to a level of 225mm below lowest DPC level.

All existing foundations and structure that is to take new / additional structural loading to be exposed for the Building Control Officer to determine its suitability. Strengthen and underpin existing as necessary.

SUPER STRUCTURE
All new brickwork to be bonded to existing and cavities to be maintained, alternatively use propietary starter anchor system together with inserted insulated vertical d.p.c.

All return corners to be min. 550mm unless otherwise indicated.

Existing lintels to be exposed and checked for suitability where additional loads are to be imposed.

Proprietary stainless steel double triangle vertical twist wall ties to be provided to cavity walls at maximum 450mm vertical centres and 750mm horizontal centres staggered across wall elevation, 225mm vertical centres at reveals. Ties to be long enough to have min. 50mm embedment in to masonry. Proprietary insulation clips to be provided to suit cavity insulation system.

All lintels to have min. 150mm end bearing and all timbers to have min 100mm end bearing.

Steel beams eg. RSJs / UBs etc. to be coated in zinc primer prior to building in and to be spaced and bolted together via M12 bolts and spacers at 1000mm c/s (unless specified by structural engineer which shall take precedence). Connections / base plates etc. to be designed by fabricator.

Lintels over openings to be proprietary insulated steel lintels e.g. Catnic or IG etc., lintels to be suitable for loading configuration and spans. Install d.p.c. cavity tray over with stop ends and weep holes at max. 900mm c/s, min 2 per cavity tray.

All structural steel members to be encased with plasterboard and skim to achieve min. 30 minute fire protection using 2x9.5mm plasterboard.Cavities to heads of wall to be closed with mineral wool quilt and dressed over wallplate to prevent cold bridging.

TRADITIONAL UNDERPINNING SPECIFICATION

Responsibility
The contractor will be responsible for the execution of the works in accordance with the specification and drawings. He shall be responsible for the quality of materials and the standards of workmanship associated with the works.

Any variation from the agreed principals shall be immediately referred for approval to the Designer.

Guarantee and Insurance
The contractor shall obtain and maintain appropriate , sufficient insurances against the damage to persons and property associated with the project to cover all works and future failure of the sub strata or undue settlement.
Insurance shall be dated prior to commencement on site and shall be maintained to cover the contractors full period of legal liability.

Site Inspection
An Inspection of the site must be carried out by the contractor prior to providing a quotation / programming the works. In order to establish site conditions and to ensure that there is adequate access. Consideration should also be given to any service runs visible from ground level. The Contractor must also undertake "Dial before you dig" investigations with utility providers to ascertain the location of any services and arrange for all necessary protection / diversion of same.
The Contractor shall pay particular attention to the proximity, condition and nature of any adjacent buildings. All underpinning work is to be carried out to ensure that there is no unnecessary undermining of adjacent foundations to these buildings resulting in damage. The Contractor shall be responsible for any claims arising from damage to adjacent buildings, property or services as a result of the works.

Ground Conditions
The ground conditions as proved by the bore holes / trial pits, detailed on the plans, shall form the basis of the Contractors design. If in the opinion of the Contractor additional information or further ground investigations are required the Designer shall be informed. Unless stated elsewhere in the drawings / calculations / design the new bearing strata for the underpinning shall be a minimum of 100kN / square meter.

Existing Services
All available information concerning underground services are to be obtained by the Contractor from the relevant statutory undertakers prior to commencing the work and all necessary precautions should be taken to ensure that no damage takes place.

TRADITIONAL UNDERPINNING SPECIFICATION Cont.
Initial Precautions
Load Reduction
Before excavations commence, the live loads on the structure should be reduced as much as practicable where they a re large in relation to the dead load.
Temporary Shoring
The Contractor shall provide all necessary temporary shoring required to undertake the works.
Excavations
All excavations necessary for the underpinning shall be well timbered and strutted, or otherwise secured to prevent surrounding ground from moving before it is supported with permanent work.
Concrete poling boards shall be used if the poling boards cannot be withdrawn.
The Contractor shall ensure that all adjoining foundations are not weakened or undermined by the excavation of access trenches or approach excavations.
The Contractor shall allow in his tender for all necessary extra excavations required to provide sufficient working space for the underpinning works.

Control
Before underpinning is commenced a comprehensive inspection, carefully recorded and photographed to identify the condition of the structure to be underpinned and the condition of those structures adjacent to it.
The Contractor should make frequent checks for movement, or distress in the structure as the work progresses.
The Client is responsible for obtaining all statutory approvals prior to commencement of the works and any works undertaken before same are obtained are entirely at the risk of the client. The Client is responsible for obtaining all consents under the Party Wall Act 1996 and all works must be undertaken in accordance with any Party Wall Awards made by teh Party Wall Surveyor(s).

Underpinning Procedure
General
Where underpinning will not give rise to excessive ground pressure, the Contractor should execute underpinning in a series of legs, the length of each leg depending on the general character and condition of the structure to be underpinned, the intensity of the loading and the nature of the ground below. However, in brick and stone walls of domestic properties, each leg should be 1 meter to 1.2m in length. Each series of legs should be planned, to provide sufficient support between legs under construction, and to ensure that the loads from the unsupported portions of the wall are distributed throughout the length of the wall. Attention should also be given to positions of openings and piers immediately above foundations, in order that sections of the structure carrying local heavy loads are not left unsupported. No fresh series of legs may be commenced until the proceeding underpinning is completed and finally finished.

TRADITIONAL UNDERPINNING SPECIFICATION Cont.
The Contractor should ensure that the sequence in which the underpinning is carried ou, is such, to avoid differential settlement and ensure load transfer. The Contractor should ensure that the excavation of the legs are of sufficient depth to the required strata and that the projection of the excavation is sufficient to pick up the thickness of the existing walls. As soon as the bottom of the excavation has been exposed, the Building Control Officer shall Inspect and approve same prior to concreting same immediately after the Inspection.

Method
Before the construction of a leg, the underside of the old wall or foundation should be cleaned and leveled ready for the new pinning.
All joints against legs already constructed shall be thoroughly cleaned and the steel dowels cleaned of mortar / concrete.
The underpinning legs should be constructed as quickly as possible up to the underside of the old wall / foundation.
Additional excavation at the rear top of the wall or foundation should be carried out to form an air hole in order to ensure effective concrete support beneath the existing foundations.

Materials
The grade of concrete and mortar is indicated on the drawings. All materials shall comply with the appropriate British Standard specification where these exist, unless specified otherwise.

Remedial Works To Superstructure
Where it is necessary to dismantle portions for the structure, the Contractor shall take all necessary precautions to maintain the overall stability of the structure. All new masonry used in the construction, shall match the existing brickwork / stonework as near as possible.

Backfilling Of Excavations
The contractor should ensure that the backfilling to the underpinning legs is carried out by compaction of selected back-fill (unless otherwise specified) in layers not exceeding 150mm. All paths and floors shall be re-instated.

AMBULANT DISABLED STEPS TO NEW ENTRANCE OFF HALIWELL LANE
To comply with Part M of the Building Regulations, flight width mIn 1200mm, rise between 75mm and 150mm, mIn going of steps 280mm, mIn clear level landing 1200mm going at top and bottom of steps, provide grippable handrail, not cold to touch, to both sides of steps at a height between 900-1000mm above string. Handrail to extend 300mm beyond steps, provide guardrail 1000mm above paving level with intermediate rails at + 350mm and _700mm levels. Provide countJury hazard warning paving 1200x800mm at base and head of stairs, set back from start / head of stairs by 400mm.

WINDOWS, ROOFLIGHTS AND DOORS
New windows and rooflights - fully draught-proofed and double glazed in Low emissivity "K" glass with 16mm Argon filled air gap to give a minimum U-value = 1.6W/m2K (or window energy rating -band D).

Replacement windows - as above to achieve a minimum U-value = 1.6W/m2K (or window energy rating - band E)

New or replacement glazed doors (less than 50% glazed and solid doors) - fully draught proofed and double glazed with Low emissivity "K" glass with 16mm Argon filled air gap to give minimum U-value = 1.8W/m2K.

Escape windows: All habitable room to have opening lights fitted with escape hinges / catches giving a clear minimum 0,33m2 open free area, with no dimension less than 450mmx450mm. Cill heights to first floor windows or where window is adjacent to a drop of more than 600mm to be a min of 800mm and max of 1100mm above finished floor level.

Provide natural ventilation to habitable rooms with opening lights equivalent to 1/20th floor area of respective rooms.

New windows and Doors to comply with Part Q : Security of the Building Regulations, Ground floor and basement windows, windows / roof lights that are within 2m measured vertically of a level surface / flat roof or sloping roof that is within 3.5m of ground level shall comply with PAS 24 : 2012.

All main entrance doorsets shall comply with PAS 24 : 2012 and be fitted with viewers and fitted with a chain / limiter.

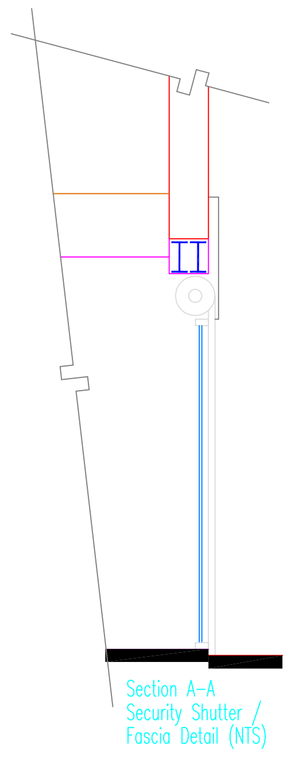
DAMP PROOFING
Horizontal DPCs to be provided to walls min. 150mm above finished ground level.

DPMs to lap onto both new and existing DPCs.

Insulated half hour fire rated DPCs to be provided to all cavity closers around all openings to prevent cold bridging.

Minimum 150mm Code 4 lead upstand flashings and cavity trays over to be provided where roofs abutt walls, flashing to be dressed over tiles by a min. of 225mm.

Any air bricks covered by proposal to be ducted via 100mm dia ducts to new external walls and insert telescopic air bricks sleeved with cavity trays over to connect to outside air.



Section A-A
Security Shutter / Fascia Detail (NTS)

F	Re-issued for Planning	Nov 17	DAP
Rev.	Mod. Notes	Date	By

Client
Amir Salim

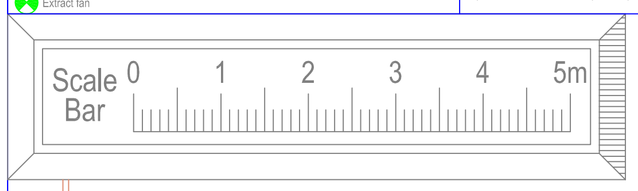
Location
5, Progress Buildings, Cheetham Hill Rd, Manchester

Job Title
Conversion From Bank To Retail Premises

Drawing Title
Existing and Proposed Elevations Proposed Shutter Detail

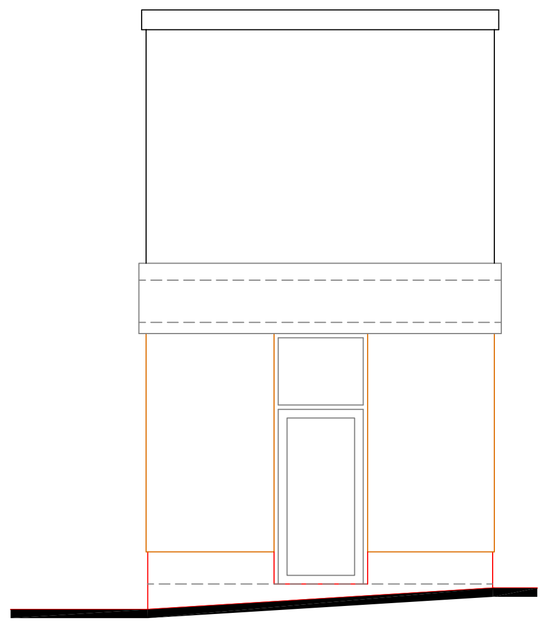
Scale 1:50, NTS	Sheet A1
Date Apr 16	Drawn by DAP

Dwg. No. 02-25/16	Rev. F





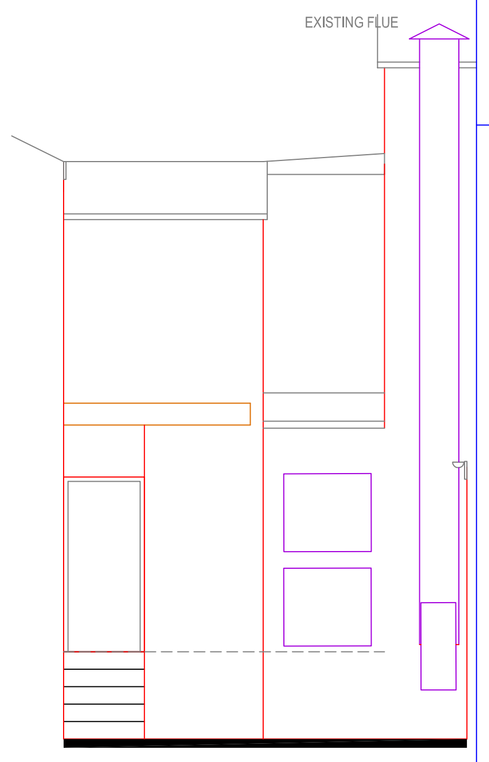
Existing Halliwell Lane Elevation



Existing Corner Elevation



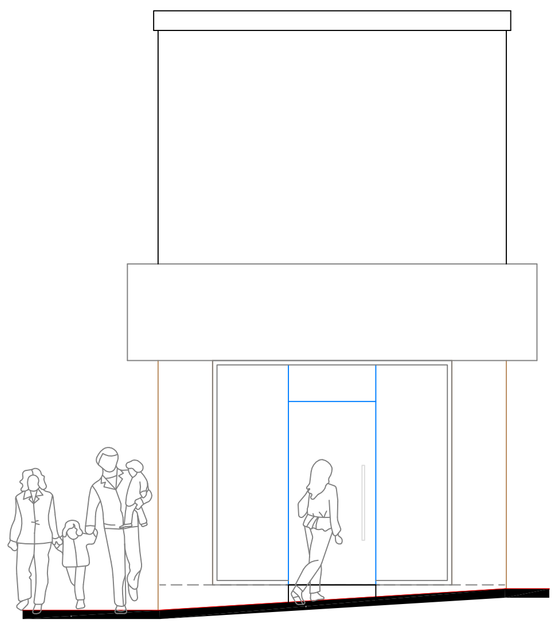
Existing Cheetham Hill Road Elevation



Existing Rear Yard Elevation



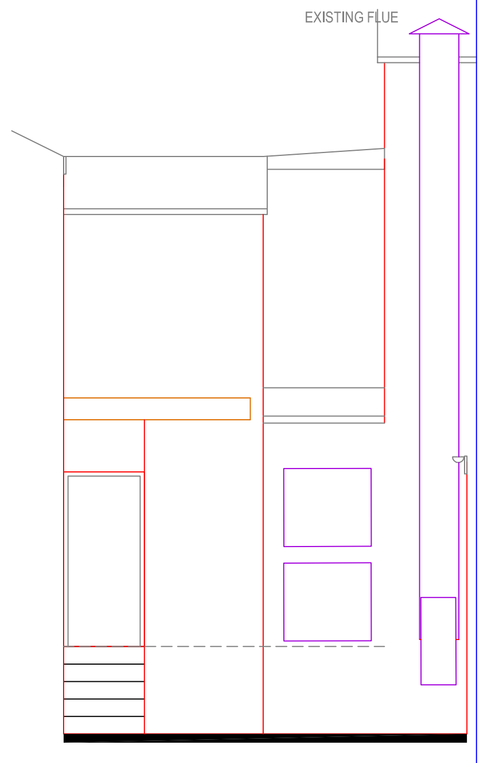
Proposed Halliwell Lane Elevation



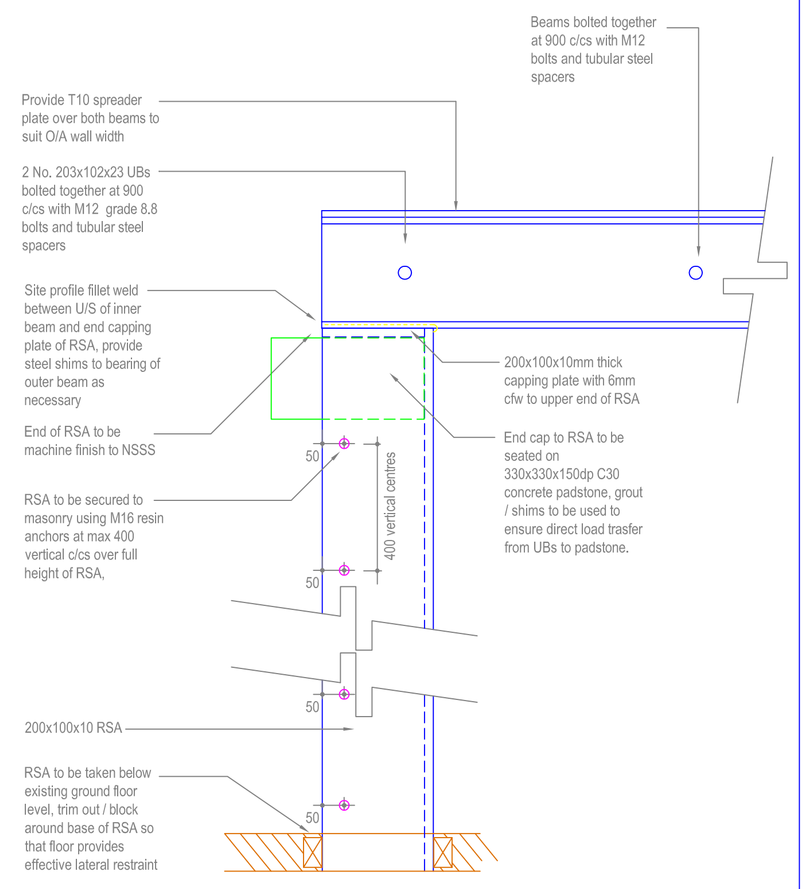
Proposed Corner Elevation



Proposed Cheetham Hill Road Elevation



Proposed Rear Yard Elevation



Typical Inner Beam / RSA Junction Detail (NTS)