

General Construction Notes

These notes are for general use in accordance with the construction of the buildings to which the drawings refer. Specific details shall be as noted on the plans, working sections and detailed specification.

All work to be carried out in accordance with:

- Building Regulations Approved Documents;
- Warranty Provider Requirements;
- Current CDM regulations;
- British Standards;
- Codes of Practice;
- Current IEE regulations;
- SBEM summary and calculations;
- All manufacturer's details and instructions for installation of materials, systems, elements etc used in the build.

Existing Structure

- 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 work and as required by Building Control. All proposed structural work - lintels, steels etc to be confirmed and installed as per structural engineer details.
- Check existing flat roof for adequacy and coping.

Lintels

- Lintels to be in accordance with selected manufacturer's schedule and copies passed to the Building Control Officer for approval prior to installation.
- Lintels to be specifically designed to accept structural loadings as applicable.

Internal Partitions

- Gypwall - 90mm Gyframe 'C' Stud and Gyframe Acoustud.
- 12.5mm Gyproc SoundBloc
- Gyframe 90 S 50 'C' Studs @ 600mm c/c
- Gyframe 94 FEC 50 Channel fixed to floor and existing steelwork @ 600mm c/c
- 12.5mm Gyproc SoundBloc
- Provide moisture resistant plasterboard to wet areas.
- Pattressing required to walls with fittings and units attached

Internal Party Walls

- Gypwall - 90mm Gyframe 'C' Stud and Gyframe Acoustud.
- 2 Layers of plasterboard (1x12.5mm Gyproc FireLine + 1x12.5mm Gyproc SoundBloc
- Gyframe 90 S 50 'C' Studs @ 600mm c/c
- Gyframe 94 FEC 50 Channel fixed to floor and existing steelwork @ 600mm c/c
- 16mm (min) resilient bars wall mounted at right angles at 400mm centres (bars must achieve a minimum laboratory performance of rd_aRw+Ctr=17dB and rd_LW=16dB) - locations as per drawing no. 329-22-1200
- Provide moisture resistant plasterboard to wet areas.
- Pattressing required to walls with fittings and units attached

Ground Floor Ceiling

- Fire retardant paint applied to underside of existing concrete floor
- Gyframe MF7 Primary Support Channel fixed to underside of existing concrete floor
- Gyframe GAH2 Acoustic Hanger
- Quick-Lock Grid Hanger or suspension wire (14 SWG) at 1200mm centers
- Quick-Lock Grid Cross Tee 1200mm length at 600mm centers
- Grid Cross Tee 600mm length at 1200mm centers
- Gypsum acoustic ceiling tiles

Existing External Walls

- Existing external walls
- 16mm (min) resilient bars wall mounted at right angles at 40mm centres (bars must achieve a minimum laboratory performance of rd_aRw+Ctr=17dB and rd_LW=16dB)
- 12.5mm Gyproc SoundBloc

Infill External Walls

- U-Value = TBC by SBEM Assessor
- 100mm bockwork
- 100mm cavity with full-fill covity insulation
- 12.5mm plasterboard with 2.5mm skim finish. Provide moisture resistant plasterboard to wet areas.
- All to be constructed to manufacturer's specification, requirements and details
- Any ventilation gaps to have insect mesh attached

External Windows

- uPVC Windows
- U-Value = TBC by SBEM Assessor
- Refer to Window Schedules for details.
- Window frames should be mechanically fixed to the structure of the building in accordance with the manufacturer's installation instructions.
- Sealed low E double-glazing to BS 6262 (unless otherwise stated in SBEM calculations).
- Toughened glass internally to all glazing within 800mm of FFL or 1500mm above FFL if within 300mm of a door to BS 6206 & BS EN 12600. Refer to window schedules.
- Laminated glass externally to BS 6206 & BS EN 356 2000 rating P1A for any window located within 400mm of a doorset and / or easily accessible emergency egress windows. Refer to window schedules
- Draft excluders and mastic to all windows.
- 25mm MDF Window boards, gloss painted.
- Tiled sills to all wet rooms
- All upper floor windows to be fitted with opening restrictors; and those at ground floor level that open onto a path or where people may pass.
- All windows which open outward to have off-set hinges for easy cleaning of the external pane from the inside.
- All windows to be fitted with trickle ventilation.
- All opening windows to have night locking position fasteners

External Doors

- Aluminum Doors
- U-Value = TBC by SBEM Assessor
- Refer to Door Schedules for details.
- Frames should be mechanically fixed to the structure of the building in accordance with the manufacturer's installation instructions.
- Main entrance door to have 825mm effective clear

- opening for each leaf. (The effective clear width is the width of the opening measured at right angles to the wall in which the doors is situated from the outside of the door stop on the door closing side to any obstruction on the hinge side, whether this be projecting door opening furniture, a weather board, the door or the door stop).
- Refer to Door Schedules for details and door leaf pattern
- Minimum lap of door frame with insulation of 30mm
- Main entrance door to achieve min 800mm clear opening.
- A level platform of min 1500x1500mm is to be provided externally in front of the main entrance door.
- Level threshold to the main entrance to project upwards no greater than 15mm. DPC to be taken up the face of the threshold in the joint between threshold and paving
- Where required to be self-closing, a power-operated door opening and closing system is to be used when through calculation and experience it appears that it will not be possible otherwise for a person to open the door using a force not more than 30N at the leading edge from 0° (the door in the closed position) to 30° open, and not more than 22.5N at the leading edge from 30° to 60° of the opening cycle.
- Manually operated non-powered entrance doors are to satisfy the following:
 - o The opening force at the leading edge of the door is not more than 30N at the leading edge from 0° (the door in the closed position) to 30° open, and not more than 22.5° at the leading edge from 30° to 60° of the opening cycle;
 - o There is an unobstructed space of at least 300mm on the pull side of the door between the leading edge of the door and any return wall;
 - o Where fitted with a latch, the door opening furniture can be operated with one hand using a closed fist, e.g. a lever handle;
 - o All door opening furniture contrasts visually with the surface of the door and is not cold to the touch.
- Escape route doors must be maintained readily available, without the use of keys always. Each door should only be secured by a single fastening device

Internal Doors

- Refer to door schedule for full details
- Safety glass to all internal doors and sidelights within 1500mm of FFL (where applicable)
- Door leaf pattern as shown on door schedule
- Ironmongery design by others
- Escape route doors must be maintained readily available, without the use of keys always. Each door should only be secured by a single fastening device

Surface Water Drainage

- See plans and elevations for locations of downpipes. Locations to be confirmed by civil engineer
- Note: refer to civil engineer drawings for external surface water drainage design

Foul Water Drainage

- 100mmØ uPVC soil and vent pipe / air admittance valve / stub stack with rodding point to ground floor and large radius bend to discharge to drain.
- Pipes to be encased in frame with plasterboard and screwed access panel.
- SVP pipes passing through separating floor to have 2 layers (min 1 hour fire protection) of plasterboard (each layer nominal 8kg/m²) and fire-collar at floor junction
- Provide minimum 25mm mineral wool quilt minimum 10kg/m² around pipe
- Where AAV is provided this must terminate within the building a minimum of 100mm above the highest flood point. If stack is the end of a run, an SVP with vent to air must be provided.
- 50mmØ uPVC standing waste with rodding point connected to 110mmØ easy bend outlet to drain.
- 75mm anti-siphonage deep seal plastic BS 3943 traps to all waste water appliances.
- 40mm wastes from basins, 50mm wastes from sinks, 100mm wastes from WCs unless indicated otherwise
- Note: refer to civil engineers drawings for external foul water drainage design

SVP Roof Termination

- Where SVP is on end of foul drain run, SVP to roof vent minimum 900mm above the highest opening into the building (windows, doors, air intakes etc) within 3m of stack. Should be finished with wire cage or other perforated cover.

Cold Water Supply

- Wholesome water will be supplied in compliance with Building Regulations Approved Document G
- Supply pipe run within 100mmØ duct with 38mm insulation capped off at ground end.
- Connect to in-the-ground type water meter as indicated on the drawings, all to Local Water Authority requirements
- Refer to manufacturer's layouts to ensure water entries do not clash with suspended floor beams.
- Notice to be given to the Local Authority Building Control no later than 5 days after the work has been completed

Heating & Hot Water

- Gas Combi Boiler
- Refer to SBEM calculations and mechanical engineer's drawings and specification for details
- Any radiators to be low surface temperature
- The hot and cold water systems are to be designed in accordance with Building Regulations Approved Document G to avoid the risk of Microbial Contamination
- Eco-friendly insulation to BS 5422:2009 to pipes and ducts unless heat loss contributes to a useful heat requirement. This also applies to loft space and sub-floors.

Pipe Insulation & Service Sealing

- All water services within unheated spaces, including cisterns, warming pipes, overflows and vent pipes to be insulated against freezing. Insulate with insulating material having a thermal conductivity less than 0.035W/m²k and a thickness equal to the outside diameter of pipe
- Extract ducts where they pass through unheated spaces, such as a roof void, to the outside air should be Insulated to prevent condensaton occurring or incorporate a condensation drain in the design.
- All piped services are to be fully sealed where they

- penetrate into hollow construction or voids.
- Eco-friendly insulation to BS 5422:2009 to pipes and ducts unless heat loss contributes to a useful heat requirement. This also applies to loft space and sub-floors.

Ventilation

- For offices with natural air supply refer to CIBSE Application Manual AM 10: Natural ventilation in non-domestic building
- Refer to mechanical engineer's drawings and specification for details
- Whole building ventilation rate for air supply to offices - Total outdoor air supply rate for offices (no smoking and no significant pollutant sources) = 10l/s per person.
- Background ventilation is to be achieved by trickle vents in windows. Any shortfall in ventilation is to be made up by through-wall ventilators.
- Mechanical extract fan capable of extracting air at the follow rates are to be provided in all wet rooms
 - o Kitchen - 15l/s with microwave and beverages only, 30l/s adjacent to the hob with cooker(s), 60l/s elsewhere with cooker(s);
 - o Shower - 15l/s achieved by wall or ceiling mounted extract fan;
 - o WC - 6l/s achieved by wall or ceiling mounted extract fan;
 - o Rooms containing printers & photocopiers in substantial use (greater than 30 minutes per hour) - Air extract rate of 20l/s per machine during use.
- Extract ventilators should be located as high as practicable and preferably less than 400mm below the ceiling.

Air Permeability & Pressure Testing

- An air permeability test rating of no more than 10m³/(h.m²) at 50Pa as listed in SBEM calculations is to be achieved
- Air pressure testing to be carried out upon completion by a specialist in accordance with the procedures approved by the Secretary of State.
- Notice of the results to be given to the Local Authority within 5 days of the final test being carried out

Switches & Sockets

- Refer to electrical engineer's drawings and specification for details
- Any floor mounted sockets/boxes at second floor level to be encased in min 60 minute fire protection
- Wall mounted socket outlets, telephone points and TV sockets are to be located between 400mm and 1000mm above FFL, with a preference for the lower end of the range
- Switches for permanently wired appliances are located between 400mm and 1200mm above FFL, unless needed at a higher level for particular appliances
- All switches and socket outlets that require precise hand movements are located between 750mm and 1200mm above FFL
- Simple push button controls that require limited dexterity are not more than 1200mm above the floor
- Pull cords for emergency alarm systems are coloured red, located as close to the floor as possible and have two read 50mm diameter bangles, one set at 100mm and the other set between 800mm and 1000mm above the floor
- Controls that need close vision are located between 1200mm and 1400mm above the floor so that readings may be taken by a person sitting or standing (with thermostats at the top of the range)
- Socket outlets are located consistently in relation to doorways and room corners, but in any case no nearer than 350mm from room corners
- Light switches for use by the general public have large push pads and align horizontally with door handles within the range 900 to 100mm, for ease of location when entering a room
- Where switches cannot be provided as described above, lighting pull cords are set between 900mm and 1100mm above FFL, and fitted with a 50mm diameter bangle visually contrasting with its background and distinguishable visually from any emergency assistance pull cord
- The operation of switches, outlets and controls must not require simultaneous use of both hands, except where this mode of operation is necessary for safety reasons
- Switched socket outlets are to indicate whether they are "on"
- Mains and circuit isolator switches must clearly indicate that they are on or off
- Front plates must contrast visually with their backgrounds
- Artificial lighting should be designed to give good colour rendering of all surfaces, without creating glare or pools of bright light and strong shadows. where appropriate, lighting should illuminate the face of a person speaking, to make lip reading easier where one-to-one communication is necessary. Uplighters can disorientate some visually impaired people and should be avoided.

Lighting

- Lighting should meet the recommended minimum standards set out in the Non-Domestic Building Compliance Guide 2013 for:
 - o efficacy (averaged over the whole area of the applicable type of space in the building) and controls in Table 42
- or
 - o the LENI in Table 44. The LENI should be calculated using the procedure described in Section 12.5
- Lighting should be metered to record its energy consumption in accordance with the minimum standards in Table 43 of the Non-Domestic Building Compliance Guide 2013
- Lighting controls should follow the guidance in BRE Digest 498 *Selecting lighting controls*.
- Lighting within suspended ceiling grid.

Electrical Work

- To verify that the design and installation of electrical work is adequate, and that installations will be safe to use, maintain and alter, the electrical work should be inspected and tested in accordance with the procedures in BS 7671
- All electrical works to comply with Building Regulations Approved Document P requirements and to be carried out by competent persons who are registered with a Part P self-certification scheme
- Energy display devices to be provided

Emergency Lighting

- All escape routes should have adequate artificial lighting.
- Routes and areas below should also have escape lighting which illuminates the route if the main supply fails.
 - o Underground or windowless accommodation;
 - o Stairways in a central core or serving storey(s) more than 18m above ground level;
 - o Internal corridors more than 30m long;
 - o Open-plan areas of more than 60m²
- Lighting to escape stairs should be on a separate circuit from that supplying any other part of the escape route
- Escape lighting installation should be to BS 5266-1:2016

Emergency Signage

- Every escape route (other than those in ordinary use) should be distinctively and conspicuously marked by emergency exit sign(s) of adequate size complying with the Health and Safety (Safety Signs and Signals) Regulations 1996 and be provided in accordance with BS 5499-4:2013 and BS 5499-10:2014. In general, signs containing symbols or pictograms which conform to BS 5499-1:2002, satisfy these regulations. In some buildings additional signs may be needed to meet requirements under other legislation - see drawing no. 329-22-1700 for locations.
- Suitable signs should also be provided for refuges.

Fire Detection

- Fire detection systems are to be provided and installed to suit Building Regulations Approved Document B Volume 2 and BS 5839-1:2017
- Break glass points to be provided in accordance with BS 5831-2017
- Refer to electrical engineer's drawings and specification for details

Fire Fighting Equipment

- Fire fighting equipment should be provided throughout the premises in accordance with the guidance contained in BS 5306-8:2012

Carbon Monoxide Detection

- Carbon monoxide alarms to BS EN 50291:2001 and powered by a battery designed to operate for the working life of the alarm to be provided in all rooms housing a fixed combustion appliance
- They are to be ceiling mounted at least 300mm away from any wall or, if it is located on a wall, as high up as possible (above any doors and windows) but not within 150mm of the ceiling, and between 1m and 3m horizontally from the appliance

Structural Steelwork

- Any exposed steel beams and columns to be encased in 30 minute fire rated construction or other 30 minute rated fire protection.

Colour Contrast

- The difference in light reflectance value between the two surfaces is greater than 30 points:
 - o Door opening furniture to contrast visually with the surface of the door
 - o Doors should contrast visually with the walls in which they are situated
 - o Light switches, lift call points, signs etc to contrast visually with the wall on which they are located

Operating and Maintenance Instructions

- To be in accessible format and provided to the building owner
- Energy Performance Certificates to be provided on completion
- Commissioning certificates, warranties, operation and maintenance manuals to be provided to the building owner.

Site Access

- A 'level approach' (from the boundary of the site and from car parking spaces designated for disabled people to the principal entrance, staff entrance or to an alternative accessible entrance) will:
 - o have a surface width of at least 1.5m, with passing places, free of obstructions to a height of 2.1m;
 - o have passing places at least 1.8m wide and at least 2m long provided within sight of each other (the width of the passing place may be included in the width of the level approach), but spaced at a distance no greater than 50m;
 - o have the gradient along its length no steeper than 1:60 along its whole length, or less steep than 1:20 with level landings introduced for each 500mm rise of the access (where necessary, between landings), with a cross-fall gradient no steeper than 1:40
 - o have a firm, durable and slip resistant surface, with undulations not exceeding 3mm under a 1m straight edge for formless materials;
 - o be clearly identified and lit;
 - o be a separate pedestrian route from vehicular traffic

Disabled Car Parking

- Parking bays for disabled people to be provided in accordance with BS 8300;
- Bay to be at least 2.4x4.8m with a 1.2m safety zone to one side and between the bay and the vehicular access.

External Ramps & Steps

- Where a level approach is not achievable a stepped and ramped approach is required.
 - o Minimum 1.2x1.2m unobstructed and clear of door swings level landing provided at the top and bottom of each flight with a 'corduroy' warning surface
- Steps to have:
 - o Flights with a surface width between walls, strings or upstands of at least 1.2m
 - o No single steps
 - o Rise of a stepped flight between landings contains no more than 12 risers for a going of less than 350mm and no more than 18 risers for a going of 350mm or greater;
 - o All nosings are made apparent by means of a permanently contrasting material 55mm wide on both the tread and riser
 - o Rise of each step is between 150mm and 170mm

- and no open rise
- Going of each step is between 280mm and 425mm
- Continuous handrail on each side of a flight and landings. additional handrails divide the flight into channels not less than 1m wide and not more than 1.8m wide where the overall unobstructed width is more than 1.8m
- Ramps to have:
 - o Surface width between walls, upstands or kerbs at least 1.5m
 - o Gradients to be maximum 1:20 for 10m at maximum 500mm rise, 1:15 for 5m at 333mm rise and 1:12 for 2m at 166mm rise
 - o Any intermediate landings are to be at least 1.5m long and clear of door swings and obstructions. Increased to 1.8x1.8m as passing places where it is not possible to see from one end of the ramp to the other or the ramp has 3 or more flights
 - o Level landings, subject to a maximum gradient of 1:60 along their length and a maximum cross-fall gradient of 1:40
 - o Continous handrail on both sides
 - o 100mm high kerb on the open side of any ramo and contrasts visually with the ramp or landing in addition to any guarding required under Part K
- Handrail
 - o Vertical height to the top of the upper handrail from the pitch line is between 900 and 1000mm and from the surface of a landing is between 900mm and 1100mm
 - o To extend at least 300mm horizontally beyond the top and bottom of a ramp or flight while not projecting into an access route
 - o Contrasts visually with the background against which it is seen, without being to highly reflective
 - o surface to be slip resistant and not cold to the touch and in areas where of low maintenance or resistance to vandalism is required, use of metals with relatively low thermal conductivity
 - o Design to terminate in a way that reduces the risk of clothing being caught
 - o Profile is either circular with a diameter between 32 and 50mm, or non-circular, 50mm wide and 39mm deep having rounded edges with a radius minimum of 15mm
 - o Protrudes no more than 100mm into the surface width of the stair or ramp
 - o Clearance of between 50mm and 75mm between the handrail and any adjacent wall surface
 - o clearance of at least 50mm between a cranked support and the underside of the handrail
 - o inner face is no more than 50mm beyond the surface width of the ramped or stepped access

All dimensions to be verified on site by Main Contractor before the start of any shop drawings or work whatsoever either on their own behalf or that of sub-contractors. Report any discrepancies to the Contract Administrator at once. This drawing is to be read with all relevant Architect's and Engineer's drawings and other relevant information.

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NOTES:

Project: Former Barclays Bank

Acle

Drawing Title: Construction notes

Client: Acle Parish Council

Scale @A1: 1:50 Date: 04-2022

Project Number: 329-22 Drawing Number: 8100 Revision: C1

Purpose of Issue: Tender Issue

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