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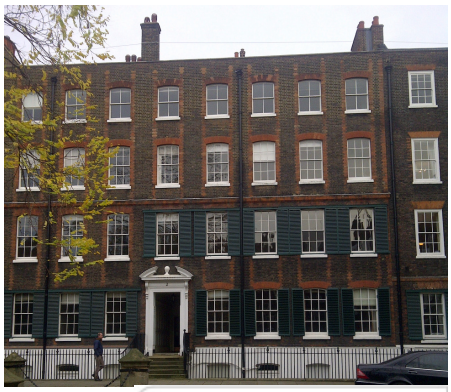
Project No. 4119
March 2012
Second Issue

M&E SERVICES DESCRIPTION

FOR

REFURBISHMENT OF

NO.2 NEW SQUARE, LINCOLNS INN, W1G 6QP



THE HONOURABLE SOCIETY OF LINCOLN'S INN

THE HONOURABLE SOCIETY OF LINCOLNS INN, LONDON WC2A 3CL

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1/1 Introduction

No.2 New Square is to undergo a complete services refurbishment to bring the building up to current standards for the internal environment required for modern barristers chambers.

The entire existing services installations will be stripped out with complete new installations for the following,

1. Heating & Cooling
2. Ventilation
3. Water Services
4. Drainage
5. Electrical Power
6. Lighting including emergency lighting
7. Data services
8. Fire Alarms
9. Lightning Protection

The following causes outline the new services and should be read in conjunction with the drawings listed in clause 1/4.

1/2 Mechanical Services

The building will be served by a system of perimeter mounted four pipe fan coil units, each fan coil unit will provide individual room temperature control, both heating and cooling, and mounted within a decorative casing under each window.

The pipework services distribution has been detailed to minimise the impact on the existing structure, in particular the cast iron beams within the floor voids. The pipework will run beneath the existing floor construction within a new ceiling void created along the central spine/corridor. From this void the services will rise into the floor construction and run parallel to the cast iron beams to the perimeter fan coil units. Currently there are some instances where services will have to pass through the cast iron beams to reach the fan coil units. As the design progresses, where this can be avoided alternative routes will be adopted, if routes through beams are essential then the works will be carried out as the structural engineers propose in their document. Again, in order to minimise the impact on the existing structure services routes within floor voids will pass through existing doorways so as not to impact on internal walls.

Heating to the fan coil units will be provided by a high efficiency condensing boiler to be located in the 'vaults' at basement level. The boiler will meet the requirements of ADL2B.

Various option for the cooling to the fan coil units have been explored, the option with the least visual impact and requiring the least structural upgrade to the roof has resulted in a 'split' chiller arrangement. The main chiller will be housed in the vaults, at basement level, with the relatively smaller and lighter heat rejection plant to be sited on the main flat roof. The added advantage of this arrangement is that acoustically, it offers flexibility in plant selection allowing the noise criteria to be met with the least obtrusive plant
The energy efficiency of the chiller plant will comply with ADL2B.

The acoustic survey recently undertaken has recommended an acoustic screen shrouding the roof cooling plant, to prevent noise breakout to residential properties in the vicinity. The roof mounted extract fan will be provided with its own acoustic casing, and breakout noise will be treated by a silencer on the air discharge. Details of the acoustic treatment can be found in the Acoustic Report provided by Allaway Acoustics Ltd. The remaining plant item at roof level will be a condenser for the Comms Room cooling, this unit will not require any acoustic treatment to achieve the noise criteria.
The acoustic treatment for the plant in the vaults at basement level will meet the criteria by the use of acoustically treated doors to the relevant plant areas.(Refer to the architecturual

drawings for details of the acoustic doors). The remaining general structure of the plant rooms will prevent breakout noise rising above the required criteria.

Hot water will provided by local electric water heaters to sanitary ware, tea points and the basement kitchen.

New drainage will be provided to serve the new sanitary ware, Kitchen and Tea Points, connecting to the existing below ground system. The existing surface water drainage will remain with the necessary remedial works as required.

Mechanical ventilation will be provided to the WC's, the specific fan power of the extract unit complying with ADL2B.

1/3 Electrical Services

A new electrical supply will be bought into the building and new electrical services distributed throughout using the vertical services risers, newly formed ceiling voids and existing floor voids.
The proposed cable routes within the offices will be within the floor construction, run in the voids between the cast iron beams and the floor timbers. The routing of electrical services will not be through the cast iron beams. Cables will rise from the floor void to the perimeter outlet plates, which will be located above the plaster skirting. Lighting will be fed direct from the floor void. By adopting these routes any disruption to decorative features such as cornices and skirting will be kept to a minimum. Whilst all precautions will be taken, if damage does occur then making good will be by matching the existing mouldings etc.

New lighting will be provided with recessed compact fluorescent luminaires to circulation spaces and surface mounted or suspended linear fluorescent fittings to offices, complying to CISBE LG7 guidelines.

Lighting control will be by local switching and/or presence detection.

Emergency lighting will be provided where necessary.

The new lighting installation shall comply with the requirements of ADL2B.

New data installation shall be installed routed in the new vertical services risers, continuing in the floor voids to wall mounted outlet plates, in the same manner as described for the electrical systems.

1/5 Drawings

This document shall be read in conjunction with the following drawings,

4133/SK/004	Roof Plan –New Plant Location
4133/SK/005	Basement and Ground Piped Services
4133/SK/006	First & Second Floors Piped Services
4133/SK/007	Third Floor Piped Services
4133/SK/008	Detail Sheet