D D PORTER
CONSTRUCTION

SIEMENS HEALTHCARE

BIRKBECK UNIVERSITY – NEW MRI

SPECIFICATION & GENERAL DESCRIPTION OF WORKS

BASED ON THE MAGNETOM PRISMA

SPECIFICATION & GENERAL DESCRIPTION OF WORKS

We set out below a brief specification showing the works we propose.

1) Design

We have included for the following design: -

a. Architect
b. Structural Engineer
c. M & E Engineers.

2) Preliminaries

a. Temporary services
b. Site accommodation
c. Site Management
d. Travel
e. Site telephone
f. Removal of rubbish
g. Site facilities
h. Cleaning
i. CDM Regulations

3) Alterations and Building

a. Strip out and remove redundant fixtures and fittings.
b. Remove existing floor coverings.
c. Remove existing suspended ceilings.
d. Demolish redundant walls and cart away all spoil.
e. Erect crash deck and break out existing floor and cart away all spoil.
f. Erect formwork, r bar and form concrete support structure to ducts.
g. Relay new floor 275mm lower than existing complete onto new structure.
h. Erect steel good post structure to form opening. Erect through ties at high level to support external structure. Carefully remove 2no vertical posts complete. Reinstate on completion (see Structural Engineer's Method Statement).
i. Erect new partitions to be Gyproc stud partitions to be clad both sides with plasterboard and skim and insulated.
j. Plasterboard and skim finish to new RF Cabin
k. BWIC with the installation.

4) Joinery Works

a. Supply and fix Armstrong Dune or similar, non-ferrous suspended ceilings to examination room.
b. Supply and install filter cupboard.
c. Supply and install control room worktop – 4.00m.
d. Supply and install base storage units with worktop over – 2.00m.
e. Supply and fix 2 new door sets complete.
f. Apply film to external windows.

5) Electrical Works

a. Removal of existing
b. Modifications to the existing circuits in the adjacent rooms
c. New incoming 160amp scanner supply cable.
d. Mechanical services supply cable.
e. Small power.
f. Lighting.
g. Emergency Lighting.
h. MRI scanner exam LED Lighting.
i. Nurse Call
j. Telephone & Data containment only
k. Door access controls.
l. Fire Alarm installation.
m. Mechanical Electrical supplies.
n. MRI Scanner Electrical requirements.
o. Earthling & Bonding.
p. Testing & Commissioning.
q. Operation & Maintenance Manual.

6) Mechanical Works

a. Removal of the existing redundant LTHW heating and split system cooling
b. Installation of one ICE 090 air-cooled chiller complete with pipework and control wiring to serve the SEP cabinet of the Siemens Prisma MRI. The chiller shall be located externally at ground floor level within 15m on a base provided by others
c. Supply and installation of a split system heat pump to serve the MRI Exam Room. The fan coil unit shall be a ducted type located in the ceiling void with air ducted to and from the Room. The condensing unit shall be mounted externally within 25m. The ductwork within the RF cage shall be aluminium construction and diffusers shall be plastic. An electrode boiler humidifier and electric re heater shall be provided for humidity control to the area
d. Supply and installation of a Daikin wall mounted split system to serve the Siemens Equipment Room. The indoor unit shall be positioned at high level

within the room and the condensing unit shall be located externally at ground floor level within 20m

e. Supply and installation of a Daikin ceiling mounted cassette split system to serve the Control Room. The indoor unit shall be positioned within the room and the condensing unit shall be located externally at ground floor level within 20m

f. Supply and installation of an insulated stainless steel quench pipe to suit the Siemens magnet. The quench pipe shall pass through the external wall and discharge in accordance with Siemens current requirements

g. Supply and installation of emergency extract system complete with a Crowcon oxygen monitoring system. The duct shall pass from the Exam Room and discharge to ambient through the external wall. A manual override facility shall be provided for use during the helium fill of the magnet

h. Flushing, chemical clean and dosing of chilled water pipework

i. Supply and installation of a 'User Panel' located within the Control Room which shall incorporate Chilled Water Temperature Display, Chiller Run Lamp, Chiller Failure Lamp, MRI Exam Room Temperature and Humidity Display, MRI Equipment Room high temperature lamp, Emergency Extract Run Lamp and Emergency Extract Fan manual override switch. The panel will be fitted with an audible alarm and mute button

j. Commissioning, client demonstration, manuals and record drawings

k. Design fees and collateral warranty

NO ALLOWANCE FOR MEDICAL GASES

7) RF Cabin & Steel Shielding

a. Design, supply and install RF Cabin complete with window, single door, waveguides and filters.

b. Steel shielding based on an estimate of 12 layers of 1mm ARMCO steel fixed to 25mm plywood boards supported by a stainless steel goalpost system.

8) Decoration

a. Thoroughly prepare all surfaces and then apply eggshell paint to examination, control & technical rooms.

9) Floor Coverings

a. Prepare existing floor and lay Polyflor XL or similar vinyl to the examination, control and technical rooms.