The following documentation/information was supplied for the purpose of tender:

#### **General Specifications:**

F. Manato N5.2-Elec-Spec - 2031.S10 - Electrical Services Technical Specification\_revT1.pdf N5.2-Elec-Spec - 2031.S13 - Electrical Services Tender Documents\_revT.pdf N5.3-Elec-Sched - 2031.S11 - Ex-Or Equipment Schedule.pdf N5.3-Elec-Sched - 2031.S11 - Luminaire and Equipment Schedule revT.pdf N5.3-Elec-Sched - 2031.S11 - Main Board Equipment Schedule\_revT.pdf N5.3-Elec-Sched - 2031.S12 - LV Distribution Schedules\_revT.pdf N5.3-Elec-Sched - 2031-QODA-Schedule of Wiring Responsibilities.pdf N5.3-Elec-Sched - 26498REP-1C.pdf BWIC - 2031-QODA-BWIC-01 Schedule Rev T.pdf BWIC - 2031-QODA-CF-00-DR-BW-0101.pdf BWIC - 2031-QODA-CF-01-DR-BW-0101.pdf BWIC - 2031-QODA-CF-B1-DR-BW-0101.pdf

#### **Drawings**

- N5.1-Elec-Drwgs 2031-QODA-00-XX-DR-E-0101.pdf
- N5.1-Elec-Drwgs 2031-QODA-00-XX-DR-E-0102.pdf
- N5.1-Elec-Drwgs 2031-OODA-00-ZZ-DR-E-0001.pdf
- N5.1-Elec-Drwgs 2031-QODA-CF-00-DR-E-0201.pdf
- N5.1-Elec-Drwgs 2031-QODA-CF-00-DR-E-0301.pdf
- N5.1-Elec-Drwgs 2031-QODA-CF-00-DR-E-0302.pdf
- N5.1-Elec-Drwgs 2031-QODA-CF-00-DR-E-0401.pdf
- N5.1-Elec-Drwgs 2031-QODA-CF-00-DR-E-0501.pdf
- N5.1-Elec-Drwgs 2031-QODA-CF-00-DR-E-0601.pdf
- N5.1-Elec-Drwgs 2031-QODA-CF-00-DR-E-0901.pdf N5.1-Elec-Drwgs - 2031-QODA-CF-01-DR-E-0801.pdf
- N5.1-Elec-Drwgs 2031-QODA-CF-B1-DR-E-0201.pdf
- N2.1-Arch-Drwgs 706-00-001-P4-SiteLocationPlan.pdf
- N2.1-Arch-Drwgs 706-00-002-P2-BasementPlan-Existing.pdf
- N2.1-Arch-Drwgs 706-00-003-P6-Level0Plan-ExistingA3.pdf
- N2.1-Arch-Drwgs-706-00-005-P5-RoofPlan-Existing.pdf
- N2.1-Arch-Drwgs-706-00-006-P1-BlockPlan.pdf
- N2.1-Arch-Drwgs 706-00-101-P2-SiteConstraintsPlan2020.pdf
- N2.1-Arch-Drwgs 706-00-102-P2-SiteConstraintsPlan2021.pdf
- N2.1-Arch-Drwgs 706-103-100219-DecantingAndPhasingDiagrams-P1.pdf

# **Qualifications:**

Please note the following qualifications:

- All builders-works, if required, are to be carried out **by others** including chasing out, trenching and ducting where required.
- We have not included for MCD.
- We have not allowed for any site welfare facilities.
- We have only allowed to carry out works in normal working hours (Mon-Fri 07:30-17:00).
- We have not included for design.
- We exclude all design elements as this is being undertaken by others.
- We have not allowed for access equipment over the height of 3 meters.
- All prices are exclusive of VAT at the current rate.
- All prices will be held firm for 60 days from the date of this quotation.
- We have not made any allowances on the delay in the delivery of materials due to Britain leaving the European Union.
- We have not allowed for any site temps during the works.
- We have made no allowance for any builders-work or making good whatsoever including the removal and replacement of ceiling tiles and the like, excavation, sanding and refilling of cable trenches, external ducting and concrete bases.
- We have made no allowance for fire stopping.
- We have made no allowance for any out of hours working or phasing of the works.

# Tender Notes:

We have noted within the electrical specification, this project is going to take place over two phases of works.

Unfortunately, we were unable to establish the split of works and noted that the two pricing schedules are identical in their list of works.

We have priced this project as one phase, as we have been told by other sub-contractors these documents are about 3 years old.

# Strip out Works.

As part of the works, there is some existing distribution equipment within the area of works that are to be isolated and stripped out:

" DB OC Club and associated sub main to be stripped out.

" DB GCU5Y (Outside Dining Room), associated sub main cable serving DB GCU5Y, associated switch fuse

serving DB GCU5Y.

" DB GDB8 (Dining Room), associated sub main cable serving DB GDB8.

" DB GDB9 to be stripped out.

" DB GDB10 to be stripped out.

" DB 88-1 and associated sub main cable to be stripped out.

Allow for 2 men to carry out the above works. 1 WEEK

Also, we have allowed for Rubbish Bags

### **Containment and Conduit**

Under this section we have covered the supply and installation for Trunking, Basket and Conduits, this is to cover the following items of the installation.

225mm x 75mm Compartment Trunking

228mm x 50mm 3 Compartments Floor Trunking

150mm x 100mm Trunking

100mm x 60mm Basket

150mm x 50mm Cable Tray

All 20mm Steel Conduit System

MK Dado Trunking and all Back boxes.

#### Mains Distribution and Sub-main

• We have allowed to Supply / Install 3 off Schneider TP/N Split Meter Distribution Boards, these being setup as:

- DB-G DH1 14 X 8 Way TP/N Lighting & Power Distribution Boards, c/w Meter Pack
- DBG-DK1 14 X 8 Way TP/N Kitchen Board 1 Distribution Board, c/w Meter Pack
- DBG-DK2 14 X 8 Way TP/N Kitchen Board 2 Distribution Board, c/w Meter
- DBG-DH1 & DBG-DK2 ARE BOTH 125 Amp Switching
- DBG-DK1 IS 250 Amp Switching

• There will be a new Sub-main cable install from the Gownboys Switch Room as to supply BDG-DH1

## **Small Power Requirements**

All accessories will be taken from the MK Logic Plus WHI (white plastic) where these are on a Wall MK Electric Logic Plus (Charcoal) within Dado Trunking.

Focus SB – Classic Ambassador for the Main Café Area

MK Electric Metalclad Plus for the Plant Room, Kitchen, Roof.

MK Electric Masterseal Plus for the External.

The installation will be installed using the following cables, 2.5 T&E, 2.5MM 6491B Singles and SWA WHERE REQUIRED.

# Lighting Installation

Allowance to supply and install the following lighting as per the Luminaire Schedule, as follows: Manufacturers on this project include Fagerhult, Bega Lighting, LichtKanel, Hatco, Trillux Lighting, Dextra Lighting, Thorn Lighting and Thorlux Lighting.

The installation will be installed use 1.5 2 & 3 CORE LSF Twin & Earth form DBG-DH1 and 6491B Singles from the other two boards.

Lighting Controls by Ex-Or including 2 off LCM's .

For the rest of the installation we intend to use Hager Klik Lighting Distribution System

# **Emergency Lighting Installation**

Luminaires as above – EM Version 🖌

# Voice/Data Systems

We did obtain a quotation from Fibre Comms Data Ltd as to install the following:

24 new category six network points to be installed into the proposed new areas.

The new network cables will be distributed from the proposed new 27u comms cabinet to be located in the basement adjacent to the existing comms cabinet. 24 x category 6 cabling points @  $\pm 90.00$  Total  $\pm 2160.00$ 

1 x comms cabinet @ £350.00

1 x 24 port RJ45 patch panel @ £100.00

The 24 category six cables at the comms cabinet will be terminated onto a new Hellermann Tyton 24 port RJ45 patch panel.

On completion of the installation all ports will be 100% tested using our Fluke DSX cable analyse. 24 x category 6 cabling points and RJ45

1 x comms cabinet

1 x 24 port RJ45 patch panel

## **CCTV System**

We obtained a quotation from Alert Systems, their Ref: Qoda Tender 2031.S11 Rev T1. The requirement is for:

Four (4) Avigilon CCTV Cameras and licences as laid out in Qoda document 2031.S11 Rev T1 (75-60-10/110

CCTV system) two (2) being internal and two (2) being external as specified to include Avigilon ACC6 Enterprise Licences. Cabling from the data cabinet in the basement to each Camera point to be supplied by

others. (Maximum 90 metres) A 24 port switch within the cabinet will also be required. The system will be integrated into the existing Avigilon platform within the School.

NB: the external Cameras are not shown at any fixing point and it is assumed the post will be installed by others with the required ducting.

#### Access Control System and Intercom.

The system will be supplied and installed by Chalbrook Fire & Maintenance Ltd, the system will consist of the following.

They have read through the specification and discussed with the school about the pupil lunch attendance and have found out that Paxton will not be used in any of this & this building will

mimic the dining hall pupil lunch attendance scheme. The stated biometric readers that will be used for the intent of pupil monitoring is supplied and install by a different company that the school use direct and to my knowledge this will just need one POE data connection per unit.

The system that will be used to provide communications from the delivery door to the kitchen will use a Paxton entry panel wired into the Paxton ACU controller which will need a 230v fused switched connection and a data point local to the door.

The Paxton entry monitor units can be powered and connected over a POE data point so one data point per entry monitor will be required. This is the same system as the school currently use. Containment for this unit will need to be done by the electrical contractor with final location to be agreed

We have also included in the price, an amount for wiring for a future Paxton access door entry on the door marked 'IN' and the door mark 'OUT', this will be included 2 x 4 twisted pair Belden cable for 2 readers (can be used for Paxton magstripe or biometric signal to Paxton), 1 x 4 twisted pair for Door mag lock, 1 x 4 twisted pair for PTE button. All of these cables will be wired from the location of Paxton ACU controller and will need containment at the door done by the appointed electrical company. These future doors will also need 1 no. 230v fused switched point & 1 no. data point per door, all local to each door.

A fire alarm interface will need to be installed by the appointed fire alarm installation company for each door,

### **Fire Alarm Installation**

The Fire Alarm installation will be carried out by P&H Electrical and will consist of the following equipment, all installed using FP200 Cable.

It is our understand that there is an existing Fire Alarm panel and the new devices will be an extension to the existing loop.

New Equipment: 7 off XP95 Heat Detectors 25 off XP95 Smoke Detectors 14 off XP95 Sounder Beacon Bases 1 off XP95 Weatherproof Sound Beacon 7 off XP95 Main Switching I/O Interface Cards 6 off XP95 Manual Call Points 1 off Haes Call Point, Waterproof, IP67. Commissioning of system.

#### **Mechanical Power Supplies**

We have allowed for all items of electrical kit and cabling for the Mechanical Services which are on the roof, including cable tray and fixing.

We have noted the following Qoda Schedule of Wiring Responsibilities and have allowed for the same.

#### **DDA Assistance Call System**

We have allowed for a Stainless-Steel Emergency Assistance Alarm Kit and associated cabling. We will install a C-Tec NC951/SS stainless steel accessible toilet alarm kit, which is ideal for use in these areas. Each kit comprises high quality brushed stainless steel wall-mounting accessories and a durable plastic ceiling pull unit specially designed for ease of use by the infirm. Consists of the following equipment: C-Tec NC951/SS Stainless steel faceplates Single zone Volt-free relay output Braille text Remote reset point c/w sounder Audible and visual indication of an alarm call Disabled WC sticker included in all kits Expandable to 3 additional 800 Series Call System devices

# Hand Dryers

We have allowed for a total of 4 off Dyson Airblade V Hand Dryers (Nickel finish) – HU02N.

## **Earthing and Bonding**

We have allowed to supply / install 3 off new Earth Bars and all necessary earth cable as to comply with the current wiring regulations.

## **Testing and Commissioning**

Under this section the following items have been allowed for: All Electrical Testing and Certification, to include all Board Charts mounted within a Frame and fixed to the wall under each mains board.

I trust this meets with your approval however if you do have any further queries please do not hesitate to contact me.

Yours sincerely