## <u>Seven Sisters Market – Supply recommendations</u>

#### 1. Switch cupboard arrangements

The existing three phase, 3-way fuse board does not have enough capacity to supply the 15 sub boards located within the market. The existing main fuses each have two supplies connected causing overloading. The fuse board also has damaged components and exposed live conductive parts.

- Remove existing ME M 3-way fuse board
- Remove existing fuse switches
- Remove existing trunking
- Install new 3 phase 12-way MCCB distribution panel
- Install new trunking
- Tidy existing S WA cables on new cable tray
- Re-locate and arrange earth bar
- Install Labels
- Test and commission

Items marked red to be removed and new MCCB Distribution panel installed



#### Labour

- 2 operatives, 7 shifts
- Labour Total =

# Materials

- 3 phase 12-Way MCCB distribution panel with 16 x single phase 100A MCCBs and 1 x three phase 100A MCCB
- 150x150 trunking x 2 lengths & end caps
- Paxolin
- S WA cable
- Labels
- Fixings, Unistrut, sundries, tray, SWA glands
- Materials Total =
- Total =

# 2. Sub Main DBs - Rectification proposal - All sub main cables to remain

# <u>Layout of Sub Boards - supplied from new 7-way Distribution Panel</u>



# New proposed MCCB Distribution Board Chart

MCCB Panel 001			
1L1	DB1	5L1	
1L2	DB2	5L2	DB11
1L3	DB3	5L3	
2L1	DB4	6L1	DB12
2L2	DB5	6L2	DB13
2L3	DB6	6L3	DB14
3L1		7L1	
3L2	DB7	7L2	DB15
3L3		7L3	
4L1	DB8		
4L2	DB9		
4L3	DB10		

<u>1L1 - DB1 - Units 44,37,38,43, (3)</u>



There is not enough capacity for existing circuits, new DB is required.

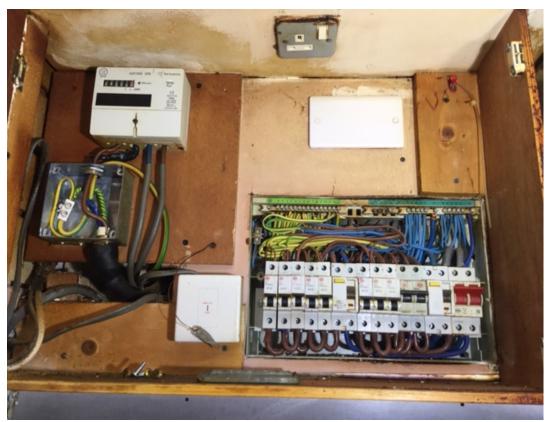
- Existing sub main cable to remain
- Remove existing DB
- Re-locate supply to unit 3 to DB1
- Install with new 8-way DB with MCBs
- Install entry stuffing glands for incoming cables to DB
- Install labels
- Test and commission

- 2 operatives, 1 shift
- Labour total =

# Materials

- 1 x single phase 8-way DB with 63A main switch with 6 x 32A type C MCBs
  2 blanks
- Entry stuffing glands
- Fixings
- Materials total =
- Total =

## 1L2 - DB2-units 36&29



Bus bar missing, mixed manufacturer MCBs and evidence of burning. Adaptable box not joined correctly with single core cables entering meter.

- Sub Main cable to remain
- Remove existing DB
- Install fixed base connectors and DI tails to meter
- Install new 10-way split RCD board
- Install labels
- Test and commission

### Labour

- 2 operatives, 1 shift
- Labour total =

#### Materials

- 1 x single phase 10-way dual 30mA RCD board with a 63A main switch and
  - $4 \times Type C -32A MCB$
  - 1 x Type C -40A MCB
  - 2 x Type C -20A MCB
  - 1 x Type C -16A MCB
  - 1 x Type C -10A MCB
  - 1 x Type C -6A MCB
- Entry stuffing glands, DI tails, din rail connectors
- Labels
- Materials total =
- Total =

# 1L3 - DB3 - units 30,35,31,32,33,34



Distribution board used as joint boxes, mixed manufacturers MCBs, broken with exposed conductor parts

- Sub Main cable to remain
- Remove existing joint boxes and exposed parts
- Install new single phase 8-way MCB board with 6 x 32A MCBs
- Entry stuffing glands
- Install labels
- Test and commission

#### Labour

- 2 operatives, 1 shift
- Labour total =

#### Materials

- Single phase 8-way DB with 63A main switch and 8 x type C MCBs
- Entry gland
- Labels test and commission
- Materials total =
- Total =



The DB has insufficient capacity with MCBs cut into the wood. The DB is damaged.

- Remove existing DB
- Remove boxing in
- Install new DB
- Install labels
- Test and commission

- Materials total = 2 operatives, 2 shifts
- Labour total =

# Materials

- Single phase 63A main switch metal 8-way MCB board with 7 x Type C 32A MCBs and 1 blank
- Entry stuffing gland
- Labels
- Test and commission
- Materials total =
- Total =

# 2L2 - DB5 units 13,14,15,16,17,18,19,20



Arrangement of MCBs incorrect. IP4X not achieved. These units have been suggested to be rewired, a new DB would be recommended to remove existing sub boards within units.

- Existing S WA sub main to remain
- Remove existing DB
- Install new metal DB
- Entry stuffing glands
- Labels
- Test and commission

#### Labour

- 2 operatives, 1 shift
- Labour total =

# Materials

- Single phase 8-way metal MCB board with 63A main switch with 6 x 32A type C MCB's and 2 x blanks
- Entry stuffing gland
- Labels
- Test and commission
- Materials total =
- Total =

# <u>2L3 - DB6 - units 56,57,58,59a,59b</u>



Bus bar installed incorrectly and mixed manufacturers MCBs.

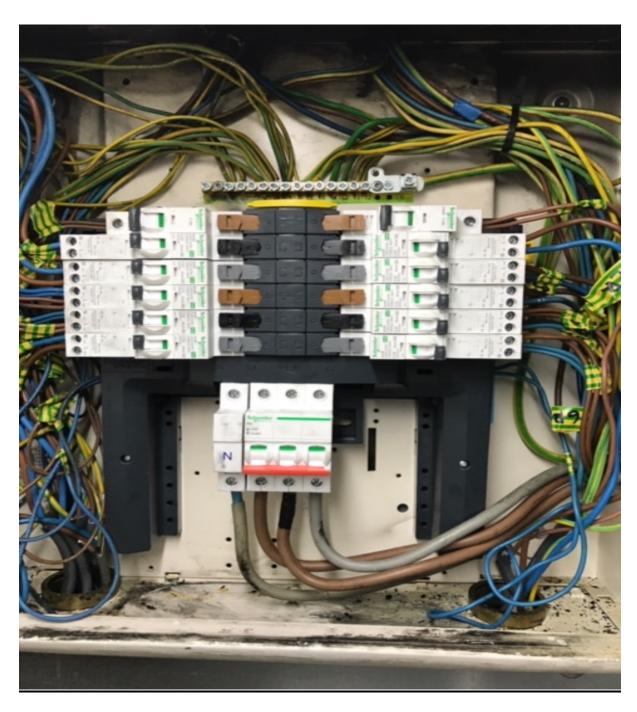
- Existing sub main cable to remain
- Remove DB
- Install new DB
- Install new labels
- Test and commission

- 2 operatives, 1 shift
- Labour total =

## Materials

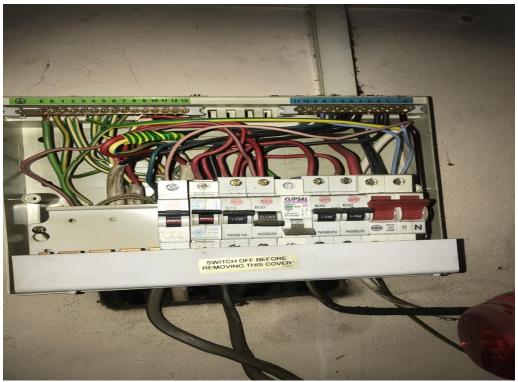
- Single phase 8-way DB metal with 63A main switch with 6 x type C MCB's
- Entry gland
- Labels
- Materials total =
- Total =

3L1/2/3 - DB7 - units 4,5,6



- Existing S WA sub main to remain
- Existing DB to remain

# 4L1 - DB8 - units, 3,7,8,9, communal lighting, and power



DB contains MCBs from mixed manufacturers. Holes in DB

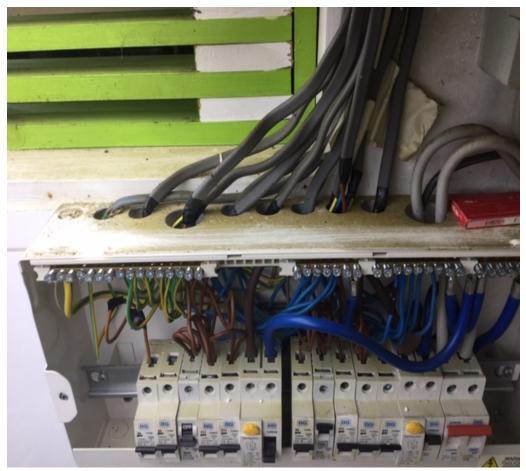
- Existing SWA sub main to remain
- Remove existing DB
- Install new metal DB
- Entry stuffing glands
- Labels
- Test and commission

- 2 operatives, 1 shift
- Labour total =

# Materials

- Single phase 8-way MCB board with 63A main switch with
  - 1 x 16A type C MCBs
  - 2 x 6A type C MCBs
  - 3 x 32A type C MCBs
  - 2 x blanks
- Entry stuffing glands
- Labels
- Materials total =
- Total =

# <u>4L2 – DB9 – unit 48</u>



IP4X not achieved, mixed manufacturers MCBs

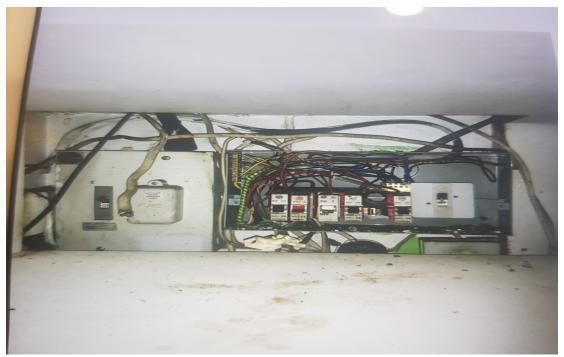
- Existing S WA sub main to remain
- Remove existing DB
- Install new metal DB
- Entry stuffing glands
- Labels
- Test and commission

- 2 operatives, 1 shift
- Labour total =

# Materials

- Single phase metal MCB dual RCD 10-way board with 63A main switch with
  - 1 x 40A type C MCB
  - 4 x 32A type C MCB
  - 2 x 20A type C MCB
  - 3 x 6A type C MCBs
- Entry stuffing glands
- Labels
- Materials total =
- Total = £

# 4L3 - DB10 - units, 50,51,54,55



DB contains mixed manufacturers MCBs. Existing DB is damaged. DB is obsolete. Re-wire the configuration.

- Sub Main cable to remain
- Remove existing DB
- Remove existing isolator
- Install new metal DB
- Entry stuffing glands
- Labels
- Test and commission

#### Labour

- 2 operatives, 1 shift
- Labour total =

#### Materials

- Single phase 8-way metal MCB board with 63A main switch with
  - 2 x 32A type C MCBs
  - $4 \times 16A$  type C MCBs
  - 2 x 6A type C MCBs
- Entry stuffing glands
- Labels
- Materials total =
- Total =

# <u>5L1/2/3 - DB11 - unit 52,53</u>



DB damaged with exposed conductive parts and obsolete.

- Existing single core cables supplying board to remain
- Remove existing DB
- Install new three phase metal MCB board
- Entry stuffing glands
- Labels
- Test and commission
- •

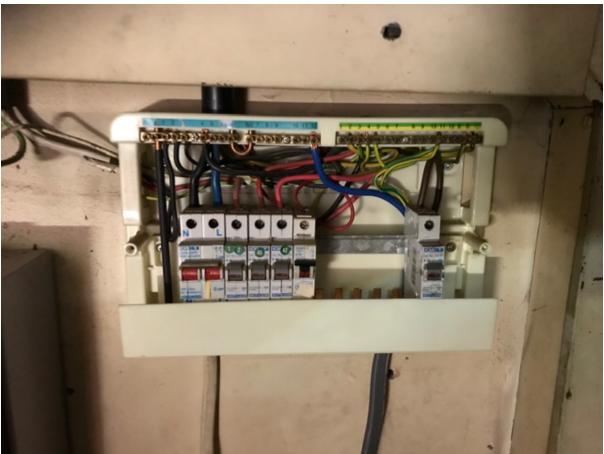
- 2 operatives, 2 shifts
- Labour total =

### Materials

- Three phase 6-way metal MCB board with 63A main switch with
  - 3 x 40A type C MCBs
  - 4 x 32A type C MCBs
  - 4 x 16A type C MCBs
  - 3 x 10A type C MCBs
  - 4 x 6A type C MCBs
- Entry stuffing glands
- Labels
- Materials total =
- Total =

# 6L1 - DB12 - units,1,2,45,46,39







DB contains mixed manufacturers MCBs. Existing DB is damaged. DB is obsolete. Re-wire the configuration

- Remove existing single core cables run on tray supplying DB
- Install new sub main SWA cable
- Remove existing DB
- Install new metal DB
- Entry stuffing glands
- Labels
- Test and commission

- 2 operatives, 2 shifts
- Labour total =

### Materials

- Single phase 6-way MCB board with 63A main switch with 4 x 32A type C MCBs
  - 1 x 10A type C MCB

  - 1 x blanks
- Entry stuffing glands
- Labels
- Materials total =
- Total =

# 6L2 - DB13 - unit 10





DB is damaged, SWA not terminated correctly, mixed installation of different manufactured MCBs

• Existing S WA sub main to remain

- Remove existing DB
- Install new metal DB
- Entry stuffing glands
- Labels
- Test and commission

- 2 operatives, 1 shift
- Labour total =

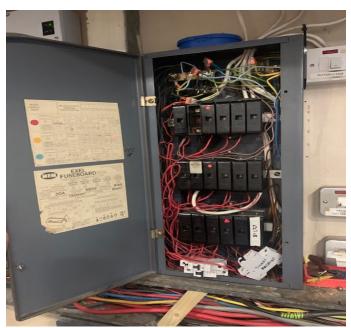
#### Materials

- Single phase 6-way MCB board with 63A main switch with 2 x 32A type C MCBs and 2 x 6A type C MCBs and 2 blanks
- Entry stuffing glands
- Labels
- Materials total =
- Total =

## DB 14 - 6L3

Distribution Board satisfactory no requirement to replace Sub Main cable also to reman

<u>DB15 – 7L1/2/3 - units, communal power and lighting, outside lights, ladies and gents'</u> toilets and fans



Fuse board not enough capacity, exposed live parts and floating MCBs

- Remove existing fuse board
- Install new Three phase 10-way MCB board
- Re-wire contactors
- Re-locate local electrical equipment, switches, contactor, FCU's
- Install labels
- Re-test each individual circuit

The works are recommended because there is not enough capacity for existing circuits present. There are floating MCBs within the DB and exposed conductive parts with fuse carriers missing and no blanking plates fitted.

### Labour

- 2 people, 4 shifts
- Labour total =

### Materials

- 10-Way 3 phase DB and MCBs
- Trunking
- Materials total =
- Total =

