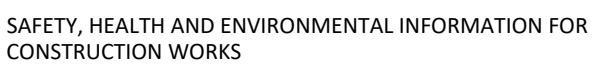




Adequate lighting should be available to facilitate safe connection and use of the equipment, including:

- (a) the safe use of EVSE;
- (b) checking of vehicle connectors, plugs and socket-outlets for evidence of damage (for example, burning or blackening of contacts and contact tubes) prior to use;
- (c) the safe insertion and removal of vehicle connectors, plugs and socket-outlets; and
- (d) identification of trip hazards, including charging cables, around the EVSE or socket-outlet and the vehicle.

If the locations of the vehicle on charge and/or the EVSE do not have adequate lighting, it is strongly recommended that this is installed at the same time as the EVSE. Alternatively, it may be possible to install EVSE that has lighting included.



- | | |
|--|---|
|  EXCAVATIONS |  LIFTING OPERATIONS |
|  BURIED SERVICES |  DUCT |
|  OPERATIONAL RAILWAYS |  DRILLING AND FIXING |
|  MANUAL HANDLING |  WET WORKS |
|  ELECTRIFICATION |  PUBLIC INTERFERENCE |
|  WORKING AT HEIGHT | |

THESE NOTES ARE BASED ON THE USE OF EXPERIENCE AND
COMPETENT CONTRACTORS CARRYING OUT THE WORK
USING AN APPROVED SAFE METHOD OF WORKING

The local authority shall assess the suitability of the existing lighting in line with the "**EV Charging Code of Practice Guidance**" indicated above.

The guide doesn't currently indicate suitable light levels, however a value in the region of 50lux may be an acceptable level of luminance.

Indicative location for the EV charging bays, the exact size, location and line marking design of the bays shall be determined by the civil engineer, the current layout has been indicated in the spirit of the guidance shown in the image above and as agreed with "BE EV" the additional EV charging signs and branding shall also be agreed with "BE EV"

Parking bays shall be sized in compliance with the "Traffic Signs Regulations and General Directions 2016", these shall be sized in line with the Governments Guidelines.

2 x Stainless steel semi-dome bollards - 101mm diameter x 1140mm shall be installed surface mounted in "E-Guard SW2002 "LARGE"

The outgoing cables shall then terminate into the outgoing side of the RCCB's using a 10mm² 5 core NYY-J PVC 0.6/1kV Power cable to IEC 60502-1 standard. The cable shall be lugged and crimped each side and fully supported throughout.

The EEC shall install 1x110mm ENATS 12-24 Class 2 specification and BS EN 61386-24:2010 approved cable duct for mechanical protection of the non-armoured installation cable, this shall sweep up into the concrete base using a preformed 90° bends. *"Polypipe Rigiduct Power - Class 2"*.

line indicates future exclusion zone for any connected extraneous conductive parts.

A Swarco Raption 50 charger shall be installed bolted to a concrete base with ducting installed directly into the new feeder pillar. The Raption 50 charger shall be commissioned to provide an output of 50Kw DC and a maximum 20Kw AC.

The outgoing cables shall then terminate into the outgoing side of the RCCB's using a 70mm² 5 core NYY-J PVC 0.6/1kV Power cable to IEC 60502-1 standard. The cable shall be lugged and crimped each side and fully supported throughout.

All ducting shall be installed within a single trench where possible, exact details and routes shall be established on site.

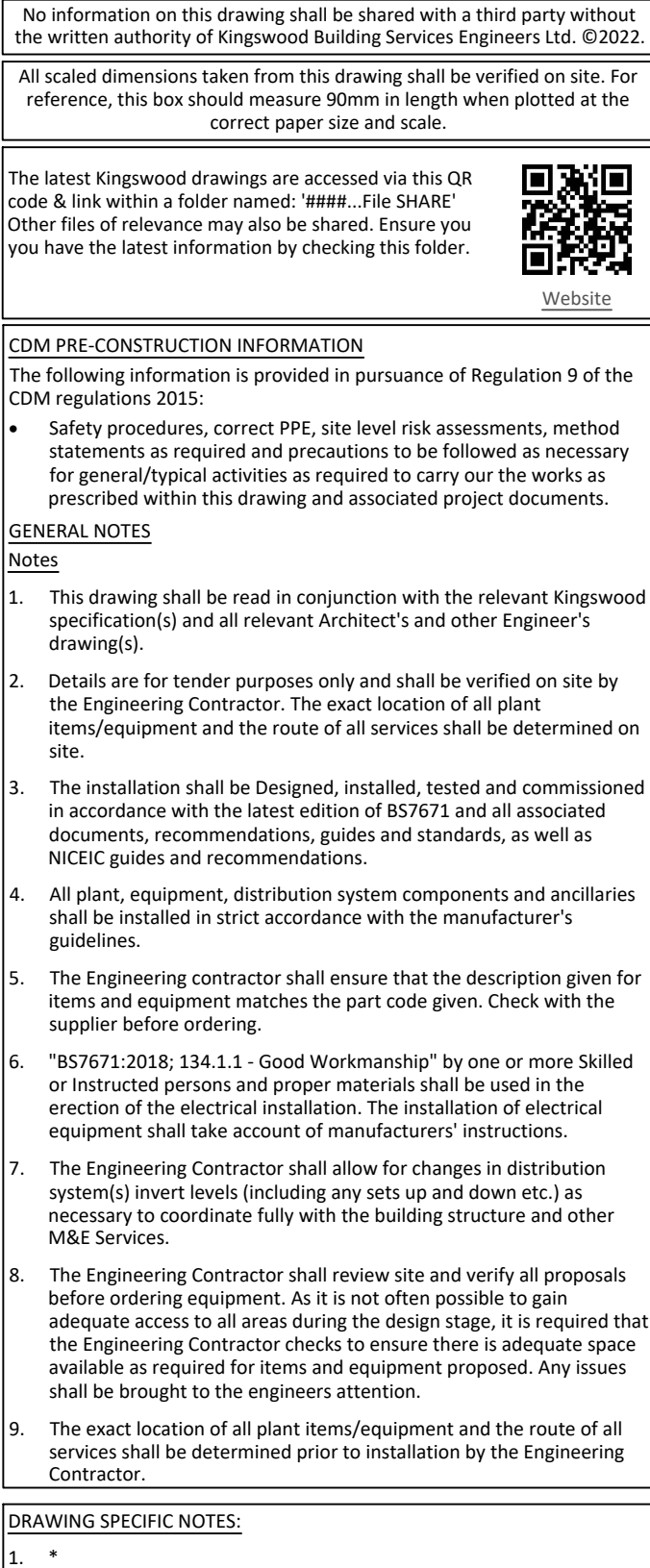
A new feeder pillar shall be installed, this shall house the new 172KVA three phase cutout and meter arrangement installed by "ENWL". The feeder pillar shall be a bespoke **Lucy Zodian** solution external Dims - Depth 480mm, Width 1950mm, Height 2200mm. This will contain a 400A MCCB main switch, 2x 125A 4p Type C MCB with a 4 pole Type B 300mA RCD unit, 1x 40A 4p Type C MCB with a 4 pole Type B 300mA RCD unit and; 1x6A DP RCBO for the anti condensation heater (with thermostat). A Type 1 & 2 surge protection device shall also be installed.

The CLASS 1 panel assembly shall be earthed via the TT earthing system and shall utilise double insulation for fault protection for the incoming supply tails with all outgoing ways having RCD protection, "BS7671:531.3.5.3.2.201"

A TT earth rod system shall be installed by Omega Red Group, this shall provide a maximum earth fault loop impedance value of <50Ω. This shall be installed using 16mm² copperbond earth rods, with 35mm² 6491x pvc copper cable fixed to the rod head using exothermic welds. This shall be supplied with a final report upon completion. This shall be installed to provided suitable underground clearance to nearby PME services of at least 2.5m

Assumed location for ENWL cabling, refer to ENWL drawings for exact details.

The existing Evolve charging pedestal shall be stripped out and removed. A new Swarco Evolve 22kW 3 phase unit shall be installed fed via the new feeder pillar.



D3	02.08.22	Second issue (design) - For Approval	MSH	JB
D2	01.08.22	Second issue (design) - For Approval	MSH	JB
D1	09.06.22	First issue (design) - For Approval	JB	n/a
Rev.	Date	Description	By	Chkd

Revisions



Transport for
Greater Manchester

MORRISON 
Energy Services



KINGSWOOD
BUILDING SERVICES ENGINEERS LTD
Chartered Mechanical & Electrical Services Consultants

Project:

TfGM

Electric Vehicle Charging Rollout.

"Foundry Street"

Drawing Title:
EV Charging Layout.

Design by:	JB	Drawn By:	MSH	Review By:	JB
Scale:	1:50	Status:	Design		
Dwg No:	1223-Bury-2640-Foundry ST-60-002				Rev: D3
Xref:	Promap-1926309-2025173-720-0[XREF].dwg				Paper Size: A1