

Ancoats Mobility Hub

EV Charging installation strategy

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1.0 Background

- Ancoats Mobility Hub was granted planning permission on 27th February 2023.
- Planning permission initially requires installation of EV charging equipment to 25% of spaces.
- Planning permission requires installation of passive measures to permit 100% of spaces to be installed with EV charging equipment in the future – no specific date is given.

2.0 Proposed operation model of Ancoats Mobility Hub

- It is proposed that the City Council will subcontract the management of the car park, including EV charging operations, to a 3rd party to be decided through a commercial procurement process which is currently active.
- The 3rd party operator will be responsible for installing and managing all of the EV charging equipment compatible with their management systems during the operation of the contract.
- The use/purpose of the mobility hub will initially be to act primarily as a public commuter car park however as the surrounding residential developments progress and become occupied the use and purpose will migrate towards a residential service, this evolution of use will influence how and when the EV charging infrastructure will be used and therefore what style and quantity of chargers are required.

3.0 Installation of EV charging

- As part of establishing the contract and initiation of services the operator will install a number of chargers across the car park to ensure that 25% of the spaces have EV charging capacity.
- Based upon 2 significant factors listed below there is no specific proposal around timescales or technological solutions for increasing the capacity of spaces requiring EV charging.
 - The use of the hub and the use of EV vehicles are still very much in their infancy and without any hard data models to substantiate or predict actual usage of the facility generally or more specifically the EV charging.
 - Technology within EV vehicles, charging points and software to manage grid and local usage of electricity are all currently subject to significant and rapid change as technological solutions develop.
- It is acknowledged that at some point in the future the Hub requires that the majority of vehicle users may wish to access EV charging and a commitment is therefore included for passive infrastructure to support the expansion of the EV charging network within the hub.
- The construction of the hub includes sufficient electrical capacity, LV boards and cable management to permit 25% of the spaces to have EV charging capabilities immediately and the operator contractor includes for this installation to be carried out as part of their contract initiation.

4.0 Passive infrastructure for future expansion

- As there is no finite programme for expansion or confirmation of actual loads, types of charging points, EV charging management or commercialisation the construction will only include for the passive infrastructure to permit future expansion irrespective of type, quantity or technological solution for charging.
- This strategy minimises expenditure and waste on potentially redundant active charging infrastructure and technologies prior to end user requirements being clarified and allows for technological advancements and optimisation of charging strategies alongside grid and EV vehicle developments for a future demand which is ill defined and has no finite timescale.
- By pursuing this initial 25% active and future expansion capacity the operation model can be modular in its implementation of additional capacity to both reflect demands and updating of technological solutions.
- Passive infrastructure will include:-
 - Cable routing to all floors, including passive fire protection of openings and risers
 - Significant spare way capacities within the main LV distribution board for future expansion including 630 Amp provision for rapid chargers
 - Space within electrical switchgear rooms for future distribution boards / switchgear
- Clear identification of allocated routes and spacings within the building information model and construction drawings
- Should initial routing provision prove insufficient the hub construction includes for the addition of a further services riser on the southern side of stair core 2, this riser could be used for any form of additional services not originally envisaged not just EV charging. Whilst this riser is thought unnecessary it is not being constructed however the floor slabs are constructed with trimming steel to permit alteration with minimum disruption at future dates should it be required.