

**CAPPAGH AFFORDABLE & SOCIAL HOUSING SCHEME AT
CAPPAGH ROAD, GALWAY**

MECHANICAL AND ELECTRICAL REPORT

Issue	Date	Section Changes	Written By	Checked By
P1	Oct 24		JM/Ry	JM/Ry

CLIENT

**GALWAY CITY COUNCIL
CITY HALL, COLLEGE ROAD
GALWAY**

PREPARED BY

**CBS CONSULTING ENGINEERS
UNIT 12, ORANMORE BUSINESS PARK
ORANMORE
CO GALWAY**

PROJECT:

DATE: Oct 24

REF: JM/Ry

Utility Services

Item	ESB
1	New connections will be required for all new units, mini and micro pillar locations to be agreed onsite – Cost below allow for 40 No. Units. There is ESB infrastructure in place around the site. It is intended to extend the current network.
2	Connection of 15 New Houses @16kVA €21,000.00 (€1400.00 per unit) Connection of 25 New Apartments @12kVA €30,000.00 (€1200.00 per unit) – Unmetered Connection for Public Lighting €3,600.00 and unmetered connection for petrol interceptor €3,400.00 (If required)

Item	EIR
1	Underground ducting will be required for all new units. There is EIR infrastructure in place around the site. It is intended to extend the current network.

Item	Virgin Media
1	Underground ducting will be required for all new units. Enquiries have been made to Virgin Media to assess if they have service in the area. If available, it is intended to extend the current network.

Item	SIRO
1	Underground ducting will be required for all new units. Enquiries have been made to SIRO to assess if they have service in the area. If available, it is intended to extend the current network.

Item	Gas Networks Ireland
1	Service is not available, however, we don't not intend to avail of a gas services at this time.

Item	Future EV Charging
1	Underground ducting will be required for future EV charging to all road side car parking spaces. A separate minipillar will be provided for ease of future supply. Each duct will be appropriately terminated in a ground box c/w lid.

Item	Lighting
1	The electrical design will include:
a)	Ceiling roses which will initially be fitted with LED-type bayonet fittings
b)	Switches
c)	All necessary cable support and management systems
d)	Exterior lighting to be mounted on the houses (site lighting is excluded). Suitably protected cabling shall be used to supply exterior lighting.

Mechanical Services

Item	Above Ground Drainage
1	The mechanical services package shall include the design of all above ground drainage (soils & wastes) services. Above ground drainage refers to all soils and wastes services above the FFL of the ground floor slab of each dwelling.

Item	Domestic Water Services
1	The mechanical services package shall include the installation of domestic mains, hot and cold-water services throughout each house. The cold water from the storage tank shall be boosted by a domestic circulator to ensure suitable water pressure is maintained throughout the dwelling. It is considered that where houses have a single shower, this shall be a shower mixing valve. Where houses have two showers, one shall be electric and the second shall be a shower mixing valve.
2	All site mains water services pipework/infrastructure shall be excluded from the mechanical services package as it is deemed that this shall be included in the Civils/Main Contractors tender pack. It is considered that the Main Contractor shall supply and install the site mains water service and terminate the connection to each house with a stopcock inside the kitchen/utility room.

Item	Space Heating Services
1	The mechanical services package shall include the installation of an electrical space heating system to serve each dwelling. This shall consist of an exhaust -air(EAHP) heat pump serving heat to radiators on all floors and heat to the hot water cylinder located in the hot press.

Item	Ventilation Services
1	The mechanical services package shall include the installation of a central system integrated to and part of the EAHP package. The system shall be ducted to rooms requiring extract ventilation with make-up air being provided via passive wall vents provided by mechanical contractor to habitable rooms.

Notes:

1. All external trenching shall be completed by the Main Contractor.
2. The noted scope of mechanical services may be subject to review upon receipt of a BER Assessment report.

3. An external base and any ducting (for pipework and cabling) required for the outdoor heat pump shall be provided by the main contractor.

Electrical Services

Item	Power Distribution
1	The electrical design will include:
a)	Fully fitted consumer units, including mains switches and circuit protective devices (including MCBs, RCBOs and RCDs)
b)	Supplies to mechanical plant.
c)	Cabling shall be new domestic standard. The c.s.a. of the earth conductor shall be the same size as the live and neutral conductors, in accordance with IS 10101:2020
d)	All necessary cable support and management systems.

Item	Site Lighting
1	The electrical design will include:
a)	Installation of Additional Site Lighting where required carried out by an LCC approved street Lighting Contractor.
b)	Poles shall be 6mtr Galvanised.
c)	Luminaires shall be LED type minimum 7yr warranty.
d)	All necessary cable support and management systems.

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Item	General Services / Small Power
1	The electrical design will include:
a)	Socket Outlets
b)	Spur outlets and double-pole switches
c)	TV Wiring System consisting of 2 No. TV points
d)	All necessary cable support and management systems

Item	Fire Detection & Alarm System
1	The electrical design will include:
a)	Self-contained mains-powered smoke detector & fire alarm unit.
b)	An integral standby power supply, connected to each unit
2	The system shall be a minimum Grade D, Category LD1 system.

Item	Earthing and Bonding
1	The electrical design will include:
a)	A main earthing terminal
b)	A main equipotential bonding system
c)	Local equipotential bonding systems where required by the National Wiring Rules IS10101:2020

Costs
Mechanical Services Budget Costs

Housing Units (Per Unit):

Element	Estimated Budget Cost
1. Above Ground Drainage	€1,400.00
2. Domestic Water	€2,800.00
3. Space Heating	€12,000.00
4. Ventilation	€3,800.00
5. Fire Stopping	€800.00
6. Commissioning & Testing	€800.00

Apartment Units (Per Unit):

Element	Estimated Budget Cost
1. Above Ground Drainage	€1,200.00
2. Domestic Water	€2,500.00
3. Space Heating	€10,900.00
4. Ventilation	€3,200.00
5. Fire Stopping	€800.00
6. Commissioning & Testing	€800.00

Electrical Services Budget Costs

Site Services

Element	Estimated Budget Cost
1. Site Lighting	€8,400.00

Housing Units (Per Unit):

Element	Estimated Budget Cost
1. Power and Distribution	€1,400.00
2. General Services	€2,400.00
3. Lighting	€2,500.00
4. Protective Services	€1,800.00
5. Mechanical Wiring	€2,400.00

Apartment Units (Per Unit):

Element	Estimated Budget Cost
1. Power and Distribution	€1,100.00
2. General Services	€2,050.00
3. Lighting	€2,100.00
4. Protective Services	€1,200.00
5. Mechanical Wiring	€1,950.00

