Proj Name	Housing at 14 & 15 Dean	McNamara Place	TINTY	Cork C	ounty Co	uncil				
Proj Address		Newtownshandrum			Engineering Design Team, Housing Directorate,					
Proj No.		N2022023			ounty Hall, Cork Rialtas na Tionscadal					Tionscadal Éirea
Proj Status	Planning			tel - 353					hÉireann Government	Project Ireland
110j Status	T to think		1899		- john.fleming@corkcoco.ie			70	of Ireland	2040
Drawings					,-	00		1		
Proj Engineer	John Fleming	Issued by -		DSD						
i roj Enginee.	301111111111111111111111111111111111111	issued by		day	5			_		
			Engineering	month	10					
			Design Team (EDT) Mech & Elec		2023			+		
Drg Reference & Drg No.	Drawing Title		Scale	Sheet	2023					
DR-CCC-ME-PL-1001	General Services		N/A	A3	<b>√</b>					
N2022023-DR-ME-PL-120	Site Services M&E		1:250	A3	1					
N2022023-DR-ME-PL-200	Electrical Layout Ground Fl	oor	1:50	A3	Ť			-		
				_	<del>\</del>			-		
N2022023-DR-ME-PL-201	Electrical Layout First Floor		1:50	A3	7					
N2022023-DR-ME-PL-202	Electrical Layout Ground Fl		1:50	A3	7					
N2022023-DR-ME-PL-203	Electrical Layout First Floor		1:50	A3	1			-		
N2022023-DR-ME-PL-216	Lights & Fire Alarm Ground		1:50	A3				-		
N2022023-DR-ME-PL-217	Lights & Fire Alarm First Flo		1:50	A3	1					
N2022023-DR-ME-PL-218	Lights & Fire Alarm Ground		1:50	A3	1					
N2022023-DR-ME-PL-219	Lights & Fire Alarm First Flo	oor 14 & 15	1:50	A3	√			-	_	
					<u></u>			_		
N2022023-DR-ME-PL-241	Mechanical Services Groun	d Floor	1:50	A3	1					
N2022023-DR-ME-PL-242	Mechanical Services First F	loor	1:50	A3	√					
N2022023-DR-ME-PL-243	Mechanical Services Groun	d Floor 14 & 15	1:50	А3	√					
N2022023-DR-ME-PL-244	Mechanical Services First F	loor 14 & 15	1:50	A3	1					
N2022023-DR-ME-PL-256	Drains & Ducting Services (	Fround Floor 14 & 15	1:50	A3	1					
N2022023-DR-ME-PL-257	Drains & Ducting ServicesF	irst Floor 14 & 15	1:50	А3	1					
N2022023-DR-ME-PL-271	MEV Services Ground Floor	-	1:50	A3	1					
N2022023-DR-ME-PL-272	MEV Services First Floor		1:50	А3	1					
N2022023-DR-ME-PL-273	MEV Services Ground Floor	14 & 15	1:50	А3	1					
N2022023-DR-ME-PL-274	MEV Services First Floor		1:50	A3	7					
N2022023-DR-ME-PL-286	Attic		1:50	А3	1					
								+		
Purpose Of Issue										
. ,			Stage I - Su	bmission						
		Stage II -	Appointment of Co					+		
		Jiage II - I	Stage II - Proje					+	-	
			Stage II - Proje						-	
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				- Tender				-	_	
			Stage IV - Working I					-		
Distribution			Stage IV	- As Built				1		
Distribution	ı	0 "		I •						
Name		Company/Indi	vidual	copies						
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Quantity Surveyor				Print						
Engineer - Services				Email						
Engineer - Structural				DWG						
Consultants				CD						
Main Contractor				PDF	Х			+		
		х		Print				+	-	
Planning Department	manas and local Carrage	^		-				-	-	
Department of Housing, Planning, Co				Email	1			-		
Circulated to the Design Team Via Al	fresco	I	1	Email	1			1		



- An outdoor meter cabinet to ESI. Standard 12-3 (1986), is installed in a suitable location.
- · An ESBN approved "hockey stick" is installed at the meter cabinet
- Red ESBN approved 50mm service ducting is installed at a minimum depth of 600mm

between the hockey stick position. SB cable warning tape must be nstalled at a maximum depth of 300mm below ground level along

. It is essential that the ESBN cable does not come into contact with Allow a projection of 25mm of the hockey stick into the base of the cabinet.

polypropylene draw rope is installed in the duct. It must be

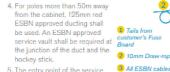
ends of the duct.

free of knots and secured at both

2. There must be a minimum clearance of 100mm between

## the service duct and other services on the house-holder's Corrugated Ducting of any colou

3, ESBN will provide black UV lightfinished ground level to the top of the service pole.



hockey stick into the metering cabinet must be sealed to stop

# Connection will only be made after all above requirements

## **ESB**

# LOCATION AND INSTALLATION OF METERING CABINET

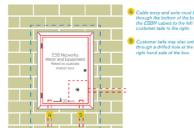
## for Standard Non-scheme Domestic Connection

### LOCATION INSTALLATION

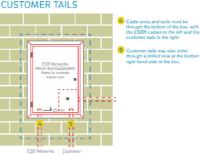


# PLEASE NOTE:



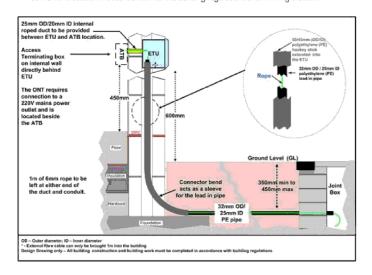


Boundary Wall



## **EIR**

Where a New house is being built an ETU must be inserted in the external wall at a convenient location in accordance with the building regulations shown in Fig 3 below.



## GAS

## 1.2 How a New Gas Meter is Installed

A GNI approved contractor will lay and test the gas connection pipe/ service pipe in the pre-excavated trench provided by the builder and a top tee connection is made to the main in the path or road as appropriate. The gas connection pipe shall have sand surround and be reinstated as soon as practicable in order to reduce the possibility of external damage on site. Normally 32mm (low pressure) size polyethylene connection pipe and 25mm (medium pressure) size polyethylene connection pipe is used.

A gas connection pipeline is laid by Gas Networks Ireland connecting a building to the natural gas network. The natural gas connection pipeline must be laid in a straight line to the meter location, using the shortest most direct route and where possible at right angles to the gas main. An illustration of this is shown in figure 1.

Marker tape should be placed over all gas mains, gas connections and ducting intended for gas distribution pipes.

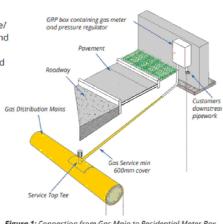
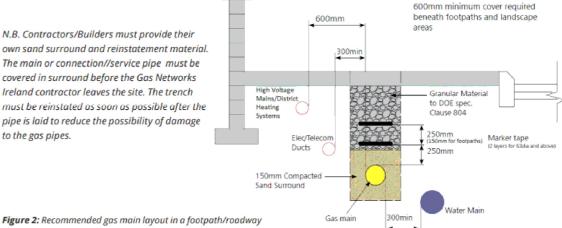


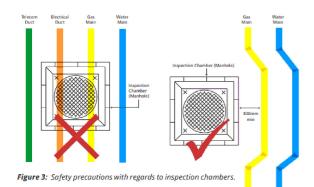
Figure 1: Connection from Gas Main to Residential Meter Box

## **GAS**

N.B. Contractors/Builders must provide their own sand surround and reinstatement material. The main or connection//service pipe must be covered in surround before the Gas Networks Ireland contractor leaves the site. The trench must be reinstated as soon as possible after the pipe is laid to reduce the possibility of damage to the gas pipes.



# **GAS**



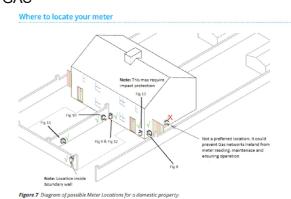
- · Polyethylene mains and services may not be positioned within the Building Line (as defined by I.S. 329 / I.S. 265).
- · For more detailed information always refer to the Gas Networks Ireland Distribution drawings specific to the project.

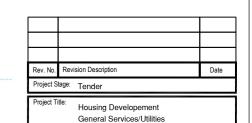
## **GAS**

# Where to locate your meter Not a preferred location. It could Fig 9 & Fig 12 prevent Gas networks Ireland from meter reading, maintenace and ensuring operation

Figure 7 Diagram of possible Meter Locations for a domestic property.

## GAS





General Services

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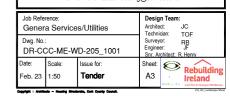
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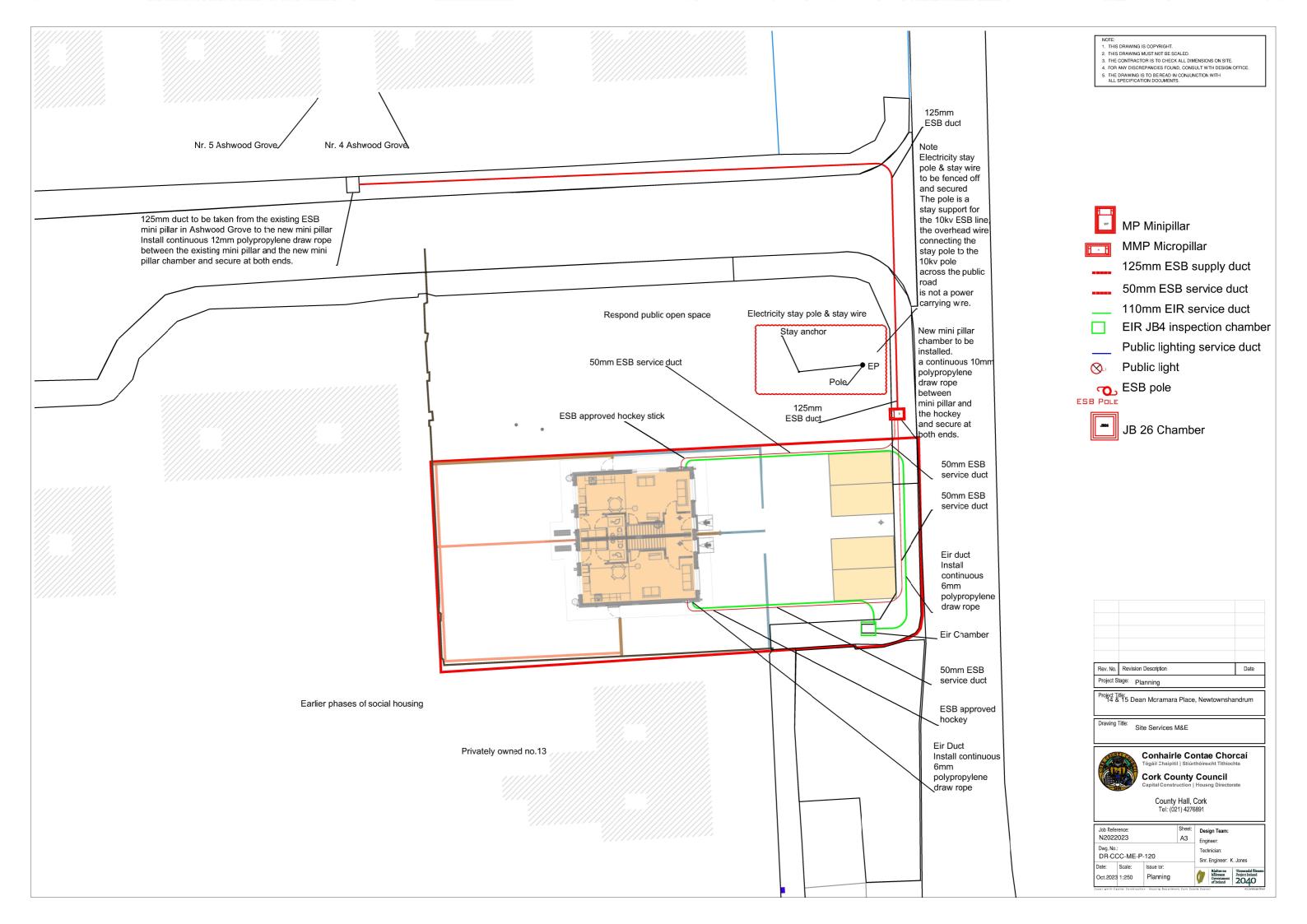
750mm minimum cover required

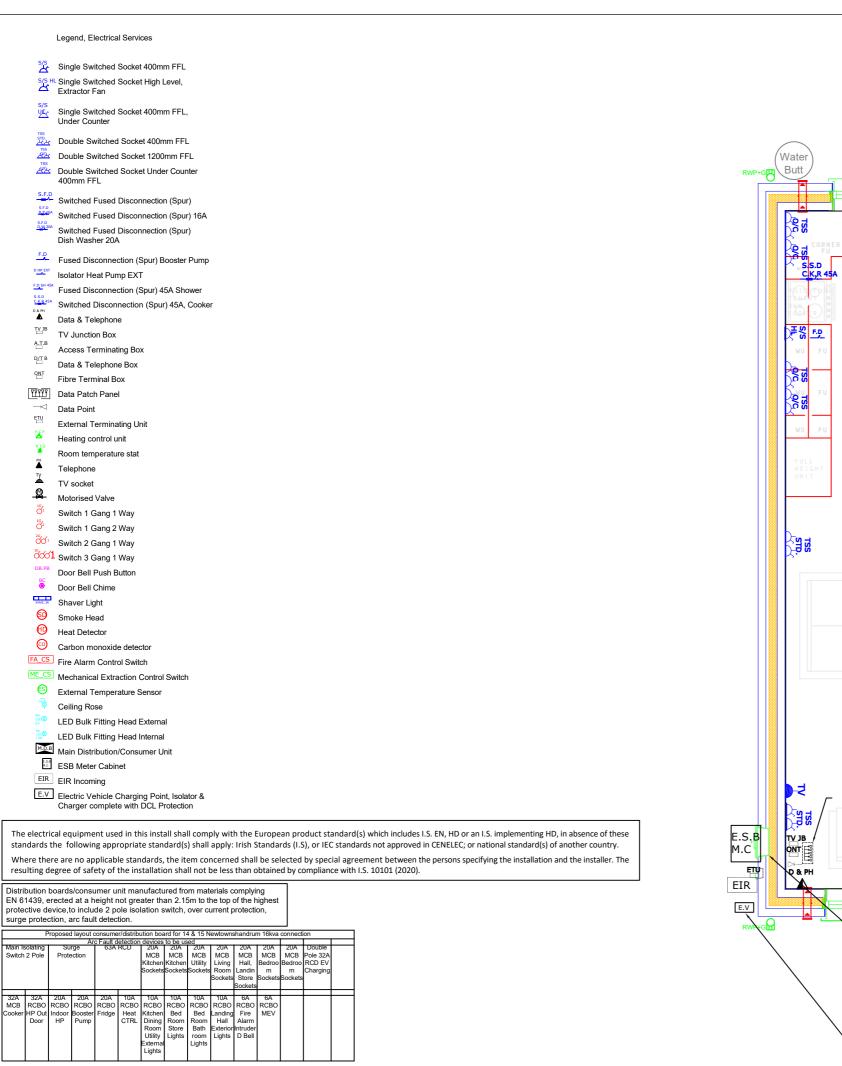
beneath roads

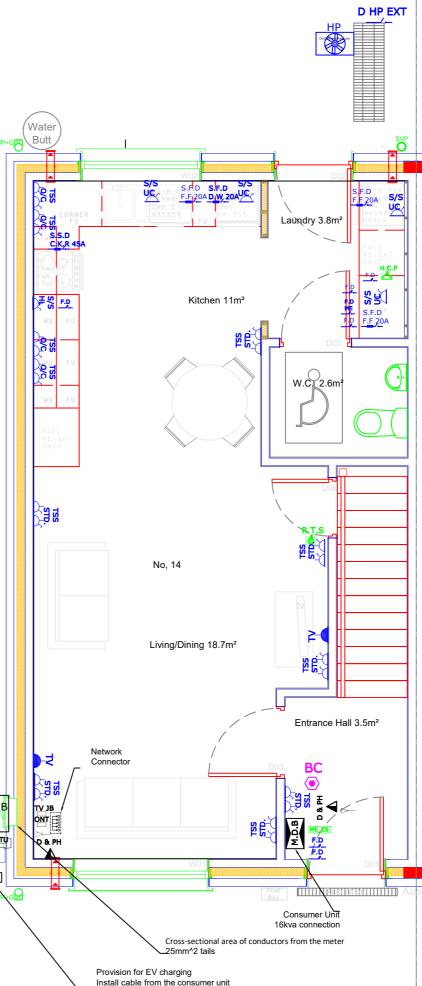


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to the 32A Isolator & provide a 32A Double pole protection device in the consumer unit

- NOTE:

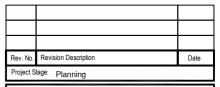
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- Mechanical contractor shall be responsible for all connections to sanitary ware
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- within the toilet area must be metal manufacture and chrome plated
- Access/inspection covers at the base of stacks above floor level.

Final Locations to be agreed on site The drawings detail the functional requirements and arrangements of the services



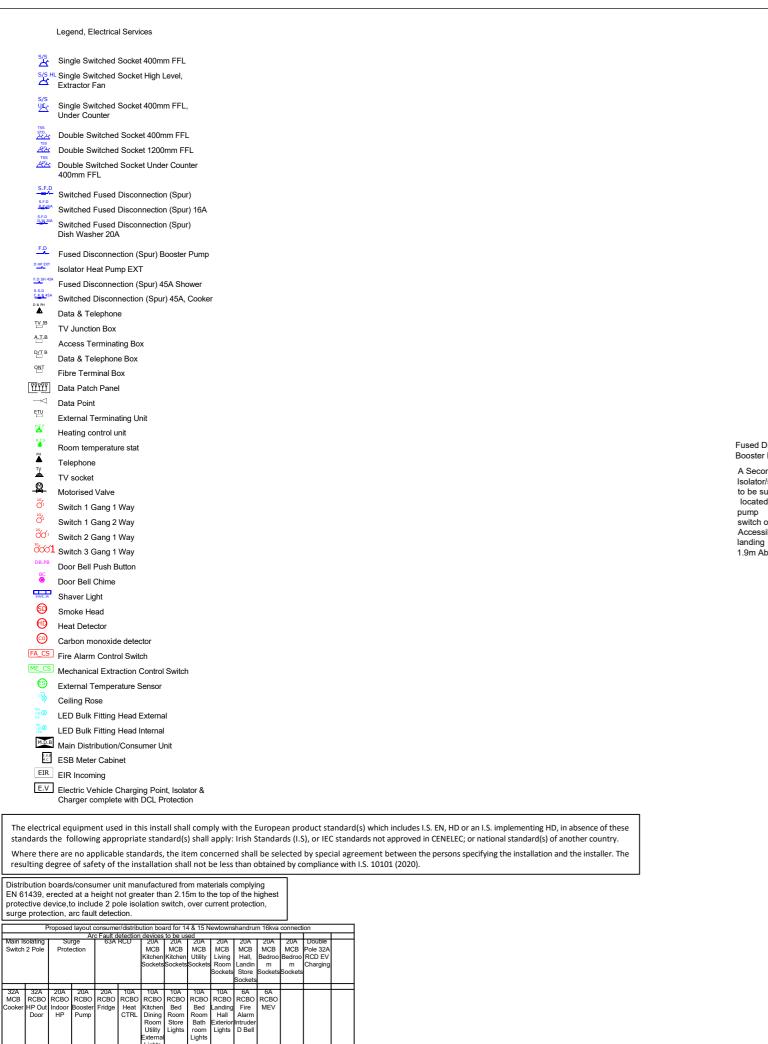
Project Title: 14 & 15 Dean McNamara Place, Newtownshandrum

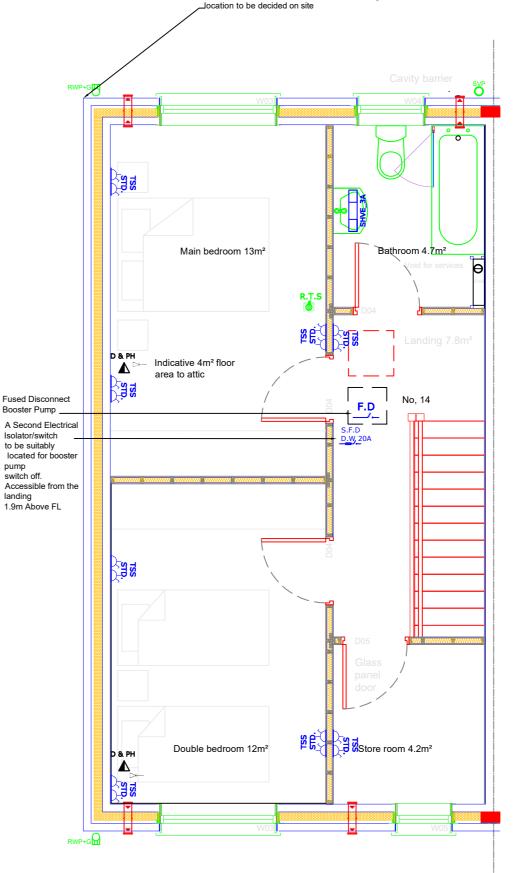
Drawing Title: Electrical Layout Ground Floor



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	b Reference: 2022023 vg. No.: R-CCC-ME-PL-200			Design Team: Architect: JC Technician: TOF		
Dwg. No.						RB JF
Date: Oct.2023	Scale: 1:50	Issue for: Planning		Sheet: A3	N/A/- A	Rebuildin Ireland





House No.14 First Floor 41m<sup>2</sup>

Junction box for satellite dish & coaxial cabling at the eves,

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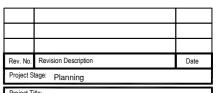
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Project Title: 14 & 15 Dean McNamara Place, Newtownshandrum

Drawing Title: Electrical Layout First Floor

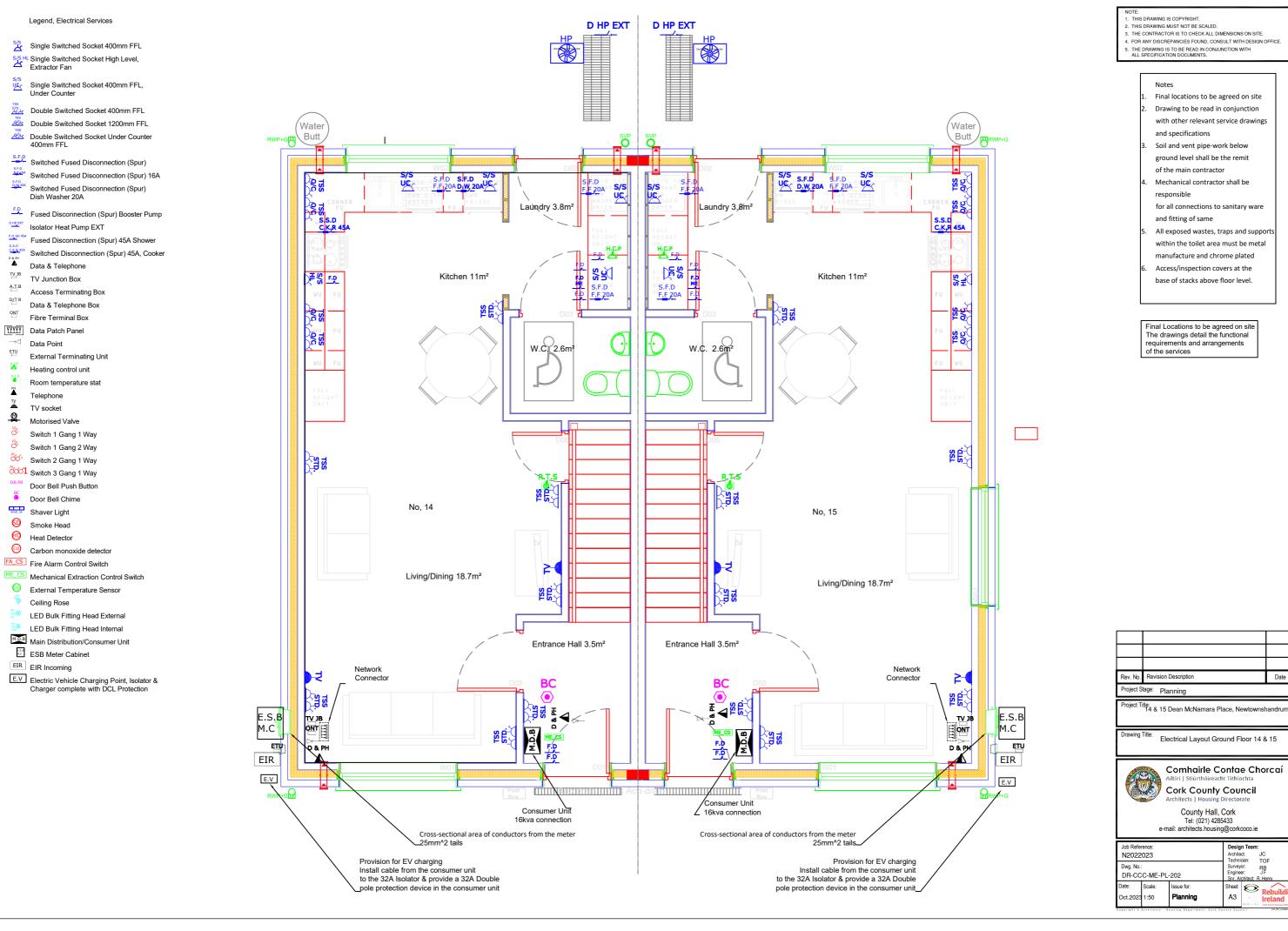


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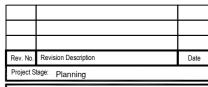
Cork County Council County Hall, Cork Tel: (021) 4285433

o maii aromtotomotom	(@ 001110000110
Job Reference:	Design Team:
N2022023	Architect: JC Technician: TOF
Dwg. No.:	Surveyor: RB
DR-CCC-ME-PL-201	Engineer: J.F. Snr. Architect: R. Henry



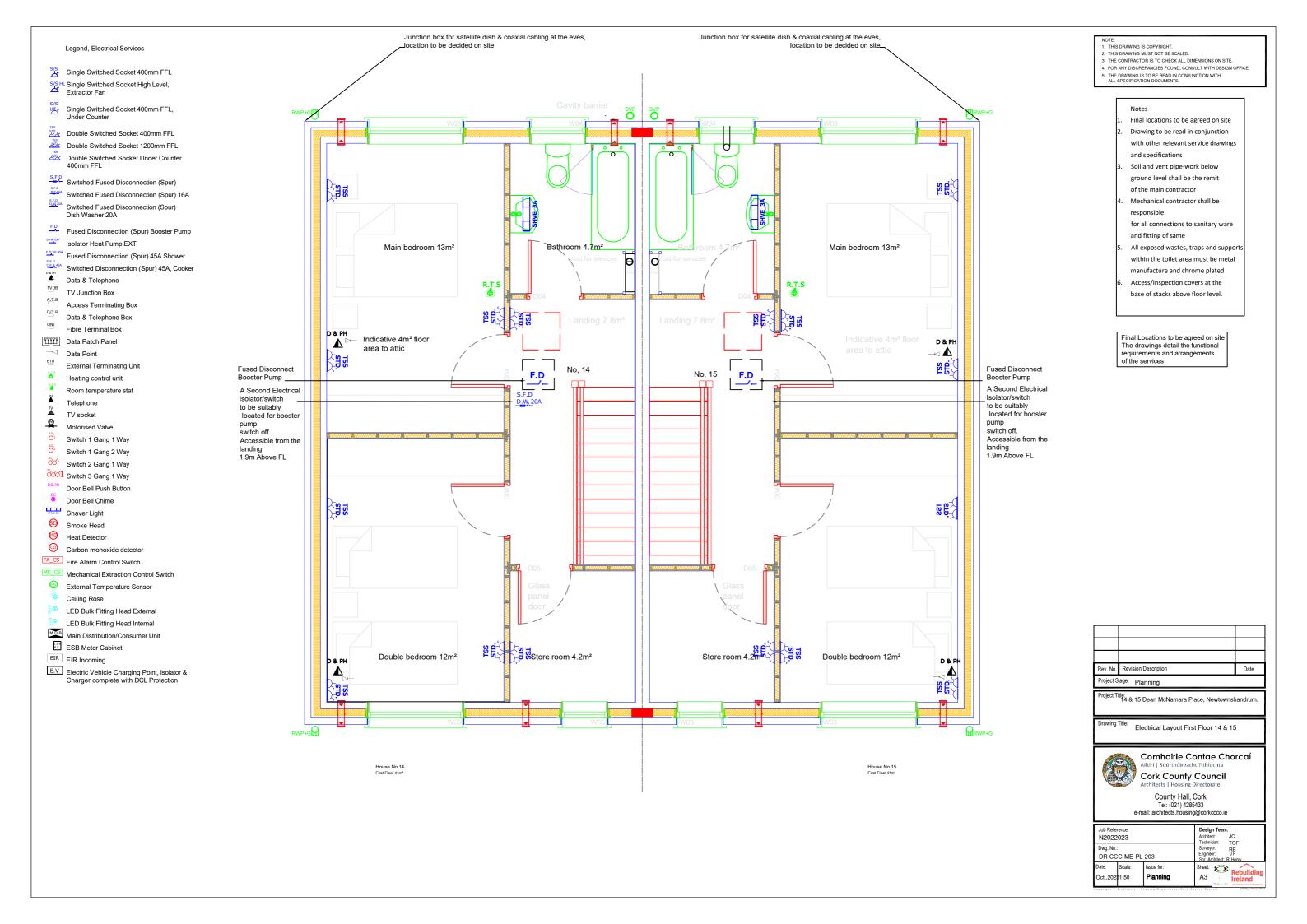
- - Drawing to be read in conjunction
  - with other relevant service drawings

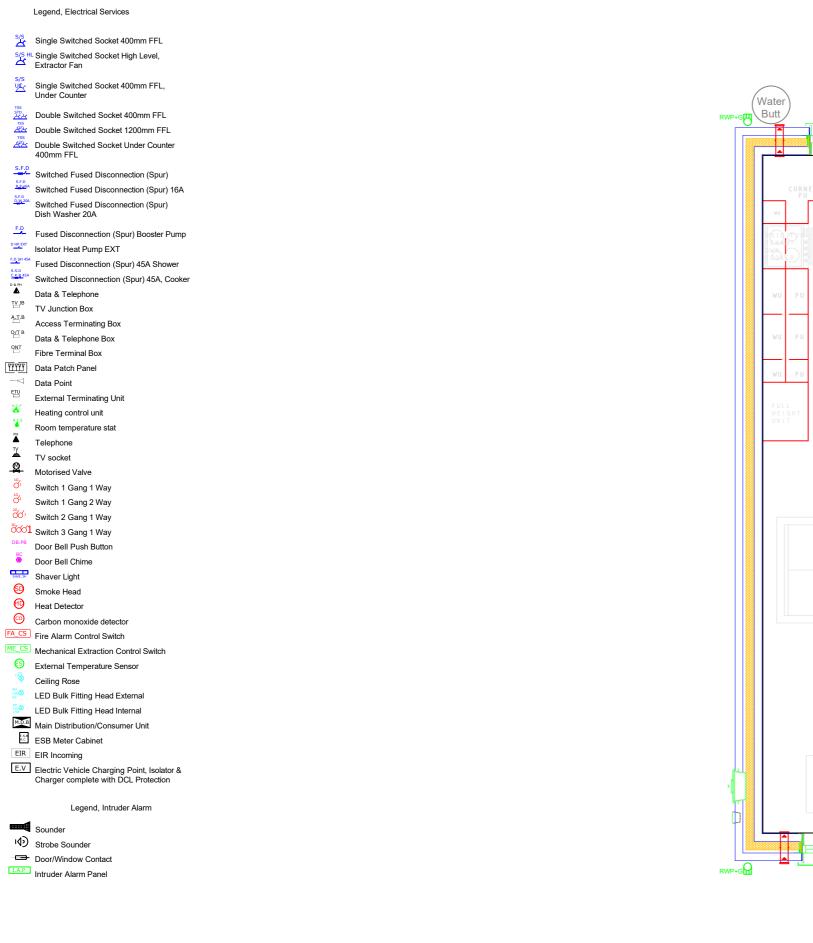
  - for all connections to sanitary ware
  - within the toilet area must be metal

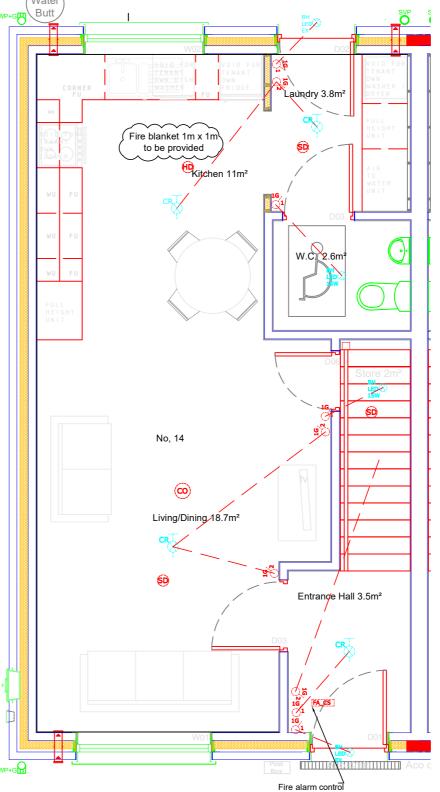


e-mail: architects.housing@corkcoco.ie

Job Reference: N2022023				Design Team: Architect: JC Technician: TOF			
Dwg. No.	: C-ME-P	L-202		Surveyor: RB Engineer: JF Snr. Architect: R. Henry			
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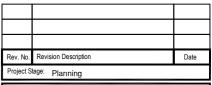


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Project Title: 14 & 15 Dean McNamara Place, Newtownshandrum

Drawing Title: Lighting & Fire Alarm Ground Floor

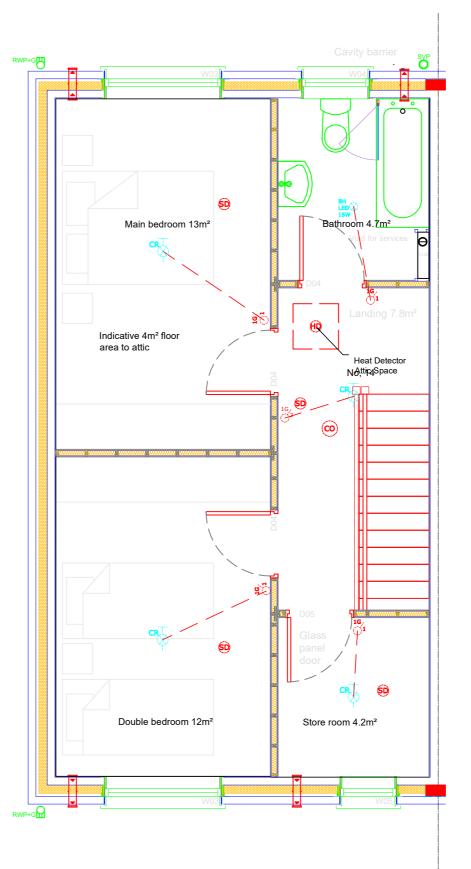


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	Job Reference: N2022023			Desig Archite Techni	ct:	ı: JC TOF
	Dwg. No.: DR-CCC-ME-PL-216		Survey	or: er:	RB JF R. Henry	
Date: Oct.2023	Scale:	Issue for:		Sheet:	0	Rebuildin

## Legend, Electrical Services Single Switched Socket 400mm FFL S/S HL Single Switched Socket High Level, Extractor Fan Single Switched Socket 400mm FFL, Under Counter Double Switched Socket 400mm FFL Double Switched Socket 1200mm FFL Double Switched Socket Under Counter Switched Fused Disconnection (Spur) Skitched Fused Disconnection (Spur) 16A Switched Fused Disconnection (Spur) Fused Disconnection (Spur) Booster Pump Isolator Heat Pump EXT Fused Disconnection (Spur) 45A Shower Switched Disconnection (Spur) 45A, Cooker Data & Telephone TV Junction Box A.T.B Access Terminating Box Data & Telephone Box Fibre Terminal Box Data Patch Panel ── Data Point ETU External Terminating Unit Heating control unit Room temperature stat Telephone TV socket Ø Motorised Valve Switch 1 Gang 1 Way Switch 1 Gang 2 Way Switch 2 Gang 1 Way Switch 3 Gang 1 Way Door Bell Push Button Door Bell Chime Shaver Light Smoke Head Heat Detector Carbon monoxide detector FA\_CS Fire Alarm Control Switch ME\_CS Mechanical Extraction Control Switch S External Temperature Sensor Ceiling Rose LED Bulk Fitting Head External LED Bulk Fitting Head Internal Main Distribution/Consumer Unit ESB Meter Cabinet EIR Incoming E.V Electric Vehicle Charging Point, Isolator & Charger complete with DCL Protection Legend, Intruder Alarm Sounder

いう Strobe Sounder Door/Window Contact Intruder Alarm Panel

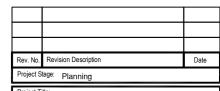


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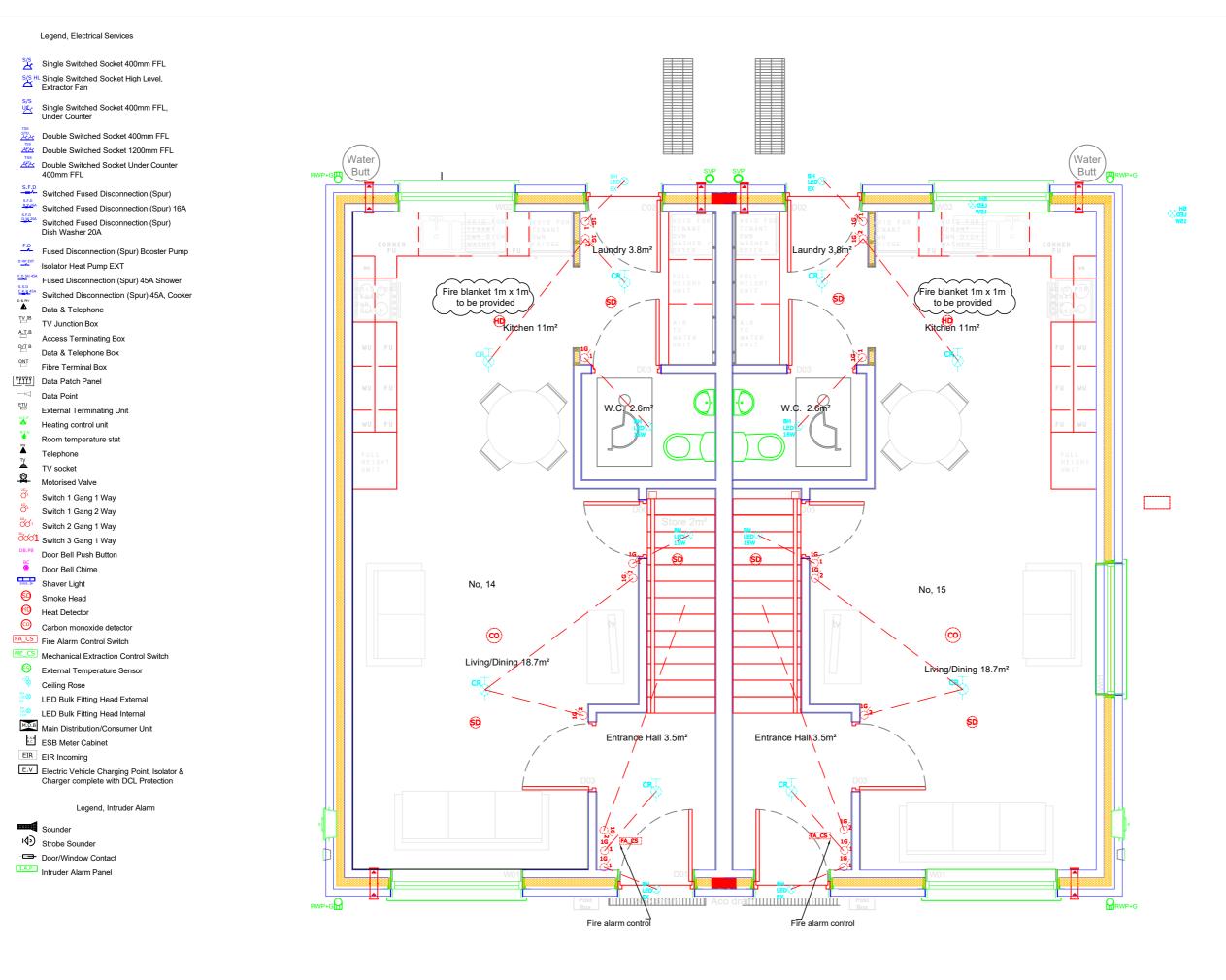
Project Title: 14 & 15 Dean McNamara Place, Newtownshandrum

Drawing Title: Lighting & Fire Alarm First Floor



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	Archi Tech Survi	inician:	JC TOF
			101
Dwg. No.: DR-CCC-ME-PL-217			RB JF
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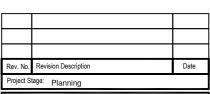


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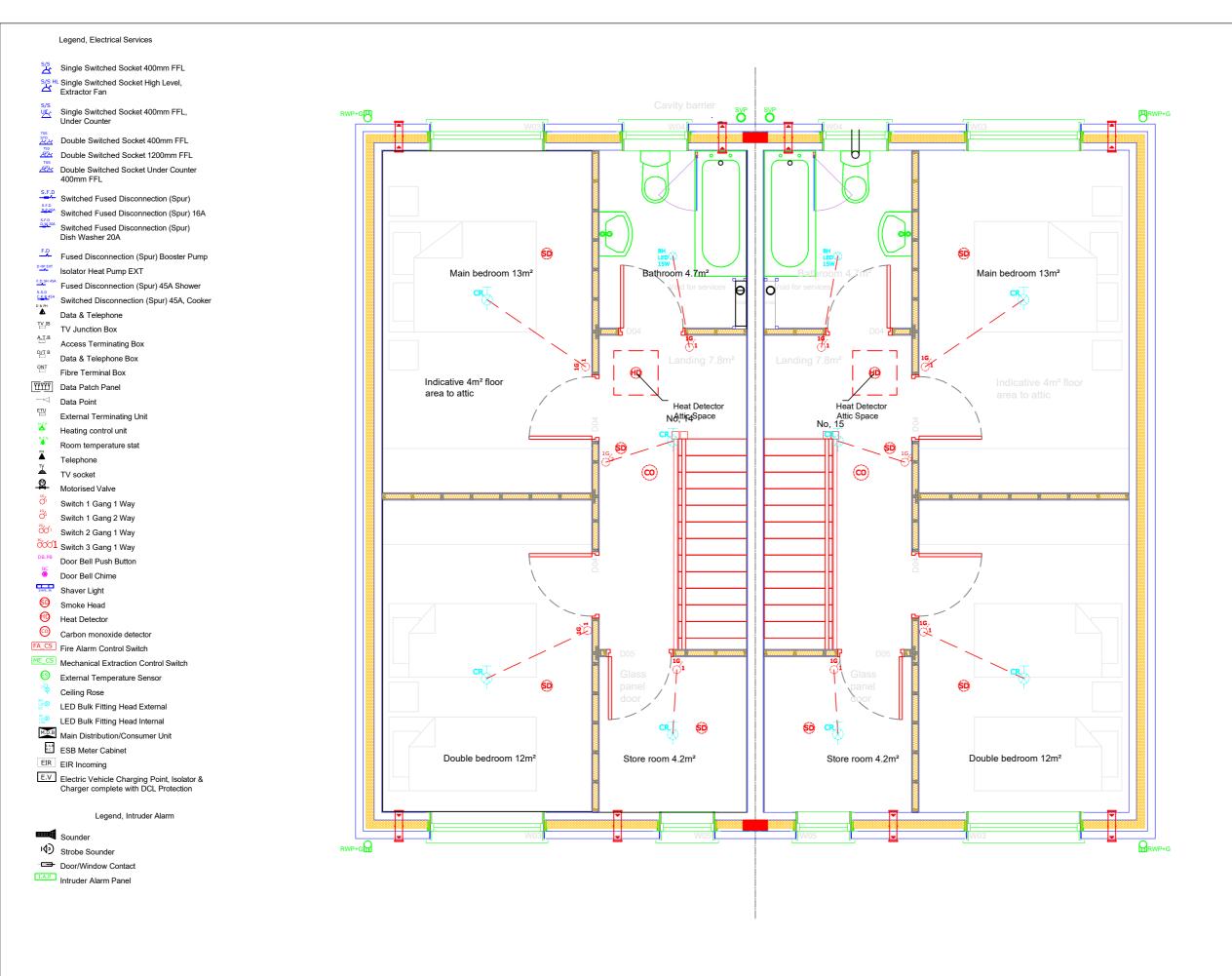
Project Title: 14 & 15 Dean McNamara Place, Newtownshandrum

Drawing Title: Lighting & Fire Alarm Ground Floor 14 & 15



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Job Reference: N2022023				Design Archited Technic		JC TOF
Dwg. No.	: C-ME-PL	-218		,		RB JF
Date: Oct.2023	Scale: 1:50	Issue for: Planning	(	Sheet: A3	0	Rebuilding Ireland

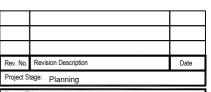


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Lighting & Fire Alarm First Floor 14 & 15

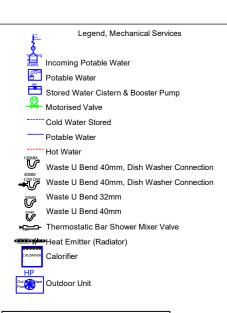


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County Hall, Cork Tel: (021) 4285433

e-mail: architects.housing@corkcoco.ie

	Job Reference: N2022023			n Team: ct: JC		
Dwg. No.: DR-CCC-ME-PL-219			Surveyo	Technician: TOF Surveyor: RB Engineer: JF Snr. Architect: R. Henry		
Date: Oct.2023	Scale: 1:50	Issue for: Planning	Sheet:	Rebuilding Ireland		



Heat loss and emitters have been sized to S.R. 50-1 2021NSAI Building Services -Codes of Practice - Part 1 Water Based Heating Systems in Dwellings and Heat loss calculation and radiator sizing for heat pump systems (SEAI)
The flow temperature of heat pump is

calculated at around 45°C with a return temperature of 40°C, the heat emitters detailed in the drawing have been sized using a conversion factor and a typical emitter manufacturer with a  $\Delta T$  of 50°C, the contractor should obtain conversion factors for low temperature emitters from the supplier/manufacturer and agree with the engineer. Higher out put emitters (increased fins and surface area) influence the final size selection.

Calculated general ventilation rate based on occupancy of the dwelling [TGD F – 1.2.2.2]: @ 5 l/s plus 4 l/s person = 5 +

Calculated general ventilation rate based on internal floor area of the dwelling [TGD F-1.2.2.2]: 85 m2 at 0.3 l/s/m2 (0.3 x 85) = 25.45 l/s

General ventilation rate of the dwelling is the greater of the above = 25.5 l/s

Continuous extract ventilation rate of the dwelling is: 25.5 l/s Overall minimum boost extract ventilation rate requirement [TGD F - Table 1]: = Kitchen + Toilet + Bathroom I/s = 27I/s

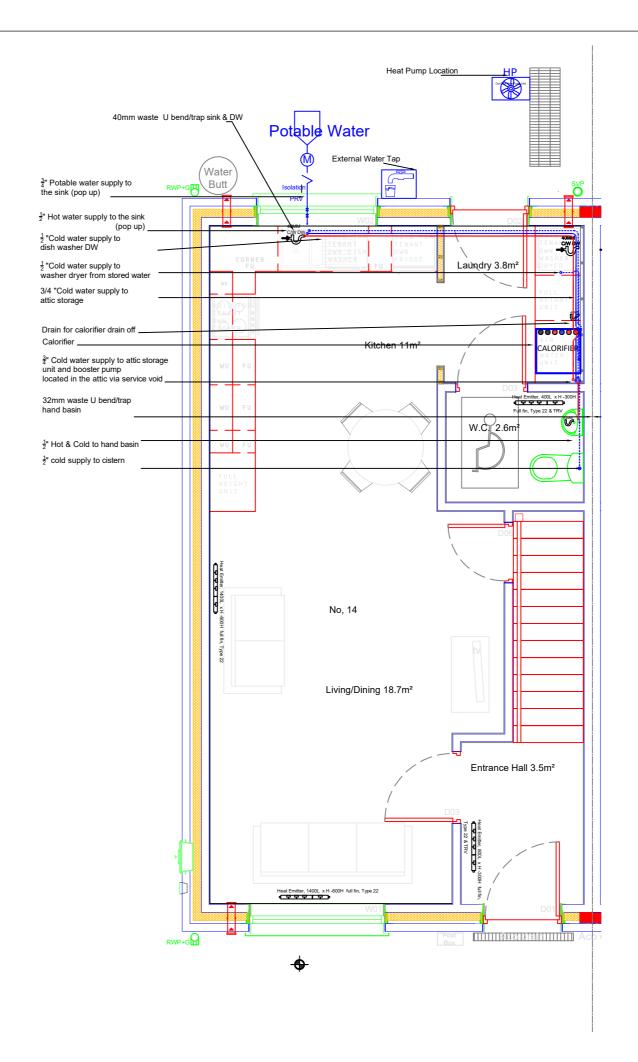
25% capacity requirement over general ventilation rate of the dwelling [TGD F -1.2.2.3]: = Total capacity of the system I/s = 32 l/s

Room with MEV extract grid (s) Room general extract airflow rate (l/s) adjusted proportionally Kitchen = 12.3 l/s Toilet = 5.7 l/s Bathroom = 7.6 l/s

Heat Emitter Selection							
Heat Emitters Based on Low Flow & Return Temperature Annex H, S.R. 50-1 2021 NSAI Building Services - Codes of Practice - Part 1 Water Based Heating Systems	Delta T Heat Emitters Degrees C	Heat Loss Rooms Watts	Required Emitters Based on Low Delta T Watts Heat output @ Δ T 50°C.	Туре	Length mm	Height mm	
Kitchen & Living Room	21.5	1501	5008	22 22	1400 1400	600 600	
WC	21.5	106	387	22	500	600	
Hall	21.5	226	795	22	800	300	
Landing	21.5	173	545	22	400	450	
Bathroom	19.5	260	1055	22	600	600	
Main Bedroom	21.5	329	1119	22	800	450	
Double Bedroom	21.5	307	1119	22	700	450	
Storeroom	21.5	134	545	22	400	450	

Heat Emitte	er Selection
Calorifier Internal Hot Water Storage	200L
Booster Pump & Cold Water Store	212L

Heat Pump				
Split System/Mono				
kW 4.3				



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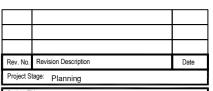
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- within the toilet area must be metal manufacture and chrome plated Access/inspection covers at the base of stacks above floor level.

Final Locations to be agreed on site The drawings detail the functional

requirements and arrangements of the services



roject Title: 14 & 15 Dean McNamara Place, Newtownshandrum.

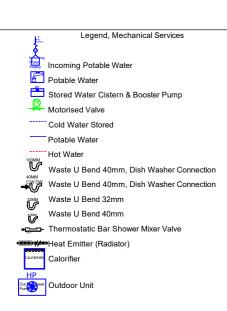
Mechanical Services Ground Floor



# Comhairle Contae Chorcaí

Cork County Council

	Job Reference: N2022023			Design Team:  Architect: JC Technician: TOF Surveyor: RB Engineer: JF Snr. Architect: R. Henry		
Dwg. No.: DR-CCC-ME-PL-241			Survey Engine			
Date: Oct.2023	Scale: 1:50	Issue for: Planning	Sheet:	Rebuilding Ireland		



Heat loss and emitters have been sized to S.R. 50-1 2021NSAI Building Services - Codes of Practice - Part 1 Water Based Heating Systems in Dwellings and Heat loss calculation and radiator sizing for heat pump systems (SEAI)

systems (SEAI) The flow temperature of heat pump is calculated at around  $45^{\circ}\text{C}$  with a return temperature of  $40^{\circ}\text{C}$ , the heat emitters detailed in the drawing have been sized using a conversion factor and a typical emitter manufacturer with a  $\Delta T$  of  $50^{\circ}\text{C}$ , the contractor should obtain conversion factors for low temperature emitters from the supplier/manufacturer and agree with the engineer. Higher out put emitters (increased fins and surface area) influence the final size selection.

Calculated general ventilation rate based on occupancy of the dwelling [TGD F – 1.2.2.2]: @ 5 l/s plus 4 l/s person = 5 +

Calculated general ventilation rate based on internal floor area of the dwelling [TGD F - 1.2.2.2]: 85 m2 at 0.3 l/s/m2 (0.3 x 85) = 25.45 l/s

General ventilation rate of the dwelling is the greater of the above = 25.5 l/s

Continuous extract ventilation rate of the dwelling is: 25.5 l/s
Overall minimum boost extract ventilation rate requirement [TGD F - Table 1]: =
Kitchen + Toilet + Bathroom l/s = 27l/s

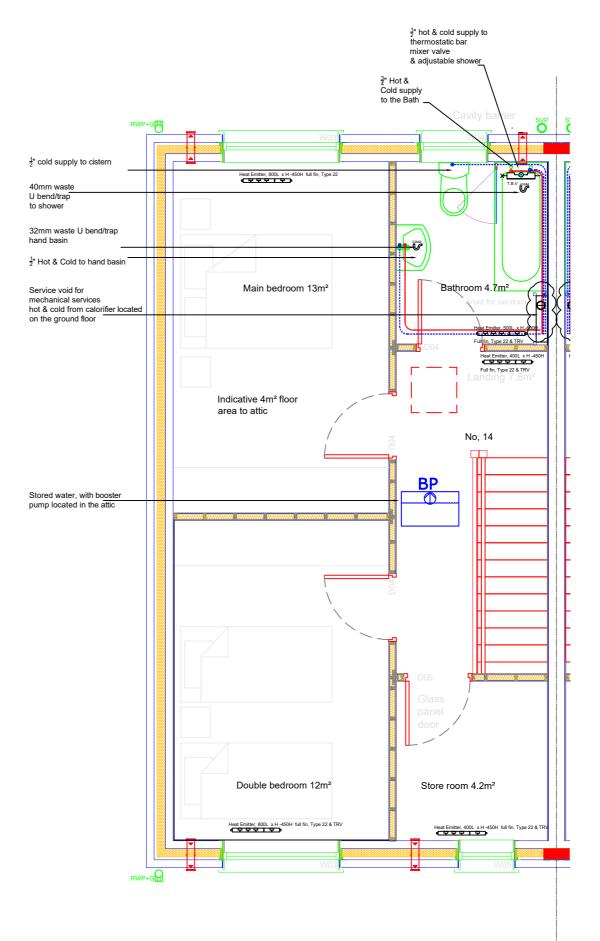
25% capacity requirement over general ventilation rate of the dwelling [TGD F - 1.2.2.3]: = Total capacity of the system l/s = 32 l/s

Room with MEV extract grid (s) Room general extract airflow rate (l/s) adjusted proportionally
Kitchen = 12.3 l/s
Toilet = 5.7 l/s
Bathroom = 7.6 l/s

	Heat E	Emitter Selection				
Heat Emitters Based on Low Flow & Return Temperature Annex H, S.R. 50-1 2021 NSAI Building Services - Codes of Practice - Part 1 Water Based Heating Systems	Delta T Heat Emitters Degrees C	Heat Loss Rooms Watts	Required Emitters Based on Low Delta T Watts Heat output @ Δ T 50°C.	Туре	Length mm	Height mm
Kitchen & Living Room	21.5	1501	5008	22 22	1400 1400	600
WC	21.5	106	387	22	500	600
Hall	21.5	226	795	22	800	300
Landing	21.5	173	545	22	400	450
Bathroom	19.5	260	1055	22	600	600
Main Bedroom	21.5	329	1119	22	800	450
Double Bedroom	21.5	307	1119	22	700	450
Storeroom	21.5	134	545	22	400	450

Heat Emitte	er Selection
Calorifier Internal Hot Water Storage	200L
Booster Pump & Cold Water Store	212L

Heat Pump					
Split Syst	em/Mono				
kW	4.3				



NOTE

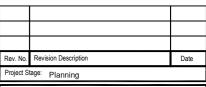
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### Notes

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- All exposed wastes, traps and supports within the toilet area must be metal manufacture and chrome plated
- Access/inspection covers at the base of stacks above floor level.

Final Locations to be agreed on site The drawings detail the functional requirements and arrangements of the services



Project Title: 14 & 15 Dean McNamara Place, Newtownshandrum.

Drawing Titl

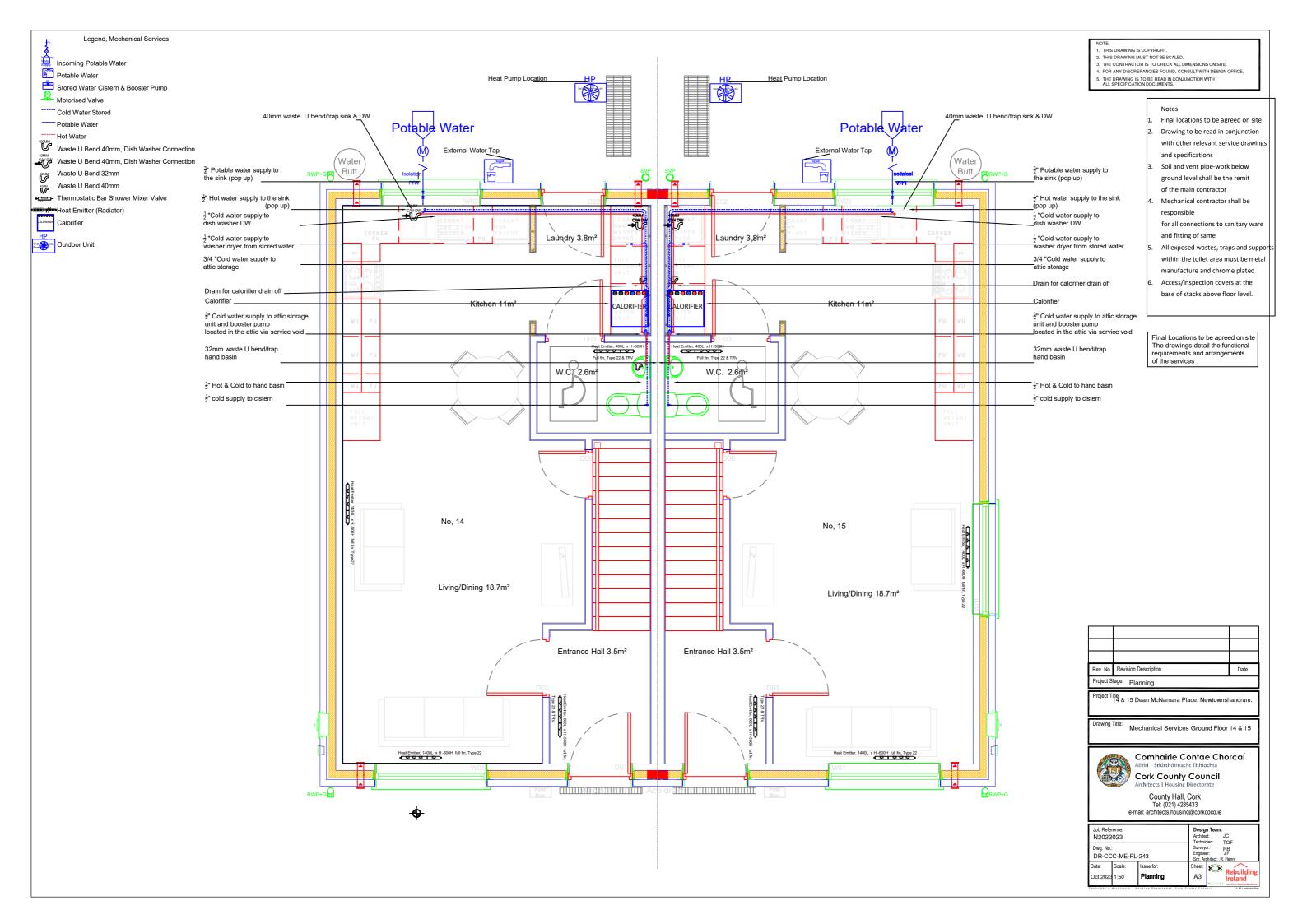
Mechanical Services First Floor

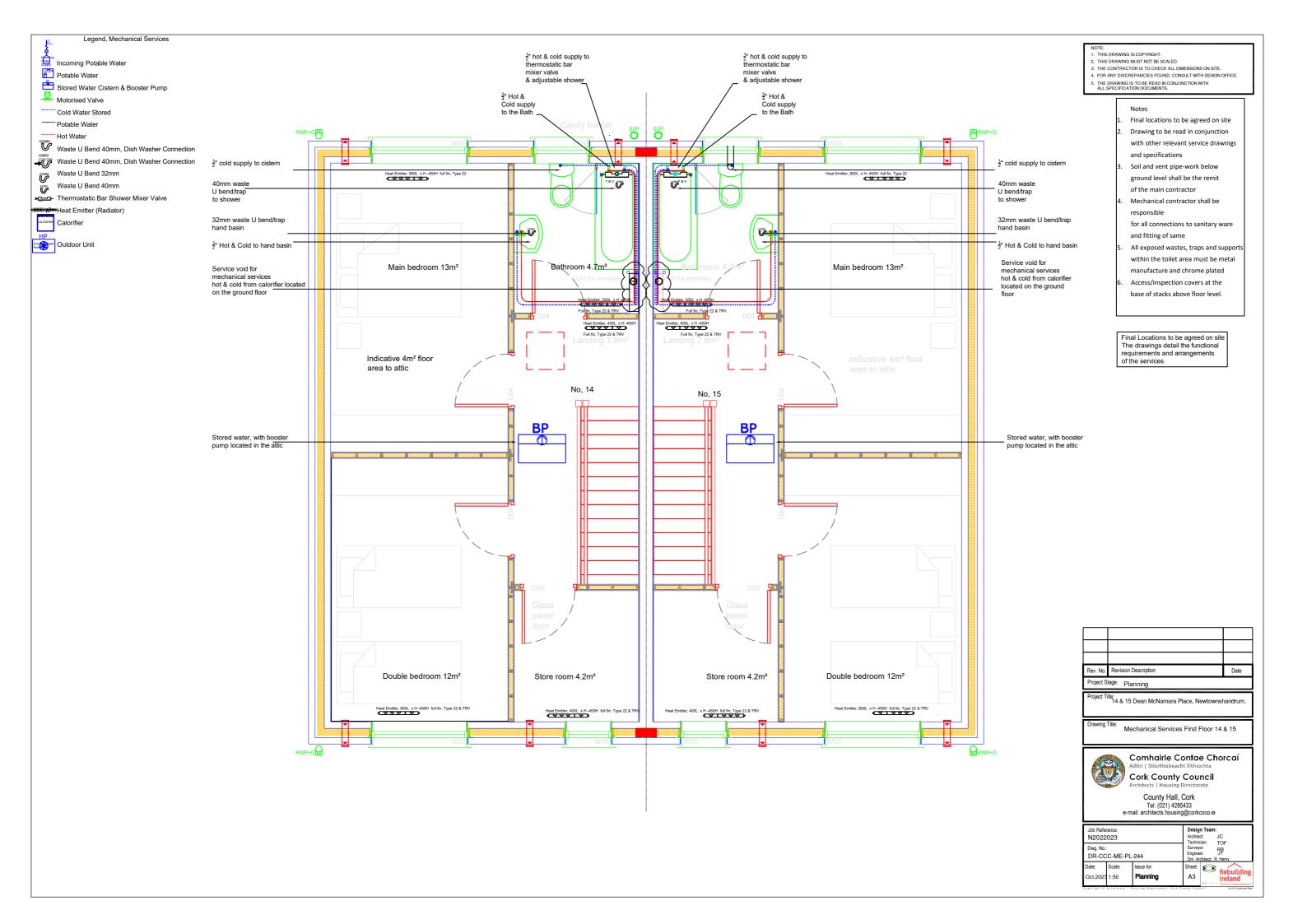


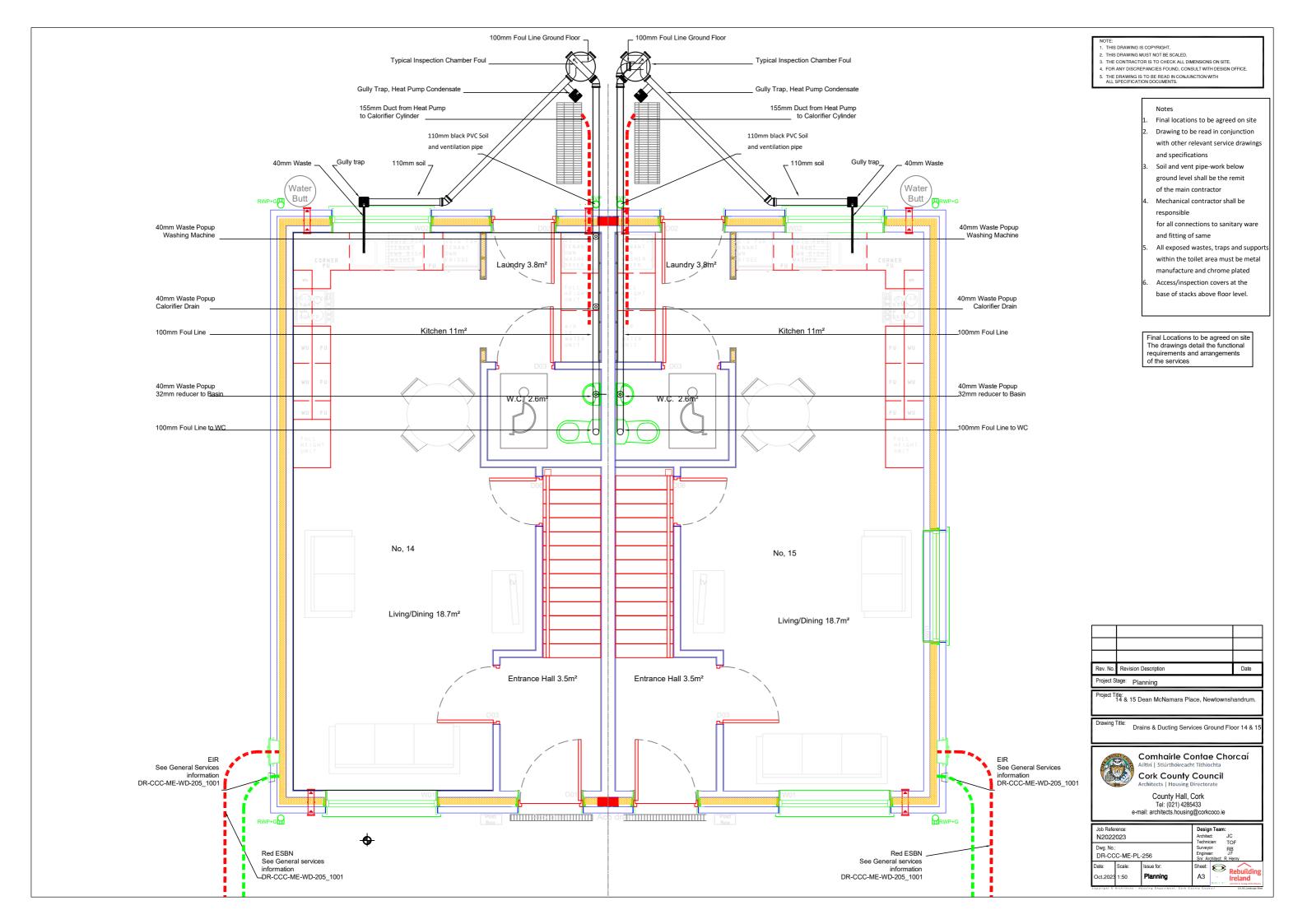
Comhairle Contae Chorcaí

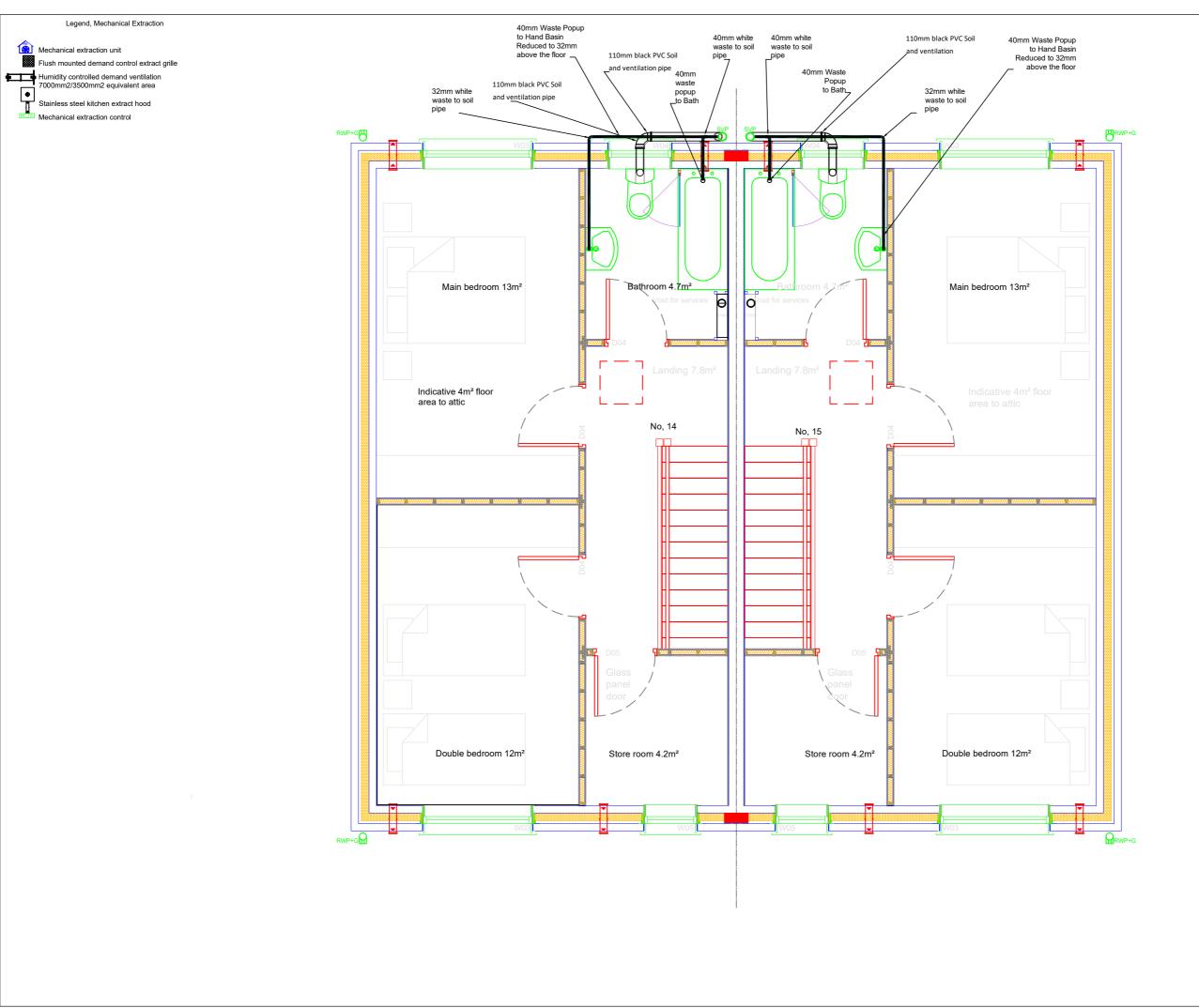
Cork County Council

Job Reference: N2022023 Dwg. No.:		Desig Archite Techni	JC TOF		
	C-ME-PL	-242	Survey	DIT.	RB JF
Date: Oct.2023	Scale: 1:50	Issue for: Planning	Sheet: A3	(Section 1	Rebuilding Ireland







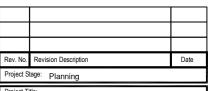


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Project Title: 14 & 15 Dean McNamara Place, Newtownshandrum.

Drawing Title: Drains & Ducting Services First Floor 14 & 1



Comhairle Contae Chorcaí

Cork County Council

Job Refe N2022			Desig Archite Technic		JC TOF
Dwg. No.	: C-ME-PL-	257	Survey	Dr.	RB JF
Date: Oct.2023	Scale: 1:50	Issue for: Planning	Sheet: A3	(A)	Rebuilding Ireland

Legend, Mechanical Extraction

Mechanical extraction unit

Flush mounted demand control extract grille



Humidity controlled demand ventilation 7000mm2/3500mm2 equivalent area



Stainless steel kitchen extract hood Mechanical extraction control

Calculated general ventilation rate based on occupancy of the dwelling [TGD F – 1.2.2.2]: @ 5 l/s plus 4 l/s person = 5 +

Calculated general ventilation rate based on internal floor area of the dwelling [TGD F - 1.2.2.2]: 85 m2 at 0.3 l/s/m2 (0.3 x 85) = 25.45 l/s

General ventilation rate of the dwelling is the greater of the above = 25.5 l/s

Continuous extract ventilation rate of the dwelling is: 25.5 l/s
Overall minimum boost extract ventilation rate requirement [TGD F - Table 1]: = Kitchen + Toilet + Bathroom I/s = 27I/s

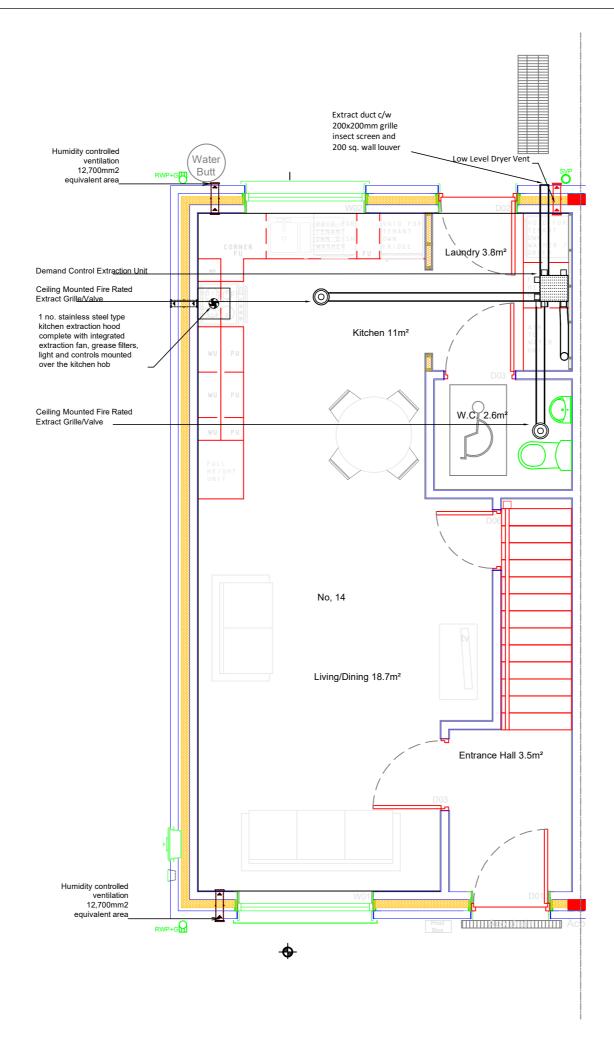
25% capacity requirement over general ventilation rate of the dwelling [TGD F - 1.2.2.3]: = Total capacity of the system l/s

Room with MEV extract grid (s) Room general extract airflow rate (l/s) adjusted proportionally Kitchen = 12.3 l/s Toilet = 5.7 l/s Bathroom = 7.6 l/s

Minimum total equivalent area of background ventilators providing general ventilation 42,000mm2 + 7000mm2 /10m > 70m2 Total area = 83m2 Background ventilators = 42,000mm2 + 10,500mm2 52,500mm2

Ventilation heat Loss calculations based on S.R. 50-1 2021 NSAI building services - codes of practice - part 1 water based heating systems in dwellings Building fabric heat Loss calculations based on S.R. 50-1 2021 NSAI, building services - codes of practice - part 1 water based heating systems in dwellings Heat emitters based on Low flow & return temperature annex H, S.R. 50-1 2021 NSAI building services - codes of practice part 1 water based heating systems

Ventilation to; Buildings Regulations 2019 Technical Guidance Document F Ventilation

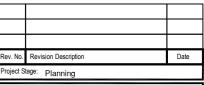


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oject Title: 14 & 15 Dean McNamara Place, Newtownshandrum.

Drawing Title: MEV Services Ground Floor



Comhairle Contae Chorcaí

Cork County Council

Job Refer N2022			Desig Archite Technic		JC TOF
Dwg. No.: DR-CC	: C-ME-PL	-271	Survey	DIT.	RB JF
Date: Oct.2023	Scale: 1:50	Issue for: Planning	Sheet: A3	(N) (1 - 11 - 11 - 11 - 11 - 11 - 11 - 11	Ireland

Legend, Mechanical Extraction Mechanical extraction unit Flush mounted demand control extract grille Humidity controlled demand ventilation 7000mm2/3500mm2 equivalent area

Calculated general ventilation rate based on occupancy of the dwelling [TGD F – 1.2.2.2]: @ 5 l/s plus 4 l/s person = 5 + (4\*4) = 21

Mechanical extraction control

Stainless steel kitchen extract hood

Calculated general ventilation rate based on internal floor area of the dwelling [TGD F – 1.2.2.2]: 85 m2 at 0.3 l/s/m2 (0.3 x 85) = 25.45 l/s

General ventilation rate of the dwelling is the greater of the above = 25.5 l/s

Continuous extract ventilation rate of the dwelling is: 25.5 l/s Overall minimum boost extract ventilation rate requirement [TGD F - Table 1]: = Kitchen + Toilet + Bathroom l/s = 27l/s

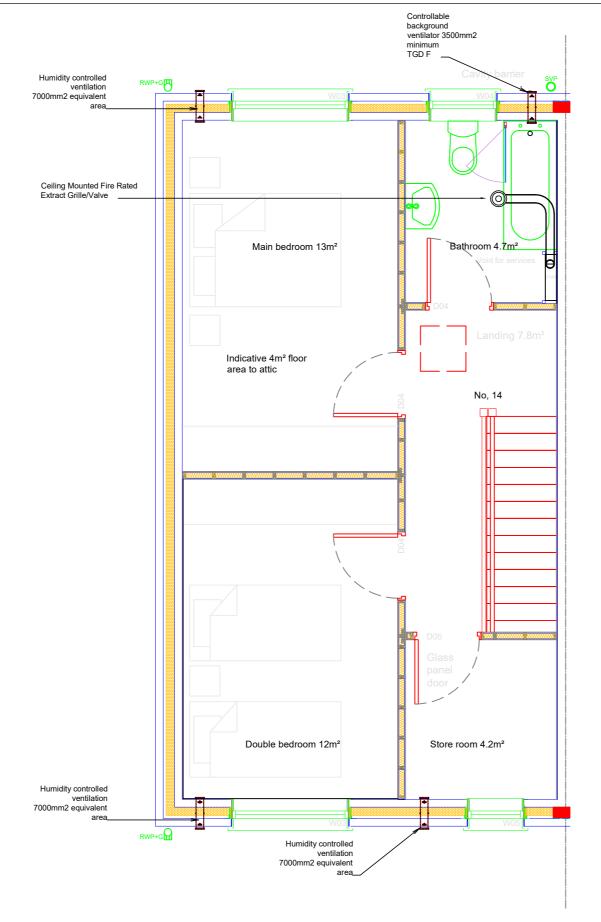
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Ventilation to; Buildings Regulations 2019 Technical Guidance Document F Ventilation

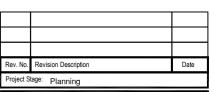


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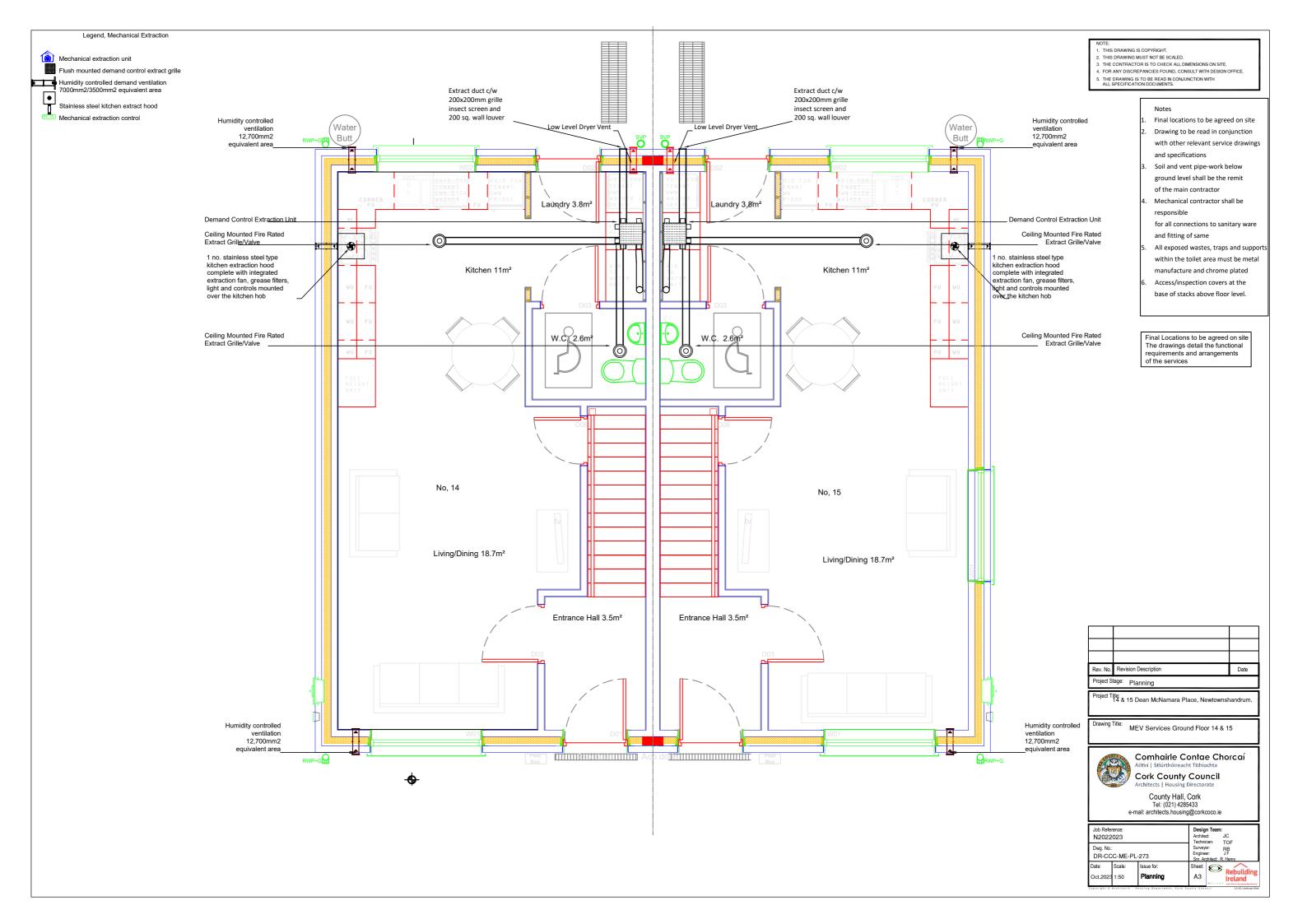
Drawing Title: MEV Services First Floor

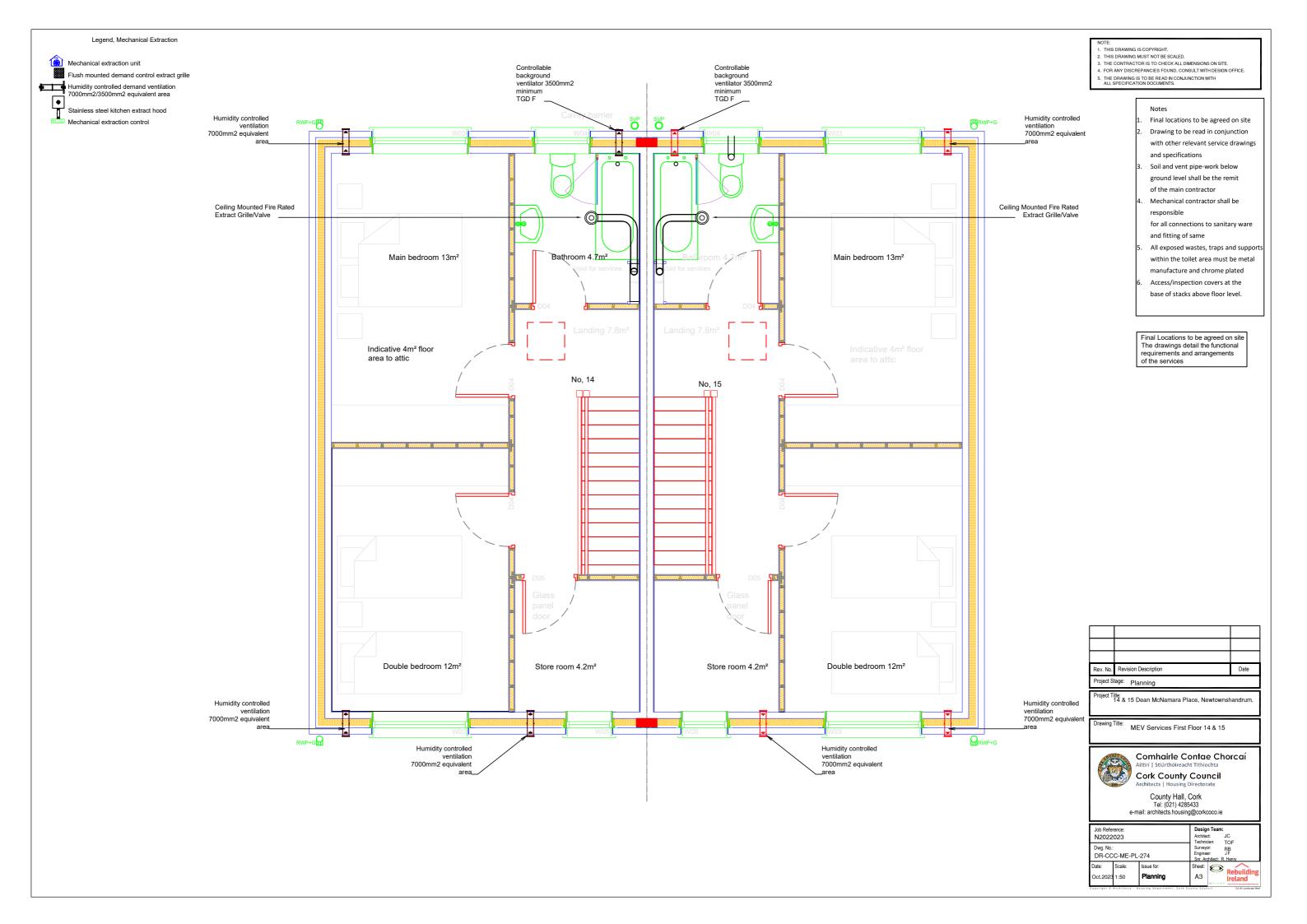


Comhairle Contae Chorcaí

Cork County Council

Job Refer	rence:		Desig	n Team:	
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Stored Water Cistern & Booster Pump Fused Disconnection (Spur) Booster Pump

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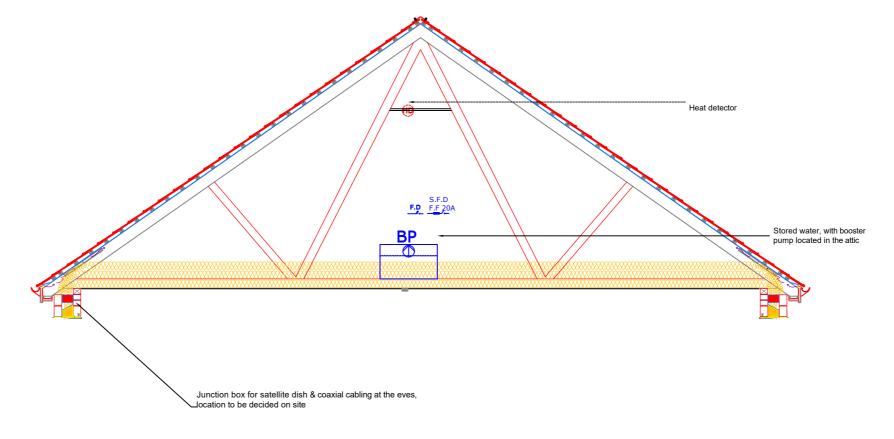
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Rev. No.	Revision Description	Date
Project S	tage: Planning	

roject Title: 14 & 15 Dean McNamara Place, Newtownshandrum.

Drawing Title: Attic 14 & 15



Comhairle Contae Chorcaí

Cork County Council

N2022			Archite Technic	
Dwg. No.: DR-CC	: C-ME-P	-286	Surveyo	or: RB
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