



Employer's Requirements
ER2 - Design Information
(TI 05)

Invitation to Tender

For

Weymouth 'Bus Shelter'

For

Dorset Council

This document schedules the Design Information issued. It shall be deemed that the Contractor has received and reviewed all the scheduled information: -

Part 1 – Brief

Part 2 – Design and Specification

Part 1 – Brief

- Brief for Project to Design, Manufacture and Install 5 no. Modular units for the Bus Shelter Charity Mount Pleasant Park & Ride Site Weymouth, Dorset.
June 2024



**Brief for Project to Design, Manufacture and Install
5 no. Modular units for the Bus Shelter Charity Mount
Pleasant Park & Ride Site
Weymouth, Dorset.
June 2024**

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1.0 Introduction and Context

- 1.1 Dorset Council is a unitary authority and provides temporary accommodation for those in housing need under the Housing Act 1996 Part VII and the Homelessness Reduction Act 2017. It has a target to eliminate the use of Bed and Breakfast accommodation over the next four years. Dorset has a high number of people homeless or in emergency accommodation. The Single Homeless Accommodation Programme (SHAP) is a £200 million Government fund to support the ending of rough sleeping. This fund is aimed particularly at adults with a long history rough sleeping with complex needs and younger people (aged 18-25) at risk of homelessness. Dorset Council was successful with a bid for funding to support two projects. This specification concerns itself with only one of the projects which is outlined below.

Provision of 5 Modular Units at the Bus Shelter, Mount Pleasant Park and Ride Car Park, Mercury Road, Weymouth, DT3 3FA. Easting 367775 Northing 81700 (see attached plan)

Grant from Government has been approved to acquire 5 modular units to be erected at the Park and Ride site in Weymouth to complete the Bus Shelter project. There is planning permission for these units (planning reference WP/20/00814/FUL) and residents of these homes will benefit from self-contained homes within an established community. This expires on 28th January 2028.

- 1.2 There are already 12 modular units on this site which are used as Temporary Accommodation for rough sleepers. These units were provided by Newspace in 2021. There is therefore already provision of mains services to the site. There is also a bus on the site (hence the name Bus Shelter) which was used as the accommodation until the pandemic in 2020 when funding was provided by the Government to ensure there weren't any rough sleepers on the streets and this funding was used to purchase the 12 units. The bus is now used as a recreation/common room. The modular housing units will be owned by the Council and may be leased to a third party.

The Proposal

- 2.1 The appointed contractor will be commissioned to provide as follows:
- 4 no. self-contained residential modular units.
 - 1 no. self-contained accessible residential modular unit.
- 2.2 The site already has planning approval for 5 no. additional modular units which will need to be contained within an area which was included in the original planning application – see attached plans:
- Refer to tender issue sheet

- The modular units will be of a Steel framed construction, all to the Principal Contractors design and approved by Dorset Council.
- Due consideration will need to be given regarding all external finishes of components due to the proximity of the site to a coastal environment.
- Each modular unit roof is to have a mono pitch design with rainwater run-off.
- The external roof finish is to have a life expectancy of 30 years protection against water ingress and structural degradation.
- Rockwool, PIR or similar variant, insulation as required to meet all relevant insulation standards.
- Vinyl wrapped plasterboard and plastic 'T' strips to walls and ceiling.
- OSB/plywood pattressing to walls throughout.
- Multi Panel, or similar approved, to WC/shower room walls all to Principal Contractors design/proposals.
- Splash back to kitchen worktops and sink.
- Low energy light fittings to be used throughout (emergency lighting)
- Standalone mains powered Smoke/Heat detectors/alarms which will be required in each unit.

2.3 Dorset Council will require the Principal Contractor to provide the following energy efficiency measures:

- Enhanced insulation to reduce building fabric U values, enhancements to follow BS3632:2015 (Residential Park Homes Specification)
- Each unit will need to maximise insulated values to minimise running costs in terms of heating.
- A-rated windows/doors.
- LED lighting.
- Electrics to be configured in the most energy efficient way, including,
- Provision of solar panels on all 5 units is included in the bid which would then be able to add power to all units on site including the 12 existing, TBC.
- All electric panel heaters to have individual thermostat and time clocks.
- Provision of solar panels on all 5 units is included thermostat in the bid which would then be able to add power to all units on site including the 12 existing, TBC. Change to: Design, install and fully commission a 2.5kWe PV system to each of the new units with inverters and export metering.

3.0 Additional items

3.1 Additional requirements, as follows:

- Fully fitted Kitchen to include (high level/low level) cupboards, worktops, sink, taps, built in cooker, 2 ring hob, extractor hood, space for fridge.
- Fully fitted Bathroom. Shower cubicle, WC and WHB.
- Accessible unit to have Doc M kit and accessible shower, wet room.
- Off-site construction of all units.
- Units to be as complete as possible when delivered/installed to site to minimise the number of trades on site during delivery and commissioning.
- Reduce waste generation.
- Materials used must offer an extended lifetime.
- Boundary Fencing, Gate and Trackway (accessible path) all as shown on Site Layout Plan 508147/01
- External lighting to all units for compliance with fire safety.
- Units are to include steps with handrails to entrance doors, compliant ramp to accessible unit.
- All FW drainage from units to existing system, barrier pipes for incoming mains cold water and electrical supplies from the existing feeder pillar.
- Protective boxing to all above ground services, as existing or similar.
- Separate water meters will not be required to the new units.
- Each unit will require its own individual electrical sub which is controlled by reusable prepayment cards. Allow for the necessary meters, software, licences, card reader and equipment needed along with a pack of programable pre-payment cards. Allow for the first-year licensing fee for the software. Suggested equipment detailed below, but equal and approved systems can be used.

Software: <https://www.jwsmartmeters.co.uk/shop/prepayment-meters/pre-payment-meters/emlite-recharging-software-for-mp22-mid-contactless-prepayment-cards/>

Meter: <https://www.jwsmartmeters.co.uk/shop/prepayment-meters/pre-payment-meters/emlite-mp22-mid-single-phase-contactless-prepayment-card-meter-100a-direct-connect/>

3.2 The Principal Contractor will be required to:

- Meet Statutory Compliance to all Building Regulations regarding the units, installation, site working, building safety and fire safety.
- Adhere to all site licensing conditions, including Planning.
- A fundamental requirement of this programme is that the units are attractive comfortable, efficient in construction and use also durable, and easy to maintain.
- These units will be built offsite and delivered as a completed unit, as much as possible once the ground works have been completed.
- All the ground works associated with site preparation will be undertaken as part of the overall contract by the Principal Contractor as a turnkey package and to include all foundations, incoming water, electrical supplies and drainage.
- Relocation of the units is a key feature of this project, and these units will be relocated during their lifetime, therefore it required to produce a modular building that has been specifically designed and detailed to minimise the time, cost, and risks of relocation.
- This brief describes the attributes that define the modular units to be built/installed.
- Dorset Council is intending to appoint a single Contractor to design, construct and install the buildings including all facilitating works, including extending all relevant existing services.

4.0 Requirements

4.1 Before full scale production is authorised the Principal Contractor will provide:

- Evidence/certification of tests and confirm the viability of the assembly and disassembly processes of the units.
- Demonstrate and validate the design and layout, set benchmark quality standards, and indicative thermal, acoustic and airtightness tests to demonstrate compliance with the required standards.
- An essential requirement of these buildings is their ability to be easily and cheaply dismantled into their component modules, transported to another site, either directly or by way of temporary storage, and speedily re-erected, either in their original form and layout, or another layout as the new site dictates.

4.2 Separately Dorset Council requires within this scope:

- Repairs and maintenance service, by Dorset Council.
- Any subsequent relocation of the buildings, to be carried out by others.

Part 2 – Design & Specification

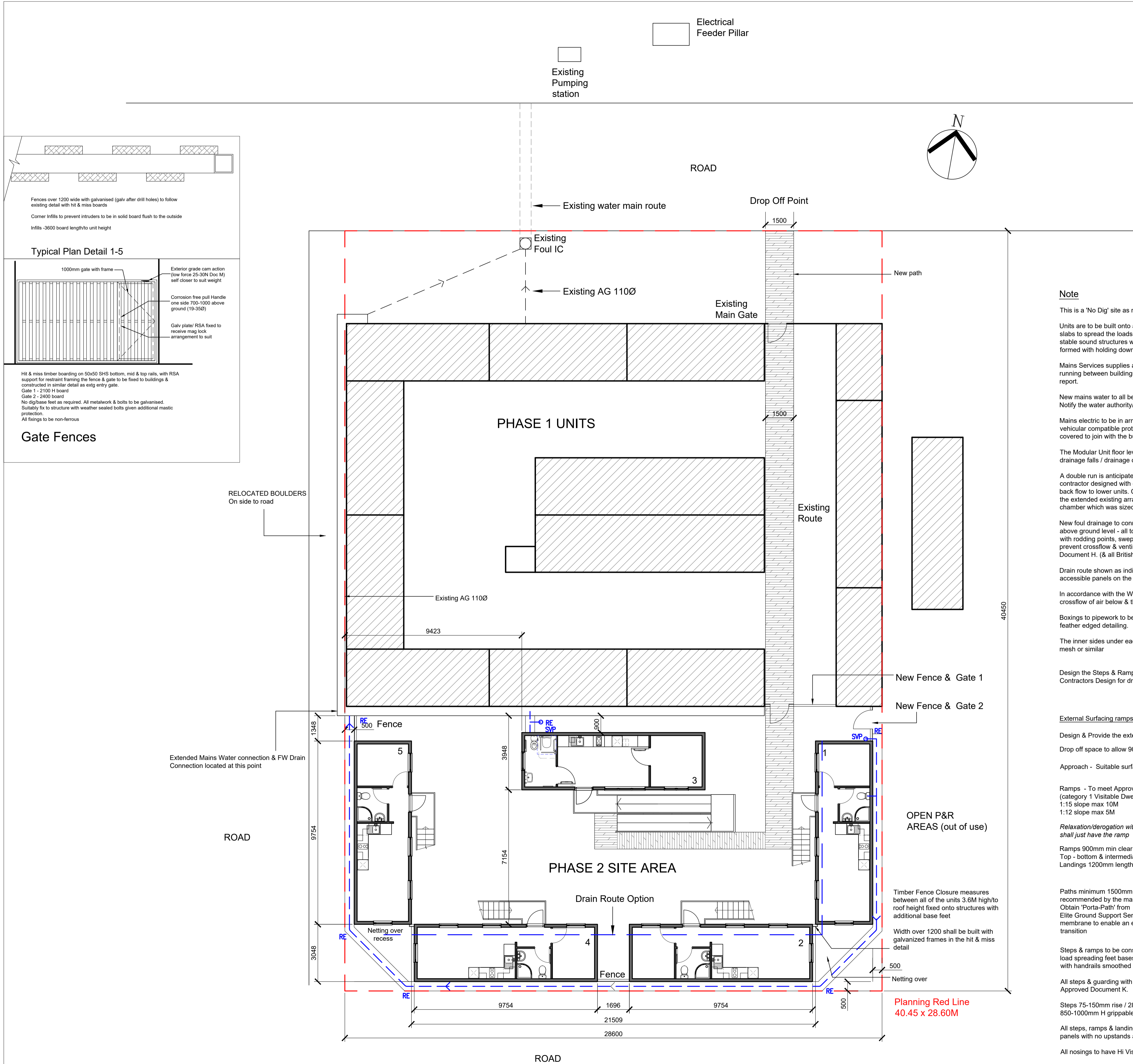
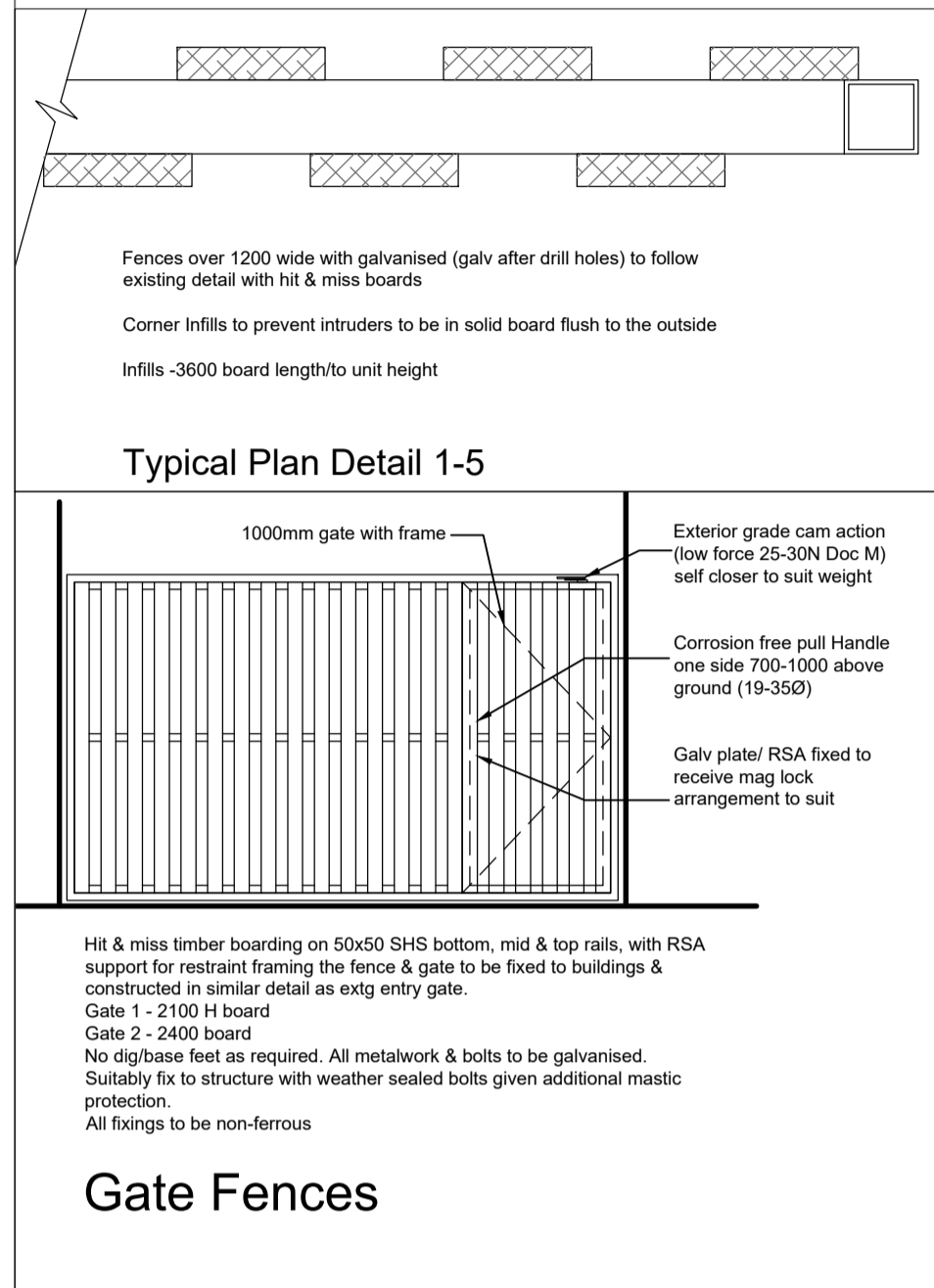
- C&B Drawing & Document Issue Sheet 508147
 - 508147-01 Site Layout Plan
 - 508147-02 Modular Unit Plan & Details
 - 508147-03 Accessible Modular Unit Plan & Details
 - X Contractor Compound Location Plan
 - X Fixtures Schedule
 - X Specification

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Do not scale from this drawing. If in doubt ASK!

Design to meet all water installation & storage regulations. Accord with all Water Authority relations & notification requirements. Design proposals to identify anti-scalding measures at taps

SVP Soil & Vent Pipe
 RWP Rain Water Pipe
 SV Stop Valve
 SC Stop Cock
 T Thermostat/ Heating Timer
 All Drainage to meet A.Doc-H



Note

This is a 'No Dig' site as referenced in the PCI/ SI report.

Units are to be built onto above ground foundation bases typically using paving slabs to spread the loads, provide stability & achieving rigidity of the floors and stable sound structures without vibration. Bases to be substantially & robustly formed with holding down measures to meet BS EN 3632: 2023

Mains Services supplies are to run below the units, and or into boxings. If running between buildings may have a covering as per the advice in the SI report.

New mains water to all be in barrier pipe from the point shown all with isolation. Notify the water authority/comply with all water regulations.

Mains electric to be in armoured cable taken from the electric feeder pillar with a vehicular compatible protection cover following the existing road crossing & covered to join with the buildings

The Modular Unit floor levels design & setting out is subject to site leveling & the drainage falls / drainage design to achieve appropriate falls, self-clearing.

A double run is anticipated with WC run alongside grey water wastes, all to be contractor designed with drainage calculations to prevent siphonage and any back flow to lower units. Calculations to size the number of units/connections to the extended existing arrangement. Drains to be pumped from the existing chamber which was sized to suit the overall scheme.

New foul drainage to connect onto the existing pipe arrangement that is set above ground level - all to be in UV protected push-fit jointed pipes, provided with rodding points, swept 135° bends, with pipe & well supported, offsets to prevent crossflow & venting to SVPs - All in accordance with Approved Document H. (& all British Standards referred to therein)

Drain route shown as indicative to follow the existing format with readily accessible panels on the inner side & fixed panels to the outer side.

In accordance with the WPA Environmental report all units shall allow a crossflow of air below & the boxing is to be vented by open board gaps.

Boxings to pipework to be 500mm wide & formed as existing but with 'vented' feather edged detailing.

The inner sides under each unit shall be closed fully with animal prevention mesh or similar

Design the Steps & Ramps to heights above the ground determined by the Contractors Design for drainage with external landings equal to the floor level

External Surfacing ramps & steps

Design & Provide the external path surfaces to meet the following requirements

Drop off space to allow 900mm passing width from cars

Approach - Suitable surface/Gently sloped - 1:40m max crossfall

Ramps - To meet Approved Document M (category 1 Visible Dwellings)
 1:15 slope max 10M
 1:12 slope max 5M

Relaxation/derogation with 'additional steps route' to the Accessible unit shall just have the ramp

Ramps 900mm min clear width
 Top - bottom & intermediate landings to all flights
 Landings 1200mm length clear of doors

Paths minimum 1500mm wide - prepare surfaces & install strictly as recommended by the manufacturer - Obtain 'Porta-Path' from Elite Ground Support Services complete with all accessories, geotextile membrane to enable an effective smooth surface with no changes in transition

Steps & ramps to be constructed in treated timber onto base supports with load spreading feet bases & posts. All railings & parts shall be splinter free with handrails smoothed

All steps & guarding with mid rail to be constructed in accordance with Approved Document K.

Steps 75-150mm rise / 280mm going / 900wide
 850-1000mm H grippable rail 1-side / 300 extended)

All steps, ramps & landings shall be provided with non-slip GRP surfacing panels with no upstands at transitions.

All nosings to have Hi Vis GRP identification

rev	description	date
-	Prelim 1 redraw as Nr 01	06.8.2024



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project
Specialist Modular Build
Mount Pleasant Park & Ride
Weymouth

title
Site Layout Plan

scale	1:100@A1	@	A1
dwn	KR	chk	KR
date	19.6.24	date	19.6.24
drawing number	508147/01		rev.
			-






Specialist Modular Build
Mount Pleasant Park & Ride
Weymouth, DT3 5BJ




Job No 508147



Contractor Compound Location Plan (NTS)


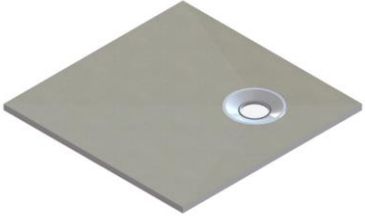

Specialist Modular Build
Mount Pleasant Park & Ride, Weymouth
FFE Schedule Version 2


Job: 508147



Nr	Item	Description	Manufacturer	Location	Note	
1	Pair of Chrome Deck-mounted time flow basin taps	TEMPOSTOP time flow tap Ref: 745100 - chrome	Delabie	Shower WC		
2	Basin & Pedestal	E8951(01)/ E8976(01) Sandringham 21 washbasin 55cm, 2 tapholes, with overflow and chainstay hole. c/w wall fixings, waste & all fittings - white	Idea Standard	Shower WC	Suitably Wall Pattressed in solid wood 50mm thk	
3	WC & cistern	Sandringham 21 Close-Coupled WC Pack Dual-Flush 6Ltr - white with white soft close seat	Armitage Shanks	Shower WC	Suitably Wall Pattressed in solid wood 50mm thk	

4	Shower Tray	800x800 Flight Low Quadrant Shower Tray With waste trap - white	Mira	Shower WC		
5	Shower Enclosure	Mira Leap 800x800mm Quadrant Shower Enclosure - Chrome	Mira	Shower WC		
6	Shower	Aspirante 9.5kw Electric Shower - steel	Triton	Shower WC		
6	Loo roll holder			Bathroom		
7	Shelf			Bathroom	Employer	

8	Mirror	500W x700H wall mounted safety backed mirror		Bathroom		
9	Accessible Wash Basin	Portman 21 Washbasin 50cm 2 Taphole, chainstay, overflow, robust fixings 2 x 60cm grab rails,	Idea Standard	Accessible Shower WC	Suitably Wall Pattressed in solid wood 50mm thk	
10	Doc M Shower Room Pack	Folding shower seat and back support (grey) 2 x 60cm grab rails, 2 x hinged rails Shower curtain rail with ceiling drop rod White or clear curtain to suit height set out	Idea Standard	Accessible Shower WC	Blue grey or charcoal rails for LRV Suitably Wall Pattressed in solid wood 50mm thk	

11	Contour 21 close coupled WC	450 rim close coupled toilet suitable for use with wheelchair or by ambulant disabled people concealed brackets & wall fixings Seat 2 x 60cm grab rails	Idea Standard	Accessible Shower WC		
12	1000mm sq Shower tray former & Trap arrangement kit	Vinyl wet room tray with corner waste position		Accessible Shower WC	Installation fully as manufacturer recommendations for support	
						All outlets & traps provided with the plumbing installation
13	Built-in Electric Hob	2 Zone Stainless Steel Solid Plate Hob	Cookology	Kitchen		

14	Chimney Hood	Stainless Steel 30LS extraction hood ducted in aluminium duct tubing to the exterior draught grille	Similar approved	Kitchen	With washable metal baffle filters. To include LED down-light – staged speed controls & height to suit ceiling	
15	Built-Under Oven with Grill	Hotpoint Electric Fan Assisted Single Oven - Stainless Steel with grill function – single door	Similar approved	Kitchen		
16	Kitchen Cupboards	Kitchen installation including plinths, ends joining, handles, end panels & corners	Howdens Greenwich Range or equivalent budget range by alternatives	Kitchen	Design & install as Brief c/w all sealing joints, fitting of all appliances	
17	Splashback	Backboard	Howdens	Kitchen	Gloss White – or metro tile	
18	Cooker Splashback	Brushed Stainless Steel	Similar approved	Kitchen	All over screw fixed flush plasterboard	

19	Sink Mixer Taps	Trade Deck Kitchen Sink Mixer Tap - Chrome	Wickes or similar	Kitchen		
20	Sink	VATTUDALEN 690x470 Inset sink, 1 bowl with drainboard and strainer outlet	Ikea	Kitchen		
21	Heaters & Towel Radiators	Electric panel heaters to have individual thermostat and time clocks			Design & install as Brief	
22	Loose Furniture				Employer	
23	Curtains & Blinds				Employer	
24	UPVC door blinds	Pull down bead mounted blackout			Employer	
25	Fridge Freezer			Kitchen	Employer	
26	Fire Notice				Employer	
27	Fire Fighting Equipment				Employer	



Client: Dorset Council

**Specialist Modular Build
Mount Pleasant Park & Ride
Weymouth,
DT3 5BJ**

SPECIFICATION (Version 1.0)
Project Number 508147

9 August 2024

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Version Control

Version	Prepared by	To	Details	Date
V1	K. Redfern	Dorset Council	Tender Issue	9 August 2024

1. Introduction.

- 1.1 Dorset Council is a unitary authority and provides temporary accommodation for those in housing need under the Housing Act 1996 Part VII and the Homelessness Reduction Act 2017. It has a target to eliminate the use of Bed and Breakfast accommodation over the next four years.
- 1.2 Dorset Council intend to appoint a Principal Contractor to provide a turnkey project to design, construct, deliver and install 5no. modular 1 bedroom accommodation units, 1no. to be accessible. These will occupy Dorset Council land on a temporary basis and be designed to allow the units to be dismantled and redeployed elsewhere – either in the original grouping or another to suit the requirements of the next and subsequent sites.
- 1.3 Relocation of the units is an important feature of this project and they may be relocated multiple times during their lifetime. The project therefore requires a product that has been designed and detailed to minimise time, cost and risks of relocation any relocation.
- 1.4 The design and appearance of the units must be contemporary, attractive and unremarkable, possibly preferred to match the existing units on site; whilst improving on weather proofing, corrosion resistance detailing and paint coating to resist the coastal environment, as stated on the drawings.
- 1.5 Notwithstanding the fact that these units are modular/temporary in nature, they must meet national design standards and statutory requirements of this type of building. minimum BS 3632:2023, as opposed EN1647.
- 1.6 The units will all provide accommodation consisting of one bedroom, a living and kitchen area combined, with separate WC/shower room.
- 1.7 This document describes the attributes that define the buildings to be provided and Dorset Council intending for the appointed Principal Contractor to provide all ground works and services for the flats.
- 1.8 Dorset Council envisages that the project to construct the units will be in three phases:
 - i. Design – the Principal Contractor, post appointment, will work with Dorset Council to agree the design and specification, providing validation of the design and construction standards.
 - ii. Manufacture - the Principal Contractor, post design approval, will procure all materials and build each unit off site within their factory site.
 - iii. Install – the Principal Contractor is to prepare all ground works and provide suitable foundations on site prior to the install of the units. All incoming services are to be designed, installed, connected and commissioned as part of the turnkey package. This will include the electrical supplies, mains water and drainage connection to each unit. Once the units are installed all drainage works to be connected to existing system with suitable falls etc. from each unit. All units are to be completed and fitted out for occupancy and the site made good.
- 1.9 Prior to approval, the Principal Contractor will provide evidence and confirm the viability of the assembly & disassembly processes. They are to demonstrate, and validate the design and layout, set benchmark quality standards, and provide all relevant certification for items such as thermal, acoustic and airtightness tests along with compliance of all required standards.

2. General Design Considerations

2.1 Moveability

2.1.1 An essential requirement of these buildings is their ability to be easily and cost effectively transported to another site, either directly or by way of temporary storage, either in their original form and layout, or as the new site dictates.

2.1.2 It is therefore important that the lines of join and the connections, if relevant, are accessible without undue disturbance to the decorated surfaces and that floor coverings are not cut. Joints in cables, pipes, ducts and other services are made using specialist connection fittings, and that all services are permanently labelled so incorrect reconnection is not possible.

2.1.3 The individual modules must be able to be made watertight during transport and storage,

The module size must be no larger than can be easily and lawfully transported through the streets without the need for Police escort, road closures or traffic diversion. Therefore, modules must be designed to ensure a load width of not more than as shown on

- Refer to the (ITT) Schedule of Tender Documents

2.2 Foundations Design and Loadings

2.2.1 The construction of foundations and the installation of the units on site is a task that will be undertaken by the appointed Principal Contractor as part of this tender.

As part of the detailed design work the Principal Contractor is to provide a foundation design that sets out in detail calculations, loadings, size and specification of materials to be used. They are also to provide the exact location and sizes of the foundations, services, connections and all other information that is needed to carry out the installation.

2.2.2 There is a 'no-dig' requirement for the site which is located on a former landfill site. Services will be above ground level and shall have light masking or covering parts that cannot be hidden under the units. The road crossing mains shall also be protected with a road duty cover

2.3 General Design Requirements

2.3.1 The appearance of the units, location and the overall site layout must comply with the Dorset Council Planning approvals, App Ref: WP/20/0081/FUL and P/NMA/2024/02014.

2.3.2 The projects will be subject and comply with to mobile home and caravan legislation and however is non-controllable with regards to building regulations, compliance certification from Dorset Council LABC. These project proposals may be submitted to the Dorset Council housing/ Environmental/ Licensing Teams. The design shall be more generally in accordance with all relevant Building Regulations or British/EN Standards normally required and as stated on the drawings.

2.3.3 The Principal Contractor must demonstrate how materials and detailing of the proposed units will minimise and simplify the need for in-service maintenance.

- 2.3.4 The Principal Contractor must demonstrate how airtightness, interstitial condensation and vapour control designs will meet with the building regulations and detail how this will be achieved in the envelope.
- 2.3.5 A 1no. bedroom unit will be suitable accommodation for 1no. person.
- 2.3.6 Provision shall be made within the design for services ducts for the distribution of pipes and cables from the common entry point to individual flats.

3.0 General Construction Requirements

3.1 Construction Standards, Processes and Materials

- 3.1.1 All work shall be carried out using materials and processes that minimise the impact on the environment, reduce construction waste, and minimise energy use during construction.
- 3.1.2 Work will be completed to a standard appropriate to the nature of the project and in accordance with relevant good building practice.
- 3.1.3 Except where otherwise agreed, all major building components and materials utilised must have a design life expectancy of not less than 60 years. Roofing etc will usually only give 30 years. The Manufacturer is to provide certification to demonstrate that the products incorporated within the buildings comply with the applicable British or European Standards.
- 3.1.4 Materials or products will be used strictly in accordance with their manufacturers' requirements or guidance.
- 3.1.5 All work will be in accordance with the Building Regulations, along with all other applicable construction and trade standards.
- 3.1.6 In accordance with BS EN 3636: 2023 there shall be permanent identification markings.
- 3.1.7 The design shall achieve stability and rigidity of floors and to be stable without undue vibration. Provide detail of the holding down and wind uplift proposals.
- 3.1.8 External wall thickness shall not exceed the given dimensions on the drawings in order to achieve the spatial requirements and shall achieve one hour fire integrity and insulation. Provide manufacturer's certification/test data details of the fire resistance for approval.
- 3.1.9 The external coating and finish shall be resistant to corrosion and if painted shall be to the ISO 12944 Class C4 minimum – Provide details of the external finish for approval.
- 3.1.10 Contractor's proposals will be required detailing the weathering and flashings to dress under window and door sills, with level threshold to the external landing and around the jambs and head to demonstrate these will be fully weather sealed and not allow ingress into the structure. Include drip detailing to divert tracking rain.
- 3.1.11 All walls shall have 12mm plywood pattress boards to full wall height and additional strengthening to grab rails, sanitaryware and top fixing kitchen wall cupboards.
- 3.1.12 Roof finish material and weathering design to be submitted for approval to provide 30 year life expectancy.

- 3.1.13 Roof drainage shall be taken to ground level in colour matched PPC aluminium box gutters and square downpipes. Include drip edge detailing into the gutters.
- 3.1.14 The Install of the units should strictly adhere to the Principal Contractors lifting plan and all RAMS shall be provided to Dorset Council and the LABC prior to any lifting works being carried out.
- 3.1.15 All proposed boxing to drainage pipework to designated areas is to be included in the project and installed by the Principal Contractor, as shown on
- Site Layout Plan – 508147/01
- 3.1.16 The drainage boxings shall follow the exiting format, which must incorporate venting as required in the SI report. These will raise to the heights needed to suit the drainage falls. These will be set on block or base foundations that rest on the ground and be fixed to remain stable. Access points shall be provided with screw fixed panels on the outer sides at all stop valves, bends, rodding points and every discharge point to enable drainage clearing or repair
- 3.1.17 All bases of the units will be open for crossflow of air and be fitted with animal prevention measures on the open inner sides. Include netting to prevent birds and debris accumulating in the S. West/S. East corner triangles created by the drainage and ramps or landings shall have measures to stop nesting beneath.

3.2 Samples of Materials

- 3.2.1 The Principal Contractor is to provide samples, product literature or description of materials to Dorset Council, for approval, and products and components proposed for installation into the flats, along with colour charts for selections of final finishes, including but not limited to the following:
- External wall materials and finishes.
 - Roof materials and rainwater goods.
 - Windows and doors - internal and external.
 - Ironmongery - door and window furniture.
 - Wall tiles or alternatives approved finishes.
 - Kitchen fittings including units and worktops.
 - Sanitary ware including taps and waste fittings.
 - Floor coverings - tiles, sheet floor coverings and carpets.
 - Mechanical and electrical fittings - ventilation units etc.
 - Paint colours.

3.3 Unacceptable Materials

- 3.3.1 The following materials are not acceptable:
- High alumina cement, Woodwool slabs.
 - Calcium Chloride in admixtures.

- Materials containing Asbestos.
- Urea formaldehyde or materials which may release formaldehyde in quantities which may be hazardous.
- CFCs or HCFHs, including any materials requiring CFCs or HCFCs in their manufacture, and other such materials prohibited by the Montreal Protocol.
- Lead and lead based solder in connection with drinking water.
- Materials which are generally composed of mineral fibres either manmade or naturally occurring which have a diameter of 3 microns or less and a length of 200 microns or less or which contain any fibres not sealed or otherwise stabilised to ensure that fibre migration is prevented.
- Decorative materials or finishes containing lead or Asbestos.
- Any other substances which have been published in the BRE Digest as being deleterious to health and safety or to the durability of the property in the circumstances in which they are used.
- Tropical hardwoods unless it can be shown by FSC certification that the wood is from managed forests.
- Carlite plaster finishes, Artex finishes.
- Damp proof courses using pitched polymers.
- Acrylic primers.
- Any treatment of materials either before or after installation, which give rise to toxic or hazardous emissions or particles.
- Structural Timber with a moisture content exceeding 20% and not marked “Dry” or “KD” (Kiln Dry)
- MDF skirtings, architraves, or other decorative parts.
- Rigid polyurethane (PUR), polyisocyanurate (PIR) insulation products, or expanded polystyrene insulation materials.

4.0 Specific Design Requirements

4.1 Acoustic Insulation

4.1.1 It is likely that the units will be erected on land that is adjacent to noisy public infrastructure or exposed areas – roads, railways, etc. – so buildings will be constructed to achieve a resistance to the passage of external sound greater than stated on the drawings (45dB minimum airborne) and as required by the Building Regulations, min. BS 3632:2015. Internal partitions shall be to the maximum thickness as drawn and include insulation to achieve 40 Rw dB. Provide details of the sound resistance for approval.

4.2 Thermal Insulation

4.2.1 Enhanced insulation of the building fabric U values as given in the Brief (2.3) will be required to achieve a minimum of -

Element	Value W/m2K
Roof	0.20
Wall	0.21
Floor (exposed)	0.20
Windows	1.4- A rated
External Doors	1.4

4.3 Windows

- 4.3.1 Frame colours and finishes to be agreed with the Client and approved by Dorset Council. UPVC double glazed, class a, similar to existing units.
- 4.3.2 All glass to double glazed units is to be toughened glass, windows to wet room areas to be obscured.
- 4.3.3 Each habitable room will have a glazed area equivalent to not less than 10% of the floor area of the room served, and an openable area of not less than 10% of the floor area.
- 4.3.4 The sill for windows in the principal living space(s) must be no higher than 800mm above finished floor level to allow people to see out while seated; or as set out on the drawings:
- Modular Unit Plan & Details – 508147/02
 - Accessible Modular Unit Plan & Details – 508147/03
- 4.3.5 Opening windows will have detachable opening restrictors to limit the opening width to not more than 100mm.
- 4.3.6 Each opening casement will have a key operated lock, and lever type handles suitable for use by those with limited grip. In accessible unit, any handles or locks will be located within reach of someone seated in a wheelchair.
- 4.3.7 Internal sills shall be formed with UPVC cap sills limited to 30mm from the face with turned and closed ends. All windows shall be neatly pointed in silicone and provided with appropriate trim details to the linings.
- 4.3.8 External sills shall project with a drip and have end caps neatly and fully mastic sealed in white. Door entry sill detailing shall suit the junction to the landing.
- 4.3.9 Provide, install, and fully decorate timber battens for blinds/curtains on all windows.

4.4 External Doors

- 4.4.1 Doors and frame colours to be agreed with the Client and approved by Dorset Council. UPVC double glazed, class a, similar to existing units, with the inclusion of a letter box and suitable stop.
- 4.4.2 External steps with handrail to each main entrance door to suit unit FFL.
- 4.4.3 All glass will be 6mm toughened glass, to unit entrance doors, obscured.

4.4.4 Flat entrance doors will have a clear opening width of not less than 800mm and shall have level thresholds in accordance with the Building Regulations.

4.4.5 Each will have a multi-point locking system, fitted with a "Euro" type cylinder with key operation externally, and thumb turn internally (Round)

4.5 Internal doors

4.5.1 Internal doors will be flush faced solid core doors, with matching frame set frames, demonstrating ½ hour fire resistance if deemed to be a fire door. Accessible doors shall achieve 800mm clear opening width.

4.5.2 Sliding doors are not acceptable. Glazed doors are not acceptable.

4.5.3 Door openings will have a threshold strip, with doors trimmed to provide a 10mm wide gap at the bottom for ventilation; set out during the build to achieve 10mm after floor laying.

4.5.4 Each door will have latch, lever handles, and a silent type catch. Bathrooms will have in addition a privacy lock. Accessible doors shall include a horizontal grab rail in a contrasting colour.

4.6 WC/shower room

4.6.1 As detailed in the Fixtures Schedule the WC/shower room will be equipped with:

- A shower tray (800 x 800-900 mm minimum) screen and door, electric thermostatic shower, and shower handset.
- A close-couple toilet suite.
- A wash hand basin with percussion taps as given in the Fixtures Schedule.
- An electric towel rail (with control thermostat)
- A toilet roll holder.
- A wall mounted safety backed mirror.
- All accessible fittings and shower set

4.6.2 Impervious sheet material will be fitted fully to all walls and included within the shower in Free Foam Geo panel lining with all associated trims and details to the shower tray and coved flooring to achieve a wet room standard. All internal and external angles and edges are to be provided with moulded aluminium trims, with joints fully sealed with clear silicone mastic.

4.6.3 All walls will be pattressed in 12mm plywood and at bathroom fixtures and all grab rails will be required to include additional solid timber in addition.

4.6.4 The design of the detailing of the waterproofing around the shower must be specifically approved by Dorset Council. The flooring shall be formed to be fully watertight within the room and ensuring shower leaks will never get into the sub-floor. Concealed pipes with rodding access will be required as shown on the drawings.

4.6.5 With the exception of the Accessible shower design, the shower tray will need to be raised to a maximum height of 220mm to the enclosure lip to accommodate drainage

and the trap which will be accessible using a shower raising kit. The installation shall be braced and fixed to be fully stable and robust.

- 4.6.6 The Accessible shower shall be formed to achieve falls to a floor shower gully with access for clearing. Installation support measures to the shower floor former will be required to be submitted for approval.

4.7 Kitchen Installation

- 4.7.1 Fully design and install a full kitchen complete with all fittings splashbacks, appliances, taps and sink, modified parts for the accessible unit and extract hood in the range given in the Fixtures Schedule. Provide suppliers 3D proposals.

4.8 Floor Coverings & Finishes

- 4.8.1 Floor finishes will be as follows:

Living Area/Bedroom - Altro 'Wood' (R10 slip resistance) or equivalent. The directional pattern of lay is to be planned and installed as recommended by manufacturer with the 2m roll with planned to limit the joint length and no cross joints.

- 4.8.2 Bathroom - Altro 'Aquarius' (R11 slip resistance) or equivalent with welded coved corners.

- 4.8.3 All perimeters to be sealed in silicone. Bathroom flooring to be taken under the raised tray ensuring there is no risk of ingress into the sub-floor.

Location	Material / finish	Notes
Bathrooms	Non-slip vinyl	Colours TBC
Living Area/Kitchen	Non-slip vinyl	
Bedrooms	Non-slip vinyl	

4.9 Decoration

- 4.9.1 Internal decoration will be as follows:

Ceilings	Self-finish walling system	RAL 9010 Pure White
Walls – interior of units	Self-finish walling system	RAL 9010 Pure White
Architraves, door frames and other woodwork	Self-finish walling system	RAL 9010 Pure White
Window frames and sill boards	Self-finish walling system	RAL 9010 Pure White

4.10 External Works

- 4.10.1 New paths shall be provided in strict accordance with the layout and specification type, or similar approved materials as detailed on Site Layout Plan 508147/01.
- 4.10.2 Construct fencing and gates, which will be fixed to structures with fully weather resisting bolts with hit and miss boarding onto galvanised framing, similar to the existing entry point. Provide with non-corroding self-closers and gate handles. Mag lock and locking plate mountings will be required and shall be coordinated with the Employers electronic lock installer.
- 4.10.3 Construct steps, ramps, landings and guarding all in treated timber with GRP panel surfacing and yellow step nosings, as detailed on Site Layout Plan 508147/01 and to meet the building regulation dimensional requirements stated on the drawing. The contractors design shall take account of all site ground levels and the final floor levels needed to compete the steps and ramps to final heights required as necessary.
- 4.10.4 Plan works accordingly, with RAMS and relocate all large boulders contained within the red planning line on the south side to slight depressions in the east margin of the site at equal spacings. Reinststate the old depressions surfacing in tone to match.

4.11 Drainage

- 4.11.1 The drain internal and external routes shown on the plans shall be designed to achieve all requirements under the building regulations to suit the capacity, including increases on the run serving existing units. The drainage design shall have enough capacity and achieve self-clearing, venting and meet AD-H *Diagram 2* to avoid flood and *Diagram 6* for venting. The drainage falls will dictate floor levels which will be required to be designed and submitted with drainage calculations, incorporate existing Phase 1 units that are connected on the branch leading to the pumping chamber.

4.12 Electrical & Heating & water heating

- 4.12.1 Lighting positions are shown indicatively however the contractor will need to provide a lighting design demonstrating appropriate lux levels for the zones. Recessed lighting and cabling zones shall be coordinated with the insulation and shall not have cut outs or thinner cold spots. Fire alarms shall be radio linked within each unit individually.
- 4.12.2 All electrical, solar PV, fire alarm and water quality test certification shall be issued and ready for handover.
- 4.12.3 The water and plumbing installation shall comply with all relevant regulations and it is anticipated the contractor will need to notify the water authority of the works commencement and obtain all approvals accordingly.
- 4.12.4 The individual flats will be equipped with the electrical equipment in Table 1 below.

Table 1 – Electrical equipment within the flats	
Room / space	Requirement
Bedroom	Recessed LED downlighters 3 x double socket outlets 1 x electric heater 1 x room thermostat 1x smoke detector
Living room/Kitchen	Recessed LED downlighters 4 x double socket outlets (Living area) 2 x double socket outlets (Kitchen) 1x Extract Hood 1x Supply for fridge 1x Supply for Oven with socket 1x Supply for Hob 1x Supply for water heater 1x heat detector 1x smoke detector 1 x electric heater 1 x room thermostat
Bathroom	1 x bulkhead LED light fitting 1 x LED mirror light 1 x shaver socket 1 x heated towel rail 1x fire detector – Submit details of fitting to be designed for compatibility with the location 1x supply for electric shower 1x supply for ventilation fan

4.13 Space heating

- 4.13.1 Space heating will be provided by electric panel heaters in each room complete with time clocks and control thermostats. Submit a design to demonstrate capacity and to achieve internal temperatures during winter. The panel heaters shall be designed to provide a safe working surface temperature.
- 4.13.2 Water heating will be by way of an unvented hot water under sink electric heater, located in the kitchen base unit, minimum 15 litres capacity feeding the sink and bathroom WHB. Contractor's proposals shall be required to demonstrate water regulatory compliance with hot water storage requirements and measures to prevent scalding.

4.14 Ventilation

- 4.14.1 High efficiency low power extract fans shall be required to be installed in each bathroom. Control by PIR or light switch.
- 4.14.2 A high efficiency cooker hood will be required in the kitchen area. This shall discharge to outside rather than a recirculation type.
- 4.14.3 Suitable trickle vents will be required to be installed in the windows of all rooms.

5.0 Testing and on completion of construction

5.1 Prior to occupancy and handover all waste and water pipes are to be pressure tested for leaks, and the electrical installation for continuity polarity, earth leakage, and safe and correct operation of any electrical components in each unit. A certificate of test, recording the UPRN of the module, the date the tests were undertaken, by whom, and the results will be provided to The Client, Dorset council and Licensing.

6.0 Building Manual (O&M)

6.1 The Manufacturer will provide a digital and hard copy record to include:

- The UPRN of each module and its date of manufacture.
- A description of the materials installed, with product data/information sheets.
- A description of, and serial numbers of, appliances installed, along with installation, servicing and operation instructions.
- Any applicable product or component warranties.
- A full set of plans and construction drawings.
- Design calculations and loading points.
- Component and module u-values and calculations.
- The prototype's thermal, acoustic, and air-tightness test results.
- Test and quality inspection records.
- A model maintenance schedule for a typical block.

6.2 In addition, the Principal Contractor shall provide a detailed, and where appropriated an illustrated manual describing the steps and processes necessary to assemble and dismantle the units. This manual shall be in digital form and hard copy. At the discretion of the Principal Contractor a video can be included to assist in explaining matters.

7.0 Product warranty

7.1 The Manufacturer will warrant that the manufactured items and components will be free from defects for 12 months from the date of first occupation of units, provided that the warranty does not include defects caused by misuse of the flat by the occupants.

7.2 Dorset Council and the Principal Contractor shall agree a process for the speedy rectification of any defects that do arise that are the responsibility of the manufacturer within the 12-month period.



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