

# Maximising modular design within healthcare



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# The Wernick Group

- ▶ Established in 1934, the UK's oldest modular builder
- ▶ Family run company with 750 employees
- ▶ £150m+ annual turnover
- ▶ Nationwide coverage with 32 Depots throughout the UK
- ▶ Factories in South Wales and York producing over 1500sqm of modular buildings per week



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# Overall benefits of modular in healthcare

- ▶ A simple design process using proven designs & systems
- ▶ A simple procurement process using national frameworks
- ▶ Shorter programmes and reduced disruption on site through off site working
- ▶ Minimised construction waste through efficient factory processes
- ▶ Sustainable, easily reconfigurable, relocatable and easily recyclable
- ▶ Greater value for money through process, design and overall programme efficiencies



# Delivering Modular benefits

- ▶ **Early Engagement**
- ▶ **Procurement processes**
- ▶ **Standardised Design**
- ▶ Manufacturing efficiencies
- ▶ Factory & Site programme
- ▶ Overall benefits of Modular

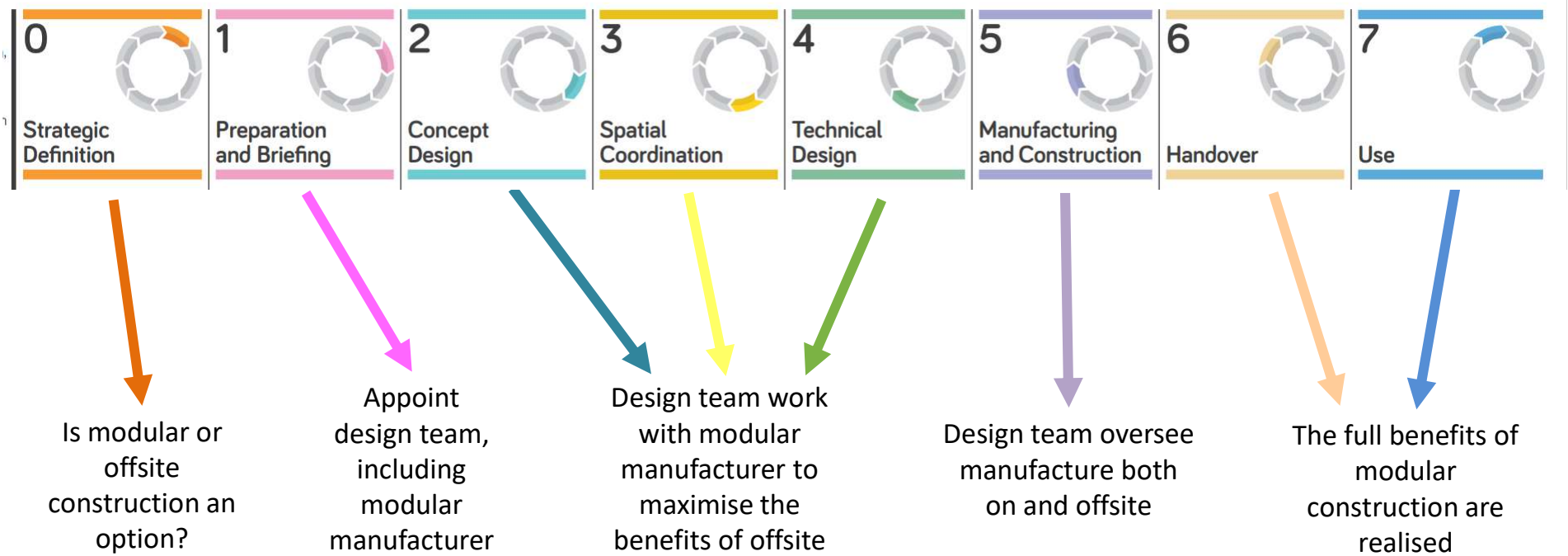


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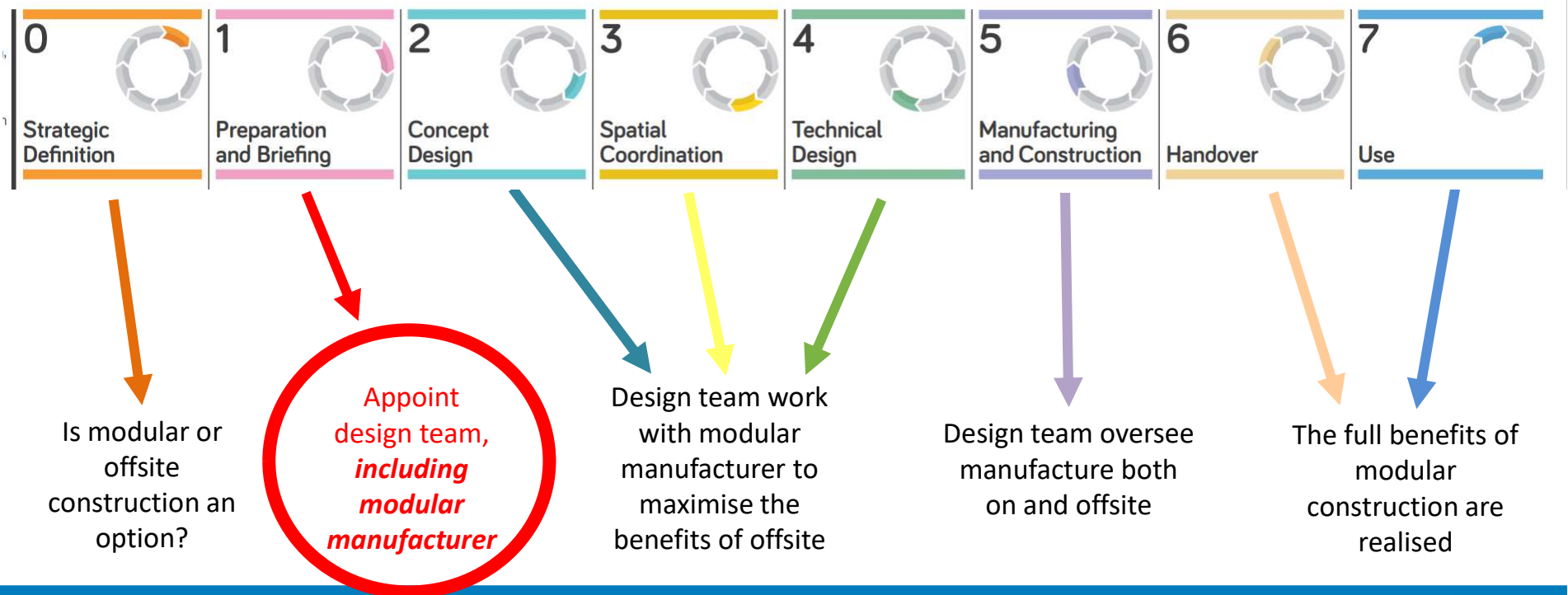
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# Early engagement - the key to modular success



# Early engagement - the key to modular success



# Procurement process

- ▶ Multiple national frameworks are available

The logo for LHC, consisting of the letters 'LHC' in a bold, red, sans-serif font.The logo for NHS, consisting of the letters 'NHS' in a bold, blue, sans-serif font with a white outline.

*Shared Business Services*

The logo for FUSION 21, consisting of the word 'FUSION' in a bold, green, sans-serif font with a white outline, and the number '21' in a smaller, white, sans-serif font inside a green circle.The logo for SPA (Scottish Procurement Alliance), consisting of the letters 'SPA' in a bold, blue and yellow, sans-serif font, with the text 'SCOTTISH PROCUREMENT ALLIANCE' in a smaller, black, sans-serif font to the right.The logo for Crown Commercial Service, featuring the Royal Coat of Arms crest above the text 'Crown Commercial Service' in a black, sans-serif font.The logo for WPA (Welsh Procurement Alliance), consisting of the letters 'WPA' in a bold, green and grey, sans-serif font, with the text 'CYNGHRAIR CAFFAEL CYMREIG' and 'WELSH PROCUREMENT ALLIANCE' in a smaller, black, sans-serif font to the right.

# Standardised designs

- ▶ Modular manufacturing processes, not bespoke build



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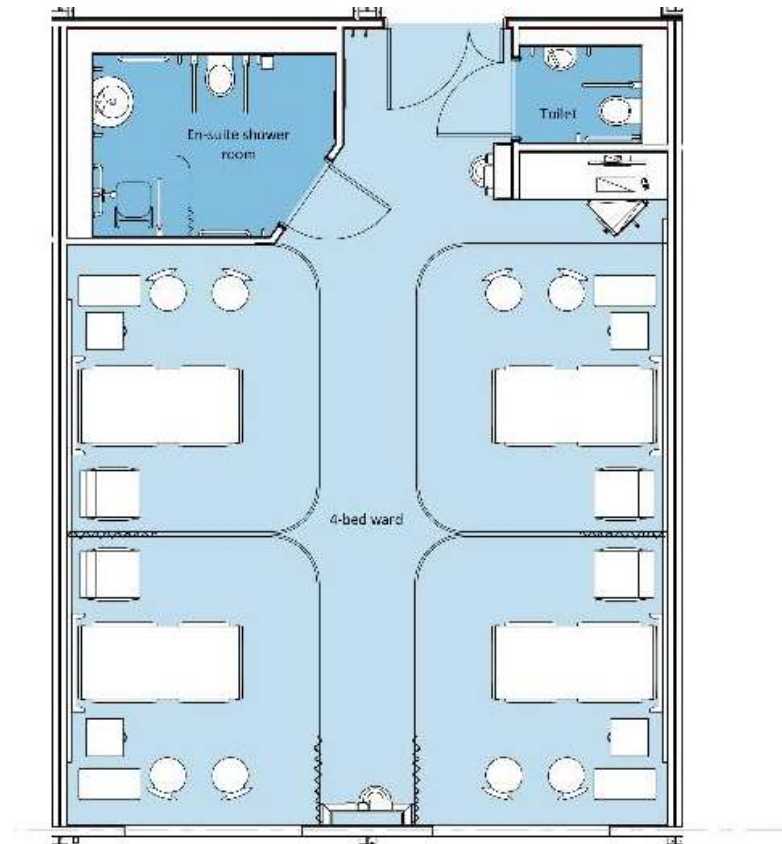
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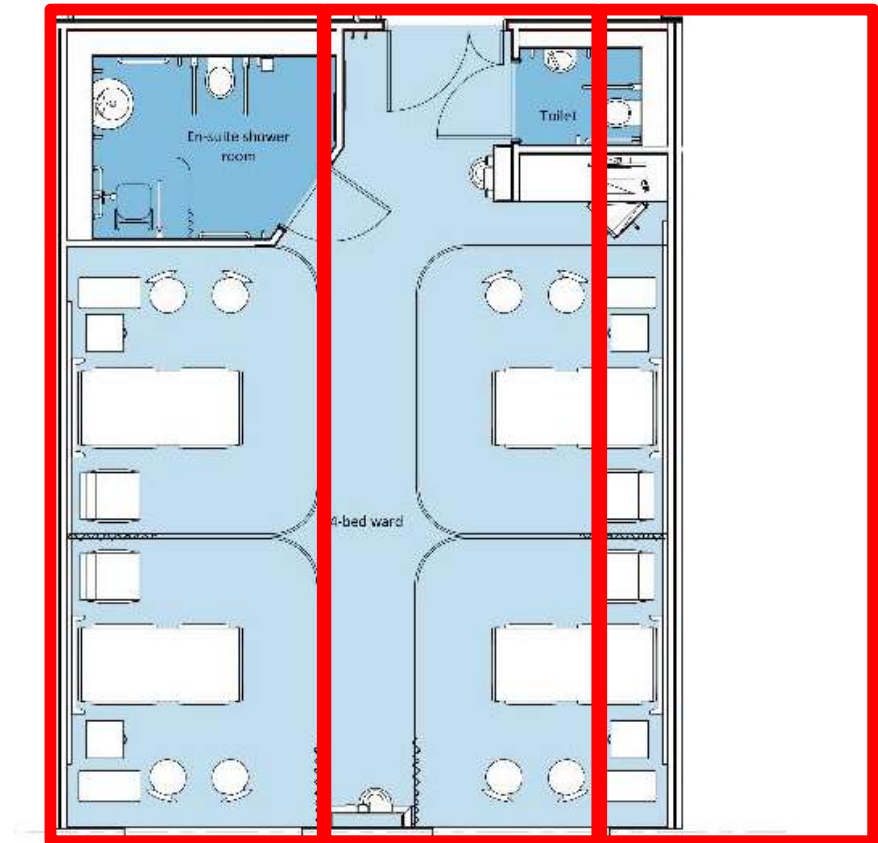
# Standardised designs

- ▶ Four bed room typical width is circa 7.6m



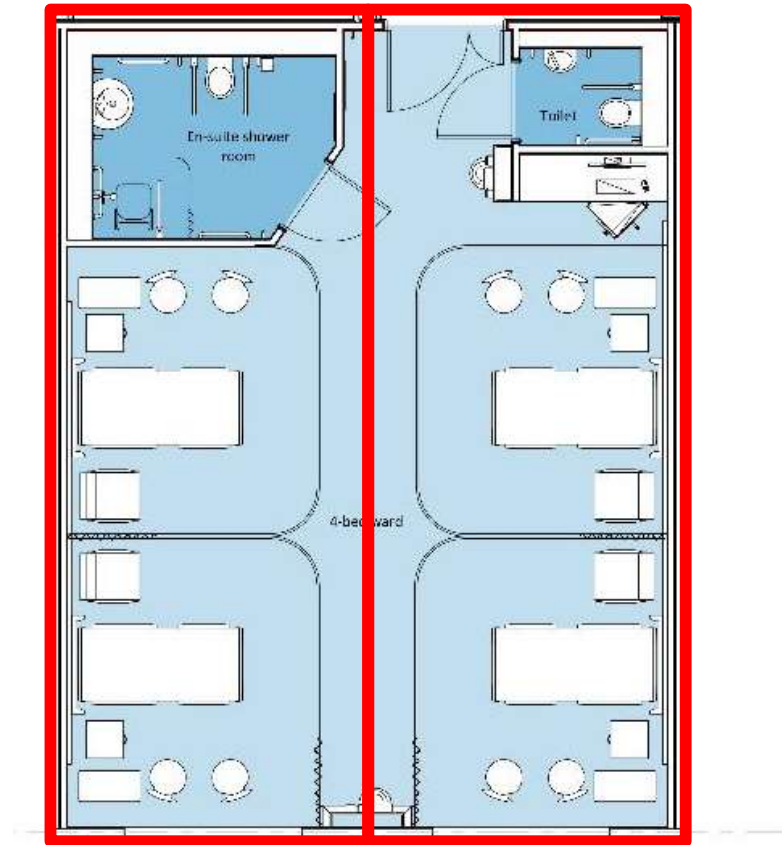
# Standardised designs

- ▶ Four bed room
- ▶ Standard modules are typically 3.0m wide



# Standardised designs

- ▶ Four bed room
- ▶ New standard 3.8m modules have be created



# Queen Alexandra Hospital

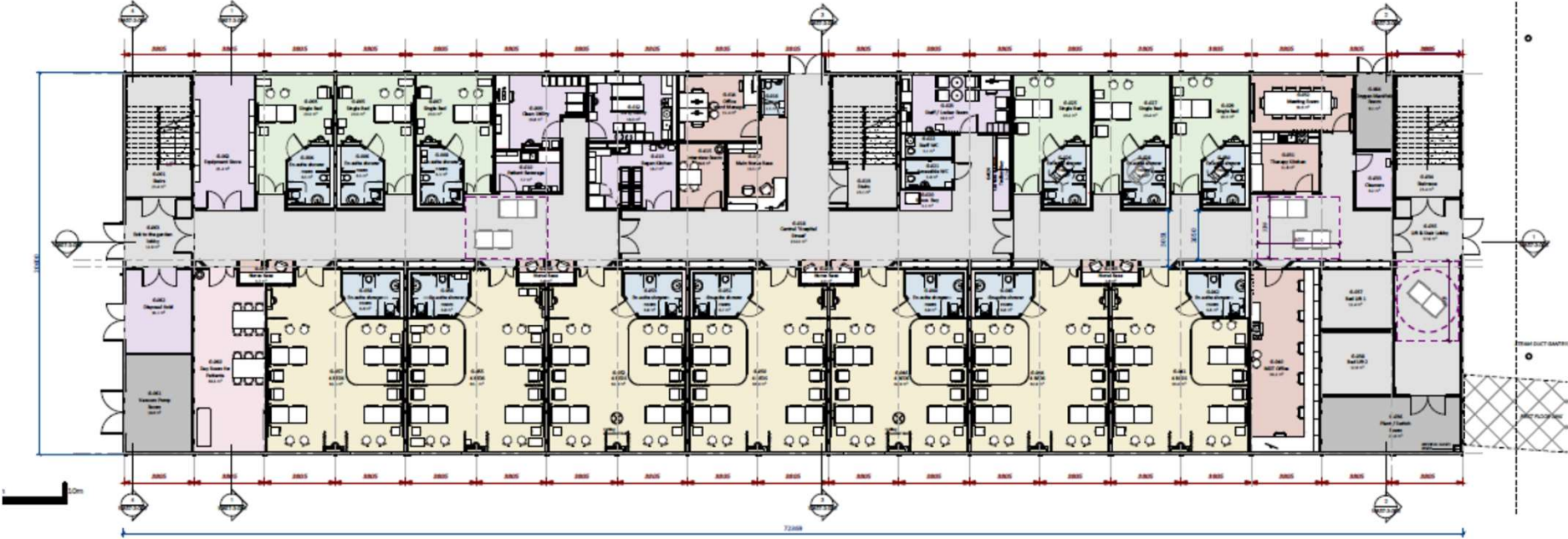


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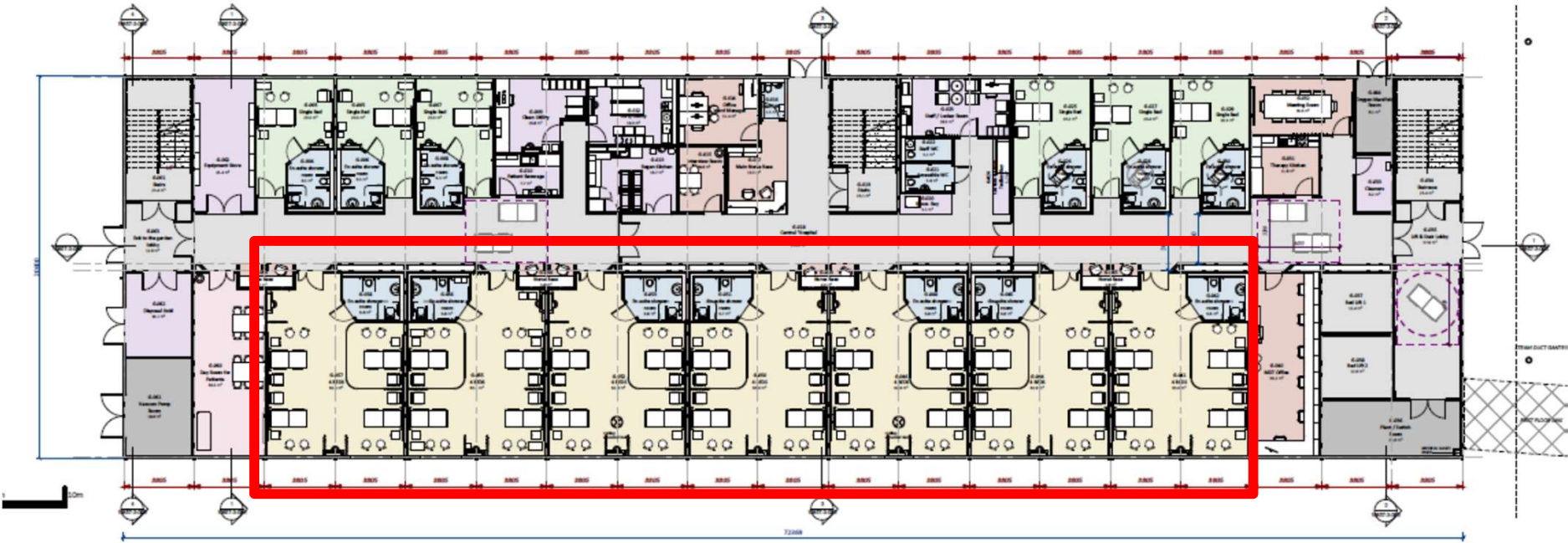
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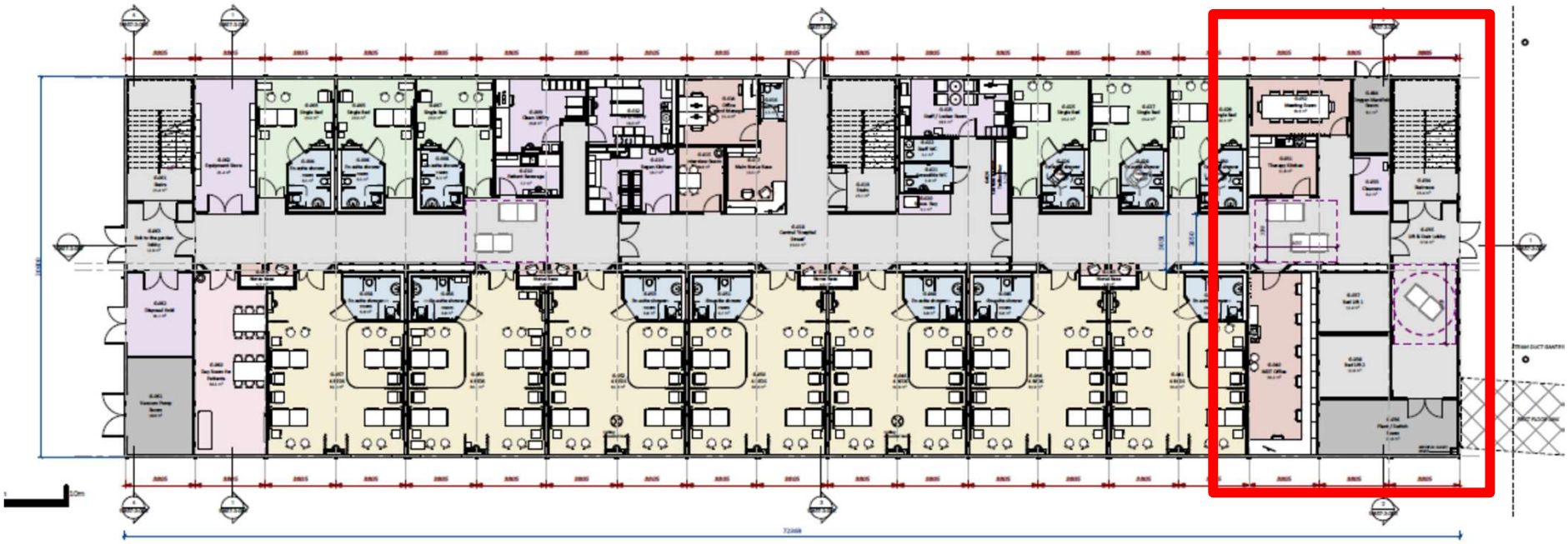
# Standardised designs & manufacturing efficiencies



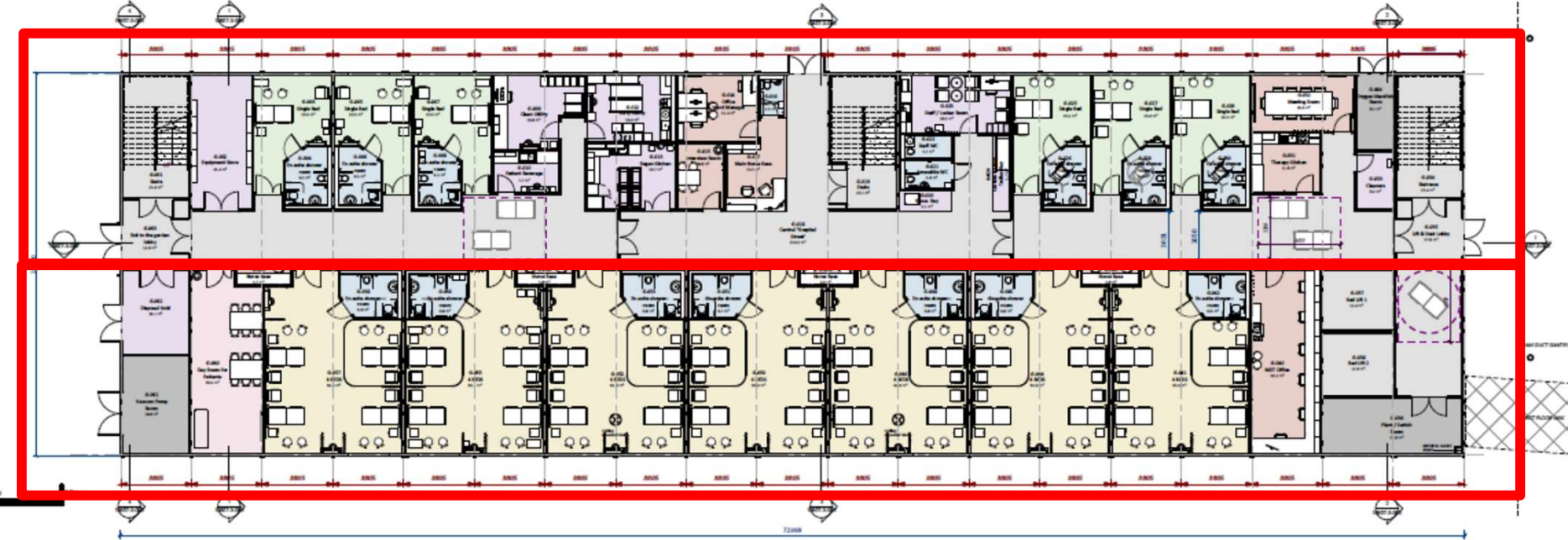
# Standardised designs & manufacturing efficiencies



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# Standardised designs & manufacturing efficiencies



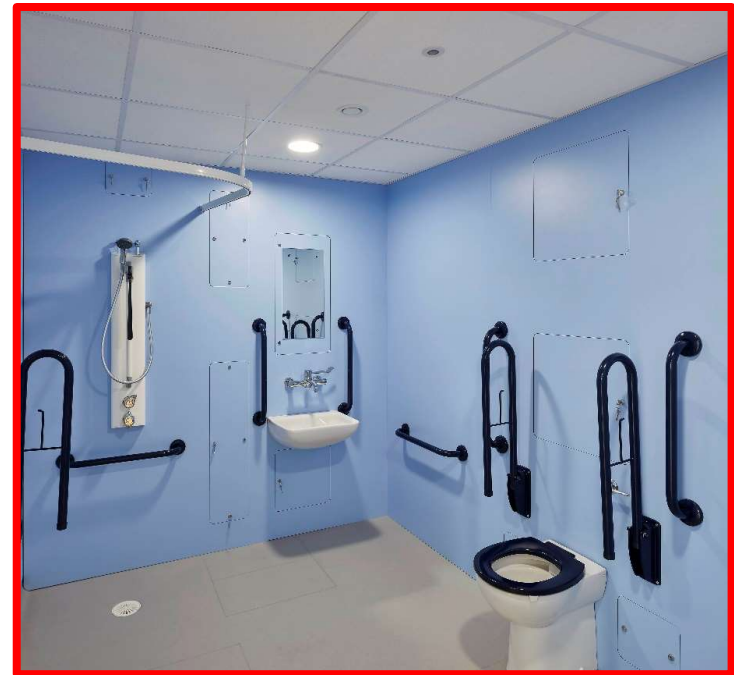
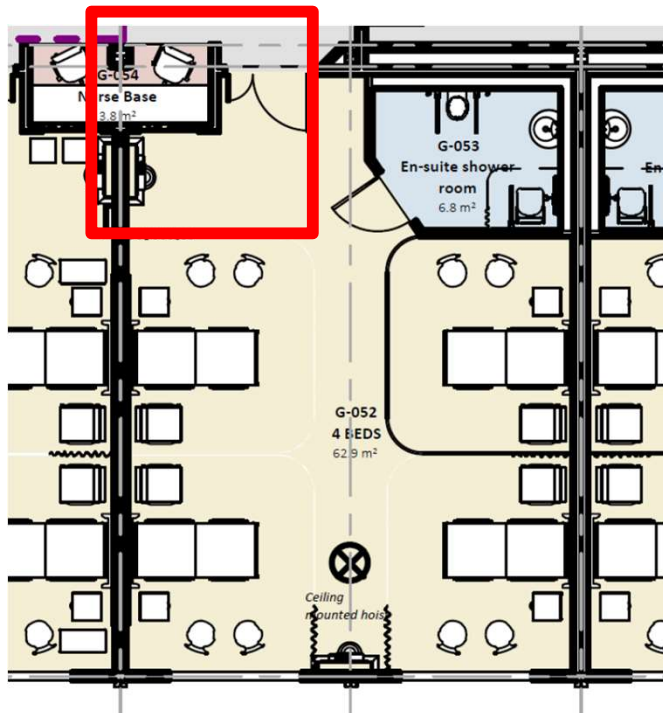
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# Major versus minor changes



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# George Elliot Operating Theatre

- ▶ 800m2 twin laminar flow operating theatre with recovery space
- ▶ 20 week programme from design order to completion
- ▶ Full height 3m canopy with 1.5m service space delivered via use of floorless modules



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# Sustainable and reconfigurable

- ▶ Structurally open plan modules up to 12m allow for future reconfiguration and relocation



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# Minimise construction waste

**Breem Excellent target 19kg/m<sup>2</sup>**

Wickford Office: 1,000sqm two storey office

Module manufacture: 262 kg = 0.262 kg/m<sup>2</sup>

Factory module fit out: 4,071 kg = 4.071 kg/m<sup>2</sup>

Site fit out: 11,080 kg = 11.08 kg/m<sup>2</sup>

**Total waste generated = 15.151 kg/m<sup>2</sup>**

**Percentage of waste recycled  
and diverted from landfill = 98%**



# Programme and site operations

- ▶ Lighter weight buildings allow for simpler foundations



# Programme and site operations

- ▶ Efficient module & layout design allow more factory fit out to be achieved
- ▶ Larger modules require fewer deliveries



# Programme and site operations

- ▶ Offsite manufacture and fit out mean less disruption to the busy hospital site



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# Thank you

▶ Any questions?

