

**MODULAR FEASIBILITY STUDIES**

**TEMPORARY FACILITIES FOR VARIOUS  
SITES ACROSS LONDON**

**DRAFT**

FEASIBILITY STUDY REPORT  
ON BEHALF OF NHS PROPERTY SERVICES

ISSUED: 11TH MAY 2020

**stitch**

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# MODULAR FEASIBILITY STUDIES INTRODUCTION

Feasibility studies for Temporary Modular Facilities to increase real estate capacity in the form of modular facilities in response to Covid-19.

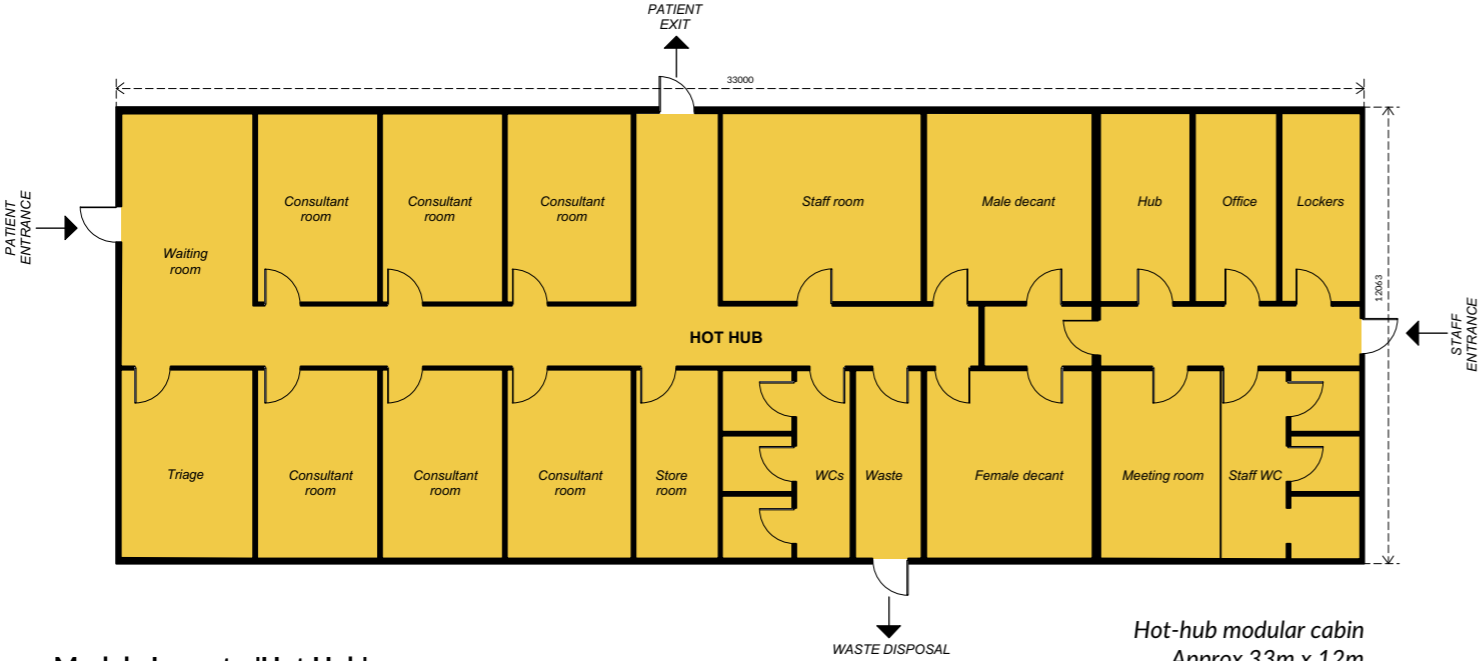
The initiative is seeking to provide site specific high-level feasibility analysis which can be shared with relevant NHS organisations to identify, procure and deliver modular healthcare facilities that match the evolving treatment requirements to combat the virus.

**Stitch are undertaking feasibility studies for:**

- Site 01 Downham Health and Leisure
- Site 02 *Phoenix Children's Resource Centre (excluded)*
- Site 03 Gallions Reach Health Centre
- Site 04 Queen Mary's Hospital
- Site 05 Priory Crescent
- Site 06 Parkway Health Centre
- Site 07 Barking Community Hospital



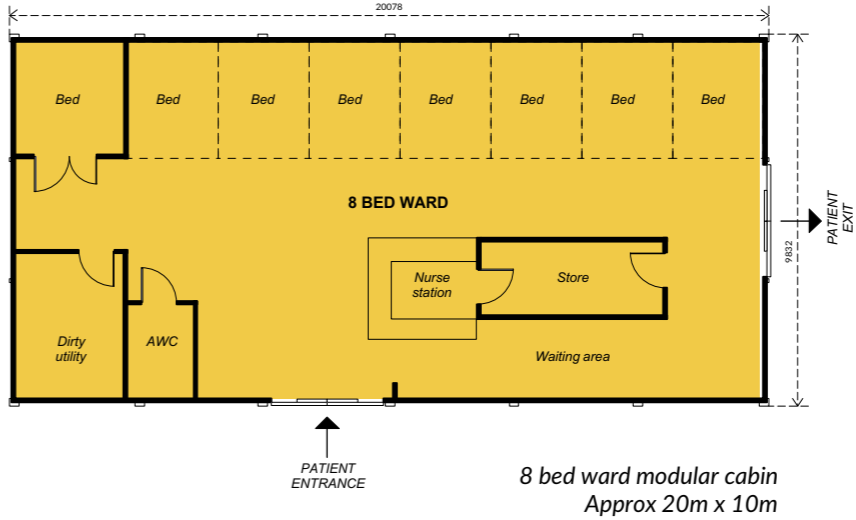
# STANDARD MODULAR LAYOUTS



**Module Layout - 'Hot Hub'**

Received from NHS PS on 17.04.20

**Hot-hub modular cabin**  
Approx 33m x 12m

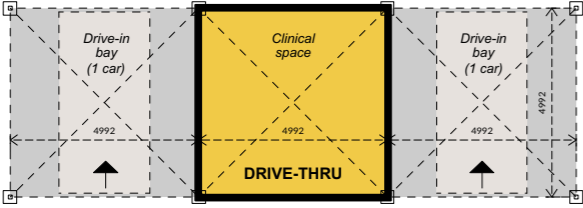


**Module Layout - 8 Bed Ward**

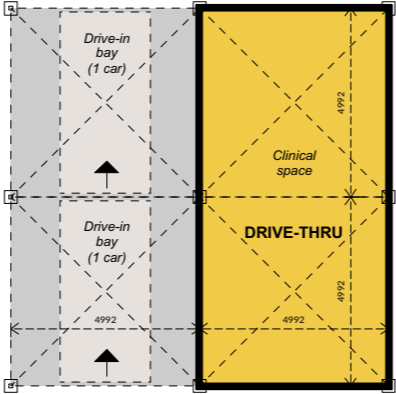
Based on dimensions by Portakabin 6no. UK093 Ultima Modules (28.08.18)  
Received from NHS PS on 17.04.20

**8 bed ward modular cabin**  
Approx 20m x 10m

**NOTE:**  
Do not scale or measure from these drawings. Modules recreated here for purpose of high-level feasibility studies on behalf of NHS Property Services. Always refer to original manufacturer/supplier drawings and specifications.



**Drive-thru 3 x 1 tent layout**  
Approx 15m x 5m



**Drive-thru 2x2 tent layout**  
Approx 10m x 10m

**Module Layout - 'Drive Thru'**

Based on dimensions by SHOWPLACE 5m modular tent (08.12.14)  
Received from NHS PS on 17.04.20



**Module Layout - 20 Bed Ward**

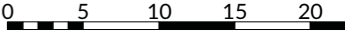
Based on dimensions by Portakabin 7no. UK123 double spanned to 7no. UK093 (12.12.19)  
Received from NHS PS on 17.04.20


**8 bed ward modular cabin**  
Approx 23m x 22m

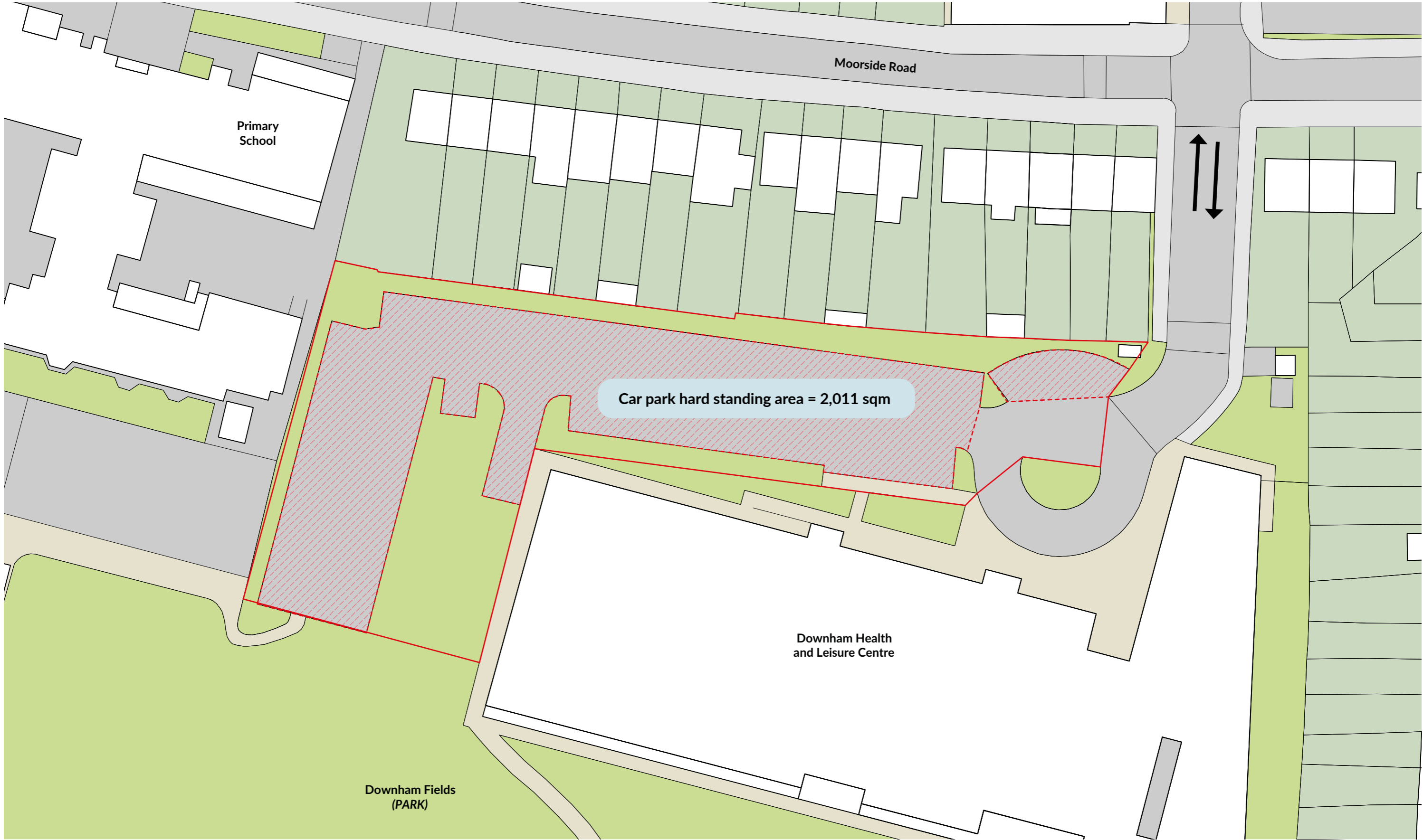


**SITE 01**  
**DOWNHAM HEALTH AND LEISURE**

# EXISTING SITE PLAN



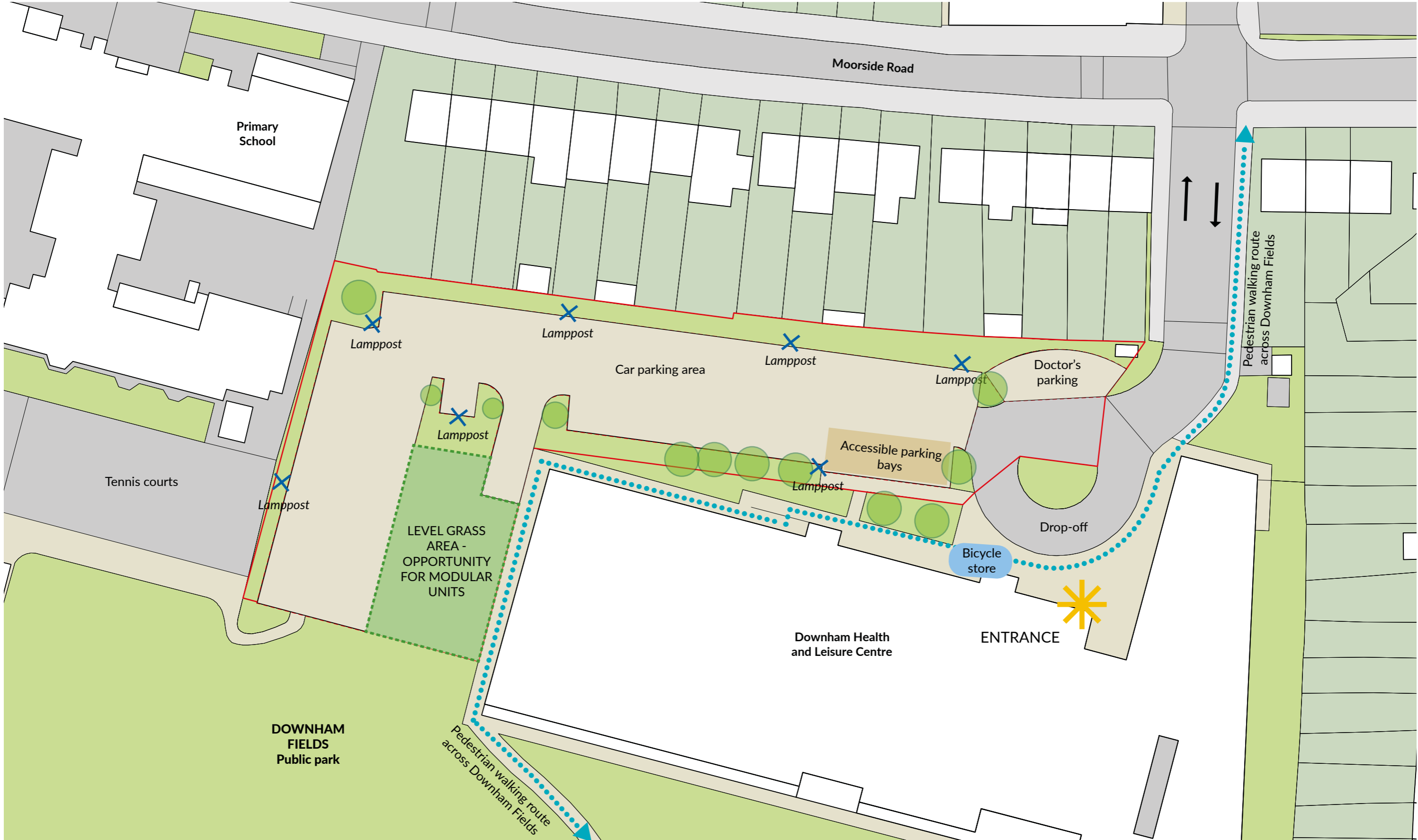
 Hard surface car park extent



# CONSTRAINTS DIAGRAM

The Downham Heath and Leisure Centre has a long narrow L-shape that has one point of access from Moorside Road. There is an opportunity area of level grass land adjacent to the car park, however there are also existing lampposts and trees that may affect suitability of this site for modular units.

The site is adjacent to Downham Fields and is likely a pedestrian right of way to access the open parkland from Moorside Road. Therefore site access may be difficult to manage.



# SITE PHOTOGRAPHY



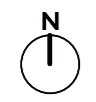
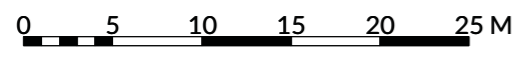
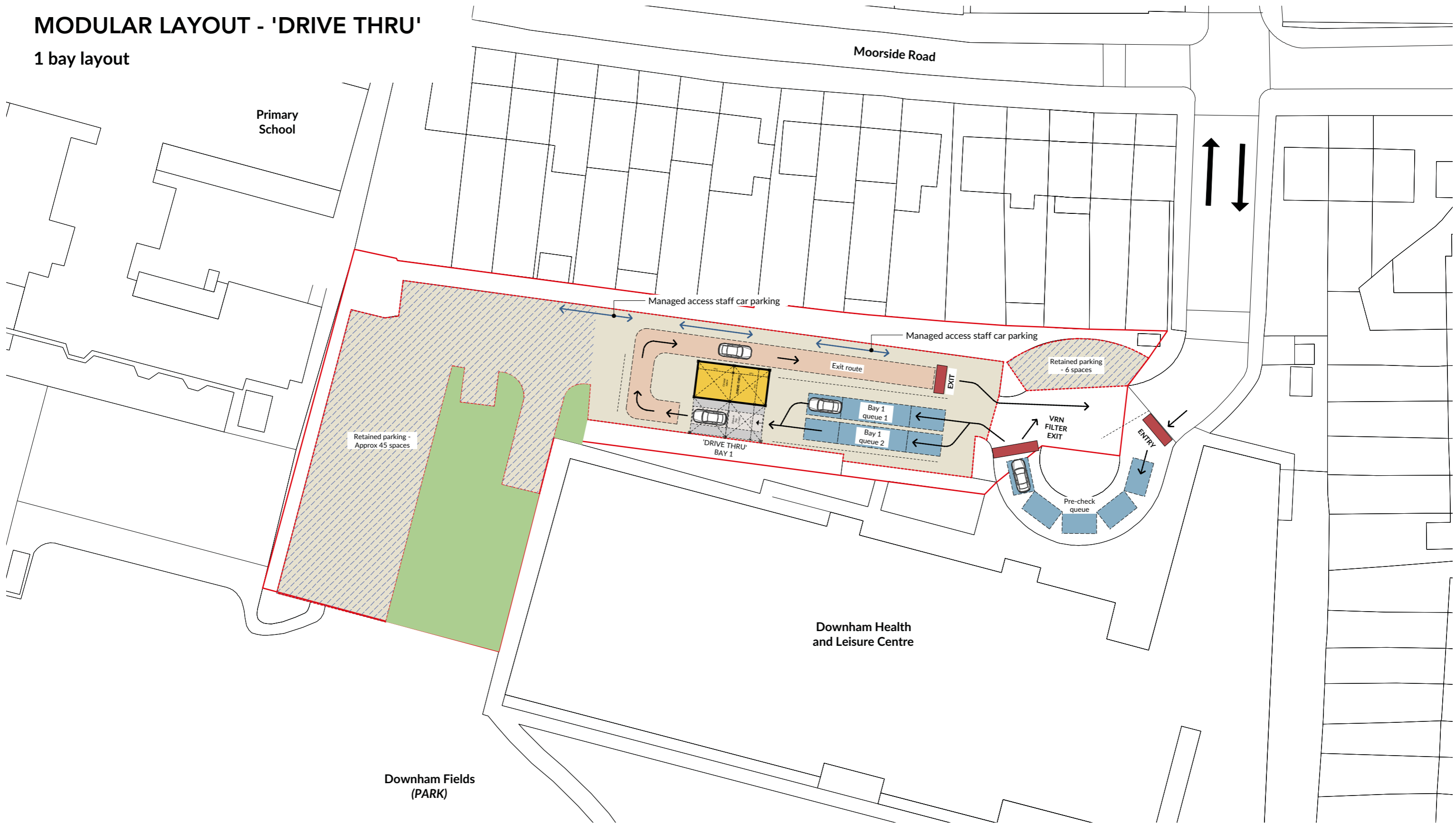
Images obtained from google maps on 19.04.20





# MODULAR LAYOUT - 'DRIVE THRU'

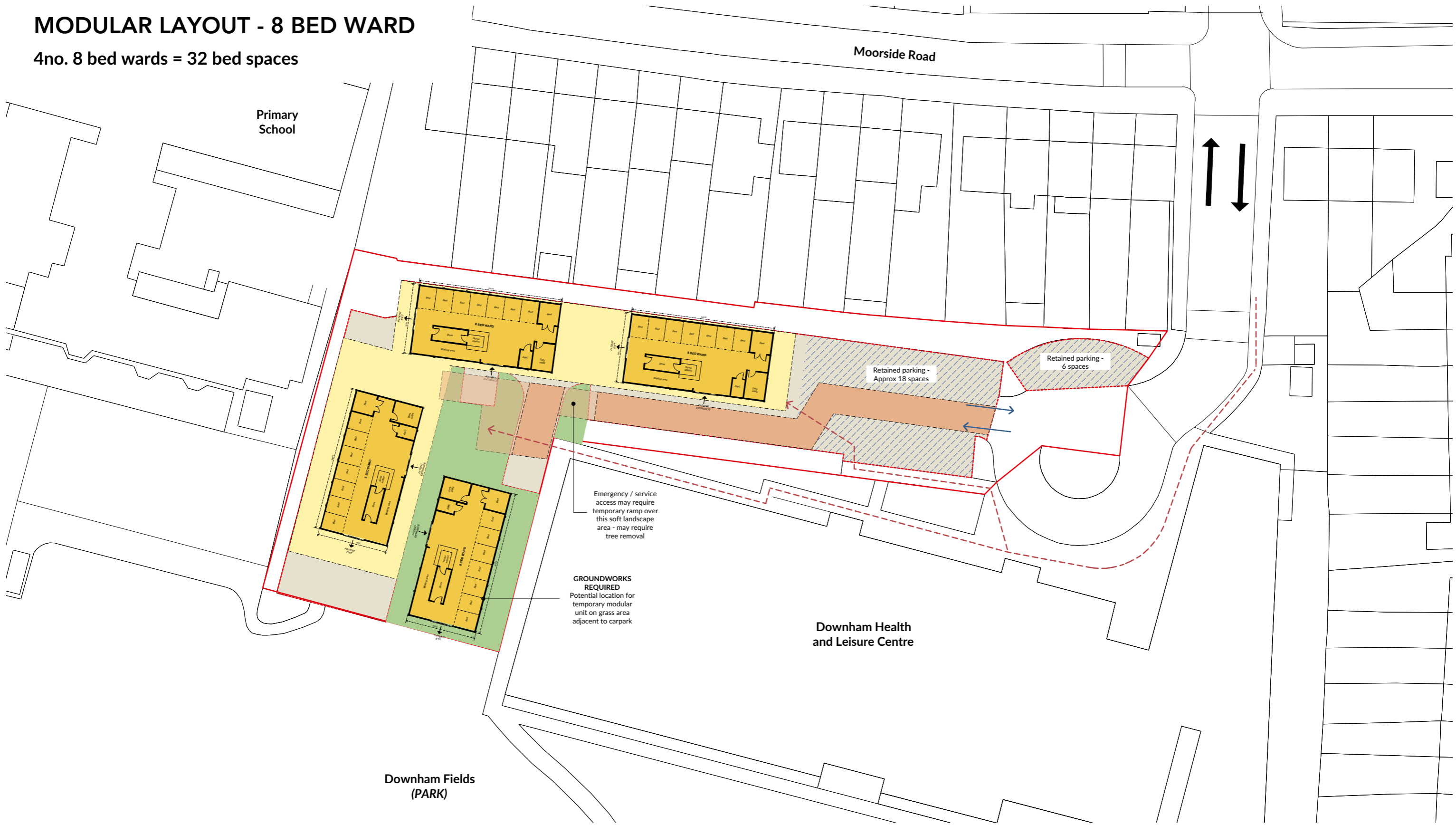
1 bay layout



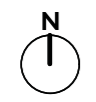
- Temporary modular space
- Hard surface car park extent
- Level grass adjacent to car park
- Vehicle exit route
- Retained car park
- Retained car park access
- Vehicle queuing area
- Testing vehicle route
- Vehicle registration check

# MODULAR LAYOUT - 8 BED WARD

4no. 8 bed wards = 32 bed spaces



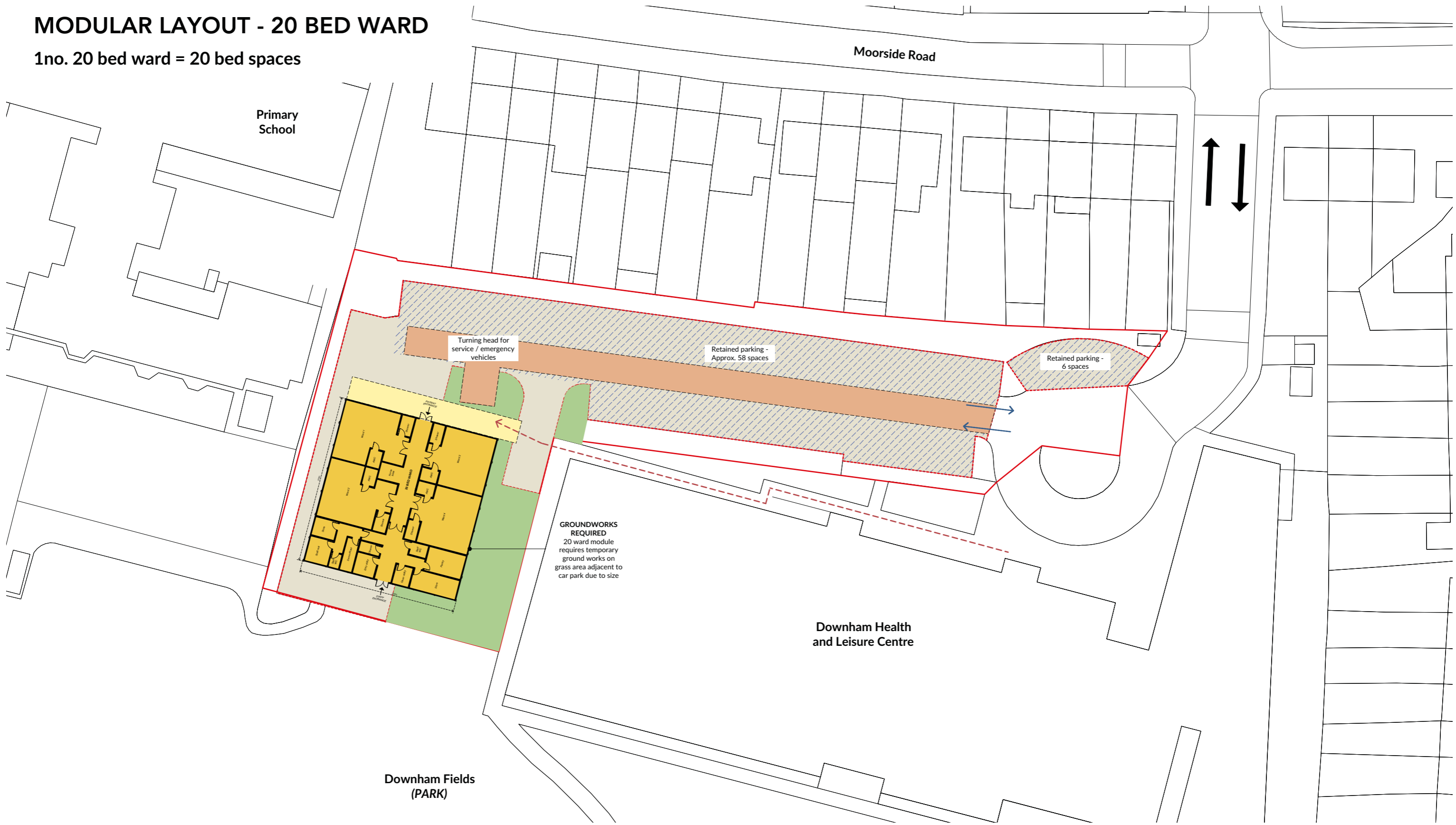
0 5 10 15 20 25 M



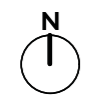
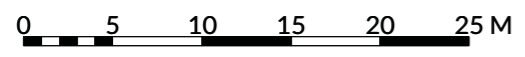
- Temporary modular space
- Hard surface car park extent
- Retained car park
- Pedestrianised zone for staff / patient access
- Pedestrian route
- Service / emergency vehicle safeguarded route
- Retained car park access
- Level grass adjacent to car park

# MODULAR LAYOUT - 20 BED WARD

1no. 20 bed ward = 20 bed spaces



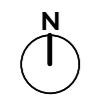
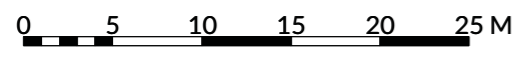
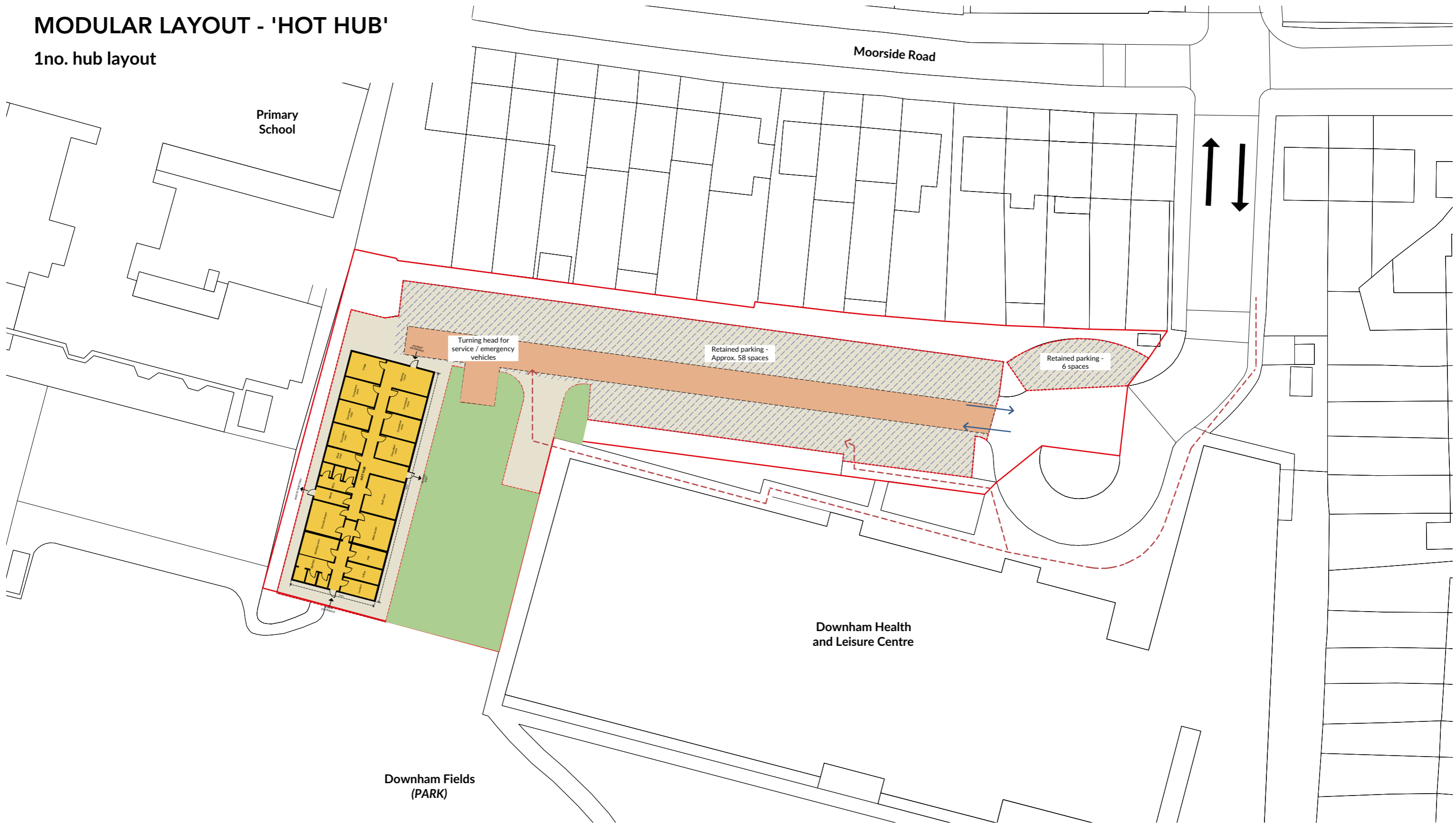
**GROUNDWORKS REQUIRED**  
20 ward module requires temporary ground works on grass area adjacent to car park due to size



- Temporary modular space
- Service / emergency vehicle safeguarded route
- Hard surface car park extent
- Pedestrianised zone for staff / patient access
- Retained car park
- Pedestrian route
- Retained car park access
- Level grass adjacent to car park

# MODULAR LAYOUT - 'HOT HUB'

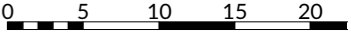
1no. hub layout




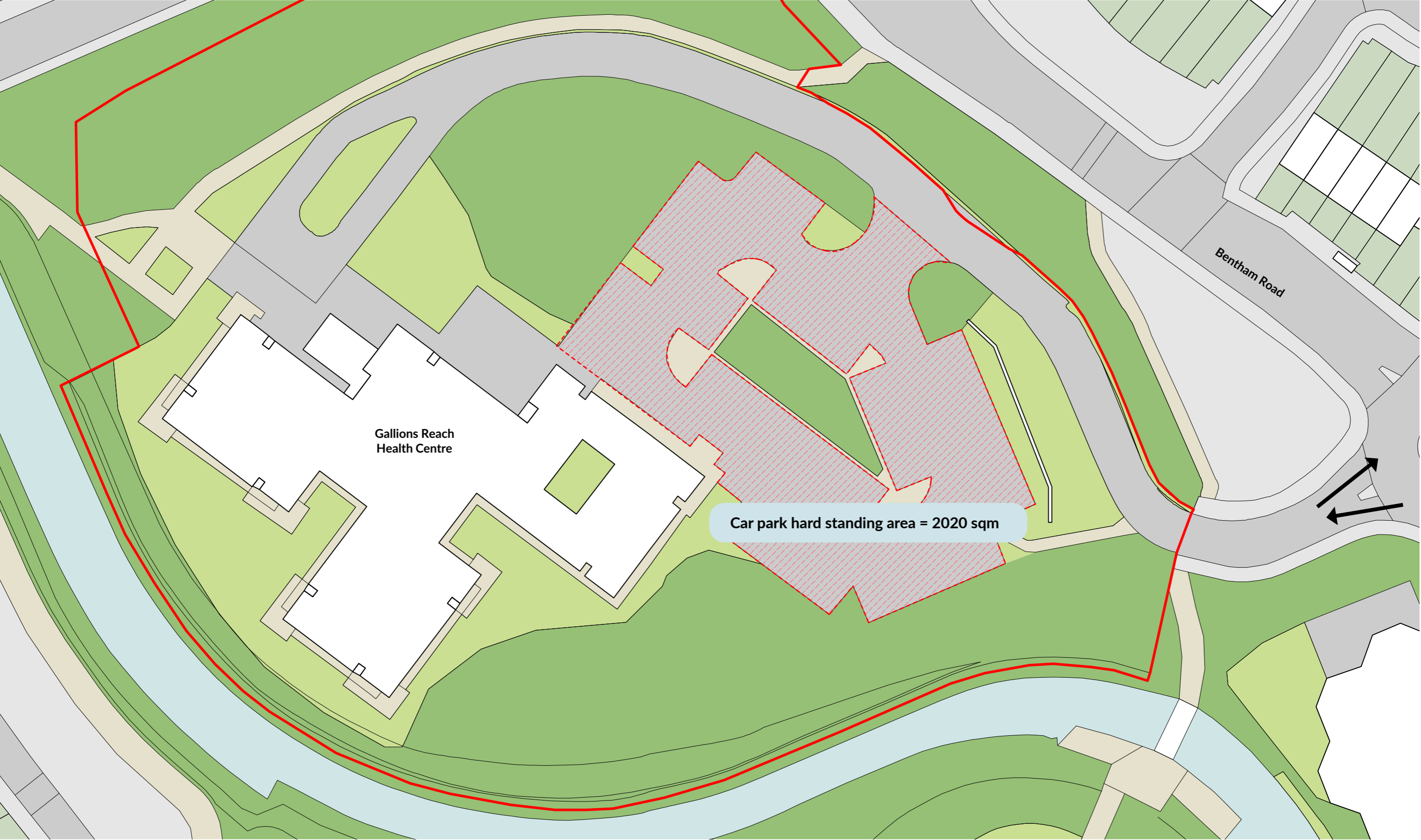
- Temporary modular space
- Service / emergency vehicle safeguarded route
- Hard surface car park extent
- Pedestrianised zone for staff / patient access
- Retained car park
- Pedestrian route
- Retained car park access
- Level grass adjacent to car park

**SITE 03**  
**GALLIONS REACH HEALTH CENTRE**

# EXISTING SITE PLAN



 Hard surface car park extent



Gallions Reach Health Centre

Bentham Road

Car park hard standing area = 2020 sqm

# CONSTRAINTS DIAGRAM

Key factors to note are that although there is a generous extent of car parking, opportunities for temporary development are limited by a large raised planter at the centre, surrounded by four lampposts and a historical wall to the east of the site.



**SITE PHOTOGRAPHY**



Images obtained from google maps on 19.04.20



Lampposts and raised planter to the right, historical wall on the left



Ambulance garages and accessible parking beyond

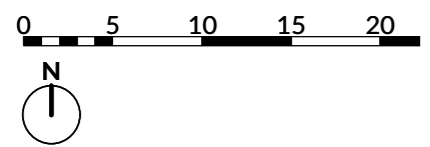
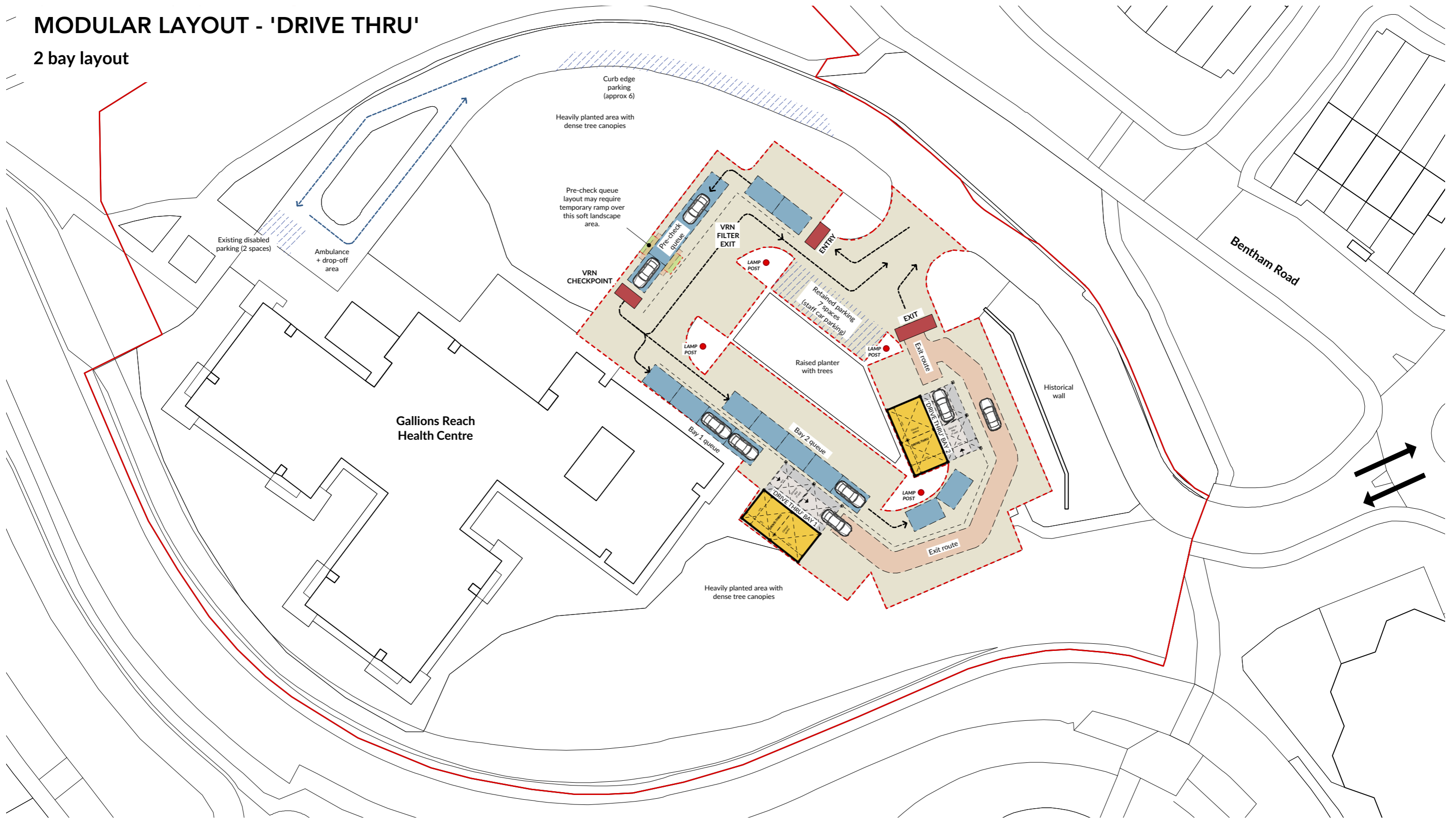


View of parking entrance showing dense surrounding vegetation



# MODULAR LAYOUT - 'DRIVE THRU'

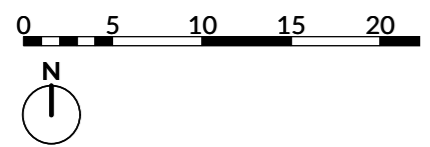
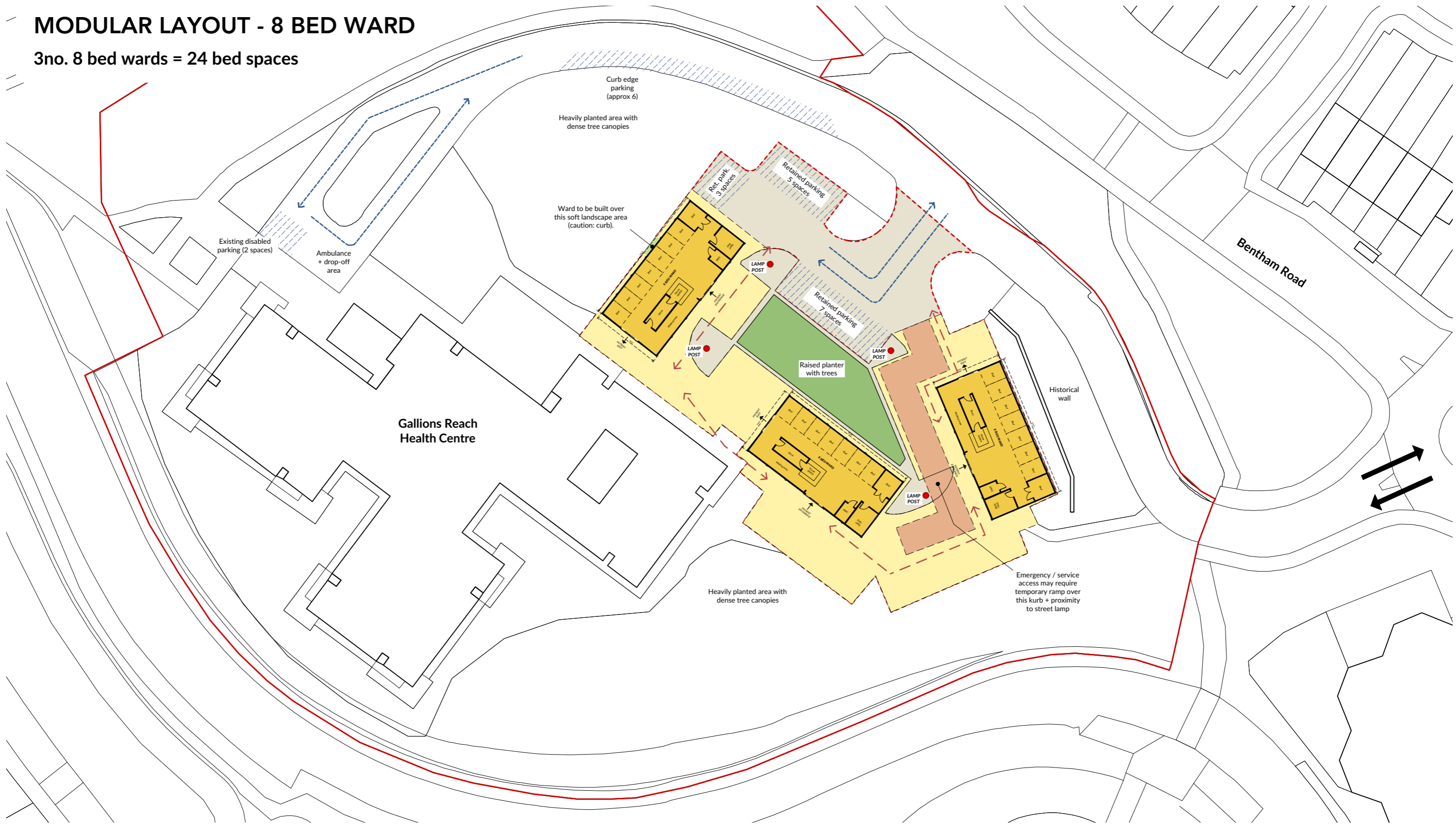
2 bay layout



- Temporary modular space
- Hard surface car park extent
- Landscape grass area with curb
- Vehicle exit route
- Vehicle queuing area
- Retained car park
- Access to retained car park & ambulance/drop-off access
- Vehicle registration check
- Testing vehicle route

# MODULAR LAYOUT - 8 BED WARD

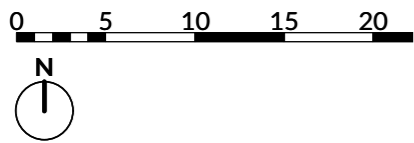
3no. 8 bed wards = 24 bed spaces



- Temporary modular space
- Hard surface car park extent
- Retained car park
- Service / emergency vehicle safeguarded route
- Pedestrianised zone for staff / patient access
- Pedestrian route
- Retained car park access

# MODULAR LAYOUT - 20 BED WARD

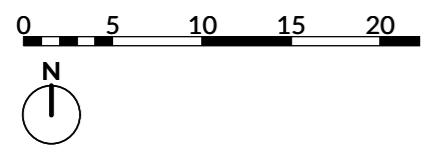
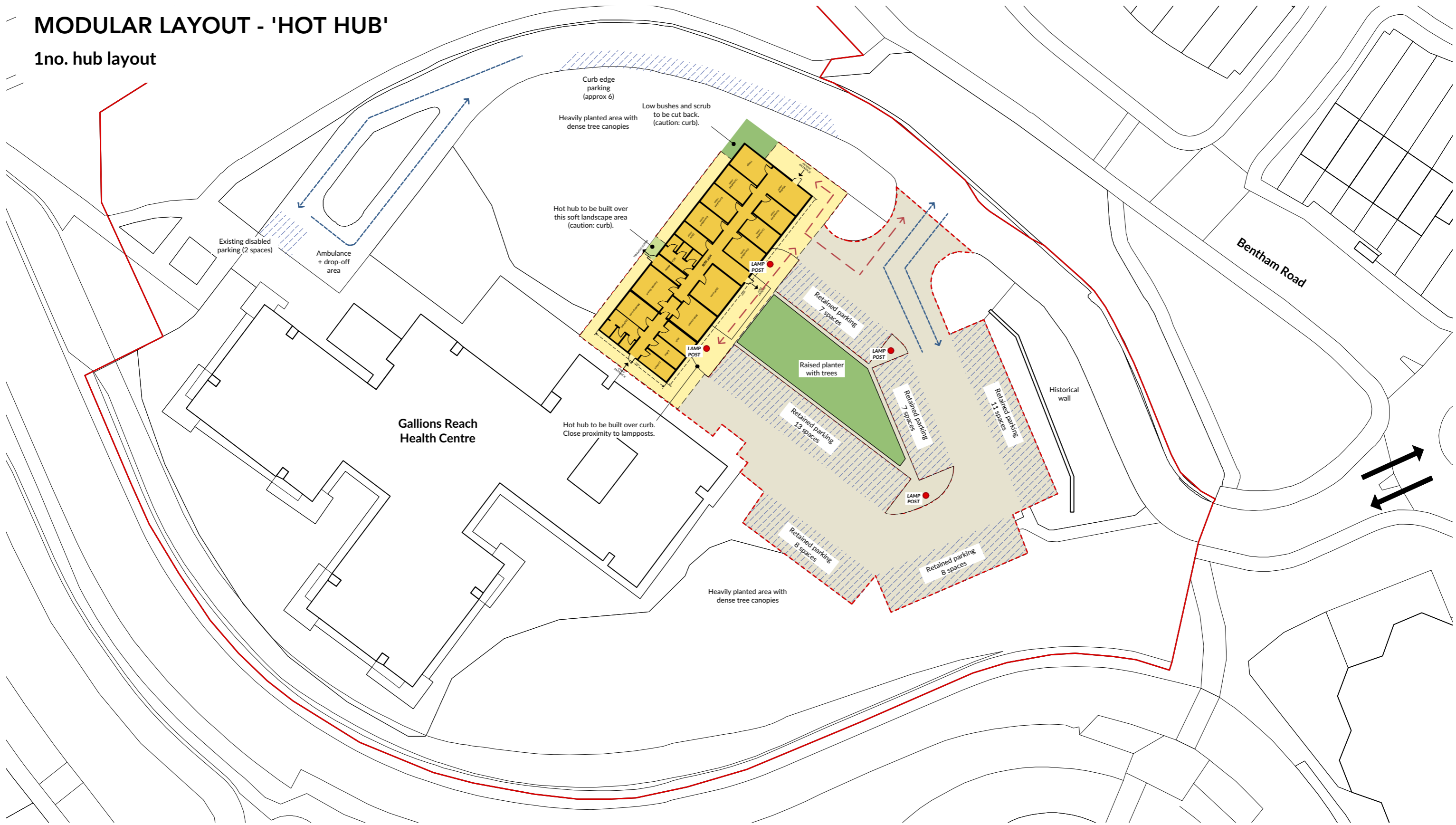
Insufficient clear area due to landscaping, trees and lampposts



- Temporary modular space
- Hard surface car park extent
- Heavily planted areas

# MODULAR LAYOUT - 'HOT HUB'

1no. hub layout



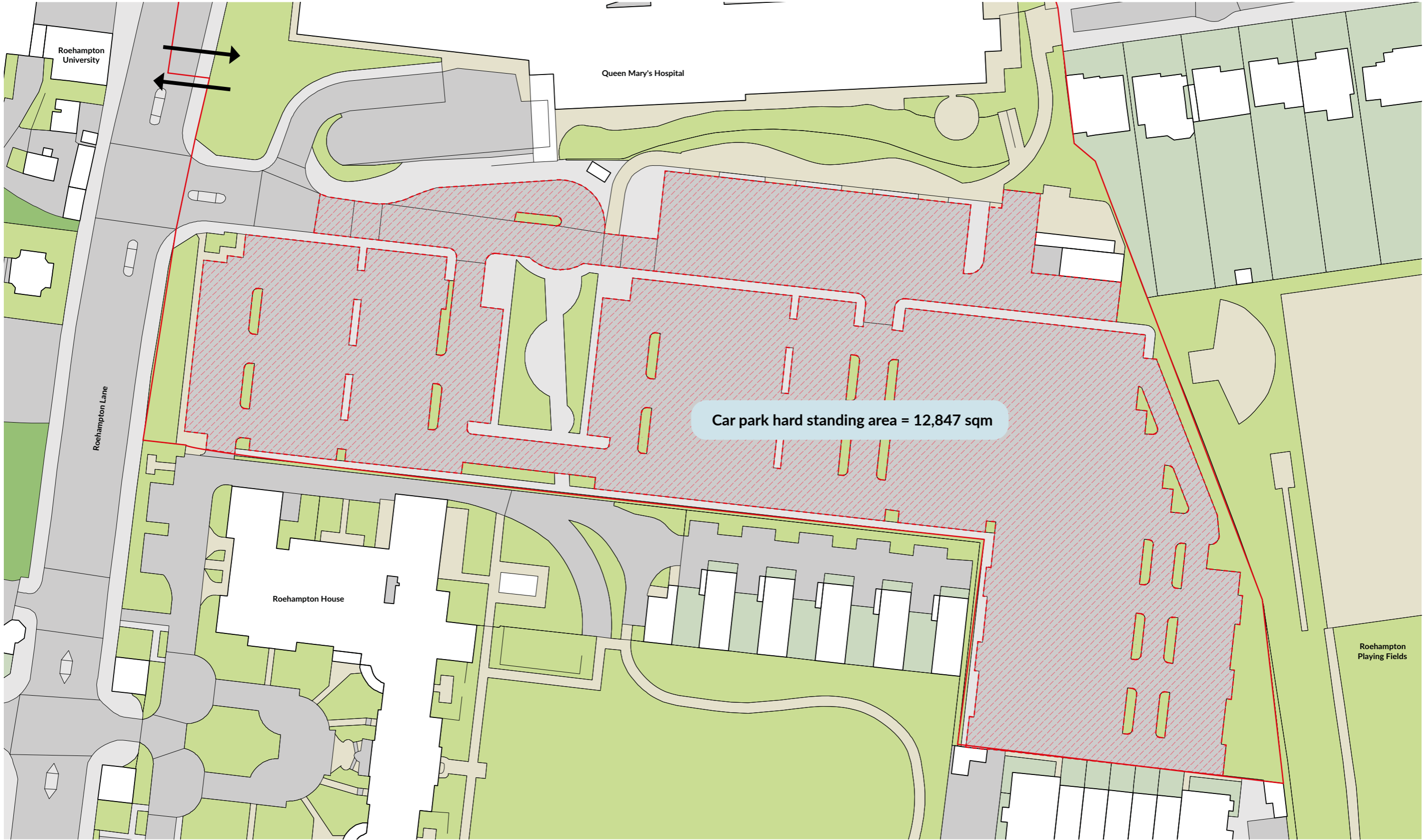
- Temporary modular space
- Hard surface car park extent
- Retained car park
- Retained car park access
- Service / emergency vehicle safeguarded route
- Pedestrianised zone for staff / patient access
- Pedestrian route
- Level grass adjacent to car park

**SITE 04**  
**QUEEN MARY'S HOSPITAL**

# EXISTING SITE PLAN

0 5 10 15 20 25 M

Hard surface car park extent



# CONSTRAINTS DIAGRAM

Key factors to note are that although there is extensive car parking surface area on the QMH site, there are trees and landscaping areas throughout that should be avoided by any temporary measures. According to the NHS PS supplied TPO information, no tree within the car parking area has TPO protection.

Utilities searches provided by NHS PS show no major utilities such as Gas, Thames Water or High Voltage Electrical routes across the car park, however some BT openreach infrastructure is present. Further investigation should be taken.



**SITE PHOTOGRAPHY**



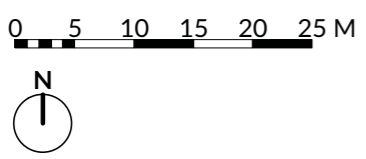
Images obtained from google maps on 19.04.20





# MODULAR LAYOUT - 'DRIVE THRU'

7 bay layout



- Temporary modular space
- Vehicle exit route
- Vehicle queuing area
- Vehicle registration check
- Hard surface car park extent
- Retained car park
- Retained car park access
- Testing vehicle route
- Areas of planting within car park

# MODULAR LAYOUT - 8 BED WARD

14no. 8 bed wards = 112 bed spaces



0 5 10 15 20 25 M



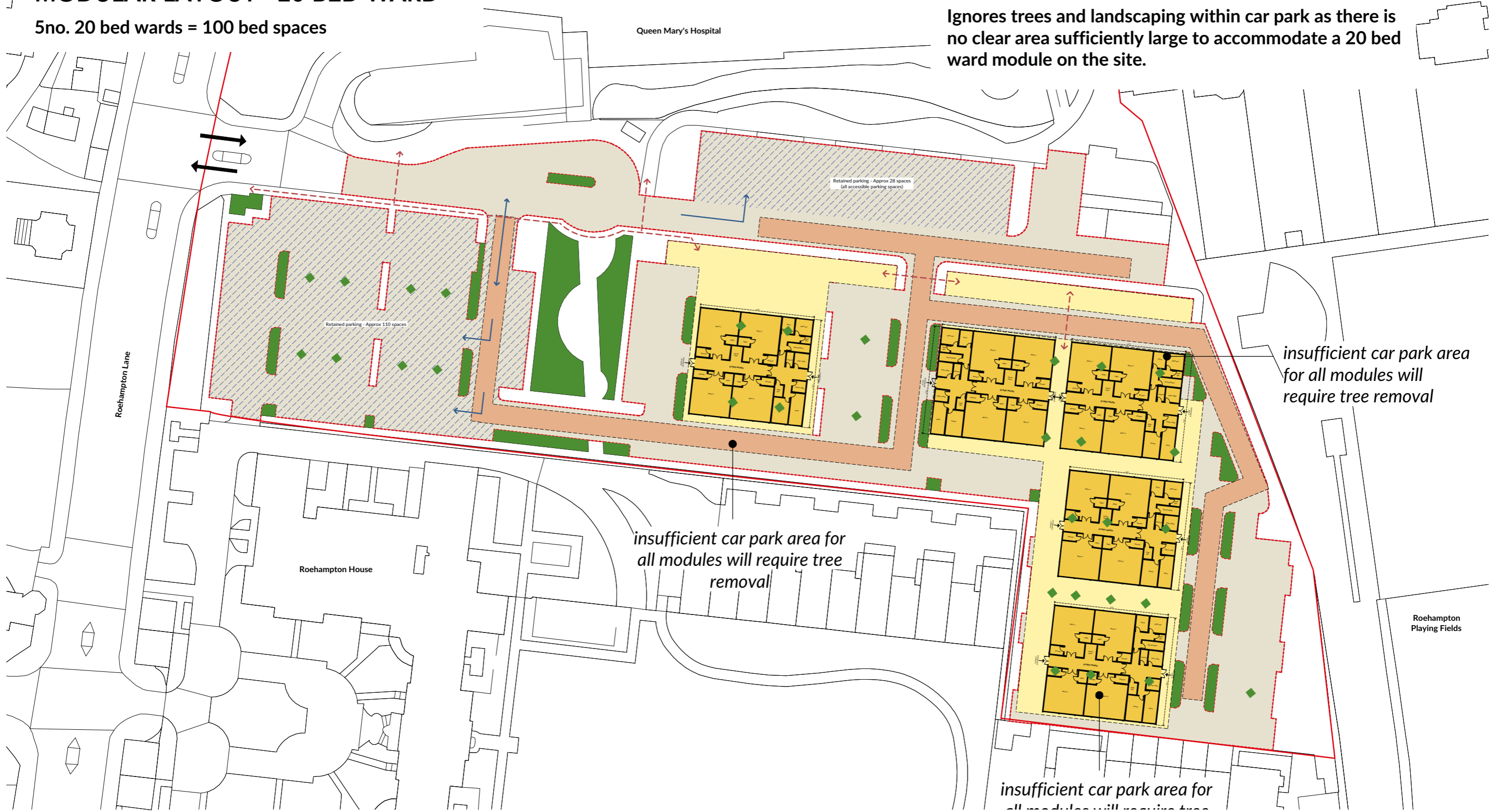
- Temporary modular space
- Hard surface car park extent
- Retained car park
- Retained car park access
- Service / emergency vehicle safeguarded route
- Pedestrianised zone for staff / patient access
- Pedestrian route
- Areas of trees / planting within car park

# MODULAR LAYOUT - 20 BED WARD

5no. 20 bed wards = 100 bed spaces

## NOTE:

Ignores trees and landscaping within car park as there is no clear area sufficiently large to accommodate a 20 bed ward module on the site.



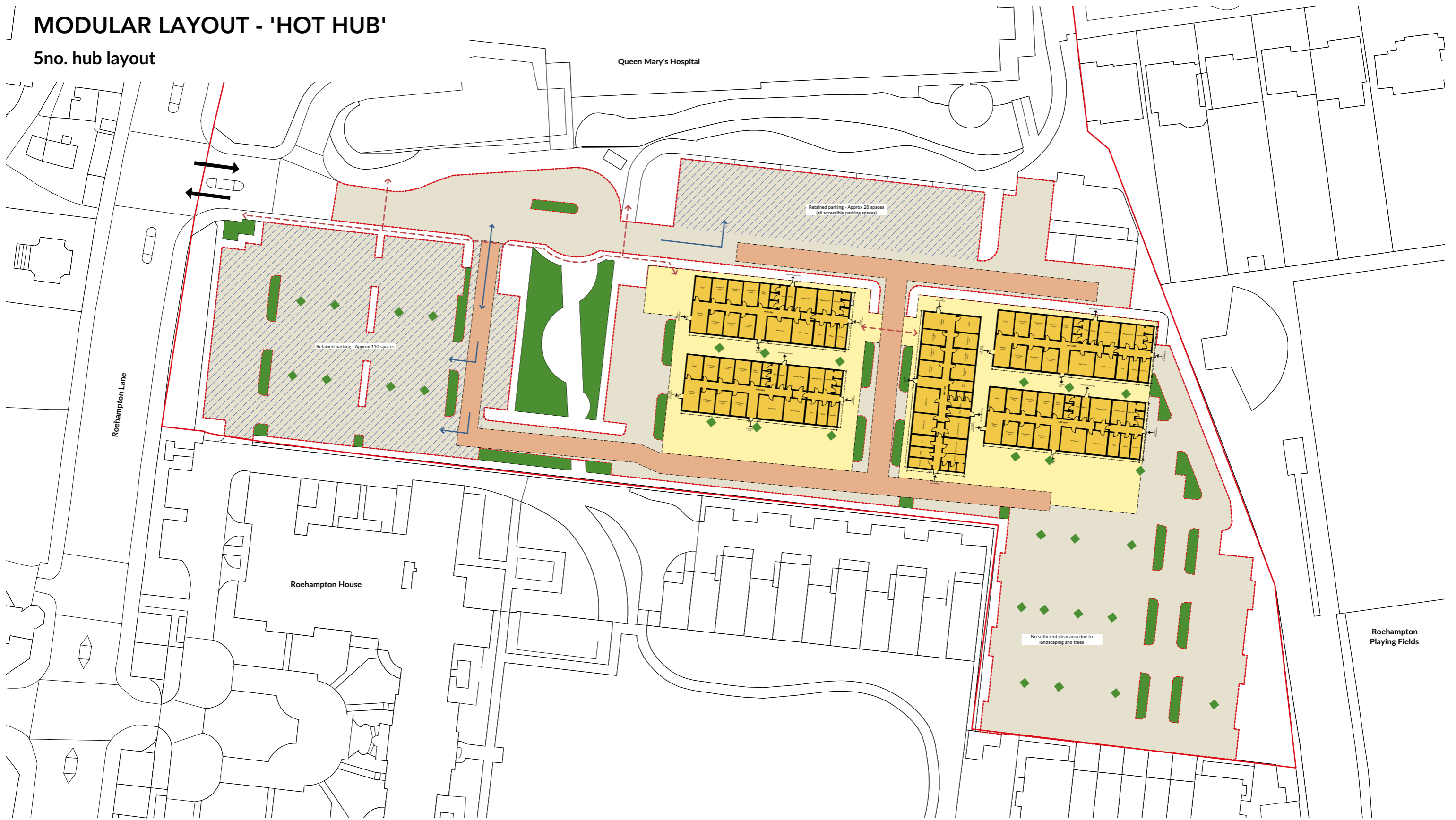
0 5 10 15 20 25 M



- Temporary modular space
- Hard surface car park extent
- Retained car park
- Retained car park access
- Service / emergency vehicle safeguarded route
- Pedestrianised zone for staff / patient access
- Pedestrian route
- Areas of trees / planting within car park

# MODULAR LAYOUT - 'HOT HUB'

5no. hub layout



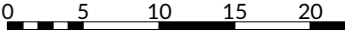
0 5 10 15 20 25 M



- Temporary modular space
- Service / emergency vehicle safeguarded route
- Hard surface car park extent
- Pedestrianised zone for staff / patient access
- Retained car park
- Retained car park access
- Pedestrian route
- Areas of trees / planting within car park

**SITE 05**  
**PRIORY CRESCENT**

# EXISTING SITE PLAN



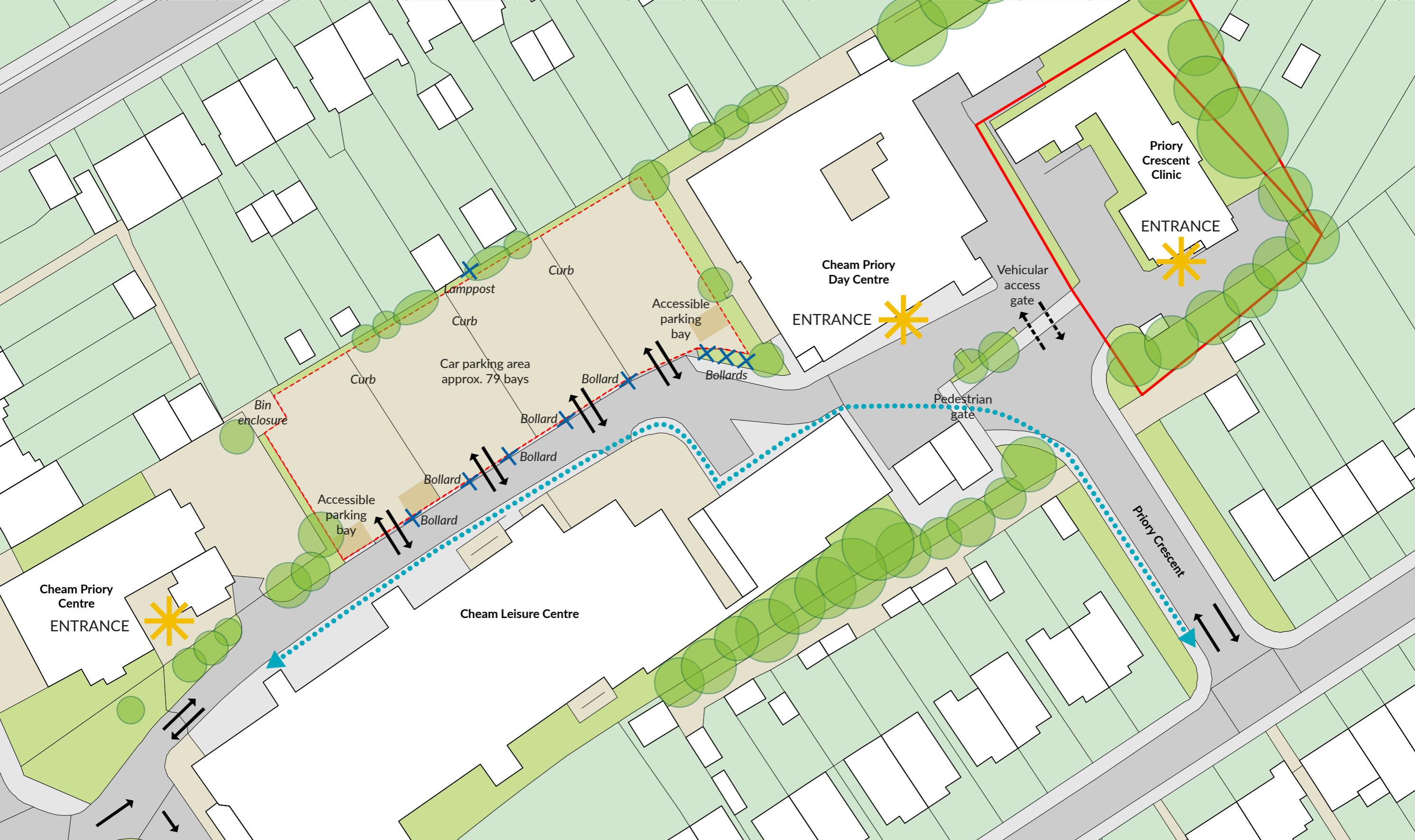
 Hard surface car park extent



# CONSTRAINTS DIAGRAM

The generous extent of car parking is subdivided into four zones defined by curbs and bollards. Each zone has its own access point off the street.

A private vehicular access gate to the west of Priory Crescent Clinic connects Cheam Priory Day Centre to Priory Crescent. This could be used as an alternate entry point to the site. It does not seem to be in regular use and will need to be checked to confirm it is functional.



**SITE PHOTOGRAPHY**



*Images obtained from google maps on 19.04.20*

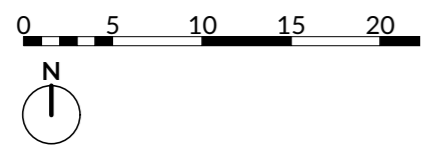
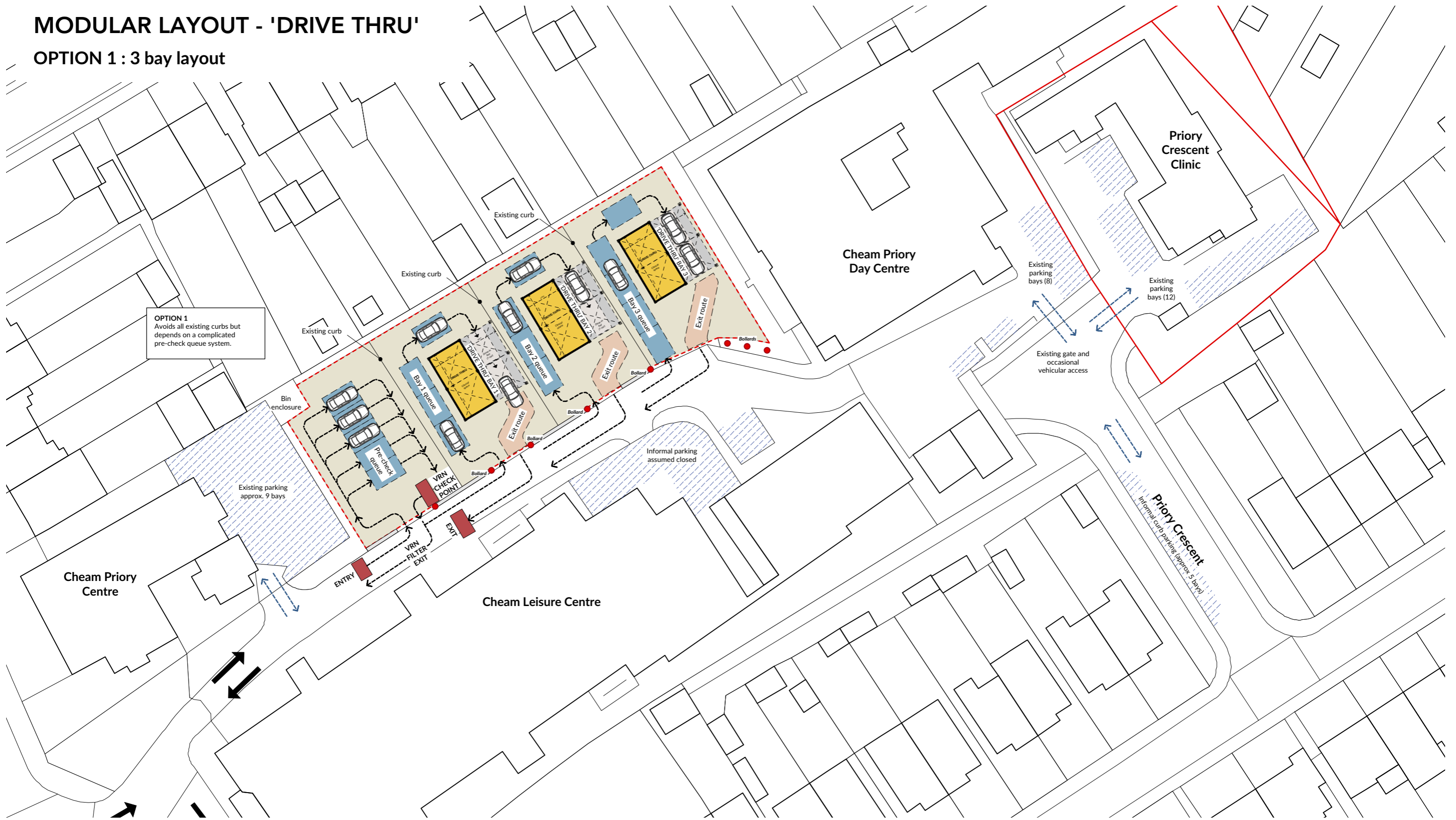




# MODULAR LAYOUT - 'DRIVE THRU'

## OPTION 1 : 3 bay layout

**OPTION 1**  
Avoids all existing curbs but depends on a complicated pre-check queue system.

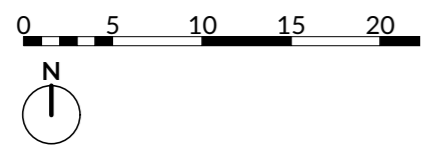
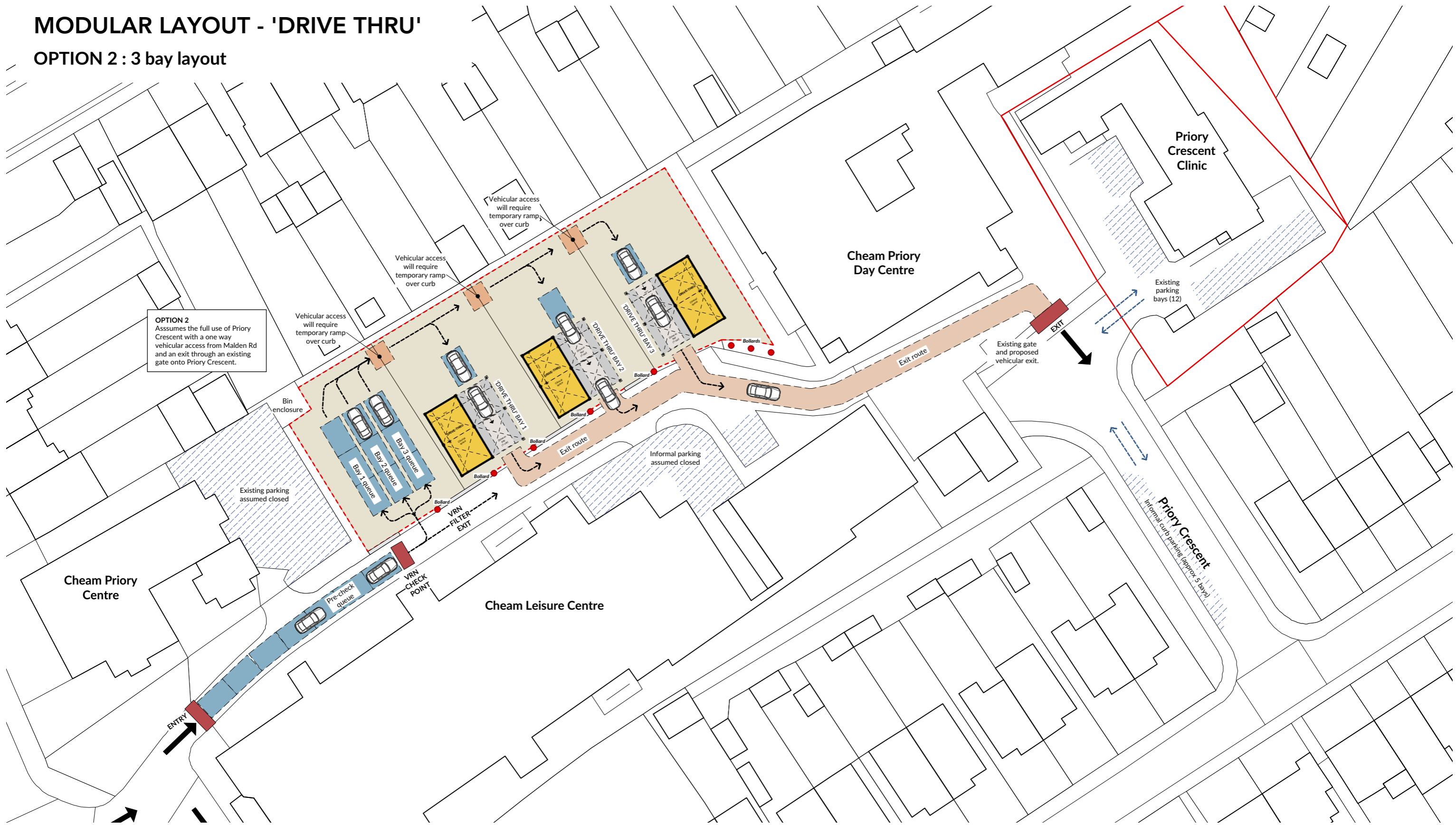


- Temporary modular space
- Vehicle exit route
- Vehicle queuing area
- Vehicle registration check
- Hard surface car park extent
- Retained car park
- Retained car park access
- Testing vehicle route

# MODULAR LAYOUT - 'DRIVE THRU'

## OPTION 2 : 3 bay layout

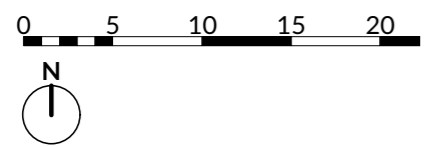
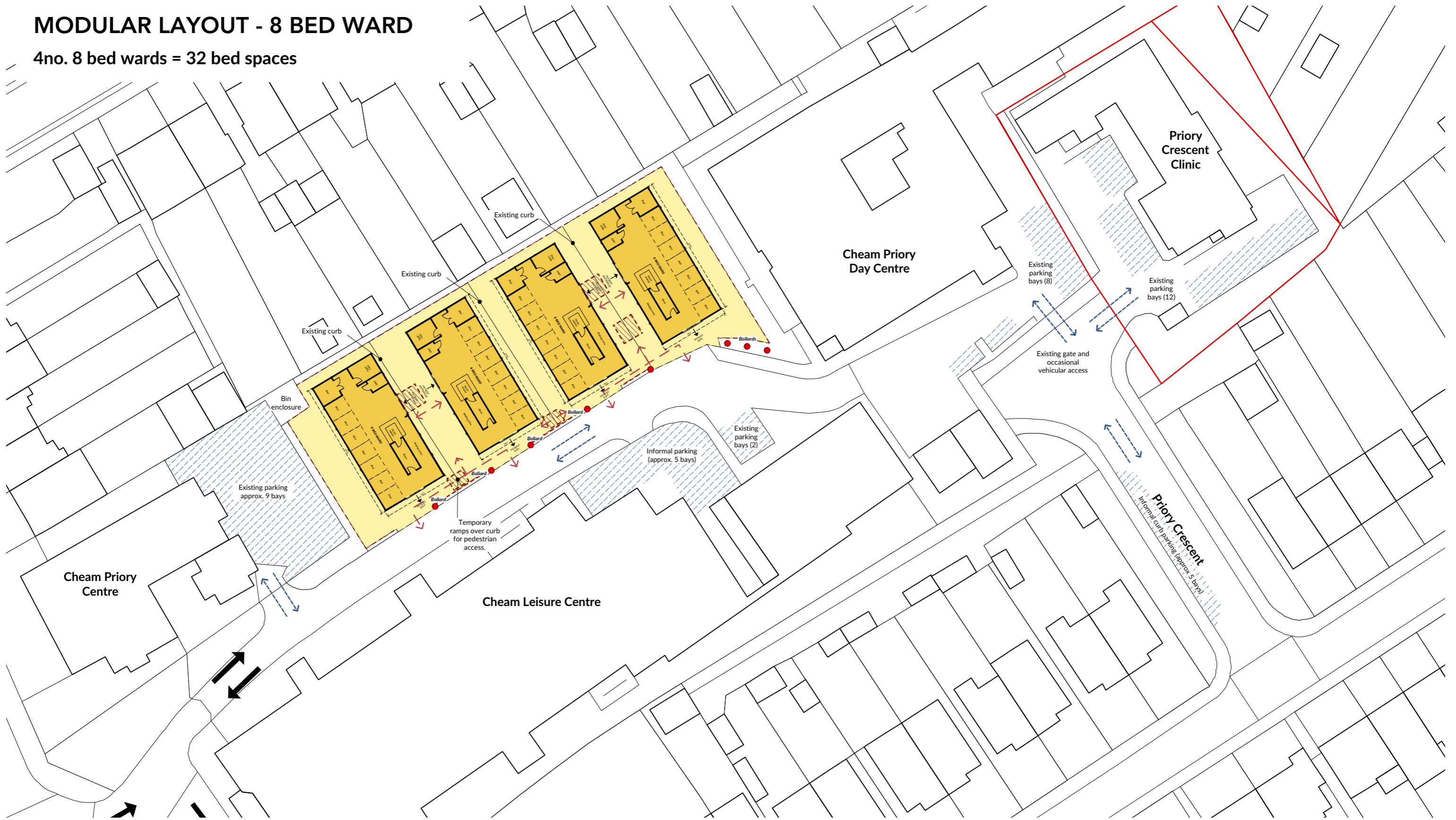
**OPTION 2**  
Assumes the full use of Priory Crescent with a one way vehicular access from Malden Rd and an exit through an existing gate onto Priory Crescent.



- Temporary modular space
- Vehicle exit route
- Vehicle queuing area
- Vehicle registration check
- Hard surface car park extent
- Retained car park
- Retained car park access
- Testing vehicle route

# MODULAR LAYOUT - 8 BED WARD

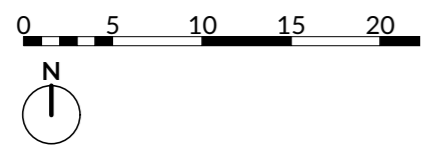
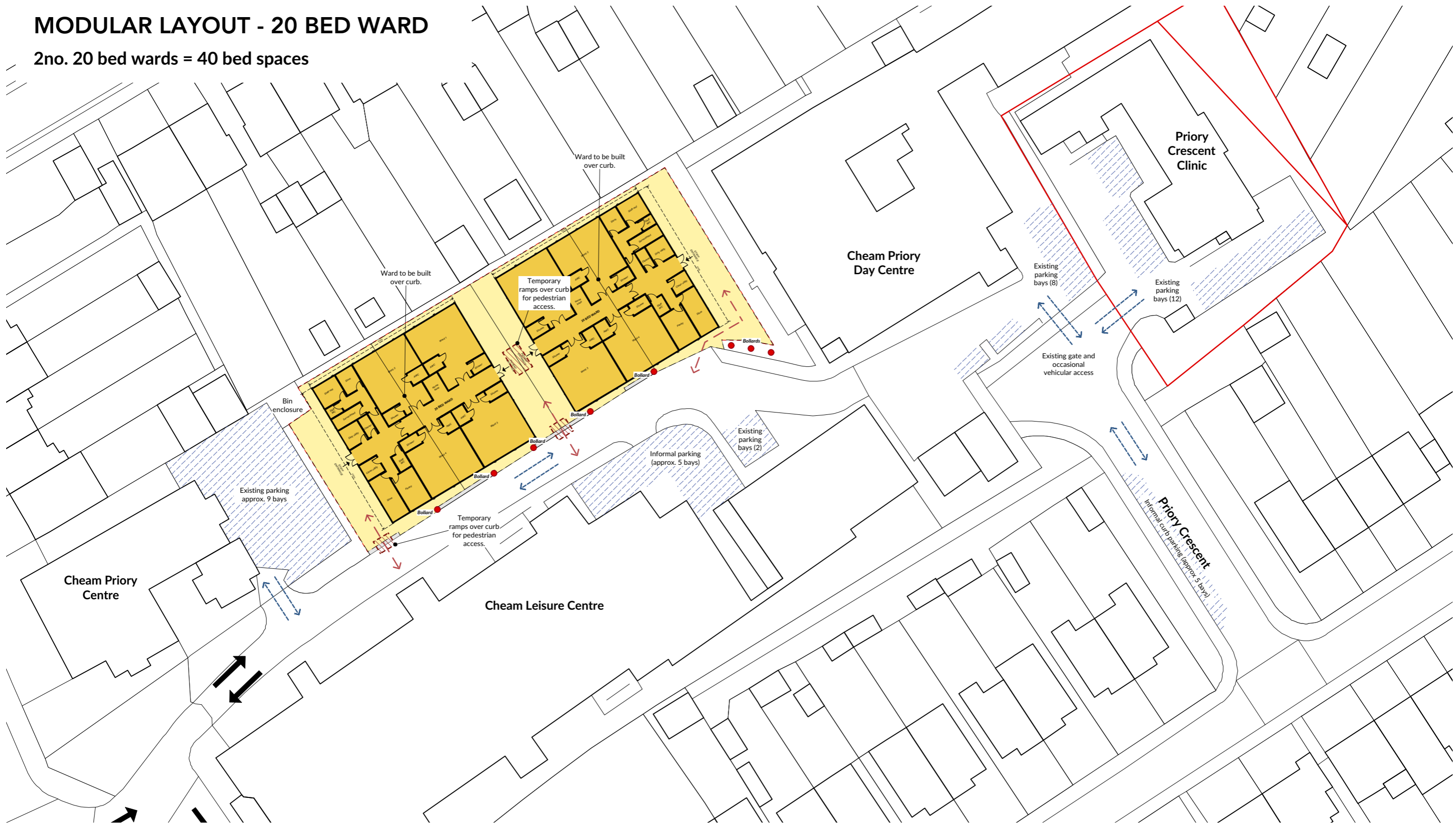
4no. 8 bed wards = 32 bed spaces



- Temporary modular space
- Hard surface car park extent
- Retained car park
- Pedestrianised zone for staff / patient access
- Temporary pedestrian ramps over curb
- Pedestrian route
- Retained car park access

# MODULAR LAYOUT - 20 BED WARD

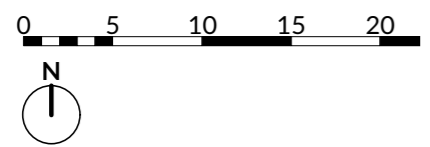
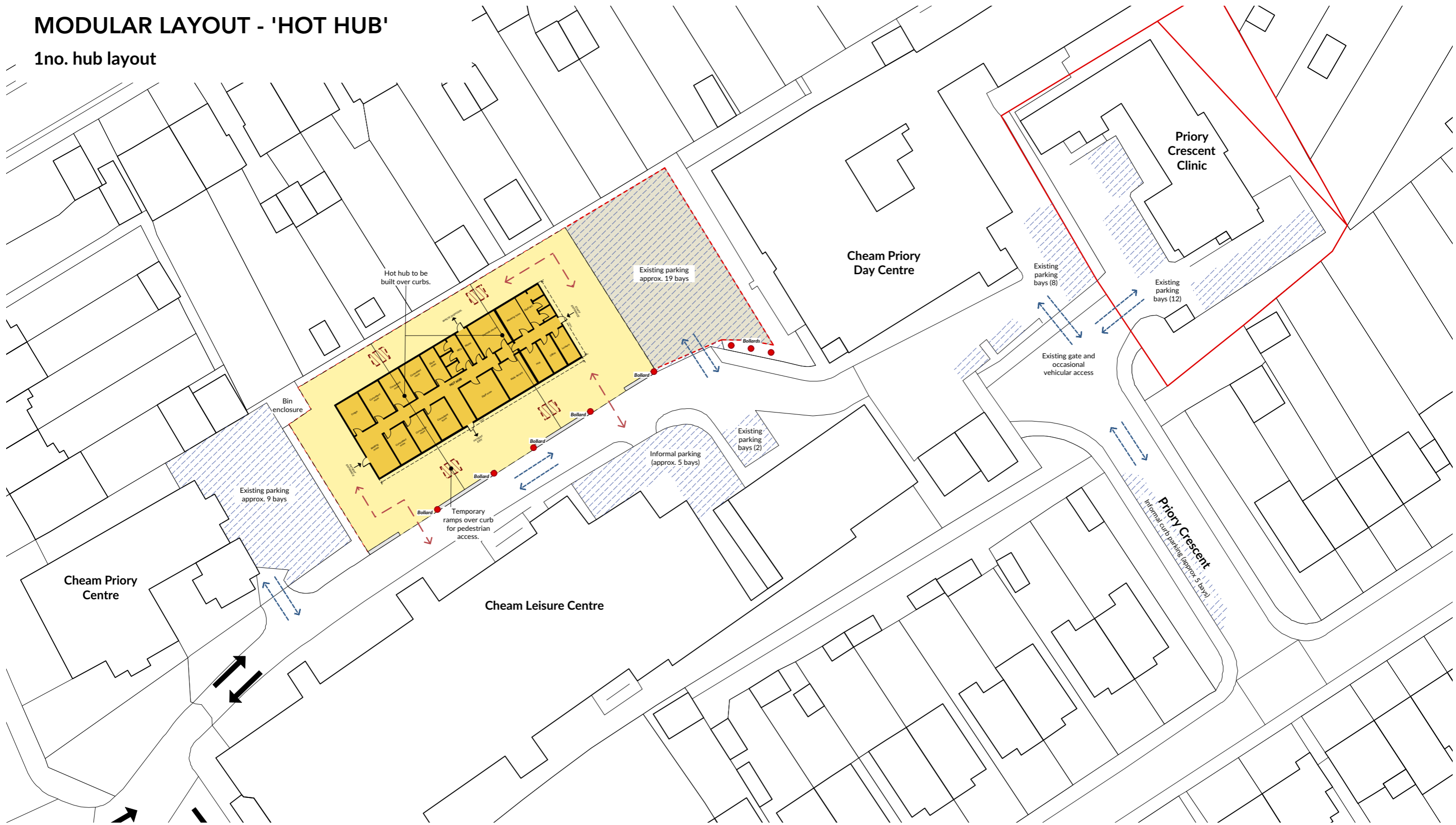
2no. 20 bed wards = 40 bed spaces



- Temporary modular space
- Hard surface car park extent
- Retained car park
- Pedestrianised zone for staff / patient access
- Retained car park access
- Temporary pedestrian ramps over curb
- Pedestrian route

# MODULAR LAYOUT - 'HOT HUB'

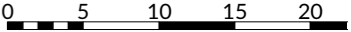
1no. hub layout




- Temporary modular space
- Hard surface car park extent
- Retained car park
- Pedestrianised zone for staff / patient access
- Temporary pedestrian ramps over curb
- Pedestrian route
- Retained car park access

**SITE 06**  
**PARKWAY HEALTH CENTRE**

# EXISTING SITE PLAN



 Hard surface car park extent



Car park hard standing area = 944 sqm

# CONSTRAINTS DIAGRAM

This site is very constrained with the buildable area divided into two narrow parking areas each with their own entrance. There is an opportunity to connect them by folding down the two bollards by the health centre entrance.

To the north of the site is a large grassy area which could be used as a spill out area outside the red line boundary for the larger modular units.





**SITE PHOTOGRAPHY**

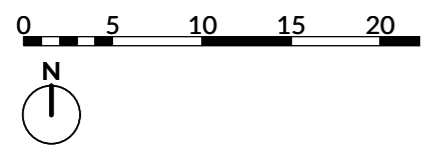


*Images obtained from google maps on 19.04.20*



# MODULAR LAYOUT - 'DRIVE THRU'

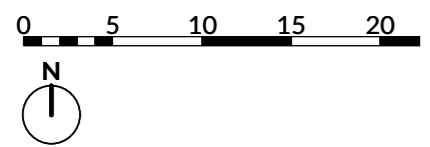
1 bay layout



- Temporary modular space
- Vehicle exit route
- Vehicle queuing area
- Vehicle registration check
- Hard surface car park extent
- Retained car park
- Retained car park access
- Testing vehicle route

# MODULAR LAYOUT - 8 BED WARD

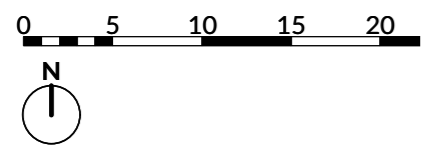
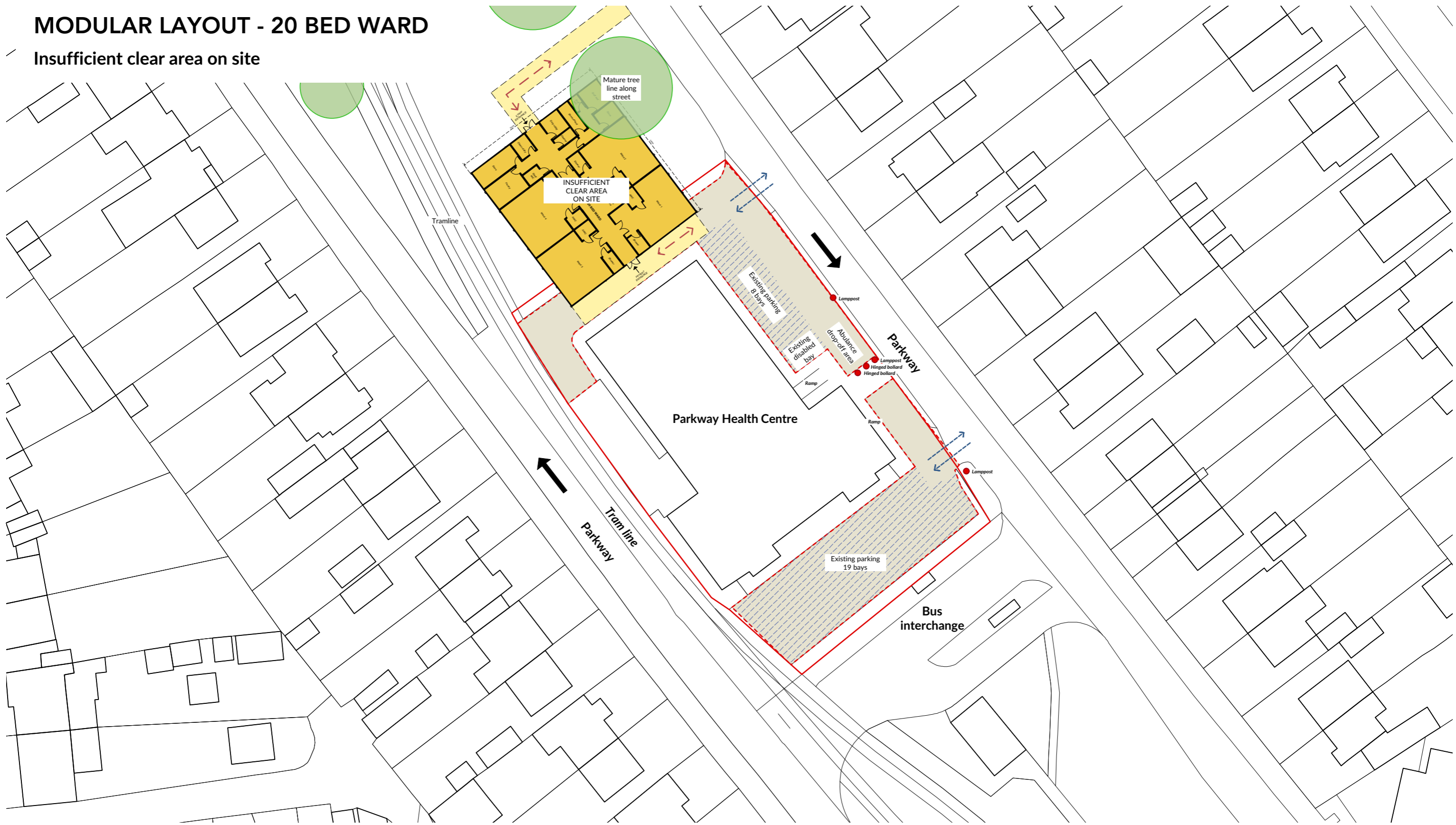
2no. 8 bed ward = 16 bed spaces



- Temporary modular space
- Hard surface car park extent
- Retained car park
- Retained car park access
- Temporary pedestrian ramps over curb
- Pedestrianised zone for staff / patient access
- Pedestrian route

# MODULAR LAYOUT - 20 BED WARD

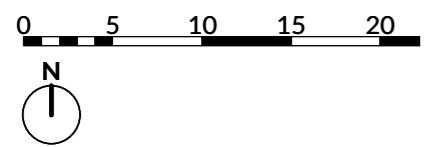
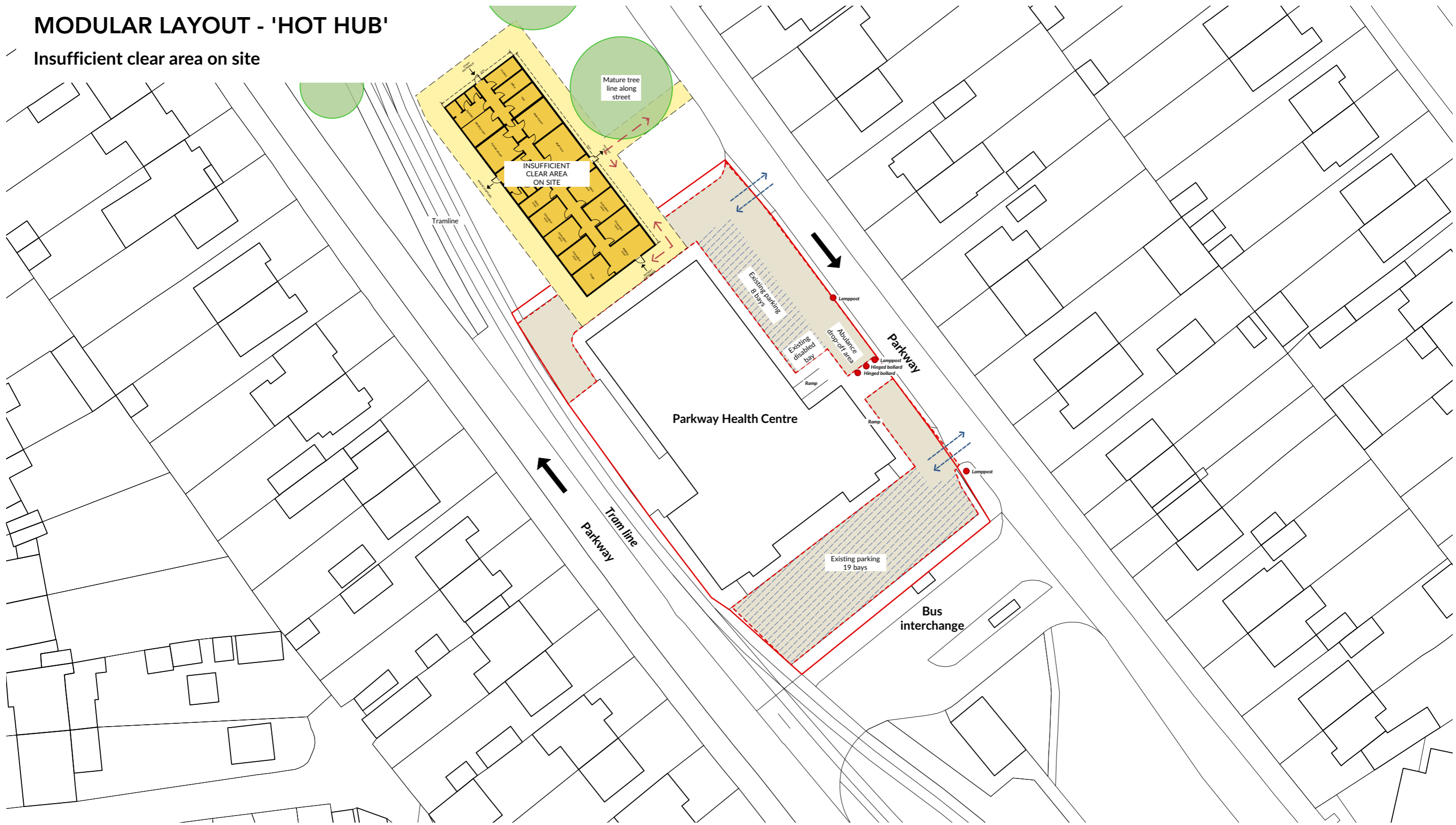
Insufficient clear area on site



- Temporary modular space
- Hard surface car park extent
- Retained car park
- Retained car park access
- Temporary pedestrian ramps over curb
- Pedestrianised zone for staff / patient access
- Pedestrian route

# MODULAR LAYOUT - 'HOT HUB'

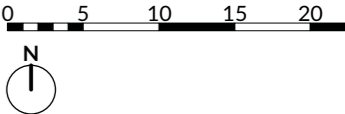
Insufficient clear area on site



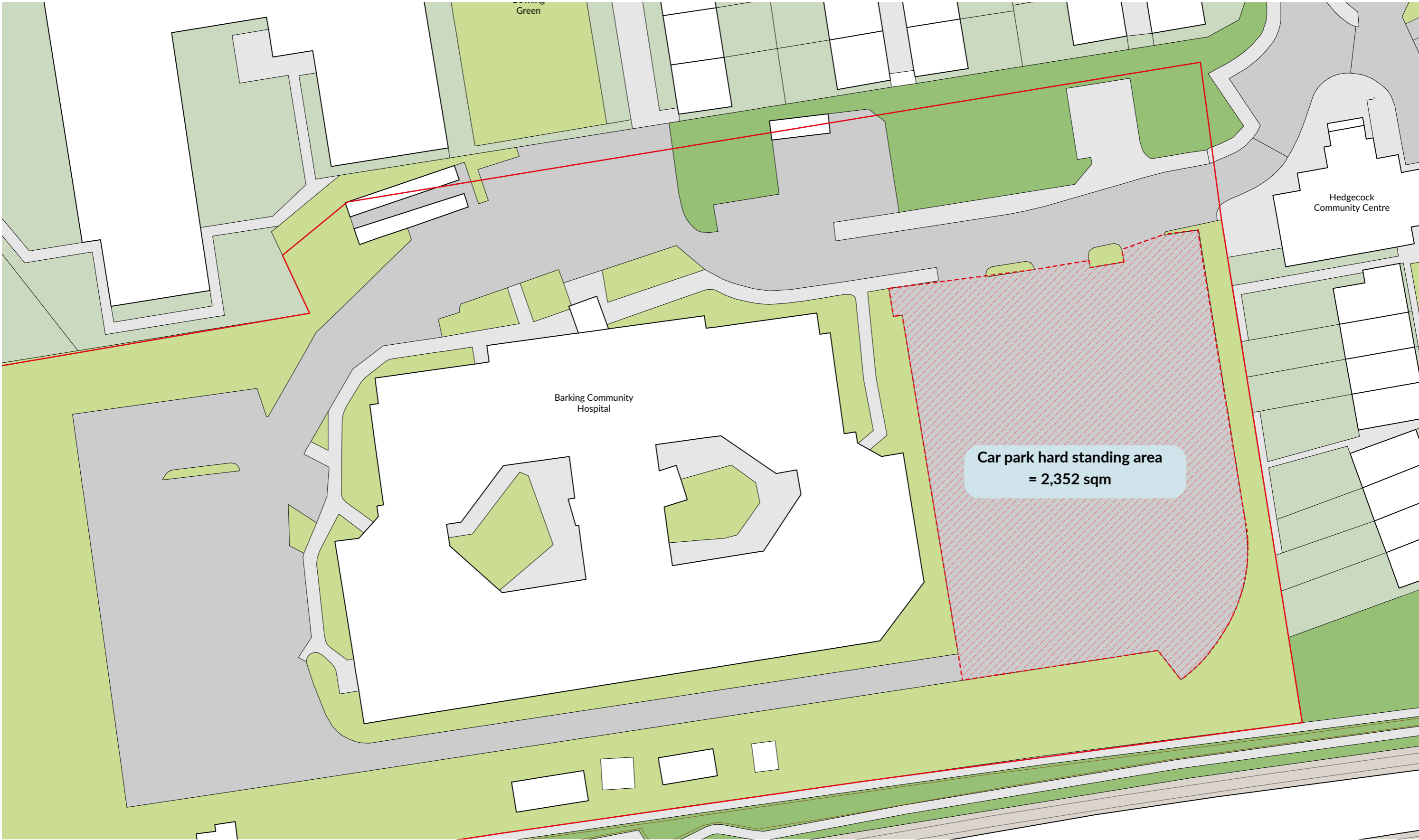
- Temporary modular space
- Hard surface car park extent
- Retained car park
- Retained car park access
- Temporary pedestrian ramps over curb
- Pedestrianised zone for staff / patient access
- Pedestrian route

**SITE 07**  
**BARKING COMMUNITY HOSPITAL**

# EXISTING SITE PLAN



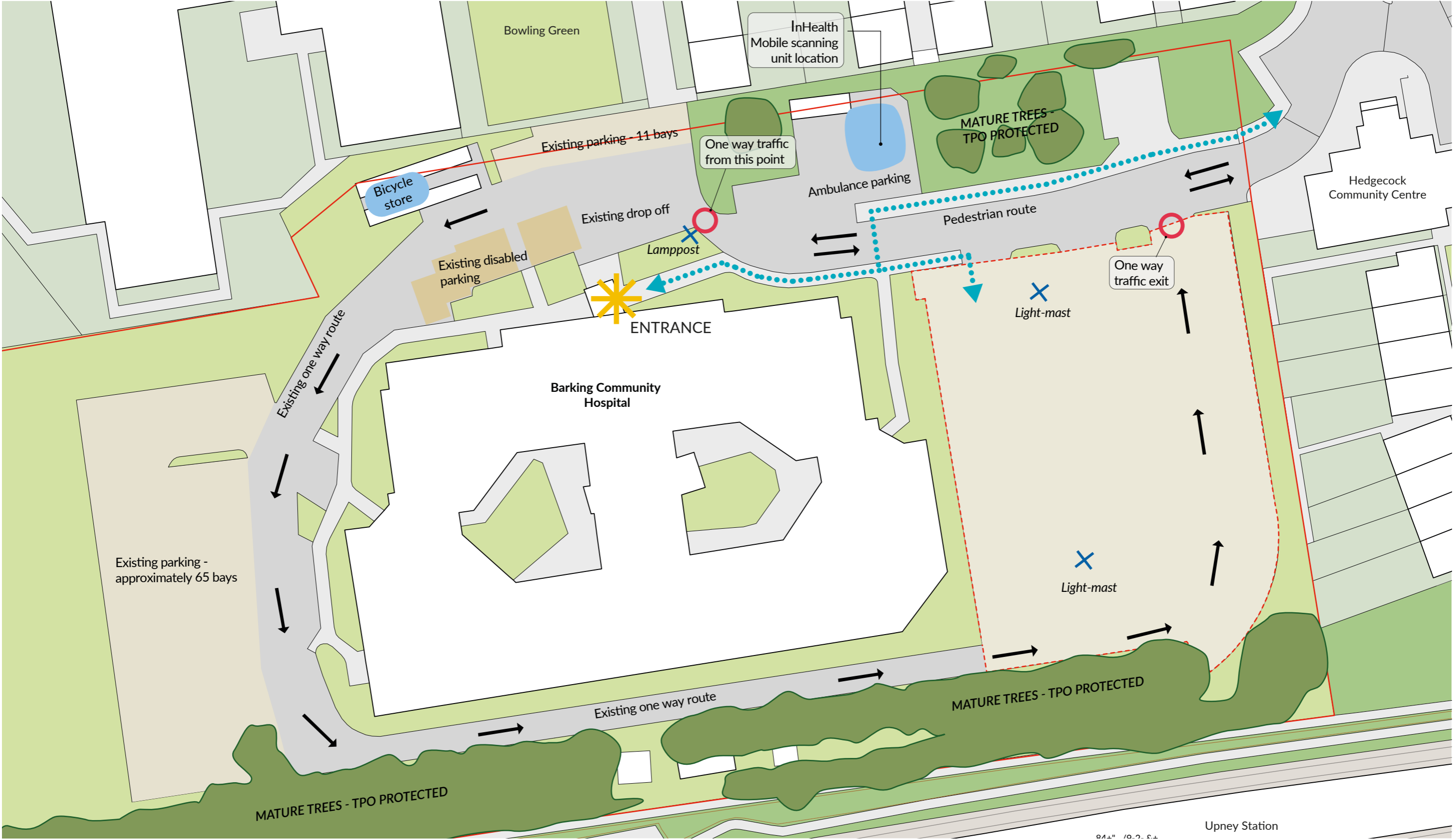
Hard surface car park extent



# CONSTRAINTS DIAGRAM

The proposals focus on the eastern portion of the hospital's car parking provision. The existing traffic circulation on site reverts to a one way system to the west of the main entrance where the roadway narrows, this condition will need to be addressed in how the different proposals make use of the eastern carpark. Trees within the hospital grounds are subject to TPOs, however, none limit the carpark area surface area.

No utilities searches have been provided by NHS PS for major utilities such as Gas, Thames Water, BT or High Voltage Electrical routes in the eastern car park. Further investigation should be taken. It is noted that there are existing lighting masts in the eastern carpark which will affect the proposed use of the carpark.





# SITE PHOTOGRAPHY



Images obtained from google maps on 19.04.20

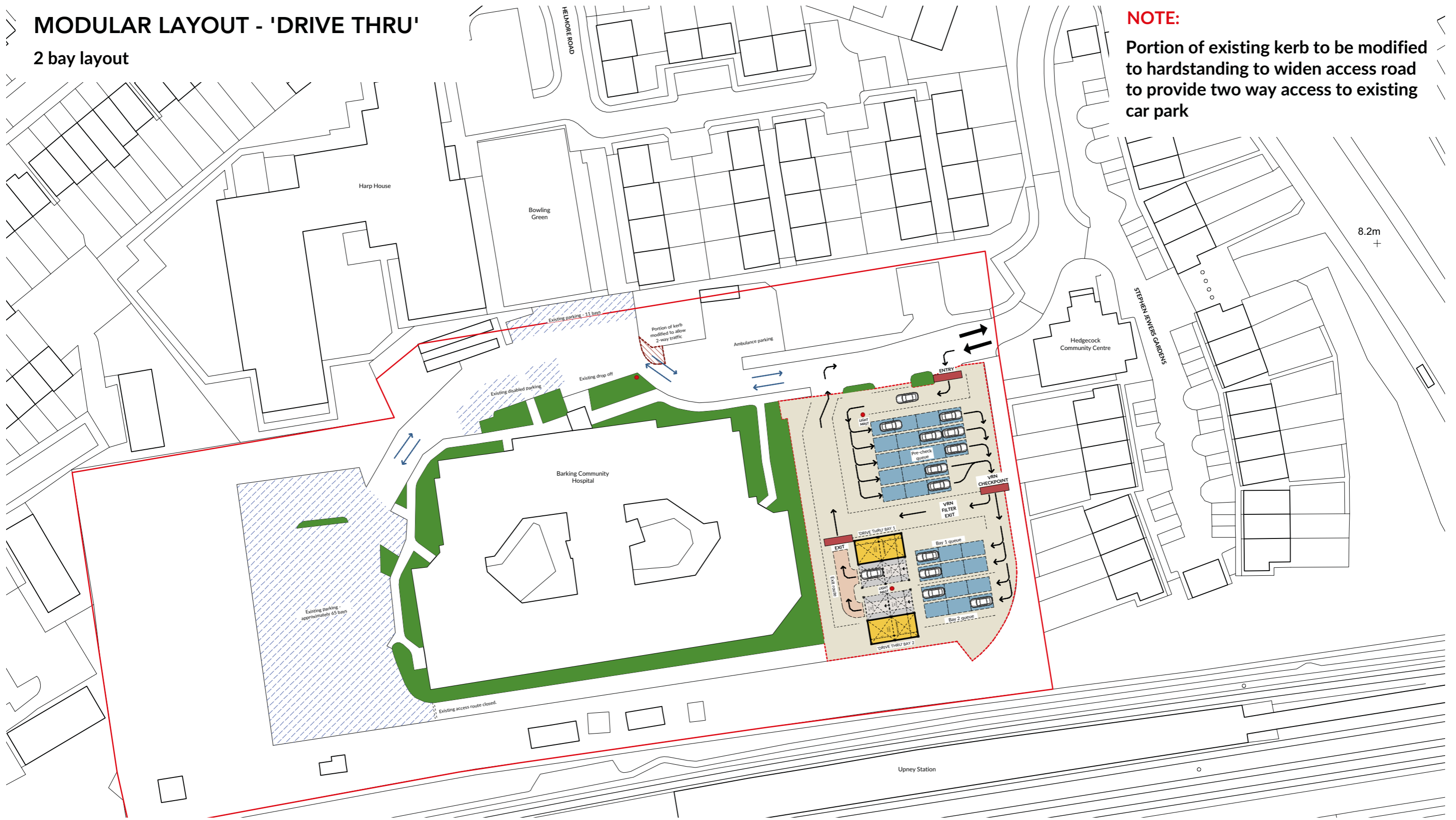


# MODULAR LAYOUT - 'DRIVE THRU'

2 bay layout












**NOTE:**

Portion of existing kerb to be modified to hardstanding to widen access road to provide two way access to existing car park



0 5 10 15 20 25 M



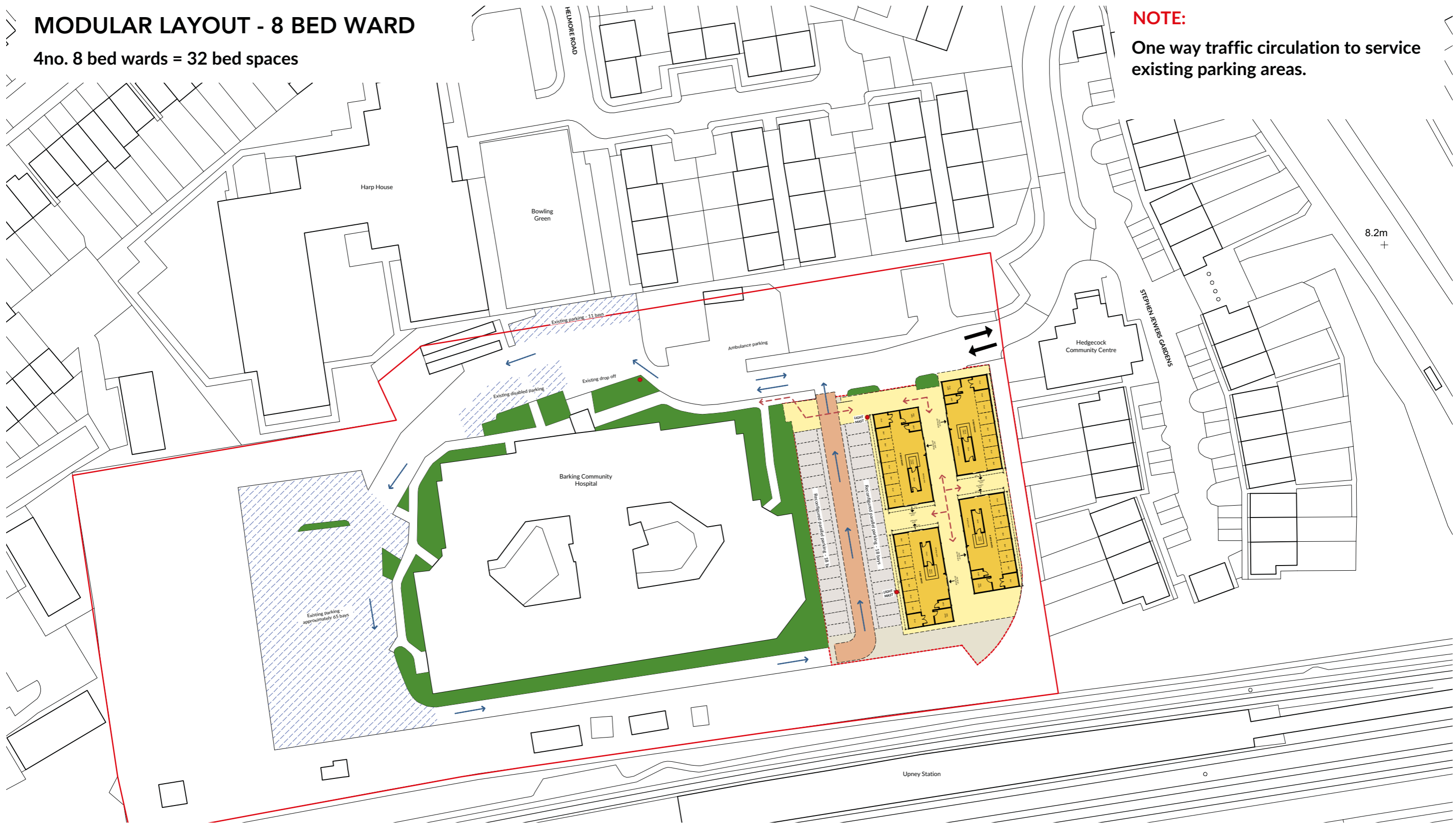
-  Temporary modular space
-  Hard surface car park extent
-  Areas of planting within car park
-  Vehicle exit route
-  Retained car park
-  Area of roadway modification
-  Vehicle queuing area
-  Retained car park access
-  Light mast / lamp post
-  Vehicle registration check
-  Testing vehicle route

# MODULAR LAYOUT - 8 BED WARD

4no. 8 bed wards = 32 bed spaces

**NOTE:**

One way traffic circulation to service existing parking areas.



0 5 10 15 20 25 M



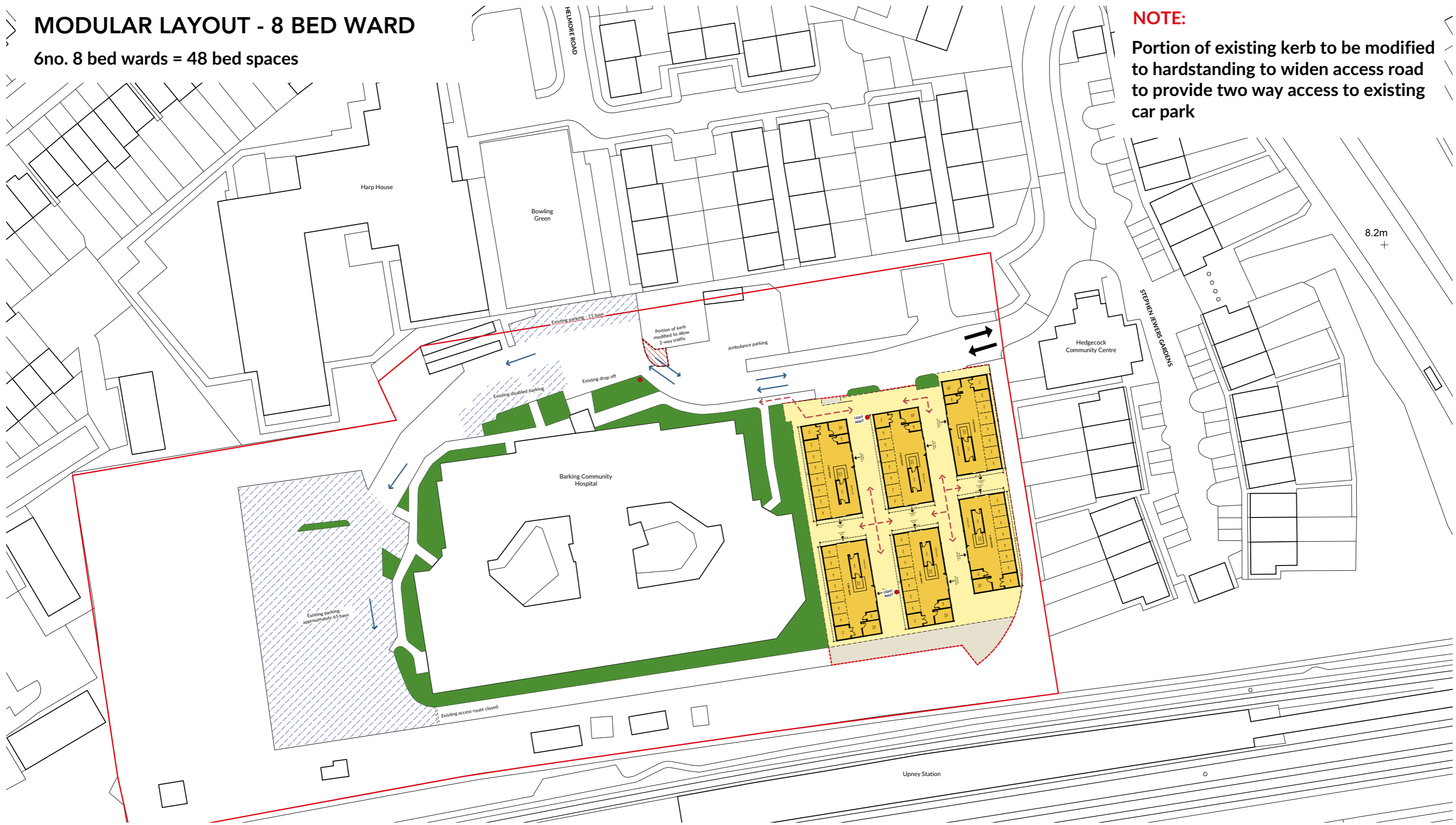
- Temporary modular space
- Service / emergency vehicle safeguarded route
- Area of roadway modification
- Hard surface car park extent
- Pedestrianised zone for staff / patient access
- Light mast / lamp post
- Retained car park
- Areas of trees / planting within car park
- Pedestrian route
- Retained car park access

# MODULAR LAYOUT - 8 BED WARD

6no. 8 bed wards = 48 bed spaces

**NOTE:**

Portion of existing kerb to be modified to hardstanding to widen access road to provide two way access to existing car park



0 5 10 15 20 25 M



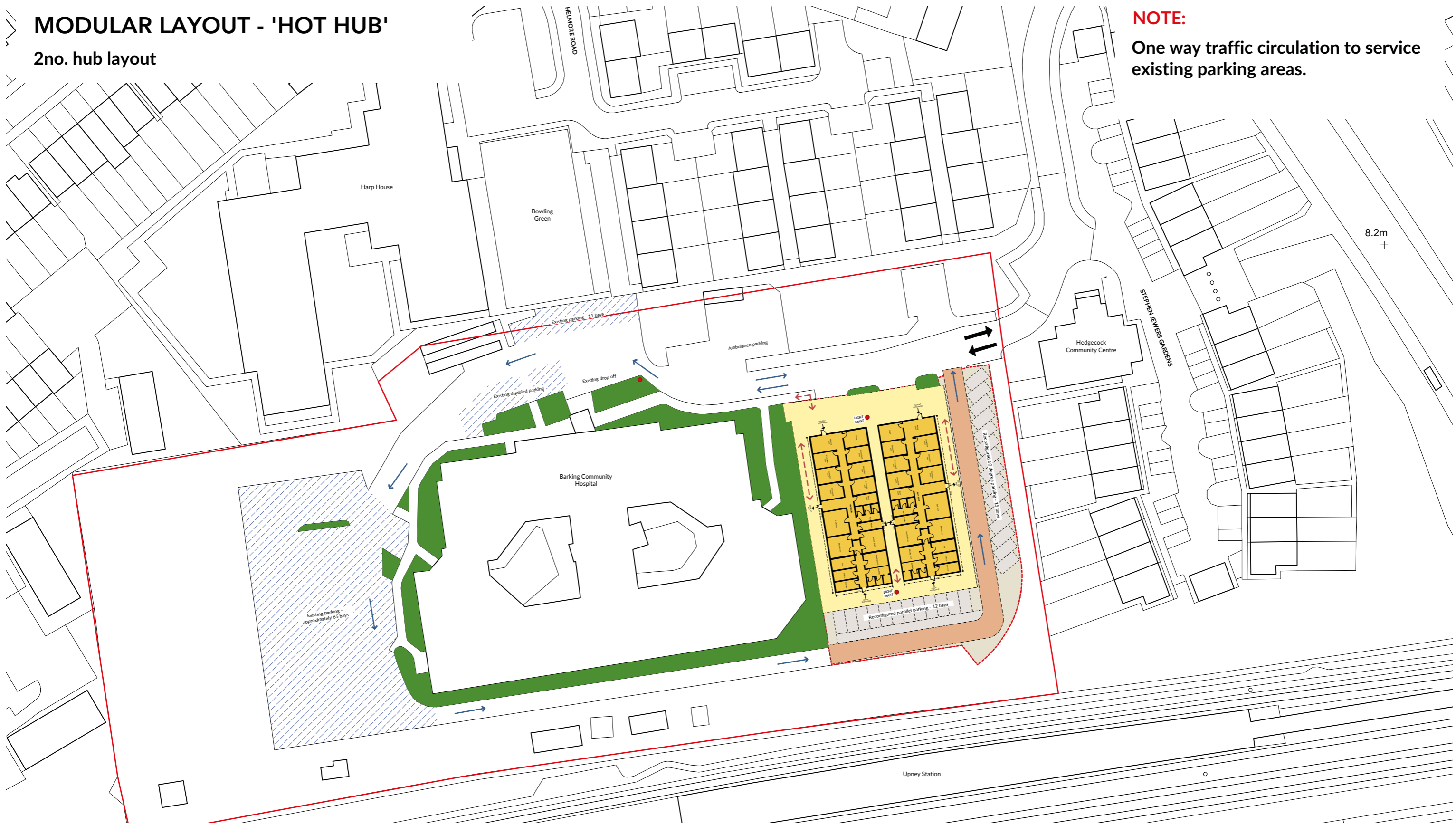
- Temporary modular space
- Service / emergency vehicle safeguarded route
- Hard surface car park extent
- Pedestrianised zone for staff / patient access
- Retained car park
- Pedestrian route
- Retained car park access
- Areas of trees / planting within car park
- Area of roadway modification
- Light mast / lamp post

# MODULAR LAYOUT - 'HOT HUB'

2no. hub layout

**NOTE:**

One way traffic circulation to service existing parking areas.



0 5 10 15 20 25 M



- Temporary modular space
- Service / emergency vehicle safeguarded route
- Area of roadway modification
- Hard surface car park extent
- Pedestrianised zone for staff / patient access
- Light mast / lamp post
- Retained car park
- Pedestrian route
- Areas of trees / planting within car park
- Retained car park access

**stitch**  
Architects & Urban Designers

*Suite 6 Fusion House  
28 Rochester Place  
London  
NW1 9DF*

*w : [www.stitch-studio.co.uk](http://www.stitch-studio.co.uk)  
T : 02036178725*

*Contact : Sally Lewis, Director  
[sally.lewis@stitch-studio.co.uk](mailto:sally.lewis@stitch-studio.co.uk)  
m: 07855328998*