

USW Caerleon Environmental Statement (November 2019)

Non-Technical Summary

LICHFIELDS

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Contents

1.0	Introduction and Methodology	1
2.0	Site and Surroundings	3
3.0	Description of Development	7
4.0	Transport	11
5.0	Air Quality	12
6.0	Landscape and Visual	14
7.0	Arboriculture	17
8.0	Ecology	19
9.0	Cultural Heritage	21
10.0	Socio Economic	22
11.0	Cumulative Assessment	24
12.0	Delivery of Mitigation and Monitoring	26
13.0	Availability of the Environmental Statement	27
14.0	Key Plans of the Proposed Development	28
15.0	References	29

1.0 Introduction and Methodology

- 1.1 This document is a summary in non-technical language of an Environmental Statement ('ES') prepared on behalf of Redrow Homes Limited ('Redrow') (the applicant). It sets out the findings of an Environmental Impact Assessment ('EIA') of the proposed development at the former University of South Wales ('USW') campus.
- 1.2 The proposed development falls within part 10(b) (Infrastructure Projects) of Schedule 2 of the Town and Country Planning (EIA) (Wales) Regulations 2017 (as amended) (the 2017 EIA Regulations). Part 10(b) relates to 'urban development projects' where the development is more than 1 hectare in size. For such developments, EIA is required in situations where it could give rise to significant environmental effects. The scope of the EIA has been agreed with Newport City Council ('NCC').
- 1.3 The document includes the following information:
- Section 1.0 – background to the assessment process and the development;
 - Section 2.0 to 3.0 – description of the site and the proposed development;
 - Sections 4.0 to 10.0 – a topic by topic review of the findings of the EIA;
 - Section 11.0 - a review of whether other direct or indirect impacts may arise when the scheme is considered with other schemes in the area;
 - Section 12.0 – a summary of the proposed measures to be secured as part of any planning permission associated with the development;
 - Section 13.0 – details of how to obtain a full copy of the ES;
 - Section 14.0 – a selection of key scheme plans and cross-sections; and
 - A list of references is provided at Section 15.0.

The EIA Process

- 1.4 The ES sets out the findings of an EIA of the proposed development.
- 1.5 The EIA process aims to ensure that any significant effects arising from a development are systematically identified, assessed and presented to help a local planning authority, statutory consultees and other key stakeholders in their understanding of impacts arising from development. If measures are required to minimise or reduce effects then these are clearly identified.
- 1.6 For this development, EIA has been carried out to consider the likely significant effects that may arise during the construction of development at the former University of South Wales campus, Caerleon and its subsequent operation, when the development is in use. Consideration is also required in relation to the relationship of the development to other emerging schemes in the area and nearby potentially sensitive receptors including heritage features, ecological designations and local residents, as well as the Caerleon Air Quality Management Area. It has been completed with regard to best practice and relevant legislation and has addressed the following matters:
- 1 Transport;
 - 2 Air Quality;
 - 3 Landscape and Visual;
 - 4 Arboriculture;

- 5 Ecology;
- 6 Cultural Heritage; and,
- 7 Socio Economic.

- 1.7 Likely effects are identified based on current knowledge of the site and surroundings, desktop assessment, survey and fieldwork and information available to the EIA team. All those matters that could be reasonably required to assess the effects of the proposals are set out in the ES; this includes effects arising from the development itself as well as those temporary effects arising during demolition and construction works. The assessment has had regard to the requirements of the 2017 EIA Regulations.
- 1.8 The EIA team has worked with the design team to ensure that the scheme for which planning permission is sought incorporates those revisions or modifications that are necessary or appropriate to avoid or reduce significant adverse effects on the environment.
- 1.9 Consultation has also informed the EIA process in relation to the methods by which the EIA has been carried out, as a means to seek environmental data, to review the effectiveness of any identified mitigation measures and as a means to keep interested bodies informed on the process of EIA undertaken.
- 1.10 The EIA has had regard to planning and environmental policy and legislation at national and local level that is relevant to the development and the assessment process.
- 1.11 There were no significant difficulties in compiling information and testing impacts or the assumptions that have been adopted but examples of some of the matters experienced include information being unavailable to the team or the necessity to rely on reasonably available data or assumptions in carrying out the EIA and/or there being no accepted methodology to assess particular impacts (and therefore a need to rely on professional judgement and experience).
- 1.12 The applicant has assembled a team to undertake the EIA who, it has confirmed, has sufficient expertise and the necessary credentials to ensure the quality of the ES and that it is complete.

Planning Background to the Site

- 1.13 The site is within the settlement boundary of Caerleon and is within an established residential area. The proposed development will result in the re-use of a brownfield site, which is promoted by local and national planning policy. In addition, the proposed development will contribute to meeting Newport Council's housing need.
- 1.14 A planning application (reference 17/0781) was submitted by the University of South Wales USW for residential and business development within the site but was refused by NCC on 3rd October 2018. This application is currently the subject of a separate planning appeal submitted by Redrow Homes (South Wales) and the University of South Wales.
- 1.15 The Grade II listed Edwardian main building as well as the other listed buildings on site received Listed Building Consent from NCC by virtue of application 17/0782 on 21st November 2018. The development will see the partial demolition, refurbishment and conversion of the former university main building to 42 flats, the TJ Webley building into two dwellings and the Ty Hywel building into one flat and one house.
- 1.16 In addition, the site incorporates the redundant University of South Wales ('USW') Campus, of which the USW Board of Governors have a replacement plan to develop university facilities and higher education provision in Newport City Centre.

2.0

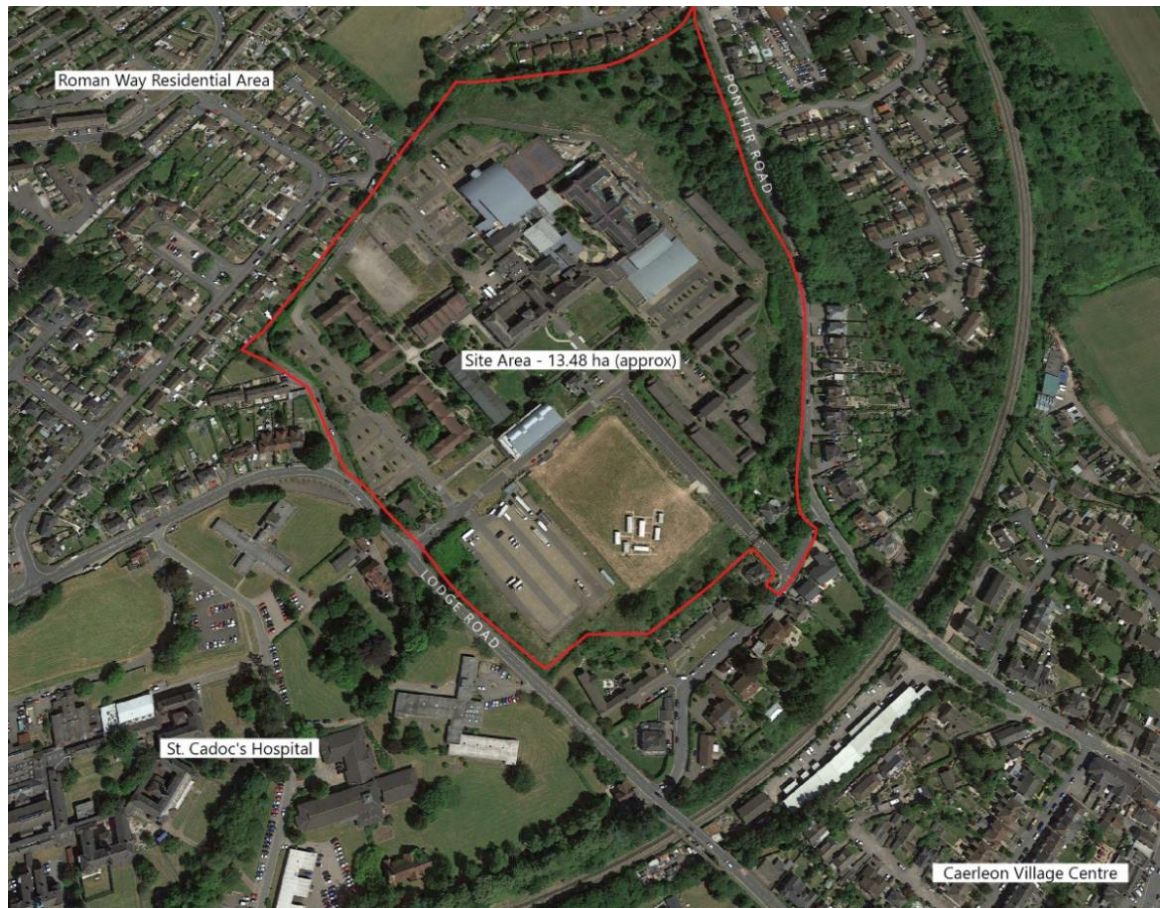
Site and Surroundings

The Site

2.1

The former University of South Wales Campus at Caerleon is located in the Parish of Caerleon, within the principal area of Newport City in South Wales. The university closed the campus in 2014 and relocated to a new location in Newport.

Figure 2.1 USW Caerleon - Site Boundary



2.2

The site is located on a low ridge north of the historic core of Caerleon, overlooking the valley of the River Usk to the south and the Afon Lwyd to the east.

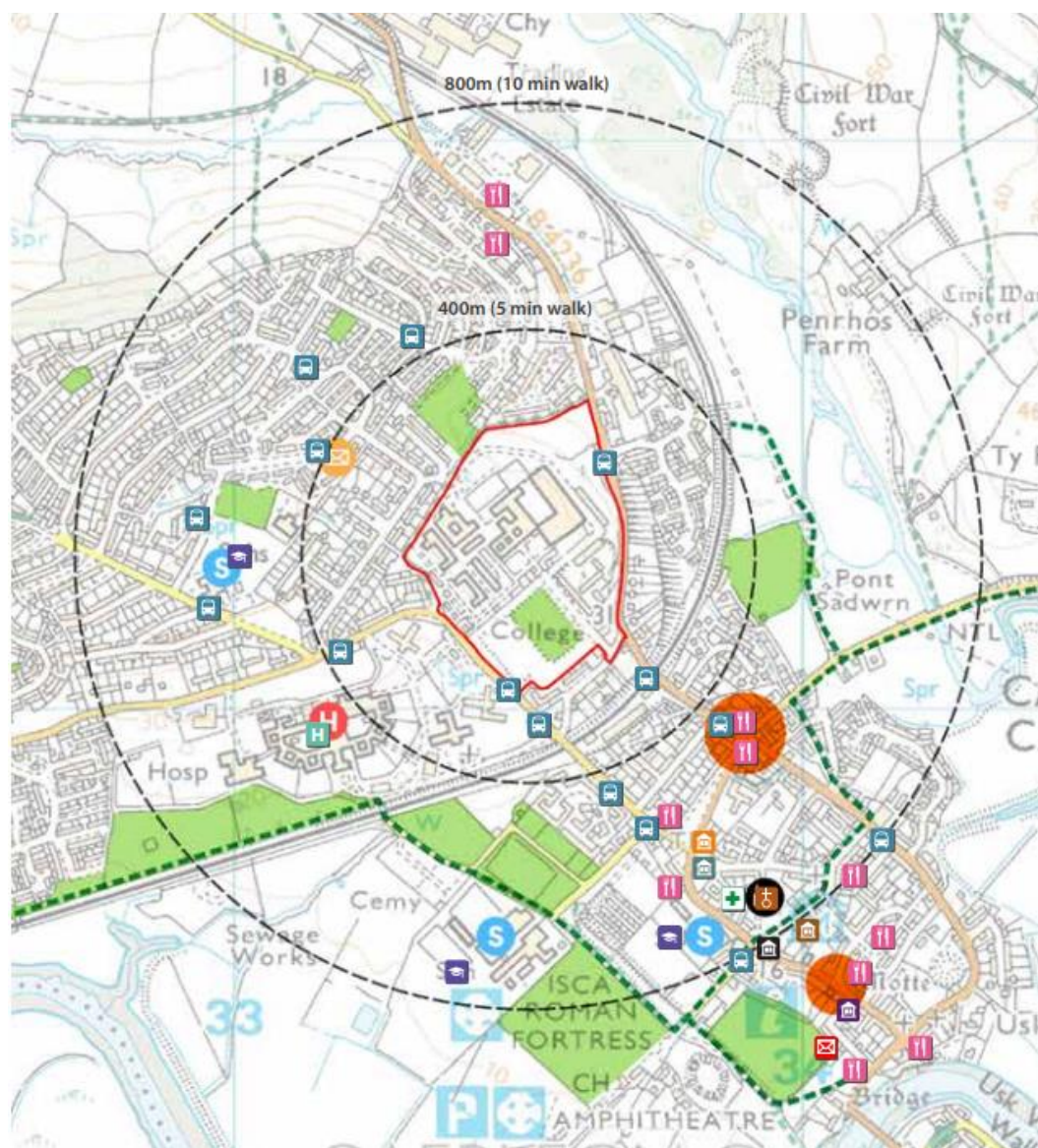
2.3

The site, which is around 13.5 hectares, currently contains lecture theatres, offices, student accommodation, catering and sports facilities and a library, surrounded by hardstanding and grass areas, as well as a number of trees (see Figure 2.1), many of which are subject to a Tree Preservation Order ('TPO').

2.4

Access into the site is currently off Lodge Road, with bus only access off College Crescent. It also has good connections to the road network, including the M4 motorway (via Junction 24 or 26). The B4595 links Caerleon with Newport City Centre and a good bus service provides connections to main line rail services. It is understood that proposals were put forward in 2012 to build a new railway station around 500 metres from the site, which could further facilitate sustainable transport choices, however this has not been progressed to date. Figure 2.2 below shows the site in context and the facilities that can be reached within a 5 and 10-minute walk.

Figure 2.2 Former USW Caerleon Site Context Analysis



Key:

-  Application Site Boundary
-  Local Centre Retail
-  Environmental Space
-  Long Distance Footpath/Cycleway

Facilities:

- | | | | |
|---|---------------------------------------|---|--------------------------------------|
|  | Caerleon Town Hall |  | Primary/Junior and Secondary Schools |
|  | Caerleon Library & Information Centre |  | Caerleon Post Office |
|  | Isca Medical Centre |  | National Roman Legion Museum |
|  | Caerleon Tourist Information Centre |  | Roman Fortress & Baths |
|  | Bus Stop |  | St Cadoc's Church |
|  | Pubs & restaurants |  | St Cadoc's Hospital |

- 2.5 The site lies on a ridge of low land that extends in an easterly direction at around 50 metres Above Ordnance Datum ('AOD'). It occupies an elevated position, visible from near and longer ranging vantage points.
- 2.6 The former university campus comprises an assortment of buildings ranging from the Edwardian Main Building, which dates from 1912, to the 'Kegie', a modern University teaching facility completed in 2007. The site has several large areas of surface car parking, a modern university sports hall and a Rugby Pitch.
- 2.7 There are four listed buildings within the site, namely:
- The former Caerleon Teacher Training College Building¹ (Grade II);
 - The Caretaker's/Gardener's Lodge (Grade II);
 - The Principal's Residence (Grade II); and,
 - Gate Piers (Grade II).
- 2.8 The site also lies within an Archaeologically Sensitive Area and a Desk Based Assessment has demonstrated that there is a moderate to high potential for undisturbed archaeological deposits to be encountered within the site.
- 2.9 There are no ecological designations within the site, however Habitat Surveys have found that bats and reptiles may be present within the site and birds and hedgehogs are regularly recorded.

Surroundings

- 2.10 The site is approximately 4 miles to the north east of the City of Newport and a 10-minute walking distance to Caerleon Village Centre (as shown in Figure 2.2).
- 2.11 The site is mostly surrounded by housing, with areas of open space to the north, St Cadoc's Hospital to the south west and a small industrial estate to the north east. Lodge Road/St Cadoc's Close define the western boundary of the site and Ponthir Road defines its eastern boundary.
- 2.12 The immediate residential context of the site reflects the wider environment, with the northern area of Caerleon being predominantly residential.
- 2.13 Caerleon has a significant heritage and archaeological context, being the location of a Roman legionary fortress and a site of an Iron Age Hill Fort. Substantial areas in and around Caerleon (not including the application site) are protected as part of the Caerleon Roman Legionary Fortress, a Scheduled Monument of international significance.
- 2.14 A Conservation Area has been designated within Caerleon, covering the later historic core of the town, as well as the whole of the area of the Roman Fort, and the fields of the west side that stretch down to the River Usk. The site itself is not included in the Conservation Area, which is some 150m away.
- 2.15 As confirmed above, there are no ecological designations on the site itself, however the River Usk Special Area of Conservation ('SAC') and Site of Special Scientific Interest ('SSSI') is around 1km to the south of the site. There are also 15 Sites of Importance for Nature Conservation ('SINCs') in the area. The closest is the Afon Llwyd Grasslands located approximately 0.3km to the north east of the site.
- 2.16 NCC has a number of Air Quality Management Areas ('AQMAs'), with the closest to the site being at Caerleon High Street, some 750 metres to the south east of the site. The Caerleon

¹ It is understood that the original building suffered a fire in 1992 that damaged part of the roof.

AQMA extends part way along Castle Street, along High Street (as far as its junction with Cross Street) incorporating housing adjacent to the AQMA, and along the highway to the junction of Caerleon Road and Belmont Hill/New Road. The AQMA was reviewed and enlarged in July 2018 and is principally designated due to nitrogen dioxide (NO₂) and particulate matter levels arising from vehicle emissions. The site itself, however, is not within the AQMA.

Sensitive Environmental Receptors

2.17 Having considered the nature and receptors on the site and in the wider environment the following sensitive environmental receptors have been identified:

- a Arboriculture (in particular TPO trees)
- b Views (short and long range)
- c Transport and Accessibility
- d Heritage Assets (Listed Buildings, Archaeology, Caerleon Conservation Area)
- e Ecology (Habitats and animals, the River Usk SAC and SSSI and SINCS)
- f Air Quality (Caerleon AQMA, nearby residential development)

3.0 Description of Development

3.1 The description of development is as follows:

“Demolition of buildings (with the exception of the Listed Buildings and Felthorpe House). Development of 218 residential dwellings (Use Class C3, including affordable housing), open space (including children’s play area), landscaping, sustainable urban drainage with associated access, infrastructure and engineering works”.

3.2 Plans providing further details of the development are provided at Section 14.0 of this Non-Technical Summary document.

Land Use and Scale of Development

3.3 The initial phase of development will be the demolition of existing buildings associated with the USW campus within the site, apart from the listed buildings that are being retained for conversion.

3.4 The development will deliver 218 new dwellings, of which 169 will be new-build houses and 49 will be apartments created within the retained and converted listed buildings within the site.

3.5 22 (10%) of the properties will be affordable housing and will consist of 1, 2 and 3-bedroom houses.

3.6 The housing will be set within landscaped areas and recreation areas, including:

- a The retention of formal landscaping to the south east of the main building;
- b The alteration of the existing rugby pitch to accommodate a smaller kick-about/pitch area alongside a LEAP; and,
- c An area of open space incorporating exercise trail and landscaping in the north east of the site;

3.7 Apart from the converted listed buildings, which will remain at their existing height, the new houses will be two storeys tall (up to 10 metres to the top of the roof from the proposed ground level). Where they are external to the property, garages will be single storey.

Access and Parking

3.8 Full details of parking and access are discussed within the Transport Assessment (see Appendix D1 of the Environmental Statement).

3.9 Vehicular access to the site is currently from two locations. The primary access is from Lodge Road on the western boundary of the site and a secondary access from College Crescent at the southern boundary of the site.

3.10 Improvements are proposed to the junction with College Crescent and Ponthir Road in order to improve pedestrian and cycle access, whilst maximising junction visibility. The junction will be 2-way, controlled by a give way, with priority given to vehicles entering the site from College Crescent. Footpaths on either side of the access will be widened and ‘build outs’ will be provided at the junction on College Crescent, with dropped-kerb crossings and tactile paving.

3.11 The internal road layout within the site has been designed to be acceptable in terms of visibility, parking arrangements, turning heads for refuse vehicle movements and distance from bin stores. Raised tables are proposed at internal junctions to provide traffic calming within the site.

- 3.12 Pedestrian and cycle access to the site will be from Lodge Road and College Crescent, and from the Public Right of Way ('PRoW') in the northwest of the site, which will be retained and widened to 3 metres to create a shared footway/cycleway.
- 3.13 It is also proposed to introduce three pedestrian links from Bellin Close, St Cadoc's Close and Ponthir Road. An improved pedestrian / cycle link between St Cadoc's Close and Bellin Close along the current alignment of the PRoW is proposed along the north / north west boundary of the site.
- 3.14 The developer proposes to make a financial contribution, via a S106 Agreement, towards an upgraded on-road cycle link from the development to Roman Reach, via Lodge Road and National Cycle Network ('NCN') Route 88.
- 3.15 The northbound and southbound bus stops on Lodge Road will be upgraded to include a bus shelter, raised kerbs adjacent to the site on Lodge Road and localised footway widening within the site. A pedestrian crossing will also be provided to improve access to the bus stops.
- 3.16 All new build dwellings will benefit from parking spaces to the side of dwellings, private drives located to the front of dwellings or in courtyards and shared drives. An electric vehicle charging point will also be provided for each house. The flats within the listed buildings will benefit from allocated parking spaces.
- 3.17 Cycle parking standards are not available for houses, though can be accommodated within the garage/shed for each individual dwelling. A total of 12 cycle parking spaces will be provided to serve the listed building flats. This is in accordance with the NCC Cycle Parking Standards which, for apartments, require the provision of 1 cycle parking stand per 5 bedrooms.

Landscape and Green Infrastructure

- 3.18 The redevelopment of the USW Caerleon site offers an opportunity to retain and preserve the best of the existing landscape and trees, incorporating these into newly landscaped areas to create an accessible and varied network of spaces across the development and connections to the landscape and the settlement beyond.
- 3.19 The landscape strategy seeks to integrate arboriculture, ecology, amenity, and Sustainable Drainage ('SuDS') provision, utilising some of the best existing areas of grassland and glades, improving and extending this character through the informal landscape areas across the site.
- 3.20 At the centre of the development, the gardens forming the historic foreground to the main building will be renovated, reinstating their original formal character and enhancing this space for relaxation and tranquillity.
- 3.21 The rugby field area will be 're-wilded', with significant tree and meadow planting creating a naturalistic feel while also maintaining a suitably large 'kick-about' space at its centre and providing a new Local Equipped Area for Play ('LEAP') at its northern end.
- 3.22 In the north east of the site the proposed landscaping capitalises on the topography and tree cover to create opportunities to enjoy framed views out to the east while also allowing residents to explore the more wooded character of this part of the site.

Drainage

- 3.23 The proposed drainage strategy for the site includes the following elements:
- i Discharge to the existing public combined sewer in Lodge Road;
 - ii A reduction in the amount of hard paved areas and roof areas;

- iii The use of pervious paving suitable for pedestrian and/or vehicular traffic that allow rainwater to infiltrate through the surface and into the underlying areas. As the permeability of the soil is insufficient to allow infiltration, a lined system will be required with eventual connection onto the surface water drainage network.
- iv The creation of permeable pavements constructed using interlocking block paving within private parking areas and on shared drives.
- v Bioretention filters (rain gardens) within shared surface adoptable roads. These are surface runoff controls that capture and treat storm water runoff, with excess runoff from extreme events passed forward to other drainage facilities. The filtered runoff is collected and returned to the conveyance system and part of the runoff will be removed through evaporation and plant transpiration.
- vi Local swales directly adjacent to key roads and at edges of parcels.
- vii Oversized swales and detention basins.

Sustainability – Design Principles to ‘Mitigate’ Environmental Impacts

- 3.24 The applicant is committed to placing sustainable development at the heart of the development. The high-quality built environment will protect and enhance the site and its surroundings and it will deliver required new homes and social benefits for the wider community.
- 3.25 A series of design principles have been included within the development and tested in the EIA, including:
- a Adopting a ‘fabric first’ approach to housing design that reduces energy consumption by highly insulating walls, floors and roofs which achieve low air-leakage;
 - b Providing an electric car charging point for each new house;
 - c Reducing waste by providing suitable storage facilities and allowing for convenient waste collections;
 - d Achieving the necessary Building Regulation requirements across all units on the site;
 - e Reducing flood risk through sustainable drainage systems that also have ecological and recreational benefits;
 - f Managing surface water run-off;
 - g Improving linkages and accessibility by sustainable transport including walking and cycling; and,
 - h Implementing a Travel Plan.

Construction of the Proposed Development

- 3.26 It is expected that the development will take 5 years to construct, with 40 dwellings per year being delivered. First completions will be achieved in 2021.
- 3.27 The following core working hours for noise-generating construction works are proposed:
- 08:00 – 18:00 on weekdays;
 - 08:00 – 13:00 on Saturdays; and
 - No working on Sundays, Bank or Public Holidays.
- 3.28 Site workers may be on site for short periods before and after the core hours in order to set up / close down the site at the start and end of each working day. Construction work that does not

generate noise may be undertaken outside of the above core working hours, provided that it does not impact on any nearby noise sensitive receptors (i.e. nearby housing).

- 3.29 A Construction Environmental Management Plan (CEMP) has been prepared and appended to the main ES at Appendix C3 to address construction effects on the environment, existing surrounding communities, businesses and residents of the area. A Demolition CEMP will also be prepared by the demolition contractor, which will be submitted to the Council for approval before any demolition takes place. Further details of the scope of this document are provided in Chapters C (Site and Scheme Description) and L (Mitigation and Monitoring) of the ES.

Alternatives

- 3.30 The EIA Regulations require that consideration is given to any alternatives to the scheme that may have been studied by the applicant; along with a consideration of what may happen at the site should the development not go ahead.
- 3.31 If the development were not to go ahead the site would remain in its current (largely vacant) use. The ES (in Chapter C) identifies that the only potential benefit of the 'Do Nothing' scenario over the proposed development is the creation of new habitats from a deterioration in the health of trees and a deterioration in the building 'fabric'. The benefits of delivering new homes and sustainable transport enhancements, as well as bringing a currently underused site into beneficial use outweigh the benefit of doing nothing.
- 3.32 Alternative design details have also been considered, however the optimal development is that proposed, as the alternative options were either unsuitable or gave rise to additional adverse impacts.
- 3.33 The following sections summarise each topic assessment and the findings of the EIA. Full chapters can be found in the main ES as follows:
- Transport (ES Chapter D)
 - Air Quality (ES Chapter E)
 - Landscape and Visual (ES Chapter F)
 - Arboriculture (ES Chapter G)
 - Ecology (ES Chapter H)
 - Cultural Heritage (ES Chapter I)
 - Socio Economic (ES Chapter J)

4.0 Transport

- 4.1 The Transport ES Chapter (Chapter D) was produced by Vectos and considers the development proposals in terms of transport and accessibility.
- 4.2 A stand-alone Transport Assessment ('TA') has been produced by Vectos in support of the planning application and is included as Appendix D1 of the ES.
- 4.3 The site is currently accessed from Lodge Road and College Crescent. The site is very well placed in terms of access to local facilities and services such as medical services, shops, schools and public transport services.
- 4.4 The proposed development will deliver 218 residential dwellings at the site of the Former USW Campus in Caerleon.
- 4.5 The Transport Chapter considers the likely environmental effects, in traffic and transportation terms, during both the construction and operational phases of the Development and during the 24hr AADT period and the weekday commuter AM and PM peak periods.
- 4.6 The total daily HGV movements during the construction phases are low and would not have a noticeable effect upon traffic conditions or the pedestrian and cyclist environment. There are no long-term effects caused by construction traffic beyond the construction period.
- 4.7 The total daily traffic movements during the operational phase of the development are considered to be negligible on all links. There is likely to be a minor, adverse effect on driver delay within the study area as a result of the proposed development.
- 4.8 However, the proposed mitigation measures which include travel planning and off-site highway improvements, adequately mitigate the development effect on the study area and could result in minor benefits in terms of severance, driver delay, pedestrian and cyclist delay, pedestrian and cyclist amenity and accidents and safety.
- 4.9 The residual impacts of the development following mitigation would be minor, beneficial.

5.0 Air Quality

- 5.1 The UK has set objectives for the concentration of certain pollutants in outdoor air. These objectives are written into Welsh legislation. They are set with regard to health-based air quality standards that provide a level of environmental protection at minimum or zero risk levels. The pollutants of most concern across the UK are nitrogen dioxide (NO₂) and particulate matter. They are strongly associated with emissions from road transport in particular.
- 5.2 Air quality in Caerleon is largely good, with pollutant concentrations widely within the air quality objectives for both NO₂ and particulate matter. However, in places, roadside pollution levels are elevated and Newport City Council has declared an Air Quality Management Area (AQMA) on account of monitored exceedances of the air quality objective for annual mean NO₂. The AQMA is located on the south-west corner of the gyratory system within the town, where the narrow roads form street canyons that hinder the dispersion of emissions from traffic, and High Street to the south of the town to the junction with New Road.
- 5.3 The proposed development has the potential to affect local air quality as a result of:
- 1 During construction
 - a Dust and particulate matter emissions from construction works leading to soiling of surfaces and loss of amenity, or human health effects
 - b Nitrogen oxides (NO_x) and particulate matter emissions from construction vehicles and plant leading to increased exposure to air pollution
 - 2 During operation
 - a NO_x and particulate matter emissions from development related traffic on the local road network leading to increased exposure to air pollution
- 5.4 Impacts during the construction phase were assessed qualitatively using the approach set out in best practice guidance from the Institute of Air Quality Management. The methodology assesses the magnitude of the potential dust emissions prior to the application of mitigation in combination with an assessment of the sensitivity of the area to dust effects to determine the likely risks of dust impacts. The level of risk is then used to specify appropriate mitigation measures.
- 5.5 The conclusion of the assessment was that, in the absence of mitigation, there would be a medium risk of impacts from dust soiling on nearby residential properties but only a low risk of impacts on human health due to the relatively low background concentrations of particulate matter.
- 5.6 However, with the development and implementation of a dust management plan setting out appropriate dust emission mitigation measures, no significant residual effects are expected. The measures should include daily visual inspections for dust soiling and a protocol for action if soiling is detected.
- 5.7 Potential impacts from construction traffic can be mitigated through a construction traffic management plan. Amongst other actions, the plan should prevent development-related HGVs from accessing the Caerleon gyratory system and the Caerleon AQMA where air quality is currently poor.
- 5.8 Impacts during operation were assessed quantitatively using detailed dispersion modelling. The model uses information on traffic flows on the local road network and meteorological conditions to predict the contribution of traffic to ambient pollutant concentrations at the facades of properties within the town.

- 5.9 Roadside concentrations of NO₂ and PM₁₀/PM_{2.5} are expected to fall in the future, as new vehicle emissions standards come into force and the fleet technology improves. This applies whether or not the proposed development is in place, although concentrations of NO₂ are likely to continue to exceed the objective for several years.
- 5.10 The Future Baseline Scenario for the development site is based on an alternative use for the site that could be developed immediately, without the need for new planning permission. This has been agreed with Newport City Council as a reasonable and conservative assessment of the potential future use of the site. In comparison to this scenario, the proposed development will result in traffic generation that is lower during initial (partial) occupation of the site, but higher at the time of full occupation.
- 5.11 As such, the proposed development results in an overall decrease in pollutant concentrations in the first full year of occupation. The Institute of Air Quality Management and Environmental Protection UK provide joint guidance on the description of air quality impacts and the evaluation of the significance of effects. The decrease in pollutant concentrations in the first year of occupation is, using this guidance, described as negligible at the majority of receptors but within the Caerleon AQMA on High Street, where pollutant concentrations decrease by up to 0.8µg/m³. the impacts are described as slight to substantial beneficial.
- 5.12 Due to the slight increase in traffic generation, at the time of full occupation, the proposed development results in a negligible increase in pollutant concentration in comparison to the Future Baseline. However, no new exceedances of the air quality objectives are created and there is no significant worsening of existing exceedances with the development at any time.
- 5.13 The development incorporates many of the mitigation measures recommended by Newport City Council's Supplementary Planning Guidance for Air Quality. Significantly, the proposal developers are committed to installing electric vehicle charging points at all new residential properties, and to improving access to public transport. The proposed links to the national cycle network and inclusive Travel Plan will maximise the opportunities to reduce the need to travel by private cars and to encourage active travel. Furthermore, the Developer is committed to funding air quality related activities associated with Clean Air Day at the local primary school.
- 5.14 With these mitigation measures in place, the overall effect of the proposed development on air quality will be minor beneficial, with decreases in the concentration of pollutants within the Caerleon AQMA in all years in comparison to the Future Baseline, although the health effects of reduced exposure to air pollution may not be perceptible.
- 5.15 In summary, the air quality assessment has demonstrated that air quality will not present a significant constraint to the proposed development. It will not result in a material deterioration in air quality or harm to health as a result of its construction and occupation and is compliant with national and local planning policies and guidance.

6.0 Landscape and Visual

- 6.1 The Environmental Dimension Partnership ('EDP') has assessed the likely significant effects of the Proposed Development on the landscape and visual receptors. The assessment included a review of the baseline conditions at the EIA site and surroundings, the likely significant landscape and visual effects, the mitigation measures required to prevent, reduce or offset any significant adverse effects and the likely residual effects after these measures have been employed.
- 6.2 The Application site is a previously developed but now disused college/university campus with a range of buildings of various types and sizes. The site is not subject to any national or local designation nor do any statutory landscape designations cover any aspect of the study though historic designations are present (Scheduled Monument and Conservation Area). A number of PROW are located in the vicinity of the site and TPOs protect a number of trees within its boundaries.
- 6.3 With respect to Landscape Character, LANDMAP considers the values to be as follows:
- Geological Landscape - moderate
 - Landscape Habitats - low
 - Visual and Sensory - high
 - Historic Landscape - moderate
 - Cultural Landscape – outstanding
- 6.4 EDP's assessment of the site downgrades the value, in comparison to the wider aspect areas described by LANDMAP, as follows:
- Visual and sensory downgraded to medium due to the negative influence of the existing campus buildings; and
 - Cultural Landscape downgraded to low due to the lack of public access to the site or any identified link to the heritage tourism industry or known archaeological interest on site.
- 6.5 The character of the site is directly influenced by its former use as a university campus to form the current baseline character. The site is mostly built up with a mix of accommodation and educational buildings, some relatively large scale and incongruous compared to the surrounding town character.
- 6.6 The site is situated on Lodge Hill in similar prominence with extensive 20th century housing located adjacent, upon visible higher land to the north and west. There are long distance views from within the site to the surrounding lower lying land especially to the east and south east.
- 6.7 The ridge top location of the site leads to a potentially large number of viewpoint assessments but EDP consulted with NCC and agreed a refined selection of fifteen Representative Viewpoints which fairly provide a representation of the range of view available. 'Receptors' i.e. people identified to have the potential to experience views of the site from the surrounding landscape include:
- Users of PROW;
 - Occupiers of residential properties including residents of Caerleon itself and the district of St Julians situated across the River Usk;
 - Visitors to scheduled monuments within the study area, in particular the Roman Legionary Fortress and Amphitheatre;

- Users of public highways.

- 6.8 In accordance with best practice, the landscape and visual assessment has been undertaken in line with the 'Guidelines for Landscape and Visual Impact Assessment – Third Edition (LI/IEMA, 2013)' (GLVIA3) as relevant to EIA schemes.
- 6.9 In terms of likely effects on landscape character, the assessment finds that during construction effects will be minor or negligible with the exception of effects on the Visual and Sensory aspect which will be moderate, temporary and adverse as a result of the visible construction processes and traffic.
- 6.10 With regards to visual effects, people with views of the site from local PRoW, roads and residential properties will also be subject to a moderate adverse effect, temporarily during the construction period.
- 6.11 Longer term, residual effects of the scheme on Landscape Character are identified to be significant only in respect of the visual and sensory aspect and this will be a positive effect resulting from the removal of the poorer quality buildings across the site and their replacement with a well-designed housing scheme and associated landscaping.
- 6.12 Longer term residual effects of the scheme on the visual amenity of people in the local area are only found to be potentially significant in respect of nearby residents in the homes with clear views of the site. However, the assessment concludes the nature of this effect will be neutral given the existing site condition and those proposed.
- 6.13 The following mitigation measures have been developed to respond to consideration identified through the baseline landscape and visual appraisal. The proposed mitigation measures comprise:
- Retention and translocation of selected trees that contribute to the character of the site and quality of its landscape fabric;
 - Removal of buildings with large scale visual prominence;
 - Construction of residential dwellings that are a similar size and scale as the existing Residential character to the north, east and south;
 - Establishment of a comprehensive and carefully considered landscape strategy that includes replacement planting of selected trees identified for removal;
 - Enhancements to the contemporary landscape setting of the listed buildings including the formal approach from Lodge Road;
 - Creation of a robust green infrastructure framework for the site as illustrated on Figure F7 within the main ES chapter that will:
 - a Create a logical structure of primary and secondary treed avenues with striking seasonal colour;
 - b Create legibility at key road junctions and for buildings;
 - c Create a comprehensive Green Infrastructure strategy comprising:
 - d Create an accessible 'arboretum' featuring retained and proposed specimen trees that forms a common theme throughout the site;
 - e Provide a logical landscape framework that protects specimen trees, including retained trees with a TPO;
 - f Provide newly accessible areas of managed grassland for public access;
 - g Provide an all-weather gravel trim trail with pause points to experience new views;

- h Create an all-weather compacted resin path between the site and the off-site urban areas to the east. This path will be accessible for wheelchairs, pushchairs and the elderly and provide seating areas;
- i Design public art in the form of an amphitheatre that captures long distance framed views of the River Usk Valley to the east;
- j Provide seating and interpretation boards for views and specimen trees within the scheme;
- k Create, retain and enhance onsite habitat.

Summary

- 6.14 The assessment of effects on Landscape Character has identified some short-term adverse effects during the construction stage and at year 1 of the site's operation. However, in the longer term and with the benefits of the integrated mitigation proposed, the residual effects are considered to be beneficial in their nature while not significant in EIA terms.
- 6.15 With regard to Visual Amenity, effects during construction and at year 1 include some significant adverse but temporary effects on a number of receptors but longer-term residual effects were identified as being not significant and/or beneficial and neutral. No long term significant adverse effects have been identified.
- 6.16 The Landscape and Visual assessment of the Application Site has informed the evolution of the proposed development of the Site. It demonstrates the extent to which the sensitive layout and landscape strategy can mitigate views, retain and reinforce the landscape fabric of the Site, and assimilates the Proposed Development into the landscape of the Site's context over time. The site's present condition plays a significant role here, but the quality of the proposals do much to ensure that what is replaced is better than what is currently there.
- 6.17 Accordingly, the LVIA concludes that the Site can accommodate the Proposed Development as proposed and that there is no 'in principle' landscape or visual reason why the Application Site should not be re-developed in the form suggested.

7.0

Arboriculture

- 7.1 The Arboriculture Assessment and associated ES chapter were prepared by Steve Ambler and Sons and are presented in full within Chapter G of the ES.
- 7.2 Trees in development are a statutory consideration in The Town & Country Planning Act 1990 and are also considered in the context of this site within Planning Policy Wales 10 (December 2018), Technical Advice Note 12 Design (2016), The Local Development Plan (LDP) and Newport City Council Supplementary Planning Guidance - Trees, Woodland, Hedgerows and Development Sites (January 2017).
- 7.3 Consultation and site meetings have occurred with Shona Carle (Tree Officer TPO's & Private land (Newport City Council) before and after the production of the BS5837 Tree Survey & Tree Constraints Plan (S.J. Ambler). During these meetings the officer advised that all tree survey and development reports must be in accordance with BS5837 Trees in relation to design, demolition and construction – Recommendations (2012).
- 7.4 The site comprises of a diverse age range and species mix of trees, groups, woodland/parkland, an orchard and hedges (both formal and informal).
- 7.5 The tree stock on site has clearly been well-managed as part of the University's ground maintenance commitment, with some forethought for future generations through a tree planting programme. Many trees were seemingly planted along with the mid 1990's student residential developments as landscape enhancements.
- 7.6 There are several category A trees and groups recorded on the site and equating to approximately 6% of tree cover. This category rating is due to their prominent locations, generally good health and on occasion unusual species.
- 7.7 The majority of category B trees, which equates to approximately 35% of tree cover, are larger, more prominent specimens in good condition, or groups which have the potential to provide screening of views into or out of the site (or between parts of it).
- 7.8 The remaining trees are not considered to be of any particular arboricultural or visual merit; are below the threshold of 75-mm stem diameter when measured at 1.5 metres above ground level or are in poor condition and have been allocated a retention category of C or U. These equate to approximately 42% of tree cover across the site.
- 7.9 Without development the tree stocks remain fully intact, however the management of the tree stocks would likely decline and any structural or health issues go unnoticed and unmanaged, which may shorten the trees life expectancy and provide a risk to those using the site albeit at a lower usage level. Such hazards would also pose a risk to those living in properties adjoining the site or the surrounding highways.
- 7.10 With development comes the opportunity to invest in further tree planting and management of the woodland feature (G23) and this offers an opportunity for habitat and amenity gains.
- 7.11 The design layout shows buffers between the houses, gardens and retained trees. This will reduce the pressures that would otherwise be placed upon these trees by residents.
- 7.12 Any construction works have the ability to negatively impact on tree health and stability, as their underground parts are frequently ignored, damaged or severed and above ground parts are injured or broken through impact. They will require protection from such injury throughout the development phase from the start. This is regarded as the only significant impact with regards to the potential risk. All other potential risks or conflicts are deemed to have a minor impact

during construction and operation of the site. The impacts are deemed to be localised and stand alone with no obvious cumulative adverse effects.

- 7.13 Detailed conflicts arising between trees and the design layout / levels plan / service plans / landscape plans / contractor compounds and temporary access routes should be recorded and identified within an Arboricultural Implications Assessment and Tree Protection Plan and resolved within the Arboricultural Method Statement & Tree Protection Plan with site specific mitigation measures offered where deemed necessary. These documents must be fully implemented during the demolition and construction phases and overseen by an appointed Project Arborist via Arboricultural Watching Brief visits and reports.
- 7.14 As certain trees on site pose a constraint to the proposed development (primarily young and early mature specimens), there is scope on this site to undertake mitigation planting particularly along the somewhat open north-east boundary abutting the PRoW and within the woodland / parkland grouping of G23, thereby improving habitat connectivity. Planting could be in the form of mixed native woodland, specimen tree planting to enhance the tree collection and the creation of native hedgerows.
- 7.15 Recommendations within the Tree Survey (S.Ambler Feb-April 2019) should be implemented in order to offset known risks posed by tree hazards either whole tree or part thereof. Tree condition surveying and the implementation of subsequent recommendations should continue into perpetuity. Monitoring and maintenance of newly planted and transplanted trees should also occur until established.
- 7.16 The proposed development permits the retention of all the most significant and valuable trees, hedges, orchard, woodland and parkland. There is also no obvious adverse impact upon trees adjacent to the site. Retained trees, hedges, orchards and woodland can be protected so long as the recommendations outlined within BS5837 are fully implemented via the Arboricultural Method Statement and under supervision of the Project Arborist.
- 7.17 Long-term woodland management plans, orchard restoration and a well-thought out complimentary landscaping and tree planting scheme will not only compensate for any short-term losses but will enhance tree stocks and habitat value long-term.
- 7.18 It is our view that the scheme will ensure a sustainable integration of the trees, hedges, orchard and woodland within the proposed scheme, as trees have been considered from the on-set of the design process and if adequately protected throughout the demolition and construction phases and managed into perpetuity, there will be no long-term adverse impact.

8.0 Ecology

- 8.1 The Environmental Dimension Partnership Ltd (EDP) has assessed the potential ecological effects the development proposals may have on the EIA site and its surroundings. The assessment included a review of the current baseline conditions found within the area and identifies measures to avoid, mitigate and/or compensate where appropriate for significant effects that may arise as part of the proposals.
- 8.2 The assessment is based upon the findings of detailed survey work undertaken by Tyler Grange in 2015 and Ecosulis between 2015 and 2016, and upon the results of further update ecology survey work completed by EDP during 2019 including a Desk Study, Extended Phase 1 Habitat survey and further detailed surveys for bats and common reptiles.
- 8.3 No part of the EIA site is covered by any statutory or non-statutory designations. However, there are a number of such designations within the site's potential zone of influence. Of these, the Severn Estuary Ramsar/Special Area of Conservation (SAC)/Special Protection Area (SPA), River Usk SAC/Site of Special Scientific Interest (SSSI) and Afon Llwyd/Afon Llwyd Grassland Sites of Interest for Nature Conservation (SINCs) were considered further as Important Ecological Features (IEF) by virtue of the EIA site's potential hydrological connectivity with these designations.
- 8.4 Habitats within the EIA site largely comprise hardstanding and buildings which are predominantly vacant, in addition to areas of amenity grassland and ornamental shrub planting. The north-eastern corner and eastern boundary of the EIA site is characterised by an unmanaged, tussocky grassland sward with scattered non-native and native trees. Such habitats are considered to be of limited/negligible ecological importance and thus scoped out of the assessment. Adjacent semi-natural broadleaved woodland and trees with Tree Protection Orders (TPOs) scattered across the EIA site are otherwise considered to be of ecological value at the local level however and were included as IEFs on this basis.
- 8.5 Update dusk emergence/dawn re-entry surveys of onsite buildings with potential to support roosting bats, undertaken during 2019, have identified a summer day roost for low numbers of common pipistrelle bats within buildings B1/B2, B3/4 and B16. B16 also supports a summer day roost for low numbers of soprano pipistrelle bats. Both B1/B2 (Camelot/Dolaucothi accommodation block) and B16 (Felthorpe House) have previously been confirmed as supporting roosts for common pipistrelle and presumed Myotis bat species following detailed survey effort undertaken by Ecosulis in 2016. Myotis bat species were not recorded roosting within B1/B2 during surveys undertaken by EDP in 2019.
- 8.6 In addition, habits inherent within the EIA site support a foraging/commuting bat assemblage dominated by common and widespread generalist species such as common pipistrelle bats, with a population considered of ecological importance at the local level. Detailed surveys in respect of common reptiles identified a low population for slow-worm (*Anguis fragilis*) important at the site level. Nesting birds are also likely to use areas of scrub, trees and buildings. Both were included as an IEF by virtue of their statutory legal protection.
- 8.7 The impact assessment has identified that certain actions could result in significant negative effects on these IEFs without mitigation. Inherent avoidance, mitigation and compensation measures to be delivered through the implementation of construction environmental management plan and landscaping scheme are considered to ameliorate those significant effects identified to a residual level where no significant negative effects will arise.

- 8.8 Based on the impact assessment and in consideration of the IEFs, it is considered that the proposals will conform to the respective legislative protective afforded to these IEFs and with respect to national, regional and local planning policy requirements.

9.0 Cultural Heritage

- 9.1 The Cultural Heritage assessment was prepared by EDP and is provided in full within ES Chapter I. The assessment finds that the impact of the proposed development on historic assets will be confined to assets that are located within the site. Notwithstanding the large number of historic assets within 1km of the application site, the assessment finds that they will be unaffected by either the construction or operation of the proposed development.
- 9.2 The assessment concludes that during construction, as a result of alterations to the fabric of the buildings in order to adapt and convert them to residential use, there will be an overall minor adverse effect on the former Caerleon Teacher Training College Building, the former Principal's Residence, and the former Caretaker's/Gardener's Lodge, all of which are Grade II listed buildings. These are not significant effects with regard to EIA.
- 9.3 The assessment concludes that during operation there will be a minor beneficial effect on the Grade II listed on the former Caerleon Teacher Training College Building, due to it being in a sustainable long-term use and as a result of the enhancement of its setting.
- 9.4 During operation of the proposed development there will also be a minor beneficial effect on the Grade II listed former Principal's Residence, the former Caretaker's/Gardener's Lodge, and the Gate Piers at the original entrance to the Caerleon Campus, as the former Principal's Residence and Caretaker's/Gardener's Lodge will have a secure, long-term sustainable use and all the listed buildings will stand in an improved landscaped setting. These are not significant effects with regard to environmental impact assessment.
- 9.5 The assessment concludes that, while there is the potential for adverse impacts on any surviving archaeological remains within the site, resulting adverse effects would be fully mitigated by the implementation of an appropriate scheme of archaeological works secured by condition attached to planning consent.

10.0

Socio Economic

10.1

The Socio-Economic assessment was prepared by Lichfields and is provided in full within ES Chapter J. The proposed development will have a beneficial socio-economic impact across South East Wales but this will be felt most strongly in Newport.

10.2

The key features of the demographic and economic conditions in Newport and the Newport 001 MSOA can be summarised as follows:

- 1 The age profile of the population of Newport is younger than both the wider Wales region and the national average; however, the population of Caerleon is older than the average in Newport, Wales and Great Britain;
- 2 Newport has experienced higher levels of growth than the Wales average between 2007 and 2017 but the population of Caerleon has reduced;
- 3 Economic activity in Newport is higher than the regional level but lower than the national level;
- 4 The unemployment rate in Newport is the same as the average for Wales and is slightly higher than the average for Great Britain;
- 5 Newport's level of employment growth is higher than the growth recorded in Wales and Great Britain;
- 6 Newport is a net importer of labour and has large commuting flows in both directions;
- 7 Caerleon has relatively low levels of deprivation, as one of the 40% most deprived LSOAs in Wales;
- 8 Recent housing delivery in Newport has not met the LDP housing requirement;
- 9 The 18 primary schools within 3 miles of the proposal site currently have surplus capacity of 253 places. The four secondary schools within 3 miles of the proposal site are oversubscribed by 120 places;
- 10 There are eight GP practices within approximately 2 miles of the proposal site, which collectively have surplus capacity;
- 11 There are 16 community facilities within 3 miles of the proposal site, including community halls and a library;
- 12 Within 3 miles of the proposal site, there are four equipped play areas for children, six informal grassed areas and six outdoor sports pitches; and,
- 13 There is currently an overall deficit of open space in Caerleon but a surplus of informal playing space.

10.3

The most significant economic impacts of the proposed development would be:

- 1 A capital investment of **£54.5 million** over a build period of 5 years;
- 2 **504 person-years** of temporary construction work, equivalent to **100 direct construction jobs per year over the build period** (50 FTE);
- 3 A further **160 indirect/induced jobs (75 FTE jobs)**;
- 4 The total expenditure from new residents at the proposed development is expected to be £6.2 million per annum in addition to one-off spending of £1.2 million on household products and services within a year and a half of moving.
- 5 The scheme will result in an additional £415,000 in Council Tax revenue.

- 10.4 The proposed development would also contribute to re-balancing the age profile of the local area in Caerleon, an area that has experienced population decline in recent years and has an older, population than Newport as a whole.
- 10.5 The proposals offer significant benefits in relation to the provision of housing in Newport, which would contribute to meeting the need for housing identified in the adopted LDP. It would provide a range of housing types and sizes, including affordable homes, and would therefore help to provide housing choice in the area. It would also contribute to reducing the level of net in-commuting by accommodating workers in Newport.
- 10.6 New residents at the proposed development would place a minor additional demand on nearby sports and leisure venues but would also provide valuable support for these facilities and the activities held there and the development will provide more than double the amount of open space that is required by the LDP.
- 10.7 Were the proposed development not to proceed, this could have adverse impacts in social and economic terms. A “do nothing” option would not generate any socio-economic benefits for the area of assessment and would fail to make any contribution towards key local economic issues such as the need for additional housing.
- 10.8 The proposed development therefore represents a significant new capital investment in the area, which will provide needed housing and will generate additional resident expenditure that will help to support local services. The only mitigation that is likely to be required in respect of socio-economic matters relates to s.106 contributions for secondary education. This contribution will overcome any minor adverse socio-economic impacts associated with the proposed development.

11.0

Cumulative Assessment

11.1

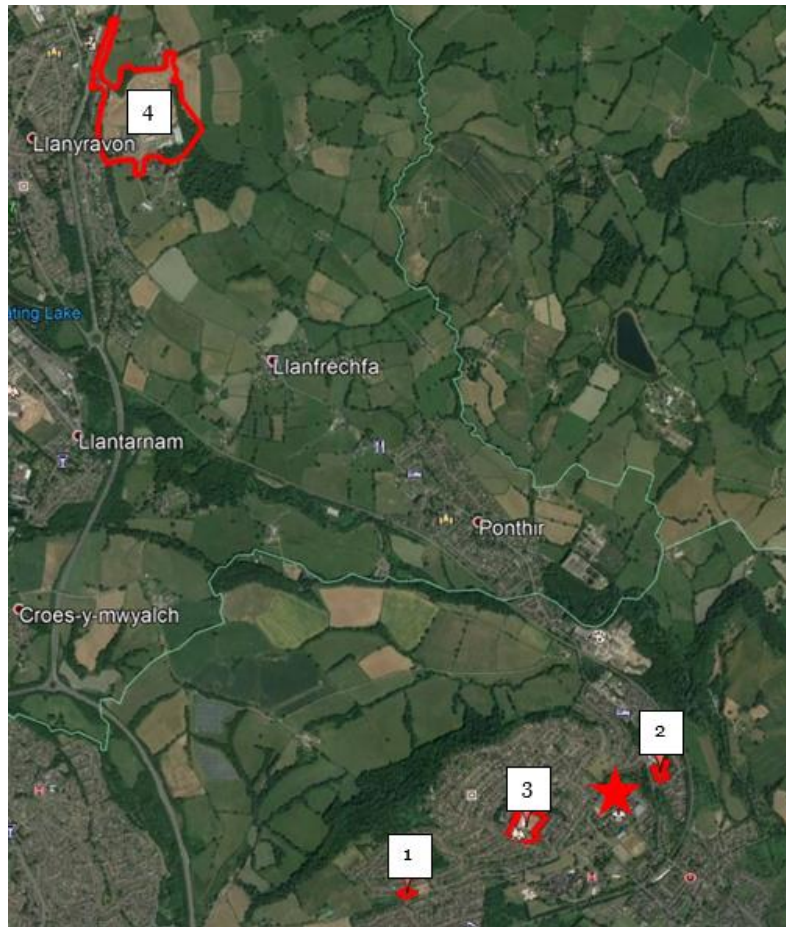
An assessment has been carried to identify if additional environmental effects would be likely to arise if the development is considered alongside the following developments in the local area:

- 1 Land at Trinity View. Planning permission was granted in May 2015 for the construction of 4 dwellings (Application Reference 15/0344, NCC).
- 2 Land and Buildings North East of 71 Forge Close, Caerleon. It was resolved to grant permission for the development of 16 dwellings in July 2018, however it is understood that the S106 agreement remains pending (Application Reference 16/0786, NCC).
- 3 New Primary School, Lodge Hill, Caerleon. Construction is underway for a new Primary School (Application Reference 17/0605, NCC).
- 4 Llanfrechfa Grange Hospital, Caerleon Road, Llanfrechfa, Cwmbran. Construction is underway for a Specialist and Critical Care Centre (Outline Application Reference 12/P/00348; Reserved Matters Application Reference 15/P/00097, Torfaen County Borough Council).

11.2

The location of these sites is identified on Figure 11.1 below.

Figure 11.1 Location of Cumulative Sites



Key: 1: Land at Trinity View; 2: Land and Buildings North East of 71 Forge Close; 3: New Primary School, Lodge Hill; 4: Llanfrechfa Grange Hospital

- 11.3 The cumulative impacts that are predicted to occur in cumulation with other identified developments are limited to socio economic and transport matters.
- 11.4 With regards to cumulative transport impacts, there is predicted to be a minimal increase in traffic within the study area during the AM and PM peak periods and throughout the day, though these will not be significant and have not been considered further.
- 11.5 Socio economic impacts reflect the main assessment; those themes/areas that are identified as having a beneficial impact within the main technical assessment (ES Chapter J) will experience additional beneficial impacts (i.e. construction employment, resident expenditure, fiscal, the local labour market, deprivation and housing supply). Conversely there is the potential that negative impacts could also experience additional negative dis-benefits; although it is concluded that adequate mitigation reduces these impacts to negligible.

12.0 **Delivery of Mitigation and Monitoring**

12.1 The EIA process has identified a need for the preparation and agreement of a number of documents should permission be granted for the development that will make sure that the conclusions of the ES can be secured and that effects will be negligible or kept to an absolute minimum. Full details of the mitigation and monitoring requirements are identified within the individual ES Chapters and are pulled together in ES Chapter L. In summary they include:

12.2 During the Construction Period:

- Construction Environmental Management Plan
- Construction Traffic Management Plan
- Dust Management Plan
- Stakeholder Communications Plan
- Construction Logistics Plan and Travel Plan
- Detailed Landscape Strategy
- Appointment of a qualified arborist/woodland specialist to supervise an Arboricultural Watching Brief
- Arboricultural Method Statement and Tree Protection Plan
- Ecological Construction Method Statement including the establishment of Ecological Protection Zones
- Appointment of an Ecological Clerk of Works
- Securing any required development licences from Natural Resources Wales
- Landscape and Ecology Management Plan
- Undertaking any required ecological survey updates
- Adherence to Pollution Prevention Guidelines

12.3 During the Operational Period:

- Travel Plan
- Preparation of an Arboricultural Risk Zone Plan and undertaking cyclical tree condition surveys
- Monitoring and maintenance of newly planted and transplanted trees for 5 years
- Implementation of Landscape Strategy and management of habitats
- Financial contribution(s) in relation to secondary education, formal sports provision and an on-road cycle link from the site to the National Cycle Network.

12.4 The required mitigation measures can be secured via planning condition or a S106 legal agreement, should planning permission be granted. These can address issues such as the materials to be used as part of the development.

13.0 **Availability of the Environmental Statement**

13.1 An electronic (CD-ROM) of the full ES can be obtained from Lichfields (caerleoncampus@lichfields.uk). Reasonable copying and printing charges will be applied should a paper copy be requested; a CD ROM is available free of charge.

13.2 Once the planning application has been validated by NCC the ES and associated detailed planning application can be viewed on the Council's website at:

[https:// http://planning.newport.gov.uk/swift/apas/run/wphappcriteria.display](https://http://planning.newport.gov.uk/swift/apas/run/wphappcriteria.display)

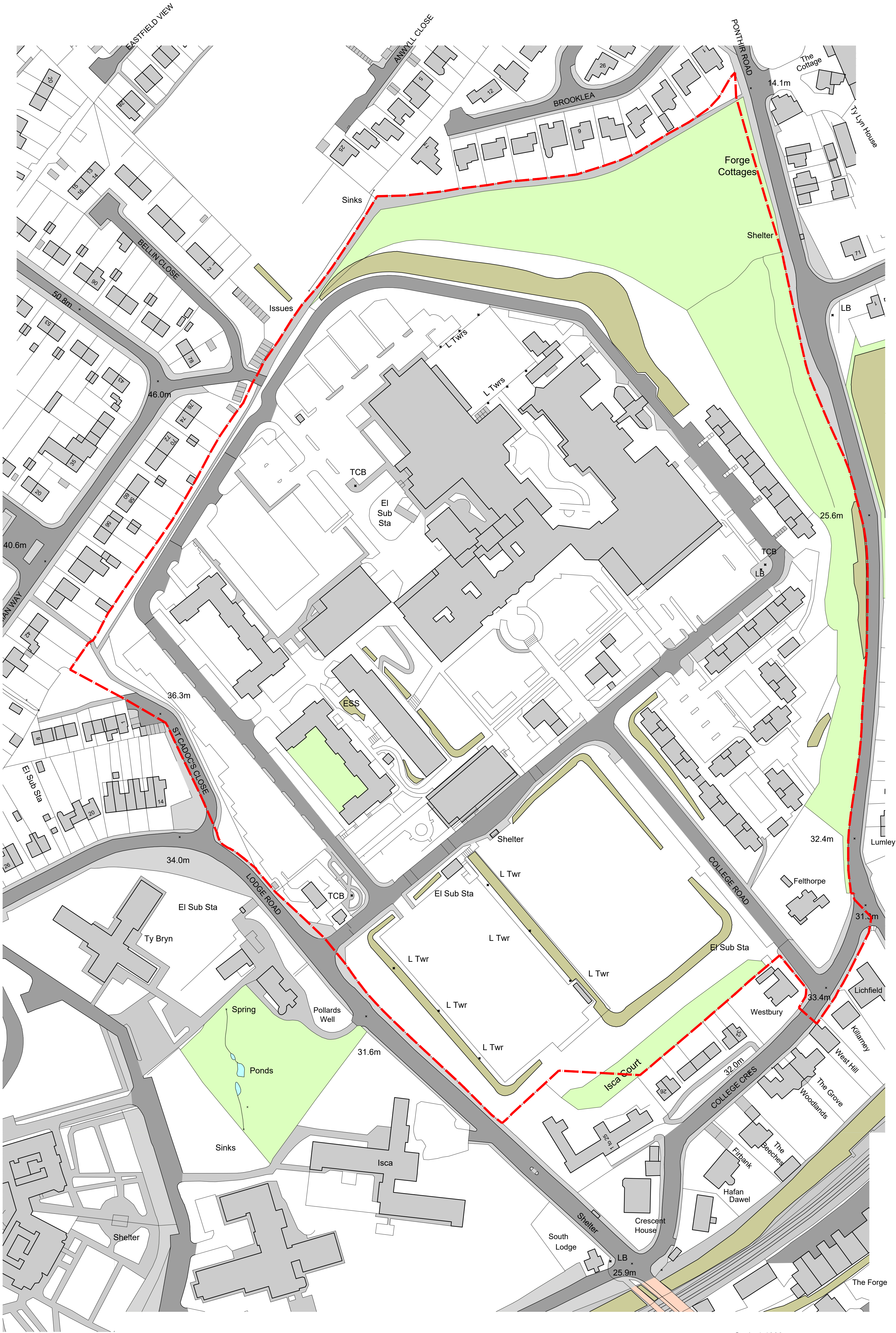
or during the opening hours of Newport City Council at the following address:

Regeneration, Investment and Housing
Newport City Council
Civic Centre
Newport
NP20 4UR

Tel: +44 (0)1633 656656

14.0 Key Plans of the Proposed Development

[SEE OVERLEAF]



Scale 1:1000



Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:

Chk'd:

Rev:

Chk'd:

PRELIMINARY

PLANNING

DESIGN

TENDER

CONSTRUCTION

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Contract: **Redrow Homes**
Caerleon Campus Redevelopment
Title: **Existing Site Plan**

Drawing No. Rev.

18137(05) 1100 -

Scale: 1:1000@A1

Date: 09/10/19

Drawn: art

Checked: -

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SCHEDULE OF ACCOMMODATION 11.11.19				
No. of Units	%	House Description	storey height	beds
12		LETCOWORTH (TOOLBOX)	2 st	3 bed
18	13%	WARWICK	2 st	3 bed
12	9%	AMBERLEY	2 st	4 bed
22	16%	STRATFORD	2 st	4 bed
17	13%	OXFORD	2 st	4 bed
14	10%	OXFORD Lifestyle	2 st	3 bed
16	12%	CAMBRIDGE	2 st	4 bed
17	13%	WELWYN	2 st	4 bed
13	10%	HENLEY	2 st	4 bed
5	4%	HARRINGATE (MSU)	2 st	4 bed
5		RICHMOND	2 st	4 bed
sub total				
147				
Affordable				
6		2.1.3 Flat	2 St	1bed
6		4.2.2 House	2 St	12 bed
6		5.3.3 House	2 St	3 bed
sub total				
22				
SUMMARY TOTAL				
169				
NUMBER OF UNITS COVERAGE				
Net Developable Area				
5.8		hectares		
14.30		acres		
Density/Coverage				
14,992.52		Sq ft/acre		
29.14		uph		
CAERLEON CAMPUS: CONVERSIONS WITHIN EXISTING BUILDINGS				
No. of Units	%	House Description	storey height	beds
MAIN BUILDING				
23		1 bed flats		
18		2 bed flats		
1		3 bed flats		
Listed Building Outbuilding				
2		2 bed flats		
sub total				
44				
TJ WELBY				
1		2 bed house		
1		3 bed house		
sub total				
2				
TY HYWEL				
1		1 bed flat		
1		4 bed house		
sub total				
2				
FELTHORPE HOUSE				
1		5 bed house		
TOTAL				
49				
SUMMARY TOTAL NEW BUILD AND CONVERTED UNITS				
OPENMARKET (CONVERTED UNITS)				
49				
REDROW HERITAGE				
147				
AFFORDABLE (REDROW AFFORDABLE)				
10%				
NUMBER OF UNITS				
218				



Materials Key :

WALLS:

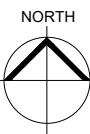
- Main Brick - Red Multi
Detail Brick - Smooth Red
- Main Brick - Red Russet
Detail Brick - Smooth Red
- Main Brick - Buff Multi Rustic
Detail Brick - Smooth Buff
- Render - Roughcast - Colour: Chalk

ROOFS:

- Forticrete Gemini roof tile
Colour: Red
- Forticrete Gemini roof tile
Colour: Slate Grey
- Forticrete 'SL8 tile' - Grey
- Forticrete 'SL8 tile' - Red

MORTAR: Natural Sand

Scale 1:1000



Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:	Chk'd:	Rev:
A	Additional brick and roof tile types added following client review. art 31.10.19	-
B	Redesign to accommodate water main as per client mark up; Site plot numbers renumbered from plot 107 onwards art 12.11.2019	
C	Plot 84 & 85 - Roof tile changed to SL8 tile in Grey art 21.11.2019	
D	Layout updated to 18137(05) 1101H	AF 26.11.2019

Chk'd:

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

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Contract: Redrow Homes
Caerleon Campus Redevelopment
External Finishes Layout

Title:

Drawing No. 18137(05) 1103
Rev. D

Scale: 1:1000@A1
Date: 09/10/19
Drawn: art
Checked: BK

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BOUNDARY ENCLOSURE KEY

- 1.8m High Close Board Timber Fence
- 1.8m High Brick Screen Wall (to match main house brick)
- 1.8m (nom.) High Brick, lapped boarded & brick pier Wall. (brick to match main house brick)
- 1.2m (nom.) High picket fence to rear gardens of plots 12-17, 21, 22, 30-38
- 1.1m (nom.) High Black 'Ball top' galv. metal vertical railing as guard barrier to retaining walls where drop exceeds 600mm
- 1.8m High Timber Close Board Gate

NOTE:
Refer to the engineer's drawings for retaining walls heights and external steps

Scale 1:1000



Figured dimensions and levels to be used. Any inaccuracies must be notified to the architect. Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:	Chk'd:	Rev:	Chk'd:
A		Minor revisions relating to which walls are screen walls, wall & fence panel or fences following client review; 1.2m high picket fence introduced to rear boundaries of some plots to take advantage of views.	
B		Redesign to accommodate water main as per client mark up; Schedule adjusted; Site plot numbers renumbered from plot 107 onwards.	
C		Retaining walls and external steps added; Guard railing to retaining wall added.	
C		Layout updated to 18137(05) 1101H	

Rev:	Chk'd:
art 31.10.19	
art 12.11.19	
art 21.11.19	
AF 26.11.2019	

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

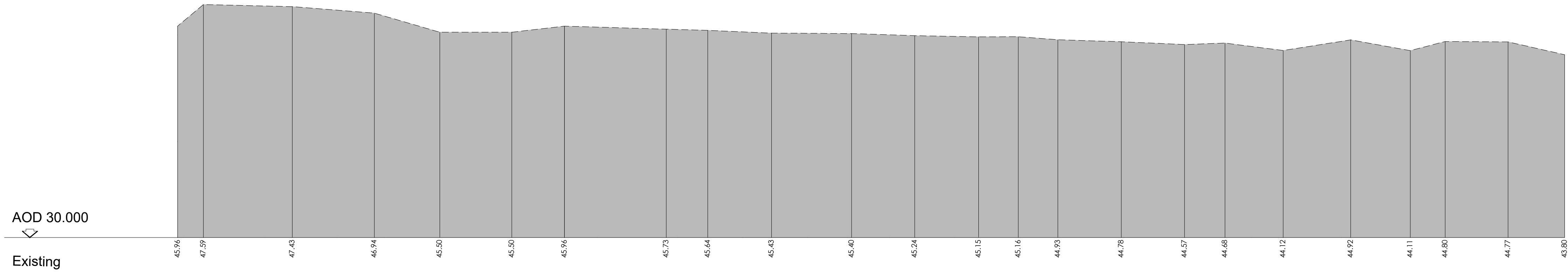
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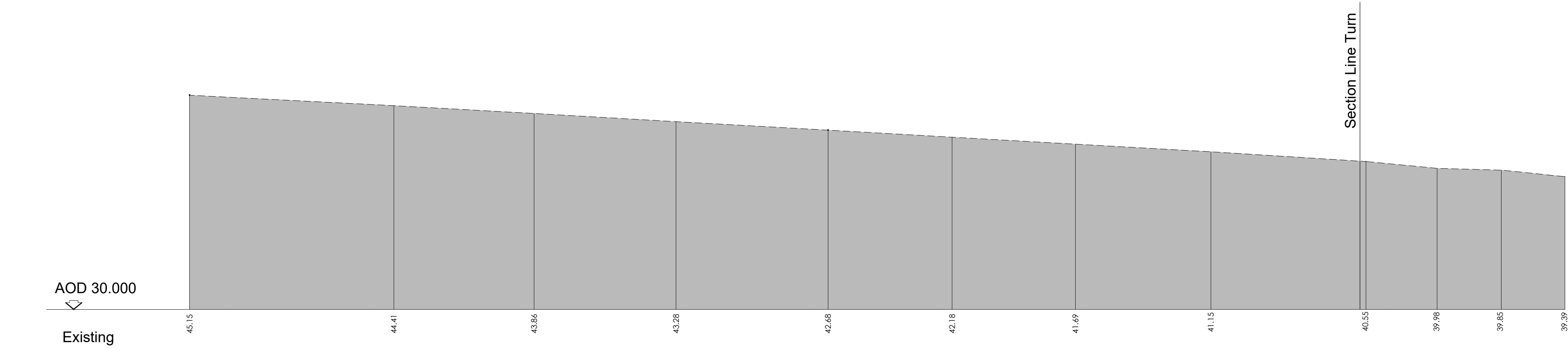
Contract: Redrow Homes
Caerleon Campus Redevelopment
Enclosures Layout

Drawing No. 18137(05) 1104
Rev. D

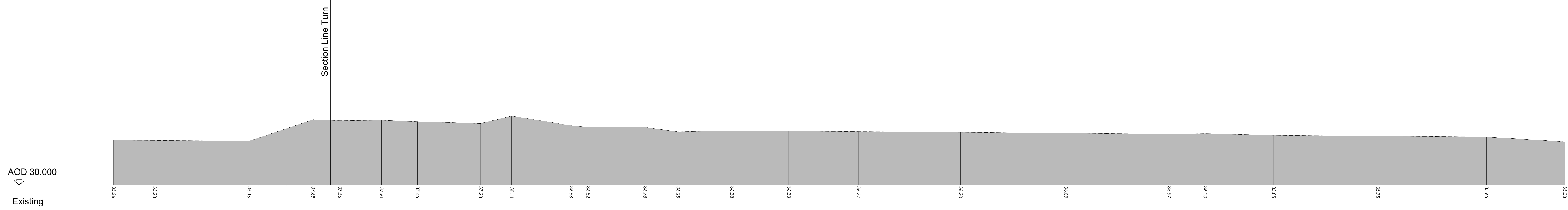
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Date: 10/10/19
Drawn: art
Checked: .



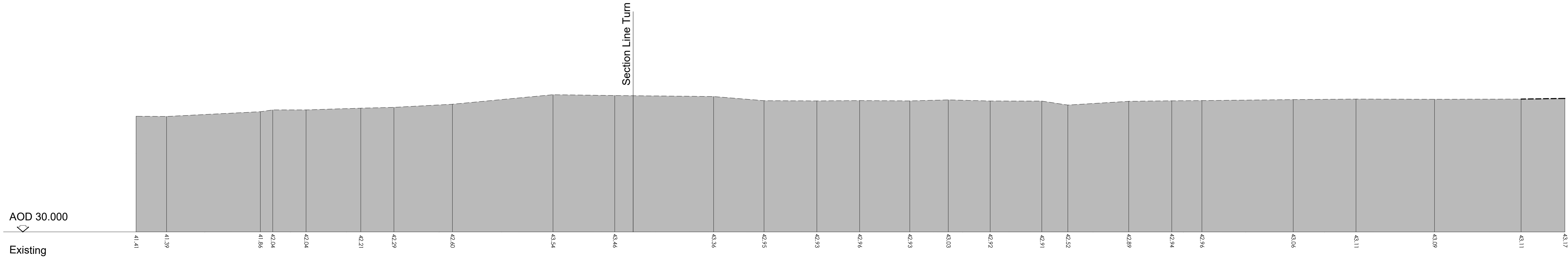
Section 1-1
1-200



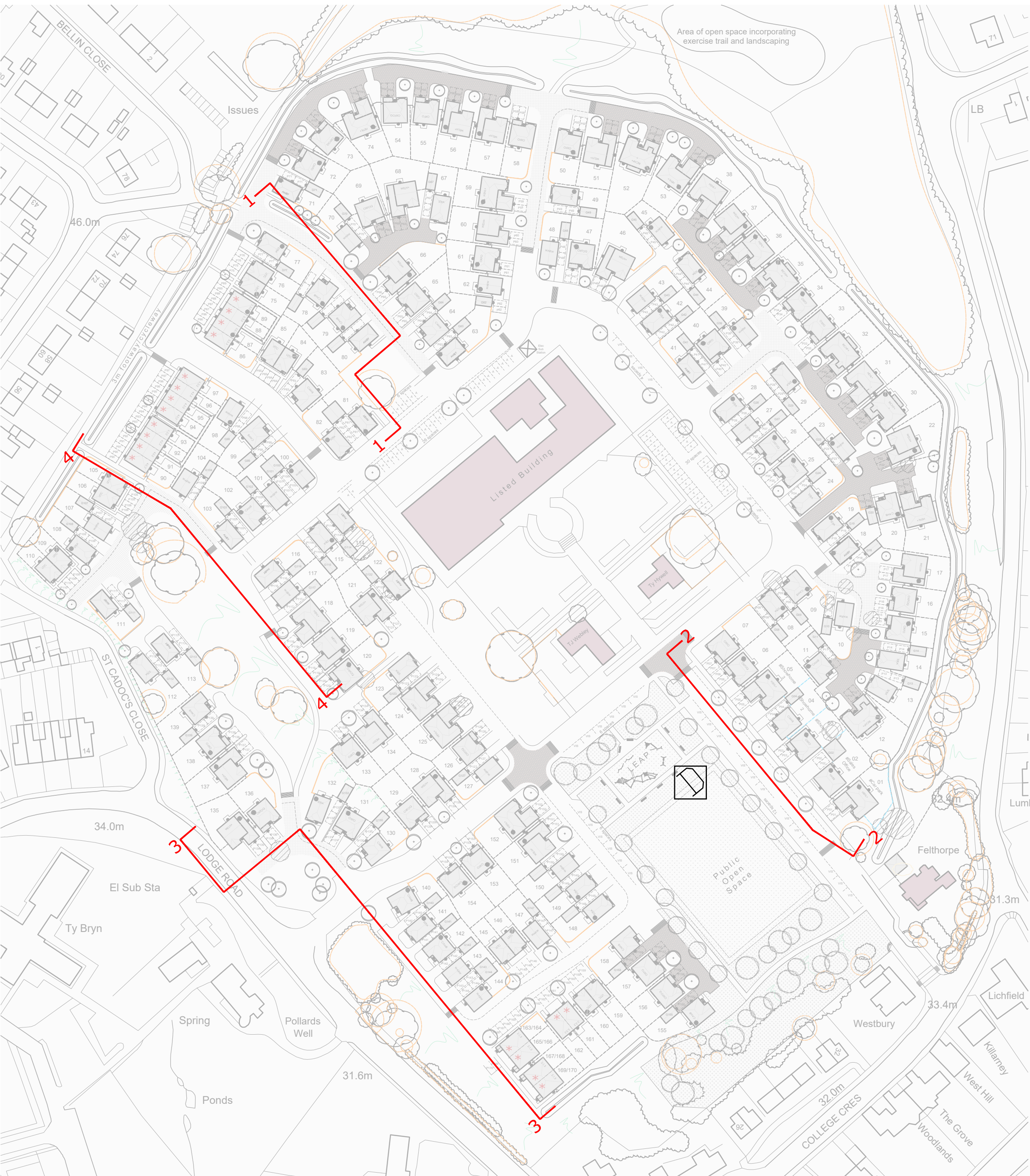
Section 2-2
1-200



Section 3-3
1-200



Section 4-4
1-200



Site Plan
1-1250

This drawing must not be scaled.
Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:	Chk'd:	Rev:	Chk'd:	Rev:	Chk'd:	Rev:	Chk'd:
-	-						

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PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

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Contract: Redrow Homes Caerleon Campus Redevelopment Title: Existing Site Sections	Scale: As Shown @ A0 Date: 10/10/19 Drawn: art Checked: -



Section 1-1
1-200



Section 2-2
1-200



Section 3-3
1-200



Section 4-4
1-200



Site Plan
1-1250

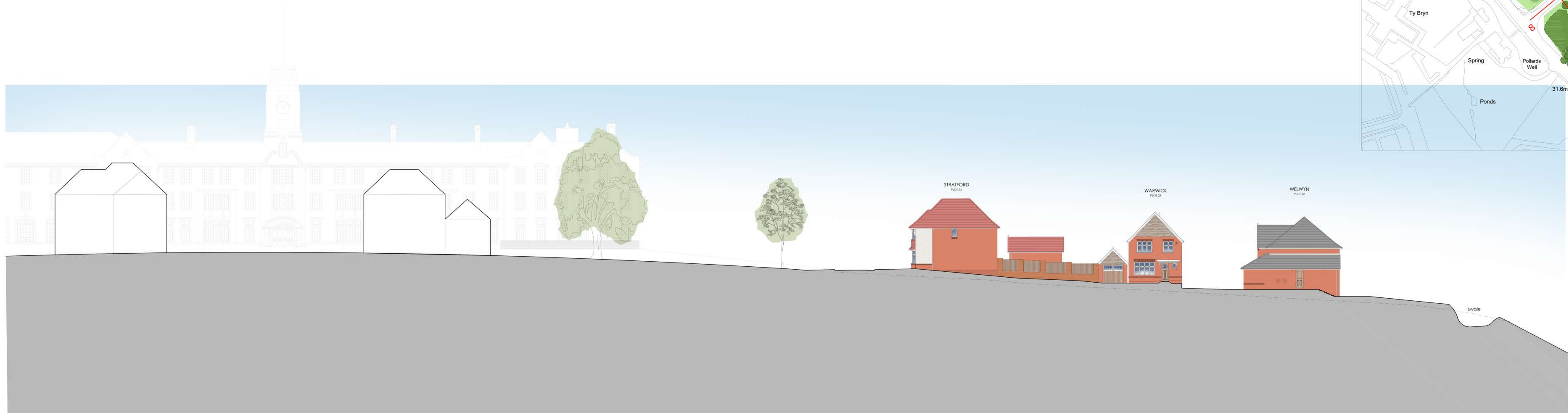
This drawing must not be scaled. Figured dimensions and levels to be used. Any inaccuracies must be notified to the architect. Detail drawings and large scale drawings take precedence over smaller drawings.									
Rev:	Chk'd:	Rev:	Chk'd:	Rev:	Chk'd:	Rev:	Chk'd:	Rev:	Chk'd:
A									
B									
Plot numbers adjusted following site layout revision to accommodate water main - affecting street elevations 3-3 and 4-4. All sheet elevations updated to suit changes to proposed Site Plan and current site level information from Hydrotek. art 12.11.19 CHT 22.11.19									
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PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

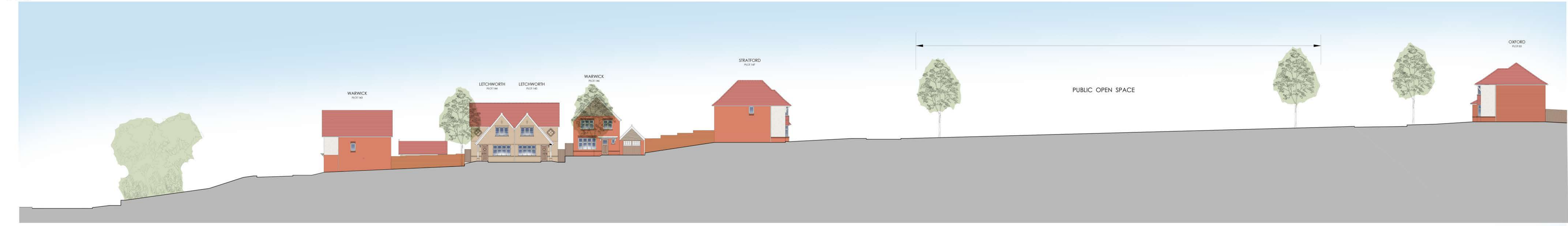
powelldobson ARCHITECTS		Drawing No.	Rev.
Contract: Redrow Homes		18135 (05) 1106	B
Date: Oct.2019		Scale:	As Shown @ A0
Title: Proposed Street Elevations - Sheet 1		Drawn:	art
		Checked:	



Section 8-8
1-200



Section 8-8 (Continued)
1-200



Section 9-9
1-200



Site Plan
1-1250

drawing must not be scaled. figured dimensions and levels to be used. any inaccuracies must be notified to the architect. detail drawings and large scale drawings take precedence over smaller drawings.		Rev:	Chk'd:		Rev:	Chk'd:		Rev:	Chk'd:		Rev:	Chk'd:		Rev:	Chk'd:		
A		All street elevations updated to suit changes to proposed Site Plan and current site level information from Hydrock. Section 9-9 added.		CHT 22.11.19													
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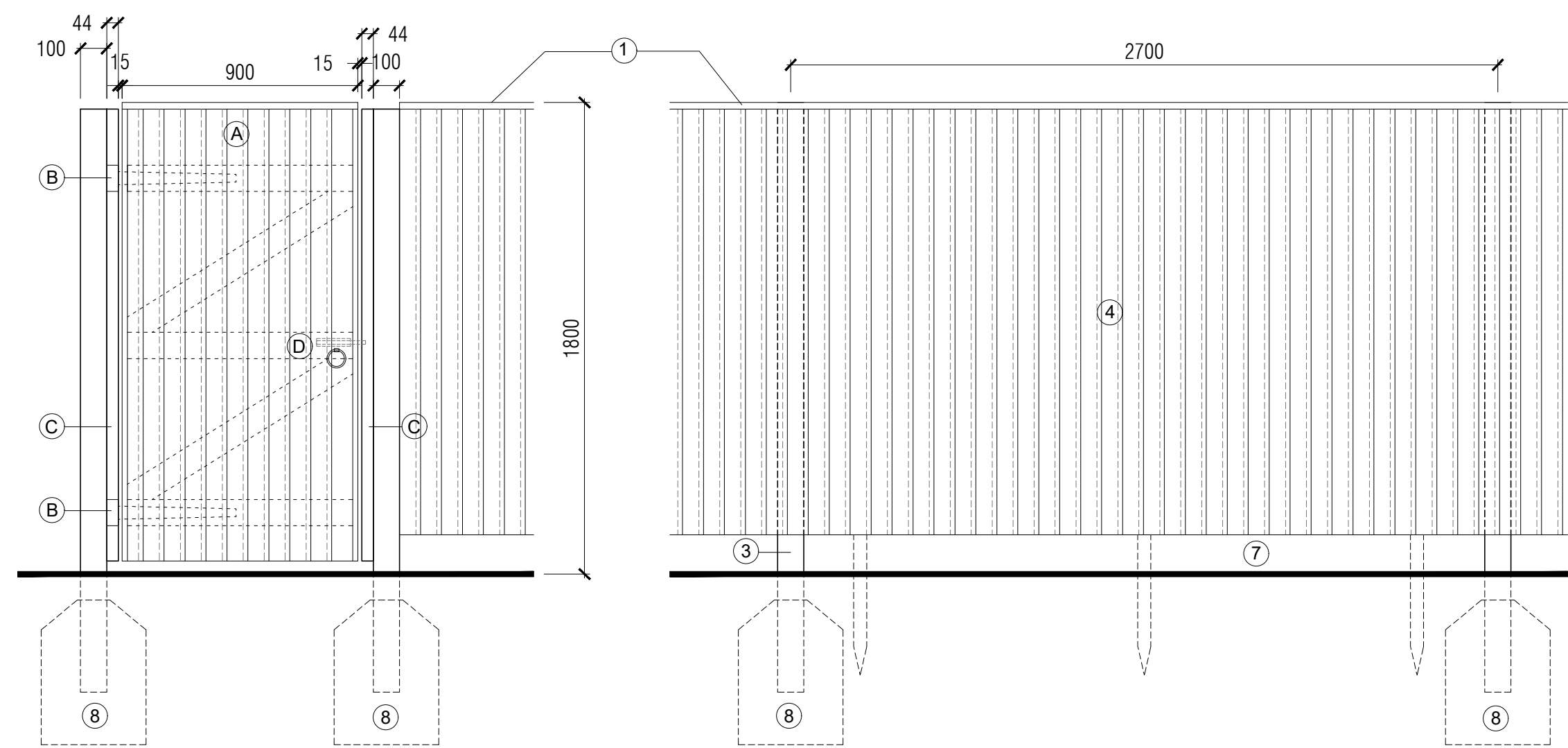
PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

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Contract: Redrow Homes		18135 (05) 1108	A
Title: Caerleon Campus Redevelopment		Scale:	As Shown @ A0
Proposed Street Elevations - Sheet 3		Date:	Oct.2019
		Drawn:	CHT
		Checked:	

Boundary Enclosure Details

NOTE:
Drawing to be read in conjunction with drawing No. 18137(05)104 Enclosures Layout

1800mm Close Boarded Fence and Gate

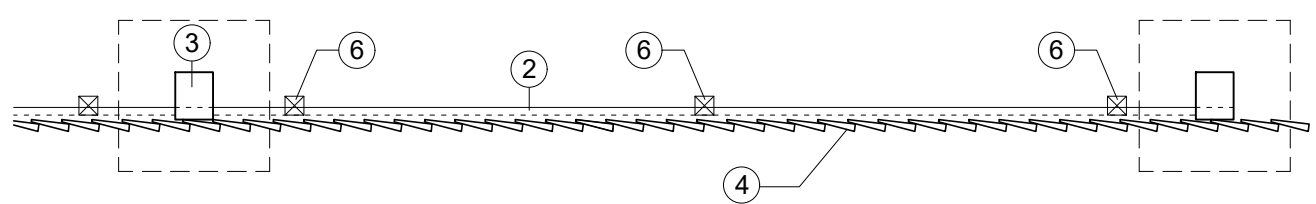


Elevation - Gate

Elevation - 1800mm Close Boarded fence

Key - Close Boarded Fence

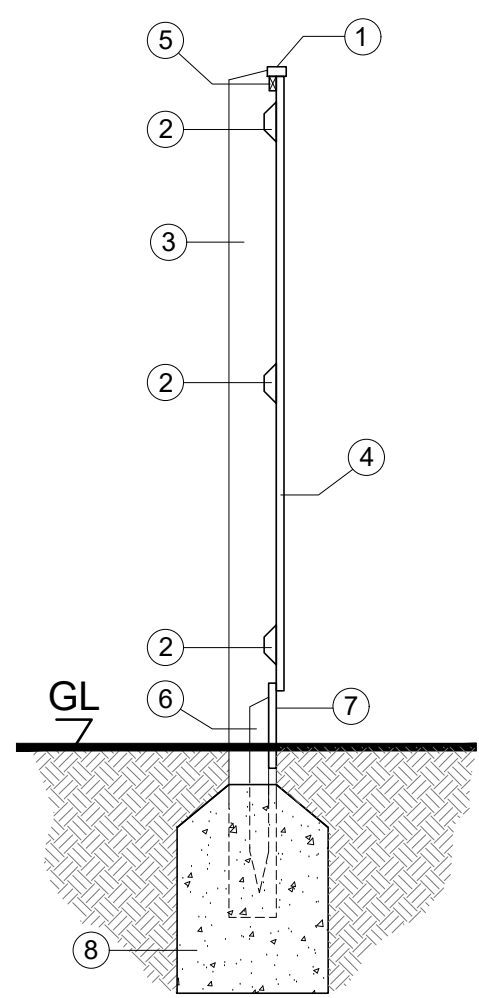
- 1 Cap rail - ex.50x25mm weathered and treated.
- 2 75 x75mm aris rail.
- 3 125 x 100mm treated timber posts at max. 2700mm cts.
- 4 100 x 22 - 8mm feathered edged board, lapped 20mm.
- 5 Ex.19 x 38mm s.w.rail supporting cap rail.
- 6 Ex. 50 x 50mm s.w.treated post to support gravel board.
- 7 Ex. 225 x 20mm s.w.treated plinth / gravel board.
- 8 Foundations to Engineer's detail.



Plan - 1800mm Close Boarded fence

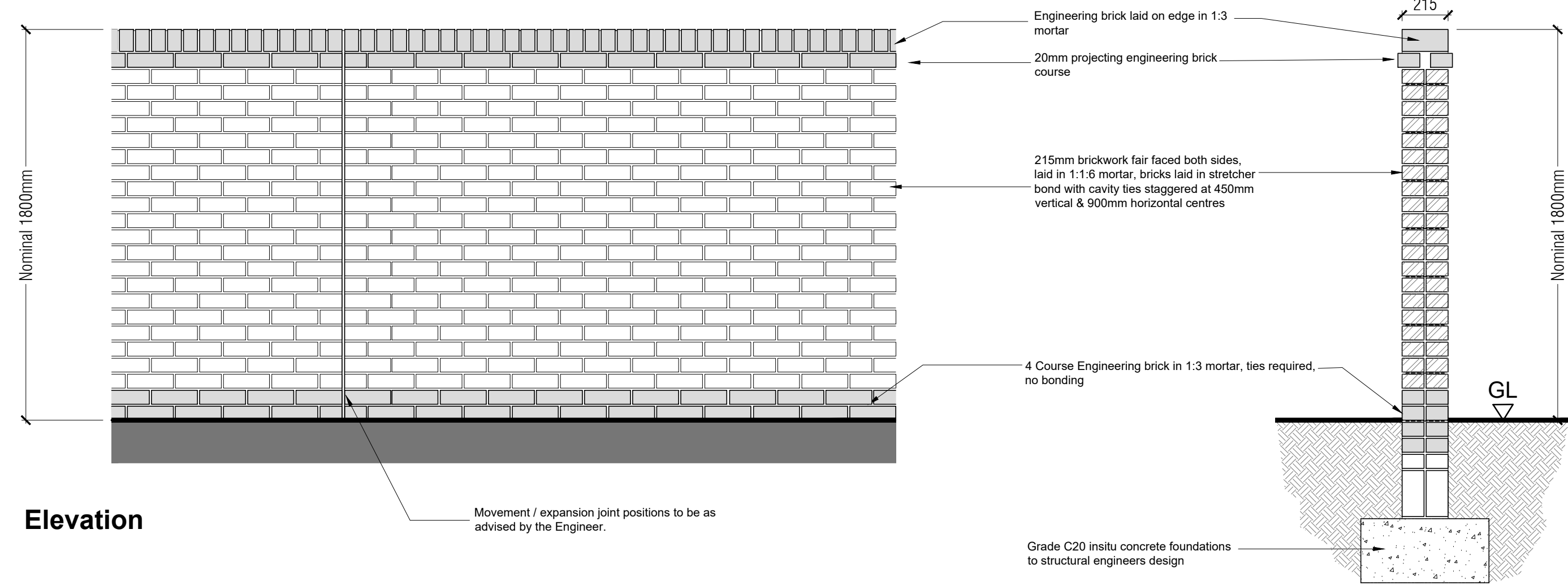
Key - Gate

- A Garden gate - 900mm wide s.w. treated framed, ledged and braced & cap rail. (Boarding to match fence).
- B Pair of 450mm galvanised tee hinges.
- C 44 x 69mm s.w. treated timber gate posts bolted to house or 125 x 100mm treated timber post.
- D 200mm galvanised barrel bolt & suffolk latch.



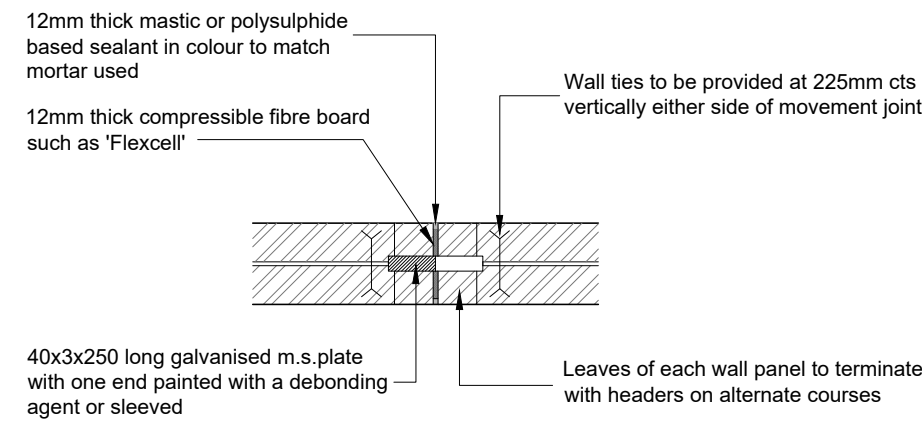
Typical Section

1800mm High Brick Screen Wall



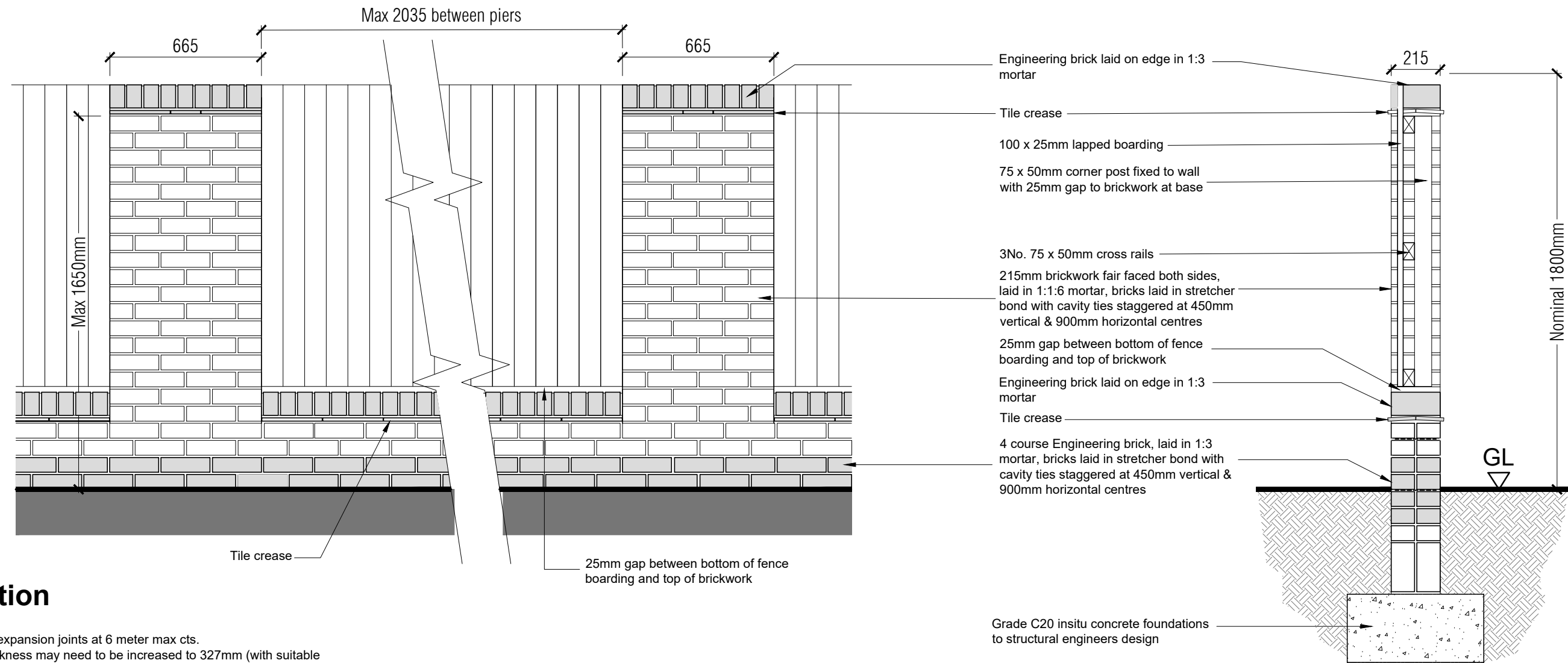
Elevation

Typical Section



Plan - Movement Joint

1800mm (Nom.) High Brick, lapped boarded & brick pier wall



Elevation

Typical Section

- Provide expansion joints at 6 meter max cts.
- Wall thickness may need to be increased to 327mm (with suitable increase in foundation width) in exposed locations & certain areas. Please check with Structural Engineer

Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:
- -

Chk'd: Rev:
- -

Chk'd: Rev:
- -

Chk'd:

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

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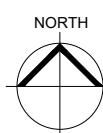
Contract: Redrow Homes

Caerleon Campus Redevelopment

Title: Enclosure Details - Sheet 1 of 2

Drawing No. Rev.
18137(05) 1109 -

Scale: 1:20 @ A1
Date: 10/10/19
Drawn: art
Checked: .



Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:	Chk'd:	Rev:
A	Site Layout updated in line with minor revisions as indicated on dwg.no.18137(05)1101C. art 31.10.19	
B	Plot numbers renumbered from plot 107 onwards following site revision to accommodate existing water main. art 12.11.19	
C	Layout updated to 18137(05) 1101H AF 26.11.2019	

Chk'd:	Rev:

Chk'd:

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

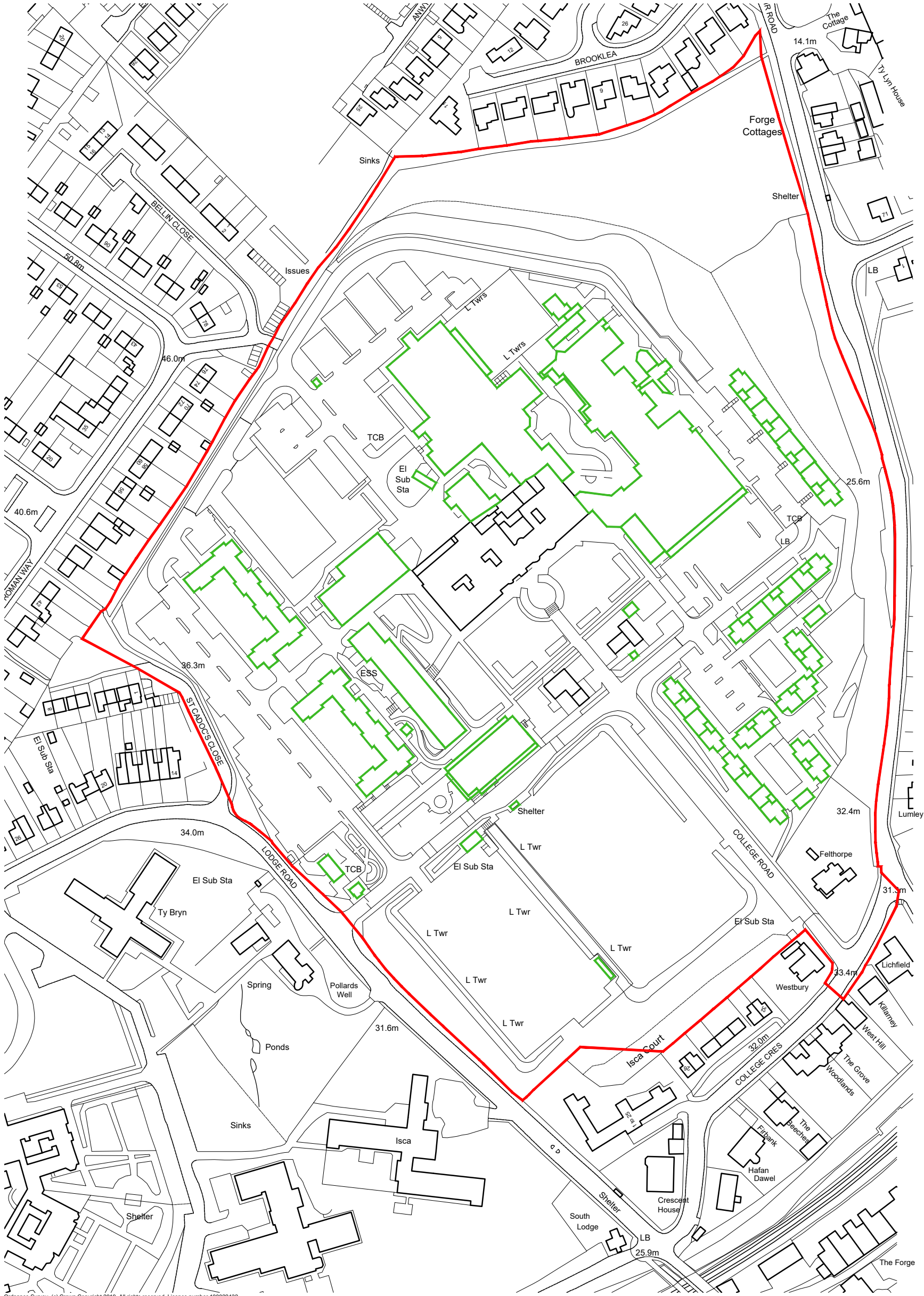
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Contract: **Redrow Homes**
Caerleon Campus Redevelopment
Title: **Affordable Tenure Layout**

Drawing No.	Rev.
18137(05) 1110	C

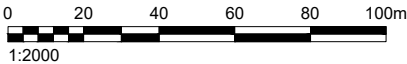
Scale: 1:1000@A1
Date: 11/10/19
Drawn: art
Checked: -



Ordnance Survey. (c) Crown Copyright 2019. All rights reserved. Licence number 100022432

KEY

- Extent of Full Planning Application
- Buildings to be demolished



NOTE: Demolition within the listed building to be as shown within the listed building consent.

This drawing must not be scaled. Figured dimensions and levels to be used. Any inaccuracies must be notified to the architect. Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:	Chk'd:	Rev:	Chk'd:
A	Red lines removed from layout. art 31.10.19	-	

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

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Contract: Redrow Homes
Caerleon Campus Redevelopment
Title: Demolition Plan

Drawing No.	Rev.
18137(05) 1112	A

Scale: 1:2000@A3
Date: 11/10/19
Drawn: art
Checked: -



KEY : Refuse Collection Strategy

- Bin Muster / Collection Point
- Bin Route

Scale 1:1000



Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:	Chk'd:	Rev:
A	Site Layout updated in line with minor revisions as indicated on dwg no. 18137(05)1101C. art 31.10.19	-
B	Site layout revised to accommodate water main and plot numbers renumbered from plot 107 onwards. art 12.11.19	
C	Layout updated to 18137(05)1101H. AF 26.11.2019	

Chk'd:

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

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Contract: **Redrow Homes**
Caerleon Campus Redevelopment
Title: **Refuse Collection Strategy**

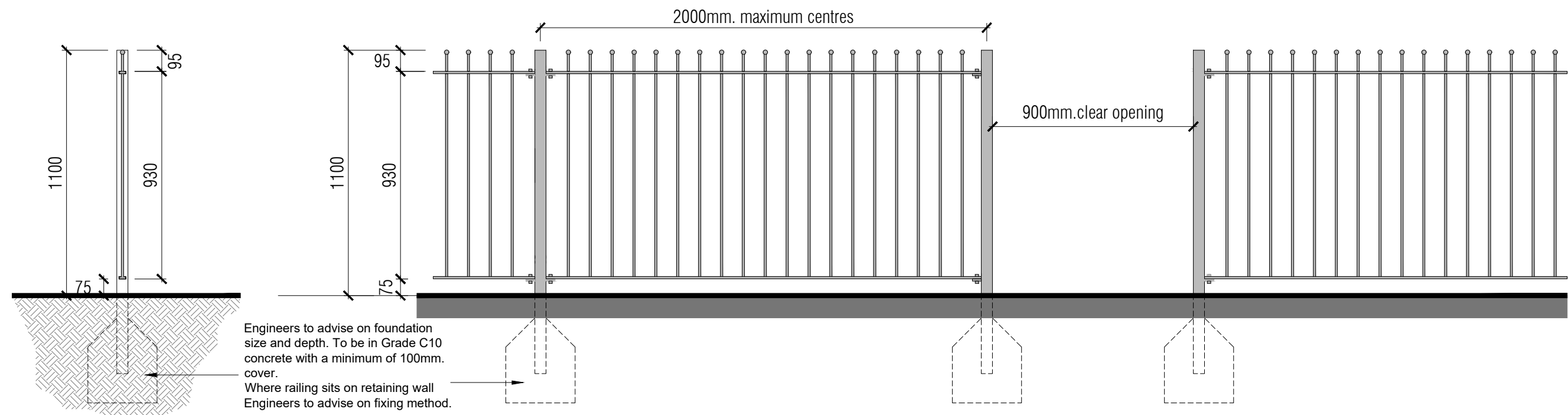
Drawing No.	Rev.
18137(05)1113	C

Scale: 1:1000@A1
Date: 11/10/19
Drawn: art
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BOUNDARY TYPE : 1100mm high black 'Ball Top' galvanised metal vertical railings



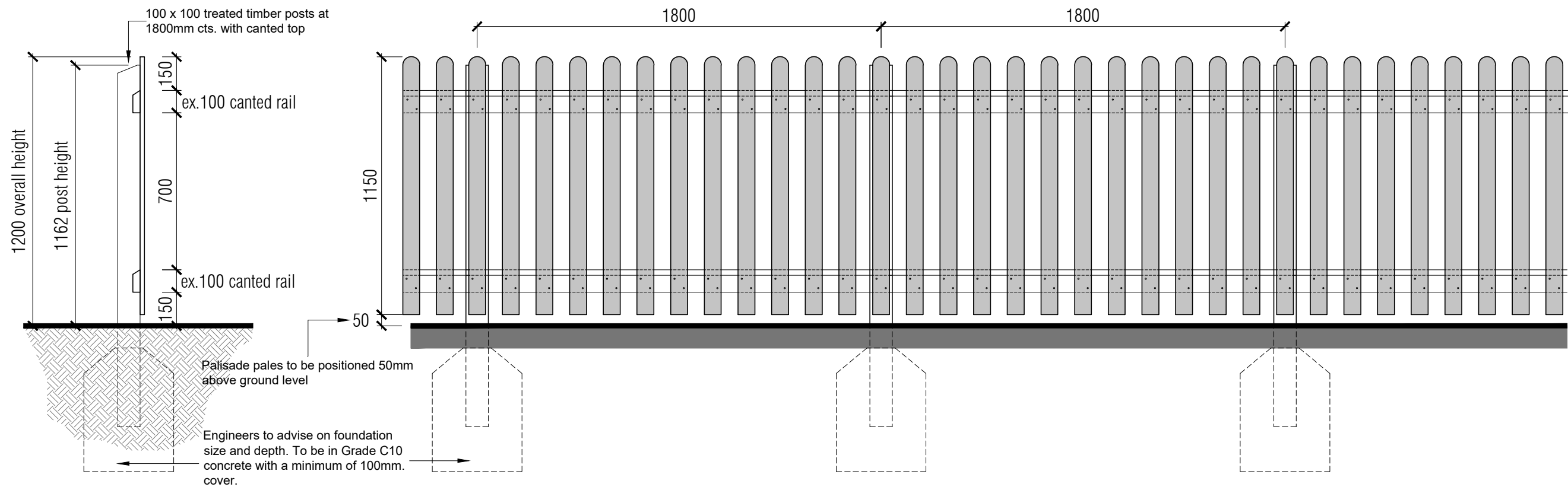
TYPICAL SECTION

ELEVATION

METAL WORK SPECIFICATION :

- Posts: 50mm x 50mm x 3mm RHS at maximum 2000mm cts.
Horizontal Rails: 30mm x 10mm flat bar.
Vertical Bars: Min.12mm diameter round bar with ball top.
Generally:
- all metalwork to be hot dip galvanised mild steel in accordance with BS EN ISO 1461:2009.
- the construction to be in accordance with BS1722-9.
- all posts, rails and bars to be finished in a two part epoxy paint.
Colour - Black
- all paint to be lead and cadmium free.

BOUNDARY TYPE : 1200mm high 'Round Top' timber Picket Fence



TYPICAL SECTION

ELEVATION

GENERAL SPECIFICATION :

- Posts:** 100 x 100 treated softwood plained posts at max.1800mm.cts.
Posts to be approx.1650mm overall length projecting 1162mm above ground. To have splayed top.
Palisade pales: 75 x 22mm nom.section planed to a finished thickness of 19mm. Pales to have rounded top. Pales to be twice nailed to each horizontal rail. Gap between each pale to be 75mm.
Horizontal rails: 2 no. ex.100 x 38 planed canted rails to support pales.

This drawing must not be scaled.
Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

Rev: - -

Rev: -

Rev: -

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

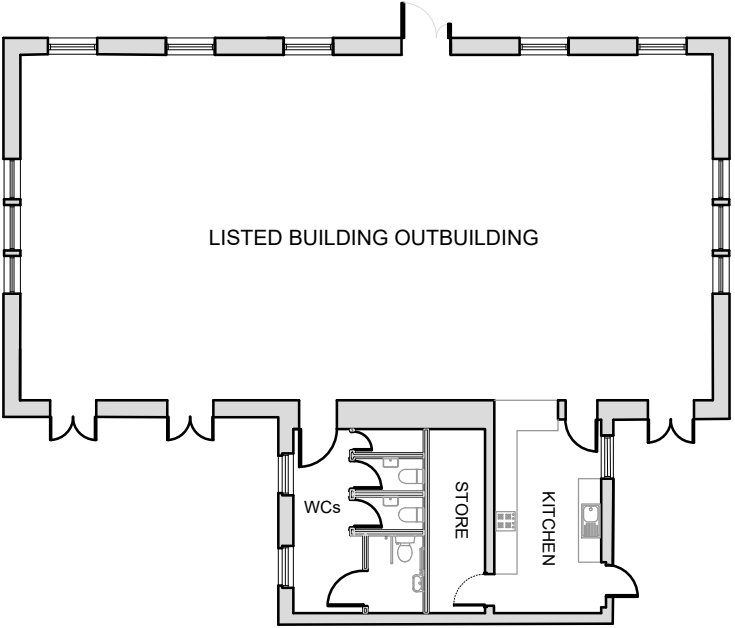
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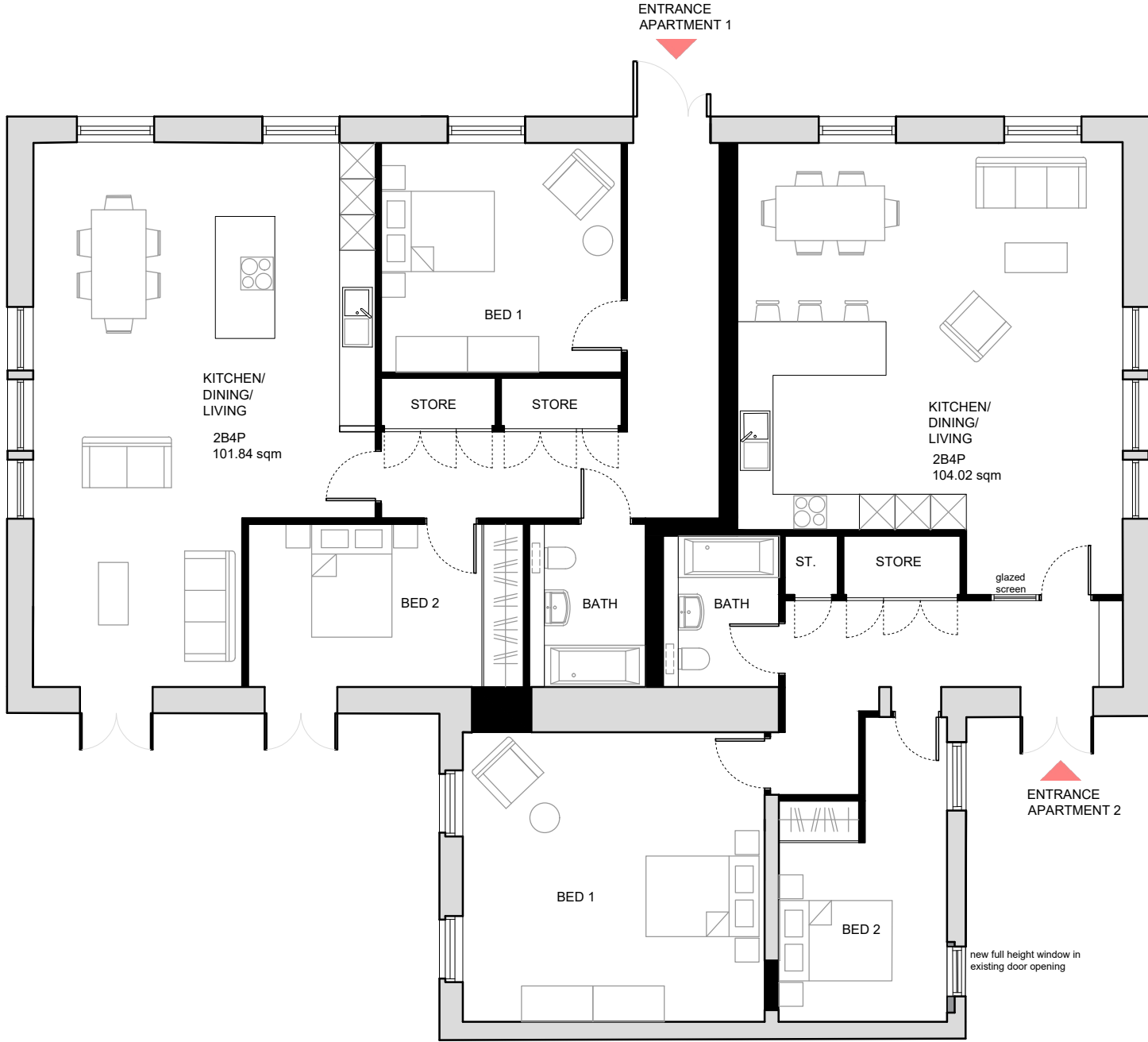
Contract: Redrow Homes
Caerleon Campus Redevelopment
Title: Enclosure Details - Sheet 2 of 2

Drawing No. 18137(05) 1115
Rev. -

Scale: 1:20 @ A2
Date: Nov.2019
Drawn: art
Checked: -



Existing Floor Plan
1:200



Proposed Floor Plan
1:100



Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:	
-	-

Rev:	
-	-

Rev:	
-	-

Rev:	
-	-

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

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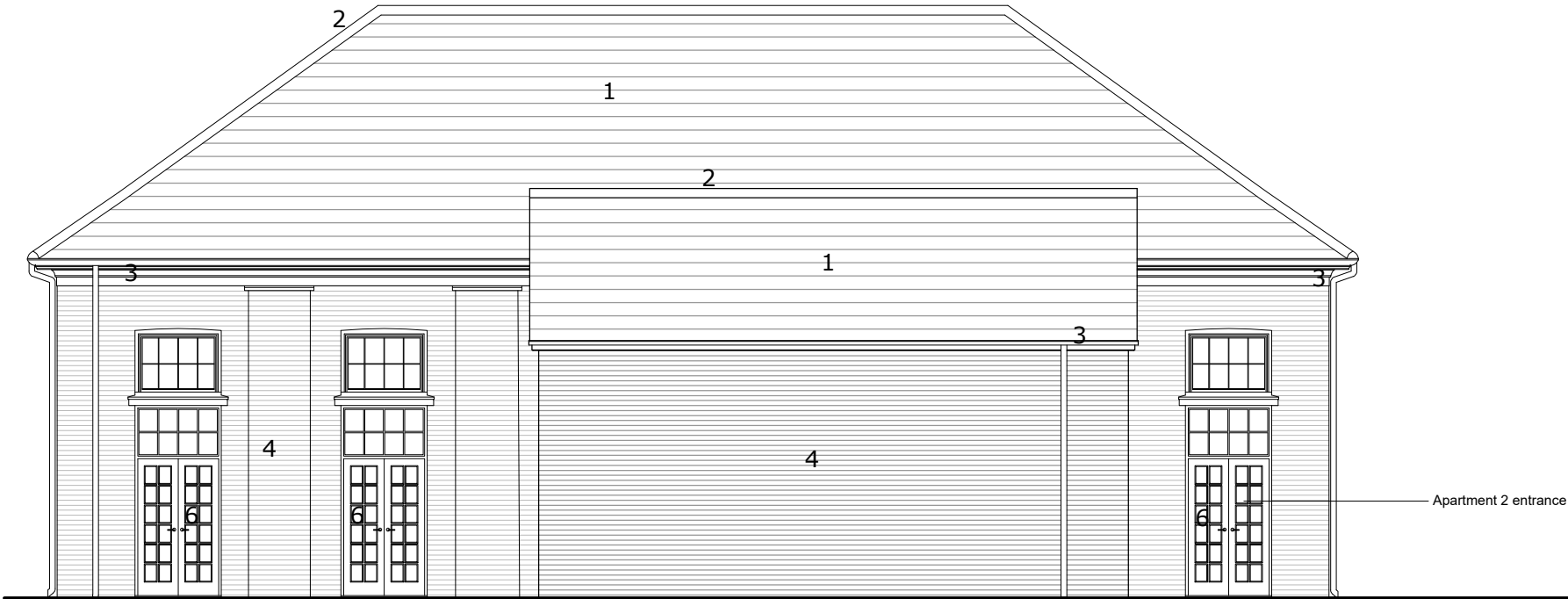
Contract: Redrow Homes
Caerleon Campus Redevelopment
Title: Listed Building Outbuilding Conversion - Plans

Drawing No. 18137(05) 1240
Rev. -

Scale: As Stated @ A3
Date: 16/10/19
Drawn: art
Checked: -



South Western Elevation As Existing
1:100



South Eastern Elevation As Existing
1:100

- MATERIALS KEY**
1. Slate roof
 2. Terracotta ridge tiles
 3. Painted cast iron rainwater goods
 4. Red brickwork
 5. Painted timber windows
 6. Painted timber doors



Figured dimensions and levels to be used.
Any inaccuracies must be notified to the
architect.
Detail drawings and large scale drawings
take precedence over smaller drawings.

Rev: A Misabeled Elevation corrected.

art 01.11.19

Rev: -

Rev:

Rev:

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

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Contract: Redrow Homes
Caerleon Campus Redevelopment

Title: Listed Building Outbuilding Conversion - Elevations (Sheet 1 of 2)

Drawing No. 18137(05) 1241
Rev. A

Scale: As Stated @ A3
Date: 16/10/19
Drawn: art
Checked: -



North Western Elevation As Existing
1:100



North Eastern Elevation As Existing
1:100

- MATERIALS KEY**
1. Slate roof
 2. Terracotta ridge tiles
 3. Painted cast iron rainwater goods
 4. Red brickwork
 5. Painted timber windows
 6. Painted timber doors



Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

Rev:		
-	-	

Rev:		
-	-	

Rev:		
-	-	

Rev:		
-	-	

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

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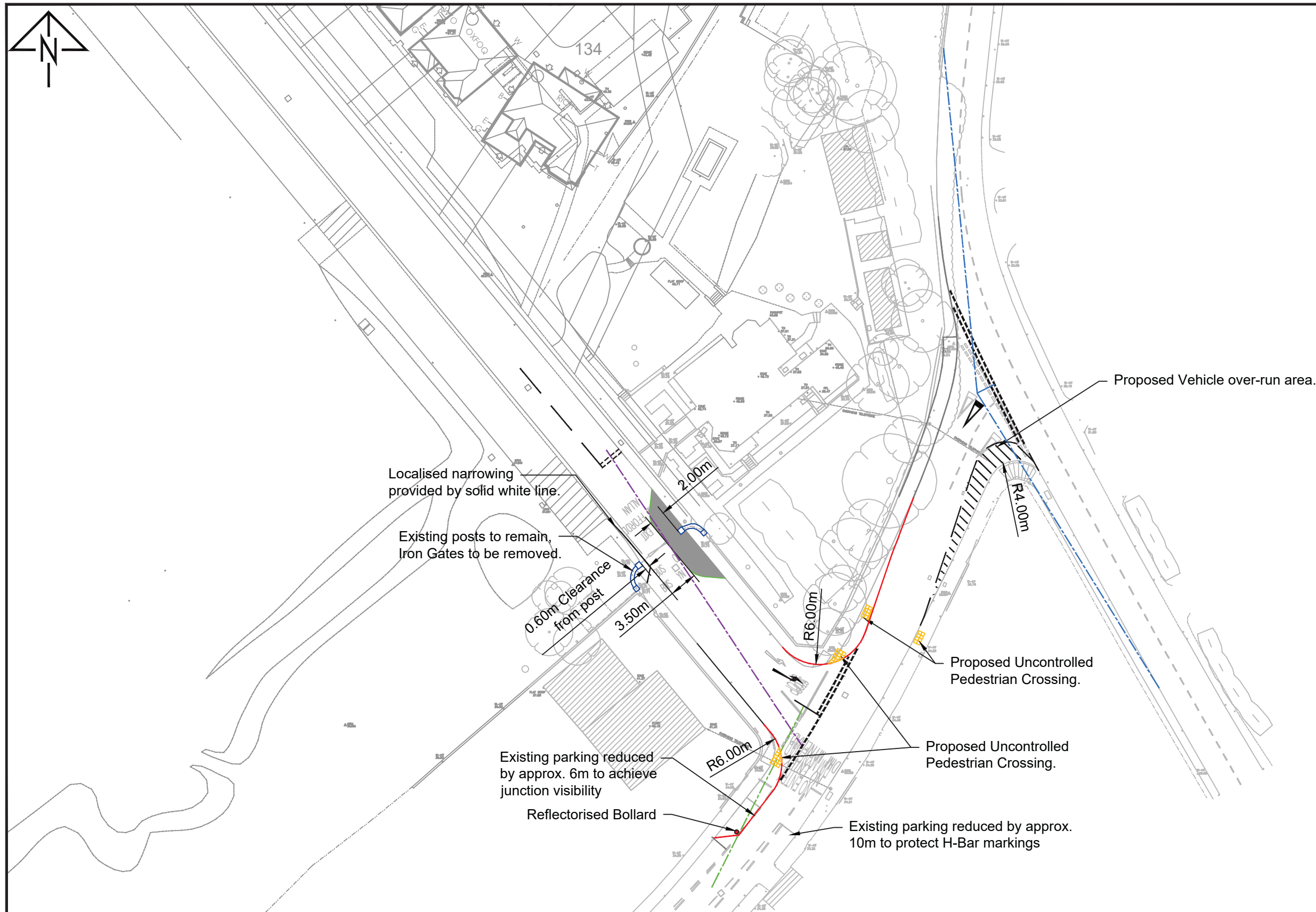
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Contract: Redrow Homes
Caerleon Campus Redevelopment

Title: Listed Building Outbuilding Conversion - Elevations (Sheet 2 of 2)

Drawing No. Rev.
18137(05) 1242 -

Scale: As Stated @ A3
Date: 16/10/19
Drawn: art
Checked: -



REV.	DETAILS	DRAWN	CHECKED	DATE
A	Updated following receipt of additional topographical survey	LT	CP	25.07.19

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Key:

- 2.4m x 25m Visibility Splay
- 2.4m x 43m Visibility Splay
- Forward Visibility

Caerleon Campus

Site Plan
General Arrangement

DRAWN: KR	CHECKED: CP	DATE: 12.06.19	SCALES: 1:500 at A3
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Redrow



Ground Floor Belmont House, Churchill Way, Cardiff, CF10 2HE
t: 029 2072 0861 e: enquiries@vectos.co.uk

DRAWING NUMBER: 184326A_A01	REVISION: A
--------------------------------	----------------

15.0

References

- 1 AOD – Above Ordnance Datum
- 2 AQMA – Air Quality Management Area
- 3 CEMP – Construction Environmental Management Plan
- 4 EIA – Environmental Impact Assessment
- 5 ES – Environmental Statement
- 6 FTE – Full Time Equivalent (employment)
- 7 HGV – Heavy Goods Vehicles
- 8 IEF – Important Ecological Feature
- 9 LDP – Local Development Plan
- 10 LEAP – Locally Equipped Area of Play
- 11 LSOA – Lower Super Output Level
- 12 NCC – Newport City Council
- 13 NO₂ – Nitrogen Dioxide
- 14 PRoW – Public Right of Way
- 15 SAC – Special Area of Conservation
- 16 SINC – Site of Importance for Nature Conservation
- 17 SSSI – Site of Special Scientific Interest
- 18 SuDS – Sustainable Drainage System
- 19 TA – Transport Assessment
- 20 TPO – Tree Protection Order
- 21 USW – University of South Wales