

Technical Note

Date: 14 October 2022

Project: Natural England, Beal Station, Berwick upon Tweed

Title: Highways Technical Note

1. Introduction

1.1 SK has been appointed on behalf of Natural England to prepare a Highways Technical Note that considers the transport and highways implications of a development proposal at its existing Beal Station reserve base in Berwick upon Tweed. The proposal seeks to erect a single storey building (91sqm) which will include a laboratory, ancillary accommodation, and associated facilities. The proposed new building is to support the existing function of the reserve base and to provide additional research facilities for the benefit of Newcastle University.

1.2 The site sits within the administrative area of Northumberland County Council (NCC).

1.3 The Highways Technical Note has been prepared in line with the guidance set out in:

- Ministry of Housing, Communities & Local Government (2021), National Planning Policy Framework
- Ministry of Housing, Communities & Local Government (2016), Planning Practice Guidance
- Northumberland County Council (2022), Local Plan 2016 to 2036
- Chartered Institution of Highways & Transportation (2019), Better planning, better transport, better places

2. Existing Situation

Site Location

2.1 The location of the site is shown on Figure 2.1.

2.2 The site is located 3.3km to the west of the Holy Island of Lindisfarne (Holy Island), 1km to the east of the A1 and 10km south of Berwick upon Tweed. The site is bounded to the north by residential properties (Station Cottages) and the shared access route to Holy Island Causeway, to the east by the East Coast Mainline, and to the south and west by agricultural land.



Figure 2.1: Site Location
[source: ISO4]

- 2.3 The site comprises the former Beal Station yard and is occupied by buildings which house Natural England's current reserve base operations including workshop / office space and associated storage facilities. The remainder of the site is hardstanding and is used for parking and servicing associated with current site activities. Parking currently occurs to the east of the site and the area has space for more than 6 vehicles.
- 2.4 The hard standing area adjacent to Station cottages that serves as part of the access route to the site affords space for large vehicles, such as may be used for deliveries or refuse collection, to enter and turn. It is understood that this area is used for these functions for both Station Cottages and the existing facility.

Existing Site Operation

- 2.5 Natural England is the Government's advisor with a role of helping to conserve, enhance and manage the natural environment for the benefit of existing and future generations. The facility at the site provides workshop and office space associated with research associated with the Lindisfarne & Newham Bog NNR and that is also used to strengthen research links with Newcastle University.
- 2.6 The facility is open between 08:30 and 18:00.
- 2.7 Natural England has advised that there are currently 3 staff employed at the site.
- 2.8 Visitors to the site are by organised trip, often associated with Newcastle University or volunteers. The university visits include students studying for their masters who may visit the site over an annual period of two or three months, or students using it as research space. The applicant has advised that a maximum of 7 visitors would be at the site on any one day. The visitors tend to travel together to the site either by car sharing or in a mini bus.

Local Highway Network

- 2.9 Vehicle access to the site is provided via an access route on the northern boundary of the site that is shared with the Station Cottages residences. The vehicle access route meets Holy Island Causeway at a simple priority junction. In the vicinity of the site Holy Island Causeway is a C classified single carriageway (rural) road. In the vicinity of the site, it is between 5-6m wide and is subject to the national speed limit.
- 2.10 Immediately to the east of the site access junction a level crossing is present across the East Coast Mainline. The level crossing includes barriers, advanced warning signs and warning lights, and presents a degree of vertical deflection that would be expected to significantly reduce traffic speeds in the vicinity of the access. Travelling east across the level crossing provides access to Holy Island. Access across the causeway is dictated by tide times.
- 2.11 Travelling west of the site on Holy Island Causeway provides access to the wider highway network via the A1.

Road Safety Characteristics

- 2.12 DfT data from the Crashmap database has been used to establish the existing road safety patterns on the adopted highway in the area. Figure 2.2 shows the most recent five years of data available.
- 2.13 Figure 2.2 shows that there have been no accidents at the site access junction or on Holy Island Causeway in the vicinity of the site during the five-year period assessed.

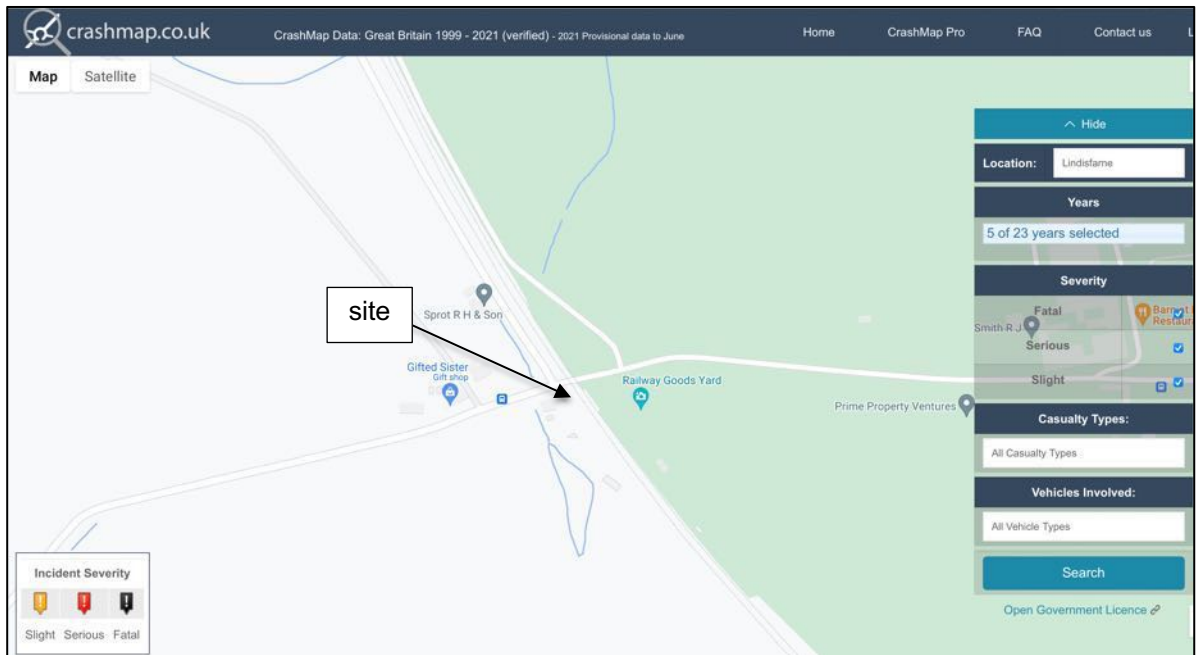


Figure 2.2: Road Safety Patterns
[source: Crashmap]

Sustainable Access

- 2.14 To the east of the site access junction, at the level crossing, shared pedestrian and cyclist provision is made on both sides of the road in the form of white lined provision.
- 2.15 To the west of the site access junction a shared footway / cycle way is in place on the northern side of the carriageway. Continuing west the footway terminates and a dropped kerb (with suitable white lining) is provided to allow people to cross to the footway on the southern side of the carriageway, from which point the shared footway/cycleway continues along the southern side of the road.
- 2.16 The shared cycle route on Holy Island Causeway creates a link to Route 1 of the National Cycle Route Network which provides a connection between Berwick upon Tweed and Seahouses, as shown on Figure 2.3.
- 2.17 Public bus services H1 and 477 stop just west of the site. Service H1 operates between Belford and Holy Island, and service 477 operates between Berwick upon Tweed and Holy Island. Access to Holy Island is influenced by the tide times and so both routes operate different times of the day to allow for this. Service H1 typically operates two return services a day and service 477 operates one return service per day.

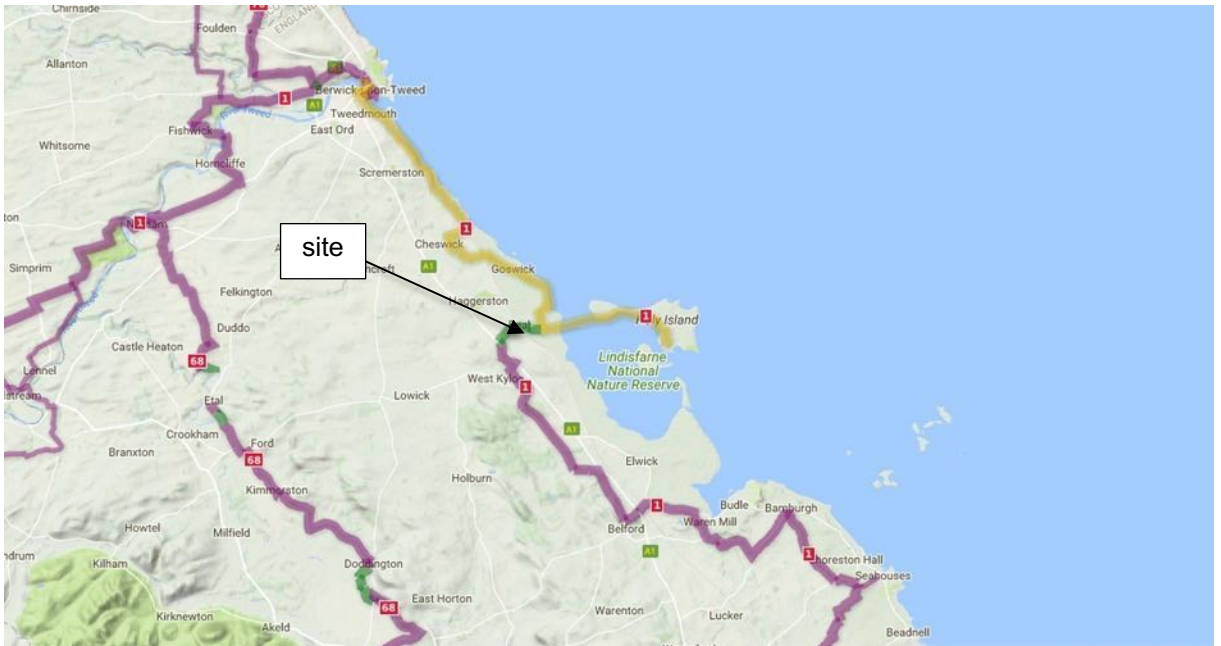


Figure 2.3: Cycle Routes
[source: Sustrans]

3. Development Proposal

Proposed Uses

- 3.1 The proposed site layout is attached as Appendix A.
- 3.2 The proposal seeks to erect a single storey building with a total floor area of 90sqm. The building will provide the following facilities:
 - Laboratory space
 - Overnight accommodation (2x bedrooms)
 - Kitchen
 - Wet room
 - Disabled shower and WC
 - WC
 - Plant and storage space

Staffing & Visitor Numbers

- 3.3 The applicant has advised that the proposal will not be associated with an increase in staff numbers and the facility will continue to employ 3 people, as existing.
- 3.4 Similarly, the applicant has advised that the proposal will not attract significantly different daily visitor numbers and the expected visitors will only increase to a maximum of 8 people a day from the existing maximum visitor number (7). As with the current arrangements, the visitors will attend the site through an organised trip, often associated with Newcastle University or volunteers. These visitors tend to travel together either by car sharing in multiple cars or in a mini bus.

Site Access

- 3.5 No modifications are proposed to the site access. The suitability of the existing access to serve the development is examined in Section 4.

Site Parking

- 3.6 The site is currently served by an area hard standing located to the east of the site that are used for servicing and parking. The proposed building is located away from this area and therefore will not impact on the ability of the site to continue to meet its parking needs.
- 3.7 The proposal allows space for 7 vehicles to park on site, including a disabled vehicle. The appropriateness of the proposed parking capacity is reviewed in Section 4.

Servicing Arrangements

- 3.8 The servicing and refuse collection arrangements are unchanged by the proposal.

Sustainable Access

- 3.9 Visitor and volunteer trips to the site are organised in advance and tend to be associated with research trips from Newcastle University, due to this opportunities to influence visitor mode of travel are already embedded in travel practices to the site. While opportunities exist for sustainable access to the site, the rural location of the site coupled with the type of site operations means that in reality many staff and visitors have to access by car or mini bus. Both modes are recognised as sustainable means of travel in NPPF.
- 3.10 The proposal includes overnight accommodation and a kitchen to reduce the need to travel off-site.
- 3.11 The proposal includes four cycle parking spaces (two stands) in a covered and secure location.

4. Assessment Findings & Conclusions

Traffic Impact

- 4.1 Table 4.1 shows the existing and future number of people that will access the site on a typical day. The number of visitors is a maximum level advised by the applicant that could attend on a single day. The types of visitors attending the site would be the same and these will continue to be associated with Newcastle University and volunteers. As existing, visitor movements tend to occur in multiple occupancy vehicles or by mini bus.
- 4.2 The provision of overnight accommodation will reduce the number of individual arrival / departure trips associated with student or research visits.
- 4.3 A kitchen is also provided to reduce the need for staff and visitors to travel off-site during operational periods.

	Staff	Visitors	Total
Existing	3	7	10
Future	3	8	11
Net Change	0	1	1

Table 4.1: Typical Daily People at Site

- 4.4 As set out previously, the new building is proposed to enhance currently facilities at the site to provide improved research capabilities, including those associated with Newcastle University.
- 4.5 The level of change in movements associated with an increase of 1 person on a typical day is not significant and will not lead to a material change in traffic associated with the site, when considered in the context of existing site activity.

Access Arrangements

- 4.6 Appendix B shows the existing site access junction. This shows that the visibility available at the access junction is 75m to the left and 80m to the right. While this is below the visibility that would be expected for speeds up to the national speed limit, it is expected that the presence of the level crossing will have a significant speed reducing effect on traffic speeds.
- 4.7 It is noted that the proposal will not be associated with the intensification of use of the existing access, nor will the proposal change the types of vehicle requiring access to the site.
- 4.8 It is also notable that there is also no history of personal injury accidents occurring in the vicinity of the access during the five-year period assessed.

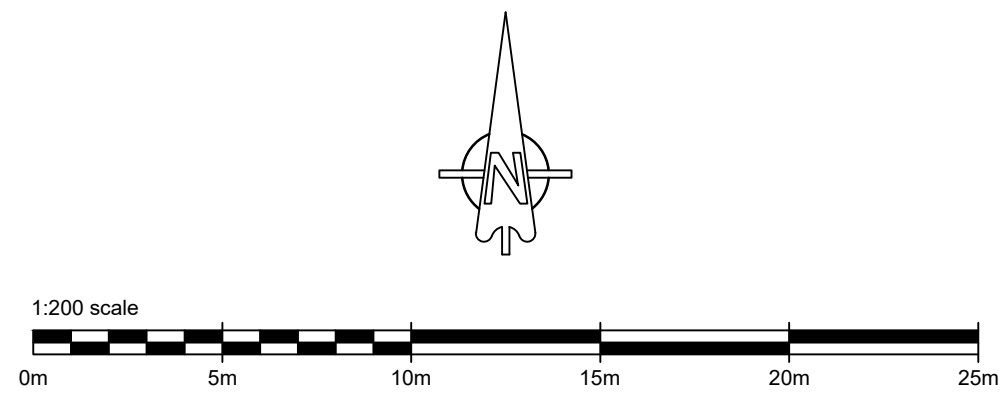
Parking Provision

- 4.9 As set out above, the proposal will not increase the number of people or the number of vehicles requiring access to the site to any significant effect. The parking demand associated with the proposal will not change from that currently active at the site.
- 4.10 The proposal provides space for 7 vehicles to park on site, including a disabled vehicle.
- 4.11 The parking capacity of the site will adequately meet maximum staffing and visitor needs based on 3 staff arriving alone by car and visitors either arriving by mini bus or in multiple car share vehicles, as they do at present. For example, as a worst case, if the visitors arrived in 4 cars with an occupancy level of 2, then a total of 7 spaces would be required (including staff). In reality, visitors tend to access the site using a mini bus.

Conclusions

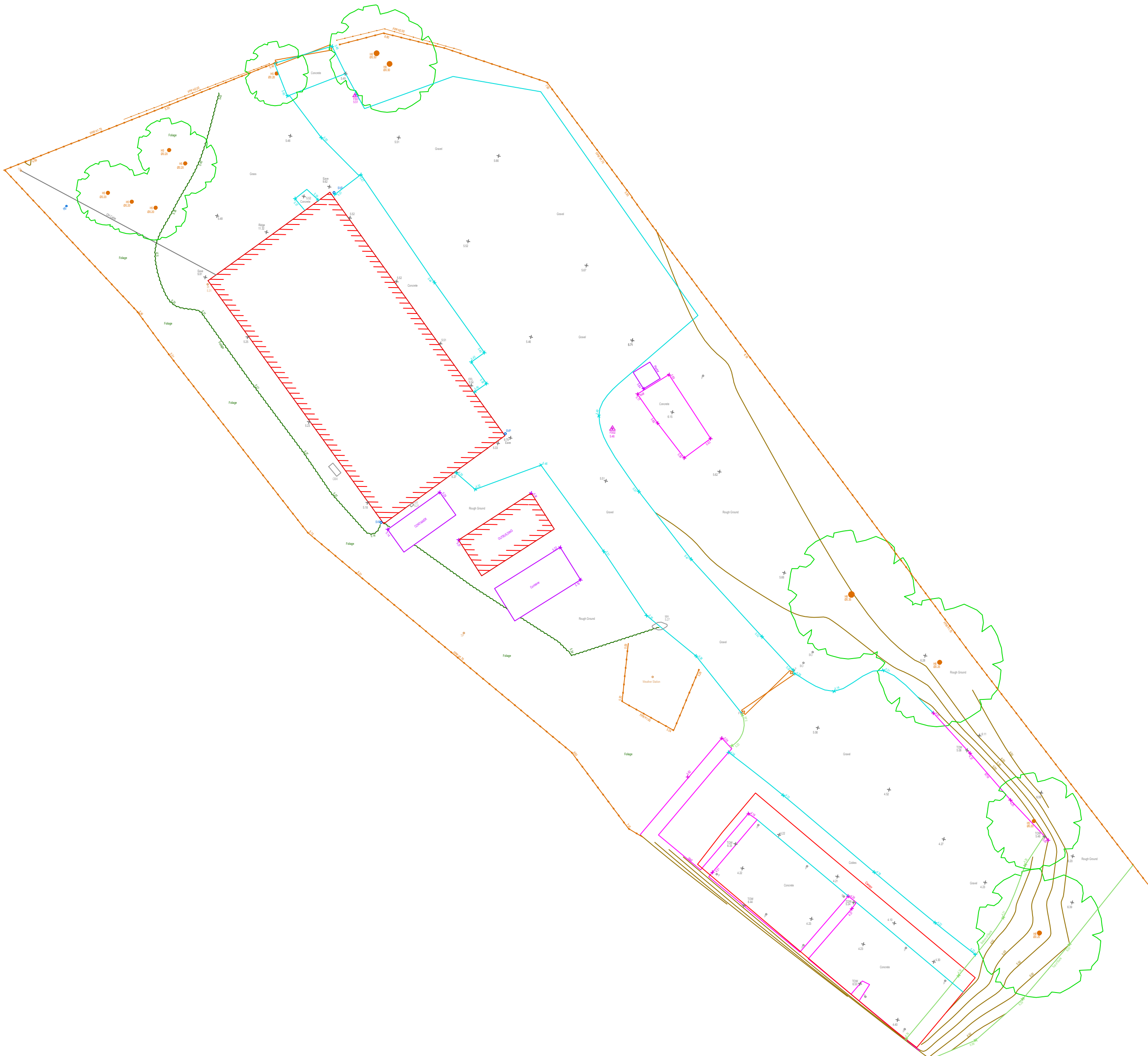
- 4.12 The new building seeks to enhance and improve the current facilities at the reserve base to better meet current research needs, including those associated with Newcastle University. The applicant has advised that the new building will not significantly change the number of people requiring access to the site.
- 4.13 The assessment shows that the proposal will not significantly change existing movements to the site. It is also shown that while there are limits to the visibility at the site access, there is no history of accidents caused by this and also that the proposal will not intensify the use of the site access to any great effect. Therefore, and in line with Paragraph 111 of NPPF and Policy TRA2 of the Local Plan, the proposal will not have a severe impact on highway operation or unacceptable effects on road safety.
- 4.14 Paragraph 105 of NPPF recognises that opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this is certainly reflected at the site. The assessment also shows that while there are opportunities to access the site by sustainable modes of travel, it has to be recognised that the rural location of the site and the operation of the site mean that these do not form realistic alternatives to the private vehicles. Notwithstanding, current visitor access to the site is organised in advance and the majority of trips are taken via sustainable private vehicle means (car sharing and mini bus). This will continue following the introduction of the proposed building. The proposal also provides cycle parking, which is an improvement on existing facilities. In line with Paragraph 110 of NPPF and Policy TRA1 of the Local Plan, the sustainable access measures are appropriate to the type and location of the development.

Appendix A



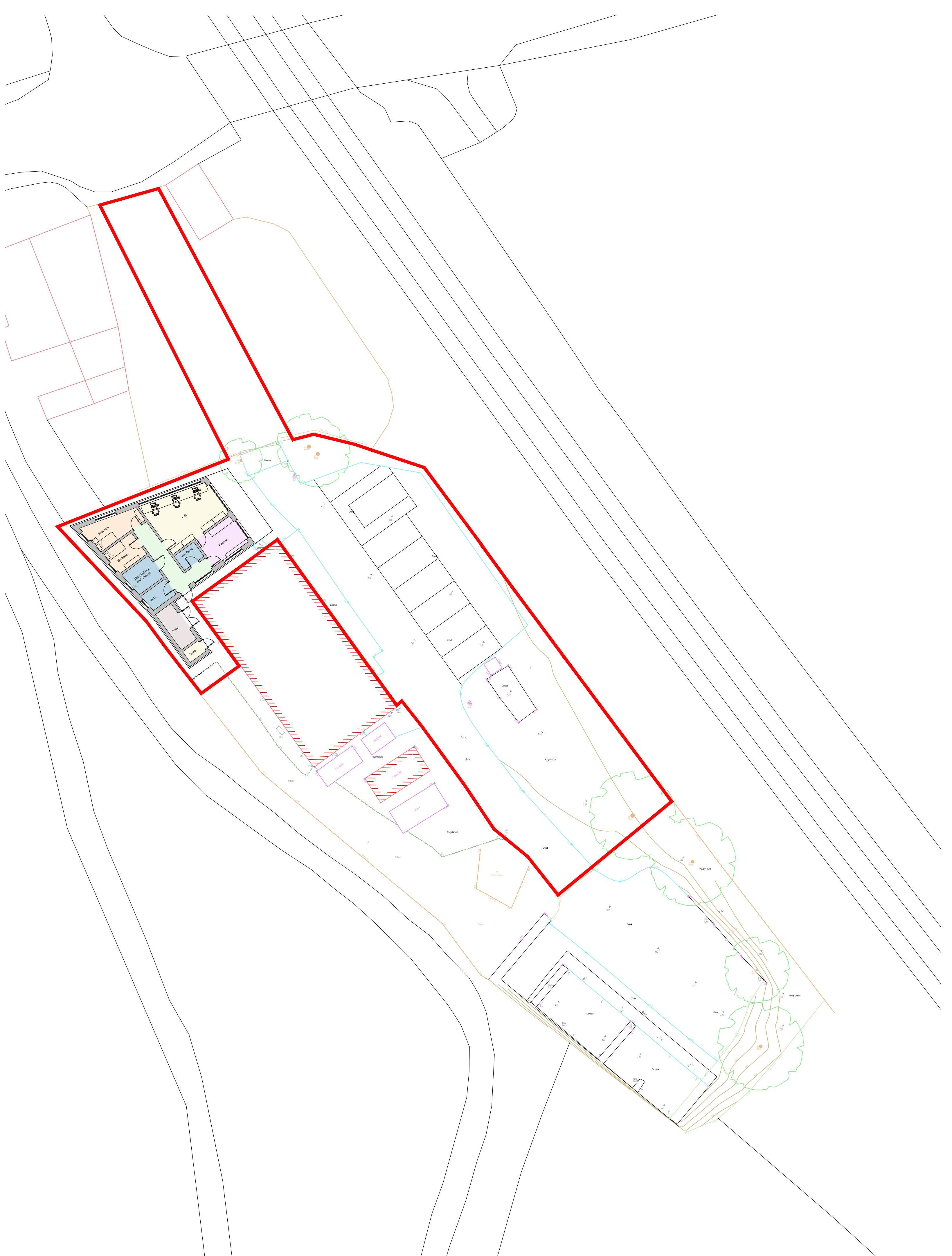
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Checked By: JF	Date: Sep '22
Drawing Scales: 1:200 @ A1	
Drawing Status: PLANNING	
<p>This drawing is to be read in conjunction with all engineers and specialists drawings along with all relevant specifications.</p> <p>All permissions & approvals are to be obtained prior to commencement of any works on site.</p> <p>All gridlines, dimensions, building lines, etc. are to be checked carefully on site prior to the commencement of any works.</p> <p>All workmanship and materials shall comply with current Building Regulations, British Standards, Codes of Practice and N.H.B.C. requirements.</p> <p>All materials shall be fixed, applied or mixed in accordance with manufacturer's instructions or specifications and all materials shall be suitable for their purpose.</p> <p>Dimensions are not to be scaled from this drawing.</p> <p>Any discrepancies between the information given by engineers and other specialists must be brought to the attention of the designer prior to the commencement of any works.</p> <p>Where it is required that inspection be made by the local authority this shall be arranged by the contractor to suit their programme.</p> <p>The contractor shall comply with the health and safety requirements as set out by the CDM Regulations, The Health and Safety Executive.</p> <p>Prior to commencing work the contractor shall carry out an internal and external condition survey of the existing building and shall take into account everything necessary for the proper execution of the works, to the satisfaction of the 'Inspector' whether indicated on the drawing or not.</p>	

Rev.	Date	Description

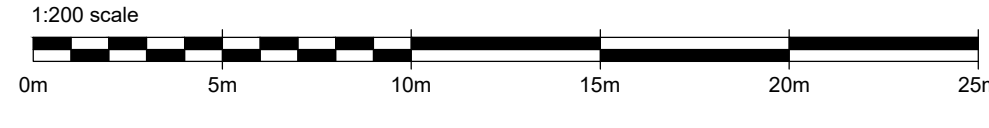


EXISTING SITE PLAN
[Scale = 1:200 @ A1]

Project Description: New Facility at Lindisfarne NNR	
Project Address: Lindisfarne National Reserve, Berwick-Upon-Tweed	
Client: Natural England	
 Firth Associates Limited Old Bank Studio 43 Woodlands Road Lytham Saint Annes FY8 1DA T (01253) 734036 E info@firtharchitects.com www.firtharchitects.com	
Drawing Title: Existing Site Plan	
Drawing Number: 7185 / 02	Revision: -



PROPOSED SITE PLAN
[Scale = 1:200 @ A1]

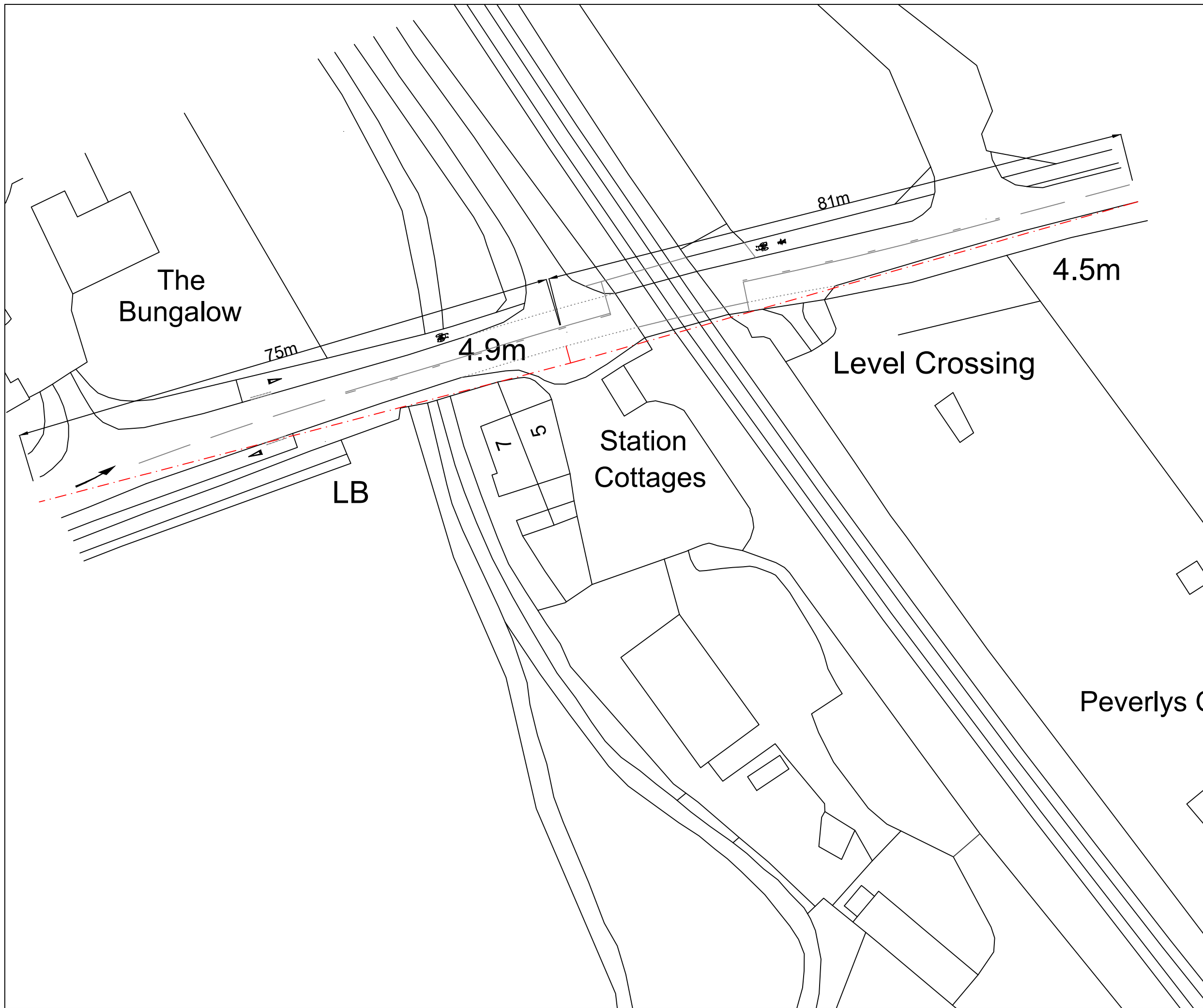


Drawn By: RB	Project start date: -
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Rev.	Date	Description
A.	12.09.22	Drawing updated
B.	14.10.22	Minor Amendment
C.	17.10.22	Parking layout updated.

Project Description: New Facility at Lindisfarne NNR	
Project Address: Lindisfarne National Reserve, Berwick-Upon-Tweed	
Client: Natural England	
 Firth Associates Limited Old Bank Studio 43 Woodlands Road Lytham Saint Annes FY8 1DA T 01253 734036 E info@firtharchitects.com www.firtharchitects.com	
Drawing Title: Proposed Site Plan	
Drawing Number: 7185 / 03	Revision C

Appendix B



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

NOTES
Layout subject to detailed design and confirmation of statutory undertakers' equipment.

Revision Details	By	Date	Suffix
	Check		

Drawing Number
SK22279-001

Drawing Title
**Beal Station, Berwick-Upon-Tweed
Existing Access Arrangement**

Scale at A3
1:500

Drawn
JAT Approved
LGS

Check
LGS Date
14.10.22