

The Iron Line. Millom, Cumbria

Design and Access Statement
(Incorporating Heritage Statement & Materials Information)
April 2025

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For Heritage Statement refer to page 70–75

For Materials Schedule, refer to:

- Page 43 for external surfacing
- Page 60 for the visitor centre
- Page 100 for external furniture



Cumberland Council



MILLOM TOWN DEAL



rspb giving nature a home

Client and Collaborators



Layer.studio

Landscape Architect



Architects PLUS

Architect



CWC crookes walker consulting

M&E Engineering



STORY

Contractor



Curtins

Structural/Civil/Transport Engineering



PLACED PLACE EDUCATION

Engagement



Greengage

Ecologist



1. Introduction

Background

In September 2019, Millom became one of 101 places invited to work with the Government to propose a Town Deal with up to £25million in funds available from the wider £3.6bn Towns Fund.

In November 2022, Cumberland Council and Millom Town Deal Boards were notified by the Department of Levelling Up, Housing and Communities (DLHUC) that following the submission of Full Business Cases they had been successful in securing £20.6 million for Millom. With match funding, this has brought forward investment of over £28.7 million into Millom.

Work is now underway to deliver four exciting projects, one of which is The Iron Line.



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1. Introduction

The Vision

Millom Town Deal wish to create a revitalised and better-connected town built on inclusive economic growth, maximising our natural landscape and heritage.

They want Millom to be recognised as a welcoming peninsular town, with thriving independent businesses and a distinctive culture, arts and tourism offer. Locals and visitors will enjoy active, healthy and sustainable lifestyles

An integral part of this vision is to sensitively transform the coastal lagoon and sea wall at Hodbarrow into a regionally significant visitor attraction.

Design Development

Since their appointment in December 2021, the project's design team has been working in partnership with Cumberland Council, RSPB and other stakeholders to generate a sensitive and inspirational proposal for The Iron Line. This has involved dialogue, amongst others, with representatives of Natural England, Cumbria Highways Authority and Historic England.

At the heart of these conversations have been the physical assets that give Hodbarrow its unique character: ecology, heritage and the natural landscape setting. These elements are to be protected and enhanced for the wider benefit of those who use The Iron Line in the future.

Designs have progressed through the Royal Institute of British Architect's (RIBA) work stages. January-April 2022 saw the completion of Stage 1 and enabled the design/client team to get under the skin of the site and liaise with interested parties to better understand the project objectives, budget and vision. This included

debate about access, an appropriate scale for the visitor centre and possible approach to landmark structures at Hodbarrow.

RIBA Stage 2 commenced shortly after and saw the project team explore the proposals in more detail. By the end of the stage, a Concept Masterplan identified broad proposals for the path network, signage and furniture, all of which were respectful of the ecological and heritage setting at Hodbarrow. In terms of the visitor centre, optioneering had identified a preferred size, function and aesthetic. Proposals were subject to a high level cost plan.

Stage 2 concluded with the submission of a full business case for funding from Central Government.

Having been awarded funding in autumn 2022, Stage 3 commenced with the expansion of the consultant team to enable further technical analysis and input to develop the design to a level of detail suitable for a planning application.

Consultation

Throughout all work stages a programme of consultation with the local community has also been completed, feedback reviewed and incorporated into design development. This element of the project was coordinated by PLACED, specialists in place education and engagement. The consultation process is documented separately as part of the Statement of Community Involvement.

1. Introduction

The Application

This Design and Access Statement (D&AS) supports the application for

“Erection of visitor centre with café/shop, group room, staff/volunteer, toilet facilities and vehicle parking; consolidation, repair and installation of interpretive sculpture to Towsey Hole Windmill; refurbishment of existing Tern Island Hide; new bird hides, pathways, gateway features, street furniture, and demarcation of spaces at existing car park; enhancement of wildlife habitats; associated landscaping and drainage infrastructure; and maintenance of byway with restricted vehicular access – The Iron Line Project.”

It is submitted alongside a series of drawings and technical reports that were requested by the local planning authority, Cumberland Council in order to validate the submission. The list includes:

- Application form and fee
- Site Location Plan
- Planning Statement
- Contaminated Land Assessment
- Flood Risk Assessment
- Heritage Statement (included within D&AS)
- Landscape and Visual Assessment
- Materials Schedule (included within D&AS)
- Transport Assessment
- Ecology Assessments comprising Protected Species Survey Report, Ecological Impact Assessment, Visitor Access Management Plan
- Shadow Habitats Regulation Assessment
- Biodiversity Impact Assessment

- Statement of Community Involvement
- Drainage Scheme
- Archaeological Assessment

Document Format

The D&AS is formatted to take the reader on a journey through the design process via a series of document chapters.

Starting with the context, the document sets the scene and highlights a set of key assets that are integral to the sense of place at Hodbarrow and key to the future success of the Iron Line.

Next, the approach to site masterplanning is described both in terms of baseline analysis and the design process before concluding with an illustrative masterplan and design principles.

The way in which visitors arrive and move through Hodbarrow is set out within a chapter dedicated to movement and includes a path hierarchy and materials palette.

As a critical component of the new offer at Hodbarrow, the visitor centre is explored in detail in chapter 5 and followed in the subsequent section with description and illustration of the approach to key landmarks and external spaces.

In addition to these features, the landscape will be enriched with new assets such as bespoke furniture, signage and art and as such these are the focus of chapter 7.

Sustainability is covered in the penultimate chapter before the D&AS concludes with a short summary.



Winning entry from local schools logo competition



Eider at Hodbarrow (credit RSPB)



2. The Context
Site Location

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Millom in its regional context



Planning application boundary

Regionally, Millom and Haverigg are located to the west of Cumbria within the jurisdiction of Cumberland Council, outside the boundary of the Lake District National Park. The application site predominantly concerns land known as RSPB Hodbarrow plus an area to the north east owned by Cumbria County Council and the remainder of the sea wall which is in third party ownership.

Hodbarrow reserve is located on the site of a former iron ore mine which was operational from 1850 to 1968, when the mine closed and

was flooded. In 1986 the RSPB purchased the site which now comprises a large coastal lagoon and grasslands. The reserve is accessible to the public 24 hours a day, seven days a week and offers a valuable recreational resource to local communities.

2. The Context

The Opportunity

CONNECTED MILLOM
AND HAVERIGG

ACTIVATING
COMMUNITY HEALTH

REACTIVATING
HERITAGE BUILDINGS

IRON LINE

As one of four projects subject to government funding for the Millom area, the Iron Line will:

- Become an improved recreational asset for the local community.
- Offer a regionally significant visitor attraction.
- Provide facilities such as toilets and a cafe that don't exist now.
- Support the long term management of habitats and offer biodiversity net gain at Hodbarrow.
- Encourage people to explore Hodbarrow using an enhanced network of footpaths.
- Offer opportunities for public art.
- Educate visitors about the heritage, ecology, landscape and other features that make the place unique.
- Create jobs for local people.



Dense scrub



Difficult to observe nature



Little sense of arrival



Limited signage



Poor access to heritage assets



Environmental damage by vehicles



No car park



Uneven surfaces



Inappropriately placed seating

2. The Context

Existing Challenges

Hodbarrow is a fantastic place to visit but struggles with a number of practical issues which prevent the reserve from meeting its full potential.

Vandalism

Being accessible 24/7 means that the reserve is susceptible to antisocial behaviour. With low visitor numbers, natural surveillance is limited.

Management

Hodbarrow is managed by the RSPB from a remote location on the Solway coast. Volunteers bolster the workforce but with no welfare facilities, conditions are far from ideal.

No parking

When arriving by car, there's no formal car park.

Path network

Paths are often uneven and an inconsistent width. Heritage assets are particularly difficult to reach.

Limited signage

A lack of directional signage means that in addition to finding the reserve in the first place, navigating the site is difficult. There is a missed opportunity to teach visitors about the place.

Limited furniture

For a site the size of Hodbarrow, there are few seats, benches and litter bins. Those that do exist are sporadically placed and lacking visual continuity, therefore appear disjointed.

Little shelter

As a coastal site, the site is exposed the elements with little shelter from the rain, wind or sun.

Ecological Designations

Although designation offers protection to Hodbarrow's wildlife, there is a limitation to the level of change deemed acceptable.

2. The Context

Landscape Assets



Owing to its geography, RSPB Hodbarrow is surrounded by a wealth of natural assets which connect the reserve to the wider landscape.

The immediate landform which presents itself today is far from natural but instead a product of the site's industrial past, which over time has been allowed to re-nature. As key characteristics of the place, the lagoon and sea wall exist as a result of extraction and the need for tidal defence.

To the north, the Lakeland Fells stand proud and create a magnificent, long distance backdrop, connecting visitors with the Lake District National Park.

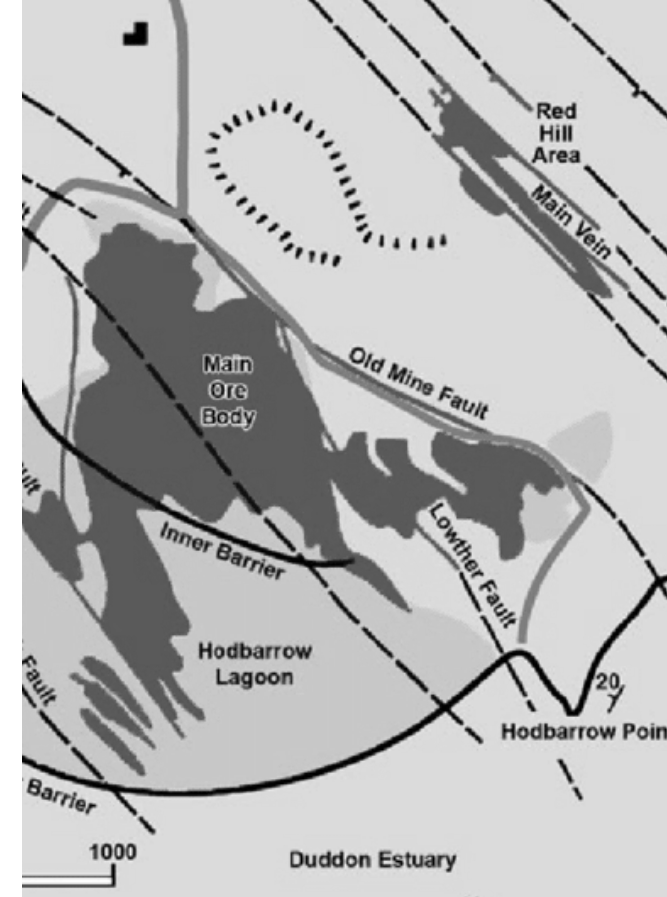
Located on the coast, Hodbarrow experiences a privileged position within the Duddon Estuary: an ecological asset of European importance. Far reaching views over the water, further emphasise the vastness of place and creates significant opportunity for big skies.

With the coastal position comes an exposure to the elements meaning that visitors often enjoy the wind through their hair or sun on their face.

The coastal location and former industrial use has also influenced the vegetation that thrives on the reserve.

Influencing the Design

Hodbarrow is not a timid environment but rather a vast and powerful landscape that embraces visitors with all its might. The Iron Line must harness these qualities and ensure the natural landscape setting remains equally dynamic. There is a wildness about Hodbarrow that should not be compromised.



Geology and mineralisation at Hodbarrow Point



"Escape to Light" by Josefina de Vasconcellos, located in Haverigg. Photo credited to J Bryden



Norman Cornthwaite Nicholson (1914 – 1987) – famous English poet from Millom

Culture & Art are a substantial aspect of the Iron Line project, from the early stages of the Town Deal Bid, through the conceptual design and further design development. The Iron Line derives its name from the High Line in New York; an elevated freight rail line that has been transformed into an ambitious public space where visitors can walk the linear route and experience public art, interpret the history of the site and where landscape design and ecological enhancements provide an ambitious visitor and tourism offer; thereby supporting the key objectives of the Town Investment Plan.

'To build on industrial heritage and literary links to underpin an enhanced culture and leisure offer, to attract residents and visitors to participate'. (Strategic Objective 8, Millom and Haverigg Town Investment Plan, January 2021)

The unique landscape setting and context, as well as its notable literary and industrial heritage provide a plethora of opportunities for art within the landscape design, architectural interventions as well as public art; whether permanent, temporary or loaned. There are a variety of locations where art could be embedded and envisioned within the scheme, alongside commissioned proposals, yet to be developed.

Given the nature of the site, the public art programme would need to be sensitive to the unique ecological and heritage constraints of the place. The Iron Line site is home to protected species, including birds, amphibians and flora, and art is to be sensitively developed in collaboration with the design team, RSPB, and other key stakeholders. Details for how the public art programme would be developed are to be mapped out by the curator in a public art plan, developed in consultation with the stakeholders, engagement with local communities and regional artists.

2. The Context

Heritage Assets



The Iron Line Historic Map (1937-1961)

Layer.studio

2. The Context

Heritage Assets



As covered in more detail by the accompanying Archaeological Desktop Assessment the application site has inevitably evolved over time. This area of Cumbrian coastline was inhabited since the prehistoric period. Through the medieval and post medieval periods the fertile landscape was used for agriculture, the site itself was farmed by three landholdings, Red Hill, New Hall Farm and Hodbarrow – the windmill is associated with this phase of land use as it would be used to process grain.

Significant changes occurred within the site through the 19th and 20th century when iron ore was discovered under the site in 1856 – this was the largest body of iron ore discovered in England. Mining commenced in the 1860's and over the subsequent period, the site became populated with pits, associated structures and buildings. Quarrying for clay and limestone also occurred and associated industry such as brickworks developed.

Continued expansion happened at pace so that by the late C19th / early C20th the site had been transformed significantly with numerous pits, quarries, associated structures, raised and ground level railways, aqueducts workforce infrastructure such as a hospital and administration facilities.

As the scale of underground workings extended out below the Irish Sea, a sea wall was constructed to protect the pits and workings behind. The first sea wall was constructed in 1890 and allowed the mine to expand further. Subsidence caused by the mining below ultimately resulted in the failure and partial collapse of the wall in 1898. A second much more extensive sea wall was constructed and finished in 1905. This opened up significantly more of the site to mining opportunities and the mine continued operating until 1968 when it eventually closed.

Layer.studio

2. The Context

Heritage Assets



Historic Buildings Overlaid



2. The Context

Heritage Assets

After closure the workings were levelled and the land allowed to flood forming the lagoon and pools we see today. Very little of the industrial heritage of the site is now evident, the sea walls, lighthouse and beacon and a few other partial building remains but nature has reclaimed the site and the recent history of the site has been largely lost below the surface.

Overlaying Heritage

One of the key focuses of the Iron Line project is to ensure that the history and heritage of the site, which is so key to Millom, is rediscovered, expressed and retold to the visitor. Explaining to (or reminding) people of how the site used to be, only a generation ago through a series of considered interpretation pieces at key locations along the Iron Line brings another layer of interest and meaning to the setting beyond the landscape and wildlife. The first step to this is to undertake research and have dialogue to gain a greater depth of understanding about the site history. Overlaying this historic information over the site today, can help to retell the history of the place and reread the landscape being experienced.

Memory and Memorial

The significance of iron on the town and area should not be underestimated, it was people's lives and livelihoods; it was also sadly many people's demise as the death toll in the mine was significant either due to accidents or work-related illness. The importance of memory and memorial should be strengthened by the experiences within the Iron Line project.



Application site in the context of Duddon Estuary SSI



Credit: RSPB



Credit: RSPB

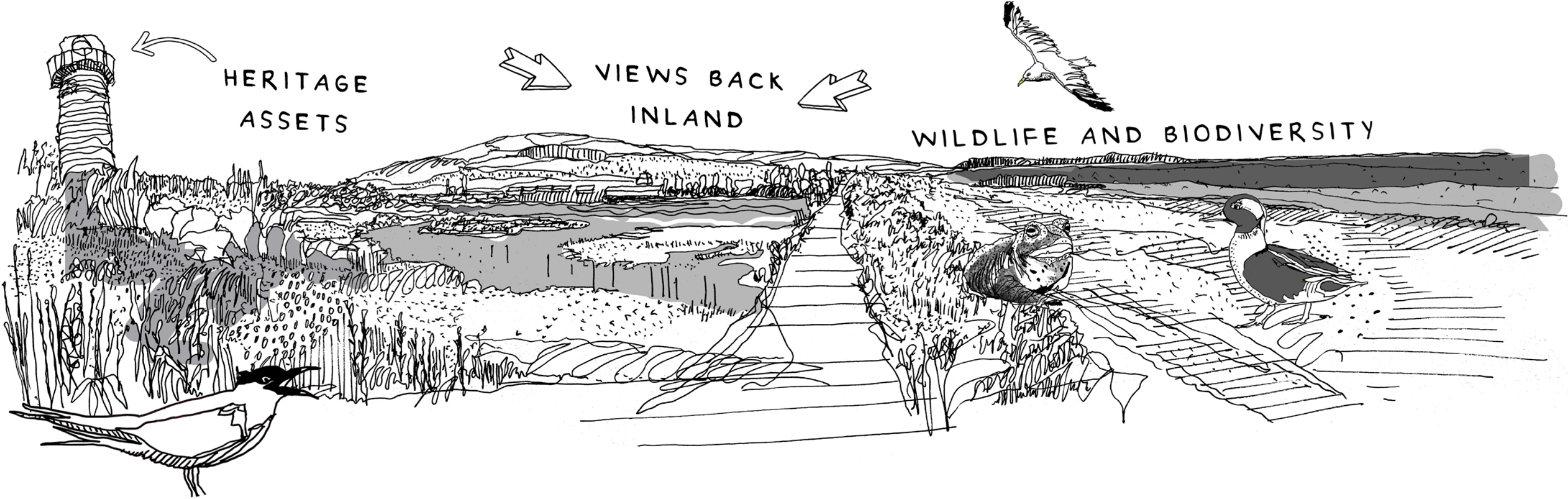
As an RSPB reserve, it's fair to expect a degree of biodiversity at Hodbarrow but when combined with its location in the Duddon Estuary and the leftovers of the former industrial use, the site is brimming with ecological delights. This is reflected in the protection that exists via various formal designations (illustrated opposite) and the habitats and species identified through a comprehensive package of baseline surveys, submitted with this application.

The Iron Line offers the opportunity for habitat management to support and protect ecology including terns, other birds, reptiles, amphibians and rare vegetation. It is also hoped that raising the profile of the site and introducing better facilities will attract more volunteers to help manage the reserve. Furthermore, there is significant opportunity to better inform visitors about what lives at Hodbarrow and educate people in a way that reflects a key objective of the RSPB. In time, it is hoped that a greater presence of people who are more informed about the qualities of Hodbarrow will mean better natural surveillance and respect for the place.

Influencing the design

A team of consultant ecologists have comprehensively surveyed Hodbarrow and in consultation with the RSPB and Natural England, developed a design that proposes change away from most precious habitats.

Enhancements to the path network aim to keep visitors "on track" and away from the most sensitive ecology.



Early sketch used at competition stage

A Place with Potential

Hodbarrow is a brilliant place, with a character that is heavily influenced by the key assets of landscape, heritage and ecology. Hodbarrow has been shaped following a century of iron ore extraction, which once closed was flooded and allowed to naturalise. The combination of industry and the coastal position has led to the creation of special habitats that are reflected by the wealth of ecological designations that exist. It is a place that is well regarded by local people, many of whom enjoy the ruggedness of place and a landscape that is not manicured.

Land is managed by the RSPB in a manner which keeps the reserve tidy but does not compromise its fairly wild appearance.

Whilst Hodbarrow sits within an inspiring and dynamic landscape, the reserve could also offer a more diverse and interesting visitor experience for both local residents, regional day trippers and the volunteer workforce. For all its strengths, Hodbarrow does not announce itself well to new arrivals, nor does it help people navigate around the reserve, or educate visitors about the biodiversity or heritage that is integral to the formation of the place.

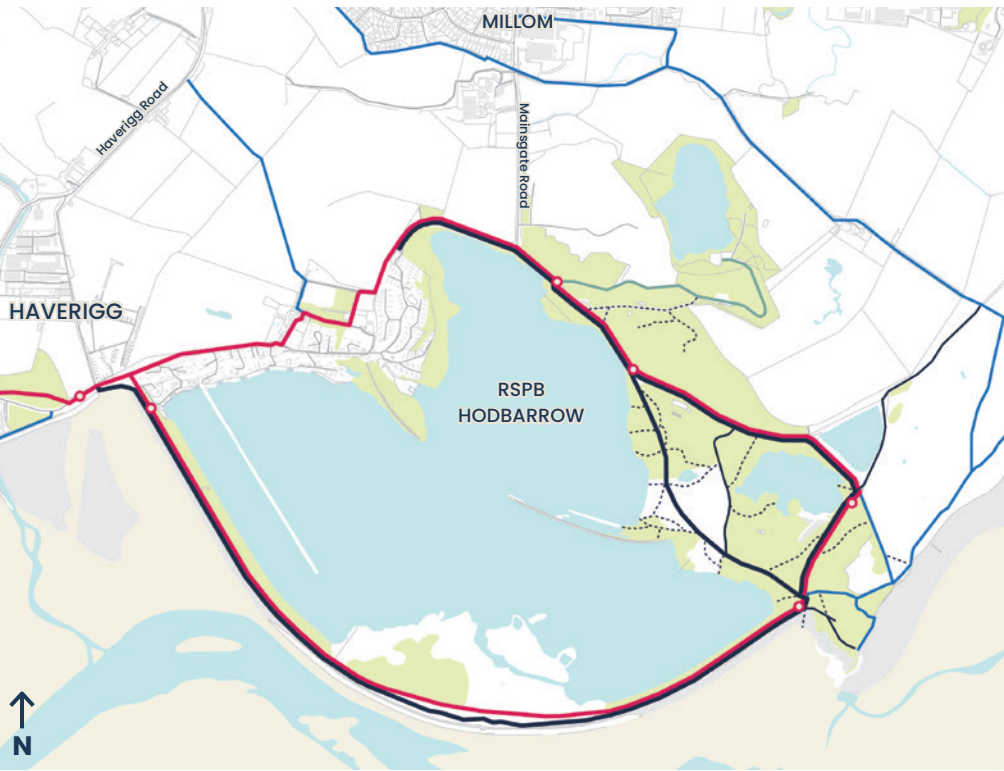
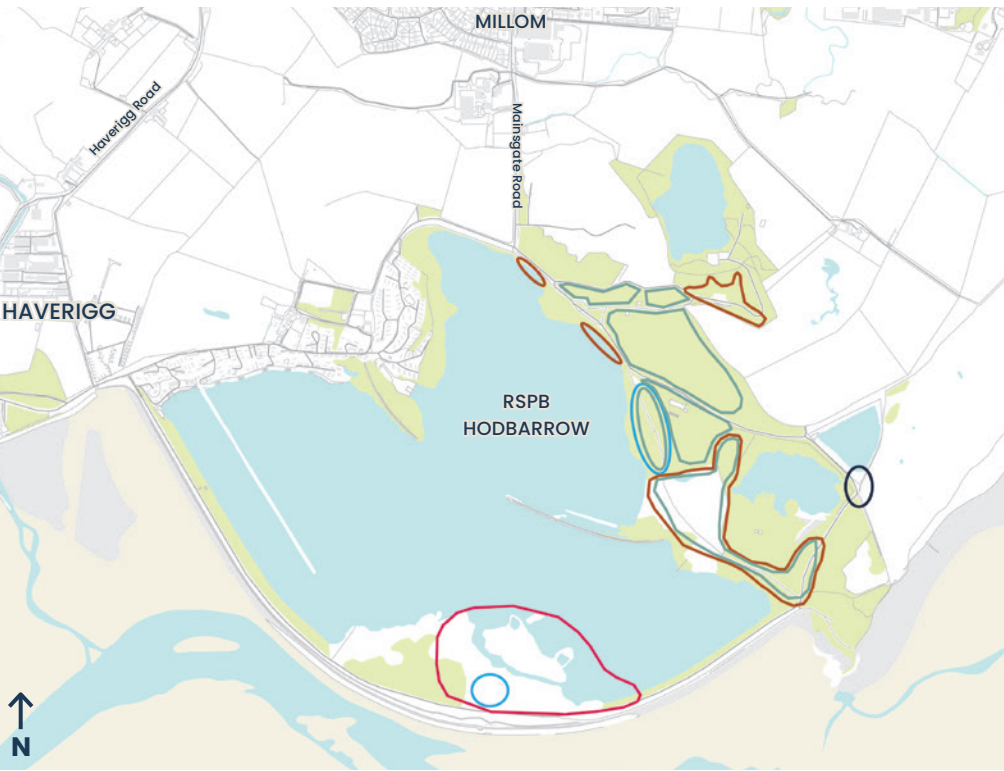
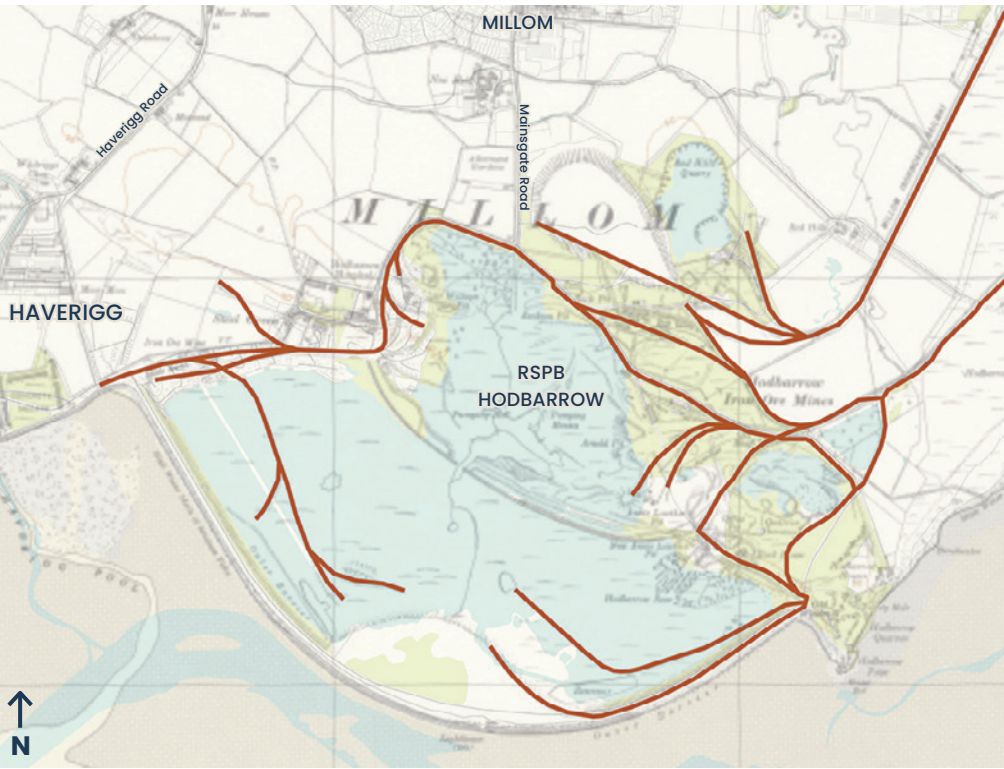
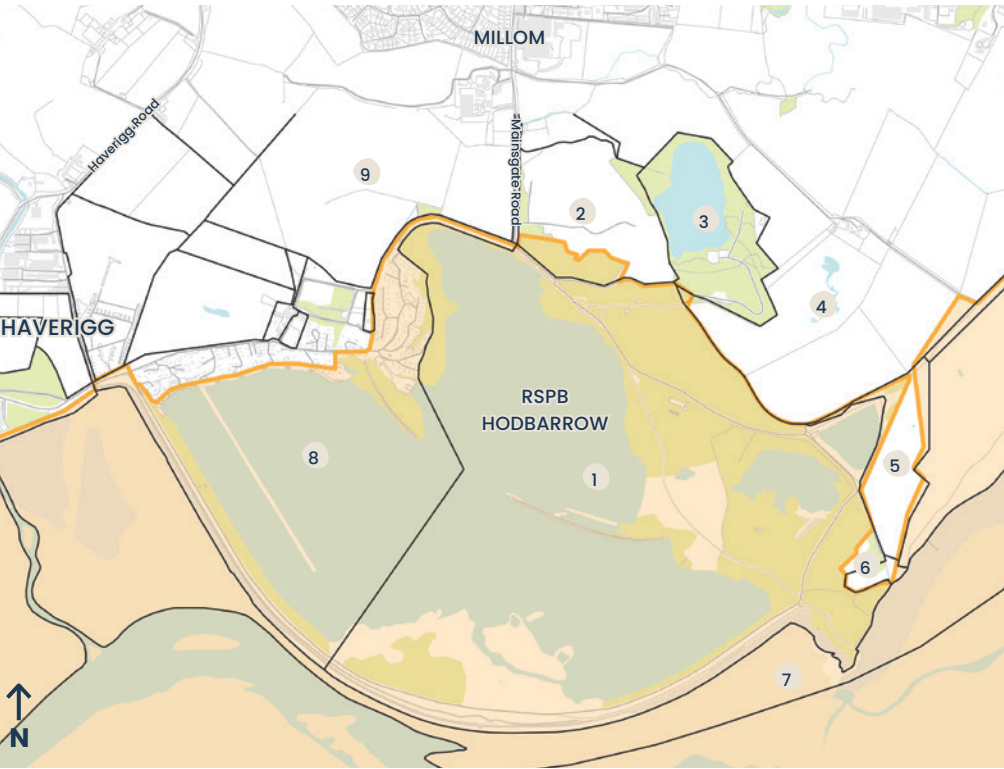
As one of Millom's four Town Deal funded projects, The Iron Line presents a significant opportunity to create a visitor attraction of regional significance and will do so in a way that is sensitive to the ecology and embraces the industrial heritage.



3. The Landscape Proposal

Site Assessment – Physical Attributes

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3. The Landscape Proposal

Site Assessment – Environmental Attributes

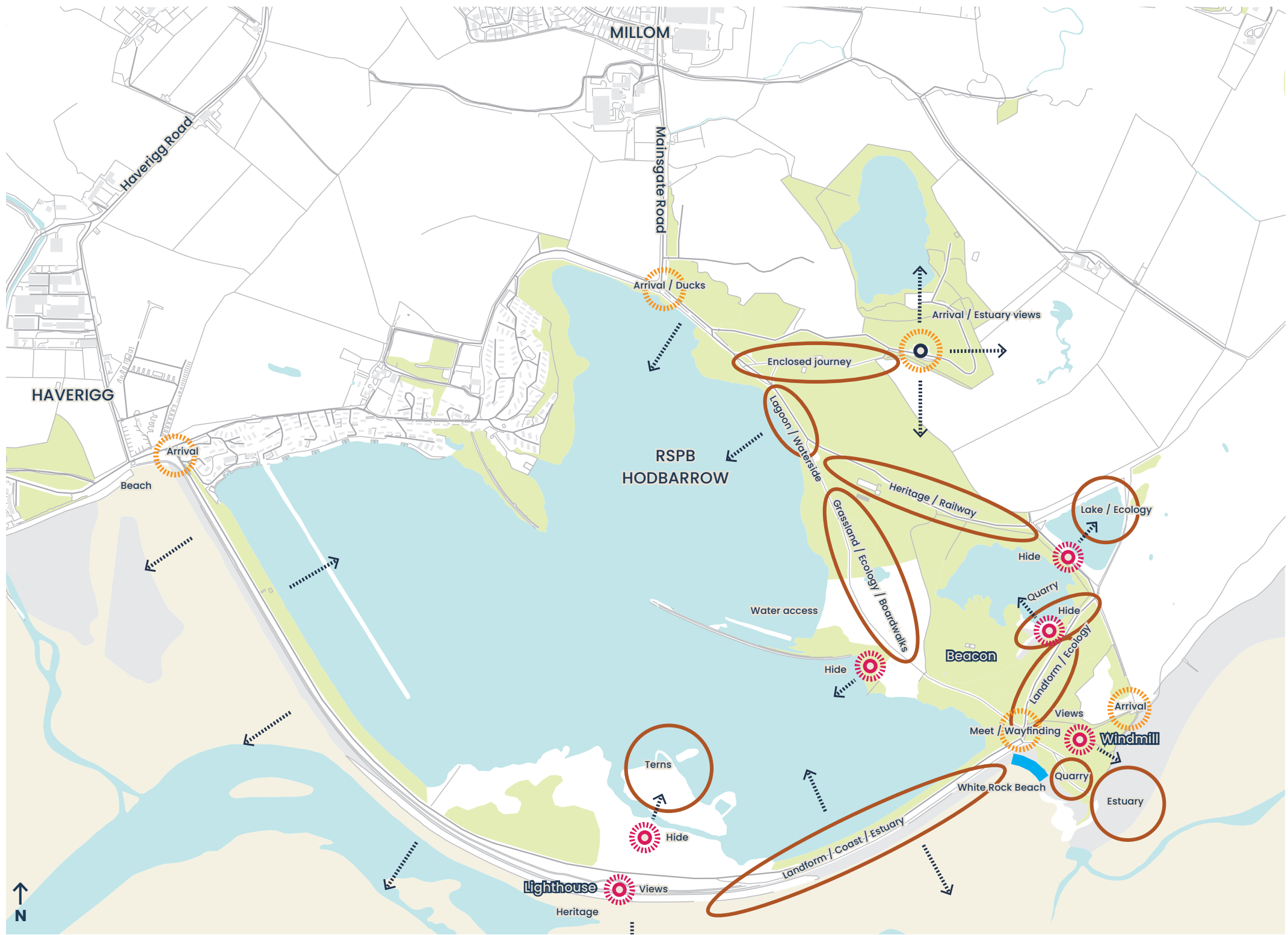


Site Experience



3. The Landscape Proposal

Site Assessment – Maximising Assets



The 'Tapestry of Experiences'

3. The Landscape Proposal

The Design Process



The 'Tapestry of Experiences'

Conceptual Masterplan

As part of RIBA stages 1 & 2 the design team worked alongside Cumberland Council and RSPB to develop a concept for The Iron Line which fed into an outline cost plan and concluded with a business case (prepared by Hatch) that was submitted to central government as part of a funding bid. At this stage the following design principles had been established:

- Location and scale of new visitor centre
- Approach to existing structures including Towsey Hole Windmill and Hodbarrow Beacon
- Retention of to the Byway Open to All Traffic (BOAT) in existing position
- Location and widths of routes in the proposed path network
- An understanding of the habitats on site and how best to avoid the most sensitive ones

Gathering Local Opinion

Led by engagement specialist PLACED, a thorough programme of consultation gathered community and stakeholder feedback and was integrated into the plans. The detail of this consultation is documented in the Statement of Community Involvement submitted with this planning application.

Funding

In autumn 2022 monies were secured and stage 3 commenced.

3. The Landscape Proposal

The Design Process

Developing the Concept

Funding approval triggered the commencement of RIBA Stage 3, the broadening of the consultant team and completion of further technical surveys.

From a design perspective, the initial task was the response to RSPB and Natural England's (NE) feedback on the Stage 2 proposal. In September 2022, the design team and Copeland Council completed a comprehensive site visit with both parties to review the concept masterplan "on the ground" and discussed the component parts of the proposal. On the whole, the masterplan was met with positivity and where the RSPB/NE were not comfortable with certain elements, the design team were able to amend or omit.

Once these matters of concern had been addressed, the design team were able to coordinate their technical specialisms to generate more detailed proposals for the landscape masterplan, visitor centre and other landmark structures on site.



Site visit with RSPB, Natural England and Cumberland Council, September 2022

3. The Landscape Proposal

Illustrative Masterplan



Illustrative Masterplan

Refining the Detail

Having taken onboard stakeholder and community feedback, the Concept Plan was refined into a masterplan for Hodbarrow and the Iron Line, as illustrated opposite.

Drawing 289-LYR-DWG-L-1000 Site Masterplan formalises this general arrangement and provides more information regarding specification of the path network and other features of the external environment. Also submitted with the planning application are a series of other drawings which focus on key spaces within the masterplan to provide greater clarity on the approach.

This Design and Access Statement goes on to highlight a set of key design principles that are integral to the proposal and are considered more comprehensively in subsequent chapters of this document.

3. The Landscape Proposal

Key Design Principles



Visitor Centre

- A focal point for new arrivals that offers architectural interest, shelter and panoramic views.
- Built on sustainable principles.
- Served by formal car park with accessible spaces and electric car charging points.
- Provides a cafe and toilets, as well as a workshop/exhibition space and volunteer's mess.



Visitor Experience

- Use The Iron Line to create a "circular" route that embraces RSPB Hodbarrow and offers an improved resource for the local community and day visitors.
- It will be a better place to visit without compromising the inherent character of the reserve.



Habitat Management

- Avoiding sensitive habitats and species where possible by focusing development in other locations (ie more common and wide spread habitats).
- Support the management objectives of the RSPB as landowner.
- Consider innovative ways to manage land.
- Support protected species such as Natterjack Toads and explore ways to increase their habitat.



Landmarks

- Create points of interest along The Iron Line to draw visitors along the route and diversify visitor experience.
- Stabilise/conservate heritage assets for the future.
- Provide shelter and an opportunity to observe nature.
- Integrate art to create bespoke features that reference the landscape, ecology and industrial heritage.



Movement

- Create a better sense of arrival for pedestrians and motorists alike.
- Improve the path network to better connect points of interest and provide surety underfoot.
- Develop a strategy for signage to help visitors find their way, learn about the wildlife and understand how best to respect the place.



Enriching the Landscape

- Develop a palette of bespoke furniture to give visitors greater opportunity to sit and enjoy the surroundings.
- Create more opportunities for people to learn more about Hodbarrow's ecology and history.
- Identify possible positions for art installations.

3. The Landscape Proposal

Visitor Experience

In accordance with the business strategy, the Iron Line maximises the potential of Hodbarrow's established core assets to offer an enhanced visitor experience to a wide of people, incentivised to visit for different reasons. This diagram summarises that approach.

The Core Assets

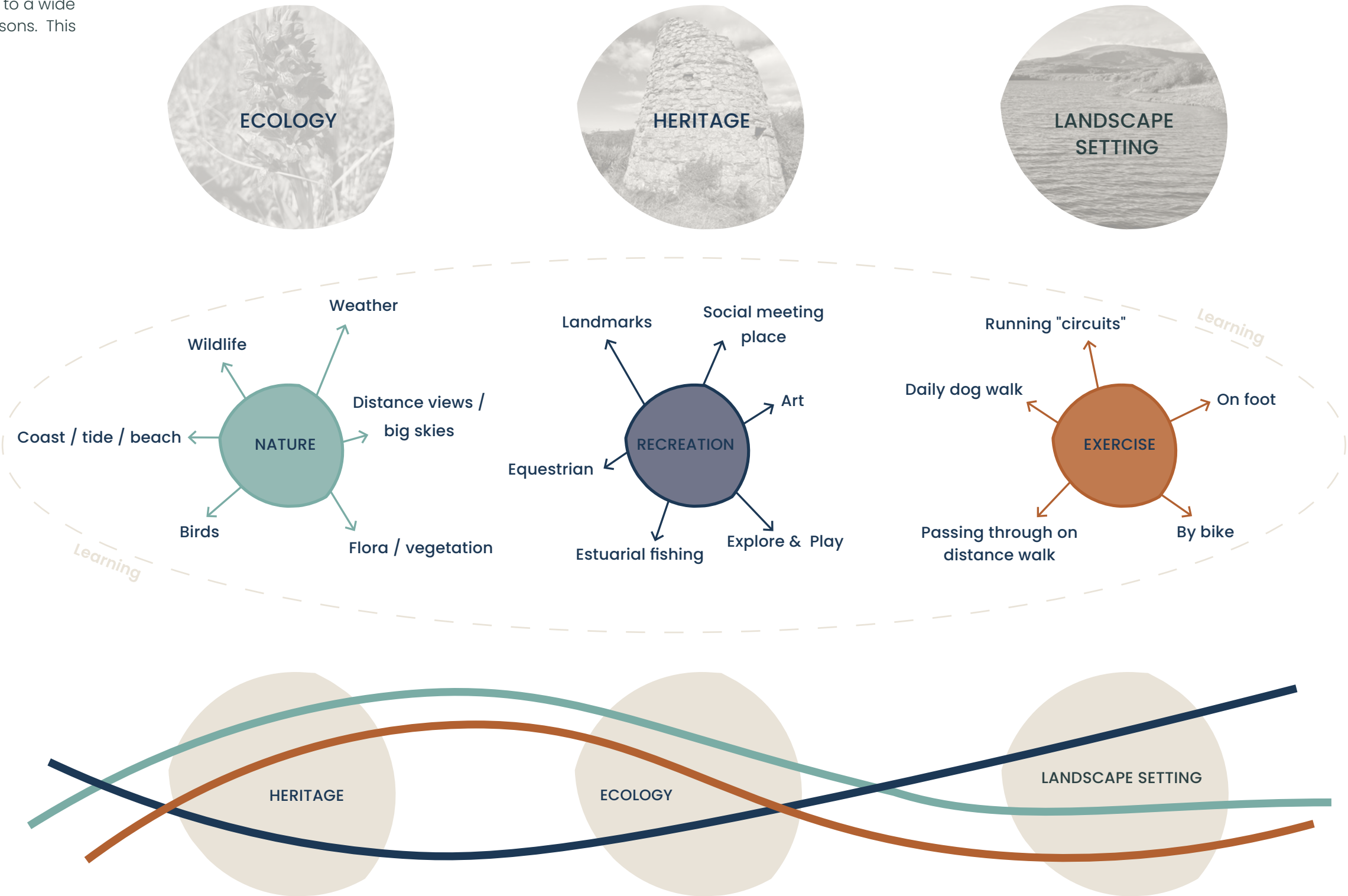
Three elements integral to Hodbarrow as a place

Reasons to Visit

Key themes and incentives for spending time at Hodbarrow

Enhancing Visitor Experience

The concept that all visitors should engage with each of the three core assets



Appreciating Core Assets

A key contributor to the success of the Iron Line project is the strength of the visitor experience which as highlighted already revolves around the key assets of **ecology, heritage and landscape** setting.

At present, footfall at Hodbarrow is circa 40,000 people per year, the majority of which are local to Millom and Haverigg. In order to sustain greater visitor numbers and create a regionally significant attraction, the Iron Line must offer points of interest that will engage a wide range of people.

To do so effectively, it's important to understand why people choose to visit and the incentives that encourage them to stay on site for longer and may even inspire a repeat visit.

For local users and day trippers alike, it's also important that the practical infrastructure and facilities are improved without compromising the "semi wild" character of the reserve or causing harm to its wildlife.

Reasons to visit Hodbarrow

The diagram opposite summarises what are expected to be the main reasons for someone to visit Hodbarrow. This is not intended as an exhaustive list but rather a selection of the most popular motivations that help the project team to rationalise how best to improve the experience for most people. Regardless of a person's reason for visiting, they should have opportunity to engage with all three core assets. This is illustrated conceptually in the bottom diagram.

The reasons are divided into three categories, namely nature, recreation and exercise. There will naturally be some overlap but these groupings help to focus investment across the board and improve experience for as many visitors as possible.

As an RSPB reserve located within the Duddon Estuary, contact with **nature** is an established incentive for people to visit Hodbarrow. The obvious draw is ornithology and bird watching, particularly in relation to the tern colonies but Hodbarrow is also home to many more interesting species, as well as rare and valuable habitats. Aside from watching wildlife, visitors may engage with nature by making a connection with the coastline via the beach and estuary or enjoying the distance views to the Lakeland fells and experiencing the changing weather conditions and associated big skies.

As a regional attraction, the Iron Line aims to encourage tourist day trippers looking for a destination as a **recreational** activity. People will use Hodbarrow as a place to meet family and friends and explore the environs for potentially half or even a whole day. To do so, they will enjoy wandering through the site, following the improved path network, navigating their way to landmarks, art and key external spaces, learning about the environment as they go. This group of visitors will likely include children and therefore providing points of interest that promote play, education and exploration will be vital. Other user groups in this category could be those wishing to fish off the sea wall into the estuary and horse riders wanting to use the Iron Line.

There is also a large group of people who visit Hodbarrow with the main purpose of **exercise**, for example dog walkers, cyclists and runners. The local community require a recreational resource on their doorstep which is well maintained and allows them to enjoy the outdoor environment, often on a regular basis. There is also a group of visitors who will have a brief encounter with the Iron Line as they pass through as part of a long distance walk or cycle ride.

3. The Landscape Proposal

Visitor Experience

3. The Landscape Proposal

Biodiversity



As an RSPB reserve located within multiple ecological designations, Hodbarrow is already home to notable flora and fauna and a wealth of baseline surveys have been completed to document the existing habitats and species. These are listed below and will be submitted with the planning application and where necessary, an addendum is included to ensure the baseline position remains up to date.

- Botanical Survey, 2021
- Amphibian survey, August 2021
- Invertebrate survey, 2021
- Preliminary Ecological Appraisal, Dec 2021
- Preliminary Ecological Appraisal Extension, January 2022
- Further Amphibian Survey, April/May 2022
- Further Invertebrate Survey, April/May 2022
- Botanical Survey, May 2022
- Reptile Survey, July 2022

In addition to baseline surveys, the planning application also includes the following reports that review the proposal within its ecological setting:

- Ecological Impact Assessment
- Shadow Habitats Regulation Assessment
- Visitor Access Management Plan
- Biodiversity Assessment

Through surveying and assessing the site via the reports listed, the ecological parameters that the Iron Line must work within have been established. RSPB Hodbarrow and its environs are undoubtedly sensitive but there is huge potential to enhance the biodiversity as part of the Iron Line project.

3. The Landscape Proposal

Habitat Management & Awareness



Location of on-site interventions

- 1 Visitor Centre**
The new visitor centre is positioned to minimise habitat disturbance.
- 2 Visitor Centre Environs**
The surrounding area uses sensitive materials that give opportunities for fauna to colonise, allowing sensitive habitats to expand. Interpretation of the value of the grassland will seek to discourage trampling of notable grassland habitats nearby.
- 3 Scrub clearance**
Scrub clearance along routes and to provide clear views will be undertaken by hand, outside of nesting bird season. This management of successional growth will create a diverse mosaic of habitats.
- 4 Natterjack toads**
Creation of pools and habitat for natterjack toads, adjacent to established off-site habitat, to aid their dispersal across Hodbarrow.
- 5 Hides**
New hides with improved accessibility.
- 6 Grassland**
Existing pathways to be upgraded to formal paths, encouraging people to stay on track and away from sensitive grassland. Signage to improve awareness and respect of important habitat.
- 7 Butterflies**
Opportunity for additional butterfly mounds.
- 8 Byway along new sea wall**
Using site waste to create new berms with site won substrate. Aims to shield terns, discourage disturbance and prevent the movement of car onto habitat areas. This will in turn allow existing habitat areas to regenerate naturally.
- 9 Slag bund**
To be filled and raised to create a more effective barrier between tern islands and visitors approaching hide.
- 10 Hide access**
Sensitive habitat will be fenced off and the existing access route upgraded to a formal path so that other harmful desire lines aren't needed.
- 11 Raised Walkway Access**
The use of raised walkways to protect sensitive habitat where access is needed.



4. Movement

Established Wider Connectivity

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Existing Connectivity

RSPB Hodbarrow is located in close proximity to Millom and Haverigg and accessible on foot from the north via Mainsgate Road and from the east and west using a selection of public rights of way, including the recently established England Coast Path.

The Iron Line route is formally designated as a Byway Open to All Traffic (BOAT) meaning that the route can be accessed by cars, cyclists, horses and pedestrians. Once on the reserve, a network of paths, of varying width and quality enable visitors to explore Hodbarrow. The limitation of the existing path network is that most are poorly surfaced and littered with potholes. Added to this is an inconsistency of type, meaning there's a lack of hierarchy, resulting in a navigational challenge.

The masterplan proposes to improve the path network so that routes are better defined, solid and level underfoot so that visitors can traverse the site more easily. This will comprise:

- Formalising existing desire lines.
- Using boardwalks at certain locations to minimise impact on ecology.
- Where appropriate, the introduction of fencing to keep visitors "on track" and away from the most sensitive habitats.
- Highlighting of important path nodes.

Key

- Byway Open to All Traffic (BOAT)
- Other Public Right of Way (PROW)
- England Coast Path

4. Movement

Proposed Path Hierarchy and Materials



Existing Connectivity

This drawing highlights the proposed path hierarchy and materials assigned to each path type. This should be read in conjunction with the table opposite.

This approach has been discussed with representatives of the highway authority (Cumbria County Council) during a number of informal pre-application meetings. Design principles in regard to route location, width and surfacing were supported.

4. Movement

Proposed Surface Materials

Hierarchy	Purpose/Function	Surface Material	Other Notes
Roads			
	Vehicular route to visitor centre	Macadam without edgings	6.3m wide to visitor centre and 4.8 to refuse centre. Refer to photo (1)
Byway			
	Circular route around Hodbarrow. Open to cyclists, horses, pedestrians, emergency and maintenance vehicles	Scraped and made good. Top dressed with stone to dust	To existing width Refer to photo (2)
Primary Paths			
	Pedestrian connections throughout Hodbarrow	Self binding gravel	1.5m wide. Refer to photo (3)
		Timber boardwalk	1.8m wide. Refer to photo (4)
		Raised walkway	1.8m wide. Refer to photo (5)
Secondary Paths			
	Provides formal link to landmarks	Self binding gravel	1.5m wide. Refer to photo (3)



Macadam



Stone to Dust Top Dressing



Self-Binding Gravel



Raised Timber Boardwalk



Raised Steel Walkway

4. Movement Accessibility

Pedestrians

The path network enables regular visitors to find different routes through Hodbarrow, new visitors to explore a range of environments and those passing through on long distance walks to get a taste of the Iron Line.

The enhanced path network enables people to more easily access the landmarks and landscape of Hodbarrow. The visitor centre will be designed to meet approved accessibility standards so that everyone can experience all parts of the building including a lift up to the first floor cafe and viewing area. Moving into the reserve, pedestrians will follow a level route to the byway and from there, they'll be able to circle the Iron Line via the byway. A network of secondary paths/boardwalks will then guide visitors through different parts of the reserve and to other points of interest.

Path surfaces are to be improved and where feasible, gradients adjusted to be no greater than 1:20. New signage will be used to clearly demarcate routes and share information about Hodbarrow with legibility an integral part of the bespoke design.

Cyclists

As per the existing arrangement, the byway is open to use by cyclists. The new surface will make for a smoother ride and better signage will ease navigation. The byway connects to the highway network in the west to Haverigg and to the north to Millom, meaning that the Iron Line is accessible by bike. The Connected Millom and Haverigg project (also awarded money from the Towns Fund) seeks to improve strategic links and ensure that local people and day trippers can experience the Iron Line by bike.

To improve user experience for cyclists, cycle stands will be located at the visitor centre and at other locations across Hodbarrow, meaning that visitors have many opportunities to secure their bike.

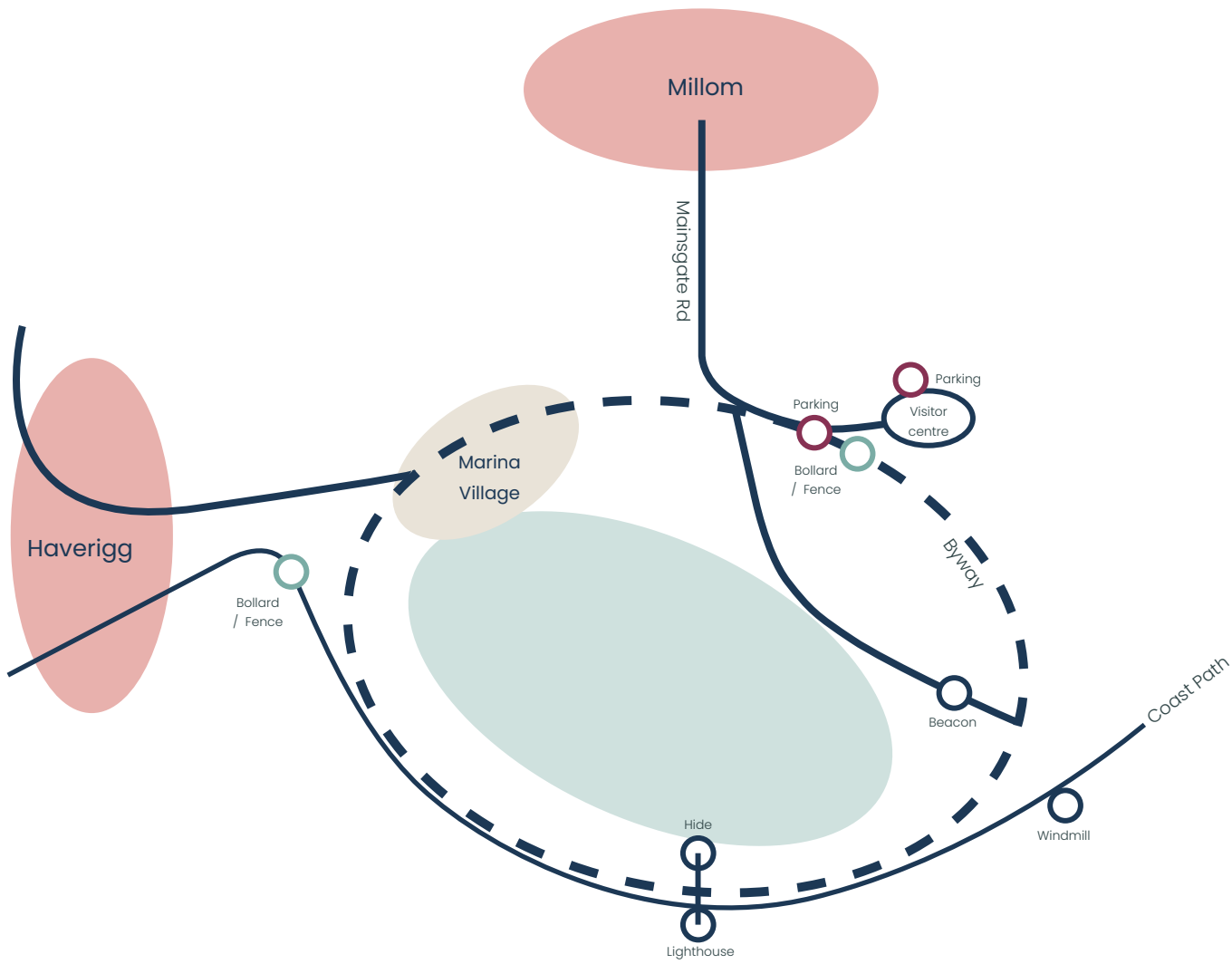
Horse riders

As a byway, horse riders may continue to visit Hodbarrow. The route will have a surface suitable for horses and new signage will raise awareness regarding the range of users and respect for others. A series of bollards and associated fencing are proposed at either end of the byway – these will be spaced appropriately to allow horse riders and helpers to pass through easily.

Motorists

As visitors in vehicles arrive at Hodbarrow, they will be guided towards the visitor centre car parking area. The road will be resurfaced where appropriate to allow for a secure driving experience along the existing route, the vehicular route will be shared with users visiting the waste centre. The roads within the parking area will be a macadam surface with reinforced gravel spaces creating a comfortable experience for users walking to the visitor centre.

Overspill car parking will be located where existing users currently park close to Hodbarrow entrance. The surface will be scraped, pot holes filled, levelled and resurfaced with a top dressing of stone to dust to provide an improved accessible surface.



Accessibility diagrammatic summary

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4. Movement

4. Movement

The Byway

Byway Open to All Traffic

The Byway Open to All Traffic (BOAT) is a critical part of the Iron Line project as it takes users on a journey through Hodbarrow and facilitates a circular route which can be accessed from many directions.

The current status of the route means that motorists, cyclists and horse riders may all use the route but public opinion on cars on site was mixed at consultation events.

The proposals seek to place a permanent Traffic Regulation Order (TRO) on the BOAT. Rather than being viewed as a road, the Byway will be a pedestrian environment into which vehicles are permitted to access for maintenance and emergency purposes only.

As it stands, the BOAT is poorly surfaced and lacks continuity of surface or width, as demonstrated by the photos below. Although this naturally discourages vehicle use and minimises speeds, it is not favourable to inclusive access for others. As the main route through Hodbarrow, this must be improved.

The proposal

Upon completion of a condition survey, the Byway is proposed to be scraped along its surface, pot holes to be filled in with a crushed aggregate and then levelled appropriately by machine. Finally, the byway will be surface dressed with a stone to dust top layer to improve the experience for pedestrians, cyclists and horse riders, making it a more comfortable and accessible route for all.

Along the sea wall, localised earthworks will see the creation of a linear mound to the estuary side of the Byway, using site won material. This will encourage visitors to stay on track and in turn, let the adjoining grassland flourish.

To restrict motorists from using the Byway, lockable drop bollards and bespoke timber fencing will be introduced in two locations (refer to diagram on left). These will be spaced appropriately to allow horses to pass through.

Existing Byway

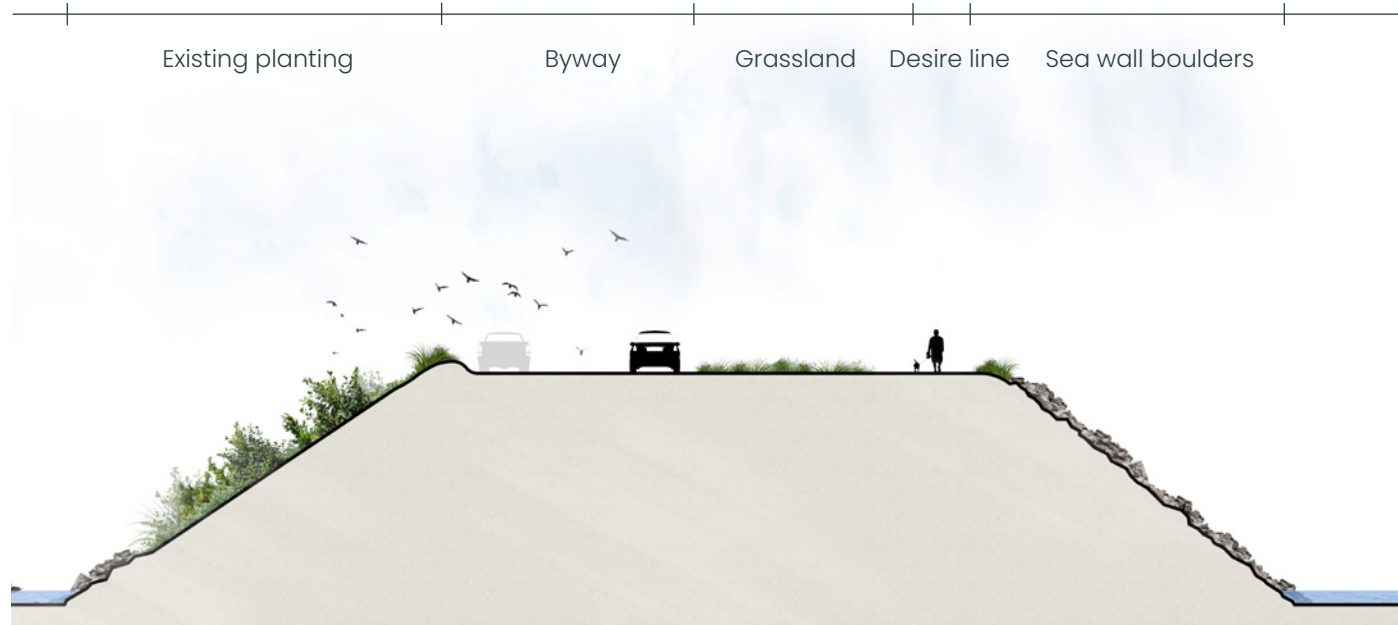
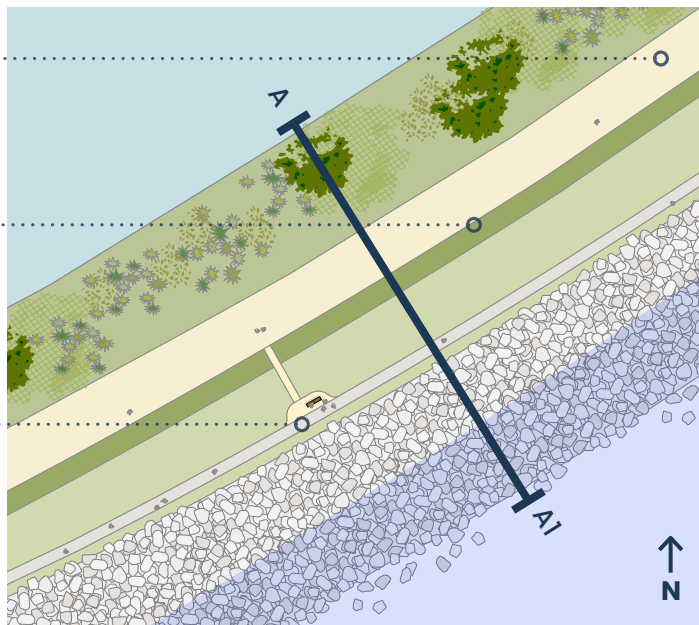
Surface scraped and top dressed with a stone to dust finish.

Landform Berm

Made from site won material

Existing Footpath with new furniture

Existing surface to remain on path - new furniture place along wall at appropriate intervals.



The Sea Wall Byway: Existing Cross Section (NTS)



The Sea Wall Byway: Proposed Cross Section (A-A1) (NTS)



Location of Byway and baseline photographs



4. Movement

The Byway - The Sea Wall



Visualisation of the proposed sea wall

4. Movement

Millom Gateway



Location Plan (NTS)

Entrance Road Resurfaced

Resurfaced with macadam where in a state of disrepair - widened to a consistent width of 6.3m to the visitor centre - with passing places.



Approaching the Iron Line from Millom

When traveling by car, most visitors will approach from Millom, guided by bespoke signs to mark their arrival at Hodbarrow and help navigation towards the visitor centre. Consistency within the surface treatment will also guide motorists to the main car park. A secondary car park will be located at the start of the byway to serve those who don't wish to use the visitor centre.

From Mainsgate Road, pedestrians will be guided towards the path that passes along the water's edge and past "The Ducks". They then have easy access onto the byway and into the main Hodbarrow reserve.

To prevent vehicle access when the visitor centre is closed, a lockable gate will be situated at the bottom of the access road, where one exists today. To maintain a secure line for the operator, a second gate will be located nearer the household waste recycling centre (HWRC) so the facility can be locked independently.

There will also be a set of lockable drop bollards and a fence to the far end of the secondary car park to restrict vehicles from using the Byway - emergency and maintenance vehicles will still have access.

Pedestrian Crossing

Raised table to guide pedestrians to waterside path into reserve.

Gateway Feature

Bespoke art and/or signage to announce arrival at RSPB Hodbarrow.

Signage

To guide visitors to visitor centre and HWRC

Vehicle Gate

To be secured when visitor centre and HWRC are closed.

Cycle Parking

To guide visitors to visitor centre and HWRC

Car park

Spaces demarcated and landscape information boards installed

Access to the Iron Line

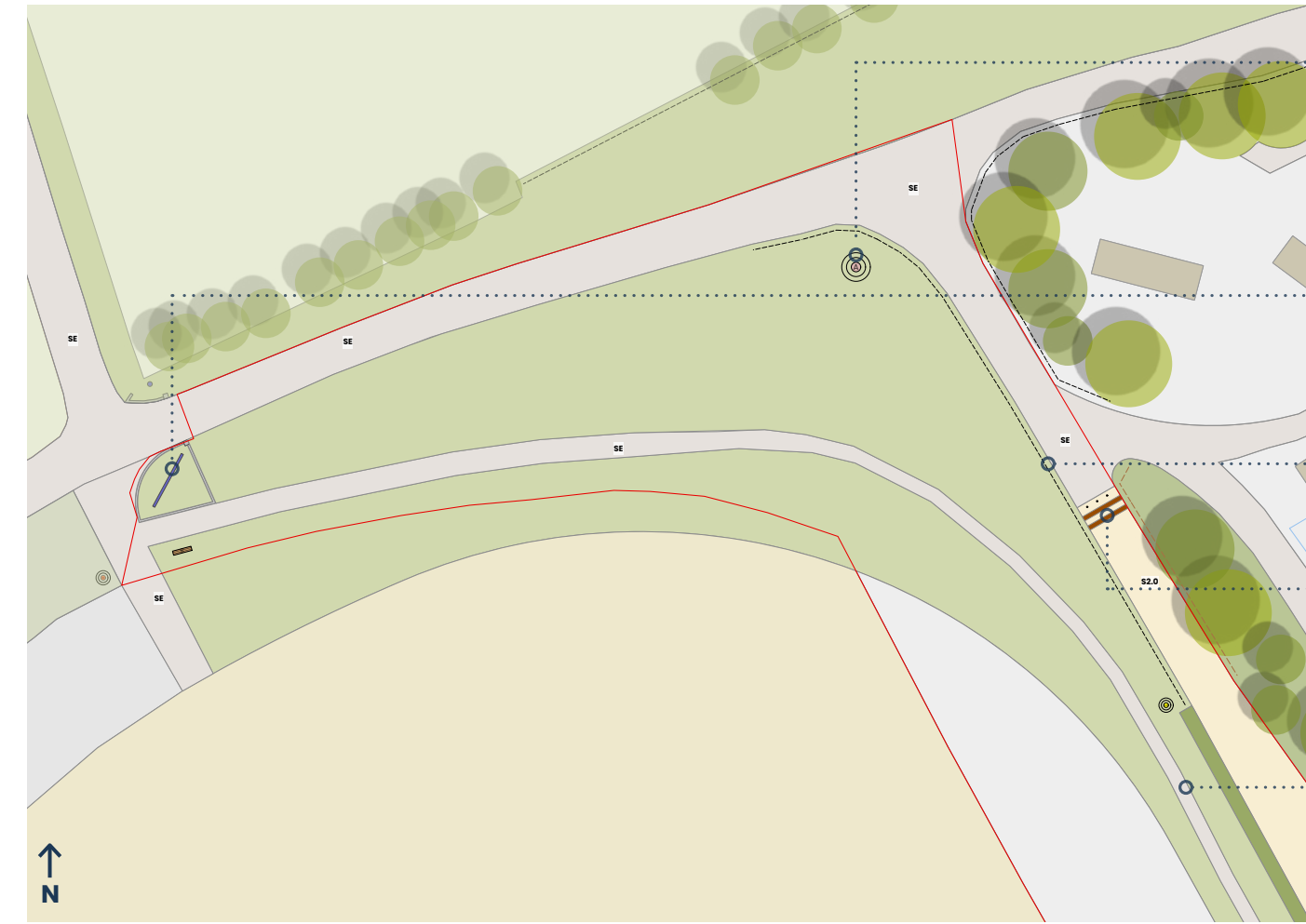
Lockable drop bollards and a fence to restrict vehicular access

4. Movement

Haverigg Gateway



Location Plan (NTS)



Approaching the Iron Line from Haverigg

From Haverigg, the Iron Line will be advertised with new wayfinding signage and artwork. The latter will most likely be a vertical feature that can be seen from a distance.

The existing footpath will be retain its existing surfacing and proposed navigational signage introduced to help to guide visitors towards Hodbarrow.

The proposals seek to place a permanent Traffic Regulation Order (TRO) on the BOAT. Rather than being viewed as a road, the Byway will be a pedestrian environment into which vehicles

are permitted for maintenance and emergency only. To restrict motorists from using the Byway, lockable drop bollards will be installed - these will be spaced appropriately to allow horses and pedestrians to pass through.

Gateway

Bespoke vertical feature visible from a distance to help people navigate from Haverigg. Opportunity for art project.

Existing Features Retained

Signage to caravan site and benches

Existing Fence Line

Retained to keeping users on byway.

Entrance Details

Lockable drop bollards to restrict vehicular access as well as threshold detail to mark entrance.

Footpath

Existing footpath surfacing retained.



5. The Visitor Centre
Location

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Location of Visitor Centre in relation to other landmarks

- Key
- 1 Visitor centre
 - 2 Towsey Hole Windmill
 - 3 Tern Island Hide
 - 4 Annie Lowther Hide
 - 5 Clay Pit Hide
 - 6 Lagoon View Entrance
 - 7 Quarry Hide
 - 8 Railway Passing
 - 9 Whiterock Junction

5. The Visitor Centre

Introduction

Overview

A key part of RIBA Stage 1 and 2 was to undertake an options appraisal for the visitor centre. This not only looked at location but also scale and level of provision to ascertain what an optimum building would constitute and where it should best be located. This appraisal took onboard multiple factors and the opinions and input of varying stakeholders and professionals. The design team consulted with:

- RSPB
- Natural England
- Members of the Public
- Cumberland Planning Department
- Cumbria Waste Management
- Millom Town Deal Board
- Hatch Business Consultants

Key considerations regarding the visitor centre were:

- The ecological impact and SSSI designation of majority of the site.
- The appropriate scale of the visitor centre in order to balance an overall business plan for the project (small, medium and large options were initially assessed)
- Landscape and altitude.
- Connectivity to the site.
- The heritage of the site.
- Access to and from the location and the surrounding area and transport connections.

Site Location

Through this options appraisal process, a preferred location was determined to the north east of the RSPB reserve on a raised area of land above the household waste recycling centre (HWRC) and most critically outside of the SSSI.

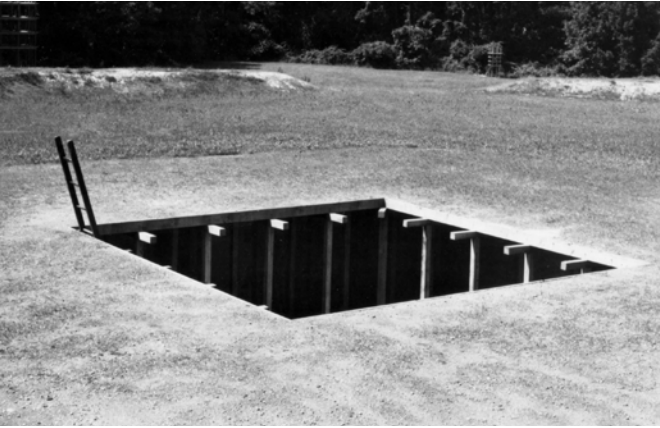
This is accessed from the bottom of Mainsgate Road using the current access route to the HWRC. The location is one of the highest points near to Hodbarrow Lagoon and this was another key factor; as it offers good views across the immediate site, out to Irish Sea and the Duddon Estuary as well as back towards Millom and the Lake District mountains beyond. As a point of arrival and welcome, this ability to orientate yourself before exploring further is key; likewise to review where you've been and place it within a wider context at the end of visit is also helpful.

Site Constraints

Whilst the selected site is outside the SSSI there are still a number of key constraints which needed careful consideration as the visitor centre went through design development during late RIBA Stage 2 / early Stage 3. Further ecological surveys noted areas of Annex 1 Calcareous Grassland and Priority Habitats within the area of post-industrial landscape on the shallow slope to the east site; this meant that the building, car park and roads would need to work within areas of scrub, therefore avoiding these important habitats. The mitigation hierarchy was followed and the location of building, car park and roads were changed to predominantly areas of dense scrub and therefore avoiding areas of internationally important habitats

Design Evolution

These constraints meant that there were a number of iterations of the site arrangement with the key elements of; building, car parking and access road, each shuffling around the site until an optimum layout was achieved which managed the topography whilst avoiding the important flora and habitats.



Drums and Nodes

The buildings which remain on site, the remnants of it's heritage, are each cylindrical or truncated cones - whether that's the 2 lighthouses or the remains of the windmill. These drums form nodes in the landscape between which curving routes traverse across the arcing landform to form a network of primary and secondary routes. It was appropriate for the welcome building to make a connection with these other forms and the proposed cylindrical drum form of the building will sit raised within the landscape and be part of this family of towers and drum

Hollow Earth

Hodbarrow is a hollow landscape with much of it's industrial past left hidden below the surface. The building aims to reference the subterranean conditions of the mines in the experience of entering the ground floor space, which has dramatic top lighting entering from the "shaft" that rises through the first floor to the large central rooftop on the roof. The building references the material of the site with the external gabion stone cladding.

The first floor access up external stairs to the panoramic balcony will give expansive views over the reserve and the wider landscape. These views will also be enjoyed by the first floor Café, providing an all weather experience of the site which will be enjoyed by visitors.

Skyline Structures

Whilst the skyline of Millom in it's industrial period was dominated by the colossal Ironworks and the associated dock, in Hodbarrow the landscape was defined by the raised trestle railways and aqueducts which curved across the topography, linking pits and quarries back to the ironworks. Raised to manage the undulating landscapes with achievable gradients of the tracks, these skeletal structures had a great presence within the landscape and along with elements such as the sea walls, embodied a strong sense of pragmatism and bold, bloody mindedness to control and resolve the challenges which nature placed in front of them in their plan to mine the area. Proposals reference these trestle structures, both within the framed rotunda of the Visitor Centre which will sit against the sky, visible from the town and the Iron Line, as well as from other structure and hides within the wider proposals.

Analogue Observation

From the bird hides within the reserve, the lighthouses seemingly looking out to sea, to the raised headlands where mine offices were located to oversee activities - viewing and being viewed is inherent in the location. The site wide proposals for Iron Line achieve a balanced approach to how much a visitor can physically engage with the landscape elements, and importantly the protected habitats within the reserve - the experience of watching will be enhanced across the site to balance against this slightly more managed level of access in certain area. A variety of opportunities to view are proposed, ranging from simple hide structures near the lagoons and panoramic views from the café and balcony of the visitor centre building. The site will be layered with interpretation focusing on the nature and heritage of the site but it is key that these interventions are robust and appropriate to the setting. There will therefore be no reliance on digital technologies, no electronics or electrical supplies - the experience of viewing and augmenting those scenes with interpretation will be a purely analogue one.

Overview

Whilst there are numerous pragmatic factors informing the design of the visitor centre, from a resolution of the site constraints as described above, to the practical delivery of the building brief and function; it was important to also be responding to the landscape and industrial heritage of the location in to create a new visitor experience to enhance and inform visits to the Ironline and the Hodbarrow Reserve. There are a number of aspects to this:

5. The Visitor Centre

Design Summary



Visualisation of the visitor centre for the south west

The visitor centre sits at the high point of to the north east of Hodbarrow. The design creates a new and obvious focus, providing a starting and finish destination for visitors. The building will allow people to orientate themselves within the landscape and interpret local heritage and wildlife. Placing car park provision around the visitor centre reinforces the focus of activity around the building and its convenience for visitors allowing controlled access to the Iron Line.

The proposed building is circular in plan, emulating the rotunda of the previous planning application, but concentrating the building into a more compact form over two stories. Creating a two storey building at this location means that it will command uninterrupted views over the whole Iron Line site, the surrounding Duddon Estuary and Lakeland Hills.

The building will be designed to Certified Passivhaus standards to create a highly energy efficient building, which is comfortable, healthy and cheap to run. Local and natural materials will be used as much as possible within the structure to minimise Embodied Carbon and there will be on site renewables in the form of Photovoltaics (PV) generating a portion of the electricity consumed.

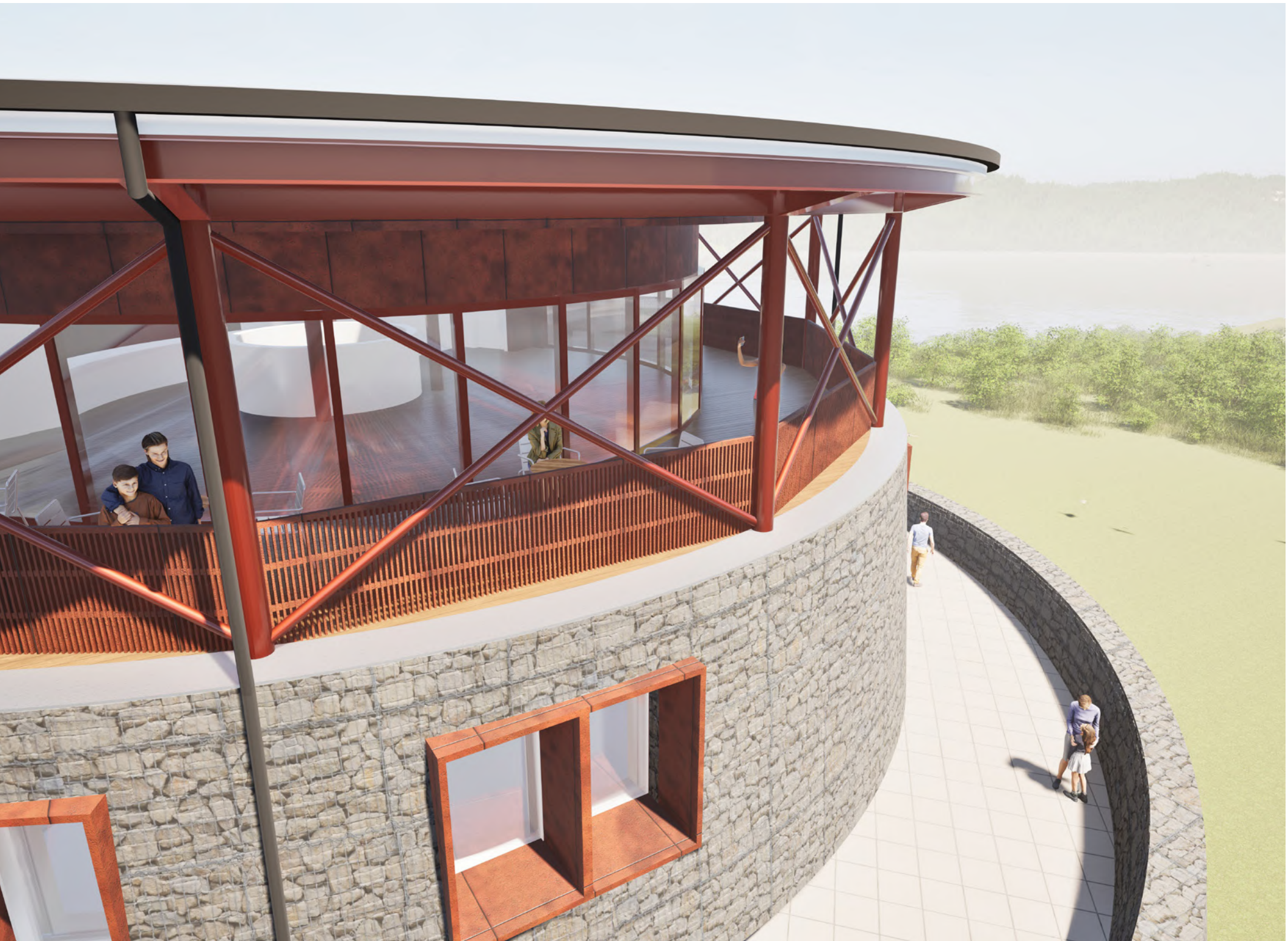
The primary structure for the building is to be steel framing to echo the structures of the former mines and recreate a semi industrial aesthetic, this is manifest in the colour of the external cladding which emulates rusting steel, a response both to the iron ore that was mined on the site and also the appearance of the former mine work structures. This aesthetic is carried through to the inside of the building, to create a unique experience for visitors.

The ground floor of the is wrapped in stone filled gabions, providing a robust plinth of natural materials to the new steel structure.

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5. The Visitor Centre

Design Summary



Visualisation of the rotunda experience

This will eventually be come colonised by mosses, lichens and ferns and become part of the ecology of the site. This outer stone wall encloses the external stairs and balcony which gives access to the first floor café and retail area giving visitors their first glimpse of the panoramic views. These stairs will be formed from in situ concrete that could incorporate graphics linking to the former mine works and local culture.

The café and retail space take advantage of stunning 360 degree views from an elevated position. The café benefits from a generous external balcony which is protected from weather by the oversailing roof structure. This can be used as overspill from the café as well as for general access by visitors. It is envisaged that interpretation points around the balcony will bring the former industrial landscape into view through, view ports, sculptures and screens.

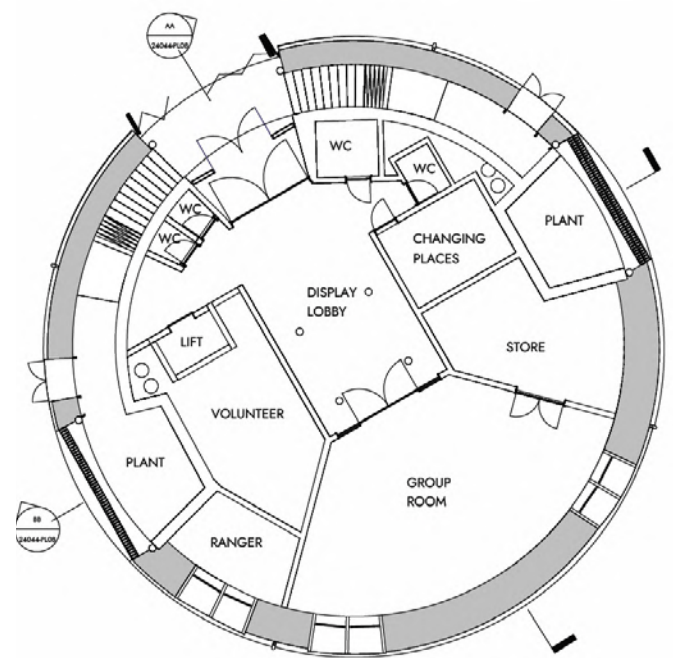
The ground floor has a single dramatic main entrance which leads into a modest internal lobby/information point, with dramatic top lighting from the roof top skylight via a shaft through the first floor, reminiscent of a mine shaft and workings, with exposed steel structure and strong industrial aesthetic. This space gives access to the group room, lift, toilet provision, the ranger's office and volunteers' space.

Either side of the main entrance are two curving stairways leading up to the balcony. Two plant areas are concealed within the ground floor plan one to provide heating via an Air Source Heat Pump and the other to provide Mechanical Heat Recovery Ventilation. The building will be designed to the Certified Passivhaus standard which will create a very energy efficient building with the potential for Net Zero Carbon operation, through the use of green electricity supply and on-site renewables. These will be in the form of roof mounted PV panels, flush with the roof surface, and some PV canopies situated in the car park.

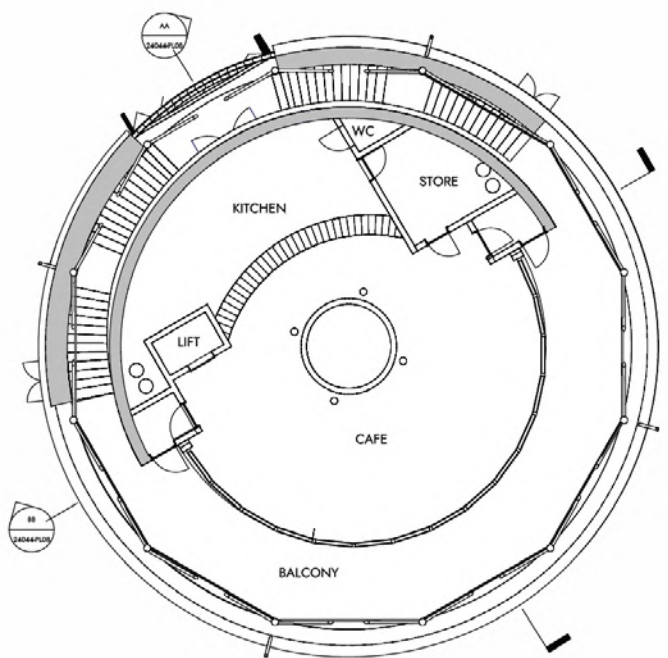
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5. The Visitor Centre

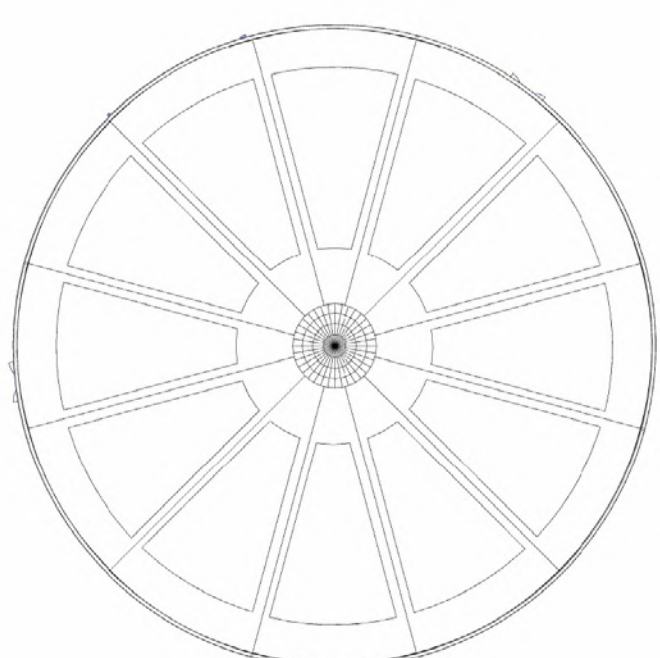
Summary of Accommodation



Ground Floor



First Floor



Roof Plan

Ground Floor

- Multi-purpose group room
- Lobby Information point
- Warden's office and information point
- Staff and volunteer's mess
- Public Unisex WC's
- Accessible WC
- Changing Places room
- Tool store

First Floor

- Storage and service provision Building B: Cafe and Kitchen
- Cafe space for 58 Covers with retail areas.
- Servery area
- Kitchen
- Kitchen store
- Staff WC
- Furniture store
- Retail stock store
- General store
- Plant area



Visualisation of first floor balcony.

5. The Visitor Centre

Access

Access to the Visitor Centre

Visitors can access the building by car, foot, bicycle, coach and wheelchair. The car park has been carefully located to avoid important natural habitats. This includes five accessible parking bays with level access into the building. A coach parking area is 100m to the east of the building for group visits. Cycle storage is also provided within the main parking area. A service vehicle turning head and drop off point has been included as have refuse and recycling provision.

Pedestrian routes to/from the visitor centre have been designed to be shallower than 1:20 gradient despite the terrain and habitats posing challenges in some area. Connections are made back to the main Iron Line route to allow a varying circular walk to be experienced. Within the visitor centre a lift provides full accessibility to the first floor café and retail facilities. All accommodation on the ground floor is level access. All primary activities are on the same level and accessible to everyone. There is one accessible WC within the building plus a Changing Places facility. There are also three unisex toilets for visitors. The detail of the interpretation pieces at the visitor centre and across the site has not been finalised but it is intended that these will be appropriate for those with vision impairments. It is anticipated that a hearing loop will be installed with the café area and also the group room to facilitate any large meetings/events.

5. The Visitor Centre

Building Materials



Visualisation of external elevation to visitor centre.

The roof will be clad in a standing seam metal roof, dark grey finish. Photovoltaic panels will be bonded to the metal panels giving a totally flat appearance. The perimeter gutter will be formed of the same material as the roof and have four metal downpipes. The soffit to the roof will be clad with a rainscreen cladding panel with applied graphics, providing interpretation information.

The bulkhead and walls at first floor level will be clad with a metal rainscreen cladding, with polyester powder coat finish to emulate Corten Steel. This has been chosen as an aesthetic reference to the former Iron Ore Mine that operated at Hodbarrow from 1855-1968. The exposed steel columns and roof structure will all be painted to match the cladding panels

Windows and doors at first floor level will be Passivhaus certified timber/aluminium casement or fixed windows with polyester powder coating to match the cladding.

The first floor balcony will have a self draining recycled wood composite grooved board finish in pale grey.

The ground floor external walls will be formed from stainless steel gabions filled with local stone, and it is anticipated that local flora, mosses, ferns, lichens etc will eventually populate the external surfaces blending the building with the surrounding landscape. As part of the detailing for ground floor windows, they will have a Rusting Steel window reveal, head and cill detail to frame and support the gabions around the opening. The windows will be timber/aluminium Passivhaus certified triple glazed casements with the aluminium outer frame Polyester powder coated a dark grey.

The entrance gates to the building will be bespoke rusting steel concertina doors to provide out of hours security. It is envisaged that these gates will form part of the Art Commissions and have abstract representations of the Iron Ore Mine buildings, mines and heamatite.

The inner entrance doors to the visitor centre will replicate the first floor cladding and provide a dramatic entrance into the building reminiscent of entering a mine. Exposed concrete steps either side of this entrance will lead up to the first floor balcony providing easy access to the café. The outer walls of the stair case will be in situ concrete and it is anticipated that this will incorporate, designs and graphics linking to the former mine works and local culture. A lift is located within the inner lobby of the building to provide access to the first floor for both visitors and supplies to the café and retail area. All of the entrance doors to the building will have level thresholds to permit easy access by wheelchairs and buggies.

Within the lobby area there will be a standard unisex Part M compliant toilet, as well as a Changing Places facility, and three unisex cubicles for the general public, staff and volunteers. The kitchen will have its own dedicated staff toilet.

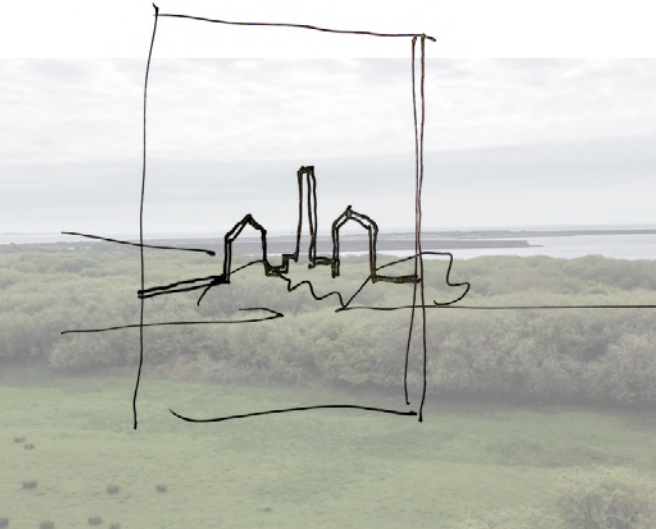
5. The Visitor Centre

Heritage Overlay



Visualisation of approach to visitor centre.

The panoramic view from the café and balcony will be a great place to orientate yourself within the Iron Line location and the varying wider landscape setting of land, sea, estuary and mountains. It is also intended that these views are augmented with heritage and cultural layering whether that's by well considered interpretation panels or by silhouetted overlays which bring augment the actual view with the traces of what would have been seen at the height of the recent industrial past





Visitor centre in the wider context

5. The Visitor Centre

External Works

Design Intent

The visitor centre welcomes motorists as they climb the hill from Mainsgate Road and pedestrians as they approach from the byway. The external environment supports the agenda of enabling people to practically navigate the place whilst presenting opportunity to enjoy the setting.

Outdoor space encompasses the built form, with opportunities to sit, resulting in a south east facing seating space that looks out over RSPB Hodbarrow. In this location visitors will be able to sit and admire the view and gather with other people before heading off towards the Iron Line. Cycle parking is located at the entrance to the building and could incorporate surface details that echo the site's wider industrial heritage.

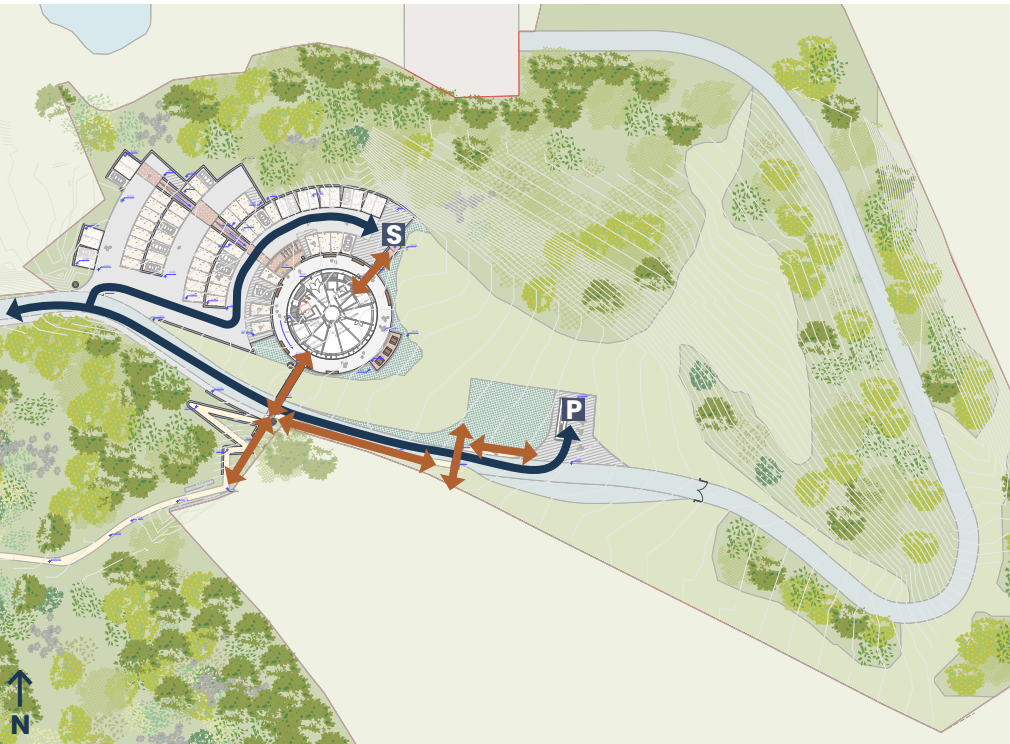
Fixed furniture will take the form of curved benches against gabion structures, orientated towards the visitor centre as well as outlooking across the landscape.

From the building, visitors are guided by navigational signage, across a raised steel walkway over existing grassland and head through into the RSPB reserve. This is an important gateway when approaching from both directions and offers an opportunity for bespoke design and/or an art installation.

The tiered car park uses a series of gabion structures to retain the landscape with a clear route and series of ramps that safely guide visitors between the car park and visitor centre. The coach drop off zone is located down the hill with signed walkways leading users to the building.



Repairs to existing road



Servicing & Coaches

5. The Visitor Centre

Vehicular Circulation

Generally

The visitor centre will be accessed via the existing road that serves the Household Waster Recycling Centre (HWRC). Visitors will then be guided into the car park through signage. Users will traverse the car park via a marked walkway providing safe access into the building. Users of the HWRC will continue down the road as existing.

Cars

Motorists will approach the car park via the existing access route.

Servicing & Coaches

Deliveries and service vehicles will approach from Mainsgate Road, through the car park to a dedicated drop off and delivery zone located to the north east of the building. A pedestrian ramp will allow deliveries and bins to be brought up to the building. Turning space allows vehicles to manoeuvre and exit through the same route. Coaches will park in a marked zone south west of the visitor centre and a segregated pathway will guide pedestrians up to the visitor centre.

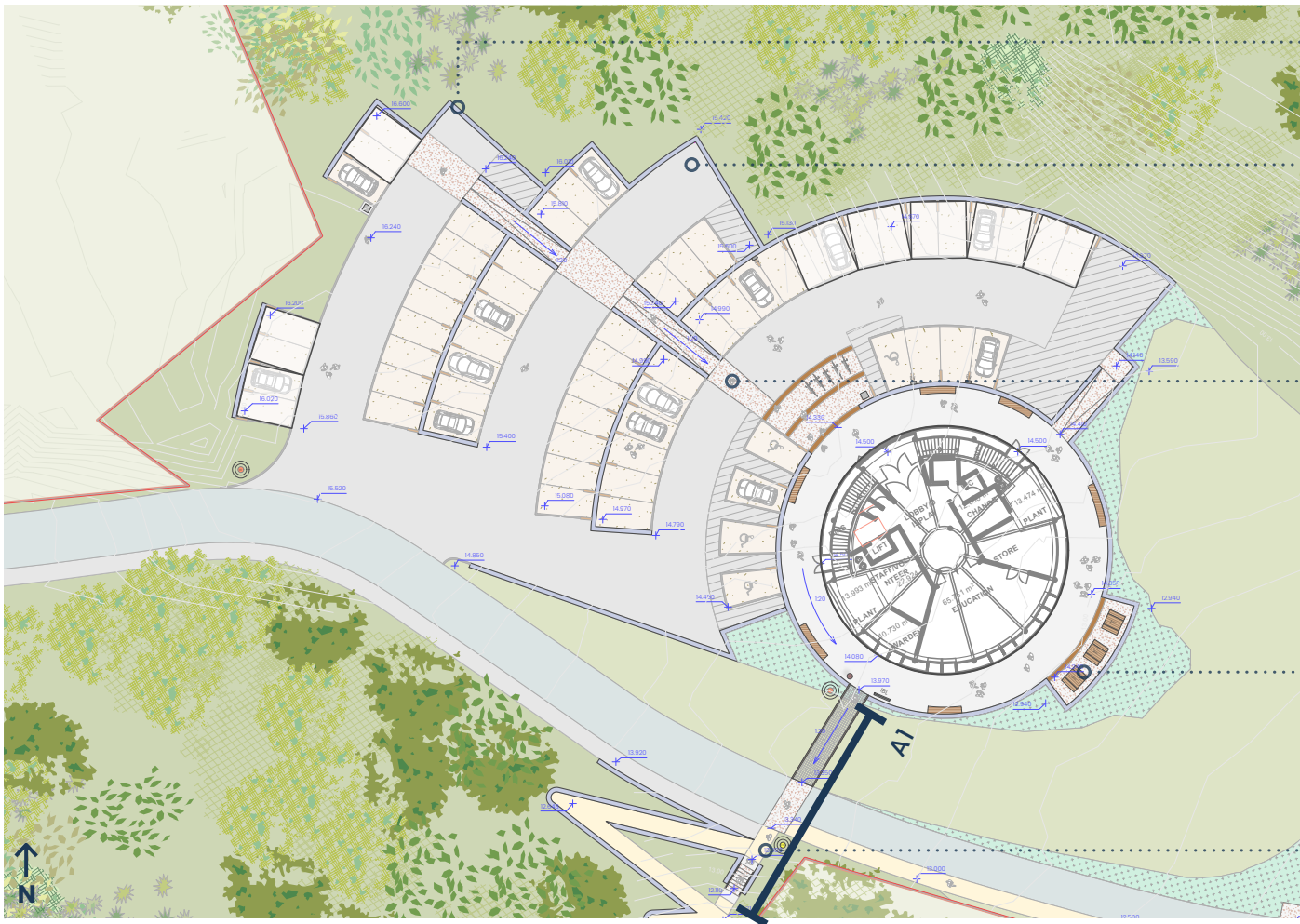
HWRC

Vehicles will follow the existing road to access the waste facility which will remain operational. A new secure line will be introduced so that the visitor centre can remain open at times when the HWRC is closed.

- Existing Road
- Vehicular Circulation
- Pedestrian Circulation
- Lockable Gate

5. The Visitor Centre

The Outdoor Space



Gabion Walls

Gabion structures create terraces that deal with levels changes.

Car park

Capacity for 63 vehicles including 5 accessible spaces. There is provision for charging 6 electric cars (1 of which is within an accessible bay). Reinforced gravel in a geogrid allows car parking space to be permeable - access roads proposed to be tarmac.

Pedestrian connection

Level access with a series of ramps leading visitors into the visitor centre. Road crossings demarcated with a change in surface materiality.

Seating Spaces

Dedicated seating space and well as bespoke benches around the building

Access to RSPB Hodbarrow

Pedestrian steel walkway over grassland connects to gateway into reserve.



Pedestrian Link into Reserve: Proposed Cross Section (A-A1) (NTS)



Location Plan (NTS)

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5. The Visitor Centre

Finding Inspiration

Materials Palette - Furniture

Fixed furniture will be scaled to suit its surroundings and built from robust materials that reflect the public position, climate and expected visitor numbers.

For site wide continuity, Corten steel will be a prominent material with the introduction of concrete and timber to seating for comfort and to complement the building and floorscape. Products will be bespoke and aligned with the furniture strategy as documented later.



Materials Palette - Surfaces

Once away from the main macadam road, materials take on a more natural colour palette and comprise:

- Car park: Reinforced gravel with spaces demarcated with timber dividers.
- Car Park Pedestrian Route: In-situ concrete with aggregate.
- Building Surrounds: In-situ concrete
- Boardwalk: Metal grating with timber upstand edge.



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6. Landmarks & Key Spaces

Locations

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Location of Landmarks

Promoting Points of Interest

In addition to the new visitor centre, the Iron Line seeks to provide visitors with multiple opportunities to engage with a number of existing and proposed structures across Hodbarrow. The aspiration is to:

- Provide shelter
- Facilitate interaction with wildlife and the landscape
- Connect people with the site's industrial past
- Experience panoramic views from vantage points
- Create playful features for all age groups
- Secure the future for heritage features

The location of these landmarks is highlighted opposite with further detail included within this chapter.

Key

- 1 Visitor centre
- 2 Towsey Hole Windmill
- 3 Tern Island Hide
- 4 Annie Lowther Hide
- 5 Clay Pit Hide
- 6 Lagoon View Entrance
- 7 Quarry Hide
- 8 Railway Passing
- 9 Whiterock Junction
- 10 Hodbarrow Beacon

6. Landmarks & Key Spaces

Towsey Hole Windmill (2)



Location Plan



Towsey Hole Windmill (ruin)

The ruined Towsey Hole Windmill stands on high ground above Hodbarrow Point, a natural promontory and part of the original coastline prior to the construction of the seawall. Understood to date from the C18th, the windmill would presumably have been used to grind grain from nearby agricultural land, producing modest volumes of flour for distribution locally.

Pre-dating the mining and industry that followed and later dominated the landscape, the windmill structure is now ruinous; it understood to have been no longer in functional use and entering disrepair from the early C19th, prior to the opening of the mine in the mid-C19th.

The structure as it exists stands isolated, during the operation of Hodbarrow Mine the windmill is known to have structures adjacent to it, including the Old Engine Shaft and another building, described as being "probably offices". The tower structure of the windmill itself is understood to have been used during the early mine operations for iron ore as a store for gunpowder.

It is possible that there was a dwelling associated with the windmill during its operation in the C18th, as is typical from windmills of the time. The mapping information from this period is limited and there is no direct evidence of a dwelling at this time, however, the former "office", which is domestic in scale could similarly pre-date the mine and have been a dwelling serving the windmill.



Aerial image (circa 1930) depicting the former 'offices' (left) and windmill (right).

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Towsey Hole Windmill and Hodbarrow Point aerial image as it exists today



Photograph (circa 1889) depicting structures adjacent to the former windmill. Left: Old Engine Shaft (1855-6). Centre: Central Building noted as "probably offices". Right: Windmill

6. Landmarks & Key Spaces

Towsey Hole Windmill (2)



Blaeu Atlas Maior Volume 5 Cumbria, Vulgo Cumberland 1662-5

The historic mapping suggests two structures; the windmill and possible dwelling, on the site from 1823, which pre-dates the commencement of mining operations.

An example of a tower windmill, Towsey Hole has a sandstone base and it can be assumed that it had a former timber cowl structure (cupola roof) and timber sail and shaft structure. The only remaining element being the masonry tower.

There is no photographic / other evidence of Towsey Hole Windmill, however, comparison can be drawn with similar examples of windmills in a common vernacular, such as The Old Windmill, Walney Island and sites such as Lytham Windmill, Lancashire.

The image opposite, assumed circa 1889, gives an indication of the full height of the windmill tower, based on comparison with other structures.



Hodkinson; Donald Map of the County (for Charles Howard) Date: 1773



The Old Windmill, Walney Island with timber sail hub and cowl in tact (date unknown).



Greenwood South Sheet - Map of the County of Cumberland Date: 1823



The Old Windmill, Walney Island with only masonry structure remaining (date unknown).



Bartholemew Sheet 5 - North Lancashire & Isle of Man Published: 1920

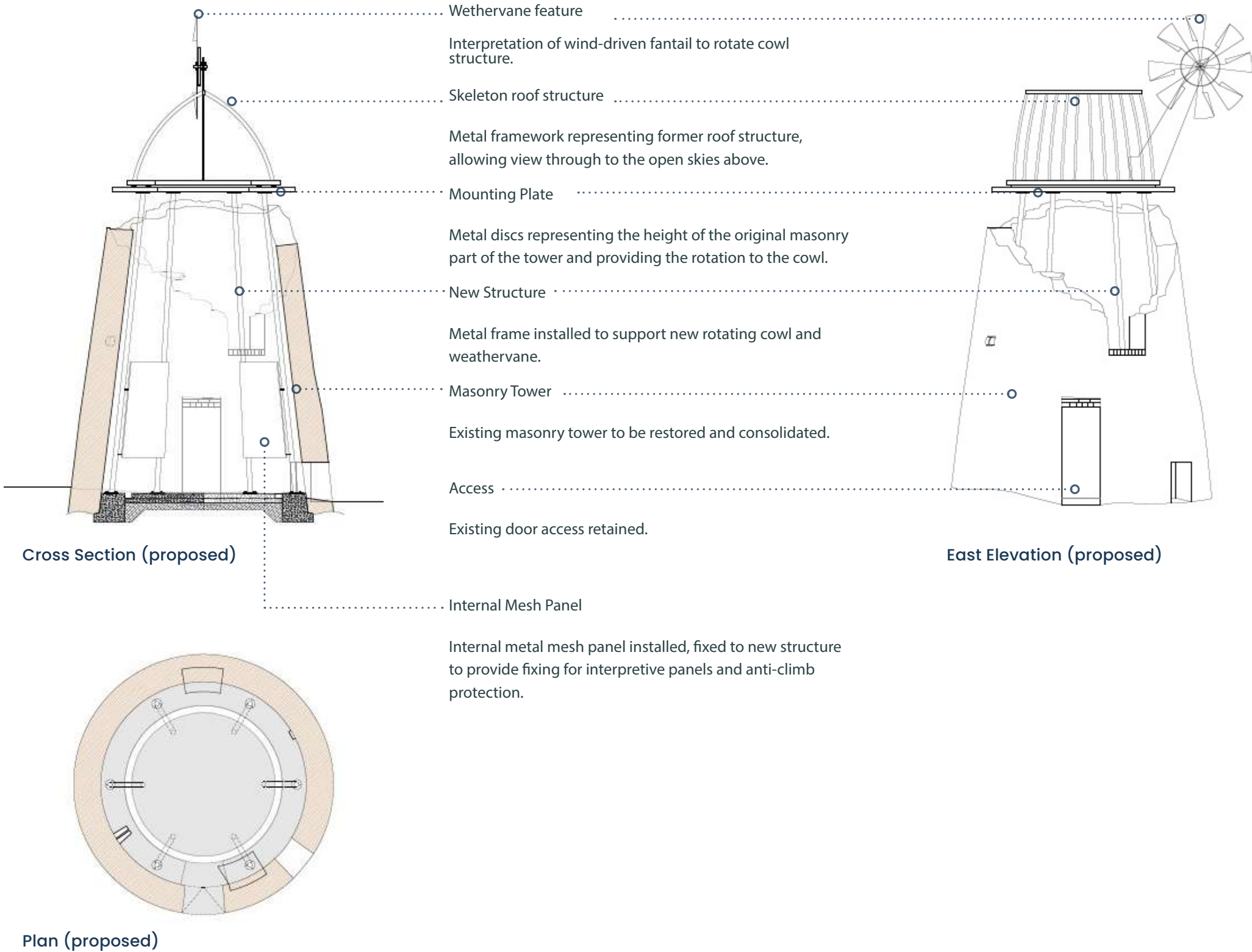


Towsey Hole Windmill with only masonry structure remaining (circa 1889).

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6. Landmarks & Key Spaces

Towsey Hole Windmill (2)++



6. Landmarks & Key Spaces

Towsey Hole Windmill (2)

As part of the design development the historical form of the windmill has been considered, with a view to inserting a structure within the existing ruins that provides an interpretation of the former windmill structure, its use, and its setting within the landscape.

The intention is to retain an unenclosed structure as existing; open to the elements, retaining views of the sky and with no door or other barrier to access.

There is a desire to introduce a dynamic element to the interpretive structure and particularly the reinstatement of the rotating cowl structure with wind-driven fantail.

The existing masonry to the windmill is to be retained and repointed with lime mortar suitable for marine environment; any areas of more significant repair will be consolidated following SPAB repair techniques using a heritage engineering brick to match existing repairs.

Underpinning of the existing walling is proposed to ensure the stability of the existing structure; this will be tied into new foundation for the inserted steel structure.

To limit the loading impact of the new steel structure it has been designed as a multi-column structure with 8no. segments. The structure is fixed to a concrete ringbeam, providing underpinning to the existing masonry walling. The steel frame is intended to be bolt fixed to allow for ease of dismantling in future.

Material considerations in the exposed, maritime environment have ruled out any timber or corten steel type structures, which would degrade rapidly; the proposed structure is intended to be in stainless steel.

Within the windmill it is proposed a to install a continuous mesh panel at a height between the lower and upper openings, to which interpretive signage can be installed, whilst all providing an anti-climb barrier.

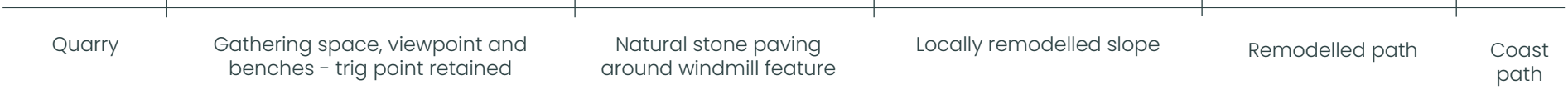
Installation of seating had been considered internally but has been disregarding to allow more space internally and to avoid providing a place for congregation linked to any anti-social behaviour issues.

6. Landmarks & Key Spaces

Towsey Hole Windmill (2)



Plan of Towsey Hole Windmill in context



Towsey Hole Windmill: Proposed Cross Section (A-A1) (NTS)

- Boardwalk access**
Formalises an existing desire line and supports level access - boardwalk protects habitat below.
- England Coast Path**
- Improved access**
Gently sloping route as a significantly improved path than existing.
- Windmill**
New paved surround enabling level access into the windmill.
- Viewing Area**
Gathering space with bespoke seating looking out across the estuary.

Design Intent

The windmill is in an elevated position which experiences stunning 360 degree views of Hodbarrow and beyond. Alongside the creation of a sculptural element within the windmill, a new path is proposed to serve this feature as well as new gathering and seating spaces looking out across the estuary, thus establishing an enhanced point of interest in the southern part of the reserve.

The new path will have a stone to dust surface and wind its way uphill via a more subtle gradient than existing. It is connected to the England Coast Path and will therefore be an important landmark for pedestrians approaching from public rights of way in the east.

On reaching the top of the hill, visitors will approach the windmill via a robust surface surround, entering the building via a level threshold.



Plan: Towsey Hole Windmill landscape detail



6. Landmarks & Key Spaces

Towsey Hole Windmill (2)

6. Landmarks & Key Spaces

Tern Island Hide (3)



Location Plan (NTS)



Hide in context



Existing hide



Reference image from Dungeness



6. Landmarks & Key Spaces

Tern Island Hide (3)

The existing RSPB hide on the outer seawall faces the island within the main lagoon which has been formed to provide a safe environment for terns to nest each spring/summer. The focus of the hide is on the nesting terns and it forms a base for a warden to monitor activity and manage potential disturbance during key nesting months.

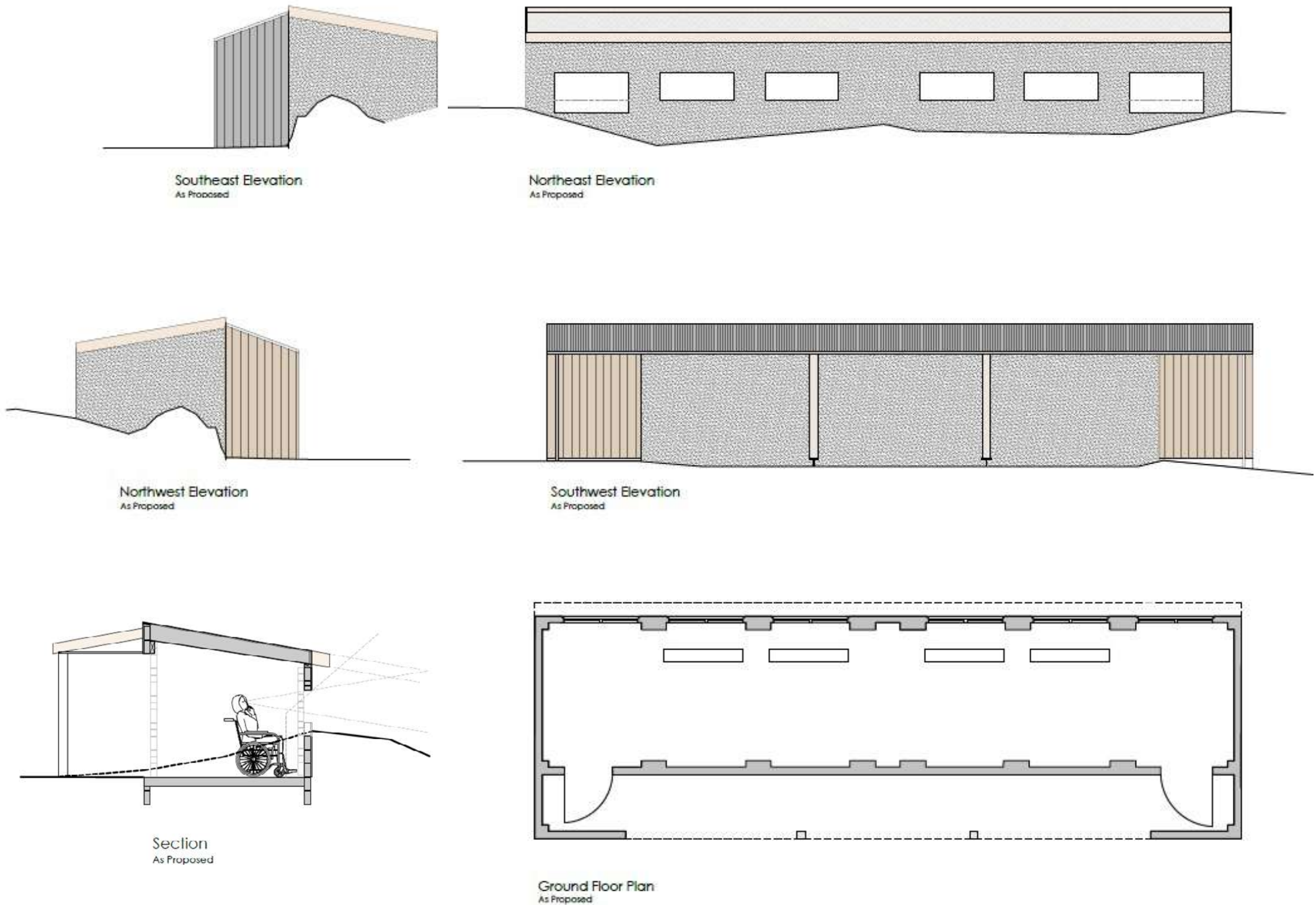
The current building is very basic and whilst relatively incongruous in form and scale within the setting, at closer hand it is generally considered to be unsightly within the re-natured setting. In order to improve the experience, appearance and watertightness, it is proposed to externally clad the walling to the hide and provide a replacement roof structure.

The replacement roof structure, which extends over the existing door accesses and has a projecting eaves above the existing viewing window openings, is intended to reduce the amount of water ingress into the hide from wind driven rain. The structure will be split into an unequal dual pitched roof, reducing the height of the previously proposed monopitch and again providing further weather protection. The new roofing over the entrance area will be supported by heavy duty treated timber structure.

The roof will include sheet metal cladding over the entrance area and a brown living roof over the existing hide, where self-seeding native species of flora would be encouraged. The proposed walling cladding, which is non-structural and can be easily removed, is to be in a treated timber.

The existing level access to the hide is to be retained and improved; it is proposed to lower the cills to two existing windows at each end of the hide to improve views for wheelchair users.

The slag bund which currently flanks both sides of the hide will be shored up to improve the screening.



6. Landmarks & Key Spaces

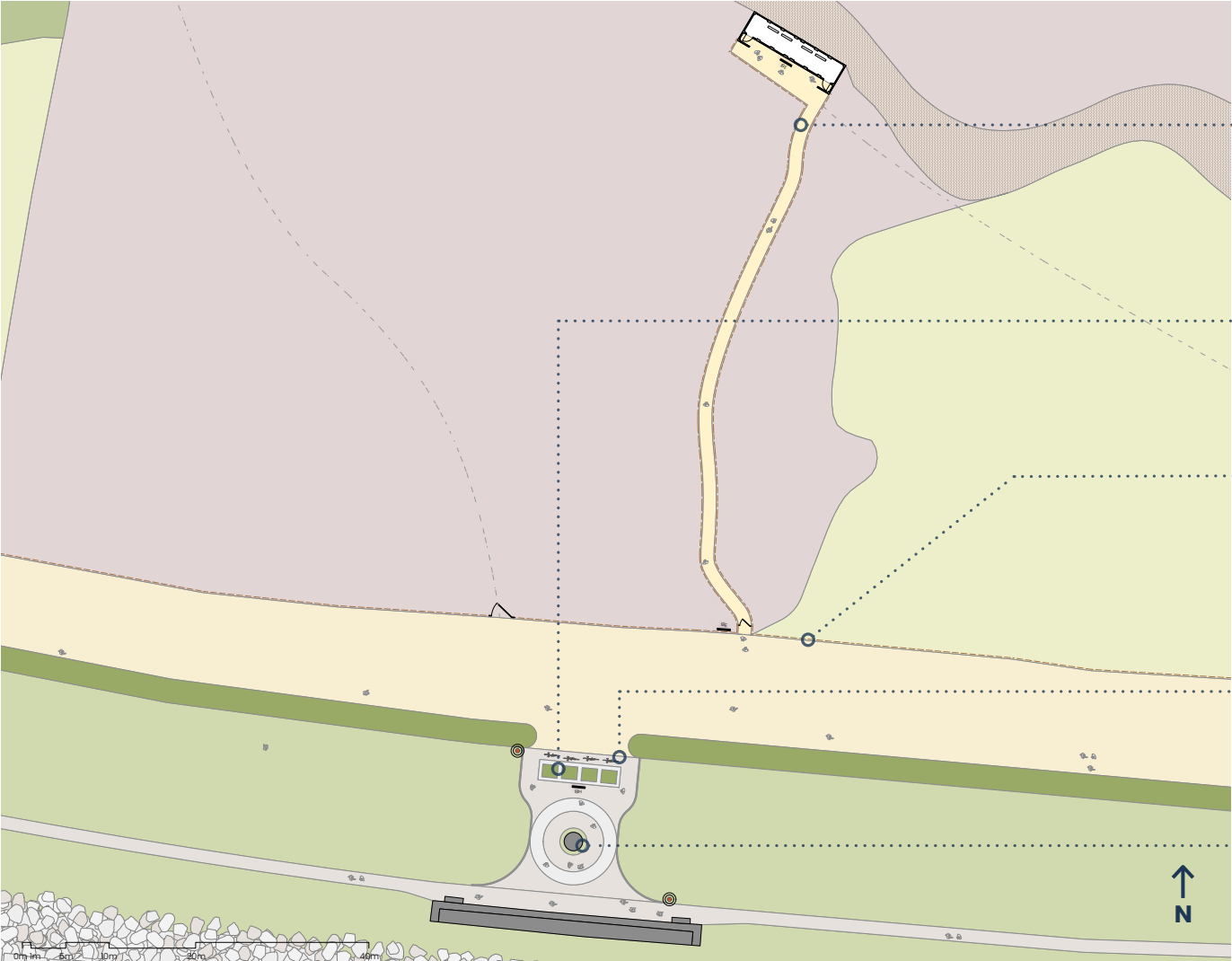
Tern Hide (3)



Location Plan (NTS)

Standing proud on the sea wall, Haverigg Lighthouse is a long established landmark, which along with the concrete wall and other industrial remnants, present a visible connection to Hodbarrow's mining heritage and is something that the Iron Line project seeks to protect. New cycle stands will allow visitors to park cycles whilst visiting the hide and lighthouse. New benches create opportunity to rest with insitu concrete surfacing underfoot - heritage signage focuses on telling the story of this location's past. The area is edged with stone to allow protection and enhancement for the surrounding habitat. Enhancing the environment around the lighthouse is also intended to draw attention away from the lagoon and minimise pedestrian activity close to Tern Island.

The hide will be re-clad and public access maintained, but the main point of interest will be focused on the southern side of the sea wall, towards the estuary where human activity is less likely to disturb the tern colony. Permanent fencing will also be introduced to protect important botanical habitats which exist on land between the lighthouse and hide.



Plan of Lighthouse & Tern Island Hide

Path edge detailing

A fence will be used to mark the path, encouraging visitors to stay on the designated pathway and off important habitats.

Industrial Remnants

Existing feature retained as a reference to the site's industrial past.

Byway Fence

New fencing installed to keep unwanted foot traffic away from important habitats. Gated entrance to bird hide and RSPB maintenance route.

Furniture

Four new Sheffield cycle stands as well as new benches and heritage information board.

Circular Hardstanding

Existing surface remains with insitu concrete underfoot to benches - area is stone edged to help protect adjacent habitat.



Site Photo: Tern Hide



The crucially important habitat surrounding the tern hide will be protected with a new timber fence. The fence will connect to the existing restored bund to the east and run along the byway to connect with the existing scrub habitat.

A fence will also delineate the path from the byway to the refurbished hide, discouraging unwanted foot traffic on the rich botanical fauna.

Ecology boards will re-enforce this message as well as educating visitors about the tern colony.



Precedent: Fencing for habitat protection



6. Landmarks & Key Spaces

Annie Lowther Hide (4)

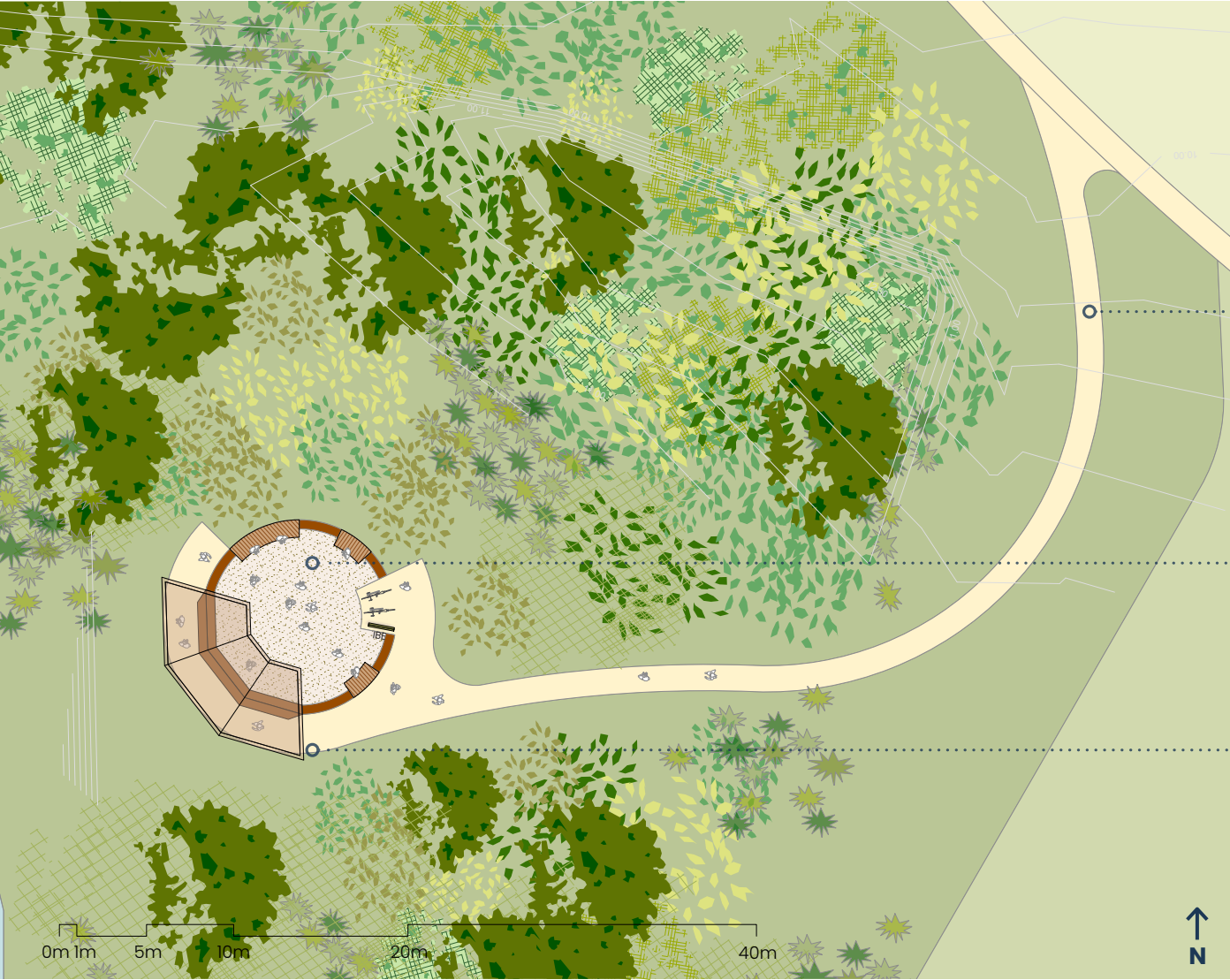


Location Plan (NTS)

In existing scrub, east of where the inner sea wall meets land, a new contained viewing hide and informal outdoor class room will allow visitors to view the lagoon and wider landscape from a new perspective.

This location is between the sites where the Old Annie Lowther pit and New Annie Lowther pit once stood and we have named the proposed hide structure after this heritage.

The hide itself is a simple, contained timber shelter with a graded sloped approach path. A partially covered, circular formed seating space with bespoke benches provides an opportunity for the space to be used as an outdoor educational facility. The circular orientation of the space references the form existing heritage features located nearby on Hodbarrow.



Access Pathway

Scrub to be cleared to form new pathway that leads vistors down to the hide. Position of hide located appropriately to keep visitors from important grassland habitat.

Seating Area

Circular open space for seating and use as an outdoor classroom - with bespoke benches and space for cycle parking.

Annie Lowther Hide

Enclosed timber structure providing opportunities for viewing across the lagoon and shelter to the outdoor classroom.

6. Landmarks & Key Spaces

Annie Lowther Hide (4)

The hides primary focus is to provide shelter for bird watchers, out across the lagoon and to the tern colony.

The hide and simple canopy are formed in timber, and give views south across the lagoon to tern island. The hide is fully accessible

Reinforcement scrub planting could also be used to strengthen the barrier vegetation that deters pedestrians from traversing the old sea wall.



Precedent: Simple architectural hides

6. Landmarks & Key Spaces

Clay Pit Hide (5)



Location Plan

As the Iron Line passes through the scrub in the north east part of the site, tree canopies close over and the proute passes through a tunnel-like section. This means that sideways views are restricted and visitors can't appreciate the two "quarry pools" located to both left and right.

A new hide is proposed to enable visitors to experience views of the waterbody which is popular habitat for various species of waterfowl.

An oblique path takes visitors though the scrub to a wooden decked area surrounded by an artistic screen. Benches here also allow people to sit and view the Clay Pit Pool through the screen.



Clay Pit Hide

Timber decked area to accommodate uneven terrain. A surrounding artistic screen to minimise disturbance of wildlife yet allowing views across the clay pit pool.

Cycle Parking

Area for four Sheffield stands

Byway

Route retained



6. Landmarks & Key Spaces

Clay Pit Hide (5)



Precedent: Screened views

6. Landmarks & Key Spaces

Lagoon View (6)



Location Plan



Precedent: Waterside Gateway



Precedent: Waterside artworks Brockholes



Precedent: Framed views



Cross section E-E: Lagoon View



Precedent: Gateway

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6. Landmarks & Key Spaces

Lagoon View (6)



This landmark identifies an important path node where the Iron Line and main path to the visitor centre connect.

Path to visitor centre
1.5m wide with stone to dust finish

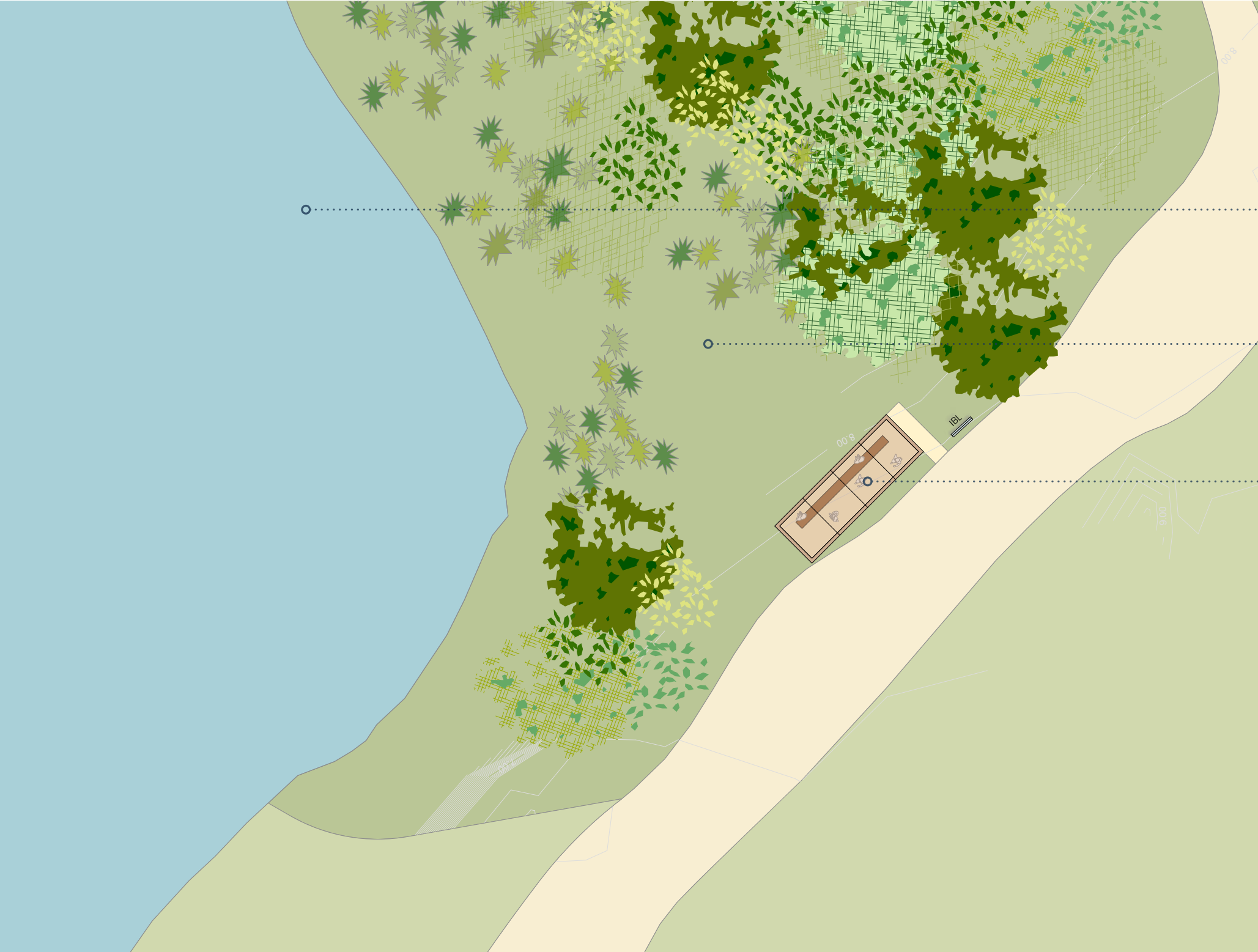
Gateway
Marking interface between visitor centre and byway

Furniture
Benches, bins and signage

Plan: Lagoon

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6. Landmarks & Key Spaces
Quarry Hide (7)



- Quarry Lagoon
- Scrub clearance
Scrub cleared to allow views of the quarry lagoon
- New hide
Positioned to experience views of the quarry lagoon.

View over waterbody



View over quarry

6. Landmarks & Key Spaces
Quarry Hide (7)



Precedent: Covered seating



As visitors follow the Iron Line round the views of the quarry lagoon open up to the north-west. The quarry hide provides shelter from the prevailing wind and allows views across the lagoon.

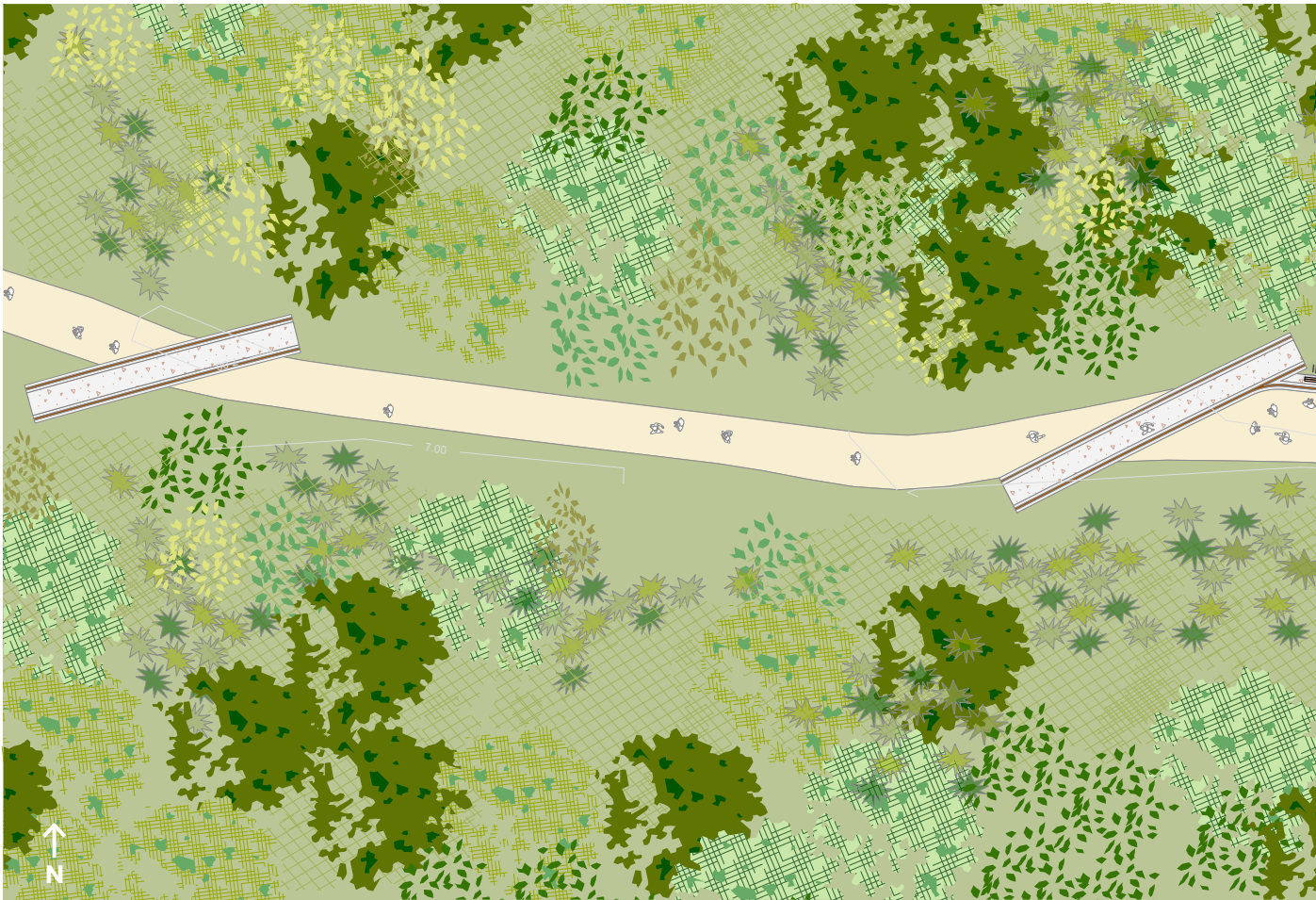
The covered seating allows respite in times of unpredictable weather and extends the seasonal use of the RSPB Hodbarrow site.

6. Landmarks & Key Spaces

Thresholds (8)



Location Plan



Plan of threshold detail

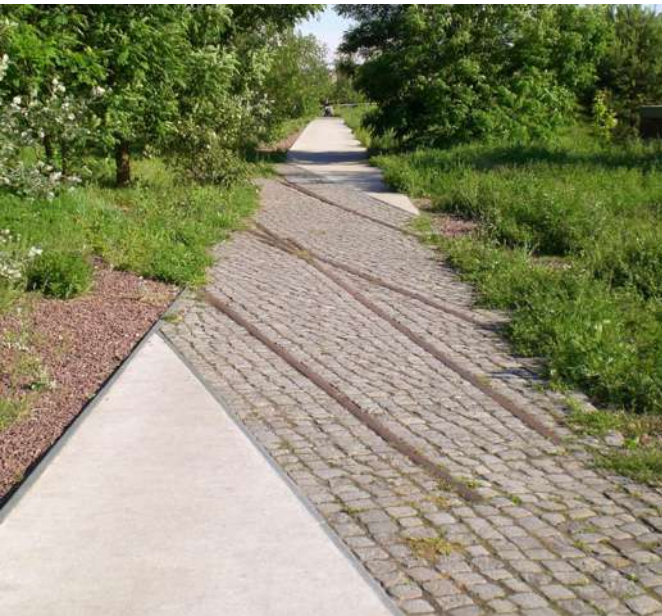
Landmarks come in different shapes and sizes but each one aims to create a point of interest to enhance a visitor's experience at Hodbarrow. In this instance the design pays homage to the historic mining community by identifying locations of the former rail tracks. This presents an opportunity to educate people about the site's heritage

In terms of materials, the main stone to dust surface of the byway will be intersected by a band of in situ concrete that features a flush metal inlay, designed to represent the railway track. The images below illustrate how a similar approach has been used in other locations, noting that there are multiple options for hard materials selection.

Alternative materials to metal will also be explored.



Precedents: Referencing the former railway



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6. Landmarks & Key Spaces

Whiterock Junction (9)



Location Plan



Plan of Whiterock Junction

This part of Hodbarrow marks the convergence of multiple paths and overlooks the beach making it an attractive spot for visitors. The proposal aims to create a more compact environment with a greater sense of identity. This will be achieved by:

- Formalise the main desire line connecting Whiterock and the windmill, using boardwalks to minimise impact on dune habitats.
- Create clusters of bespoke furniture giving visitors more opportunity to sit and take in their surroundings.

- Exploring opportunities for vertical artwork that will double as physical barriers to protect habitats.

Seating area
To include fixed furniture such as benches and picnic tables

Path to windmill
Level route for inclusive access

Furniture
New benches, noting requirement to consult with families associated with existing memorial seats



Precedent: Creating vertical artwork

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6. Landmarks & Key Spaces

Hodbarrow Beacon (10)



Location Plan

Introduction

There are no Listed buildings on the site, the only designated structure is Hodbarrow Beacon which is a scheduled monument.

Official list entry

Heritage Category: Scheduled Monument

List Entry Number: 1007097

Date first listed: 08 July 1974

Location

The building or site itself may lie within the boundary of more than one authority.

County: Cumbria

District: Cumberland

Parish: Millom

National Grid Reference: SD 18000 78326

Summary

Lighthouse, 380m north west of Hodbarrow Point.

Reasons for Designation

Lighthouses have been used to aid shipping around Britain since Roman times, although only two of that date have been recognised. In the late Middle Ages (AD 1066-1540), lights were simple structures, usually a fire in an iron basket, or in a stone bowl called a cresset, placed on church towers. True lighthouses in purpose-built towers began to be built by the early 17th century. They were first fuelled by coal or wood, but oil lamps were in use from the 1780s, to be replaced later by gas or electric lamps. Other technological improvements were made during the 19th century, including the introduction of light reflectors, flashing lights, identification patterns and sound signals for fog. Over the same period, tower design was improved, including the provision of staff accommodation. Lighthouses are found around the whole coast of Britain and, since 1698, on offshore rocks and reefs. Numbers varied over time, and many were short-lived or frequently replaced. Lighthouses were relatively rare until the 17th century, relying on local or private initiatives. Few medieval examples survive in recognisable form. From 1676, Trinity House, which had been first established with limited duties in 1514, began to build lighthouses itself rather than merely licensing their use by others. In c.1875, around 100 major lighthouses existed, supported by many minor lights and lightships. By the 1970s Trinity House still maintained 90 major lights, with 30 manned light-vessels and c.700 light-buoys. A number of private lights also existed. All surviving Roman and medieval lighthouses and lights are nationally important. Post-medieval examples retaining early fabric or fittings to a significant extent are also considered likely to be of national importance.

The lighthouse 380m north west of Hodbarrow Point is upstanding and is well-preserved. The monument is one of the last surviving structures of the Hodbarrow Mine, which once shipped

its ore as far as Germany. The monument and the remains of the mine provide insight into the industrialisation of the ore mining process and the importance of haematite to the iron working industry of the Lake District.

Details

This record was the subject of a minor enhancement on 29 March 2016. This record has been generated from an "old county number" (OCN) scheduling record. These are monuments that were not reviewed under the Monuments Protection Programme and are some of our oldest designation records.

The monument includes the remains of a lighthouse of 19th century date, situated on a rise overlooking the sea and the Duddon Estuary. The lighthouse, known as Hodbarrow Beacon, is constructed from stone and includes a circular tower built on a stepped stone plinth with nine courses. There is a round-headed window on the west side of the tower and a cast iron balcony around the lighthouse at the level of the beacon. On the east side of the tower is a round-headed door leading to a spiral, red sandstone staircase. The lighthouse was built to aid ships taking ore from the harbour of the Hodbarrow mine, which mined the largest hematite ore body in Britain. The mine was opened in 1856 and ceased operations in 1968. The lighthouse was built in the 1870s and represents one of the last remaining structures of the Hodbarrow Mine.

Assessment of Significance

While it stands in isolation on site today, the beacon was originally surrounded by building and industry - its raised location was shared by the Rock House mine offices and below where New Annie Lowther Pit and associated working were located. Other than the inner and outer sea walls which dominate and ultimately create

the landscape setting of the site, the beacon is the last remnant of the industrial heritage of the place; this is ultimately the reason for its significance.



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Condition

Despite the exposed location and age, the beacon is reasonable sound and stable. The masonry walls have weathered and much of the mortar pointing has cracked, decayed or weathered away. The two areas of exposed metalwork are the worst effected by the exposure of the site. The gantry has corroded and elements have fallen away, further access will be required before a full structural assessment can be made of this element. The embedded metal oculus frame has corroded and the subsequent expansion of this piece has caused damage to the masonry surrounding it with significant cracking visible around this opening.

Scope

For clarity, there are no works proposed to this structure

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7. Enriching the Landscape

Furniture and Signage Strategy – Concept



Images of existing furniture at RSPB Hodbarrow which lacks continuity

The requirement

As documented already, Hodbarrow is a fantastic place to visit but there is a lack of street furniture meaning that it can be tricky to navigate the site and find somewhere to sit down and take in the surroundings. The benches and signs that do exist are often in disrepair and bear no visual resemblance to one another meaning it appears unloved and disjointed. By introducing new furniture throughout Hodbarrow, the Iron Line project will assist visitors practically and experientially.

In practical terms, the scheme includes seats, picnic tables, litter bins, and cycle stands to give visitors better facilities throughout their time on the reserve. A comprehensive suite of signage will be introduced to serve a number of functions:

- Navigation – to help people find their way to and around the reserve, as well as guide visitors on themed walking circuits .
- Education – to increase the opportunity for visitors to learn about their surroundings, whether that be the type of rare vegetation, wildlife habitat, landscape within a view or remnants of the site’s industrial heritage. This signage will identify points of interest to enrich visitor experience.
- Information – to raise awareness of safety issues and influence behaviours in the interest of protecting wildlife. For example highlighting the nesting season at Tern Island or requesting that dogs are on lead in certain areas.

Products will be designed and specified with inclusivity in mind. For example, seats will be at an appropriate height, with good coverage of arm and back rests. Signage will be easy to read and at a height that suits all visitors. Cycling will be encouraged through provision of stands where bikes may be secured.

Experientially, the majority of furniture will be bespoke and relevant to Hodbarrow and its surroundings. The design team will work collaboratively with fabricators, artists and manufacturers to develop a palette of products based on a concept and materials of relevance to their locality. Wildlife, heritage and landscape will influence not only the shape and form of individual products but also any integrated art that may become part of the furniture or signage.

On the following pages, more information is provided in regard to the suite of products that will likely be required, an early concept and an indication of preferred materials. This acts as a starting point for the next phase of design which will be developed and refined alongside a team of technical professionals.

To maintain continuity across all Town Deal projects, the Iron Line design team will continue dialogue with other project teams, in particular the representatives of Connected Millom and Haverigg.

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7. Enriching the Landscape

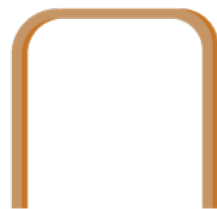
Furniture typology

Furniture



Litter Bin

- To keep place tidy
- Cylindrical
- Cor-ten. Likely bought "off the shelf"



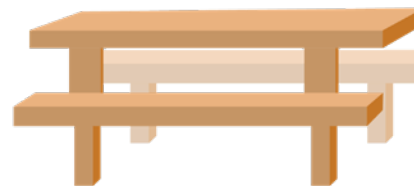
Cycle stands

- To secure bikes
- Cor-ten. Likely bought "off the shelf"



Bollards

- To restrict movement and may be static and/or removable.
- Likely bought "off the shelf"



Picnic table/bench

- To facilitate outdoor dining.
- Straight.
- Cor-ten.
- Visually connects to bench type 4.



Bench Type 1

- For use at visitor centre.
- Wide, radial, table top form.
- Pre cast concrete with timber detail.



Bench Type 2

- For use at windmill and beacon.
- Radial/straight.
- Pre cast concrete with Cor-ten detail.



Bench Type 3

- For use at lighthouse.
- Radial form to create concentric circles.
- Pre cast concrete, varying heights.



Bench Type 4

- For wider landscape.
- Straight.
- Cor-ten and limited timber

A large part of improving the visitor offer at Hodbarrow is the introduction of a more comprehensive palette of signage and furniture. On this page and the next, a "kit of parts" to achieve this aim is set out. Imagery is diagrammatic to illustrate the function and range of products required with the accompanying text highlighting some critical design principles.

In the interest of inclusivity, an appropriate proportion of seating will include back and arm rests, constructed from a material that is comfortable to the touch.

7. Enriching the Landscape

Furniture and Signage & Barriers typology

Barriers & Gates



Low Railing

- To identify path edge and guide movement
- To safeguard habitats and wildlife
- Cor-ten



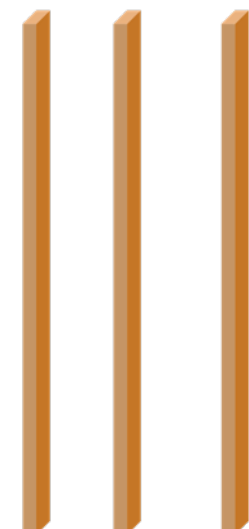
Handrails

- To support movement on steps and ramps
- Cor-ten and timber



Low Vertical Marker

- Restricts movement
- Timber and/or Cor-ten



Tall Vertical Marker

- Restricts movement
- Wind Baffle
- Cor-ten



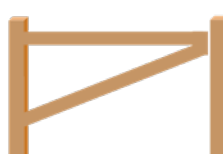
Vehicular Gate

- To discourage vehicles driving on BOAT.
- Timber field gate type with bespoke Cor-ten element.
- Approximately 1.2m high



Vehicular Gate (variant)

- Lockable
- To prevent access to visitor centre out of hours
- Steel/Cor-ten
- Approximately 2m high



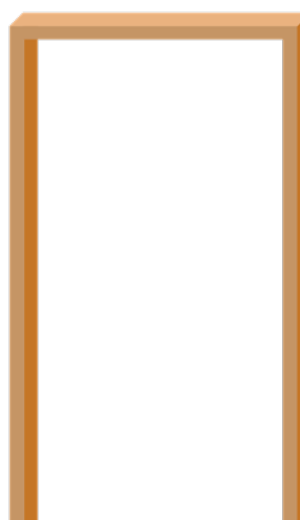
Fence

- To restrict movement to more high profile areas.
- Approximately 1m high

Pedestrian Gate

- Lockable.
- To prevent access to visitor centre out of hours.
- Timber with bespoke Cor-ten element.
- Approximately 1.2m high

Signage



Arrival Gateway

- Navigation
- To announce arrival and exit



Finger Post

- Navigation



Warning / Advice

- For visitor safety
- To safeguard habitats and wildlife



Route Marker

- Navigation and to identify circuits

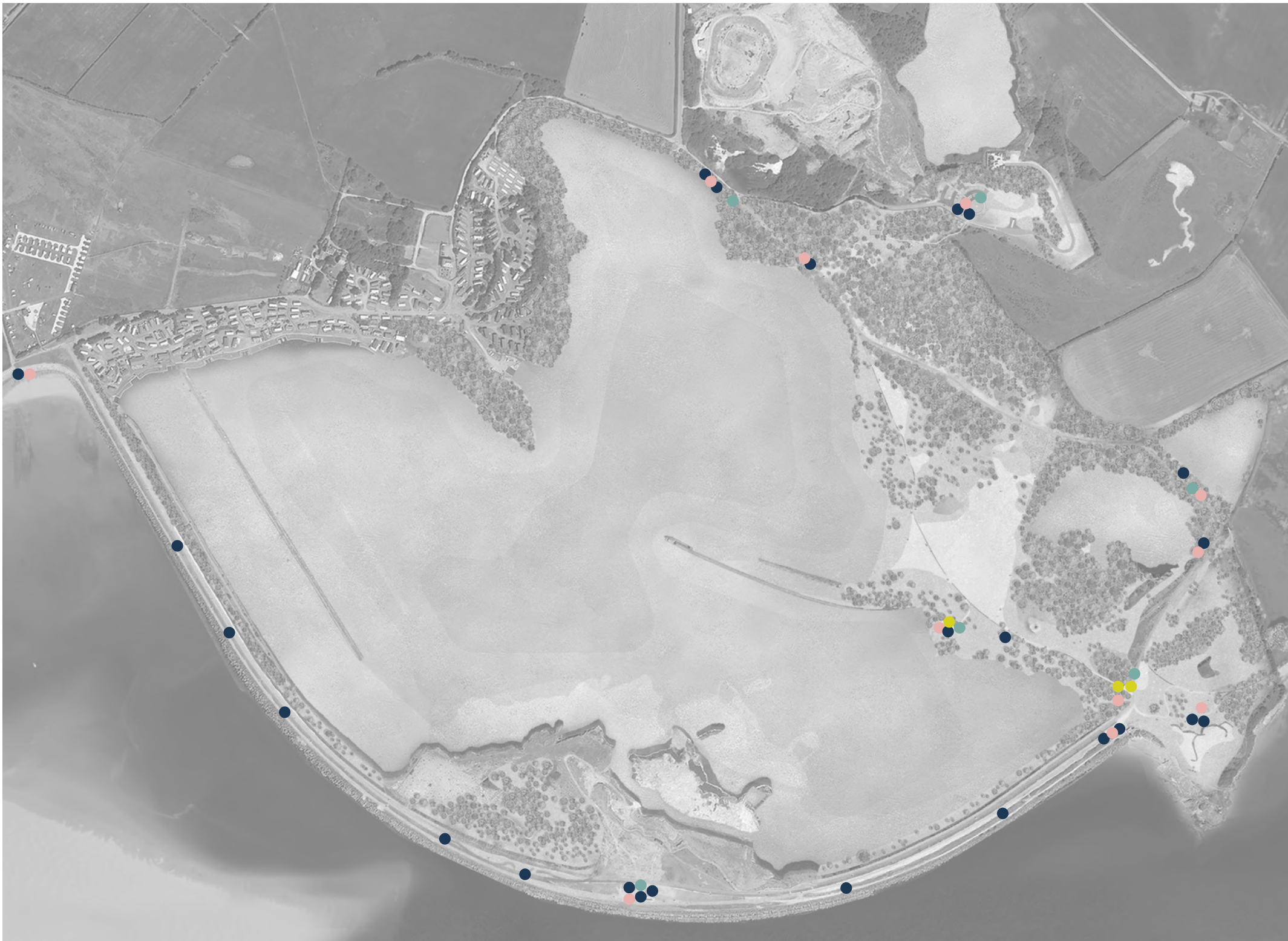


Interpretation Board

- To educate

7. Enriching the Landscape

Location Plan – Furniture



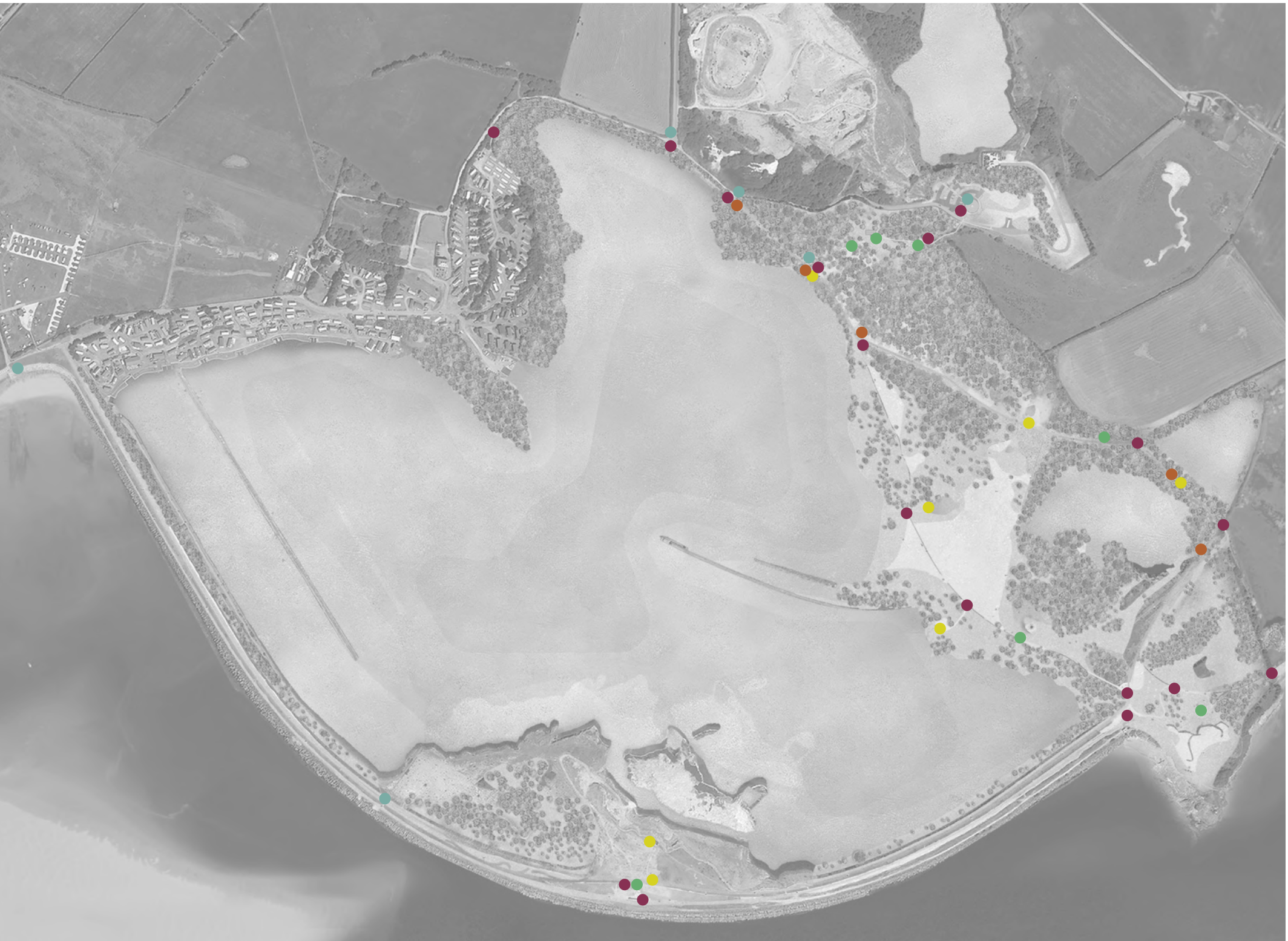
Location of new furniture

The plan illustrates the location of new furniture, divided as noted below. Positions are illustrative and indicative and will be refined on site. Quantity relates to what's been accounted for in the cost plan.

- Seat/bench**
Provide opportunity to stop, sit and enjoy the surroundings. More frequent spacings enable visitors to take a rest when taking longer routes. Existing memorial benches to be respected and replaced only after consultation with families.
- Picnic table**
A couple of instances, located within the bounds of the existing byway.
- Litter bin**
Provision across Hodbarrow, often associated with location of seating.
- Cycle stands**
Positioned at the visitor centre and across the reserve to encourage active travel and give cyclists means to secure their bike.

7. Enriching the Landscape

Location Plan – Signage



Location of new signage

The plan illustrates the location of new signage, divided into the following:

- Wayfinding – Arrival**
Located at the main points of entry, these signs will announce arrival at RSPB Hodbarrow and welcome people to the Iron Line. They will be bespoke and of a scale appropriate to setting and large enough to be seen from a distance to for motorists/ pedestrians.
- Wayfinding – Site Navigation**
Positioned to help visitors find their way around Hodbarrow and the Iron Line. To include directional finger posts and route markers.
- Information – Ecology**
Located to inform people about wildlife and vegetation on site.
- Information – Heritage**
Positioned to highlight points of interest associated with Hodbarrow's mining history and how it influenced the place as it is today.
- Information – Location**
Map based "You are Here" type information help visitors track their progression through the site.

In addition to the above there will be signs associated with safety and seasonal site management. Positions will be identified at a later date.

7. Enriching the Landscape Materials

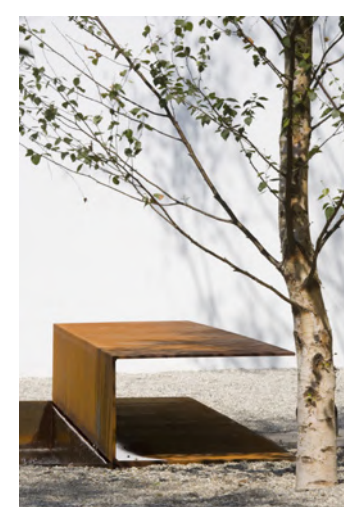


In response to the site's industrial heritage, coastal climate and open access setting, the primary material will be cor-ten steel, complemented by pre cast concrete and timber.

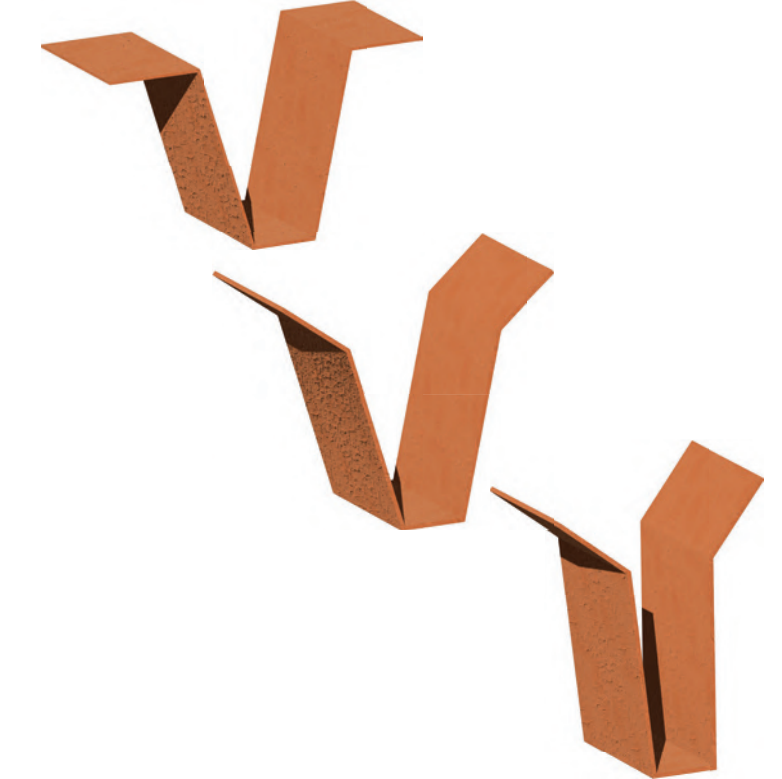
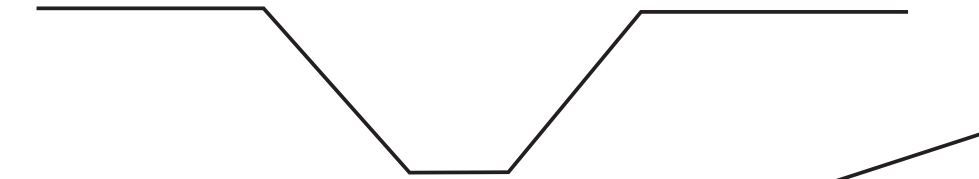
These materials will be used proportionally depending on their location and function. For example there will be most timber near the visitor centre to create a "softer" appearance in a location which will gather more visitors and from a vandalism perspective will be subject to greater natural surveillance. Timber will be used in a more limited quantity in the wider landscape to provide a material that is more comfortable to the touch in more extreme weather.

Benches are expected to be bespoke products created in collaboration with a specialist tradesperson/manufacturer/artist and therefore the approach to materials will be refined as designs develop. Some products will be purchased "off the shelf", in which case for continuity, the same materials will be selected.

The photos on this page provide examples of where these materials have been used in other places.



7. Enriching the Landscape Inspiration



The furniture and signage palette is inspired by the tern colony that is so successful at RSPB Hodbarrow. As such an important species, it feels appropriate to highlight the jewel in the reserve's crown.

Reflecting the shape of the bird's wings in flight, furniture will be evolve out of a simple "wingback" form whereby an angular "V" shape will be manipulated to create different horizontal and vertical forms that may be used for various pieces of furniture and signage. The images on subsequent pages demonstrate how this may be achieved.

This document sets out the design intention and this will be developed and detailed in partnership with a specialist fabricator/artist.

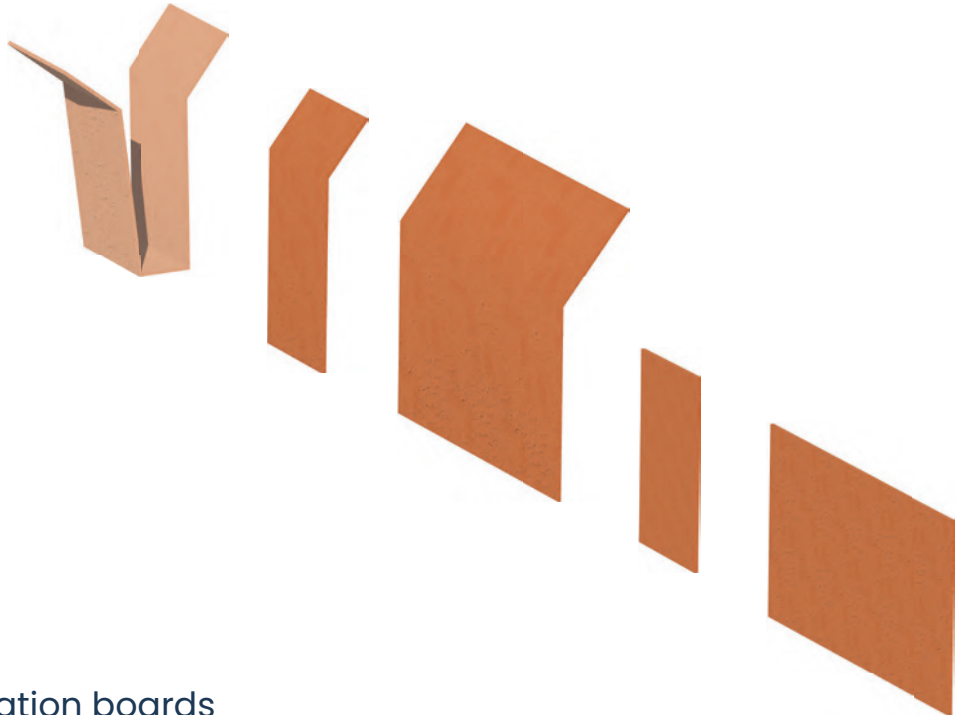
The story of the furniture will be shared with visitors to the Iron Line as a means to educate and enrich their visit. Bespoke furniture is viewed as a point of interest in its own right.

7. Enriching the Landscape

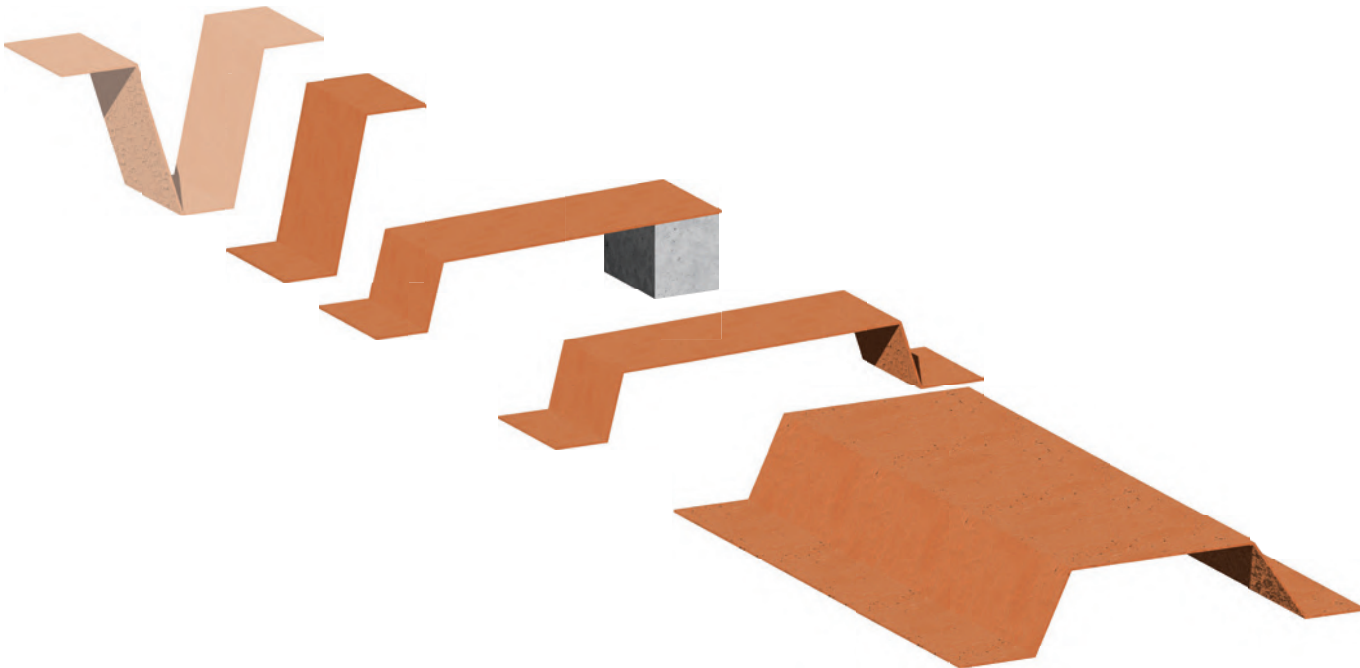
From inspiration to concept



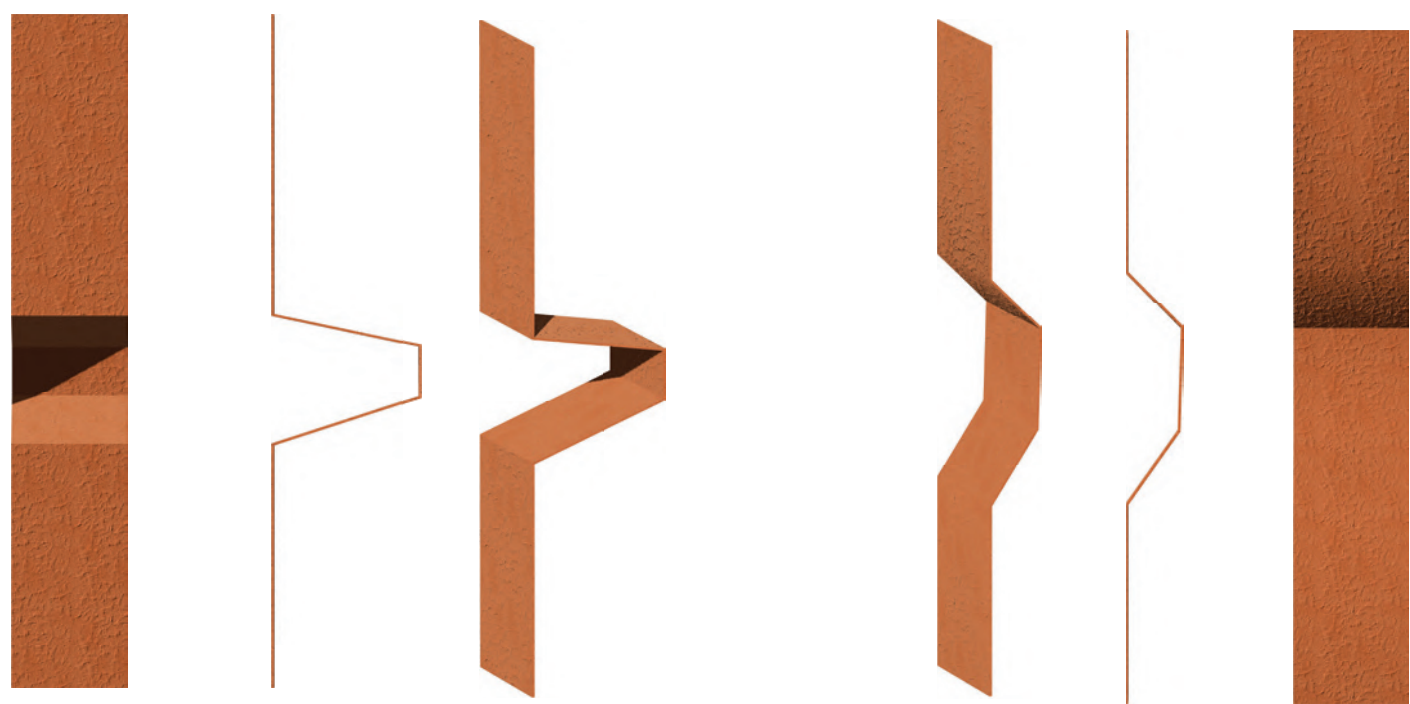
Simplifying the "wingback" form to create interpretation boards



Evolution of the "wingback" form
These illustrations demonstrate how the simple "wingback" form can be manipulated to create shapes that are suited to different types of signage.



Using the "wingback" form to create benches and tables

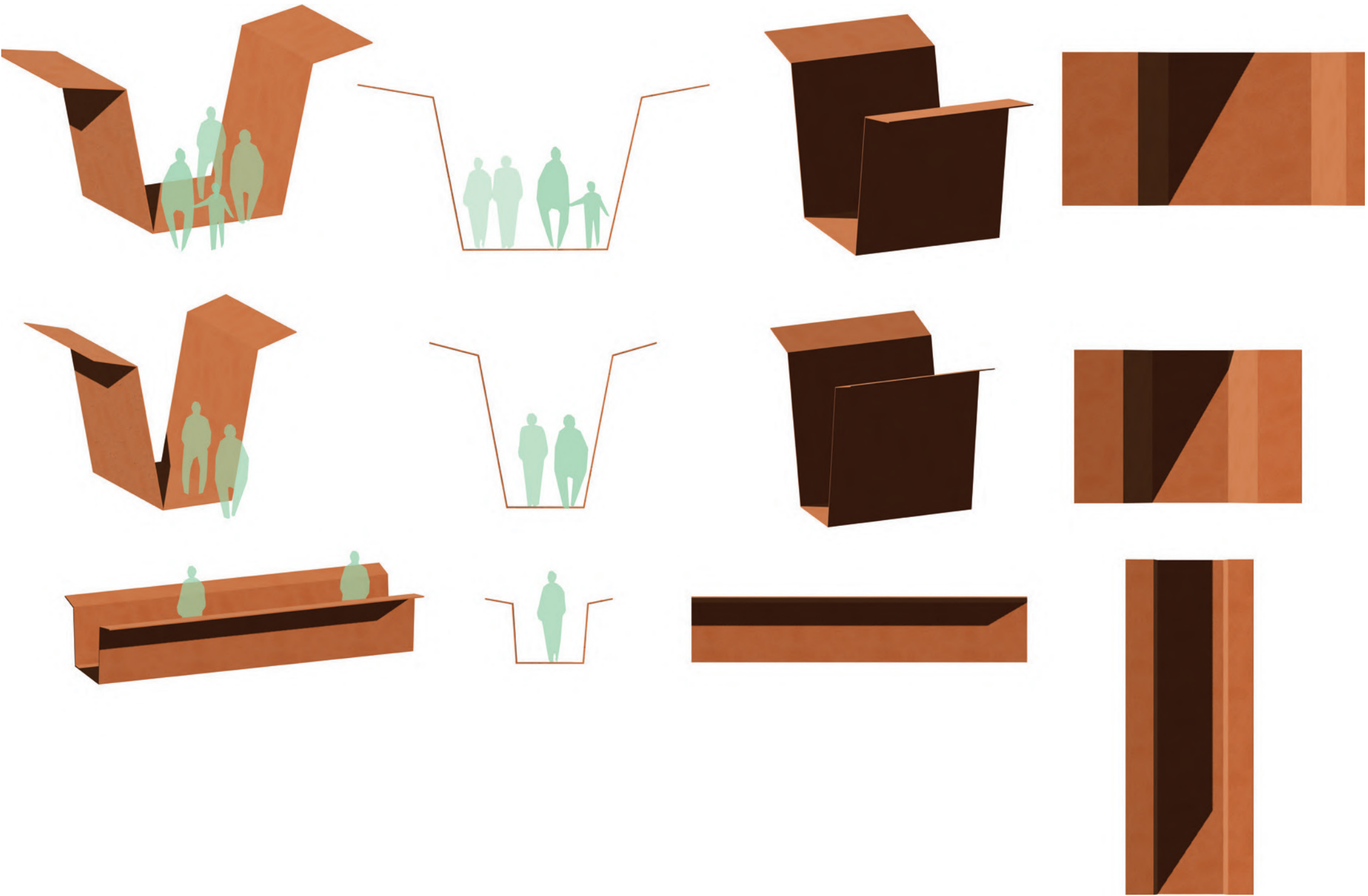
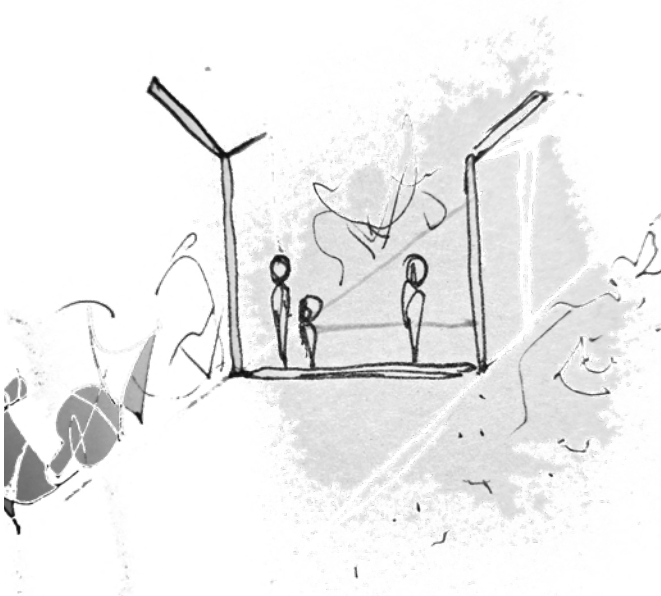


Adapting the "wingback" to a vertical position to form slimline signage

layer.studio

7. Enriching the Landscape

From inspiration to concept

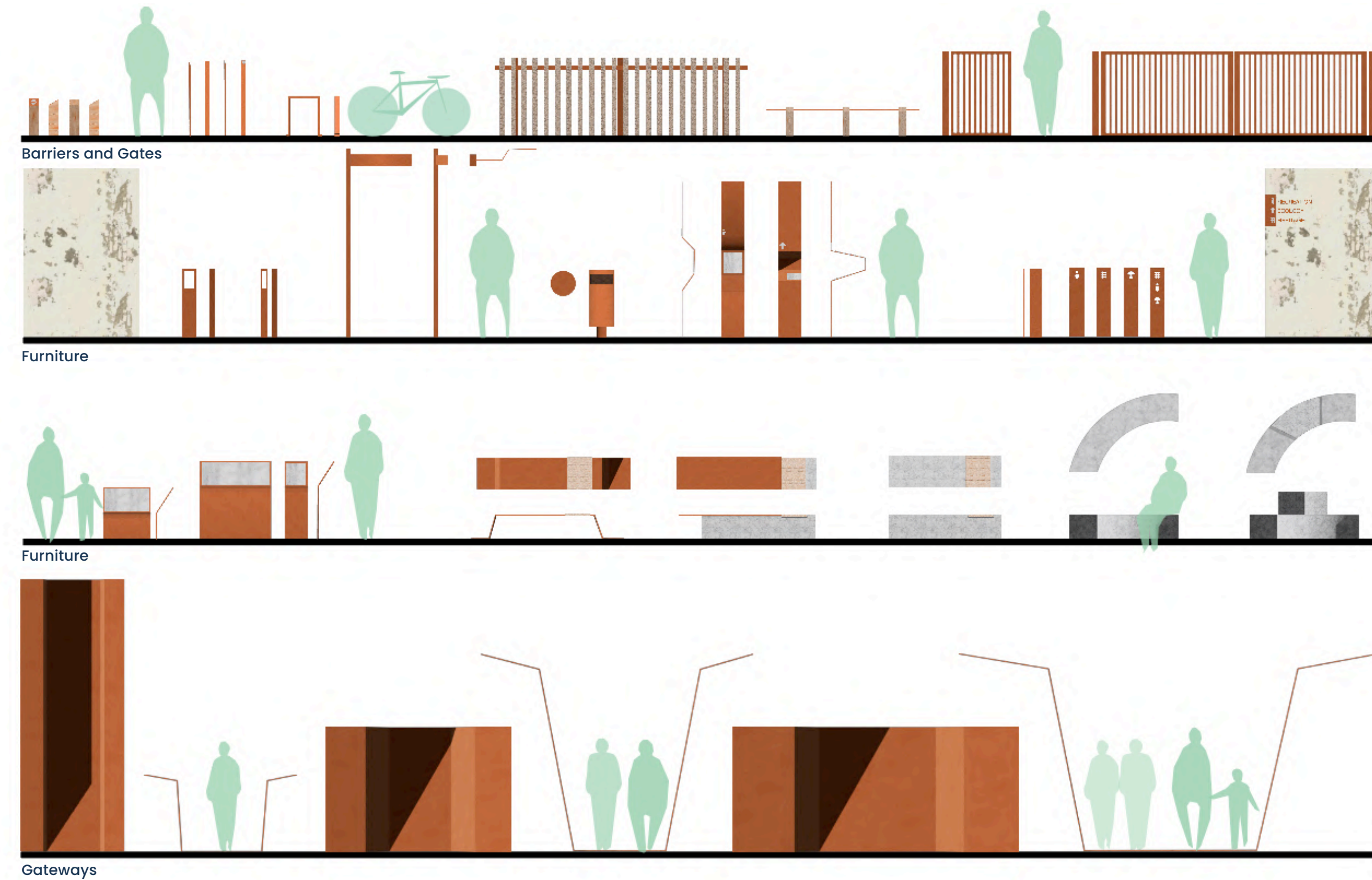


Manipulating the "wingback" form to create gateways and other structures

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7. Enriching the Landscape

The suite of objects



7. Enriching the Landscape

The suite of objects

By combining the signage and furniture typologies with the key materials and the Tern wingback creative concept, a cohesive suite of objects will evolve. A unified design language will reinforce sense of place and make for an improved visitor experience where bespoke design instills functional quality across Hodbarrow and around the Iron Line.

The imagery opposite demonstrates some initial ideas regarding shape, form and colour and shows a considered relationship between products. This will act as a starting point when instigating discussions with the specialist tradespeople that will play a large part in the next stage of design. Building on the practical requirements, manufacturers and fabricators will add artistic flair and technical knowhow to ensure final products are fit for purpose and creative pieces in their own right. These unique designs will enrich the landscape by becoming points of interest along the Iron Line.

7. Enriching the Landscape

Precedent imagery

Precedent images shown here indicate how the materials chosen have been used in similar settings to RSPB Hodbarrow. The Wildlife Trust has used similar products at both the Langdon Discovery Centre and Hutchinson's Bank nature reserve.



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7. Enriching the Landscape

Precedent imagery



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7. Enriching the Landscape

Art Strategy – Potential Locations



The Opportunity

To make a place interesting to visit, it should include landmarks and features that appeal to a wide range of people. Art has a significant role to play in the creation of these features and will help visitors to engage with their surroundings and learn more about the natural and man-made assets that have influenced the evolution of Hodbarrow.

Deep Time (<https://deeptime.uk/>) has already put the Cumbria coastline on the creative map and Iron Line is well placed to complement the project.

Art means different things to different people and this document doesn't intend to dictate approach but instead suggest locations and ideas which would benefit the overarching aim of the masterplan. In that sense it is a "starter for ten", assuming that professional input the art community will follow.

The plan nominates potential locations for art and the table opposite gives a brief description of how it relates to the aspiration for the Iron Line. This includes whether it is expected to be an integrated or stand alone piece. This application seeks approval for all of these ideas with the detail of each approved through discharge of planning conditions, once artists have been appointed.

It goes without saying that any artwork must not compromise the ecological integrity of RSPB Hodbarrow and the designations in which it is situated.

On subsequent pages are precedent images that further suggest how art can be used for creative inspiration, education and be multi functional to help solve practical challenges.

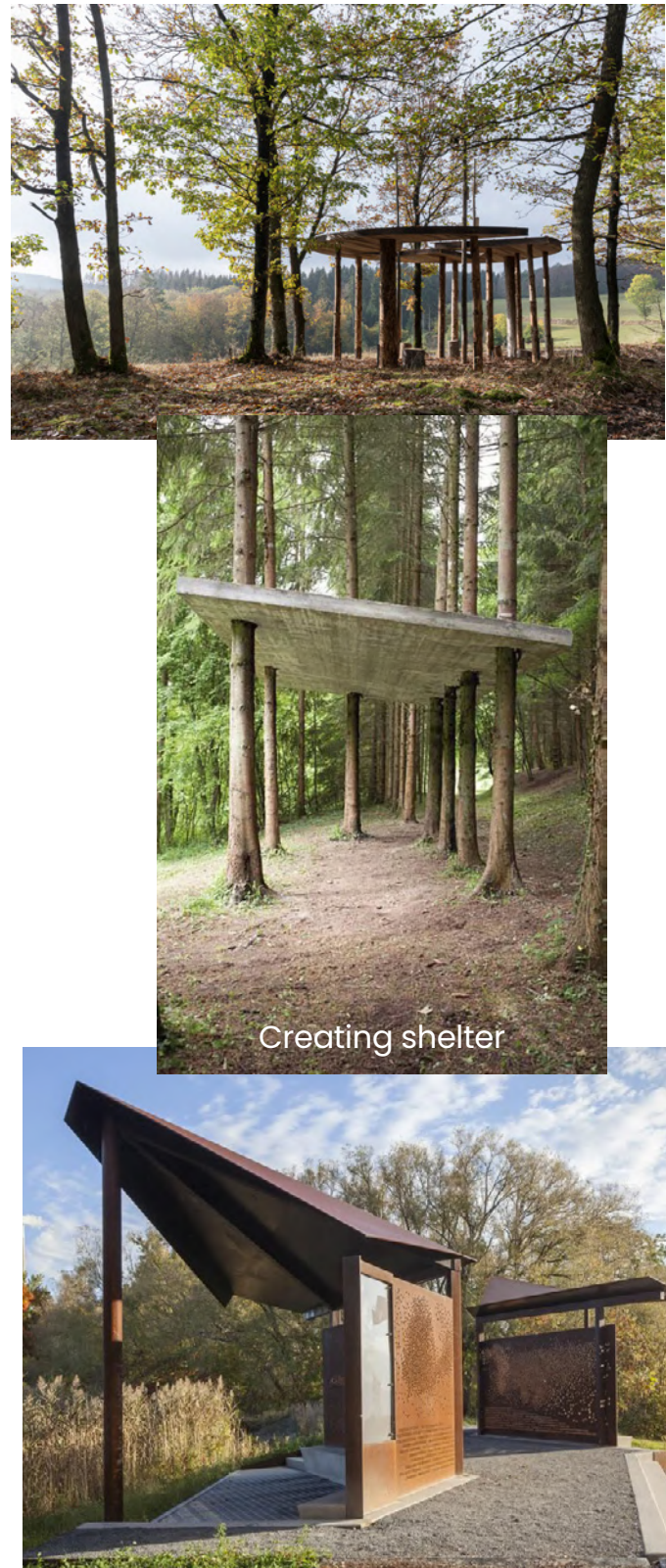
7. Enriching the Landscape

Art Strategy – Initial Ideas

Ref	Area	Intent/Rationale	Integrated into architecture and/or landscape	"Stand alone" art commission
1.0	Visitor centre			
1.1	Rotunda balustrade	Enhances potential of elevated viewpoint and strengthens connection to the industrial heritage established by the structural form of the rotunda. Creates a multi-faceted experience which augments the panoramic views for those visiting the visitor centre. Could also be a place where the poems of Norman Nicholson are overlaid and incorporated into the building design.		
1.2	Visitor centre link walkway	An opportunity to integrate 'art' into the walkway which crosses the grassland and links the visitor centre to the main site.		
2.0	Hides			
2.1	Quarry Hide 1	Shelter and observation point which could be developed as an art pavilion or spatial installation. Connected project with Quarry Hide 2.		
2.2	Quarry Hide 2	Shelter and observation point which could be developed as an art pavilion or spatial installation. Connected project with Quarry Hide 1.		
2.3	Annie Lowther Hide and approach	Shelter and observation point for tern island and main lagoon. Visible from a distance. Could reference historic elevated railway line in a form of land art within the setting.		
3.0	Existing landmarks			
3.1	Explosives Store	As one of the few buildings that remain from the era of iron extraction, this building could be shored up and developed as an immersive experience for visitors. An initial thought in terms of 'brief' would be a place of memory and memorial to the lives lost in the mine.		
3.2	Towsey Hole Windmill viewing platforms	Promontories as viewpoints and another part of the experience around the windmill. Artwork should embrace the view and its wildlife.		
3.3	Towsey Hole Windmill camera obscura	The camera obscura installation as a piece of optical art within the enclosed former windmill.		
3.4	Hodbarrow Beacon	To enrich the connection with the scheduled monument and connect it to both its physical and historical context.		
3.5	Tern Island Hide	An opportunity to embellish the refurbished building with a word piece, a poem perhaps		
4.0	Gateways			
4.1	Junction hub	Vertical feature on important path node. Controls vehicle movement.		
4.2	Millom gateway	Marks arrival at Hodbarrow. Terminates key vista down Mainsgate Road.		
4.3	Reserve Gateway	Marks threshold into Hodbarrow. Located on sea wall, inside RSPB land.		
4.4	Haverigg Gateway	Draws visitors towards Hodbarrow from Haverigg. Terminates view down Moor Moss and The Front. Will also draw people from The Iron Line towards Haverigg Beach. Located on third party land.		
5.0	Other			
5.1	Floating island	An anchored island, possibly in the quarry. Could double as habitat for birds and aquatic life.		
5.2	Butterfly mound land art	A piece of considered habitat creation and land art which also prevents vehicles entering sensitive areas of the site.		
5.2	Outer sea wall	Opportunities to enhance the long expanses of the Iron Line which run along the outer sea wall with Public Art		
	Furniture and signage	Bespoke palette inspired by the site's inherent assets of ecology, heritage and landscape		

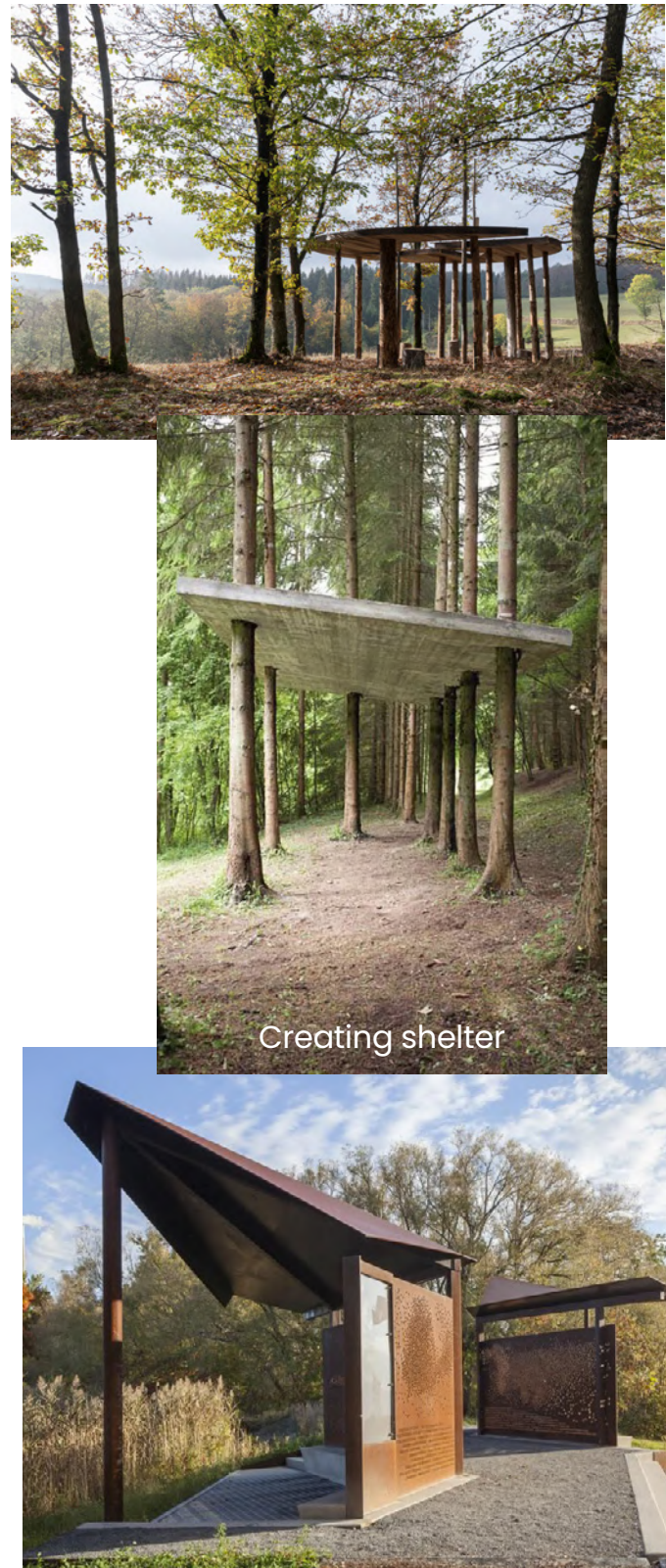
7. Enriching the Landscape

Art Strategy – Inspiration



7. Enriching the Landscape

Art Strategy – Inspiration





8. Sustainability Statement

Sustainability is inherently part of the Iron Line project ambition; the protection and enhancement of the environment and natural habitats, allowing people and nature to coexist and informing and educating visitors about the importance of the natural habitat are all shared goals of both the RSPB and the Iron line project. The site-wide elements which are being proposed have been carefully considered and discussed with both Natural England and RSPB to ensure they are sensitive in location, appropriate materials and taking a ‘light touch’ on the terrain within which they are set.

The Visitor Centre

The visitor centre has been designed to be a sustainable, energy-efficient focus to the Iron Line project. Consideration has been given to recycling the structure at the end of the building’s life and minimising the use of concrete within the building to minimise the embodied carbon within the building. The steel structure supports CLT (Cross Laminated Timber) floor and roof structure which helps to reduce the overall embodied carbon footprint of the building.

It is intended that the building achieve a Certified Passivhaus standard of energy efficiency. Passivhaus adopts a whole-building approach with clear, measured targets, focused on high-quality construction, certified through an exacting quality assurance process.

Passivhaus is a tried & tested solution that gives us a range of proven approaches to deliver net-zero-ready new and existing buildings optimised for a decarbonised grid and augmented for occupant health and wellbeing. Passivhaus buildings provide a high level of occupant comfort using very little energy for heating and cooling. Other advantages of adopting the Passivhaus approach include, improved health

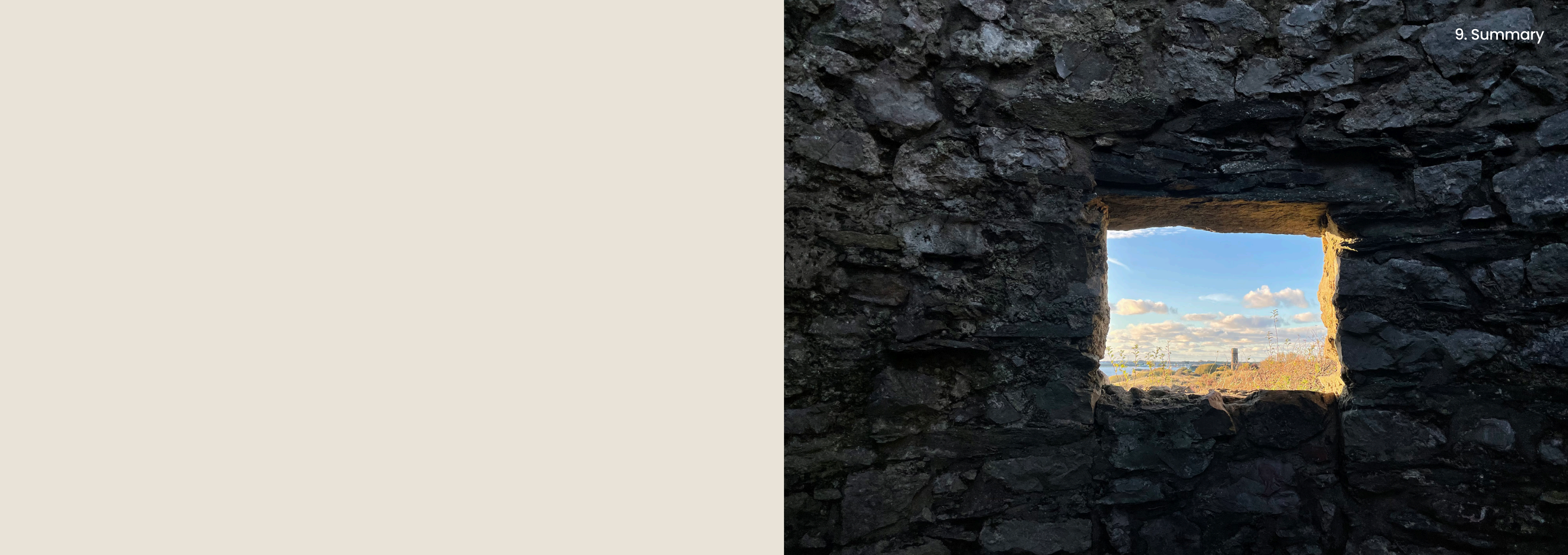
and well being, effective and healthy ventilation, higher performance building components.

The building fabric will be super-insulated and air tight to achieve the high levels of thermal performance required. Mechanical heat recovery will ensure high levels of indoor air quality combined with energy savings. The main public area of the café incorporates a large overhanging roof to minimise summer over heating, which can be an issue in super insulated buildings. All energy used in the building will be electric, with an Air Source Heat Pump providing the heating. Hot Water will be provided by point of use water heaters, to minimise Hot Water storage and pipework. All lighting within the building will be low energy LED. The Building is conceived as a “dark ” building with minimal external lighting to comply with regulation.

The roof of the building will have 30Kwp of Photovoltaic panels bonded to the roof covering providing approximately 28,000 kwh of energy per year. At this stage it is estimated that this will supply between 30–45% of the buildings energy needs subject to confirmation of the operating usage of the building. Any shortfall in energy produced on site will be supplemented by Green Tariff electricity giving a potential Net Zero operational building.

Other sustainable aspects of the visitor centre and associated external areas are sustainable drainage from car park and building.

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9.Summary

Propelled by Government funding, the Iron Line is one of four projects in Millom aiming to regenerate the town for the benefit of the local community and visitors. Working alongside Cumberland Council, the design team has spent the last eighteen months understanding the site, gathering technical data, listening to the community and developing the proposal which is subject to this planning application.

In order to create a regionally significant visitor attraction at RSPB Hodbarrow, the Iron Line includes a new visitor centrew, car parks and site wide masterplan for RSPB Hodbarrow encompassing an improved path network and enhanced provision of bespoke furniture and signage. Given the significant ecology on the reserve and within the Duddon Estuary, the Iron Line project will also protect and create wildlife habitat, improve biodiversity and secure site maintenance for the future.

To maintain the valued character of place, facilities will be improved and points of interest created in a way that is appropriate to the setting. This has influenced the design in many ways from the scale of the new building to suit projected visitor numbers and visual impact, through to the choice of path materials in relation to durability and drainage. As a result the Iron Line will remain somewhere that local people can use as a daily recreational resource but also offer a day out for tourists travelling a greater distance.

A comprehensive programme of public engagement has been completed in parallel with design development so that community feedback can be easily integrated into the evolving proposal. This has resulted in a planning submission that fully embraces the thoughts of local people, embraces the site's natural assets and has a creative vision to attract new visitors.

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