

The Iron Line.

Millom, Cumbria

Design and Access Statement
(Incorporating Heritage Statement & Materials Information)
August 2023

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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 welcome building
- Page 102 for external furniture



Cumberland Council



MILLOM TOWN DEAL



rsppb giving nature a home



Layer.studio

Landscape Architect



GAGARIN

Architect



CWC crookes walker consulting

M&E Engineering



BWA

Cost consultant



Curtins

Structural/Civil/Transport Engineering



PLACED PLACE EDUCATION

Engagement



IC Planning

Town Planning



Greengage

Ecologist



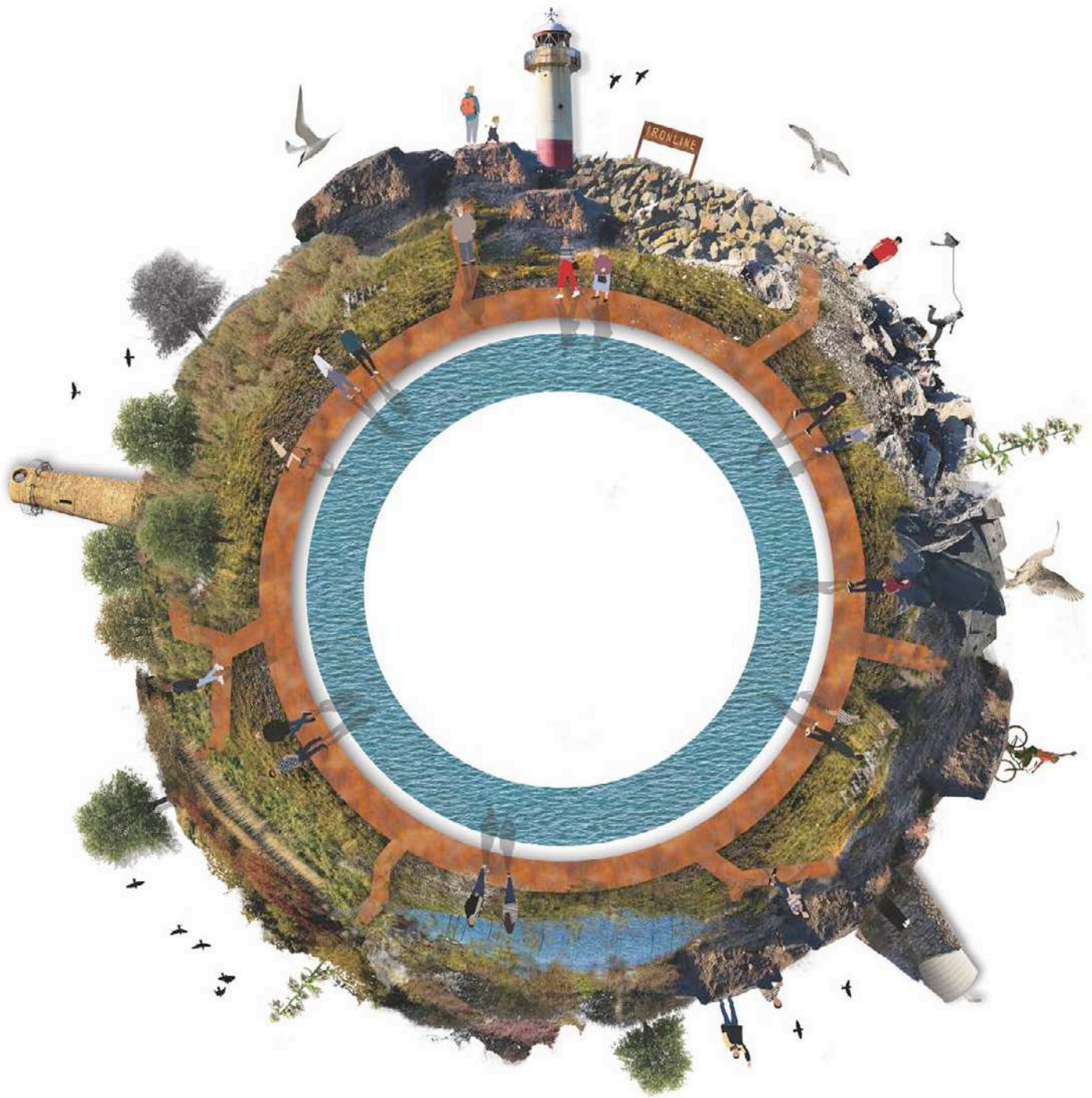
1. Introduction

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 nationally 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 welcome building 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 welcome building, 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 "proposed erection of welcome building with car park, upgraded multi-use paths, new signage, street furniture and viewing platforms and enhancement of wildlife habitats". It is submitted alongside a series of drawings and technical reports that were requested by the local planning authority, Cumberland Council (then Copeland 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 welcome building 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.

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



Winning entry from local schools logo competition

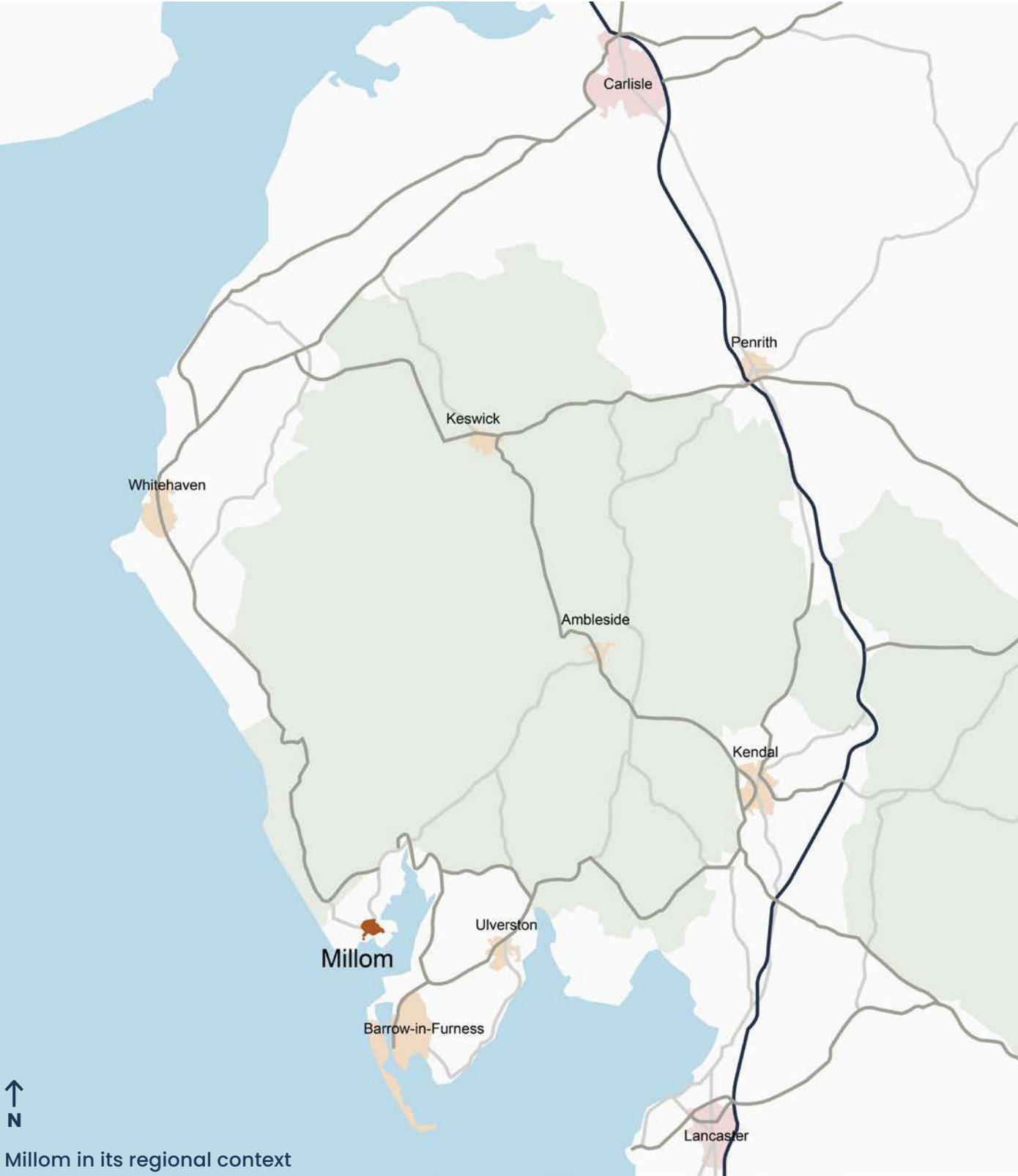


Eider at Hodbarrow (credit RSPB)



2. The Context
Site Location

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Planning application boundary

Regionally, Millom and Haverigg are located to the west of Cumbria within the jurisdiction of Cumberland Council (formerly Copeland 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

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 nationally 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.

CONNECTED MILLOM
AND HAVERIGG

ACTIVATING
COMMUNITY HEALTH

REACTIVATING
HERITAGE BUILDINGS

IRON LINE



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 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

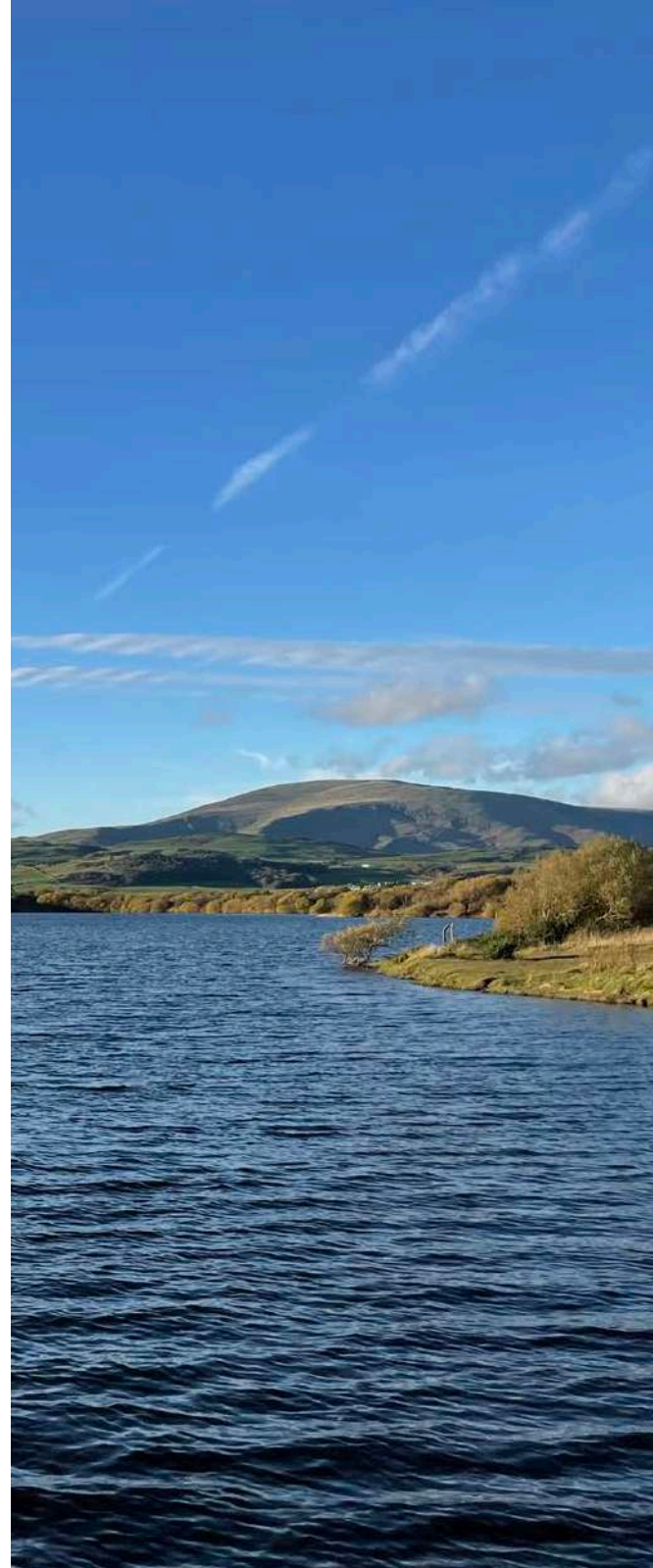
As a coastal site, the site is exposed the elements with little shelter from the rain, wind or sun.

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.

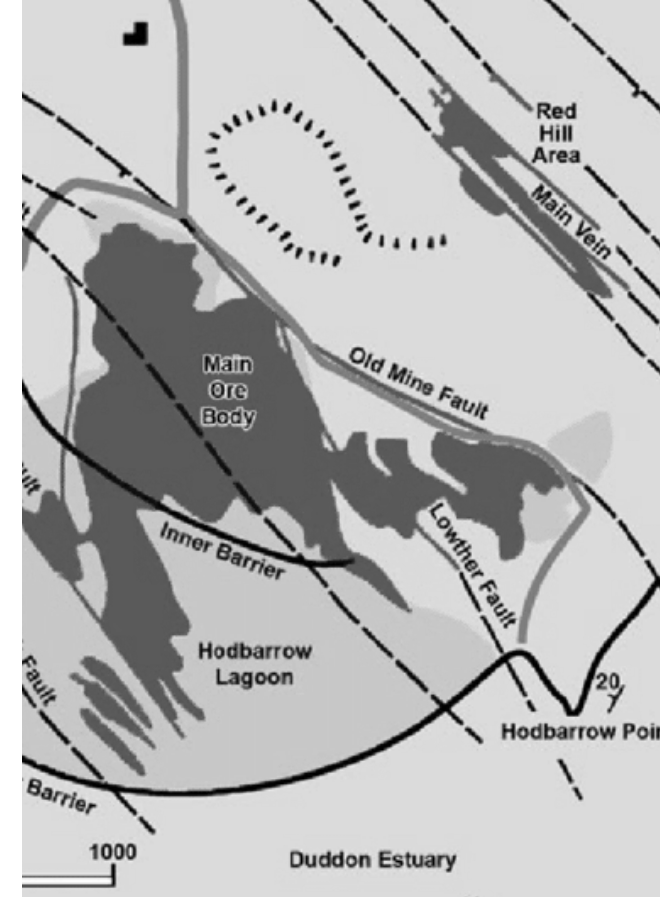
Located on the coast, Hodbarrow experiences a privileged position within the Duddon Estuary: an ecological asset of European importance. Far reaching views over the water, further emphasise the vastness of place and creates significant opportunity for big skies.

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)

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.

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.

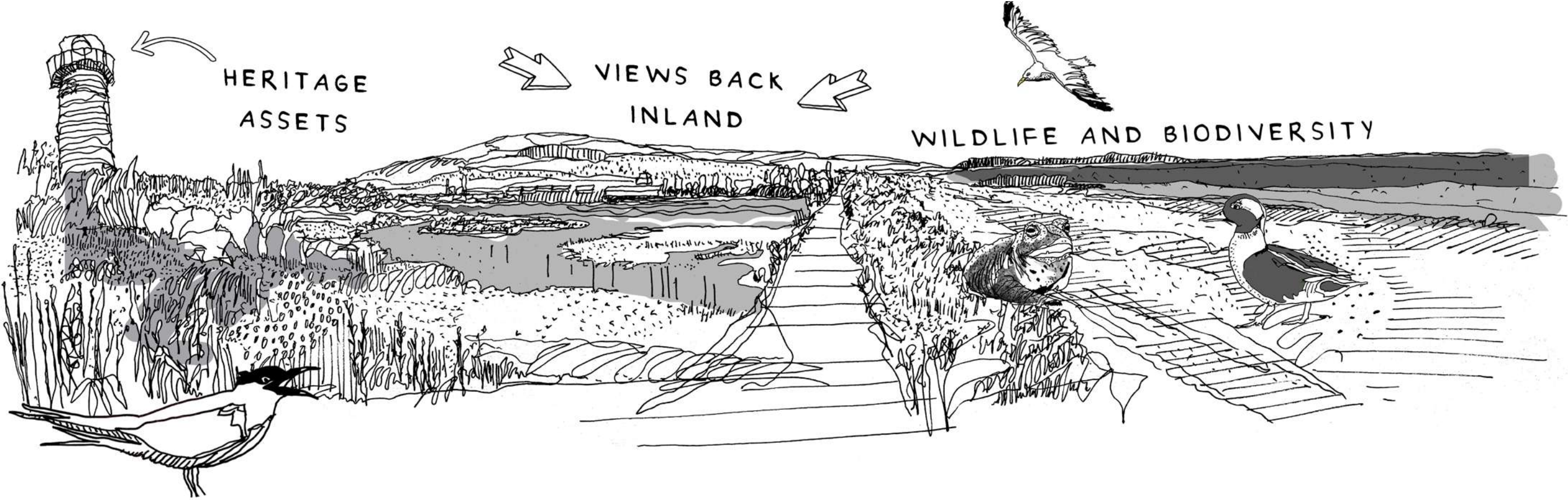
Influencing the design

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.

The proposals are exceeding Government's targets of 10% net gain.

2. The Context Ecological Assets



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.



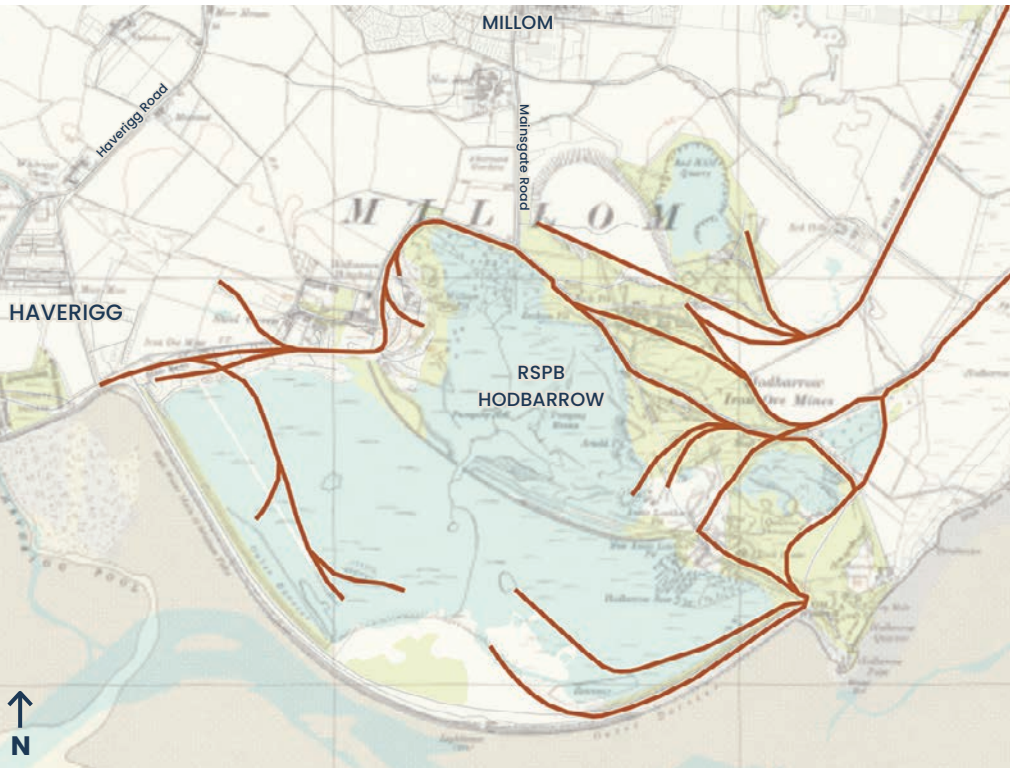
3. The Landscape Proposal

Site Assessment – Physical Attributes

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- Land Ownership**
- Majority of study area belongs to RSPB
 - Remainder of lagoon in third party ownership
 - Cumbria County Council own adjoining waste centre
- 1 RSPB
2 Private Third Party
3 Cumbria County Council
4 Private Third Party
5 Private Third Party
6 Private Third Party
7 Private Third Party
8 Private Third Party
9 Private Third Party



- Heritage**
- Hodbarrow Mine was served by a rail network
 - Historic structures, slag heap and Hodbarrow Lagoon give a glimpse into industrial past
- Historic Railway Line



- Ecology**
- Preliminary Ecological Appraisals were completed in advance of the design team appointment
 - Indicative ecological constraints showed areas of botanical importance and areas of notable invertebrates
- Botanical importance
Area of significance to nesting terns
Area closest to Natterjack toads off-site to east
Location of notable invertebrates
Potential ecological enhancement



- Movement**
- Byway Open to All Traffic passes through Hodbarrow
 - Public right of way network connects to Hodbarrow
 - Main vehicle access via Mainsgate Road & no formal car parking
- Byway open to all traffic
Site movement
PROW
Waste site access
Desire lines
Existing informal parking

3. The Landscape Proposal

Site Assessment – Environmental Attributes



Site Experience



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3. The Landscape Proposal

Site Assessment – Maximising Assets



The 'Tapestry of Experiences'

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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 welcome building
- 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, welcome building 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



Welcome Building

- A focal point for new arrivals that offers architectural interest, shelter and 360 degree 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

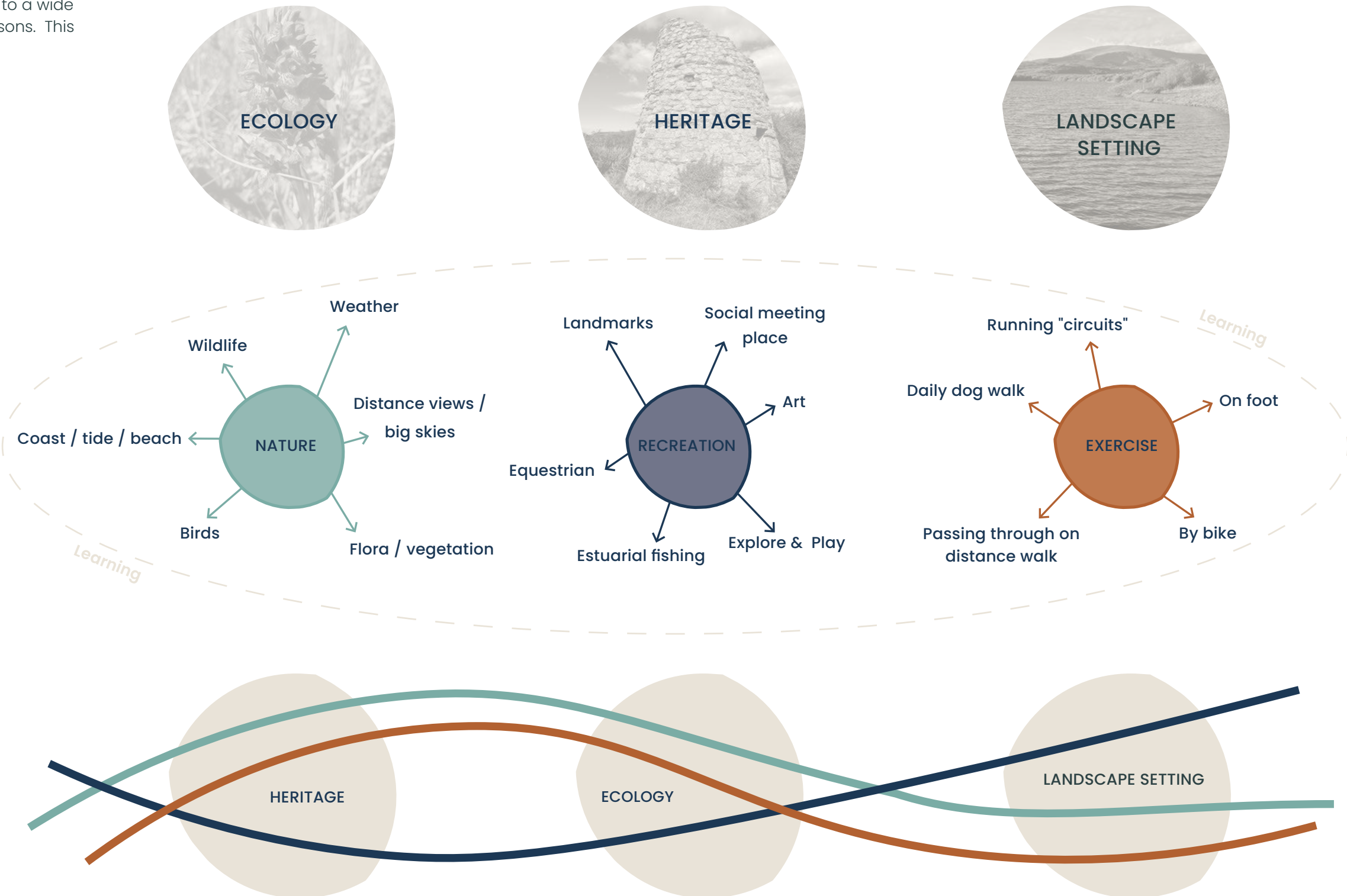
Three elements integral to Hodbarrow as a place

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



3. The Landscape Proposal

Visitor Experience

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 summarise 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

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:

- 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. The drawing opposite highlights some of those opportunities.

3. The Landscape Proposal

Habitat Management & Awareness



Location of on-site interventions

- Welcome Building**
Visitor building to include a biodiverse roof with example mosaic of calcareous grasslands. This will be a substrate based biodiverse roof comprising a standard living roof build up as per GRO code 2021, with a substrate depth that ranges between 150-225mm. Substrate will be chalk based although sandy piles and areas of more free draining cobbles will also be provided to create a mosaic of habitat structure.
- Welcome building environs**
Hardstanding (to the existing road) will be broken up and given back to nature, allowing sensitive habitats to expand. Interpretation of the value of the grassland will seek to discourage trampling of notable grassland habitats nearby.
- Scrub clearance**
Significant scrub clearance of dense areas will be undertaken by hand, outside of nesting bird season. Followed by the introduction of grazing cattle-e.g longhorns using cattle collars-to manage successional growth and create a diverse mosaic of habitats.
- Ponds**
Vegetation clearance and construction of boardwalk with interpretation to raise awareness of habitat.
- Byway generally**
Byway to be narrowed and flanked by corridors of land.
- Natterjack toads**
Creation of pools and habitat for natterjack toads, adjacent to established off-site habitat, to aid their dispersal across Hodbarrow.
- Hides**
New hides with improved accessibility.
- Grassland**
Desire lines upgraded to formal paths, encouraging people to stay on track and away from sensitive grassland. Signage to improve awareness and respect of important habitat.
- Butterflies**
Byway to be narrowed and flanked by corridors of land. Opportunity for additional butterfly mounds.
- Byway along new sea wall**
Reduction in width of byway using newly created berms with site won substrate. Aims to shield terns, create mosaic habitat and discourages disturbance. The habitat areas gained from this reduction will be allowed to regenerate naturally. The habitat mosaic will create microclimatic conditions and provide opportunities for shelter in this exposed location.
- Slag bund**
To be reinforced to create more effective barrier between tern islands and visitors approaching hide.
- Hide access**
Sensitive habitat will be fenced off and the existing access route upgraded to a formal path so that other harmful desire lines are necessary.
- Sand Martin**
Artificial sand martin banks could be installed on the old sea wall.
- Floating vegetated Islands**
For bird species such as grebe and habitat on the underside for fish grazing and shelter.



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 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

4. Movement

Proposed Surface Materials



Macadam



Self-Binding Gravel

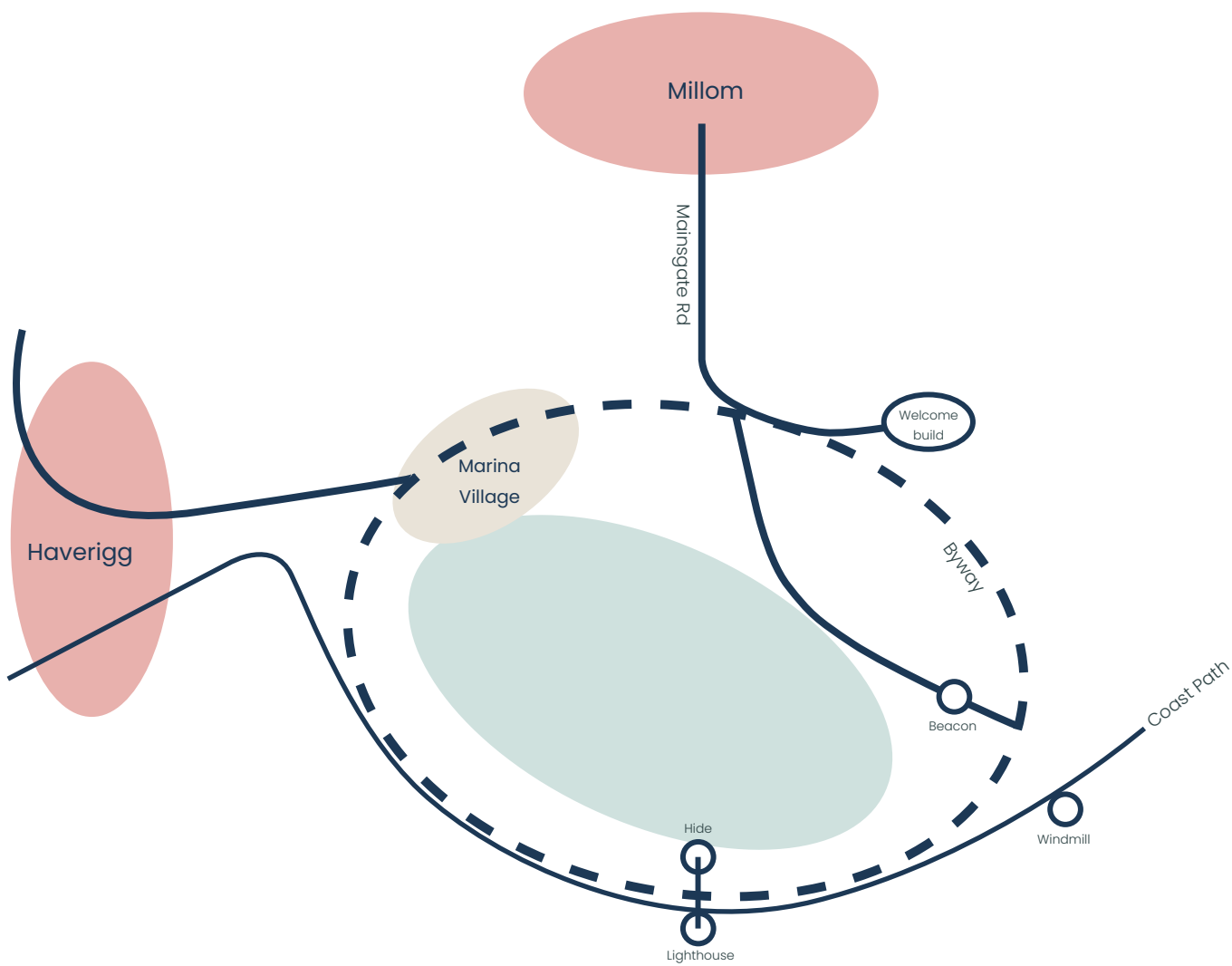


Raised Timber Boardwalk



Steel Walkway with Timber Edging

Hierarchy	Purpose/Function	Surface Material	Other Notes
Roads	As main vehicular route to welcome building		
Roads - Existing	Existing access road	Macadam without edgings	4.8m wide. Refer to photo (1)
Roads - proposed	Amended route to HWRC	Macadam without edgings	4.8m wide. Refer to photo (1)
BOAT	Circular route round Hodbarrow. Open to cars, cyclists, horses and pedestrians		
		Self binding gravel	3m wide. Refer to photo (2)
Primary Paths	Pedestrian connections throughout Hodbarrow		
		Self binding gravel	1.5m wide. Refer to photo (2)
		Timber Boardwalk	1.8m wide. Refer to photo (3)
		Metal Boardwalk	1.8m wide. Refer to photo (4)
Secondary Paths	Provides formal link to landmarks		
		Self binding gravel	1.5m wide. Refer to photo (2)
		Metal Boardwalk	1.8m wide. Refer to photo (4)



Accessibility diagrammatic summary

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 welcome building will be designed to meet approved accessibility standards so that everyone can experience all parts of the building including the rotunda. 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 by bike.

To improve user experience for cyclists, cycle stands will be located at the welcome building and at locations across Hodbarrow, meaning that

visitors have many opportunities to secure their bike.

Horse riders

As a byway open to all traffic, 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. Gates to either end of the byway will be operated by equine latch.

Motorists

Visitors will be guided towards formal car parking areas. The byway will remain accessible by car, however motorists are seen as a lower priority than other users. The BOAT will be narrowed and passing places incorporated to enable two vehicles to pass.

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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 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. Owing to the complexity of legal process and associated timescales, the status and location of the BOAT will remain as existing. The challenge for the future is to ensure that vehicular access is maintained without compromising the environment for other user groups. Rather than being viewed as a road, the BOAT will be a pedestrian environment into which vehicles are a secondary user.

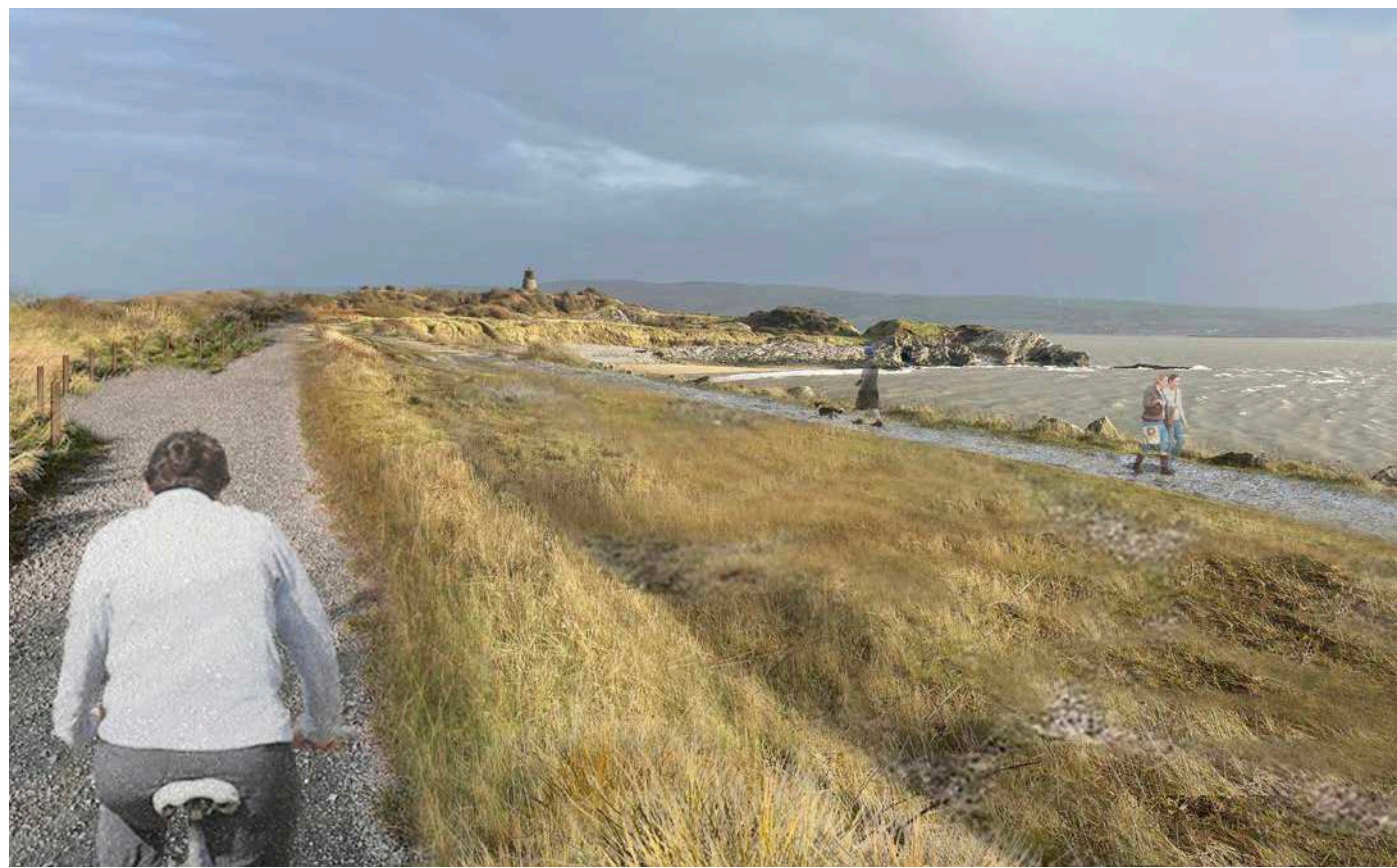
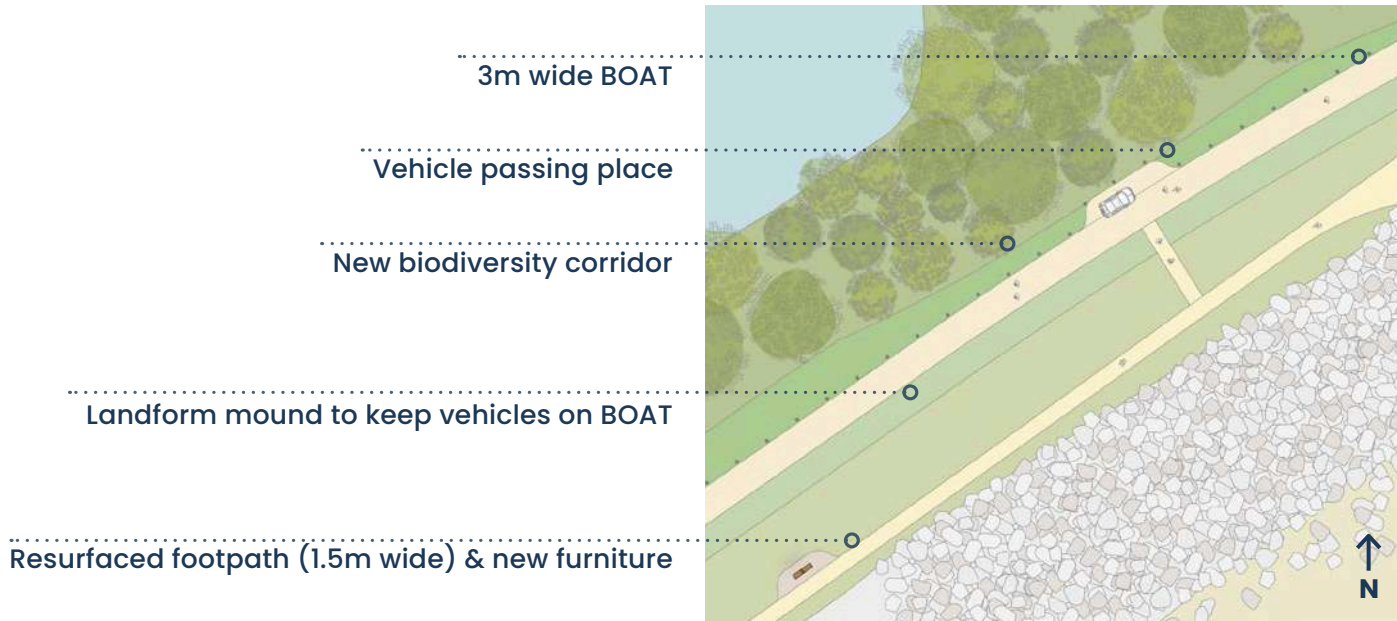
As it stands, the BOAT is poorly surfaced and lacks continuity of surface or width, as demonstrated by the photos below. Although this naturally discourages vehicle use and minimises speeds, it is not favourable to inclusive access for others. As the main route through Hodbarrow, this must be improved.

The proposal

The BOAT will be resurfaced with a stone to dust finish and maintained at a consistent width of three metres. Lay bys will be included to enable two vehicles to pass. Where the proposed width is less than existing, the land take will be re-purposed as ecological habitat and contribute towards biodiversity net gain.

Along the sea wall, additional earthworks will see the creation of a linear mound to the estuary side of the BOAT, using site won material. This will act as a barrier to vehicles overrunning and damaging the adjoining grassland habitat.

To discourage (but not prevent) motorists from using the BOAT, a vehicle gate will be introduced at either end of RSPB land. This gate will be closed but never locked and easily opened using a equine latch mechanism.



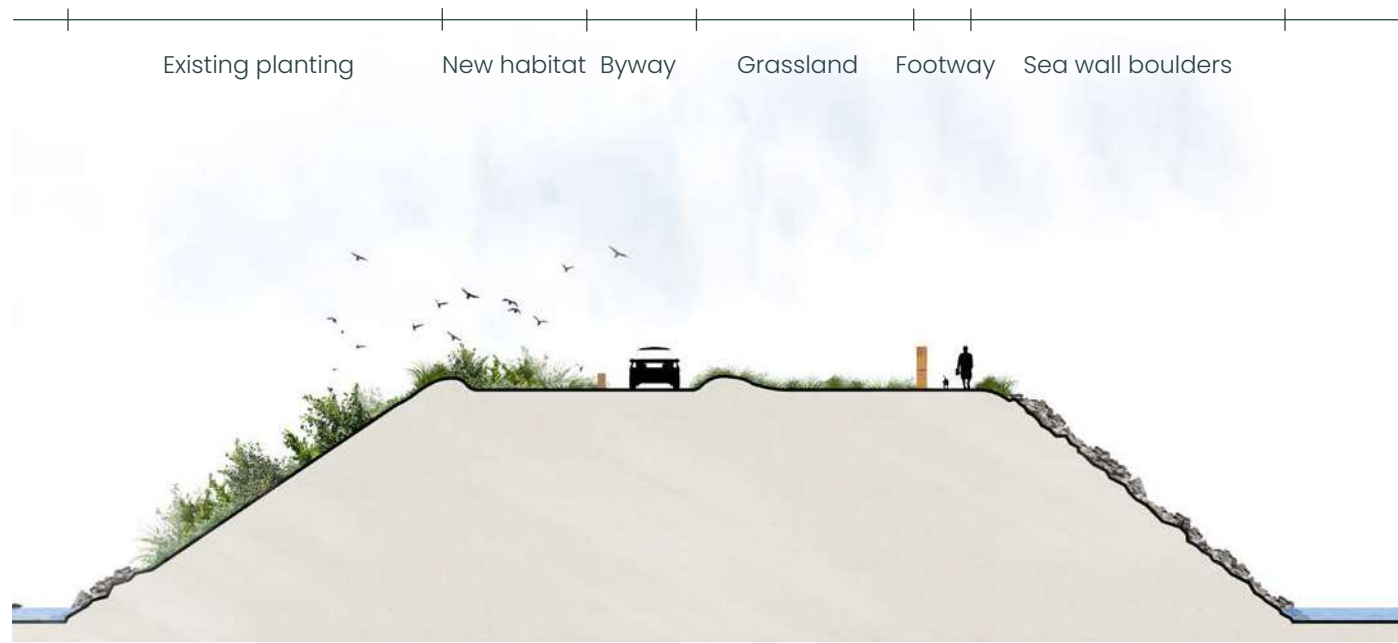
Visualisation of the proposed sea wall

4. Movement

The Byway – The Sea Wall



The Sea Wall Byway: Existing Cross Section (not to scale)



The Sea Wall Byway: Proposed Cross Section (not to scale)



Location of Byway and baseline photographs



4. Movement

Millom Gateway



Location Plan



Approaching the Iron Line from Millom

When traveling by car, most visitors will approach from Millom, guided by a series of bespoke signs to mark their arrival at Hodbarrow and help navigation towards the welcome building. Consistency within the surface treatment will also guide motorists along the established access road to the main car parks. A secondary car park will be located at the start of the byway to serve those who don't wish to visit the welcome building.

From Mainsgate Road, pedestrians will be guided towards an upgraded 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 welcome building 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 HWRC so the facility can be locked independently.

There will also be a gate to the far end of the secondary car park to discourage vehicles from using the BOAT. This gate will not be locked but make motorists think twice before proceeding. An equine latch will enable passage by other users.

Pedestrian crossing

Surface detail and drop kerbs to guide pedestrians to waterside path into reserve.

Gateway Feature

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

Path upgraded

Path widened to a consistent 1.5m and resurfaced. Gaps in adjacent vegetation closed to keep pedestrians away from road.

Vehicle Gate

To be secured when welcome building is closed

Signage

To guide visitors towards welcome building/HWRC

New car park

Spaces demarcated. To include pay machine and signage

Gate to Iron Line

To mark threshold to byway. Discourages but doesn't prevent vehicles using the BOAT.

4. Movement

Haverigg Gateway



Location Plan



Approaching the Iron Line from Haverigg

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

The Connected Millom & Haverigg project proposes a new car park close to the beach which will benefit those who wish to park and walk into Haverigg from the west.

The existing footpath will be formalised with a new surface and navigational signage to guide visitors towards Hodbarrow.

Gateway

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

Existing fence retained

Footpath

Existing footpath retained

Gateway

Bespoke vertical feature visible from a distance to draw visitors towards Hodbarrow

Threshold detail

Change in surface material to mark transition onto sea wall



5. The Welcome Building
Location

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- Key
- 1 Welcome Building
 - 2 Hodbarrow Beacon
 - 3 Towsey Hole Windmill
 - 4 Haverigg Lighthouse
 - 5 Tern Island Hide
 - 6 Annie Lowther Hide
 - 7 Quarry Hides
 - 8 Lagoon View
 - 9 Floor Threshold
 - 10 Whiterock Junction

Location of Welcome Building

5. The Welcome Building

Introduction

Overview

A key part of RIBA Stage 1 and 2 was to undertake an options appraisal for the welcome building. This not only looked at location but also scale and level of provision to ascertain what an optimum welcome 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 welcome building were:

- The ecological impact and SSSI designation of majority of the site.
- The appropriate scale of the welcome building 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

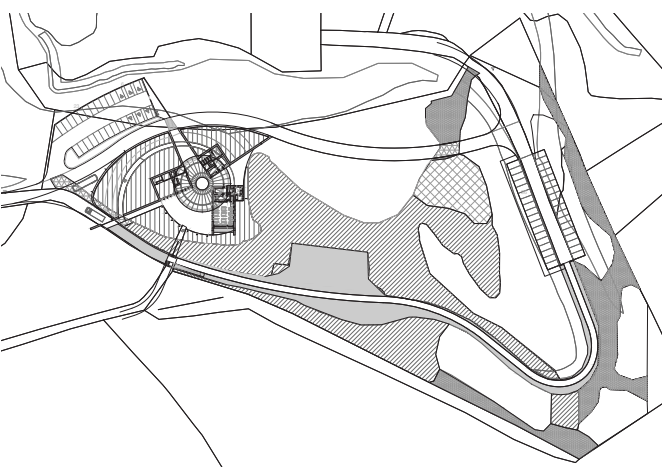
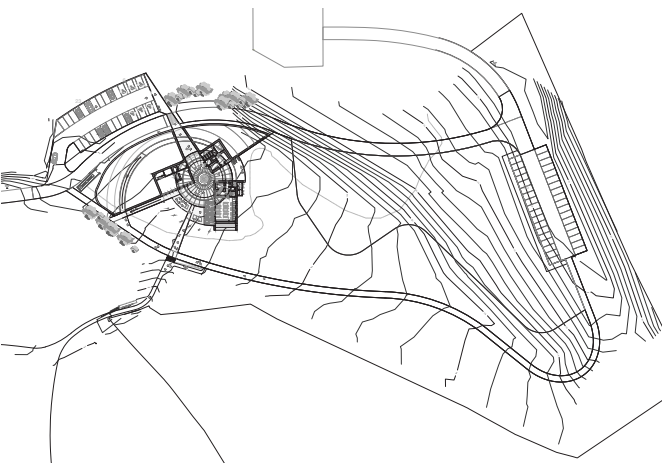
Whilst the selected site is outside the SSSI there are still a number of key constraints which needed careful consideration as the welcome building went through design development during late RIBA Stage 2 / early Stage 3. Further ecological surveys noted areas of Annex 1 Calcareous Grassland and Priority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

Topographic information which became available in this period also showed an area of embankment, currently hidden by dense scrub which also brought additional constraints to the site layout.

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.



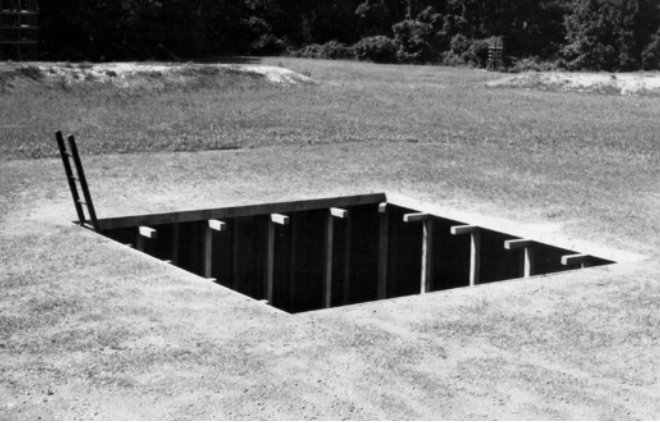
Category	Status	Area
Annex 1 H6210 Calcareous Grassland (Brita-Brachypodium)	Maintained	4242sqm.
Annex 1 H6210 Calcareous Grassland (CG1)	Maintained	551sqm.
Priority Habitat Lowland Meadows (MG1e)	Maintained	1735sqm.
Priority Habitat Lowland Meadows (MG1e)	Trans-located	156sqm.
Current tarmac road to be prepared for re-naturing.	Re-natured to calcareous grassland	1540sqm.
New calcareous grassland formed on mounds overground new building.	New calcareous grassland	1265sqm.
NET GAIN OF GRASSLAND		2649sqm.

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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 raised drum of the rotunda will sit raised within the landscape and be part of this family of towers and drums.



Hollow Earth

Hodbarrow is a hollow landscape with much of it's industrial past left hidden below the surface. Whilst avoiding any literal recreation of the subterranean conditions of the mines, the design aims to refer to the strata, the sense of being below and looking upward and the principle of spaces within the ground - within the proposals. The raised rotunda space sits up over a semi-external space in the heart of the building plan which has an opening in it's centre, providing light and sky views from below whilst the lower building walls are formed in pigmented rammed concrete with 'strata' evident within the outer finished face to refer to the geological seems and layers below



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, bloodymindedness 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 welcome building 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 to a camera obscura within the old windmill structure, periscopic mirrors within the beacon and panoramic views from the rotunda of the welcome 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.

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5. The Welcome Building

Design Summary

The Welcome Building sits at the high point of a natural rise to the north east of the Iron Line site.

The design creates a strong connection to the site, working with the topography of the location and bedding down into the landscape within the main lower level of the building. Above this sits a semi-external circular rotunda, deliberately present on the skyline and from which visitors can gain a 360° view of the surrounding landscape and setting.

The lower level comprises three separate buildings, each with a different focus; these are gathered around a central, semi-external sheltered space below the rotunda which acts as circulation and break-out for the internal activities. The first building is a welcome point with warden's office and information point. It also includes WC's, Changing Places facilities and a staff/volunteer's mess. The second building faces south to the views of the reserve and estuary beyond and forms a cafe with associated kitchens etc. The third building is both a retail space plus a multi-use space for group work, art projects or other teaching activities. All three buildings interact with each other across the part-sheltered lower courtyard space and each are screened behind a stratified rammed concrete facade incorporating aggregate and slag from the site to reduce it's carbon content and aesthetically to bed the building into the surrounding re-natured content where slag and limestone are outcrop through the vegetation.

These walls extend out into the setting beyond the building line and to the north of this cranked line, the building forms are concealed by earth mounding and 'brown roofs' primed for natural reseedling of native flora. A break in the wall to the west of the art space forms the entrance to a curving ramped route up to the rotunda. At the beginning of this approach, the path is set down

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Visualisation of the welcome building for the south west

5. The Welcome Building

Design Summary

into the new mounded landscape giving people an eye level view through the new calcareous grassland which will be encouraged to grow in this created habitat. Gradually the route rises out of the landscape, bridges over the lower access routes and arrives at the rotunda level.

The upper rotunda level is a simple circular drum form, it is a semi-sheltered external space which will be used as a viewing platform where an especially varied 360° panoramic view can be gained; from sea to mountain, varying habitats and manmade features. Architecturally, this upper element is formed in a triangulated truss structure within which there is deck formed with a timber lining forming balustrades, seats and locations for interpretation. The outer ring has a simple canopy over and in the middle of the drum there is a oculus opening down into the hollow space below. The perimeter walkway gives the views and these are supplemented by interpretation of what can be seen but also what is no longer in view from the industrial heritage of the site. The inner area is a place to gather, sit and rest for a while, perhaps an informal external classroom for group activities.

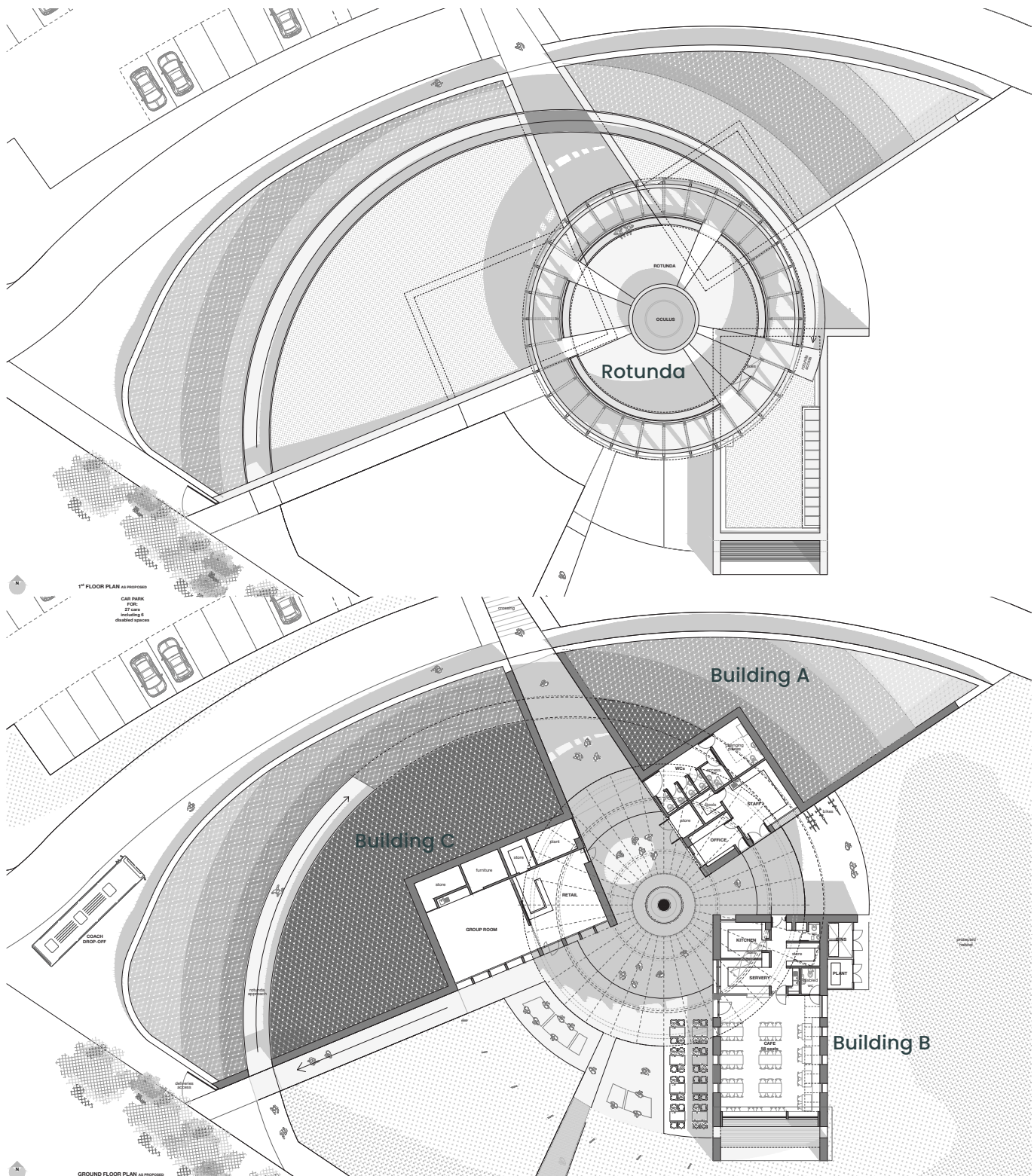


Visualisation of the rotunda experience

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5. The Welcome Building

Summary of Accommodation



Welcome building plans (Top: Rotunda / Bottom: Ground floor)

Building A: Staff, WCs and Changing Places Provision

- Warden's office and information point
- Staff and volunteer's mess
- Unisex WC's
- Accessible WC
- Changing Places room
- Tool store
- Storage and service provision

Building B: Cafe and Kitchen

- Cafe space for 58 Covers
- Servery area
- Kitchen
- Kitchen store
- Staff WC
- Public unisex accessible WC

Building C: Retail and Group Room

- Shop space
- Multi-purpose group room
- Furniture store
- Retail stock store
- General store
- Plant area



Visualisation below the rotunda

5. The Welcome Building

Access

Access to the Welcome Building

Visitors can access the welcome building by car, foot, bicycle, coach and wheelchair. There are two car park areas provided which have been carefully located to avoid important natural habitats. One car park is located near to the building to the north and includes 6 accessible parking bays with level access from here into the building itself. The second parking area is 200m away and linked to the welcome building by a shallow-sloped footpath.

Coach/bus drop-off is also provided for group visits and cycle storage is also provided within the courtyard area. A service vehicle lay-by has been included as have refuse and recycling provision.

Pedestrian routes to/from the welcome building 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.

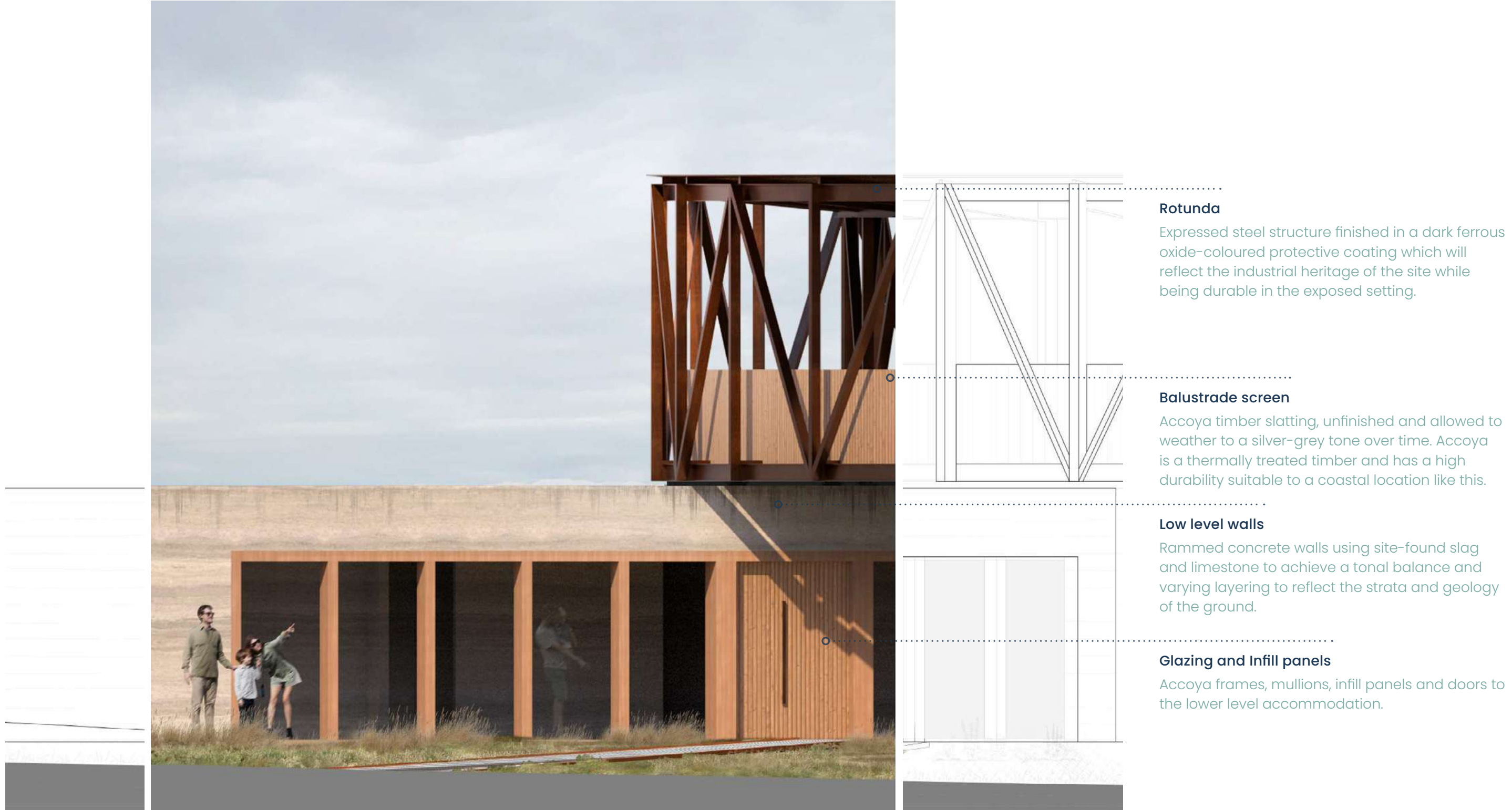
Within the Welcome Building all primary activities are on the same level and accessible to everyone. The rotunda access is ramped and shallower than 1:20 and the rotunda itself is level throughout.

There are 2 Accessible WC's within the building plus a Changing Places facility.

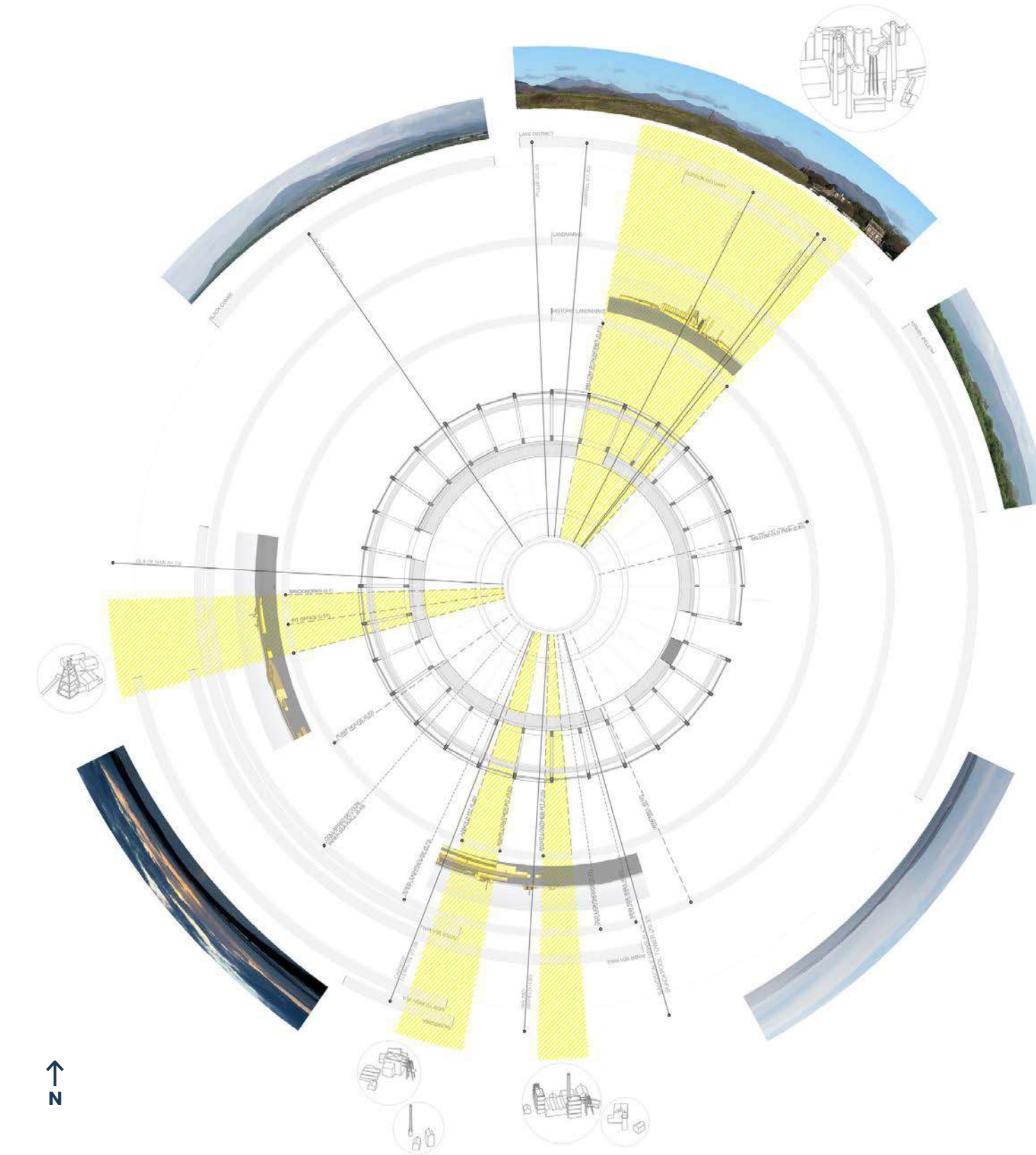
The detail of the interpretation pieces at the welcome building and across the site has not been finalised but it is intended that these will be appropriate for those with vision impairments.

5. The Welcome Building

Building Materials



Elevation through welcome building

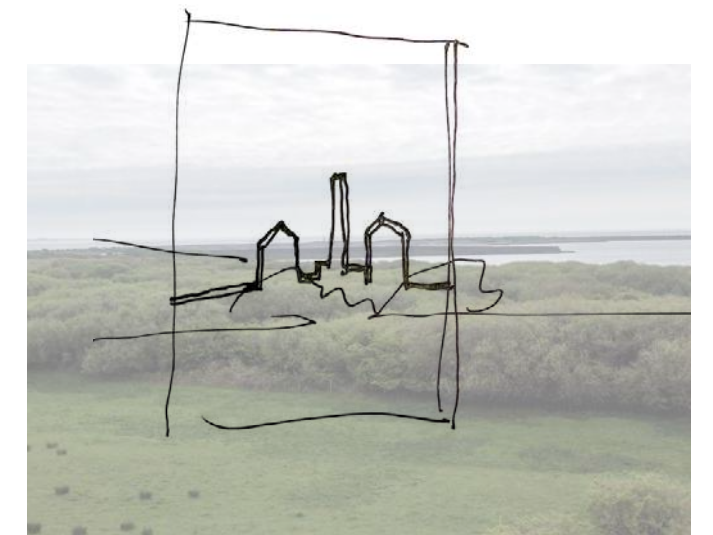


Panoramic Diagram: Views past and present from the rotunda

5. The Welcome Building

Heritage Overlay

The panoramic view from the rotunda 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.





Welcome building in the wider context

5. The Welcome Building External Works

Design Intent

The new building has been carefully located to welcome 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.

The main outdoor space is embraced by built form, resulting in a south facing courtyard that looks out over RSPB Hodbarrow and is partially, sheltered by the rotunda above. In this location visitors will be able to enjoy outdoor dining, sit and admire the view and gather with other people before heading off towards The Iron Line. A secondary seating space is located between the cafe and WCs and also accommodates cycle stands.

Fixed furniture will take the form of large benches, wide enough to sit on all four sides, orientated to outlook the landscape. Loose furniture will enable people to sit outdoors and consume goods purchased in the cafe.

From the main courtyard space, visitors be guided by navigational signage, across a boardwalk over existing grassland and head through a pedestrian gate 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. This gate will be locked outside the operational hours of the welcome building.



Realignment of road



Servicing & Coaches

5. The Welcome Building Vehicular Circulation

Generally

The new building will be accessed via the existing road that serves the Household Waster Recycling Centre (HWRC) and to minimise conflict of interest between users, the most easterly section of this road will be rerouted. In terms of visitor experience, this importantly means that the outlook from the building, towards the reserve is not compromised by passing vehicles.

Cars

Motorists will have the choice of two car parks. The upper one will host around 26 vehicles including accessible spaces and charging for electric cars. Visitors will then follow a short route at grade into the welcome building. The lower car park will provide a further 35 spaces and be connected to the building via a path that follows the line of the existing road.

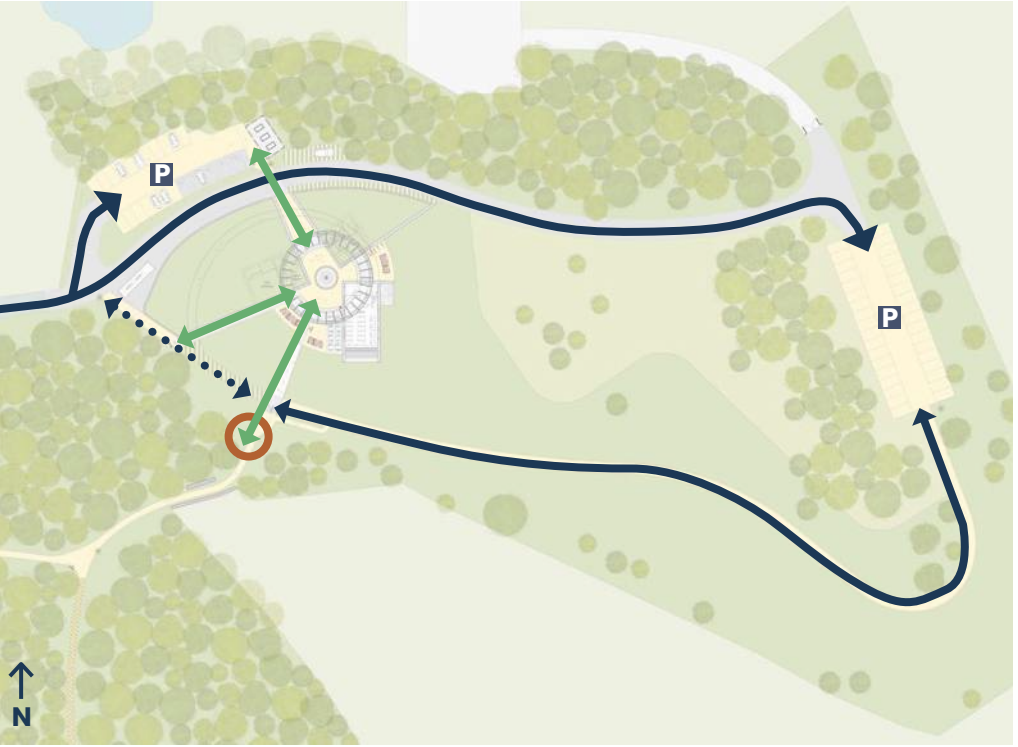
Servicing & Coaches

Deliveries and larger vehicles will follow the rerouted road and turn in the bell mouth of the junction with the lower car park and HWRC before using either the lay by, immediately north of the welcome building or coach parking space to the west.

HWRC

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

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



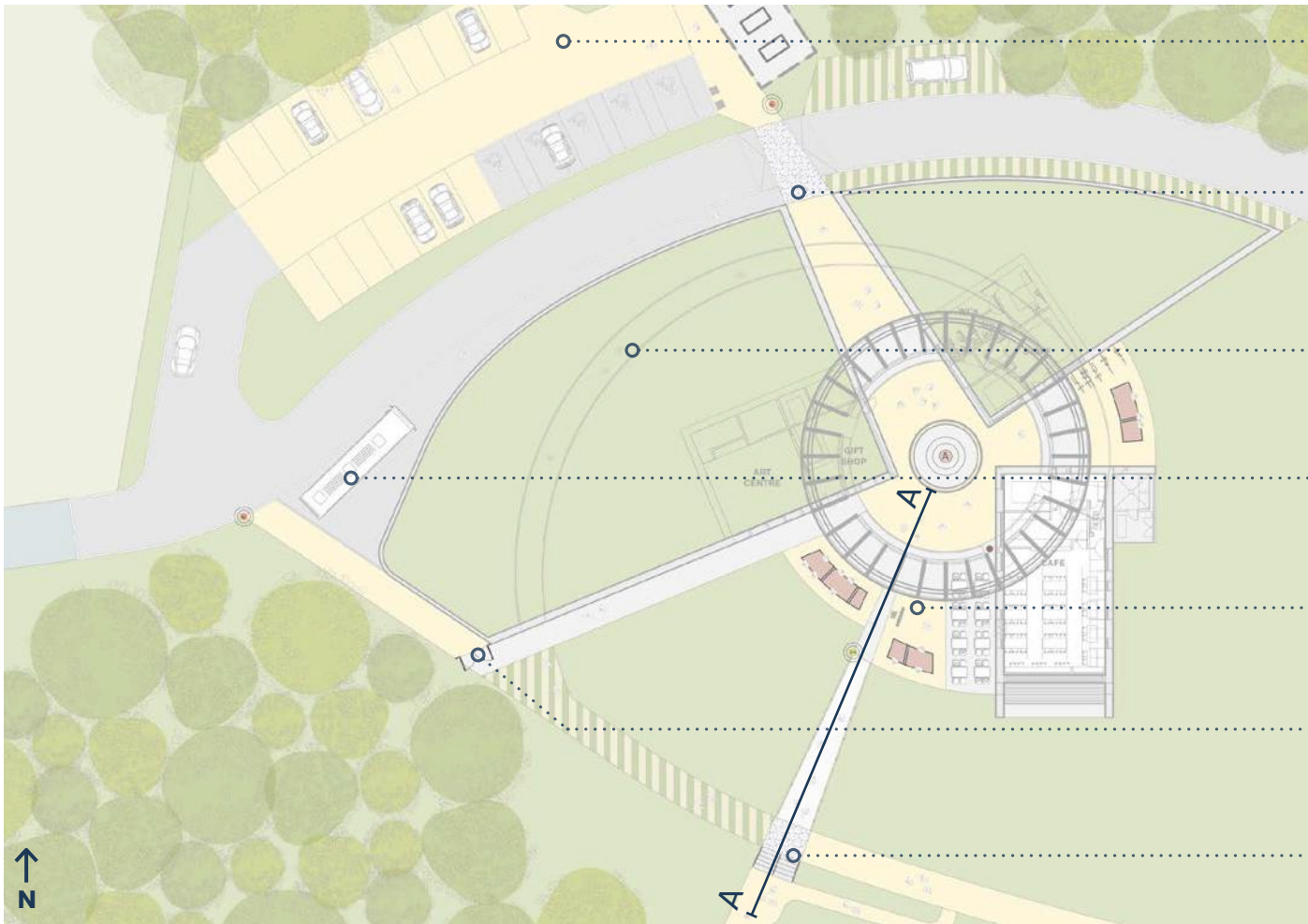
Cars



HWRC

5. The Welcome Building

The Outdoor Space



Car Park

Space for circa 27 cars. Provision for accessible spaces and electric vehicle charging. Delivery lay by adjacent.

Pedestrian connection

Level access into welcome building. Road crossing demarcated and at grade with path.

Link to Rotunda

Footpath to rotunda where visitors may experience 360 degree views of the landscape.

Coach Parking

With pedestrian link to main (& secondary) entrances.

Main Courtyard

External courtyard for gathering and external dining. Experiences views towards the estuary.

Lockable gate

Alternative pedestrian connection associated with coach lay down and access for emergency vehicles.

Access to RSPB Hodbarrow

Pedestrian boardwalk over grassland connects to gateway into reserve



Cross section A-A: Pedestrian link between welcome building and reserve

5. The Welcome Building

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: Stone to dust with spaces demarcated with timber dividers.
- Paths: Stone to dust
- Courtyard: Stone to dust and in-situ concrete as feature detail
- Boardwalk: Metal grating with timber upstand edge.





6. Landmarks & Key Spaces

Locations

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Location of landmarks and key spaces

Promoting Points of Interest

In addition to the new welcome building, 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 Welcome Building
- 2 Hodbarrow Beacon
- 3 Towsey Hole Windmill
- 4 Haverigg Lighthouse
- 5 Tern Island Hide
- 6 Annie Lowther Hide
- 7 Quarry Hides
- 8 Lagoon View
- 9 Floor Threshold
- 10 Whiterock Junction

6. Landmarks & Key Spaces

Hodbarrow Beacon (2)



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

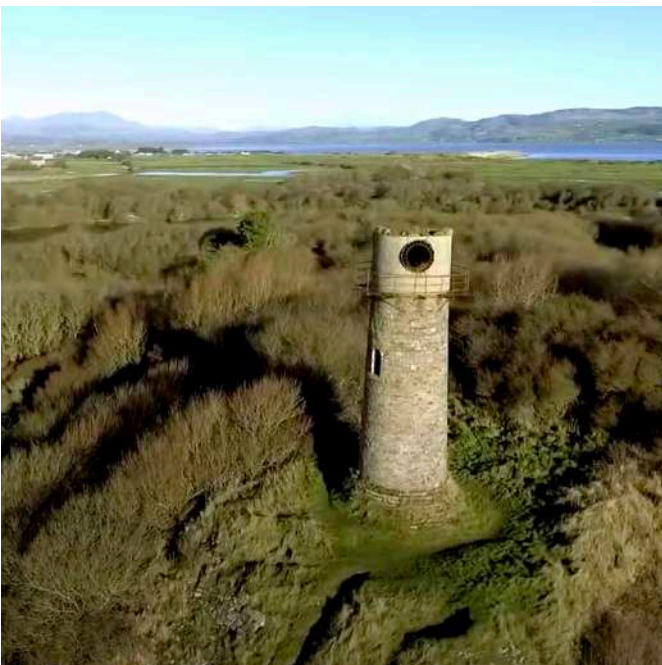
This record was the subject of a minor enhancement on 29 March 2016. This record has been generated from an "old county number" (OCN) scheduling record. These are monuments that were not reviewed under the Monuments Protection Programme and are some of our oldest designation records.

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.

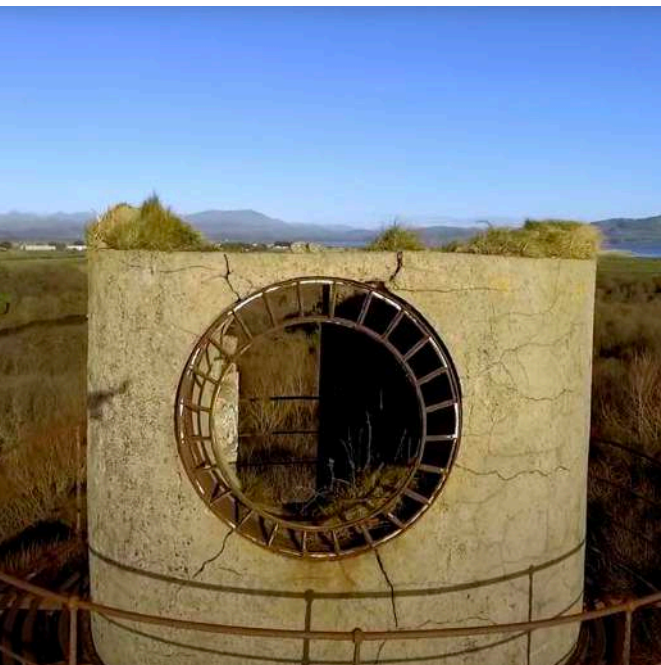
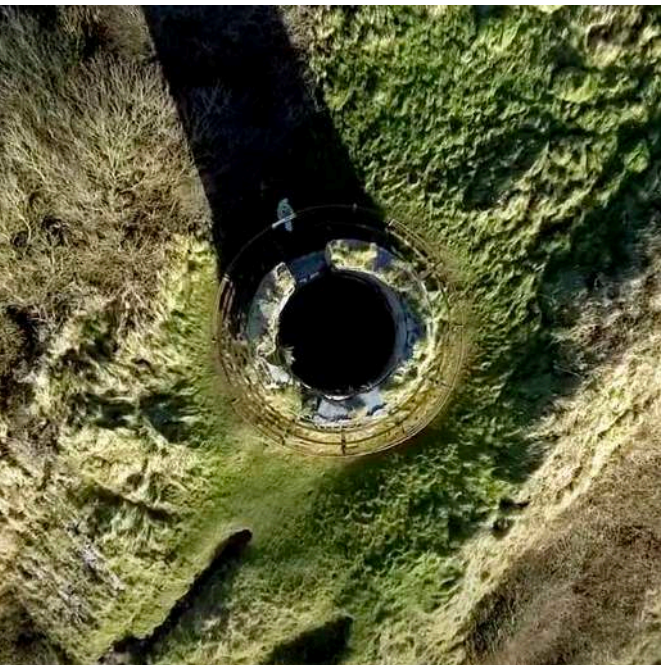
Assessment of Significance

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.

Due to safety and security reasons the interior of the beacon is inaccessible so the condition of the stone staircase inside is not known at this stage.

Scope

The scope of works to the beacon focuses on repair and stabilisation to make sure the structure remains intact, safe and stable into the foreseeable future. It is not proposed to enclose the beacon with reinstated roof and new glazing as these elements would become vulnerable to damage from the elements or vandalism. The structure will remain inaccessible as this would be very infeasible to achieve and manage safely within the public context of the location.

Proposed repairs and stabilisation works

Metalwork elements - The gantry is to be repaired and stabilised in situ with appropriate access arrangements. Through a close-up inspection, any loose elements (likely to be deck spars and smaller element of the piece), to be carefully removed and the gantry consolidated as an element. Each embedded support arm within the masonry to be exposed and all metalwork to be cleaned, primed and decorated with an

anticorrosive finish plus acrylic overcoat. The ferrous metal oculus frame to be carefully removed and taken off site for repair. This will then be cleaned, primed and decorated with an anticorrosive finish plus acrylic overcoat ready for reinstallation.

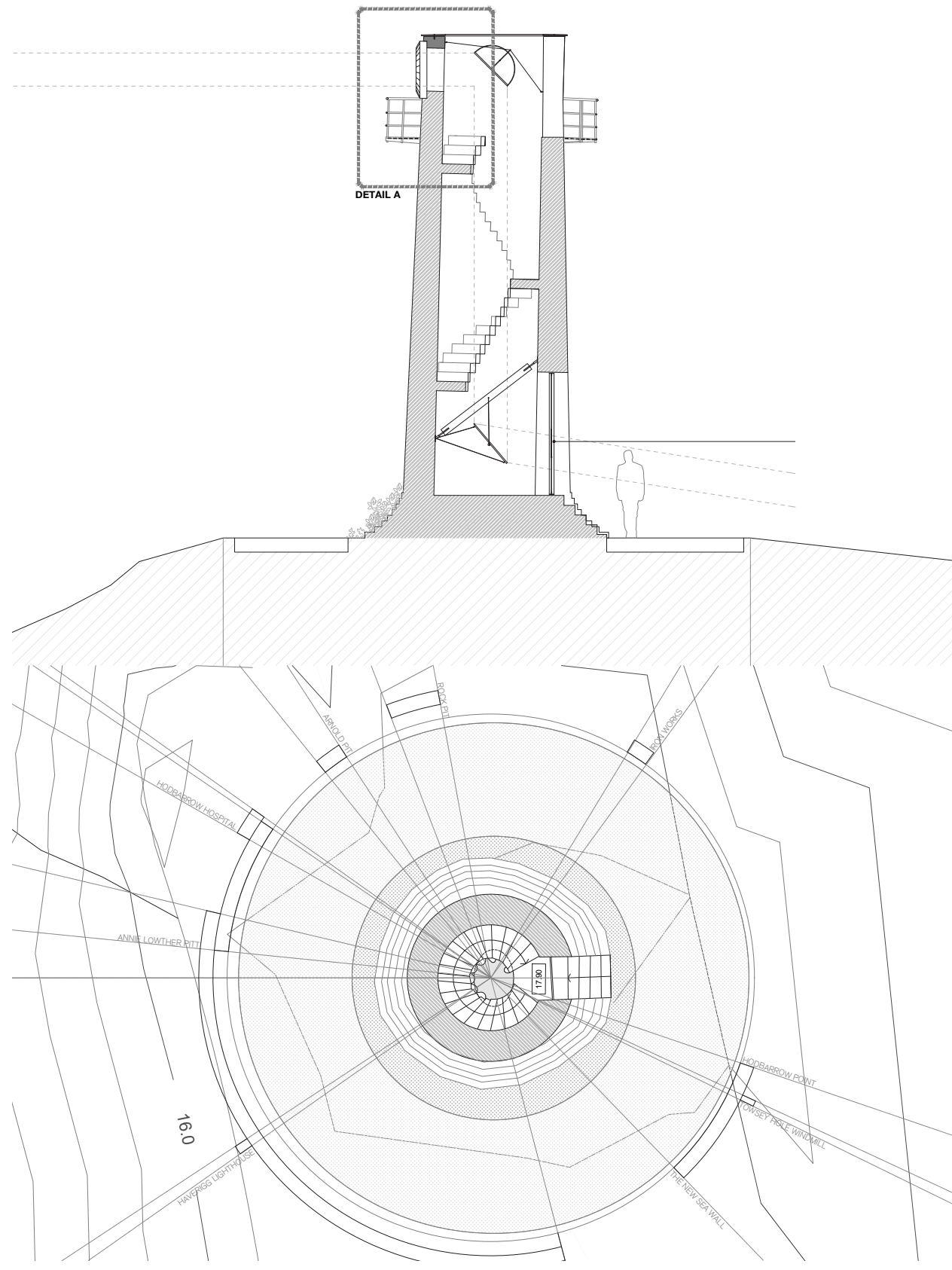
Masonry walls - where there is loose or defective pointing or where there has been repair with cement-based mortar (within lowest 2.5m), pointing to be removed, joints raked out and new lime mortar pointing applied. Pointing to be rag-finished and slightly recessed back from the typical stone face. High level area of wall above the gantry line was originally rendered, all this render to be removed masonry behind to be repaired. Area of wall around the oculus to be partially dismantled and rebuilt with a new curved precast lintel installed over the opening to consolidate this area, which is inherently weak due to the proximity of the opening to the top of the wall. When reforming the oculus masonry opening, an added tolerance of 20mm to be allowed all round the circumference, a semi-flexible fixing to be used to allow for any future expansion of the metalwork and therefore to avoid recurring damage to the masonry. Upper wall area to be re-rendered in a lime-based mortar. Slate capping with stainless steel dowels to be bedded onto the top of the wall all the way round the perimeter of the beacon.

Elsewhere, the lower entrance door will have a new gate installed. Old gate is not original, the ferrous metal fixings into the masonry have corroded and damaged individual stones; likewise, previous gate fixings have also caused damage. Localised stones re-set and pointing repaired. There are signs that the doorway had a rendered 'architrave' around it; it is proposed to remove this and make good the masonry behind

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6. Landmarks & Key Spaces

Hodbarrow Beacon (2)



Plan and cross section through Hodbarrow Beacon

to leave exposed a sit is considered this will achieve a more robust, long-term detail.

Sensitive Intervention

Beyond the repair and stabilisation describe, it is proposed to introduce a simple optical installation within the beacon in the form of two suspended stainless steel mirrors which will work together as a periscopic device, bringing high-level views out through the oculus down to ground level to the observer at the doorway. This will counter the natural curiosity of climbing to achieve this raised viewpoint, it democratises this view, making it accessible to everyone and it will also give glimpses of the beacon interior at different angles. At certain times of the year and day, afternoon and evening sun will track down through the beacon, animate the interior and out beyond the doorway , bringing a new fleeting spectacle to the setting.

The Immediate Landscape Setting

The corbelled plinth to the beacon has attracted flora and in the spring/summer is home to various species of flowers and grasses. These are all shallow rooted and it has been assessed that they are of low concern in terms of the structure which their ecological and aesthetic benefits outweigh – so will be retained. Outboard of this plinth a simple circular terrace formed in natural stone paving in varying formats will be formed. The outer perimeter of this will include an interpretive installation which locates the beacon within the natural, contemporary setting as well as the hidden context of the lost industrial heritage of the site.

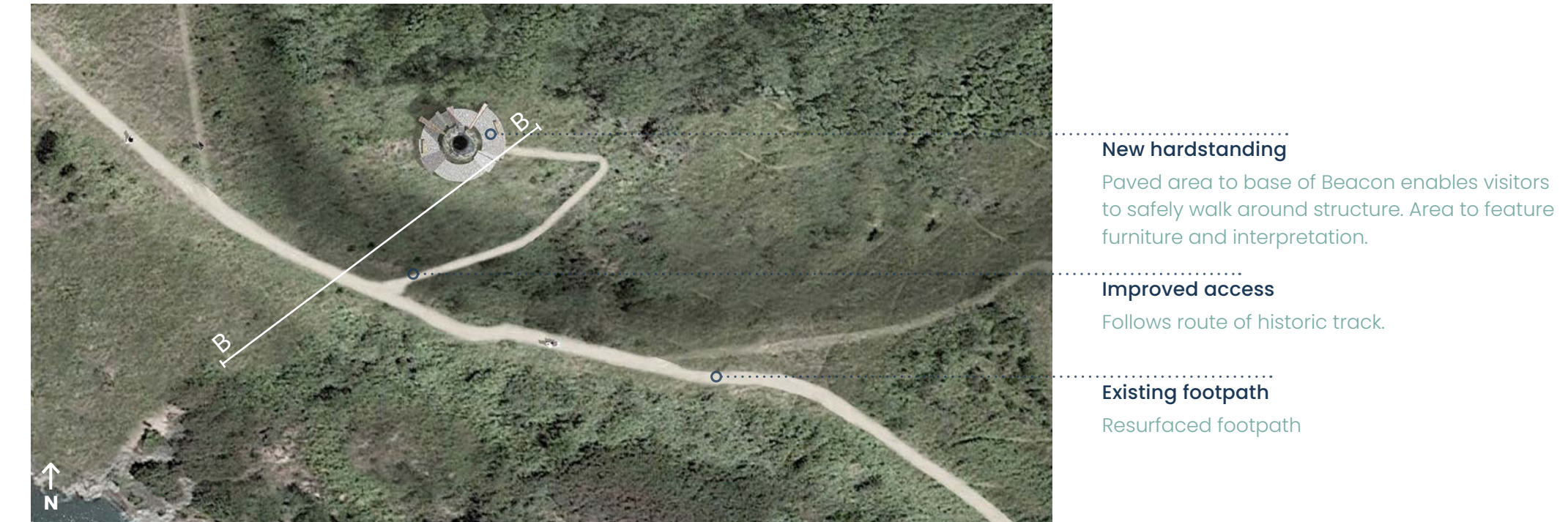
Impact

Majority of the works are to repair and stabilise the structure of Hodbarrow Beacon to ensure it will continue to be standing in this exposed location well into the future. The proposed works have been sensitively considered and are appropriate to the location and condition of the structure. These works will ultimately have a positive impact on the scheduled monument both in the short and long term.

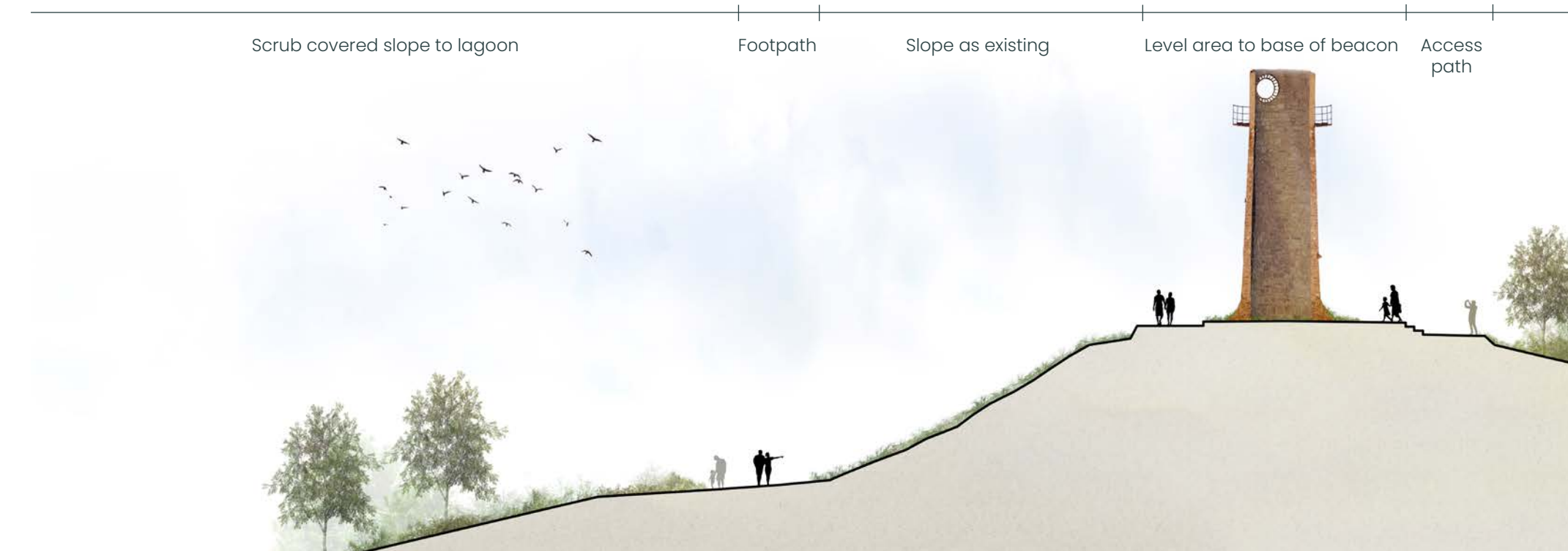
The proposed installation of the periscopic mirrors will enhance the experience of visiting the beacon as well as the wider site, they will quench the desire to enter and climb the structure for majority of visitors by enabling internal and high-level views externally from ground level while still maintaining the security of the structure. The proposed fixings of the installation is light touch, without the loss of any historic building fabric and ultimately it could be removed without any legacy impact on the beacon.

6. Landmarks & Key Spaces

Hodbarrow Beacon (2)



Plan: Hodbarrow Beacon in context



Cross section B-B: Hodbarrow Beacon

Design Intent

As an important landmark at Hodbarrow, the beacon is currently only accessible to those with ability to scramble up the steep bank on which it sits. To facilitate more people being able to experience the heritage asset, a path is proposed, predominantly following the route of a former track that served the cluster of buildings than once existed in this location. The final path alignment will be determined on site, once existing scrub vegetation is cleared, ground conditions have been better established and ecological habitat is further checked.

Once at the top of the hill, a new stone paved surround will enable visitors to easily walk around the entirety of the beacon, peer up into the structure and take in the breath taking view of the Duddon Estuary.

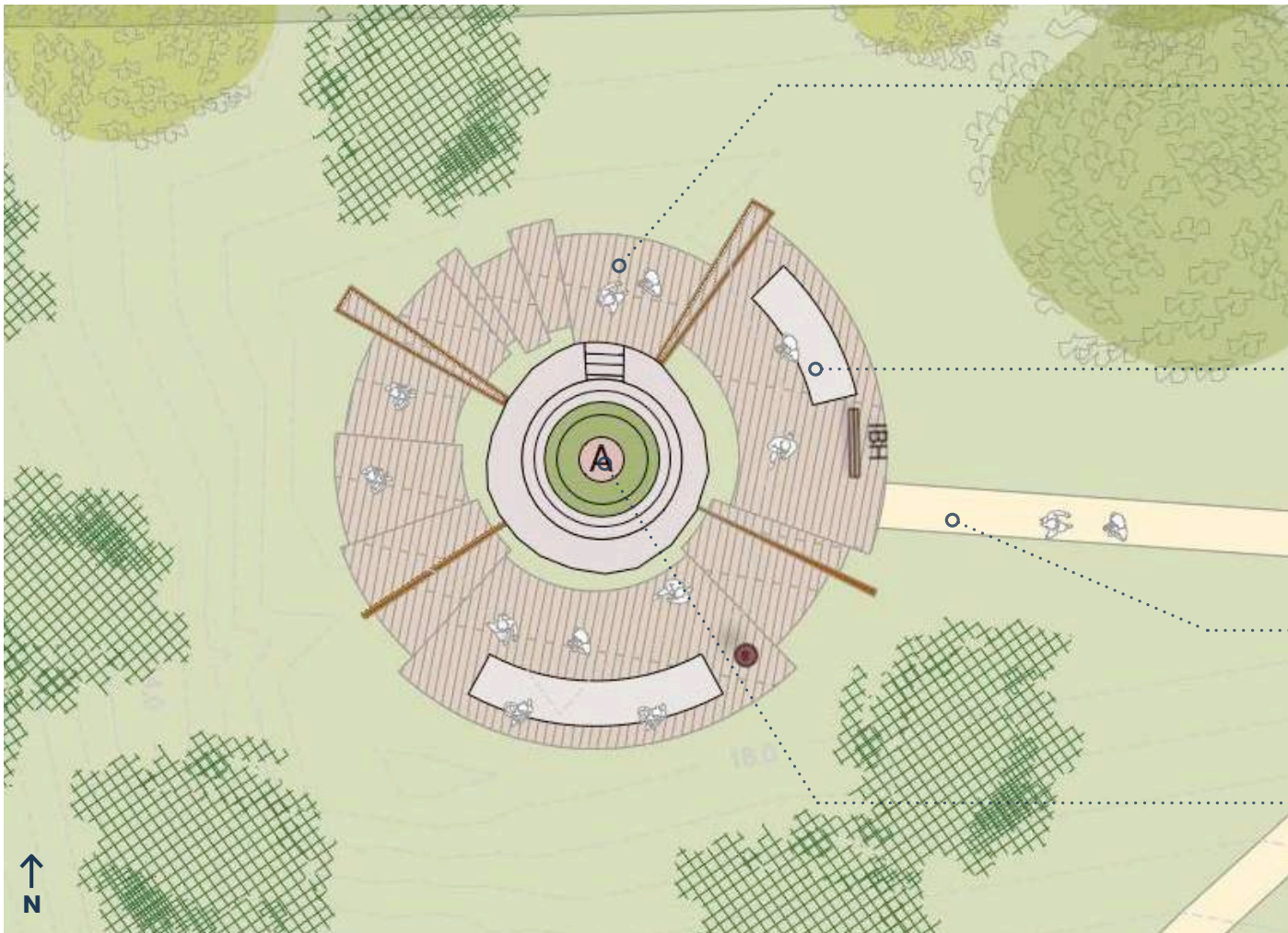
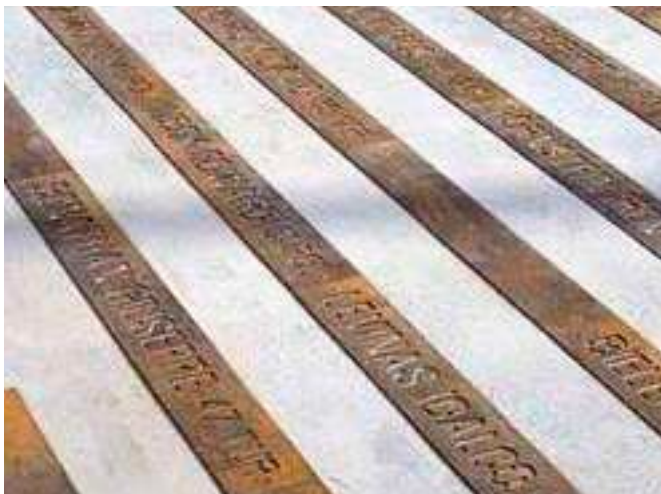
Paving design is inspired by the physical attributes of the surrounding landscape with features in proximity influencing the way in which paving is segmented. The concept is illustrated within the thumbnail diagrams on the opposite page.

In respect of the Scheduled Ancient Monument designation, the predominant material will be natural stone, selected to complement that of the beacon.

Visitors will also benefit from interpretation panels and/or artwork to learn more about the content of the view, past and present and therefore appreciate the historical significance of the beacon. In terms of furniture, benches and bins will be introduced to the upper paving level.

6. Landmarks & Key Spaces

Hodbarrow Beacon (2)



Plan: Hodbarrow Beacon landscape detail

Floorscape detailing

Natural stone will be used to create a level surface on which pedestrians may explore the base of the beacon. Paving finish, bond and unit size will create visual interest and relate to features within the surrounding landscape.

Furniture

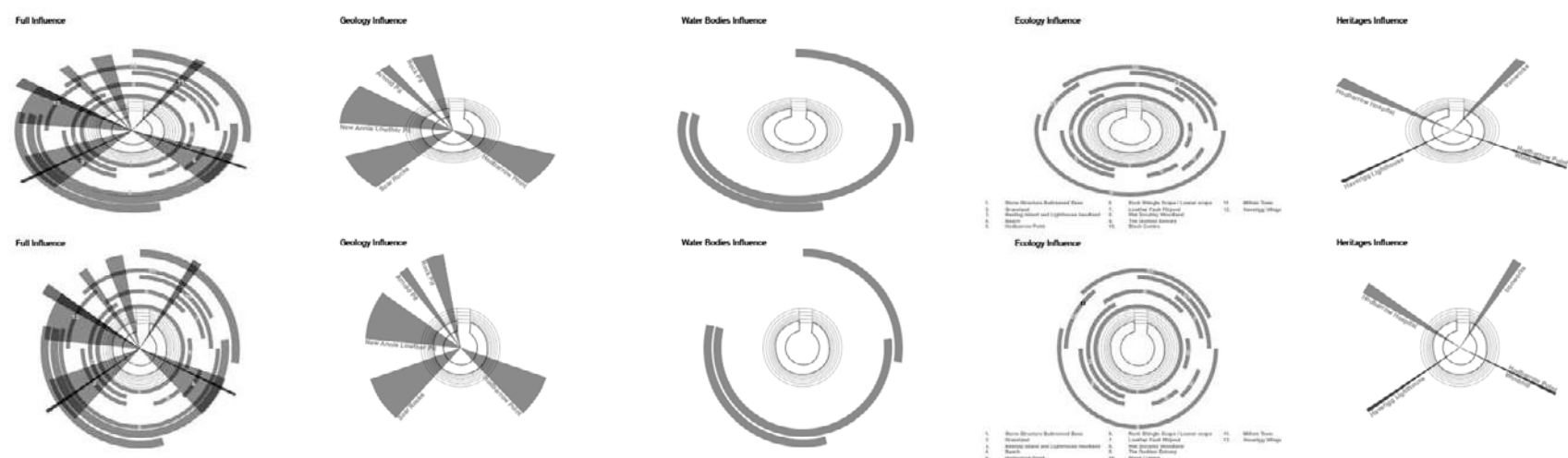
New seating will provide visitors the opportunity to stop, rest and enjoy the view from this elevated position.

Approach path

New path to following route of former track

Hodbarrow Beacon

Structure to be stabilised but remain inaccessible to the general public



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6. Landmarks & Key Spaces

Towsey Hole Windmill (3)



Location Plan



Towsey Hole Windmill (ruin)



Walney Windmill (ruin)

The ruined windmill stands on high ground above Hodbarrow Point a natural promontory, part of the original coastline before the seawall were constructed. The windmill dates from the C18th, pre-dating the mining and industry which followed, and is part of the agricultural past of the location as it would have been used to grind grain. There aren't any images available of the windmill intact, (presumably it was in disrepair from quite an early date in the C19th). There is photographic evidence of a similar windmill just down the coast at Walney which shows a timber onion-domed housing at the top of the masonry tower, so it can be speculated that perhaps Towsey Hole Windmill also looked like this. There are reports of it being used as an explosives store during early period of iron ore mining on the site in the C19th - today it is currently an empty shell of a space and prone to misuse and antisocial behaviour.

In the overall Iron Line proposal, the headland and former windmill are a key node and focus across the expansive site and the scheme aims to enhance this location with additional elements and improved and managed access routes.

There are some key valuable habitats on the headland and surrounding dunes which are currently criss-crossed with numerous informal desire line paths. The path network will be rationalised, some routes removed and an enhanced accessible route created on the line of a current route to the north of the Windmill. As this route arrives on the headland it splits like a junction in a rail track and each 'siding' terminates in a promontory; one looking out to the Duddon Estuary and Irish Sea beyond and another looking back to the lagoon and outer sea wall. These provide a place to sit and enjoy the view, interpretation and also integrated art which could be developed in the detailing of each piece.



Walney Windmill (sail hub & cowl intact)



Hodbarrow Point with windmill ruin today



Towsey Hole Windmill ruin today

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6. Landmarks & Key Spaces

Towsey Hole Windmill (3)

Aperture to receive image partnered by mirror to turn image upside down

Lens to correct and magnify image

Accoya-clad enclosure

New framed structure expressed internally.
Repaired stone exposed within

Repaired & stabilised windmill walls

Entrance

Projection table

Plinth

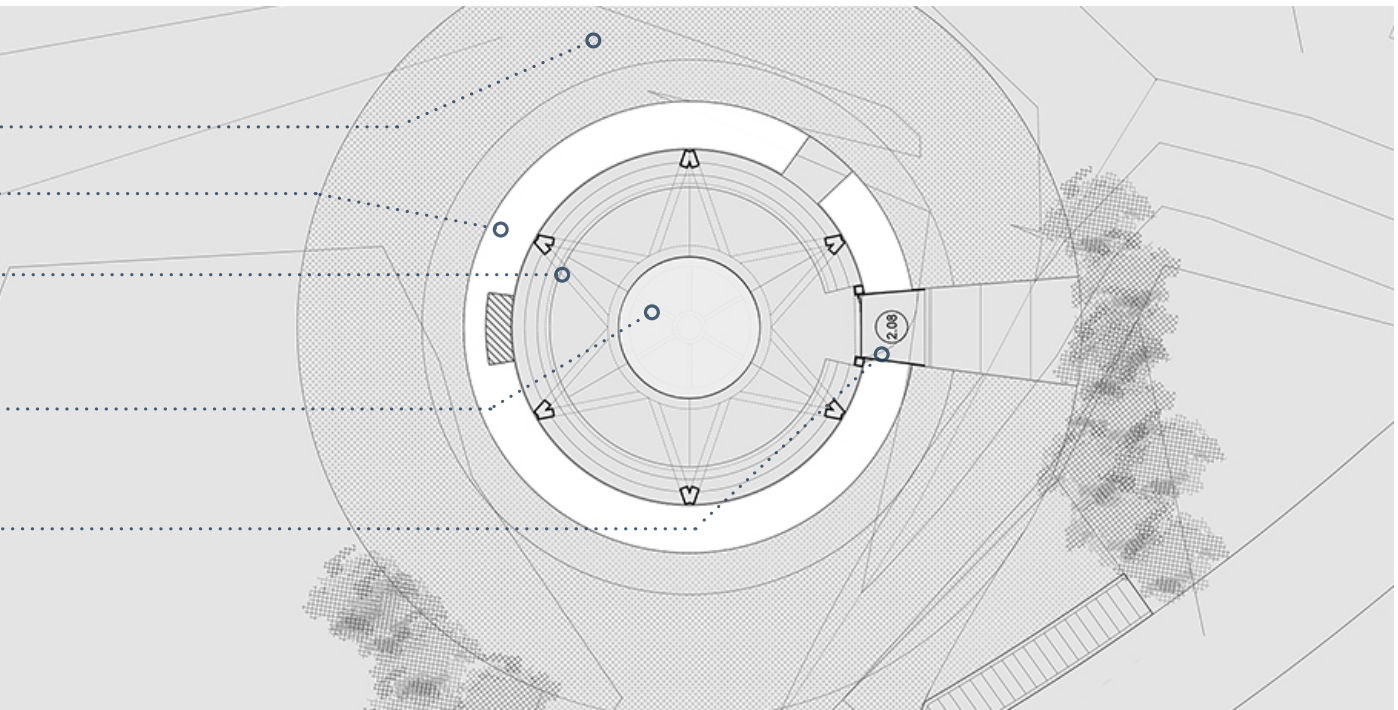
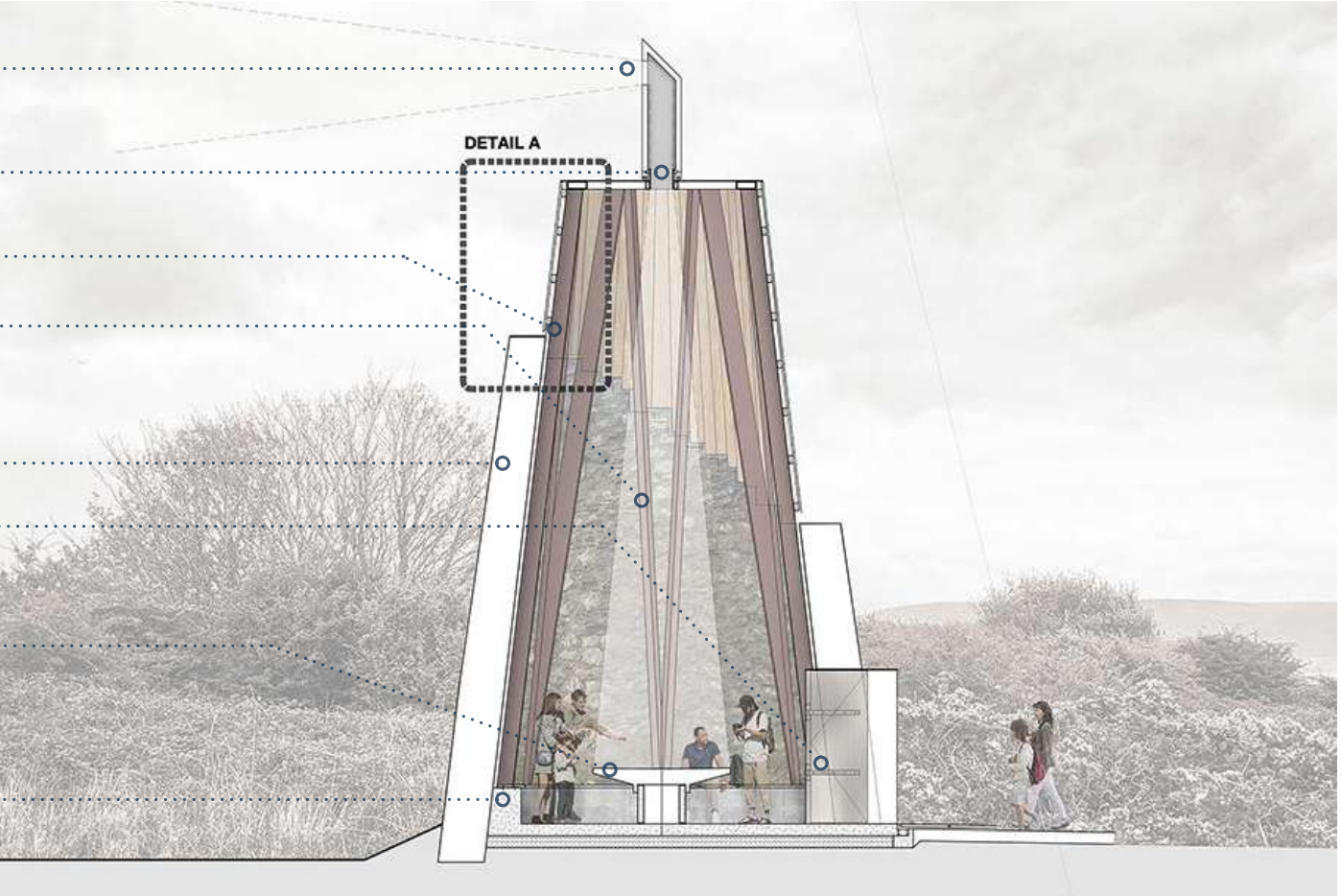
Level walkway around the perimeter

Repaired and stabilised windmill walls

New framed structure expressed internally.
Repaired stone exposed within

Projection table

Entrance



Cross section and plan of camera obscura

The remains of the windmill are repaired, the wall tops consolidated and weathered with a slate capping. Defected masonry over the door is removed and a remedial detail introduced to reinforce the original stone lintel. Internally within the masonry walls, a new truncated cone structure is inserted, a simple form which compliments the existing form, adding back the lighter weight upper section, which the windmill would have originally had. With this new element added, this building will become a camera obscura, tying in with the thread of 'observing' and 'analogue augmentation' which runs through the Iron Line project.

The camera obscura, which means 'dark room' is a simple optic device which uses a mirror and a lens to project an image of the exterior onto a table surface internally. They have been used for centuries, by artists to transpose views onto canvas but also as spectacles within scenic landscapes and setting, often on the coast to be enjoyed by visitors. This is analogue, pre-digital technology, robust whilst still embodying a simple marvel and charm of seeing the projected image within. It is an inclusive means of gaining those heighten panoramic views and connects with those other aspects of viewing / birdwatching / framing the context which are thread through the Iron Line scheme.



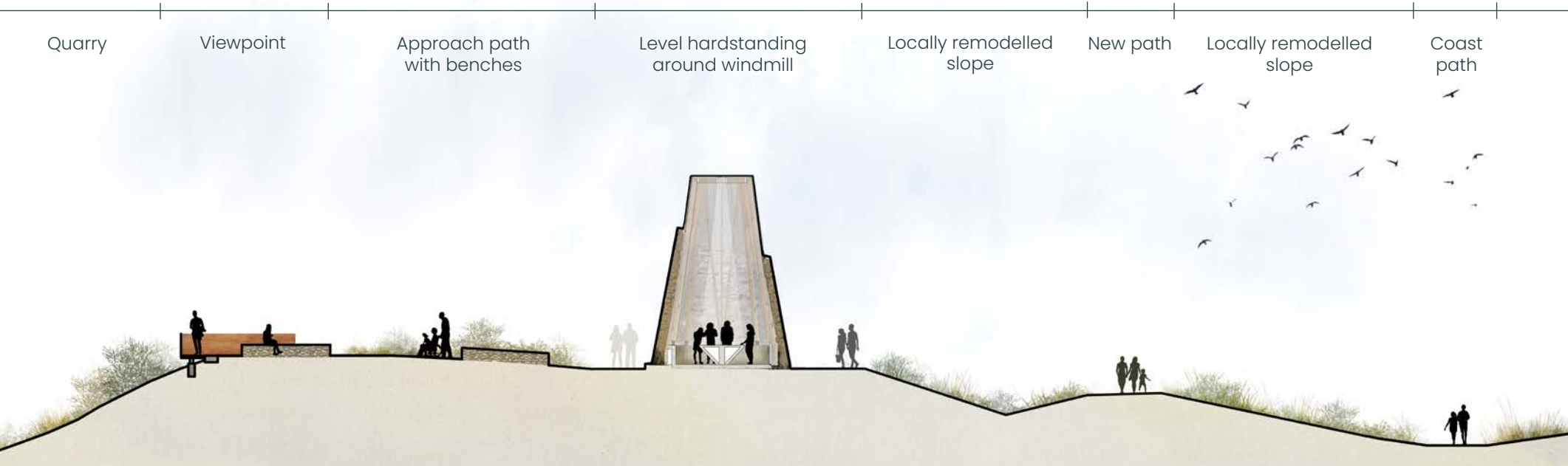
Edinburgh Camera Obscura

6. Landmarks & Key Spaces

Towsey Hole Windmill (3)



Plan of Towsey Hole Windmill in context



Cross section C-C: Towsey Hole Windmill

- Improved access**
Formalises an existing desire line and supports level access.
- 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 camera obscura.
- Viewing Promontories**
Designed to maximise the panoramic views over the lagoon and Duddon estuary. Trig point retained.

Design Intent

The windmill is in an elevated position which experiences stunning 360 degree views of Hodbarrow and beyond. Alongside the creation of a camera obscura, a new path is proposed to serve this feature and two new viewing promontories, 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. There is also the opportunity to explore the two viewpoints which are designed with different orientations and therefore alternative views.

The promontories are set back from the quarry edge and anticipated as opportunities to stop and admire the view, informed by artwork and/or interpretation about the content of the view. This could be inspired by physical features of the landscape, ecology of the estuary or storytelling that relates to the neighbouring quarry or windmill.



Plan: Towsey Hole Windmill landscape detail



6. Landmarks & Key Spaces

Towsey Hole Windmill (3)

6. Landmarks & Key Spaces

Tern Island Hide (4)



Location Plan



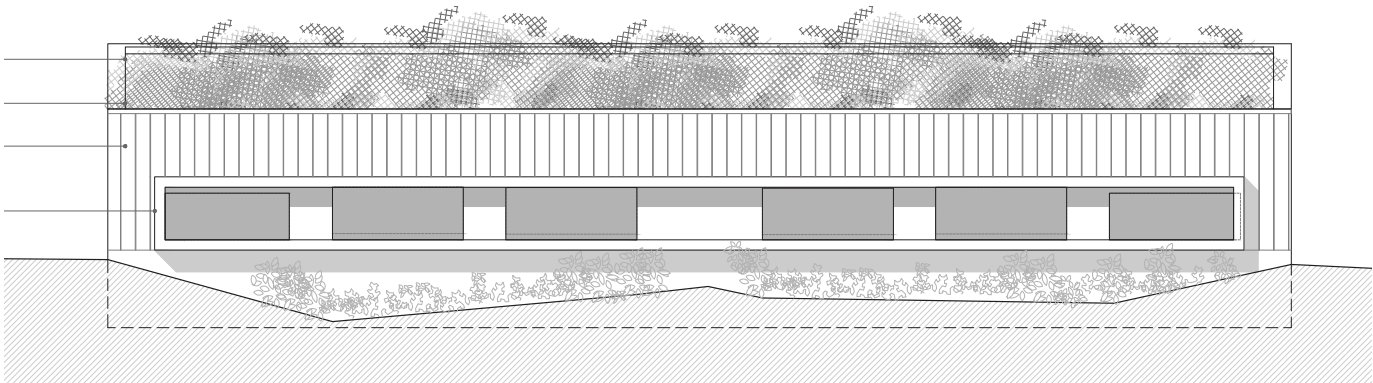
Hide in context



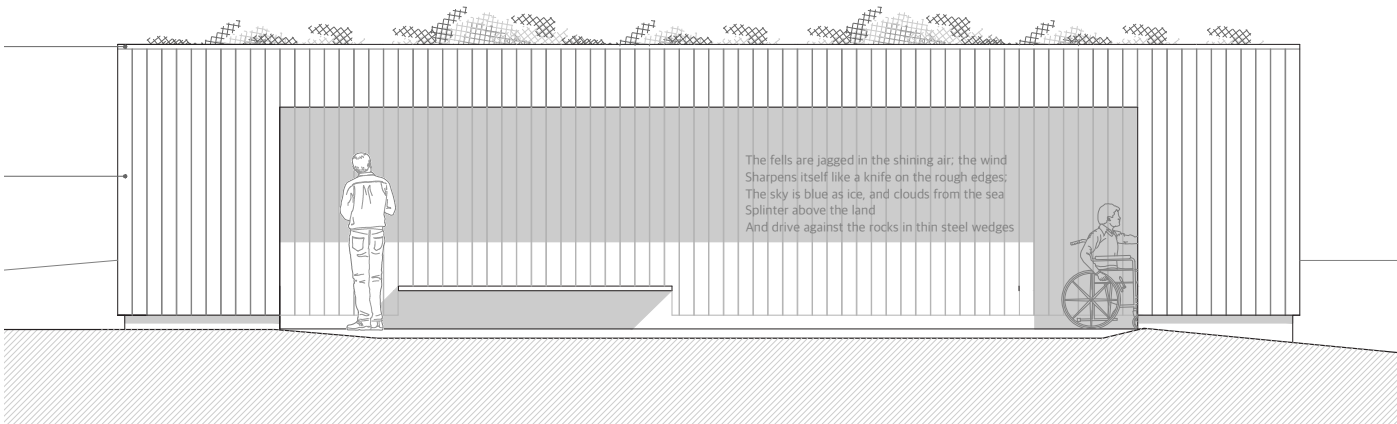
Existing hide



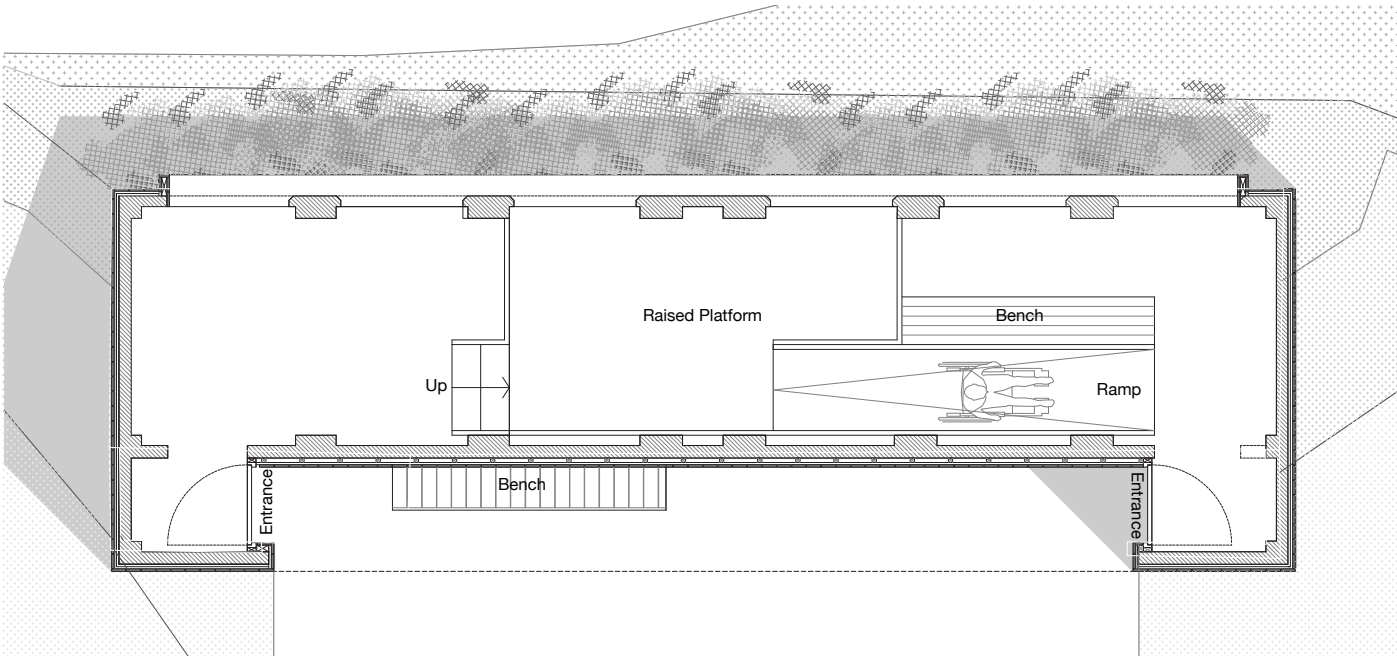
Reference image from Dungeness



Tern Island Hide North Elevation



Tern Island Hide South Elevation



Tern Island Hide Plan

6. Landmarks & Key Spaces

Tern Island Hide (4)

There is an existing RSPB hide on the outer seawall, it faces the island within the main lagoon which has been formed to provide a safe environment for terns to nest each spring/summer. The hide's focus is therefore on the 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 quite unsightly within the re-natured setting. It is proposed to externally clad the hide to improve both the appearance and watertightness. The wall cladding would be mainly black corrugated steel with an area of oxide red cladding within a recessed area near the entrances. A living roof would be introduced and self-seeding native species of flora would be encouraged.

Some small alterations internally to improve accessibility have also been proposed.

Access to/from the hide will be carefully managed with a simple path as the hide sits within an area of valuable habitat which has established within what seems like a tough, post-industrial expanse of slag and limestone.

The slag bund which currently flanks both sides of the hide will be shored up to create a more solid barrier between visitors and tern island.

6. Landmarks & Key Spaces

Haverigg Lighthouse (5)



Location Plan



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. Drawing inspiration from the lighthouse's occulting light and its radial pattern of movement, a new external space takes on a circular form and incorporates pre cast concrete forms that will serve as robust seating and something for children to play on. The inward looking rotation will draw the eye to the lighthouse, thus emphasising its importance as a long term asset to the site.

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.



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6. Landmarks & Key Spaces

Haverigg Lighthouse (5)



Path to Tern Island Hide

Aligned as per the existing path, flanked by vertical markers to guide pedestrian movement.

New fence line

To protect new and establishing habitats to the north. To include gates for RSPB maintenance access and pedestrian link to hide.

Industrial Remnants

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

Concrete Seating

Bespoke pre-cast units of differing sizes, arranged in radial pattern. May double up as play feature.

Circular Hardstanding

New paving around lighthouse to comprise in-situ concrete and stone to dust surfaces, separated with flush steel edging detail.

Footpath extension

Path extended to enable visitors to explore both sides of the existing wall. Interpretation/artwork will tell the storey of the engineering back story regarding sea wall construction and operation.

Plan of Haverigg Lighthouse proposal

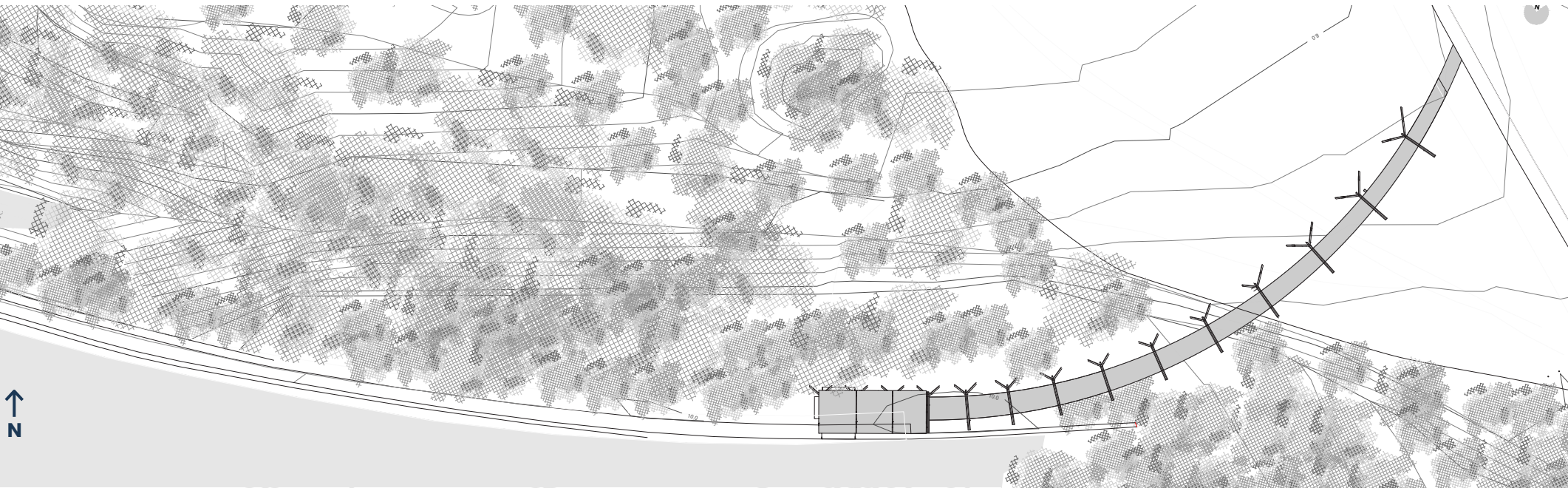
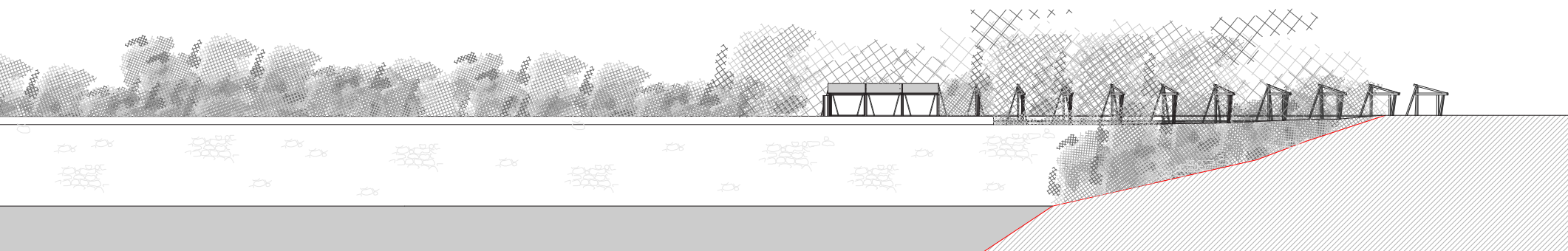
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6. Landmarks & Key Spaces

Annie Lowther Hide (6)



Location Plan



Cross section and plan of Annie Lowther Hide

As the inner sea wall meets land at it's Eastern end there is an informal viewing point where people can gain a view over the structure to the lagoon and wider landscape. This location is between the sites where 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 shelter with an approach path which is enhanced with a series of frames lining the route akin to a piece of land art. These bolster the scale of the piece within the landscape, particularly as it sits on the old seal wall which continues another 400 metres out into the lagoon. The frames also reference the raised railway trestles, ancillary frames and pulley props which accompanied the pits on the site and bring something very tangible back to the setting from the recent industrial past. Historic photos of the site depict the old sea wall being constructed and show similar frames sitting over the masonry and curving through the landscape in an equivalent manner.

The hide structure also blocks off the remaining wall to unwanted explorers and unsafe activity, this would be supplemented by an additional barrier as the sea wall becomes fully within the water on each side.



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6. Landmarks & Key Spaces

Annie Lowther Hide (6)

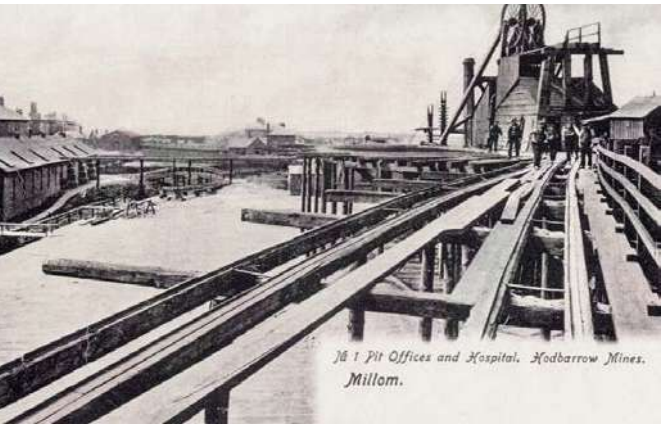


Visualisation of Annie Lowther Hide and land art route

The hide and approach are designed to reflect the industrial heritage of the site. The trestled frames which line the route are formed in accoya or equivalent thermally-treated timber which will be allowed to weather to a silver/grey tone over time.

The hide and simple canopy are formed in weathering steel (corten), which will develop a dark ferrous-oxide red tone within the first year of being installed and tie in with the iron mine heritage of the site as well as with the 'family' of elements being proposed to the site as part of the Iron Line Project. The provides a simple frame to look south across the lagoon. The west end of the hide is deliberately treated as a screen, a barrier to the wall beyond; it is an opportunity to layer the hide with interpretation and other readings of the landscape and setting. It may be a location where the words of Norman Nicholson could be incorporated.

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



Raised railways near William Pit



Inner sea wall construction



Mine shaft and pulleys – Barrett Pit



Precedent: "Witch Trials Memorial" by P. Zumthor

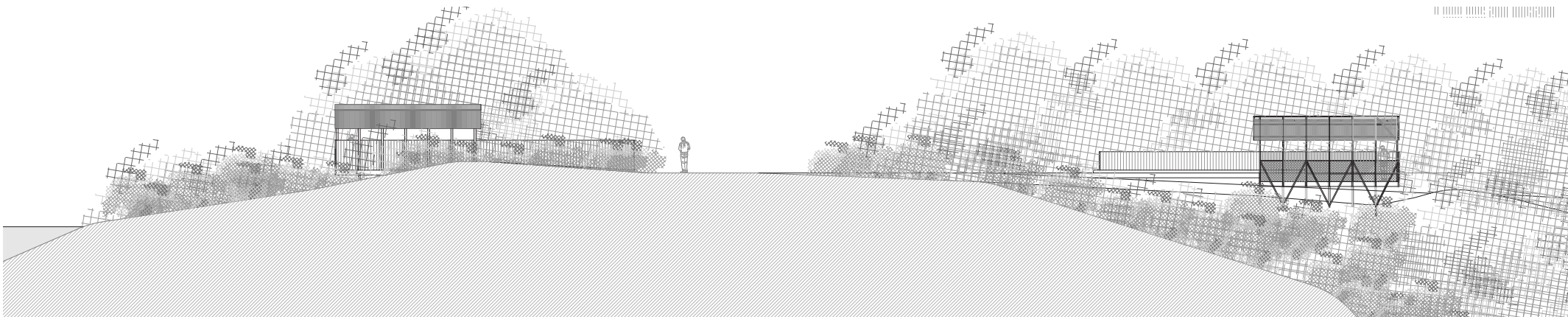
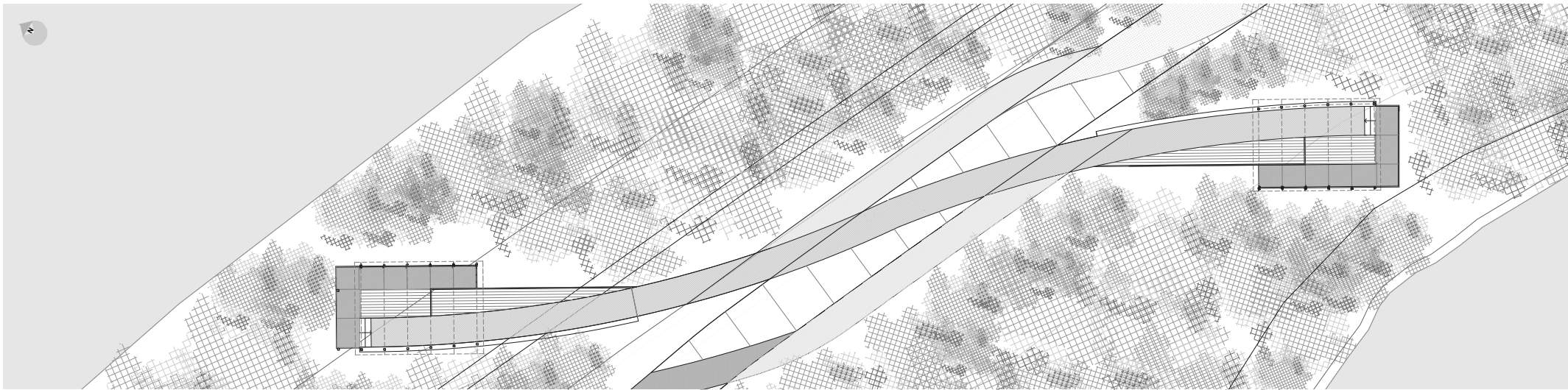
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6. Landmarks & Key Spaces

Quarry Hides (7)



Location Plan



Cross section and plan of Quarry Hides

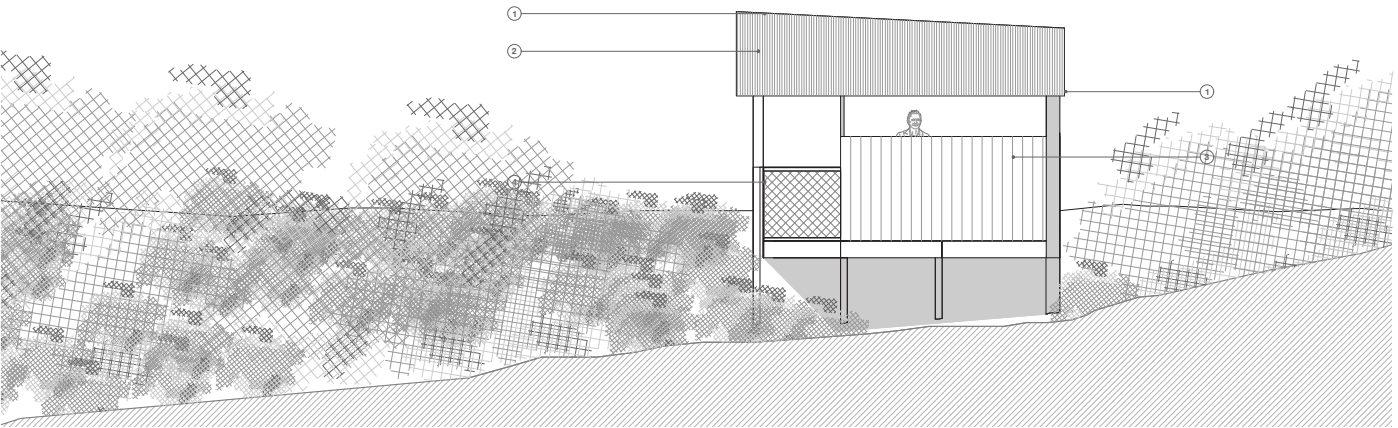
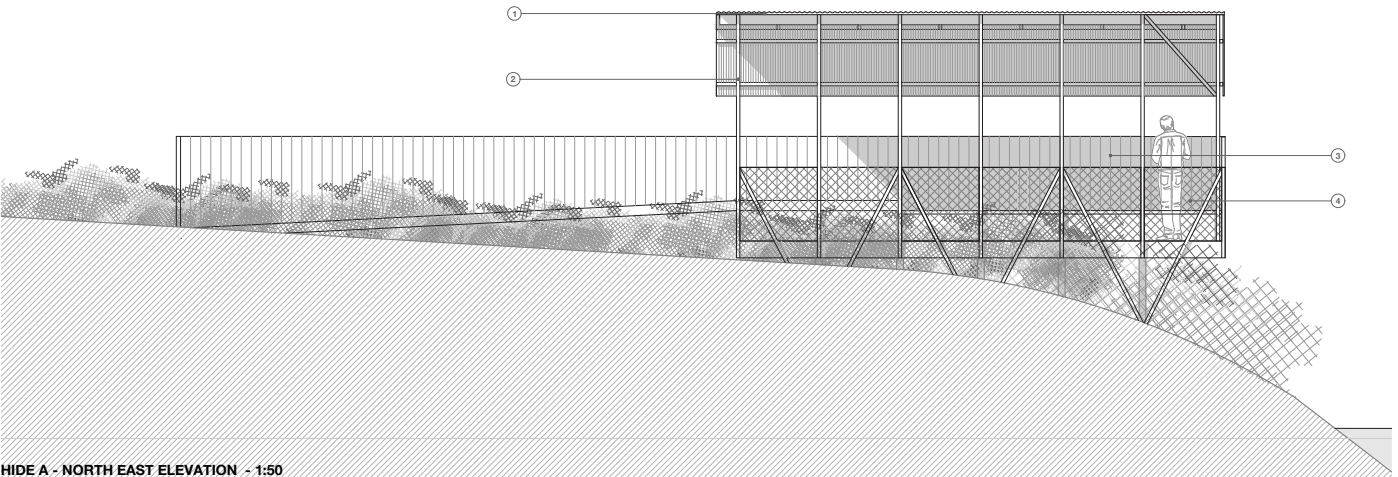
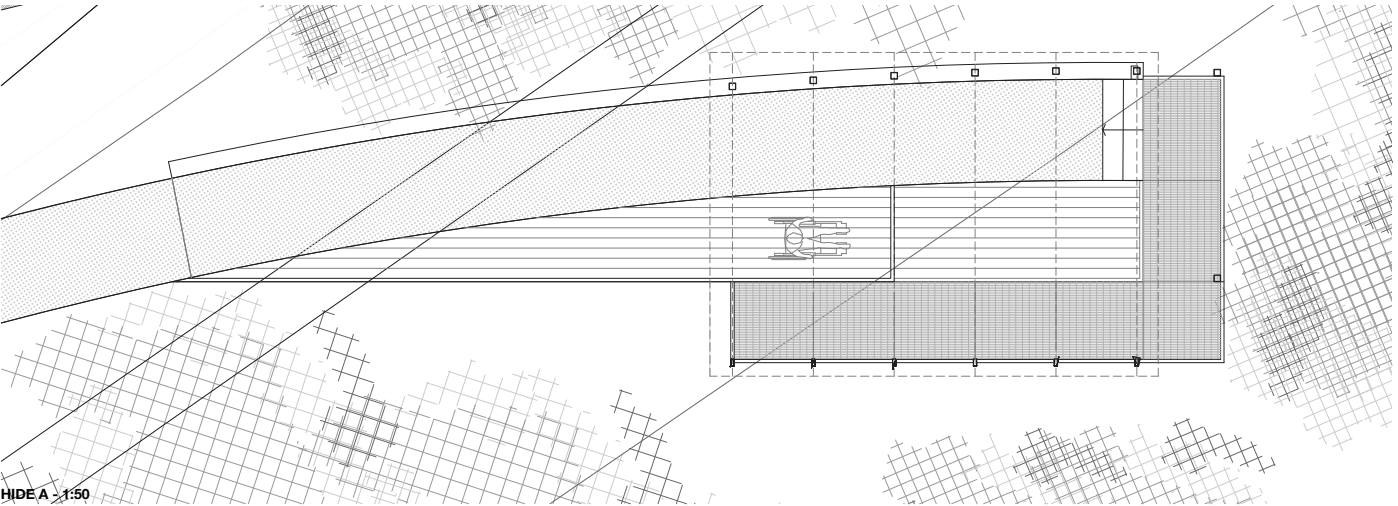
As the main Iron Line route passes through the scrub in the North east part of the site, there is an quite enclosed, tunnel-like section. What isn't apparent when walking through this section today, is that there are 2 quarry pools at each side of the route just a short distance through the scrub.

It is proposed to introduce a junction across the Iron Line, mid-way along this section which leads to two hides, one facing north east towards the Clay Pit Pool and one south west over the Quarry Pool. The junction will be expressed in the surface of the Iron Line through inset rails and changes of finish to indicate 'arrival' and from here 2 routes lead off obliquely through the scrub and out to the view. Both hides and routes are equivalent, except for some varying terrain and levels on each side.

One hide controls views and access to the Clay Pit Pool which is a popular habitat for various species of waterfowl to nest and breed. The other hide sets up a picturesque view over the Quarry Pool, a new aspect, previously hidden away, over the successfully re-natured post-industrial landscape.

6. Landmarks & Key Spaces

Quarry Hide (7)



Detail of Quarry Hides

Key

- 1 Sinusoidal-profiled weathering steel canopy
- 2 Sinusoidal-profiled weathering steel screen
- 3 Primary frame structure in weathering steel.
- 4 Balustrade screen in accoya timber or equivalent thermally-treated timber, allowed to weather naturally
- 5 Lower balustrade - frame in weathering steel with stainless steel netting infill

6. Landmarks & Key Spaces
Quarry Hide (7)



View over waterbody



View over quarry

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6. Landmarks & Key Spaces
Quarry Hide (7)



- New Hide**
Positioned to experience views of the northern waterbody.
- Passing place**
Enabling two cars to pass whilst using the byway.

Floor detail
Threshold to hides demarcated on surface of Iron Line to identify feature to visitors.

- New Hide**
Positioned to experience views of the southern waterbody.

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6. Landmarks & Key Spaces
Lagoon View (8)



Location Plan



Cross section D-D: Waterside structure



Precedent: Waterside structure



Cross section E-E: Lagoon View



Precedent: Gateway



Plan: Lagoon

6. Landmarks & Key Spaces
Lagoon View (8)

This landmark identifies an important path node where the Iron Line and main path to the welcome building connect. It also offers visitors an opportunity to overlook the lagoon edge via a boardwalk to a waterside platform. The design is inspired by the railway infrastructure which once served Hodbarrow Mine.

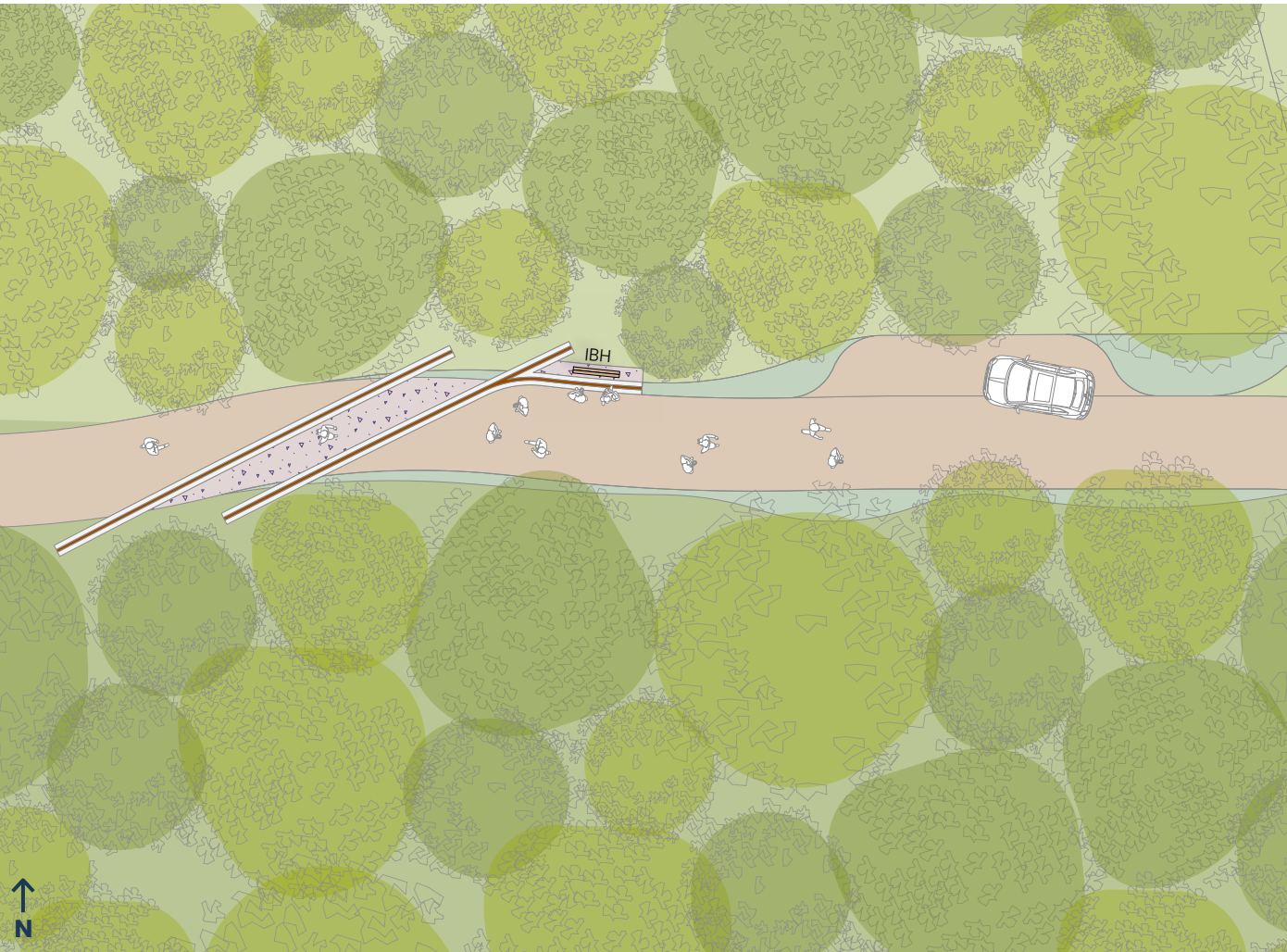
- Path to welcome building**
1.5m wide with stone to dust finish
- Gateway**
Marking interface between welcome building and byway
- Furniture**
Benches, bins and signage
- Floorscape detailing**
In situ concrete feature with steel edge inlay to highlight landmark and act as traffic calming for vehicles on BOAT.
- Boardwalk**
Metal grating with timber edge upstand
- Waterside viewpoint**
Low impact, timer structure

6. Landmarks & Key Spaces

Thresholds (9)



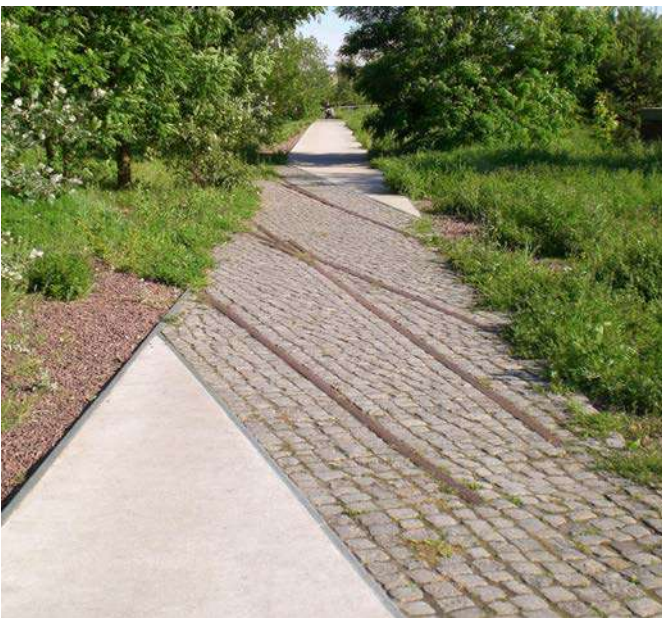
Location Plan



Plan of threshold detail



Precedents: Referencing the former railway



Precedents: Referencing the former railway

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 and vary the surface treatment in a way that can double as traffic calming. Traffic volume and speed is expected to be minimal however the integration of pedestrian scale detailing will reinforce the byway as a people friendly environment. ie this is a place for people and not a vehicular thoroughfare.

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.

6. Landmarks & Key Spaces

Whiterock Junction (10)



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:

- Consolidating the public space by contracting the width of the byway and giving back land to ecological habitat.
- Channel vehicles along the byway and away from neighbouring habitats.

Bespoke backdrop
Contains pedestrians and offers opportunity for art

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

Floorscape detail
Continuation of railway language to guide

Path to windmill

Narrowed BOAT along sea wall

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

- 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.



Precedent: Creating vertical artwork



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

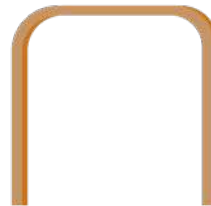
Furniture typology

Furniture



Litter Bin

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



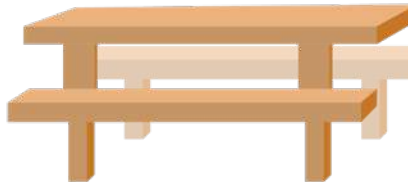
Cycle stands

- 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.



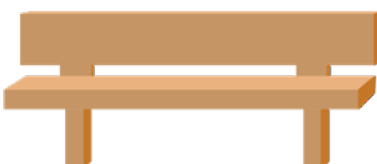
Bench Type 1

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



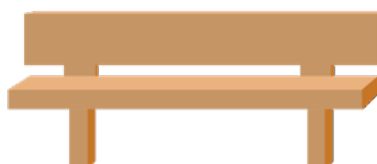
Bench Type 2

- 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 et out. Imagery is diagrammatic to illustrate the function and range of products required with the accompanying text highlighting some critical esign principles.w

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



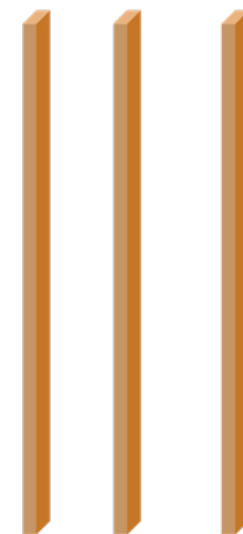
Handrails

- 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 welcome building out of hours
- Steel/Cor-ten
- Approximately 2m high



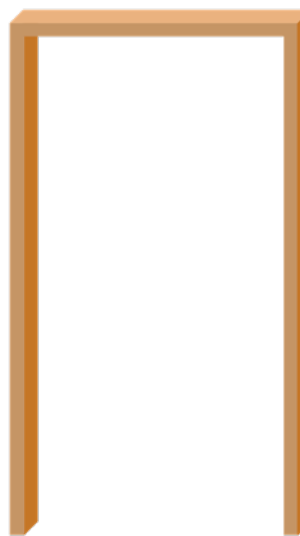
Fence

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

Pedestrian Gate

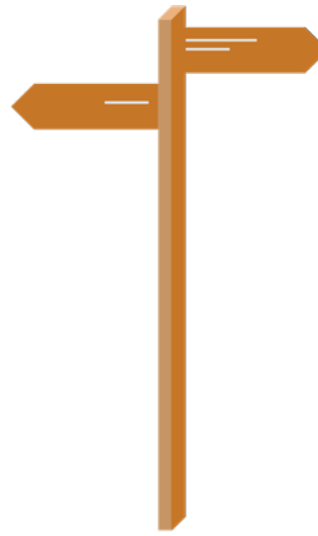
- Lockable.
- To prevent access to welcome building out of hours.
- Timber with bespoke Cor-ten element.
- Approximately 1.2m high

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

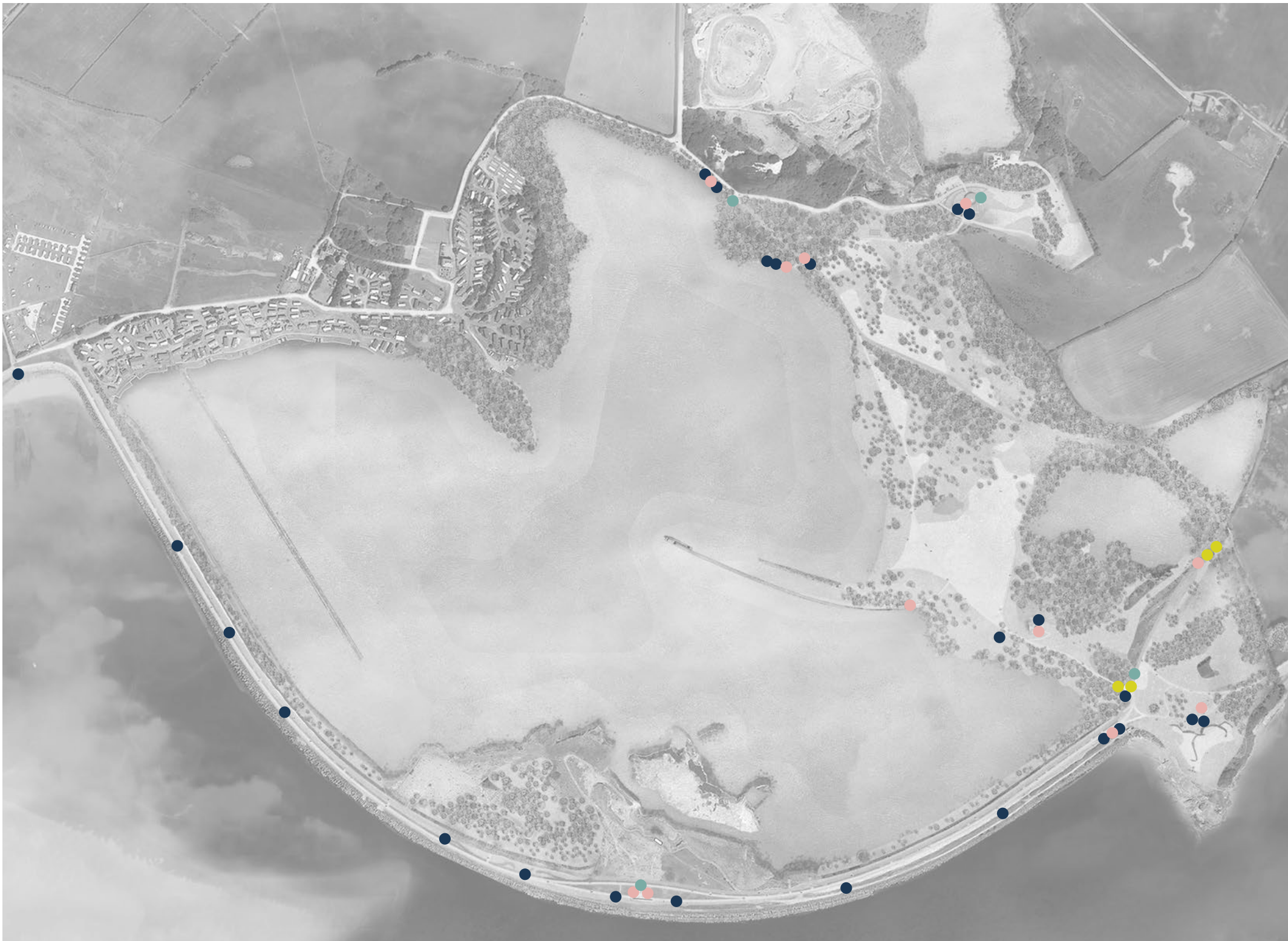


Interpretation Board

- To educate

7. Enriching the Landscape

Location Plan – Furniture



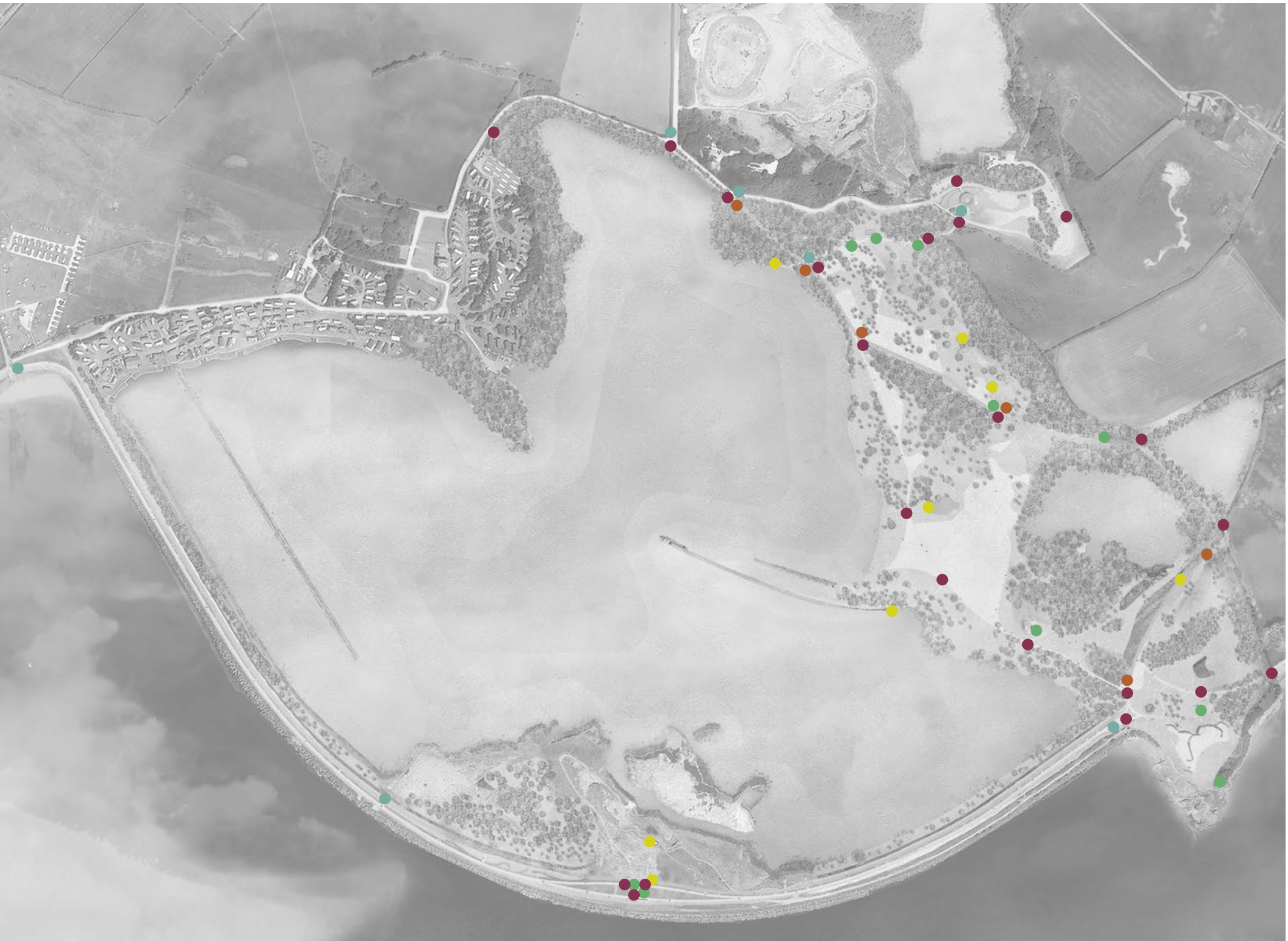
Location of new furniture

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 welcome building 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 welcome building 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.

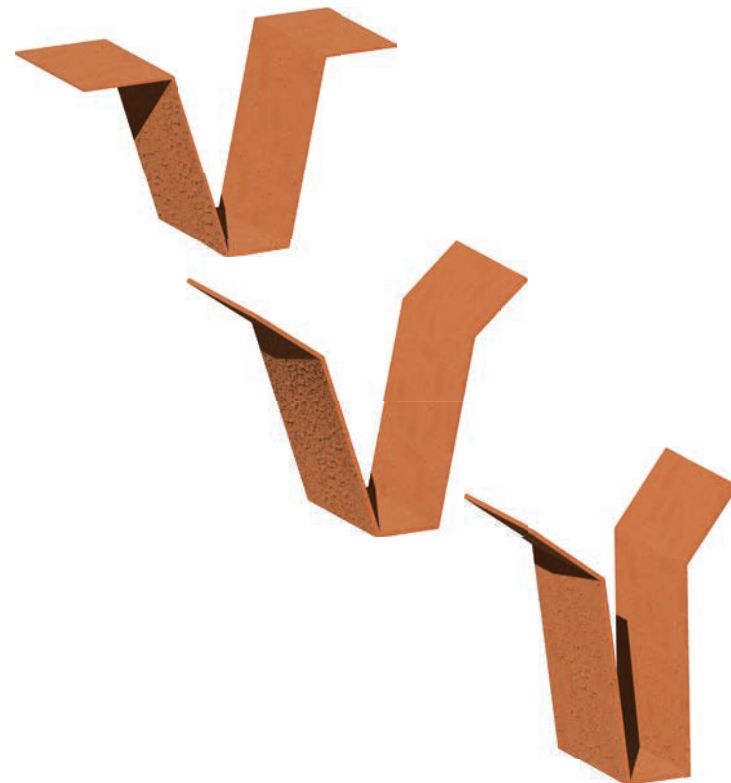
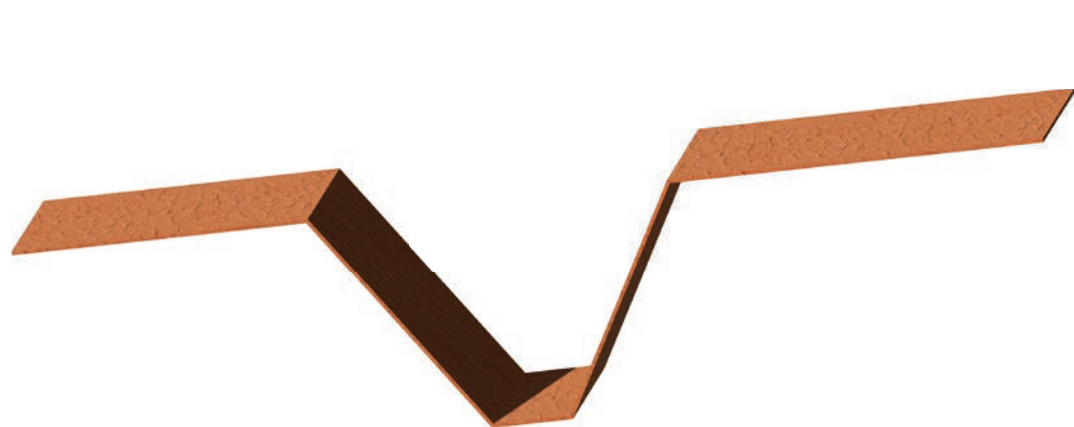
The photos on this page provide examples of where these materials have been used in other places.



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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.

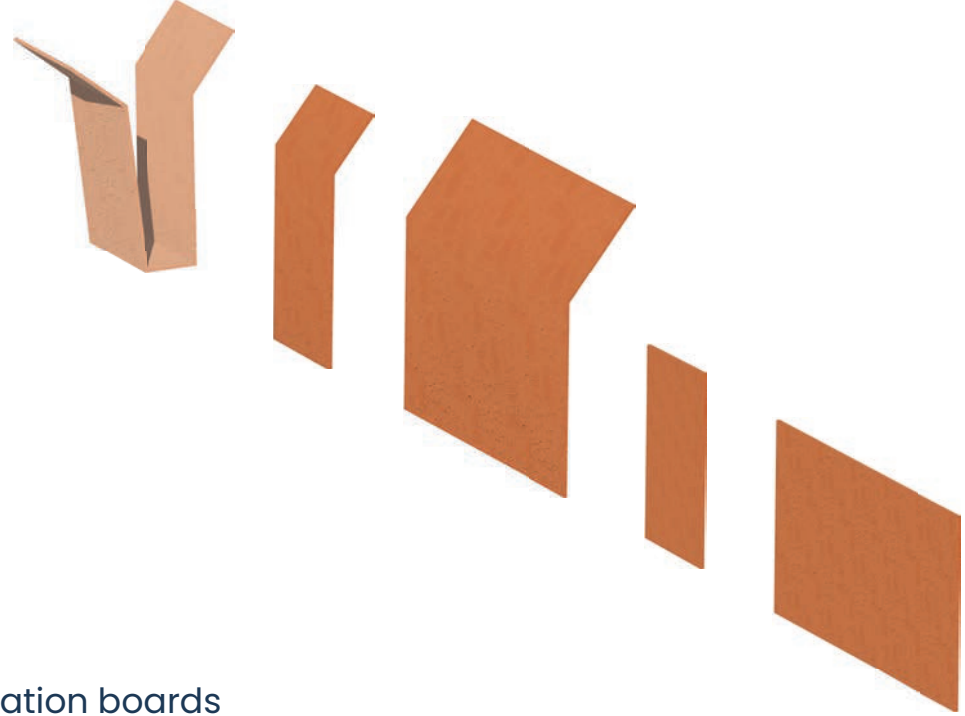
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7. Enriching the Landscape

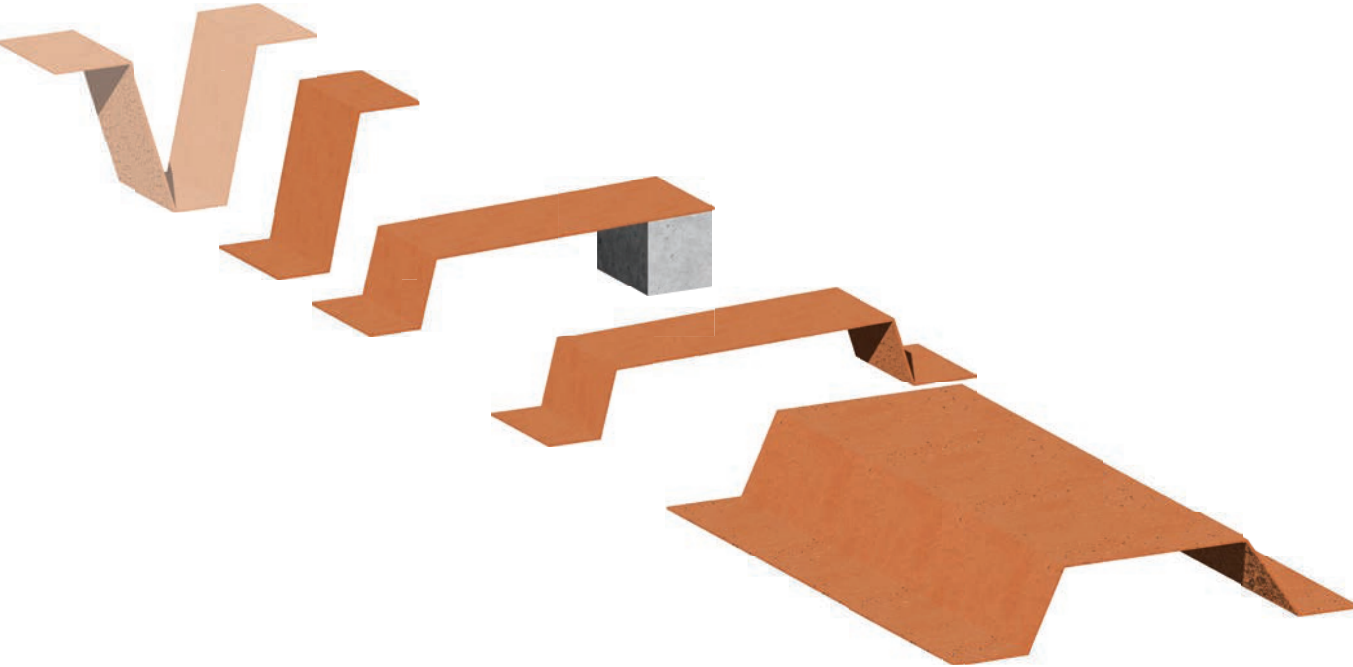
From inspiration to concept



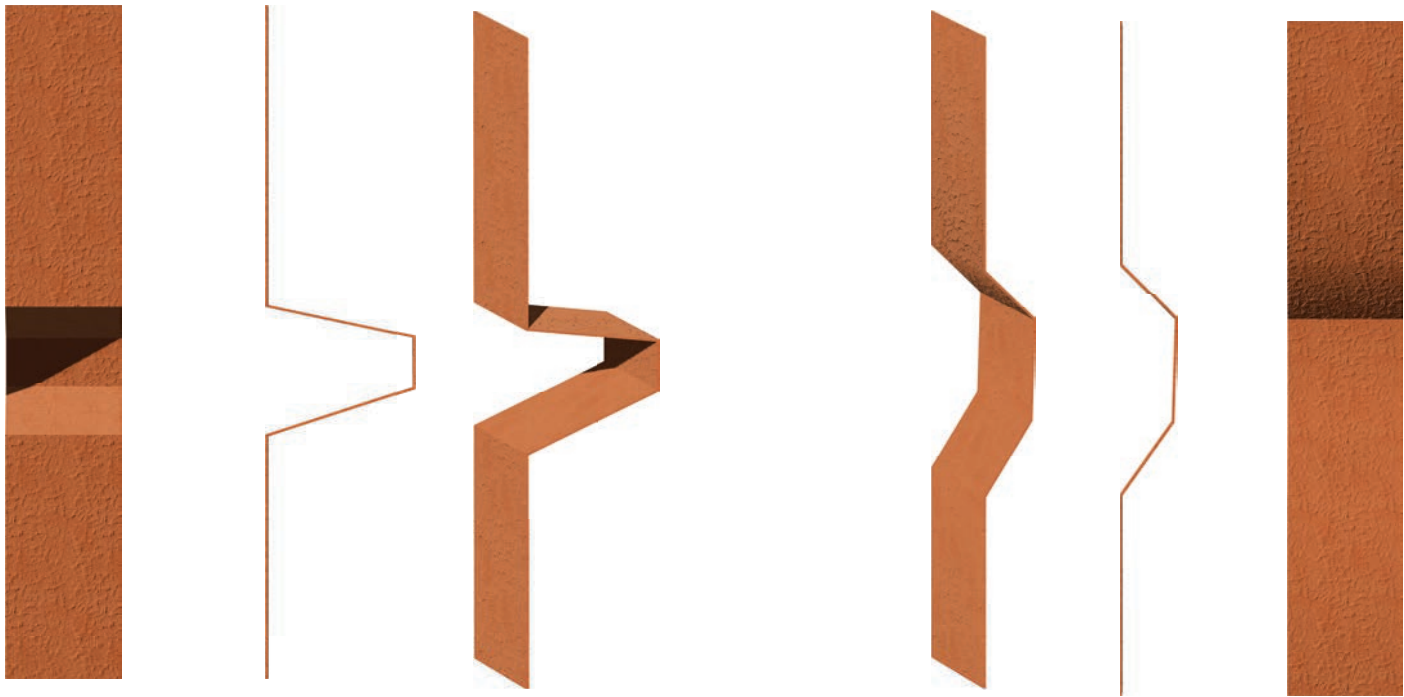
Simplifying the "wingback" form to create interpretation boards



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

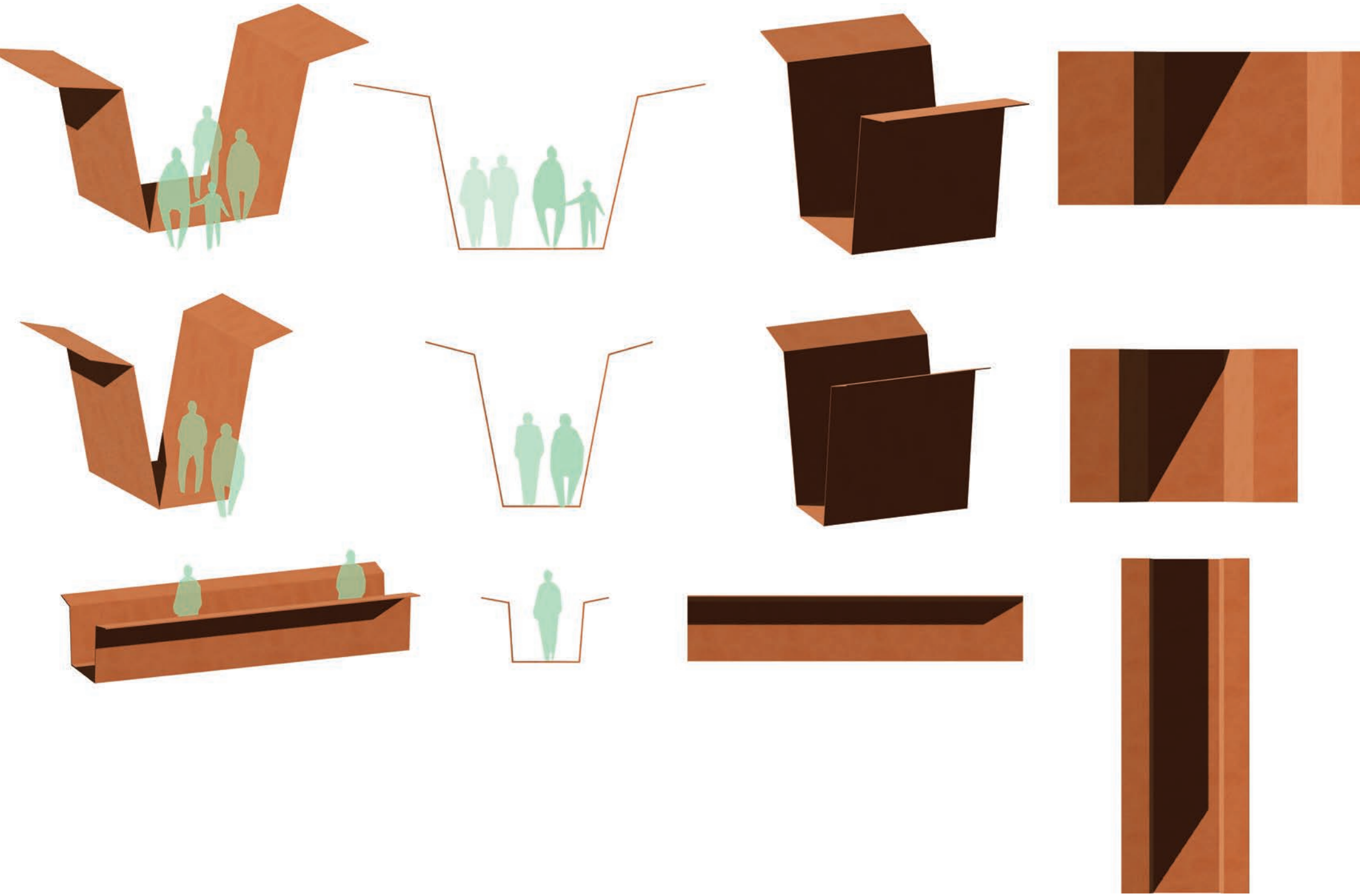


Adapting the "wingback" to a vertical position to form slimline signage

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7. Enriching the Landscape

From inspiration to concept

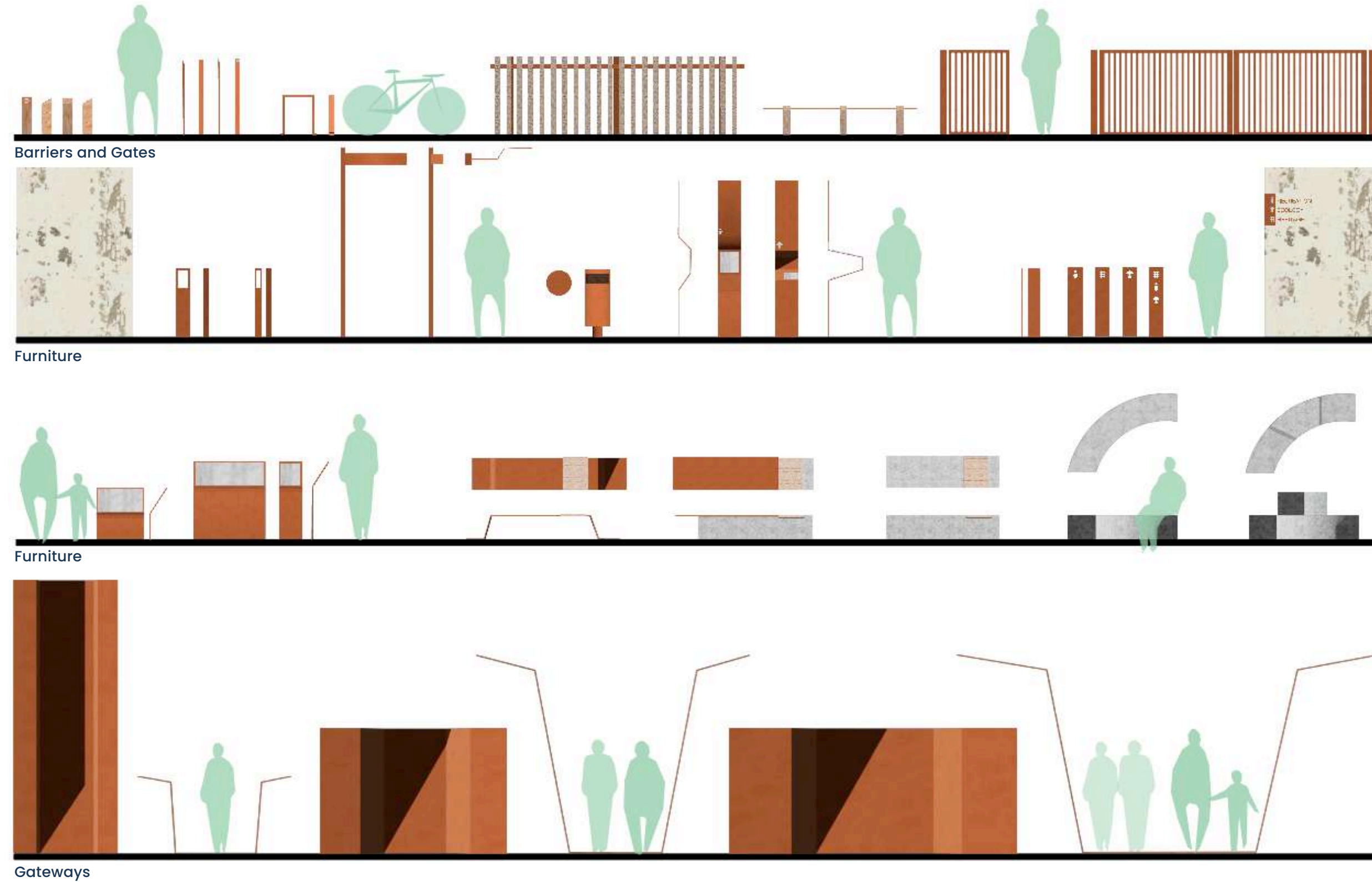


Manipulating the "wingback" form to create gateways and other structures

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7. Enriching the Landscape

The suite of objects



7. Enriching the Landscape

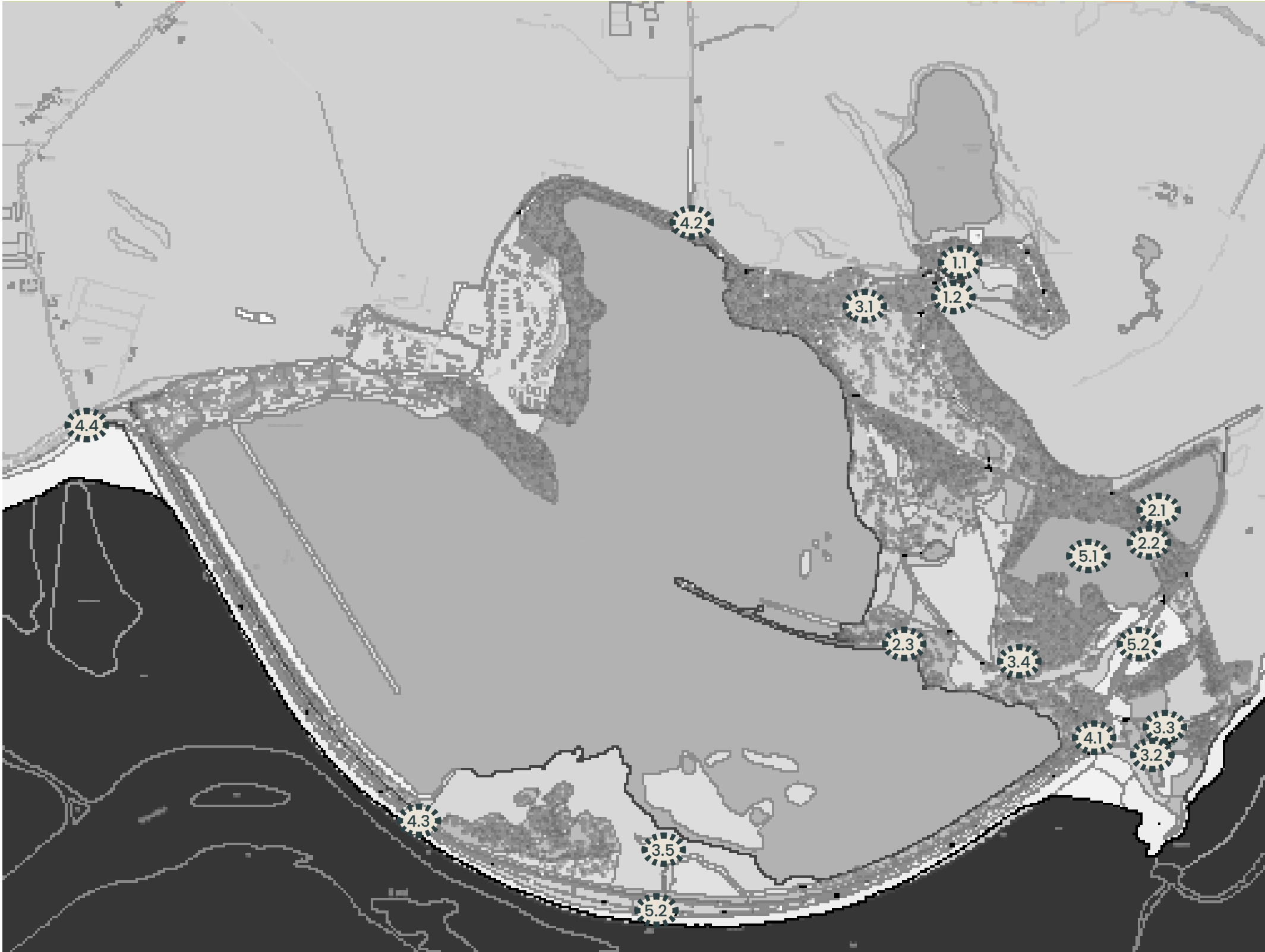
The suite of objects

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

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.

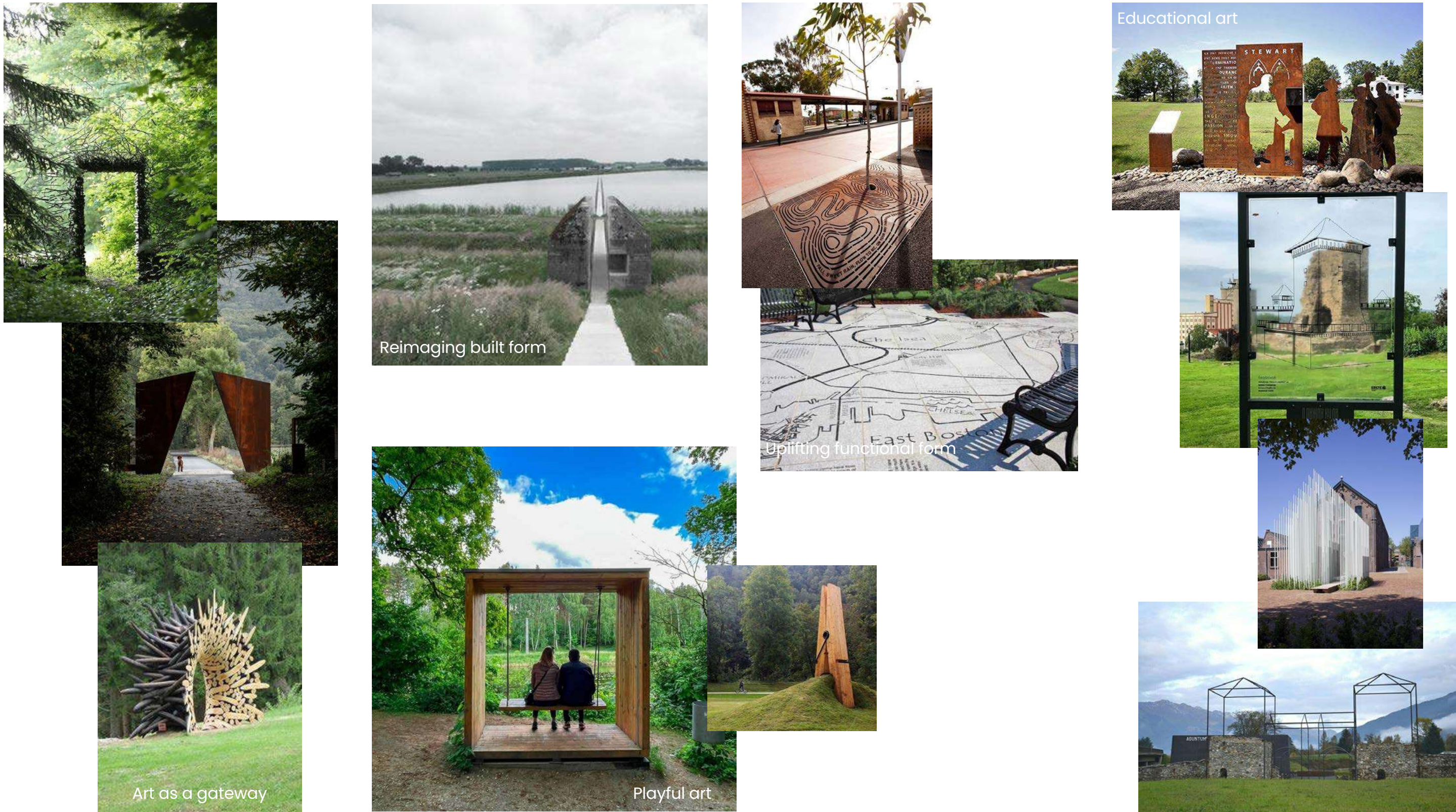
On subsequent pages are precedent images that further suggest how art can be used for creative inspiration, education and be multi functional to help solve practical challenges.

7. Enriching the Landscape

Art Strategy – Initial Ideas

Ref	Area	Intent/Rationale	Integrated into architecture and/or landscape	"Stand alone" art commission
1.0	Welcome Building			
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 welcome building. Could also be a place where the poems of Norman Nicholson are overlaid and incorporated into the building design.		
1.2	Welcome building link walkway	An opportunity to integrate 'art' into the walkway which crosses the grassland and links the welcome building 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

Generally

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 Welcome Building

The welcome building has been designed to be a sustainable, energy-efficient focus to the Iron Line project. The building fabric will be super-insulated to achieve high levels of thermal performance; the building sits partially into the ground with a new mounded area buffering the structure to the north. South-facing glazing has been conceived to not only frame view out across the wider site and setting but also to allow winter solar gain to help warm the interior spaces when heat demand is at its highest, whilst also preventing summer overheating issues.

The main heating will be provided by air source heat pumps; these are considered a sustainable system as they do not rely on fossil fuels, the system will be linked to underfloor heating running at low flow-rates to introduce appropriate, balanced temperature to the spaces where and when required.

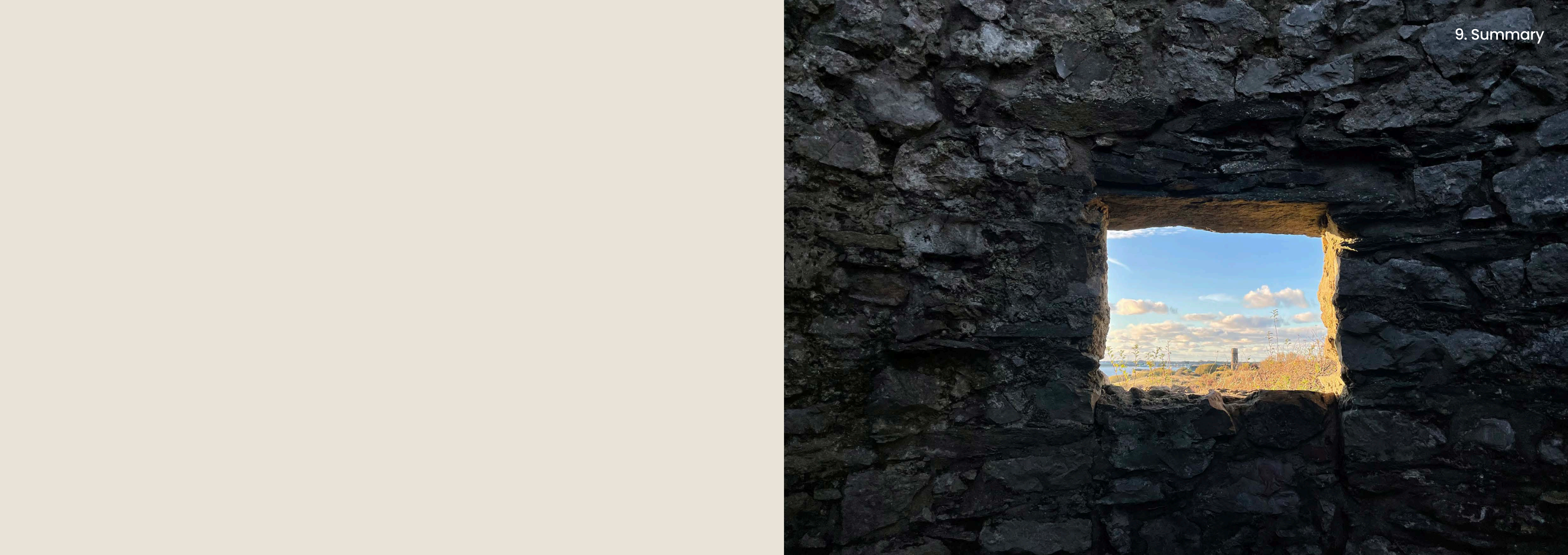
Other sustainable aspects of the welcome building and associated external areas are:

- Solar panels positioned on top of the rotunda.
- Electric vehicle charging points

within the car park

- Secure bicycle storage and charging point for e-bikes to encourage sustainable transport options to the Iron Line.
- Sustainable drainage for surface water including swales and attenuation.
- Low-energy lighting, and other fittings to minimise electrical usage.
- Minimised reliance on mechanical extraction.
- An emphasis on semi-external spaces which provide some of the accommodation and activities in unheated, sheltered spaces – thereby reducing the scale of the heated internal areas.
- Minimal external lighting to avoid impact on habitats
- Green roofs to help the thermal performance, increased habitats and ‘slow the flow’ of rainwater from these areas.

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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 nationally significant visitor attraction at RSPB Hodbarrow, the Iron Line includes a new welcome building, 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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