NLHF Round 2 Submission Report - **Final Version March 24**

Riven Leven Accessibility + Mill Lade Heritage Trails

plincke.

landscape urbanism **design**

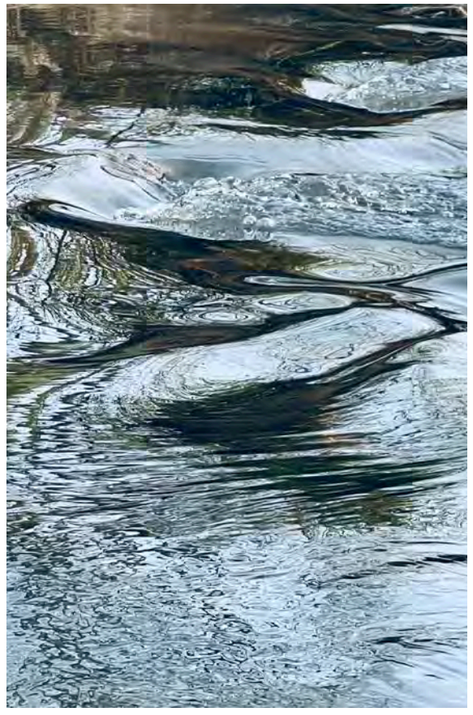
Made possible with Heritage Fund

Green Action Trust

Riven Leven Accessibility + Mill Lade Heritage Trails

This report was commissioned by Green Action Trust and part-funded by the National Lottery Heritage Fund.

Prepared by	Checked by	Version	Date
M.Hodgeman	C.Burden	Draft	30.11.23
M.Hodgeman	C.Burden	Final Draft	15.12.23
P.Agrawal	C. Burden	Final Issue	13.03.24



Executive Summary

Plincke were appointed in late March 2023 to design a series of boardwalks / decks to improve access to the River Leven. The proposals form part of a wider programme of works as part of the Leven Riverside Park project. This report is a summary of the work undertaken over the previous 12-months to develop the proposals from a Round 1 National Lottery Heritage Fund (NLHF) approval to a Round 2 submission.

The River Leven represents a significant heritage asset from both a built and natural perspective. The accessibility and Mill Lade trails will help bring these assets to life, creating a wider range of access opportunities for a wider group of people. Siting alongside the Levenmouth Connectivity Project, a hierarchy of primary, secondary, and experiential routes has been planned. This project focuses upon the experiential routes. These provide an alternative experience to the main footpath / cycleway connections and will enable visitors to engage with the sense of place and identity alongside the natural qualities of the riverside landscape. The routes have been designed to widen access for all users, including disabled people to a greater range of experiences, including contact with nature. Physical barriers, including uneven and muddy ground, currently combine with a lack of clear wayfinding that increases exclusion. These barriers are also combined with concerns over safety and anti-social behaviour. By removing these barriers, the heritage assets become not only more physically accessible but also accessible as a safer, greener, and cleaner community asset.

This report is presented in eight sections, covering the project brief through to its detailed costings. It sets out how integration with the other projects has informed the design as part of a suite of companion proposals and how the outcomes stem from the stakeholder engagement process. Following the Round 2 development stage, the accessibility and Mill Lade trails project is on budget and represents a low risk for lottery funding.

The technical team has comprised Plincke as lead designer, supported by Greenwood Project Management as cost consultants. Technical advice has been provided by C2E Design (structures) and Kiloh (geotechnical).

Images opposite and previous page:

Plincke have been working to support young people from acutely disadvantaged backgrounds who might be considering higher education or a career in the creative industries. Oleksii is studying Higher Photography and has a particular interest in the natural environment. He is a refugee from Ukraine and joined Plincke on a visit to the River Leven to create a set of photographs that record the area of the future Riverside Park.

Contents

01. Project Brief

1.1 Introduction

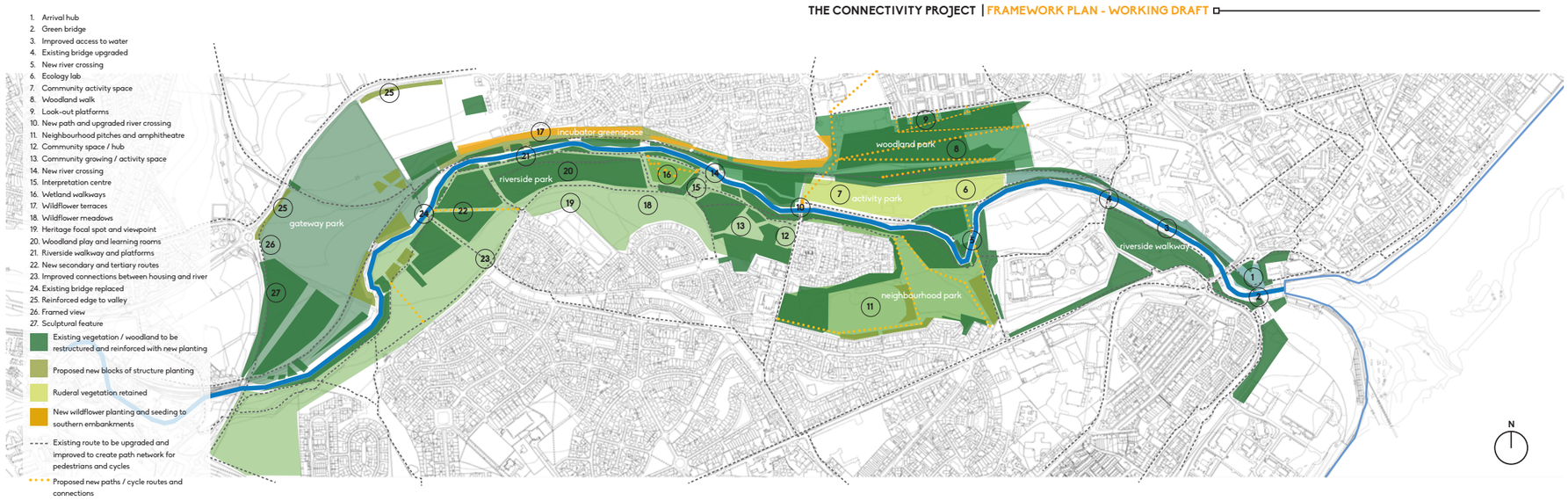
The accessibility and Mill Lade trails form part of the wider Leven Programme, an initiative that aims to use the River Leven and its catchment to address social, economic and environmental issues within the region of Mid-Fife.

The first stage of the scheme is the Levenmouth Connectivity Project. This covers a 5km stretch of the River Leven and adjacent communities and aims to 'create a network of paths and cycle routes to connect isolated communities to and along the river, deliver environmental river improvements and bring areas currently vacant and derelict into productive use.'

The draft masterplan envisaged a series of interconnected green spaces comprised of:

- gateway park
- riverside park
- incubator green space
- woodland park
- activity park
- neighbourhood park
- riverside walkway.

Above and below: extracts of the River Leven visioning and integrated masterplan report.



1.2 The River Park

The River Park seeks to define six individual ‘gardens’ along the riverside route. Burn Mill Garden is one of six that makes up the River Park and is the location of the River Leven accessibility and Mill Lade trails project. The brief was for the design of a suite of river edge platforms and boardwalks at the Burn Mill Garden to connect people back to the River Leven. The Mill Lade heritage trail focuses upon improving access between Kirkland Dam and the current side of Burn Mill Dam.

The extract of the visioning report, below, illustrates the design intent. The proposals envisaged enhanced recreational and educational opportunities realised through wetland walkways and dipping platforms, seating and resting places.

Existing

Proposed

1. Lavender Pond Nature Park, London
2. Montevrain, France
3. Vicar Water Country Park
4. Saltholme Reserve, Cleveland
5. Saltholme Reserve, Cleveland

Riverside Park

Existing
The existing landscape largely consists of a public green space that appears to be used primarily at the margins: this could be a result of the north facing slopes or due to a lack of interest throughout the central areas.

The northern edge of the park is bounded by the Leven, whilst the southern edge is defined by the housing of Methilhill. The western end is truncated by the A915. The eastern end filters further down the river to the new housing on the former steel works at Steelworks Brae.

The landscape of the park area has three layers. The southern layer is open grassland edged by formal trees. This is enclosed to the north by a band of woodland trees and scrub, beyond which there is a thin riparian strip along the river margin.

Proposed
Whilst the essence of these landscape types are not fundamentally proposed to change, there is an opportunity to re-programme and activate these spaces.

Across the park the existing footpaths need to be upgraded for multi-modal use, walkers, cyclists and those who are more active. This can only be realised by upgrading the existing routes and overlaying a variety of path treatments with a structured maintenance schedule for different activity areas. Specific works should include upgrading the riverside walk, making connections between the housing and river edge, and less formal paths through the woodland areas and through wildflower meadows (to be installed). Programmes could also include for both active and passive measures from BMX to a stepped amphitheatre.

There are several historical traces and ruins visible within the area. These should be celebrated and realised through viewpoints, interpretative panels and trails, which lead to an interpretation centre located by the Methilhill Dam. Here the stories of the river can be told, along with educational opportunities realised through wetland walkways and dipping platforms, improved riverside access, seating and resting platforms. Across all landscape areas improved planting and management programmes are required to reinforce existing landscape types and habitats, from woodland and meadows to riparian margins.

1.3 The Nature Network

Alongside the Connectivity Project is the aspiration to significantly enhance the biodiversity value of the River Park and its six gardens with an overall Nature Network. The nature network would be achieved in part through a focus on management for biodiversity and also positive interventions, such as creating new wetland swales and woodland regeneration. The accessibility improvements have been developed within this framework of potential environmental projects. The Concept Nature Network Masterplan is shown below:

The River Leven Park contains significant areas of riparian habitat that are uncommon in Fife and are distinctive in character. These diagnostic habitats should thus form the focus of the nature networks plan for the park.
The aims of the nature networks masterplan are:

- To expand the extents of riparian swamp, wet woodland and marshy grassland habitats so that they are characteristic of the natural river floodplain.
- To improve the robustness of these wetland habitats through the integration of SUDS to increase their water supply.
- To form a network of connected habitats extending from riverbank to doorstep.
- The network will include native woodland, meadow grassland, scrub, hedgerow and tall herb vegetation, in addition to the riparian areas.
- The network will be enhanced with fruiting and playful planting including: orchards, fruiting hedges, fruiting scrub, fruit thickets, willow tunnels and mazes that together will help local people enjoy and gain sustenance from the park.

1.4 Accessibility Objectives

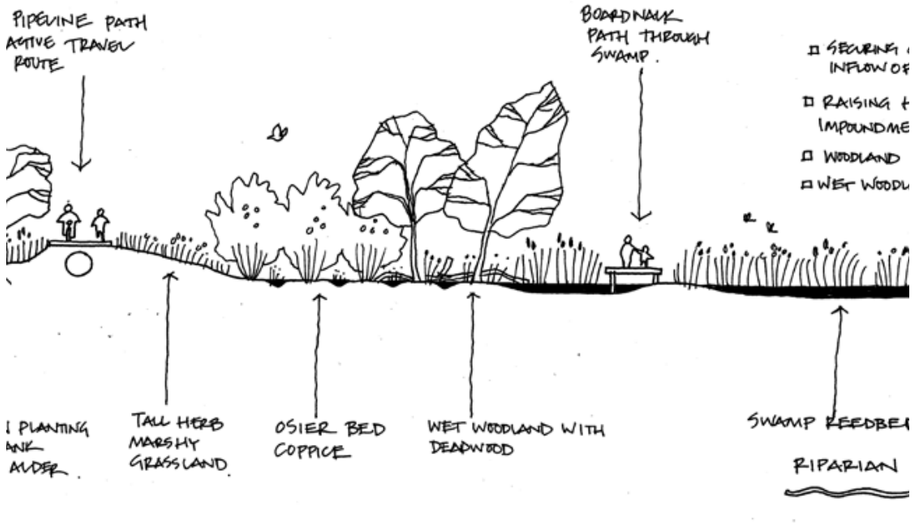
The River Park programme of improvements contains a range of outcomes, including:

- Increased numbers of people coming to the project area from near and far.
- Encourage use of space by the river and local neighbourhoods.
- Encourage a sense of local pride and ownership.
- Provide learning opportunities.
- Increased youth engagement.
- Increased activities and facilities.
- Increased standards of accessibility.
- Encourage increased levels of volunteering.
- Increased levels of community-based business opportunities.

Burn Mill Gardens is currently an area within which access to the Leven is limited due to flooding, swampy areas and anti-social behaviour. The programme of accessibility design seeks to support the development and use of the Burn Mill Gardens to meet the above outcomes. It sets out experiential routes to explore heritage features of the riverside and increase opportunities for people to connect to the area's sense of place and identity.

The specific objectives of the accessibility project are sixfold:

- Increase physical and intellectual access to the Burn Mill Garden area via a series of access improvements linked to a wider programme of interpretation;
- Promote improved health and well-being by encouraging contact with nature and the natural environment in a safe and welcoming green space setting;



The Nature Network: schematic sketch of boardwalks accessing nature.
(Sketch by Raeburn Farquhar Bowen.)

- Address issues of anti-social behaviour by increasing usage leading to improved natural surveillance and by tackling the area's perceived decline through improved maintenance and management;
- Foster community cohesion through shared community experiences, both casual and planned across age ranges;
- Support the promotion of the area's diverse heritage and natural qualities as a visitor attraction;
- Promote opportunities for outdoor learning and training, including community enterprise.

The delivery partner for this project is the Green Action Trust (GATrust), acting on behalf of The Leven Partnership. The project will seek funding via the National Lottery Heritage Funds, and others including Sustrans Places for Everyone funding.

02. Project Deliverables

2.1 Tender Brief

The tender brief dated January 2023 set out the range of outputs required for the project covering RIBA work stages 1 to 4. The specific outputs were described as follows:

Project requirements	**Outputs delivered**
Familiarisation with the Site. Service and site information will be made available wherever possible, along with the River Parks project plan and Leven Masterplan and other relevant documentation. The contractor will familiarise them self with the site by reviewing the material provided by the Client and by visiting the site and surrounding areas. A list of existing reports, surveys and information can be found in the appendix.	A total of four site visits were undertaken. Two following the initial appointment as part of the early site familiarisation process, one following appointment to review the Mill Lade Heritage Trail project and the final one following the initial cost planning exercise to prioritise the areas for improvements. A review of adjacent and overlapping project information has been undertaken and the concept design through to the masterplan has been coordinated with the suite of companion projects including the Connectivity Routes / River Park, Nature Network, River Restoration, and Community Hub.
Stakeholder and Partner Engagement. The contractor will undertake stakeholder and partner engagement, supported by the River Parks project team, to understand the links to other projects in the River Parks and status of ongoing feasibility studies and designs in the river restoration project.	The coordination with other projects within the wider Leven Programme has been achieved via attending three 'all consultant' days. Two at Leven and one at SEPA's headquarters in Glasgow. The three meetings took place broadly in line with 1) outline feasibility, 2) mid-stage review, 3) final stage 4 coordination. Numerous workshops and project coordination meetings have taken place outside of the all consultant meetings. Regular progress meetings have been attended between Plincke and the GAT.
Preparation, production and presentation of concept designs. Having reviewed all the information available, the contractor will produce concept designs for review by the River Parks project team and partners. The concept design in the Masterplan (Map 1 and Appendix) is the minimum required. If the contractor identifies other opportunities for view platforms etc during the engagement phase, these should also be presented in these designs. The Consultant will present the appraisals to Green Action Trust and the River Park partners at a meeting to discuss and agree final designs to progress into RIBA Plan of Work 2020 Stage 3 & 4.	A preliminary concept proposal was issued 27.04.23. Following discussion of the options and opportunities document, the concept design was circulated to key stakeholders on the 14.07.23. Following a wider public engagement event (Summer BBQ 13.08.23) and greater certainty over the cost plan, the proposals have been developed to RIBA Stage 4. This has also been informed by a an additional set of site specific geotechnical investigations. The final proposals were presented at the all consultants meeting on the 06.11.23. Separate planning and construction coordination workshops have also taken place.
Preparation and production of detailed design drawings. The consultant will prepare drawings for all physical work elements outlined in section 2.4.	The design package of drawings is enclosed as Appendix A.
Preparation of production information including detailed drawings, specifications, bills of quantity, estimated capital works costs and maintenance schedule for works, if required. The consultant will prepare all detailed drawings, specifications, a bill of quantities and all material necessary to complete a build phase.	Appendix B contains the draft NBS specification, Appendix C the outline maintenance requirements, and Appendix D the itemised cost schedules, including the estimated schedule of costs.

03. Design Proposals

3.1 Design Drivers

The development of the proposal was initiated following a number of early site visits. Alongside the site familiarisation stage, the project team proposed a range of design drivers. These were illustrated through precedent images and covered:

- increasing the level of access can be achieved in a safe way for all users, including meeting best practice guidelines on accessibility;
- ensuring that the investment in access improvements is robust and long lasting within an area prone to frequent flooding and the potential for vandalism and anti-social behaviour;
- maximising the opportunities for connecting with biodiversity and nature within an ecological enhanced natural setting;
- developing a sense of place and identity through the use of pattern and design within the external environment, including way finding and sensory qualities;
- enhance the intellectual understanding of place through interpretation, including well-designed play interventions.

Each of these consideration were explored in the early concept design report. The key priorities for moving the design forward was then agreed.

Precedent

Access & Safety



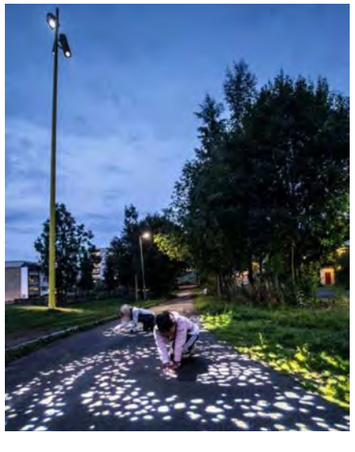






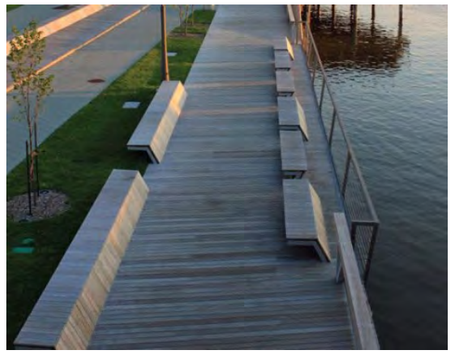







Precedent

Materials & Longevity

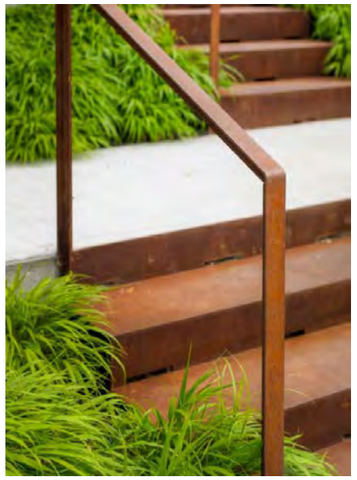









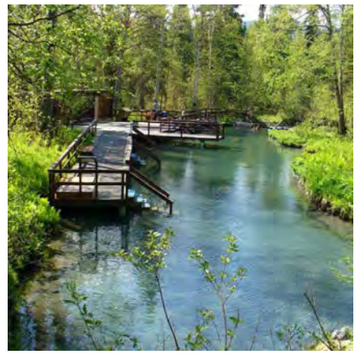


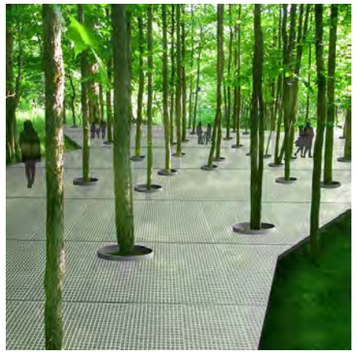


Precedent

Ecology & Natural Settings









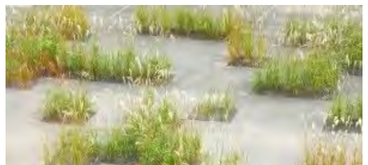


Precedent

Design & Pattern












3.2 Scheme Priorities

The review of the five design drivers identified a range of consideration that guided the detailed design. In particular:

Access & Safety	Materials & Longevity	Ecology & Natural Setting	Design & Pattern	Interpretation & Play
Long runs of boardwalks with no escape routes were to be avoided, access trails should have good connections to busier primary routes.	Natural timber was unlikely to be successful in waterlogged conditions and flood areas and would be prone to arson.	The boardwalks could substantially improve access to the wet woodland areas with minimal on-going environmental impacts.	There is an opportunity for the material quality of the access improvements to link with other projects to reinforce a 'brand' identity for the Burn Mill Garden;	The trails open up opportunities accessing little used or understood parts of the site, including the Methil Mill site.
Clear sight lines should be available at all times.	River edge platforms could cause a flood risk.	Opportunity to reuse materials from the Nature Network swales in raising path heights.	The design has focused upon the experiential nature trails sitting between the main connectivity paths to engage with a more natural setting that has influenced the choice of form and materials.	The layout of the boardwalks and Mill Lade Heritage trail will provide the base for a wider programme of interpretation.
Routes over deeper water / swamp area to be avoided.	Fixing of platforms / boardwalks would require screw piles to resist forces of flood flows.	Achieving a biodiversity net gain would be difficult from a stand-alone planning application.		The location of the trails need to support the play strategy, including natural and interpretative play.

RIVER LEVEN
ACCESSIBILITY DESIGN

This aim of this proposal is to facilitate connection with the Riven Leven. We want to increase **access** to, and **connectivity** with, the river in a way that takes into account the natural and cultural heritage of the area.

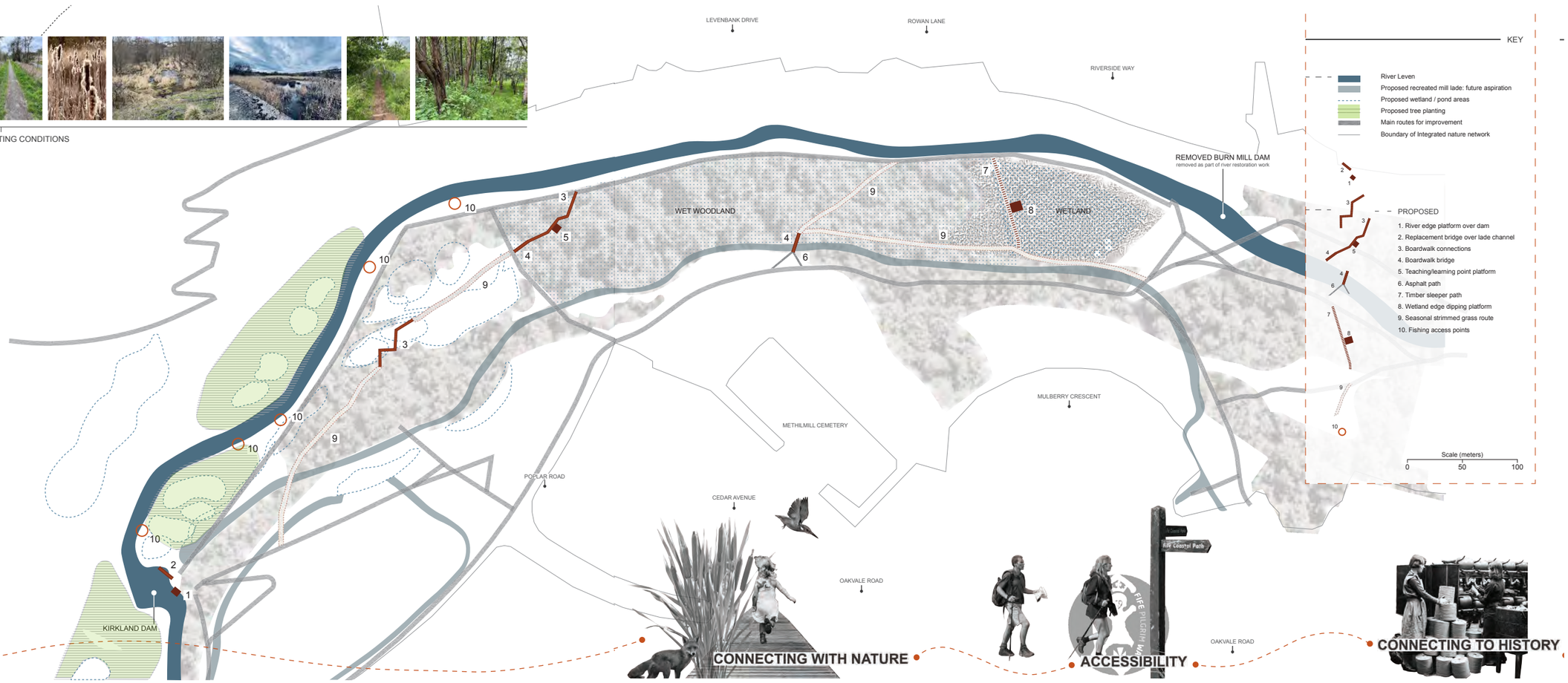
The informal routes currently used for access to and around the river are constrained by flooding, areas of swamp, and incidences of anti-social behaviour.

To overcome these issues, we are proposing the creation of an **experiential trail**. This trail will be composed of a series of raised boardwalks, platforms and seasonal mown grass paths.

KEY FEATURES

- Raised boardwalks will allow access across the site despite the wet conditions, while also limiting damage to wetland habitats.
- Platforms will facilitate interaction and connection with the river and surrounding wetland and act as zones for people to gather and socialise.
- A platform within the wet woodland will function as a site for teaching, creating the opportunity for children to learn about and connect with their surrounding natural environment.
- Cleared areas along the river will facilitate fishing, another form of connection with the Leven

EXISTING CONDITIONS



LEARNING

CONNECTING WITH NATURE

ACCESSIBILITY

CONNECTING TO HISTORY

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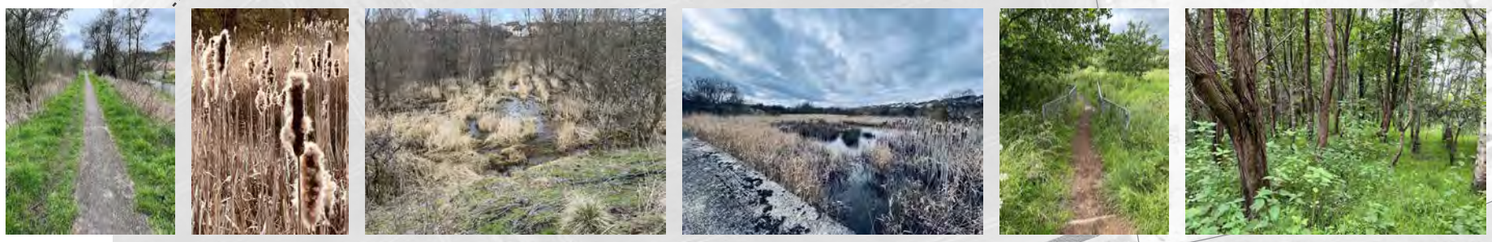
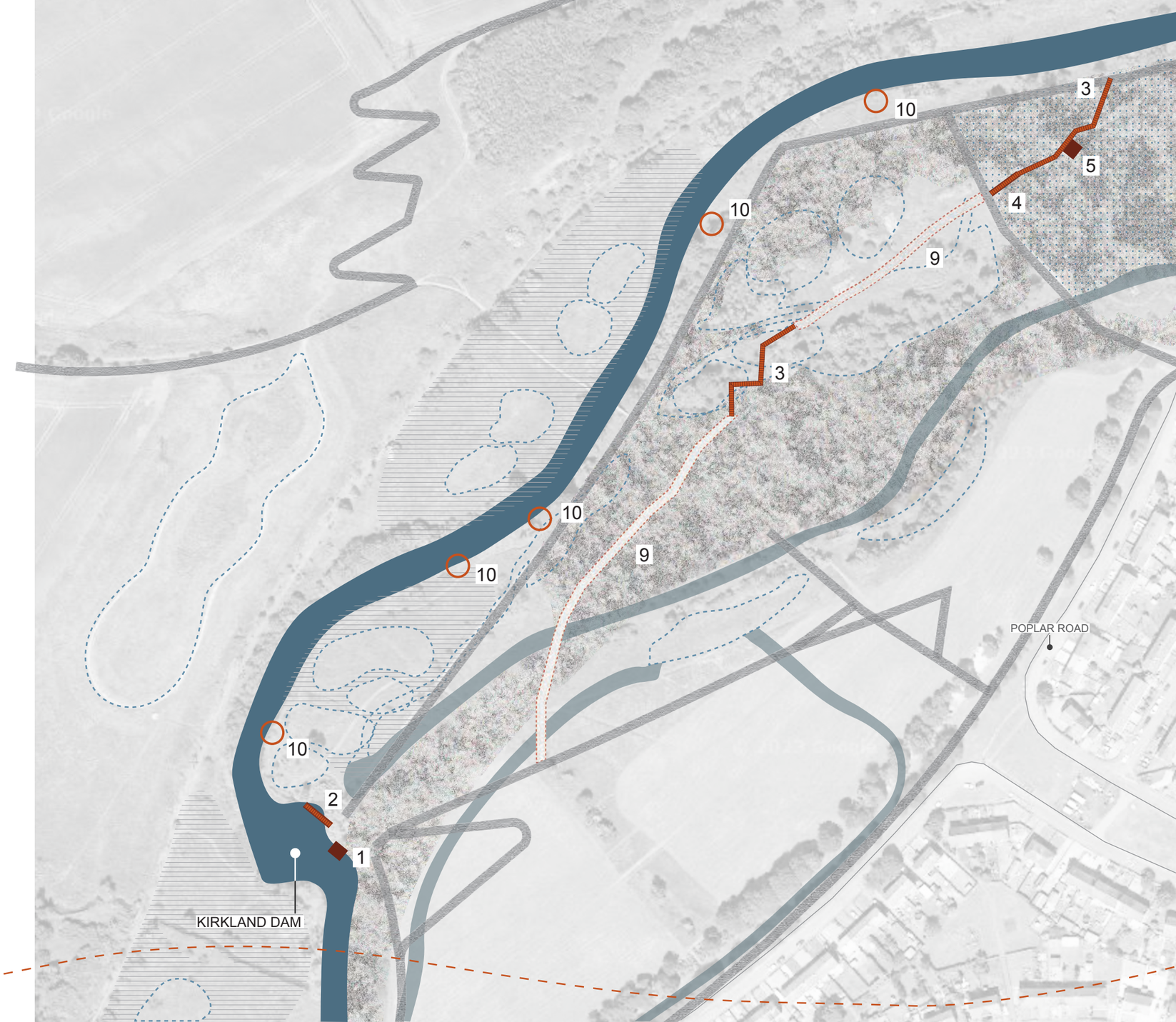
LEARNING



EXISTING CONDITIONS



LEVENBANK DRIVE

ROWAN LANE

RIVERSIDE WAY

REMOVED BURN MILL DAM
removed as part of river restoration work

WET WOODLAND

WETLAND

9

7

8

4

6

9

METHILMILL CEMETERY

MULBERRY CRESCENT

CEDAR AVENUE

OAKVALE ROAD

OAKVALE ROAD

KEY

- River Leven
- Proposed recreated mill lade: future aspiration
- Proposed wetland / pond areas
- Proposed tree planting
- Main routes for improvement
- Boundary of Integrated nature network

PROPOSED

1. River edge platform over dam
2. Replacement bridge over lade channel
3. Boardwalk connections
4. Boardwalk bridge
5. Teaching/learning point platform
6. Asphalt path
7. Timber sleeper path
8. Wetland edge dipping platform
9. Seasonal strimmed grass route
10. Fishing access points

Scale (meters)

0 50 100

CONNECTING WITH NATURE

ACCESSIBILITY

CONNECTING TO HISTORY

3.3 Stage 3 Masterplan

The key considerations have resulted in an updated masterplan that has been the focus for further developing the cost and technical plans. The outcome has been a move away from platforms directly along the river's edge due to the likely flood risk and a greater emphasis on the Methil Mill site. A further change in emphasis has been the move away from Burn Mill Dam and a greater emphasis on the Kirkland Dam. Two key drivers for this change are the River Restoration Project is proposing removing the Burn Mill Dam. Consequently some of the attractive attributes of this area: the rock cascades and still river area upstream of the dam will no longer exist. Secondly, the potential location for a community hub and the potential synergy between the outdoor adventure activities proposed at the hub would benefit from a close proximity to an accessible area of river's edge.

The preliminary Stage 3 accessibility masterplan (overleaf) was further refined following the first iteration of the cost plan. Some raised platform features, such as the 'nest' viewing deck were omitted prior to taking the scheme to public consultation.

3.3 Stage 4 Technical Design

The Stage 4 masterplan presents an on-budget proposal that has been the focus of the technical design development, including construction details and sections. Appendix A contains the Stage 4 details package.

WALKING THROUGH WETLAND

EXPLORING WETWOODLAND

TEACHING AND LEARNING

Boardwalk



Bridges



River / wetland edge platforms



Teaching/learning point



Timber sleeper path


Mown paths

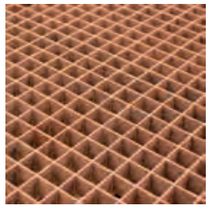

Wood / wood effect




Wood, or a material that has the appearance of wood, will be the primary material of the project.

The natural appearance of wood will sit harmoniously within the surrounding landscape.

Small accent details in weathered steel


Weathered (corten) steel may be used for some small details, for example in short sections along the some of the boardwalks or within the signage.

This material has been chosen as a reference to the River Leven's industrial past.

plincke. Heritage Fund Green Action Trust

LEISURE

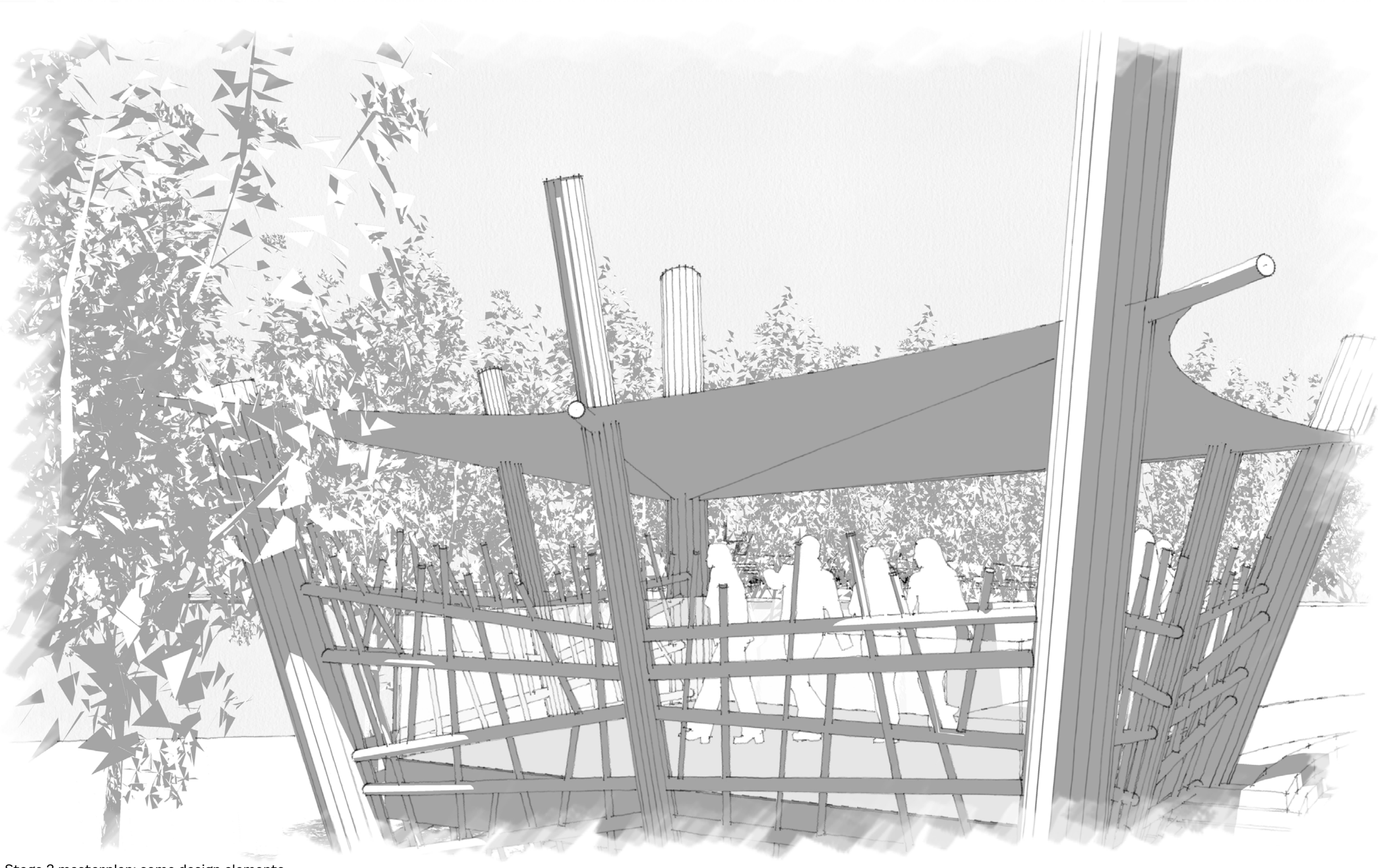
Primary route

Secondary route

Experiential Route

1. Strimmed grass seasonal route
2. Environmental steps down to boardwalk
3. Boardwalk with swamp edge dipping platform
4. Boardwalk ‘bridge’ over lade channel
5. Boardwalk connections
6. Seasonal strimmed grass route
7. Teaching / learning point, wet woodland ‘nest’
8. Boardwalks to nest
9. Environmental boardwalk
10. Bridge over channels
11. Signal point / way marker
12. Strimmed grass seasonal route between swales
13. Environmental boardwalk
14. Signal point / way marker
15. Strimmed grass seasonal route
16. Replacement bridge / platform over lade channel
17. River’s edge platform above dam.

Stage 3 masterplan: key design elements.



Stage 3 masterplan: some design elements, such as the ‘nest’ viewing platform were omitted from the consultation proposals due to concerns over budget.

04. Project Coordination

4.1 Integrated Design

The scheme has required a high level of coordination across a range of projects within the overall Leven Programme. Whilst the primary point of contact has been the Green Action Trust, liaison has taken place with the following organisations / stakeholders:

- Iglu Studio – River Park concept masterplan / Levenmouth Connectivity Project
- Arc Architects - Community hub architects
- Archaeology Scotland – Hidden Heritage
- Raeburn Farquhar Bowen – Nature Network
- Icecream Architects – Community Engagement / Interpretation designers
- Atkins – Flood Risk Assessment
- Fife Council & Countryside Trust and cbec - River Restoration
- Kiloh – Ground investigations
- Stefano Smith - Planning

Additionally coordination with Hannah Swanson, (Senior Business Consultant / Programme Manager for the Leven Programme), Scottish Environment Protection Agency (SEPA) has occurred throughout the project's development. Liaison with Fife Council with regards the signage and way finding strategy was undertaken and the accessibility masterplan has indicated the locations of proposed way finding / signage elements and identified the possible linkages.

The coordination has been achieved in the following ways:

- Three 'all consultants' presentations at key stages of the project;
- Shared design information on on-line data portal;
- Exchange of design development, comment process, and CAD files;
- workshops and discussions, including construction access and deliverability, planning, and site investigations.

The Stage 4 masterplan provides an indication of the level of coordination by placing the accessibility and Mill Lade Heritage Trail within the context of known projects.

4.2 Planning Strategy

Opportunities for combined planning applications, where synergy exists have been discussed. This includes for example, elements of the river restoration / nature network, which includes biodiversity enhancements, off-setting the initial loss of biodiversity through the trails' creation.

Other known planning implications associated with the wider rail improvements have been illustrated on the plan, such as the Duniface rail and river footbridge.

4.3 Implementation Strategy

The final element of inter-project coordination revolves around construction in the River Park. A combined workshop was held in late November to discuss the synergy between projects and was attended by Hannah Swanson (SEPA, Programme Manager), Mark Methven (Fife Council, River Restoration), Stuart Malcolm (Iglu Studio, Levenmouth Connectivity Project), and Colin Burden (Plincke, River Accessibility).

An integrated CAD plan between the nature network and accessibility trails has been produced to assist in the identification of priority projects in the nature network's delivery.

4.4 Volunteering Opportunities

The programme of improvements offers a range of training and volunteering opportunities. It is envisaged that some works will be carried out at no cost to this contract via the coordination with the volunteering and training programme. The works envisaged are listed in Section 8.4 and identified within the cost plan in Appendix D. The development of the future Community Hub would link in with the development of the training and volunteering programme at the implementation and delivery stages. The need to integrate a community hub into the programme was identified through consultations with the local community, which was recorded in the Community Engagement Report and Plan as well as the Behaviour Change Action Plan. Comments from these reports include:

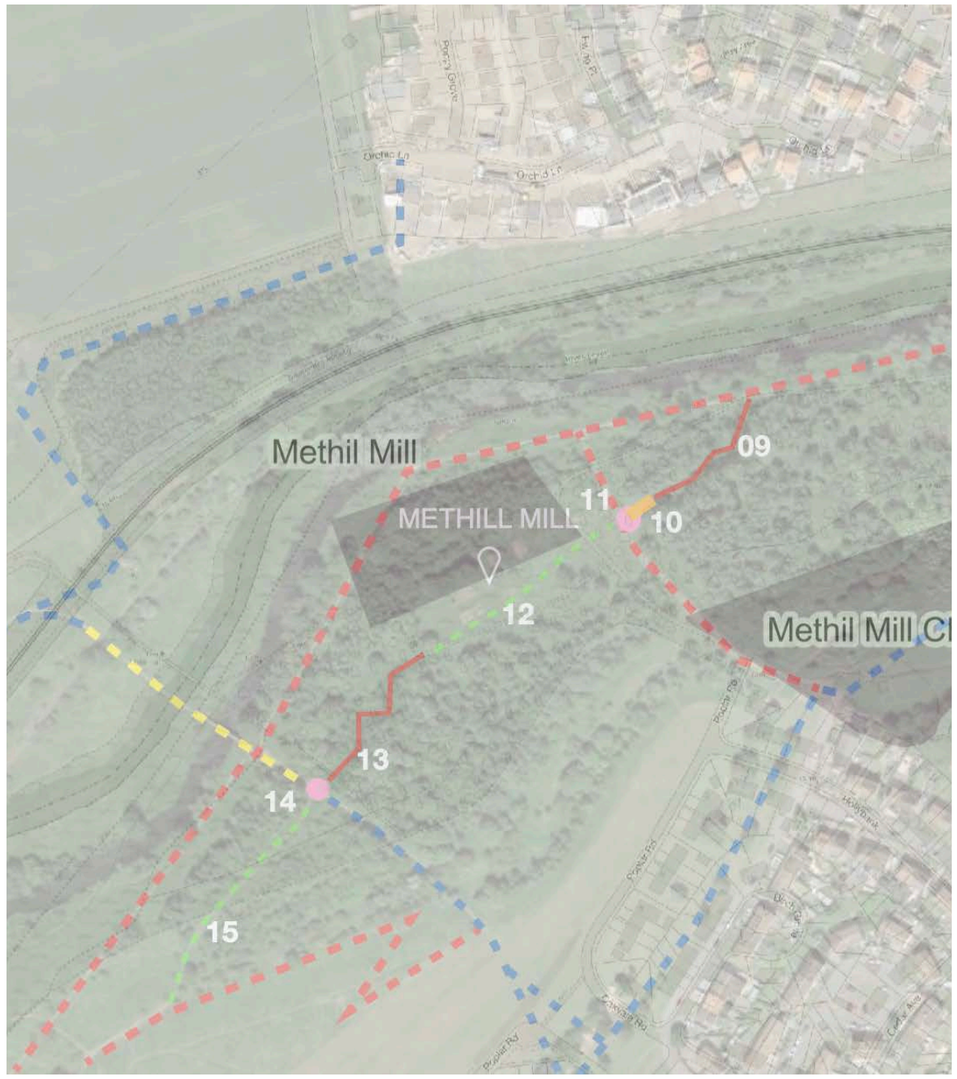
Prioritised Action 6 Progress - having a plan in place for ongoing maintenance is critical to securing construction funding. The Leven Park project includes a skills development work stream, which includes training in rural maintenance of the River Park area. The development phase is led by Fife Council and will use past experience of training, e.g. school leavers…. Another element to support this work is the suggestion that the Community Hub being designed includes a 'tool library', so local people have easy access to equipment needed for maintenance… (Updated Behaviour Change Action Plan: March 2023, p.14.)

Subject to project phasing, the Community Hub could provide the volunteer cohort with an indoor training space and work prep zone with access to mess and toilet facilities in close proximity to where the proposed external path works is required.

Potential Community Hub and arrow identifying location where volunteer works begins

4.5 Archaeology - Hidden Heritage

Whilst the Heritage Trail is keen to explore the hidden heritage of the areas's archaeology, concerns were raised that the boardwalk's pile foundations might have an impact on the below ground archaeological resource.
Consequently, the boardwalks stop and re-start either side of the area of Methil to avoid damage and a seasonally mown path on a 300mm raised earth table protects the zone closest to the area of archaeological interest.



Green Action Trust

Leven River Park Projects
Archaeology Scotland Sites

Drawn Date: 24/08/2023

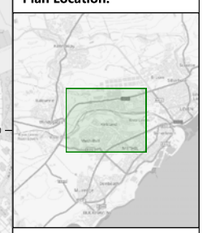
Revision No: 2

Job/project name:
SEDC060041
Leven River Park NLHF
Lottery Funded Elements
Delivery Phase

Legend:

Leven River Park Projects
- Kirkland House
- Kirkland Manor House
- Kirkland School/ Mathieson Place
- Mayfield
- Methil Mill
- Methil Mill Church
- Swiss/Saw Mill Cottage

Plan Location:



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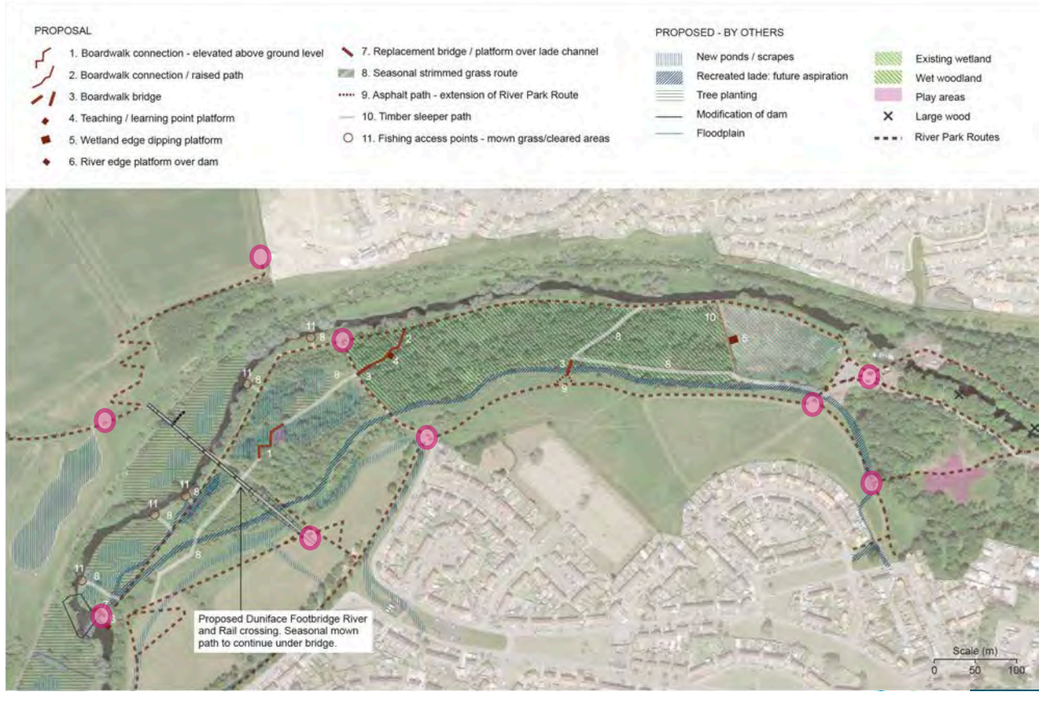
4.6 Wayfinding and Signage Strategy

The overall regeneration strategy is linked to new infrastructure, including the reinstatement of Levenmouth Rail Link. The new will provide the area with a major boost to economic sustainability and connectivity and it is important that this project is integrated with the proposed signage and wayfinding locations. This has been achieved through an integrated signage steering group coordinated by GAT with lead design provided by Fife Council.

The concept masterplan, shown opposite, illustrates the range of associated projects and how to relate to key signage locations. In addition to the formal wayfinding signage, liaison has taken place with the interpretation designers to look at a 'finer grain' of signage and interpretation as part of the interpretation strategy.



Key wayfinding / signage locations coordinated with the signage strategy group led by GAT / Fife Council.

05. Heritage Trail

5.1 Identifying the Opportunities

The design of the interpretation has been commissioned separately and the lead consultants for this work strand is Icecream Architects. Icecream have developed the outline strategy via a programme of community engagements to consider:

- Knowing what content and stories people want to learn about;
- How they want to experience this content / these stories;
- Exploring form, scale, site of the interpretation elements;
- Involving local groups in the co-creation process;
- Ensuring inclusivity for the develop interpretation.

As the interpretation is being researched and developed, Plincke have provided the accessibility and Mill Lade Heritage Trails masterplan to guide the locations and opportunities for external interpretation. The trails have been developed within the context of the Levenmouth Connectivity Project - River Park Routes Signage and Wayfinding Strategy. Key elements of the strategy includes case study references, which are applicable to the trails project (as shown below, extracts from the initial strategy).

Precedent

Interpretation & Play











5.2 Design Principles

The draft strategy has identified four overarching design principles for the interpretation:

Four key Design principles will define the Signage and Wayfinding Strategy.

SITE-SPECIFIC

The strategy should be **Site-specific**, through being defined by the parks environment, users, and history. Indeed, the strategy should be influenced by the context of the River Leven, whilst also responding to the demands of the community (human and more-than-human). As such, it is important to create high quality signage, wayfinding and interpretation information that is distinctive and appropriate to the Leven River Park. A site specific approach should be holistic in its consideration of people, place and landmarks. Specificity also entails the importance of having strategy showcase and contribute to an easily recognisable Park brand .

ACCESSIBLE

Furthermore, the strategy should be **Accessible** to all, by meeting the needs of all users, including people with protected characteristics, and should provide information they need in the right places (i.e. how long will it take to move around the park or reach a particular destination). Interpretation signage should be legible, visually appealing, well written and relevant to a broad audience.

RESILIENT MATERIALS

Moreover, the strategy should use **Resilient Materials**, in order to withstand local environmental conditions, whilst being visually appropriate to place. This implies having the signage being able to accommodate changes in the form and functionality of the Leven River Park and its routes, opting for solutions which are easy and cost effective to update over time.

COHERENT

Finally, wayfinding elements should be **Coherent** with the layout and spatial condition of the park. Indeed, this wayfinding strategy should reinforce the hierarchy of routes across the River Leven Park, thus improving the legibility of the park. Having a coherent strategy also dictates the importance of having a system which is in tune with other information systems already in place within the Levenmouth area.

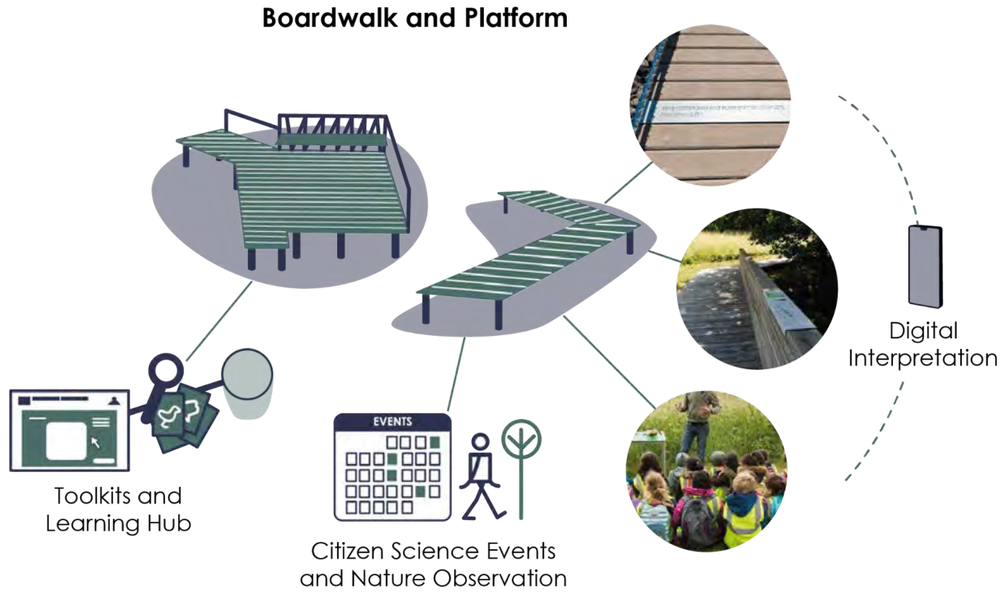
5.3 Preliminary Ideas

The accessibility trails masterplan identified a range of opportunities for embedding the interpretation elements, including:

- deck / platform areas with sufficient space for outdoor interpretation spaces. (Points 4 and 5 on the masterplan). These concentrate on the Methill Mill industrial archaeology and the natural environment at the ‘swamp’;
- leaning rails incorporated into the raised boardwalks to help explain what can be seen and experienced;
- gateway markers at the beginning / ends of the trails to provide greater wayfinding and information about the alternative experiential trail routes.

5.4 Integrated Interpretation

The draft strategy has been expanded into the Interpretation Masterplan, December 2023. This incorporates the overarching strategy for interpretation across the range of projects, including the accessibility and Mill Lade Heritage Trail. In particular the Masterplan document picks up the opportunities from 5.3 Preliminary Ideas and develops these, including the extracts opposite and key interpretative locations on the following pages.



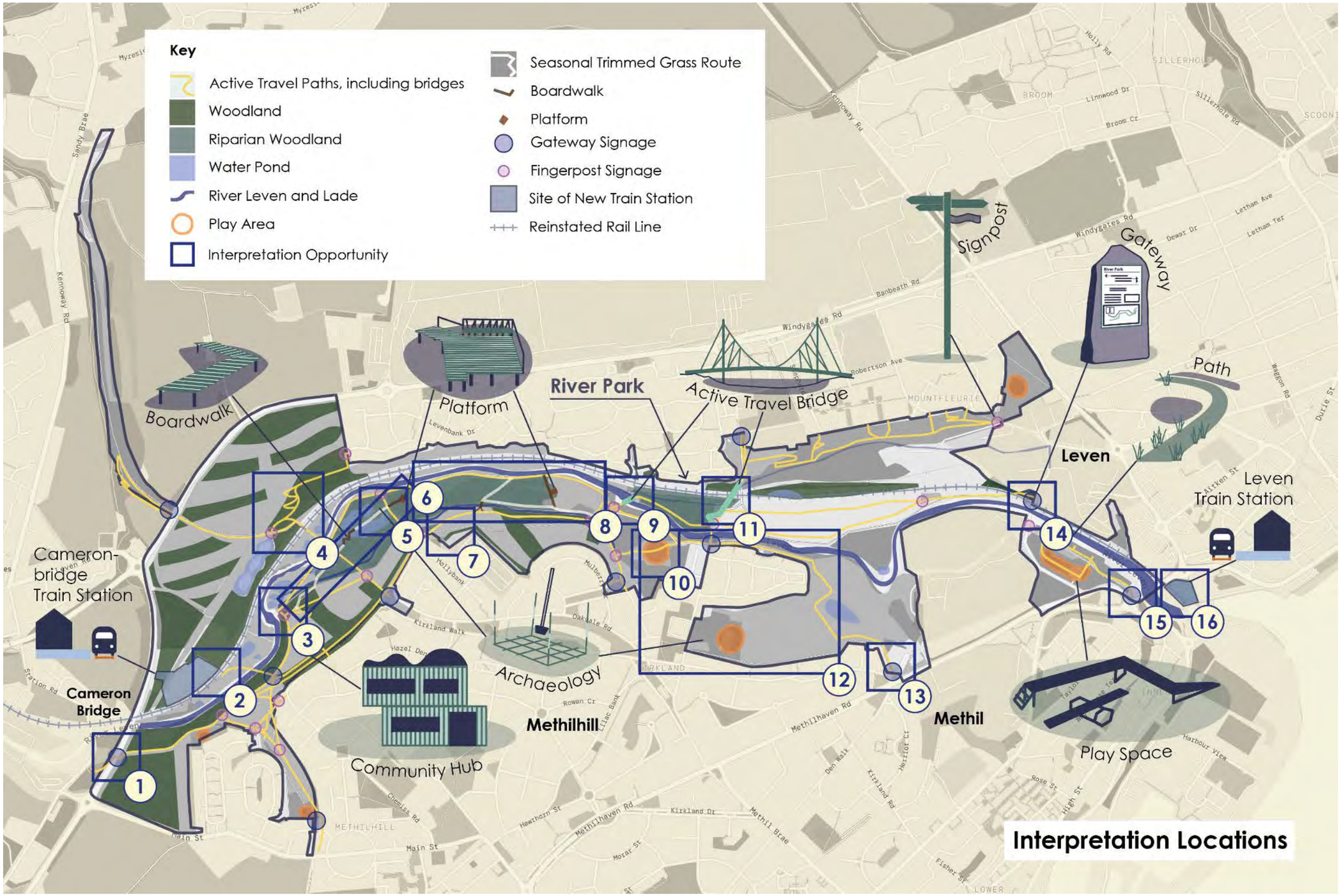
The boardwalk and platforms would give access to the wetland habitats of the River Park and Mill Lade. The platforms would offer observation spaces to watch the wildlife and act as outdoor learning spaces. There are opportunities for events to be organised and toolkits to be used (physical and digital resources).

Specific Sub-Theme:

- Mill Lade
- Wetland Habitat
- Water Pollution/River Restoration
- Gaelic/Scot Heritage

Along the boardwalk, the interpretation could be applied similarly to the paths, by giving specific information about wildlife to spot or prompts for visitors to enjoy the scenery, these signs would blend into the infrastructure and play with the environment, keeping the writing to a minimum. The platform would support using toolkits and activities to learn and discover the heritage of the River Leven.

9.2 Locations for Interpretation Mapping



06. Response to Consultation

6.1 Understanding Needs and Aspirations

An extensive programme of consultation has informed the project, including building a community perspective of needs and aspirations. This was developed between 2020-22 and involved over 45 local groups ranging from Police Scotland Youth Volunteers to Leven Angling Club and four online consultations held. Digital consultations yielded 653 responses or comments. Collective outcomes and recommendations from these consultations are summarised below, and have helped inform the project brief:

- Local first: Wherever possible, the project should use local resources and businesses rather than bringing in outside organisations.
- Involving and including young people: Involvement will lead to positive experiences and a greater sense of pride, belonging and ownership.
- Using what is already available: Activities take place while planning for delivery is happening. Taking a meanwhile approach.
- Develop community: The delivery of the action plan should be by the community and for the community. The spirit of community needs to be fostered through the way actions are delivered.

In order to seek endorse of the proposal, Plincke attended the Summer Barbeque event in Mid-August 2023. The range of River Projects were available for community review and the stage 3 accessibility proposals were tabled at the well-attended event.

The engagement stand was staffed by:
Colin Burden: Lead Plincke Director
Kiril Sharapov: Plincke CSR Director

The barbeque was an informal opportunity to view and comment on the outline access improvements for the area of the River Park from Kirkland Dam to Burn Mill Dam. Comments were recorded on the day and divided into positive (support for the proposals), concerns (support but with some reservations), objections (do not support the proposals). There were no objections raised. The comments logged are contained in Appendix E.

07. Managing Risks

7.1 Cost Uncertainties

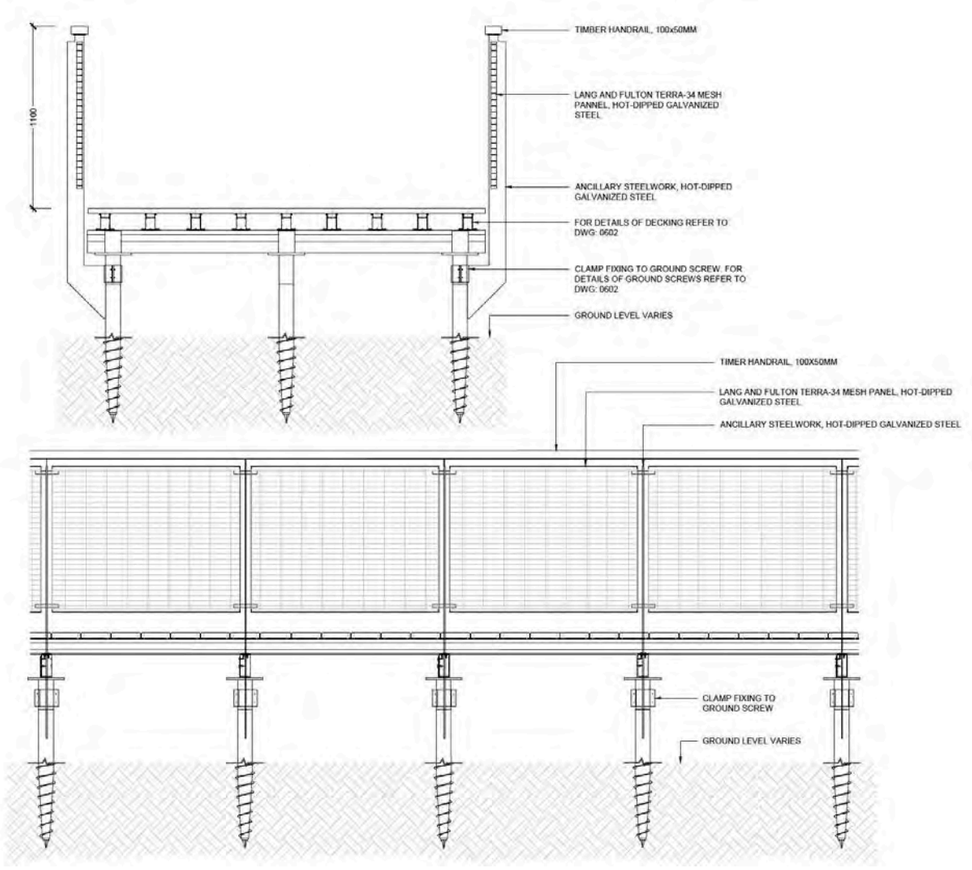
The main area of project risk is the ground conditions and flood impact upon the longevity of the structures. Designing for these risks introduced a high level of cost uncertainty. Consequently, to manage this risk, a screw pile solution was developed rather than less robust timber supports. The cost of the screws piles is a major cost element and depending upon the length of piles, costs could rise significantly. To manage this risk, a range of location specific ground investigations have been undertaken to determine the most likely length of pile needed across the range of sites. The proposed investigations have been designed to:

- confirm the depth and composition of any made ground;
- determine the geotechnical parameters of subsoils for design of foundations.

The outcomes of the site investigations has enabled both the length of the screw piles to be calculated but also lower cost timber supports to be adopted in some locations. This has enabled the design contingency to be reduced.

7.2 Risk of Arson / Vandalism

The choice of materials has responded to the location and the potential for a range of anti-social behaviours including arson and vandalism. A fire-resistant engineered timber boardwalk decking has been selected as an alternative to natural timber. Other elements are robustly detailed.



08. Cost Plan

8.1 Robust Assessment of Costs

A highly-experienced cost consultant who has worked with Plincke on projects of a similar nature since 2004 has provided the cost planning advice. The cost consultant's impartial advice to the client team has been provided at three key stages so that key decisions can be taken on the scope of works as the design progresses rather than reacting at the end. The three stages were:

- Stage 2: establishing the client's objectives - product/quality/ time/cost/value criteria; especially in relation to stakeholders' needs and aspirations contained within the Round 1 bid. This helped to establish at the earliest opportunity a Cost Plan that all members of the Design and Client Team consider to be an achievable prediction of the outturn cost;
- Stage 3 updates: following an evaluation of alternative options, including materials, locations, structural solutions, to ensure that maximum value is obtained from the budget, in particular the value engineering of alternative options to deliver best value resulted in the omission of some features, including a realistic assessment of procurement time to ensure that the cost plan is robust, making allowances for inflation, preliminaries, and contingencies;
- Stage 4 updates: the final round 2 cost updates, including the outcomes of the site investigations.

8.2 Site Won Material

The site investigations have indicated that areas of existing informal paths are well-used by the local community but are prone to seasonal water-logging. One solution that has been explored within the design proposals is to utilise site won fill material generated from other projects. These could potentially include the topsoil excavated from the phase one Nature Network pond and scrapes creation, both saving the cost of off-site removal of the fill and finding a positive on-site use. The quantity required to raise the paths by circa 300mm is estimated at 1,650m3. The cost of handling the material is currently not included within the cost plan in Appendix D. Should this option be viable, the costs would be:

- add raising the grassed paths by a maximum of 300mm graded down. This is likely to require an additional cost of £14,850.00 for the moving and spreading of the topsoil and £3,630 for raking and seeding. Total extra costs £18,480.00

Other options have been considered as follows:

- improve the sub-base drainage to the worst effected areas. The improved drainage is estimated at £43,312 additional costs for 40% of the area
- A third option would be to import topsoil to raise the paths, to achieve this over the fully effected areas would cost £65,340 plus the £3,630 for raking and seeding, totalling . The extra over cost of importing and seeding the topsoil would be £68,970.00.

8.3 Volunteer Inputs

The cost plan has made the following assumptions with regards works to be undertaken by volunteers. These are described in Section 4.4 and include:

- Cost plan item 8.1 Mown grass paths: assumed strimming undertaken by volunteers
- Fishing access points 11.1 & 11.2, vegetation clearance and strimming grass assumed undertaken by volunteers.