

Background and the Project Brief

Jacobs were commissioned by Hitrans to develop a concept and preliminary/spatial design of a shared link for people cycling and walking which connects the Loch Ness Hub to a small area of residential housing, Druimlon.

The route currently comprises a short section of traffic free path within Druimlon that leads to the A82 trunk road footway, a short section of footway that runs along the A82 trunk road, and some uncontrolled crossings at the access to the Loch Ness Hub carpark. The total length of the link is 225m.

The development of this link will provide improved access from the Loch Ness Hub for visitors wishing to explore the Drumdrochit area by bike, walking, or wheeling. It will also offer people who live in the Druimlon area a better link to the Loch Ness Hub, and support wider connections to Glenurqhart schools, which is intended to be of benefit to the local community.

This report covers the preferred option for delivering upon the agreed objectives, alongside a reduced option based on the constraints and challenges in the subsequent design and development stages.



The brief Jacobs will deliver on is set out below. This report aims to capture the first part of this brief and set out the actions and challenges ahead for delivering the subsequent design stages and ultimately at construction.

1. Deliver a concept design proposal, key outputs to include; a stage 2 design for a shared use traffic free path design, outline specifications, and initial cost estimates/information
2. Engagement and Statutory Items, to include Community and stakeholder engagement with Loch Ness hub, the Community council, the Glenurqhart Community Association, the Highland Council, Transport Scotland (and the Trunk Road Operating Company)

And the next stage:

- Deliver a preliminary/spatial design proposal

Existing Conditions, Contexts, and Constraints

At present people cycling need to use the A82 trunk road. The section of road is 30mph. However, there are relatedly high volumes and proportionally high numbers of heavy and light good vehicles, and coaches, and an 85th percentile speed closer to 35mph according to surveys.

The path width along the trunk road corridor ranges between 1.1m, a dimension found at the most north point of the current footpath within project area and further constrained by the stonewall, and 3.4m, located south of the Loch Ness Hub carpark extents.

The path from the A82 trunk road into Druimlon housing is 1.7m in width for the majority, and this width is further constrained by boundary fencing on one side and a steel handrail on the other.



The project team are also aware of:

- Local parking behaviour limiting access to the drop kerb from the Druimlon path onto the residential road.
- People feeling uncomfortable with the current path widths along the trunk road, and particularly at the trunk road footway that runs parallel with the Loch Ness Hub carpark.
- A key pinch point on the section within the trunk road also occurs opposite the fire station and where the verge is steeper, set out with large boulders, and includes a bench.
- A drainage issue which exists along this stretch of the A82 trunk road and potentially has run off from the Loch Ness Hub carpark.
- Several mature trees which exist with the Druimlon area, and within the footprint of the Loch Ness Hub carpark.

Stakeholders, and Initial Consultations

Who have the Project Team spoken to?

- Loch Ness Hub
- The Community council
- The Rural Association
- The Glenurqhart Community Association (seeking contact info)
- The Highland Council
- Transport Scotland
- and Bear, the Trunk Road Operating Company



What the Project Team have learned?

- The speed limit in Drumnadrochit will be reduced from 30mph to 20mph, the timeline for this is to be determined but it is likely to be in place in line with the desired timeline for this project, 2024/25.
- The landowners for the relevant parts of the scope are The Highland Council; the Loch Ness Hub carpark and the Druimlon housing road and public space, and Transport Scotland; the trunk road corridor.
- At the time of writing, it is still unclear whether the stonewall which informed the boundary between Transport Scotland and The Highland Council land is unknown, the stonewall does not appear to hold any significance that could limit the proposed design.
- Transport Scotland have proposals to upgrade drainage along the A82 which will align with the desired timelines for this project.

What will the Project Team need to explore next?

- The team will need to consult with Transport Scotland's Development Planning Team on proposals, and with The Highland Council Planners.
- How to establish a preliminary/spatial design that best reflects the known constraints; trunk road, local drainage issues, pinch points that will require retaining elements to create space.
- Take a particular focus with Transport Scotland on the drainage impact of the project, and the possible opportunity to be joined up in the proposals for A82 stormwater and this project.
- Establish feedback from local groups and residents on proposals, and feedback on the specific changes like the moving of the bench opposite the fire station.

Quality Standards and User Needs

Cycling by Design

The team leaned on Cycling by Design guidance. Using this guidance, the Project Team aimed to ensure the improved link is a more practical and attractive choice for the everyday and occasional journeys of all people, particularly new, returning or less confident users.

As this guidance supports the integration of cycling with people walking and wheeling in a holistic and attractive environment this helped us blend the needs of all users, so the design reflects the Scottish Government's Sustainable Travel Hierarchy.

Inclusive Design

A key consideration for the Project Team was the street user hierarchy, noted above and a part of Designing Street. This ensured the team thought about pedestrians first and private motor vehicles last, and ensured our designing aimed to provide for all people regardless of age or ability.



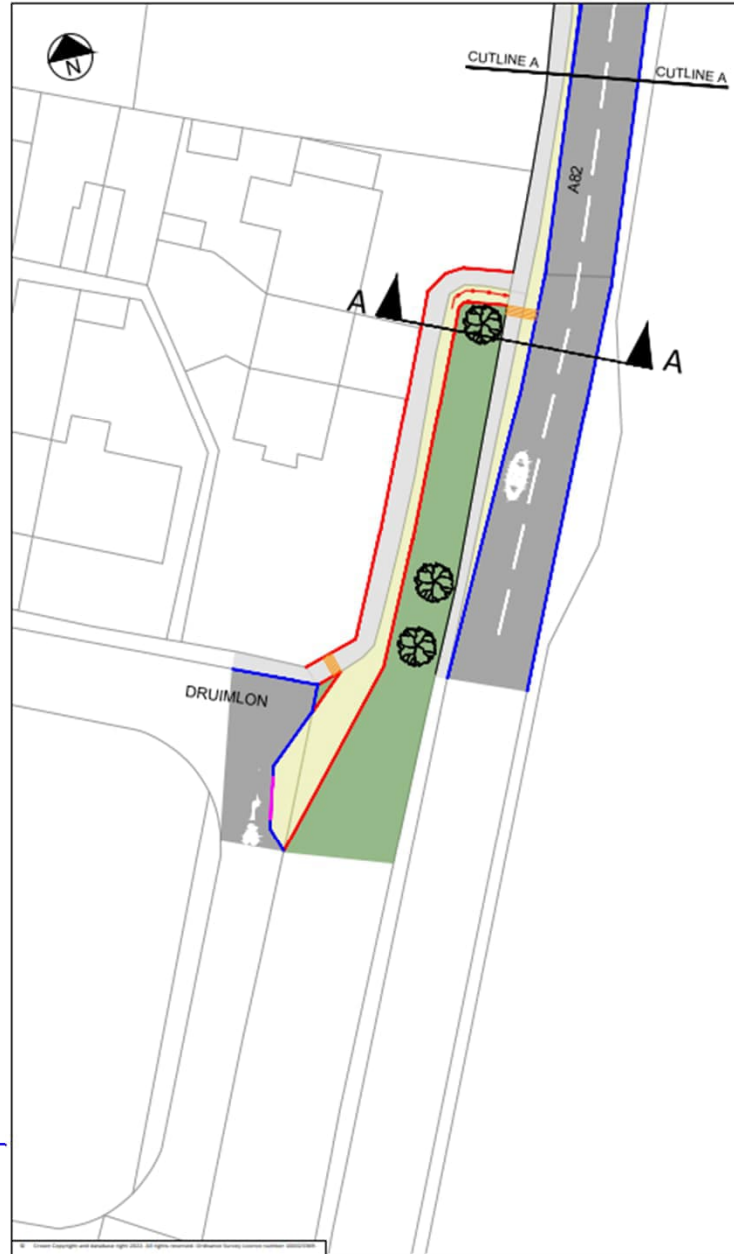
How the Project Team responded to these elements?

They looked to prioritize:

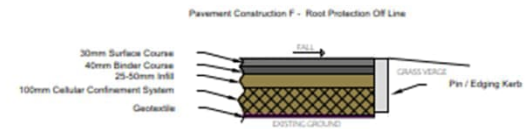
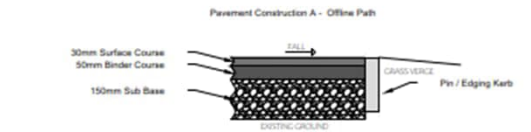
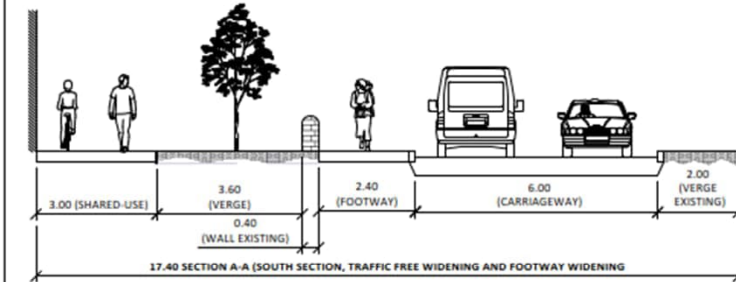
- Hub visitors and tourists seeking to explore Drumnadrochit
- Local people (~90 residents in Drumlion) and access to the Hub
- A more user-friendly space that caters for a wider age and ability range
- Families with children exploring from the hub

A widened traffic free path into the Druimlon estate that links to the A82 trunk road path

- KEY**
- ROAD MARKINGS (GENERAL)
 - DROPPED KERBS
 - HALF BATTERED / BATTERED KERBS
 - EDGING KERBS
 - CARRIAGEWAY
 - EXISTING PATH
 - PROPOSED PATH
 - VERGE
 - HANDRAIL TO BE REMOVED

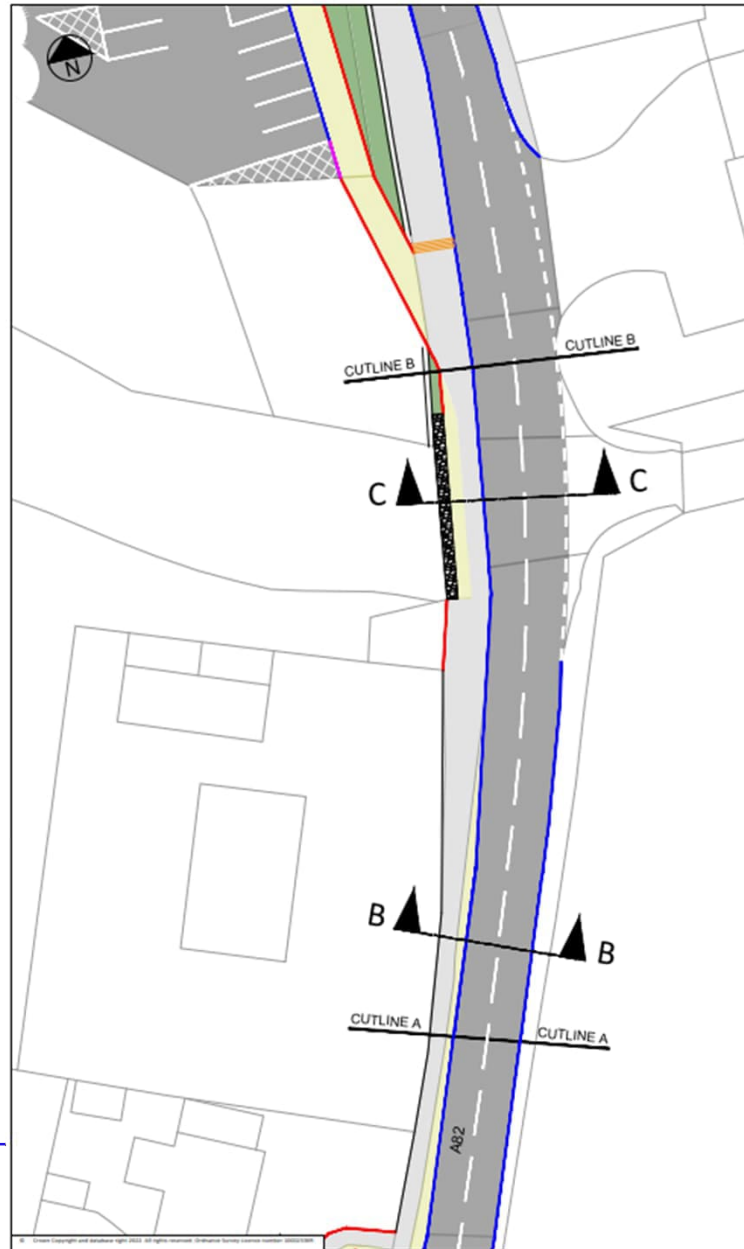


Cycling by Design (CbD) Design Review (DR) - Level of Service sticker			
Drum - south section - traffic free path widening		Level achieved?	Summary comment?
Core Design Principles	Safety	Medium	Lack of lighting and mixing of cyclists and pedestrians impact this criteria.
	Coherence	High	Clear line of sight and obvious access egress.
	Directness	Medium	Tight geometry.
	Comfort	Medium	Multiple conflict points with both pedestrian vehicular and frontages.
	Attractiveness	Medium	Predominantly unlit but this can be revisited.
	Adaptability	Low	Current design is maximum within constraints.

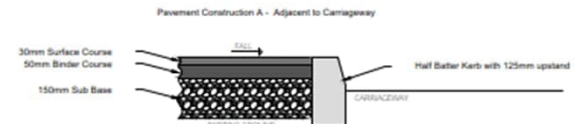
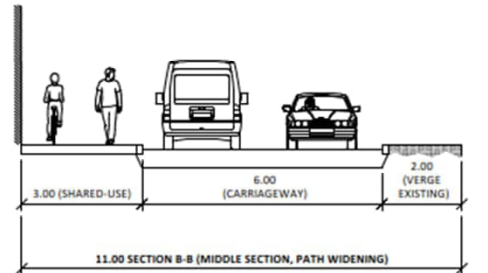
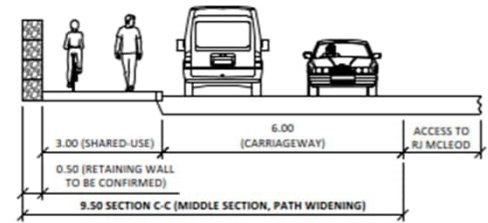


A widened shared use path adjoining the A82 trunk road

- KEY**
- ROAD MARKINGS (GENERAL)
 - DROPPED KERBS
 - HALF BATTERED / BATTERED KERBS
 - EDGING KERBS
 - CARRIAGEWAY
 - EXISTING PATH
 - PROPOSED PATH
 - VERGE
 - HANDRAIL TO BE REMOVED



Cycling by Design (CbD) Design Review (DR) - Level of Service sticker			
Drum - middle section - trunk road adjoined section	Level achieved?	Summary comment?	
Core Design Principles	Safety	Low	Adjacent to trunk road running lanes with minimal buffer.
	Coherence	Medium	Bend in road results in poorer forward visibility.
	Directness	High	Straight alignment.
	Comfort	Low	Constraints based next to live traffic with minimal buffer.
	Attractiveness	Low	Constraints based next to live traffic with minimal buffer.
	Adaptability	Medium	In the event the trunk road is realigned, the path could be upgraded.

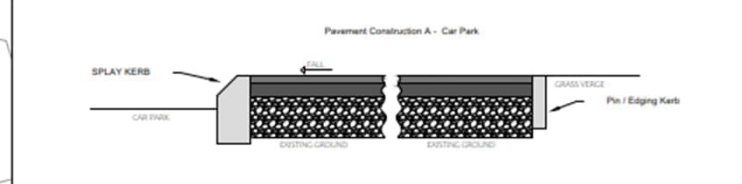
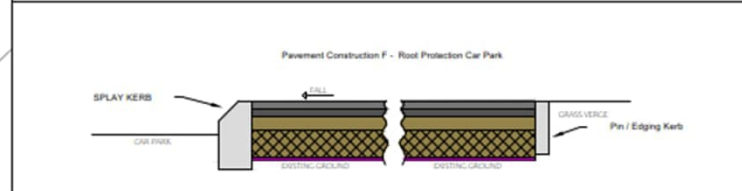
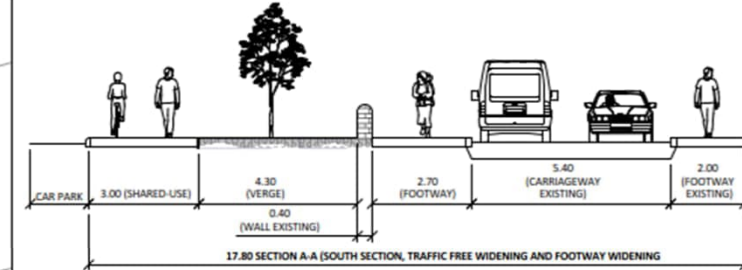


A new shared use path through the Loch Ness Hub carpark

- KEY**
- ROAD MARKINGS (GENERAL)
 - DROPPED KERBS
 - HALF BATTERED / BATTERED KERBS
 - EDGING KERBS
 - CARRIAGEWAY
 - EXISTING PATH
 - PROPOSED PATH
 - VERGE
 - HANDRAIL TO BE REMOVED



Cycling by Design (CbD) Design Review (DR) - Level of Service sticker			
Drum - north section - carpark section	Level achieved?	Summary comment?	
Core Design Principles	Safety	Medium	Lack of lighting and mixing of cyclists and pedestrians impact this criteria.
	Coherence	High	Clear line of sight and obvious access egress.
	Directness	High	Straight alignment.
	Comfort	Medium	Multiple conflict points between pedestrians and cyclists.
	Attractiveness	High	Predominantly unlit however this section could be landscaped to make it more friendly.
	Adaptability	Low	Current design is maximum within constraints.



Forward Programming and Key Actions

The brief Jacobs will deliver next is set out below:

- Develop briefs for further technical surveys required to develop the concept design, this could include ground investigation, tree surveys, and may require supervision as requested by the client.
- Update design proposals for shared use traffic free path in line with topographical information and ensuring spatial elements are set out with constraints further defined.
- Update the Design Review (Cycling by Design) and workshop the developing design with the client and key stakeholders to help build buy in.
- Update specifications, material choices, and consider construction specific requirements, and then consequently further develop the cost and cost contingency information.
- Consider the options available for contractor procurement, consider early engagement with supply chain, and aim to establish the route to construction.
- Develop the identified hazards and delivery risks into a constraints plan and compile other key information for the CDM Preconstruction Information Pack.
- Ensure engagement on the agreed concept design with the client with the various community groups, stakeholders, and other interested parties including both roads' authorities, The Highland Council and Transport Scotland.
- Develop a maintenance strategy for preferred solution in line with the relevant road's authorities.
- Develop the brief for the Road Safety Audit Stages 1 and 2 combined and provide client with designer's response.



The priority actions are set out below:

1. Engage on the Concept Design Proposal following agreement with Hitrans and agreement of extent of this report to be shared.
2. Set up and facilitate call with Transport Scotland and Hitrans to explore route to construction, and specifically appetite to include works, or part of the proposed works, in the Transport Scotland Active Travel Trunk Road Delivery Programme. In addition, alongside the potential for, the design team need to establish appetite for road space reallocation along the A82 trunk road corridor.
3. Develop briefs for specialist input; trees, structural and geotechnical, ground investigation.
4. On receipt of topographical data begin to set out the spatial elements and establish clearer picture of the constraints.