



**Friends of the River Frome
Pedestrian River Crossing - Feasibility Study**

Rev B. / Feb 2020

ROUNDFIELD



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1. Executive summary:

This feasibility report has been compiled in a cumulative manner and is designed to be read in sequence.

Reconnaissance of the local area has been carried out by Roundfield in order to explore the options available. The potential crossing points were identified early in the process in liaison with the committee members of Friends of the River Frome.

Two crossing locations have been identified along with three associated routes. Crossing types have been evaluated along with the potential routes. A scoring matrix has been formulated that relates to the criteria identified. Each crossing and route is scored accordingly to establish an overall score. Scoring criteria are grouped into two categories: 'Usability' and 'Risks' with a maximum score of 30 within each category. The scores for each category are combined and the score from the 'Risk' category is subtracted from that of the 'Usability' category to give an overall score for each crossing option.

All routes and crossings are depicted as a three dimensional diagram that does not address the design of the bridge or the walkway in any detail but is intended to identify route possibilities and address any spatial opportunities or constraints.

All routes are considered with the Caxton Rd planning proposals overlaid - produced by pad Design Ltd as revised and resubmitted 16.09.19 (Planning Layout - Drawing number 13303/5001K) on behalf of Acorn Property Group. These proposals have subsequently been approved by Mendip District Council.

All routes include future negotiations with land owners to provide a link between the eastern corner of the Caxton Rd site and Frome Rail Station.

Costings have not yet been carried out.

2. BRIEF:

To identify and analyse potential options for a pedestrian bridge crossing over the River Frome associated with the Southfield Farm (Edmund Park) housing development, with consideration given to the most appropriate routes to the north and south in order to provide a pedestrian link to the town centre and Frome Rail Station.



3. CRITERIA

Usability

Accessibility

Legibility

Safety

Risk

Land ownership

Cost

Futureproof?

Accessibility

As far as is possible the routes and crossings should be accessible to all. Full accessibility is not a requirement of the brief but this is considered to be desirable.

Legibility

The route should be logical and easily navigable with as much forward visibility as possible

Safety

The route should not only be safe in terms of regulatory compliance and guidance but also be perceived to be safe to use with open site lines and forward visibility.

It is assumed that all routes will be adequately lit following further assessment by others.

Utilising the combined experience of the consultants and committee, the following risk criteria are to be judged against each option:

Land Ownership

Primarily based on the amount of different land ownership boundaries that need to be crossed as an indicator of risk. This along with a view taken on the likely outcome of any negotiations. This aspect will be judged based on a desk top study of Land Registry records along with the input of local knowledge.

Cost

Outline costs for each crossing option may be developed at a later date. Cost scores are constant and non variable at this stage.

Futureproof?

Score relates to risks associated with future challenges e.g. climate change (particularly with regard to flood risk). Scored as a foreseen lack of resilience, this is particularly relevant when designing in close proximity to a river.

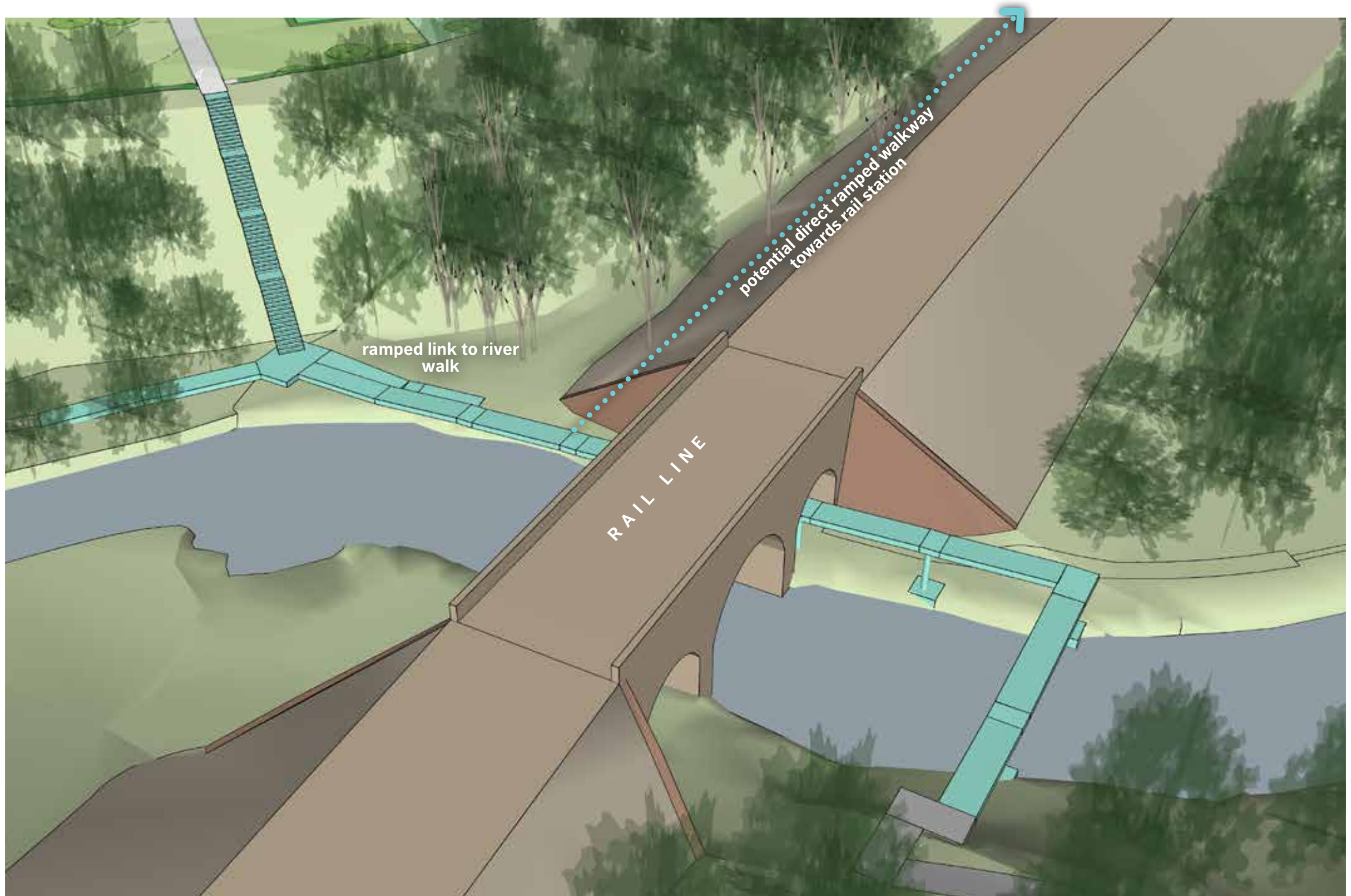
NB. The proposed options represent very similar implications for planning should this be required. This is therefore considered to be a non variable not included in the above 'risk' criteria.



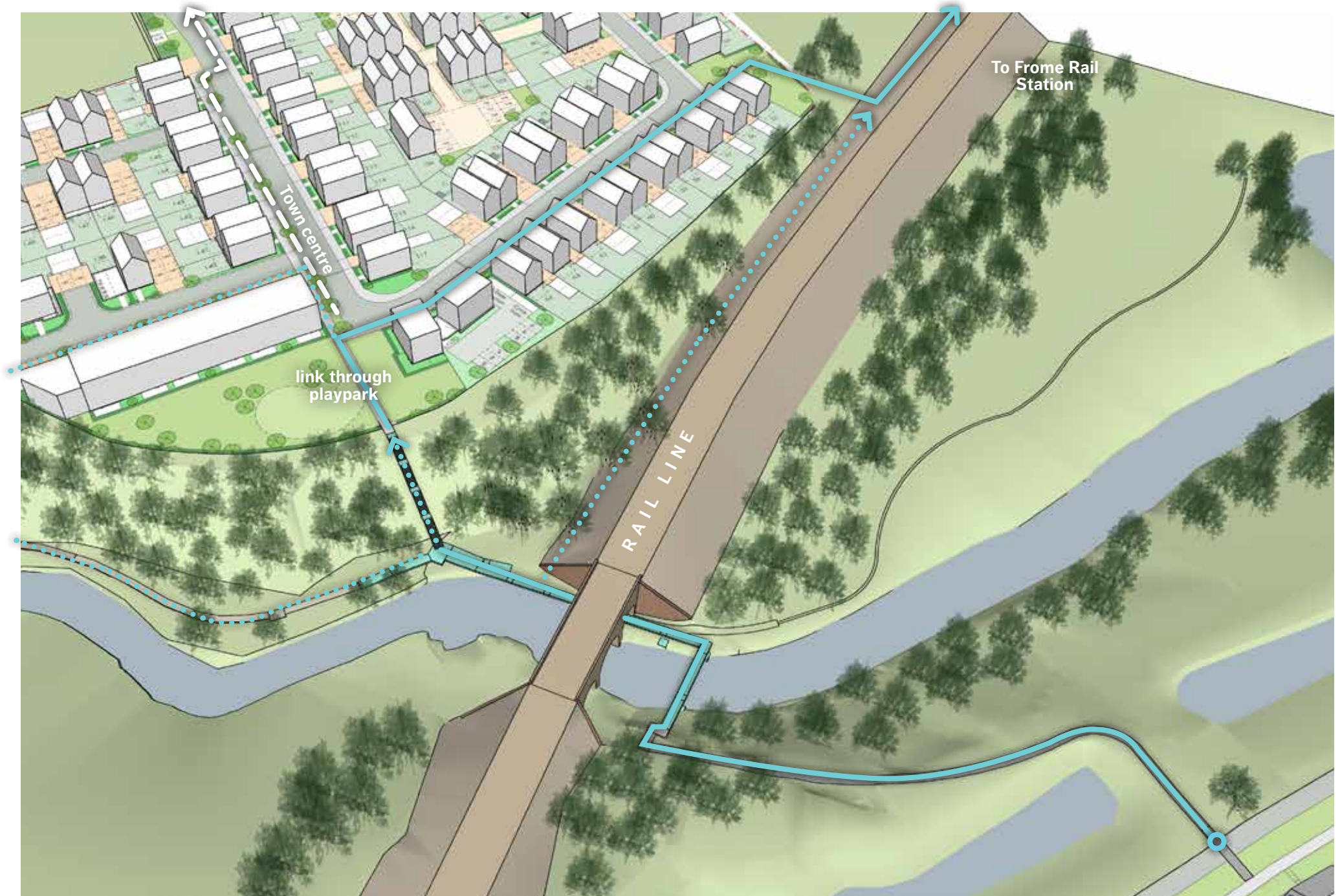
OPTION 1



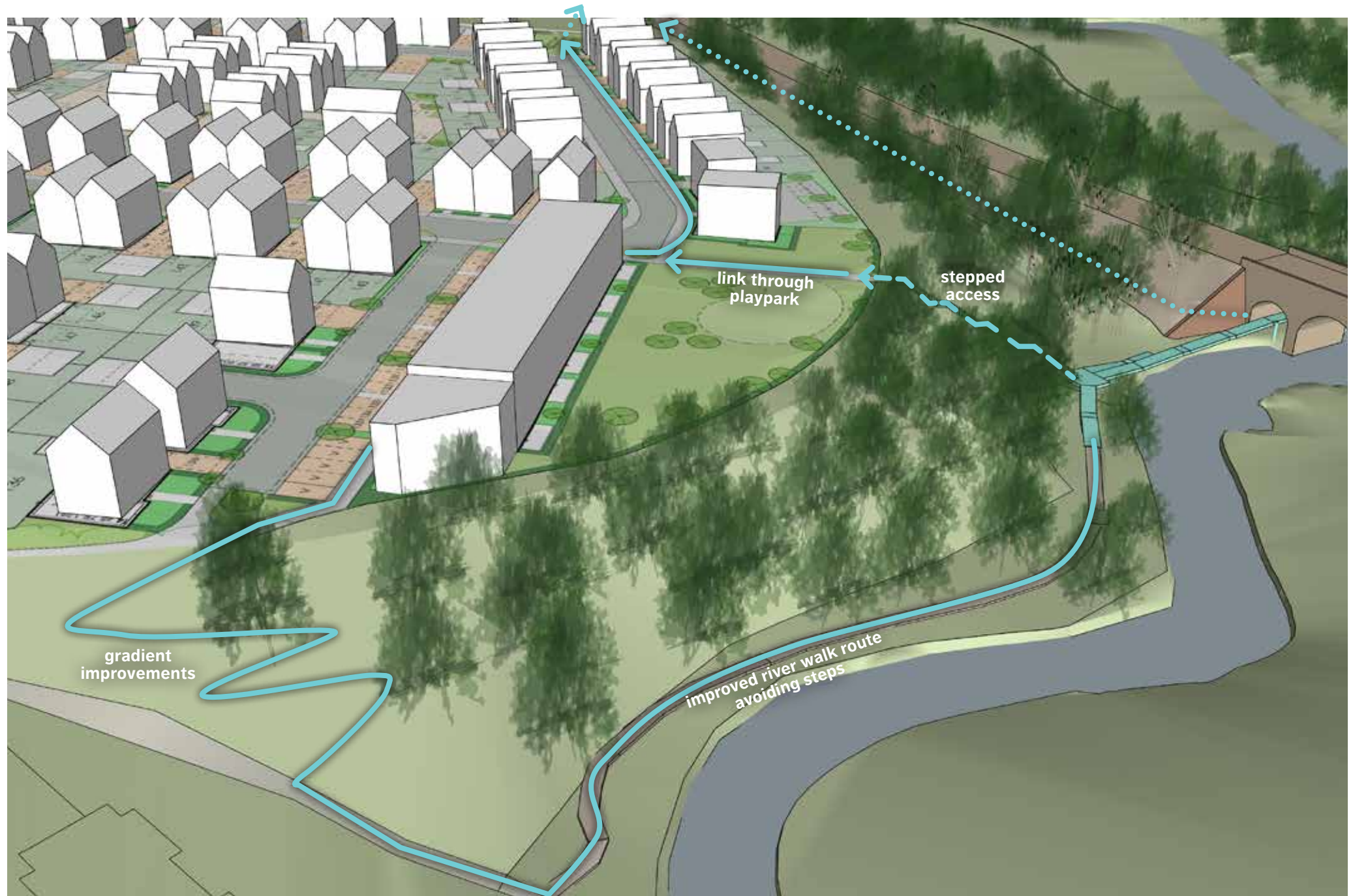
OPTION 1



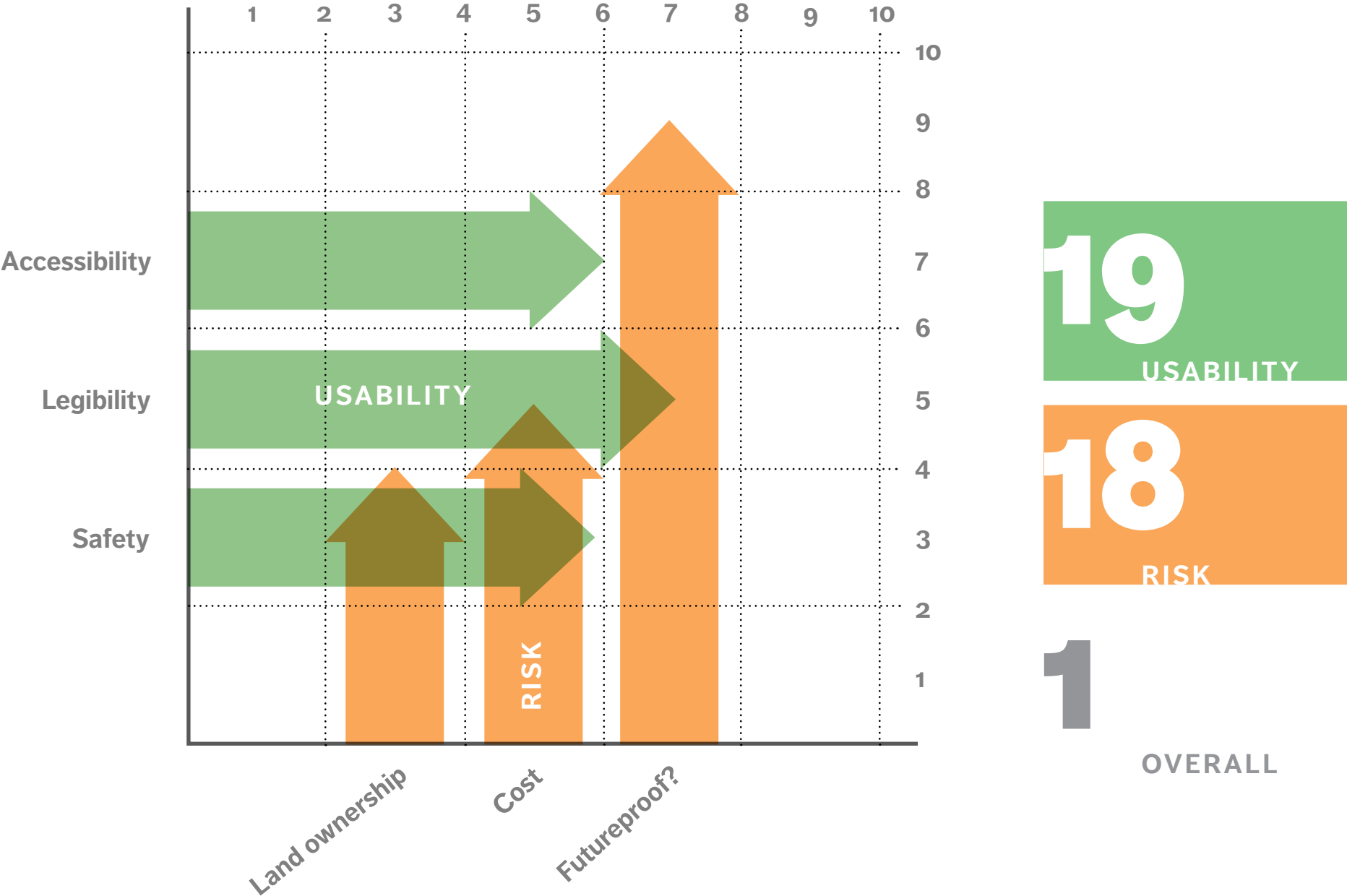
OPTION 1



OPTION 1



Option 1



Accessibility 6/10

This is the only route that includes a considerable amount of steps to address the approx 10m level change between the boundary of the proposed play park and the river walk. An alternative route that runs along a refurbished riverside path provides a route that avoids the steps but proposes works to the public footpath to the west of the proposal site to improve and ease the gradients in order to improve accessibility. The optional routes within the Caxton Rd site are relatively flat with the most direct route to Frome town centre provided by a footway along Caxton Rd to Locks Hill. There is allowance for a pedestrian link to Frome Rail Station in the eastern corner of the site which has the potential to link through to a footpath linkage to the Rail Station which involves the need to traverse a further level change of approx 2m.

Legibility 7/10

This option proposes the benefit of a direct and visible connection revised into the layout of the Caxton Rd proposals. Previous outline consent for the development included a connection to the riverside within the landscape masterplan, the current proposals avoid this connection due to concerns about made ground in the sloped area leading down to the riverside. To modify the masterplan to include a direct connection that responds to the main axis of the layout would be the most legible way of dealing with a connection between the development and the river crossing and Edmund Park development beyond.

Safety 6/10

Due to the amount of steps involved within this option it does not score very highly in terms of safety in comparison to the other options. The alternative link to the riverside via the public footpath is not optimal in terms of safety due to the likelihood that steep gradients will still remain in some areas with potentially poor forward visibility to the riverside footpath and the crossing beyond. The strong connection potential with the Caxton Rd site could be a benefit by increasing activity along the route and providing relatively good natural surveillance in this part of the site.

Land Ownership 4/10

This is the option with the least risk associated with land ownership as the route is predominantly located in either the Edmund Park site or the Caxton Rd site with minimal interface with Network Rail.

* As stated elsewhere all routes require negotiations with land owners to the north to achieve a link through to Frome Rail Station

Cost 5/10 - Outline Cost: £TBC

TBC

Futureproof? 9/10

This option scores highly due to the need to use the riverside footpath as a means of avoiding the stepped approach. This route is in direct proximity with the edge of flood zone 3 in this area.

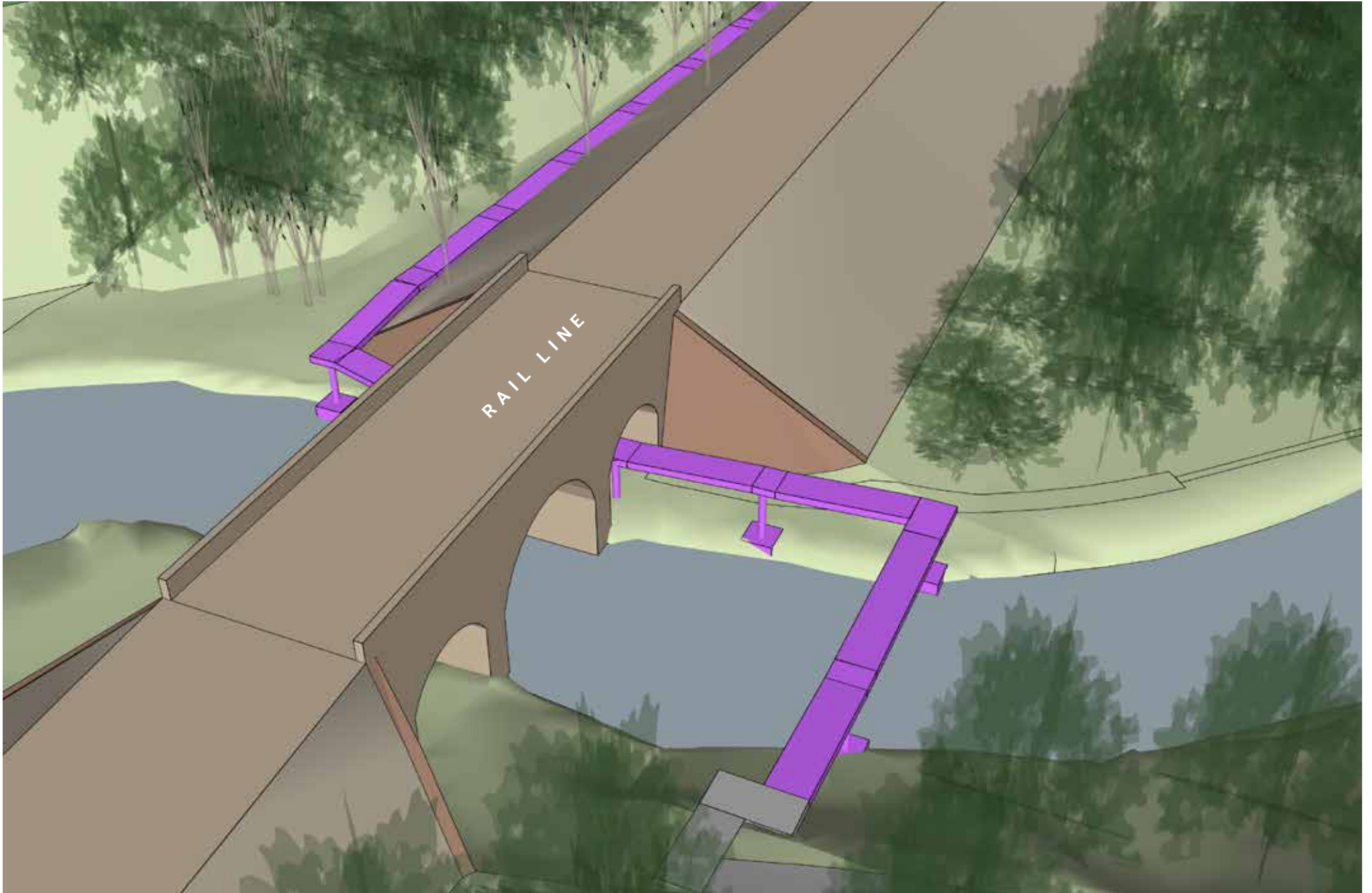
OPTION 2



OPTION 2



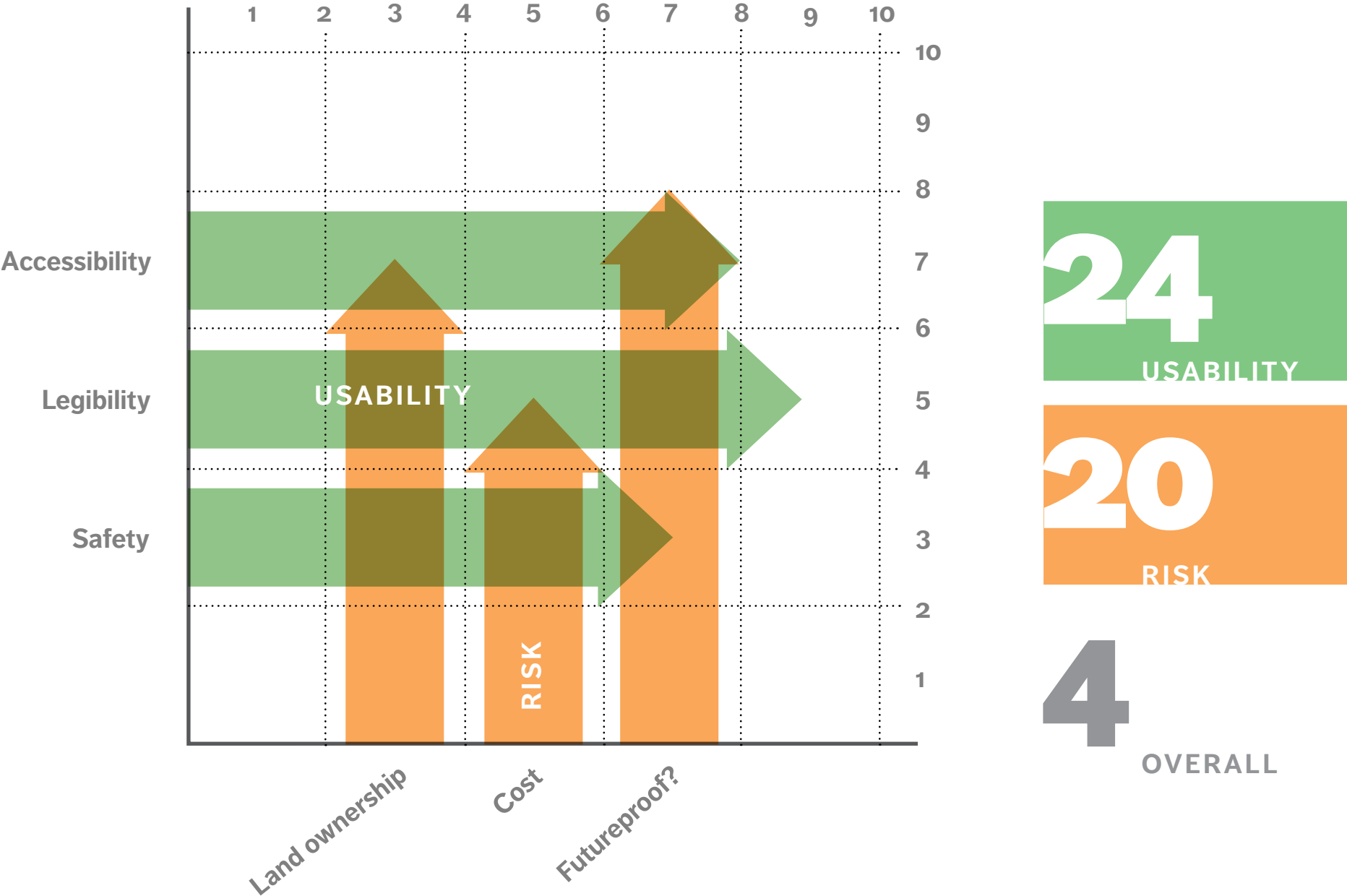
OPTION 2



OPTION 2



Option 2



Accessibility 8/10

This option allows for a potentially fully accessible, direct route between Edmund Park and the rail station. The route to the town centre is less direct but with straightforward wayfinding easily achievable by continuing on from the rail station or by cutting back through the Caxton Rd site.

Legibility 9/10

This routes benefits from being the most direct of the three options with good forward visibility with minimal wayfinding required.

Safety 7/10

As above this option benefits from being the most direct. With some vegetation clearance and ground works along footpath on the south bank of the river can achieve good forward visibility and accessible gradients.

Land Ownership 7/10

This option requires a significant increase in amount of interface with Network Rail land so scores more highly than the previous option. It does however avoid the land ownership to the south west of the existing rail bridge

* As stated elsewhere all routes require negotiations with land owners to the north to achieve a link through to Frome Rail Station

Cost 5/10 - Outline Cost: £TBC

TBC

Futureproof? 8/10

Presuming that negotiation can be achieved around the route on Network Rail land this route is well futureproofed when compared to the first option. In terms of proximity to the river, the soffit level of the bridge crossing is placed well above anticipated flood levels following preliminary flood risk analysis.

OPTION 3



OPTION 3



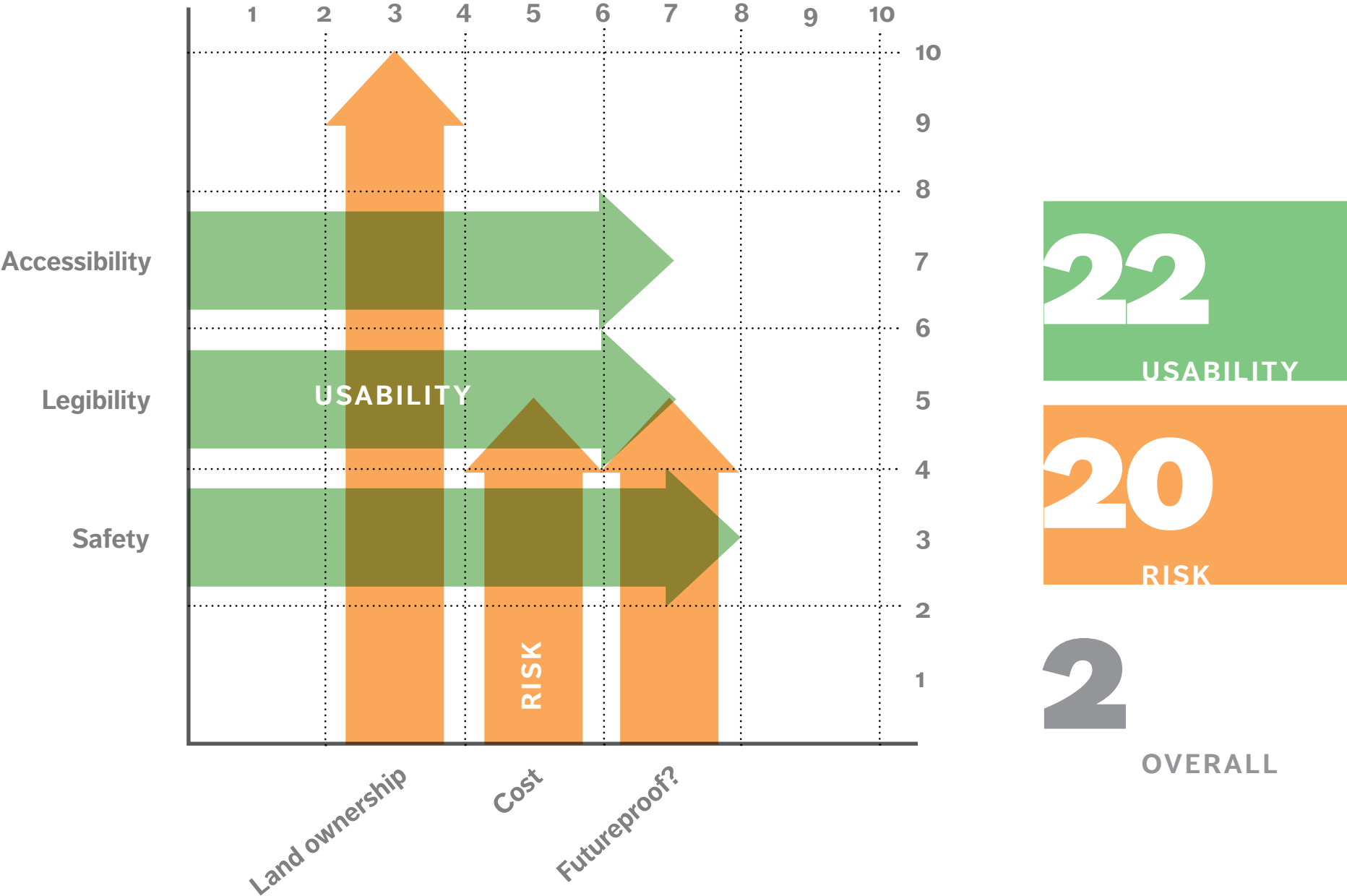
OPTION 3



OPTION 3



Option 3



Accessibility 7/10

This option allows for a potentially fully accessible route between Edmund Park, the Caxton Rd development and the rail station. It relies on utilising the private lane across the Edmund Park site that links with the existing rail bridge to the south before descending the embankment on Network Rail land. It is significantly longer than options 1 & 2.

Legibility 7/10

The route within Edmund park would require more wayfinding support in order for residents to use the route. Once across the existing rail bridge to the south west of the site, the route directly follows the rail line and affords good forward visibility.

Safety 8/10

Once across the existing rail bridge to the south west of the site, the route directly follows the rail line and affords good forward visibility. This route also remains at a more consistent level than the others in the approach to the rail station.

Land Ownership 10/10

This route relies on the most interface with Network Rail land which presents a risk, it also requires part location in the parcel of land to the south west of the river crossing that does not currently have a determined single owner so presents a significant risk when considering future negotiations.

Cost 5/10 - Outline Cost: £TBC

TBC

Futureproof? 5/10

As with option 2, presuming that negotiation can be achieved around the route on Network Rail land this route would be well futureproofed when compared to the first option. In terms of proximity to the river, the soffit level of the bridge crossing is placed well above anticipated flood levels following preliminary flood risk analysis.

5. EXISTING ROUTES



Distances via existing cycle / pedestrian routes:

Frome Rail Station = 1.3km (0.8 miles)

*approx. length of route with bridge link:
0.5km (0.3 miles)

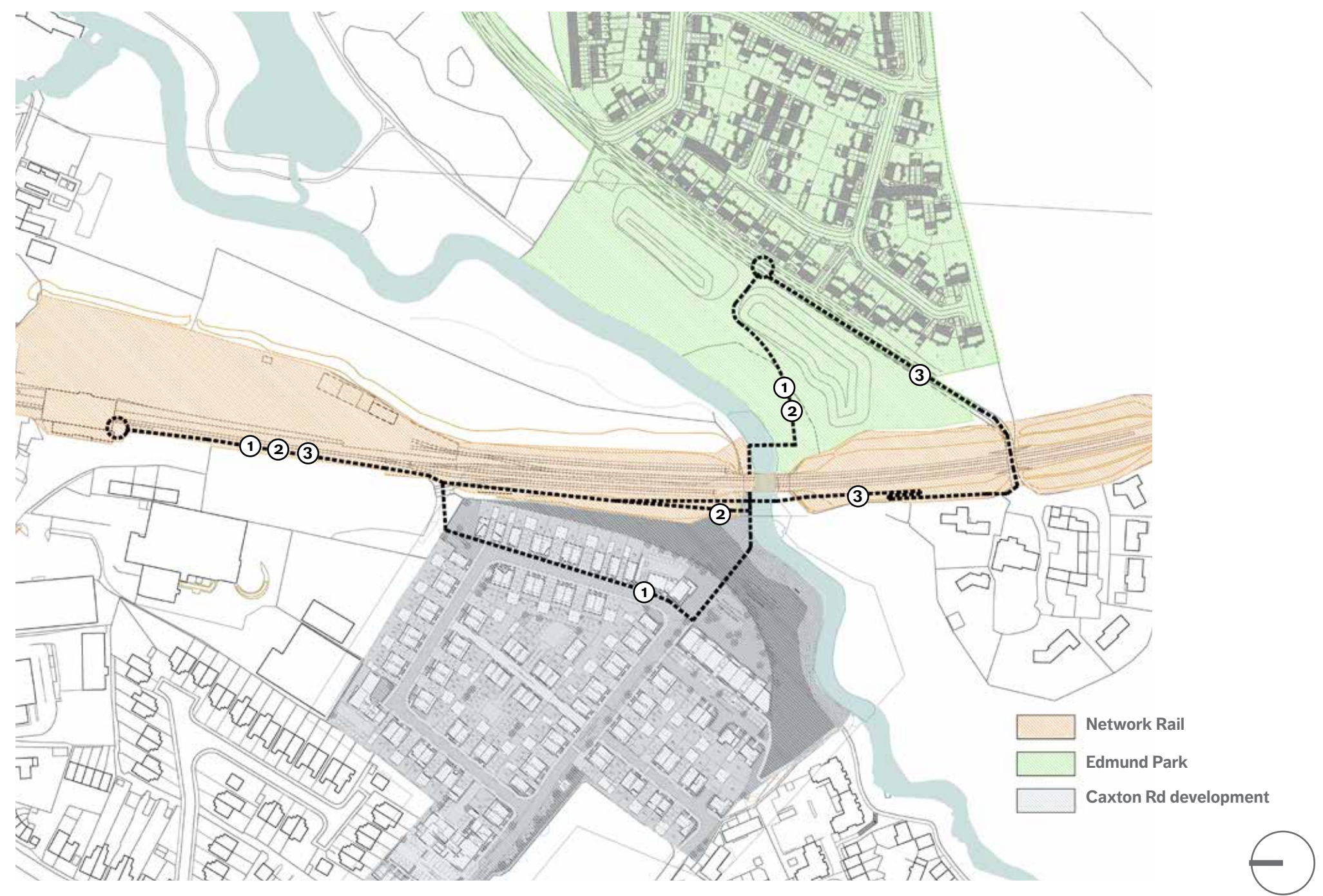
Frome town centre = 2km (1.2 miles)

*approx. length of route with bridge link:
1.37km (0.85 miles)

Christchurch first school and nursery =
2.5km (1.6 miles)

*approx. length of route with bridge link:
1.1km (0.68 miles)

6. LAND OWNERSHIP PLAN WITH ROUTES



7. CONCLUSION

Route Option 2 - Overall Score: 4 (PREFERRED ROUTE) - **NB - combination of Options 1 & 2 currently being considered**

This is the most direct and legible route that offers an accessible crossing solution and associated route to both the town centre and Frome Rail Station.

Route Option 3 - Overall Score: 2

Whilst this route offers good forward visibility, safety and accessibility, it is not the most direct or legible and is significantly longer than options 1 & 2. It would also require significant amounts of engineering works to be carried out on Network Rail land. ** Path route to be reviewed to avoid conflict with ownership of the private access track**

Route Option 1 - Overall Score: 1

This is the only option that proposes a change of layout to the proposed Caxton Rd scheme. Whilst this is attractive in terms of legibility, it is less feasible due to the concerns of working over the 'made ground' of the slope towards the riverside footpath.