

Criteria for deciding bridge location

Criterion	Rationale
<i>Acceptability to the traditional owners:</i>	The bridge is on Peramangk land. The Peramangk elder, Ivan Tiwu Copley, who resides at Mount Barker has endorsed the proposed crossing at Sandow Road as <i>not being near or within a known sacred area</i> . Other known but <i>non-resident</i> Peramangk custodians (Isabel Campbell and the Hunter Family live at Mannum and have not been consulted.
Strategic considerations:	<p>The proposed bridge site at Verdun is located at - 35°00'38.28"S;138°47'19.13"E. The proposed bridge at Sandow Road, Verdun will allow the extension of the existing trail from Verdun to Hahndorf – WSA’s original intention when planning, constructing and signing the Pioneer Women’s Trail in the period 2004-2006.</p> <p>The Bridge will also link with the Pioneer Women’s Trail (PWT) and the Heysen Trail loop running past <i>The Cedars</i>, home of Sir Hans Heysen and will connect to the Amy Gillett Rail Trail (cycling/shared-use) commencing at Oakbank and extending to Mt Pleasant and beyond. There is also the potential for an Adelaide Hills Wine Trail for cyclists and walkers which will have the potential to bring additional commercial benefits to the district. Walking and cycling paths are known to increase fitness levels amongst trail users with consequential savings in future community medical and hospital costs. In this respect, a Sandow Road pedestrian/cycling bridge at Verdun would be more strategically advantageous to walkers and cyclists than a new bridge at the site of the existing road bridges on Mt Barker Road and Onkaparinga Valley Road.</p>
<i>Economic benefits to the community:</i>	The Heysen, Lavender Federation, Amy Gillett and Mawson trails have brought proven economic benefits to traders along the track. Towns are competing to attract the Lavender Federation Trail walkers. Artist-tourists regard <i>The Cedars</i> and the iconic river red gums Sir Hans painted as a “must see”! The Adelaide Hills Wine District also will benefit from a Hills Wine Trail
<i>Alternative bridge locations</i>	<p>This has been assessed by the Meechi Road Consultant’s report <i>vis-a-vis</i> the existing road bridge (at -35°01'11.91"; 138°47'26.94"E) and other bridges in the vicinity. (see alternative bridge locations)See under existing bridge infrastructure (below). - e.g:</p> <ul style="list-style-type: none">• The existing Hahndorf bridge at: 35°01'11.91"S;138°47'26.94"E;• existing Verdun-Balhannah bridge at 35°00'26.04"S;138°47'41.59"E (WGS84 datum). <p>These alternative locations have been considered in the Meechi Road Consulting Site Study conducted by Libby Dowling.</p> <p>Access to the Onkaparinga Road – Rail Link (which provides a potential link to the Cedars) would require extensive bridge works and would be unlikely to receive the support of the Australian Rail Track Corporation (ARTC) which has recently closed pedestrian crossing points at Belair National Park on safety grounds since speed restrictions have been lifted along various sections of the interstate railway corridor through the Adelaide Hills.</p>
<i>Walkability/Rideability:</i>	Much of the <i>original</i> PWT - the old Mt Barker Road - has been bituminised. Walkers attempting to walk or ride the original path today have a lot more traffic to contend with. It’s also must faster moving and is therefore more hazardous. In designing the current Pioneer Women’s Trail in 2004, the Walking Federation opted for a route which includes Sandow Road Reserve which separates walkers from vehicular traffic. However it emerges onto Onkaparinga Valley Road where there are several short pinch-points between Heysen Road and Silver Road that expose walkers and cyclists to

Connection with other trails:

unacceptable risks from motor vehicles. The PWT connects easily with the *Heysen Trail* and the *Amy Gillett (cycle/shared-use) Trail* (link at [../TrailLinks/Linking%20Trail%20to%20the%20Amy%20Gillett%20Cycle%20path.pdf](#)) with the potential to link with future trails. The re-routing of the Heysen trail to the Cedars should be considered and a dedicated shared-use trail on The Cedars property aligned with Sandow Road would enhance the walking/riding experience. Sadly this section of the Sandow Road extension appears to have been sold off many years ago. This forces walkers to use a short section of road verge of the very busy Onkaparinga Valley Road. It is strongly recommended that an indemnification agreement be negotiated with the Heysen Family, owners of *The Cedars*. There may be commercial advantage for the Cedars owners in diverting walkers through *The Cedars* property. See the satellite image at this link: [../Satellite/Sandow KmlImage.png](#). The route is marked by waypoints 15-21 and waypoint 4, thereby short-circuiting the northern section of Heysen Road and a significant section of Sandow Road (between waypoints 14 and 4 on this satellite image)

Authenticity:

While the existing route planned in 2004 compromised the historical authenticity of the route chosen in the interests of walker safety, it can lay claim to the status of a “memorial” walk. The existing route passes through much more native vegetation than offered by the historically more “authentic” original route of the pioneer women which is uses a route substantially along the Mt Barker Road. The Pioneer Women’s is therefore a **memorial** trail in much the same way that the Heysen Trail is a memorial to Sir Hans. While he never walked it, it nevertheless connects the country that he featured in his paintings.

Lyndall Davidge of the Hahndorf Branch of the National Trust supports the proposed bridge on Sandow Road Reserve. While Lyndall’s preference is for the original route followed by the pioneer women, she recognises the strategic advantages offered by a bridge at Sandow Road Reserve in connecting with the Adelaide Hills Trails Network. Should the two existing vehicular bridges on the NW outskirts of Hahndorf be replaced with new bridges designed with integrated pedestrian lanes, the existing pinch points at the bridges would be removed and the historic route from Hahndorf would become a viable alternative route for walkers seeking a route with more historical authenticity. The Pioneer Women’s Trail currently starts at Verdun simply because there isn’t a safe crossing of the Onkaparinga. The current trail attempts to be both *walkable* and as *historically close* to the route of the original walk as possible. Once it has been completed to Hahndorf, It will more closely resemble the distance walked by the pioneer women, starting from Pioneer Park and ending their night-walk at Beaumont House before walking on to the Adelaide markets.

Usage:

The project will determine how many walkers/cyclists a proposed route is likely to have. Traker stats for the Pioneer Women's trail show 1850 walkers, runners or cyclists per month walking the Trail at Mt Osmond. A bridge will attract even more trail users. Rob Marshal advises that this traker does not register cyclists, so this is likely to be an underestimate of the number of trail users.

Cost:

The engineering criteria were: (insert hyperlink).

Criteria for deciding bridge location

A “breakable” submersible “ford” or fair weather crossing structure - elevated sufficiently to provide fording access through all normal river flows (for all but a few days when the Onkaparinga is in flood). It can be constructed in such a manner as not to significantly impede river flows during floodtime. A design that reduces water impedece in flood time is more likely to be considered favourably by the Adelaide and Mount Lofty Ranges Natural Resources Management Board (AMLRNRMB). The engineering design of the proposed bridge is at the following link: [../Engineering/13569-1%20REV%20A.pdf](#) and proposes a span of 36m – at a [projected cost](#) of \$303,575. This cost will be only justified if it is designed to be used by cyclists *and* walkers. A shared-user bridge will need to be 3.0m wide to provide sufficient separation of cyclists and walkers although Councils prefer a 2m wide bridge which is narrower than the standard for shared-use pedestrian/cycling bridge. It is recognised that the proposed bridge may entail significant expense for both the AHC and DCMB. This expense would be offset against possible additional sources of funding – Commonwealth, State, and private corporate sponsorship which will be sought after the completion of this feasibility study.

Existing infrastructure

While our (WSA) preferred crossing is on the alignment of Sandow road, consideration will need to be given to the service life of all existing road bridges in the area. Should any of the existing bridges in the vicinity of Hahndorf and Balhannah be nearing the end of their serviceable life, replacement bridges should ensure that pedestrian/cycling pathways are integrated into their design, irrespective of the outcome of our preference for a Sandow Road crossing. To ensure safe crossing for pedestrians and cyclists any new road bridges will need to conform with the appropriate Australian standard Australian Bridge Design Code (SAAHB77). Walkers and cyclists will benefit from a track route that minimises walking along public roadside verges and highways. The road verges of The Onkaparinga Valley Road are both narrow and busy and several small easements will need to be negotiated to ensure safe separation between walkers/cyclists and motor vehicles.

Environmental impact: Native Vegetation replanting and habitat restoration

As a “water affecting” development the design will need to satisfy the Adelaide and Mt Lofty Ranges Natural Resources Management Board. The feasibility study will need to survey existing vegetation and provide an estimate of the cost of weeding the Sandow Unmade Road Reserve - in the vicinity of the schools - of gorse, blackberry and other noxious weeds and replanting with locally-indigenous trees and understory to maximise biodiversity and reduce lerp-induced dieback for existing eucalypts. Some weeding has already been done to ensure access to the bridge site for the geotech and engineering survey. It is hoped that local schools, community groups and service clubs can be encouraged to participate in this project in order to beautify the approaches to the bridge.

Health and Safety benefits

None of the existing bridges in the vicinity provide separate pedestrian lanes – a safety issue. A dedicated shared-use (walking and cycling) bridge will provide health benefits to the wider community by encouraging them to walk or cycle along the trail leading to the proposed bridge crossing. Urban planners are beginning to see the strategic advantages in encouraging walking and cycling, thereby reducing vehicular traffic densities.

(Child) Safety considerations: As the proposed crossing is within 200m of the

Hills Christian School, Verdun, cheaper alternatives such as stepping stones may be inappropriate for children –especially when the Onkaparinga River is in flood.

As the peak of the walking season corresponds with higher river levels and potential flooding, stepping stones would fail to give sufficient access to the PWT when it is most needed.

Scope of the briefing to tenders for an assessment of the most effective crossing of the Onkaparinga

The Bridge design needed to consider all-weather accessibility and construction costs as well as the costs of repair and replacement should structural damage occur during flooding. The design needed to give due consideration to [50 years of local flood data](#) for the Onkaparinga relevant to the location of the proposed crossing and a suitable approach for both cyclists and walkers with appropriate separation. See also at the Link [Upper Onkaparinga River Catchment Floodplain Mapping Report Tonkin Consultants Report](#) by Ken Schalk, April 2004.