

Jurien Bay

Shared Use Rural Pathway

CONCEPT DESIGN



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REVISION	AUTHOR	DATE
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PREPARED BY

This document has been prepared by Three Chillies Design for use by the Shire of Dandaragan in May 2025.

ACKNOWLEDGMENTS

The authors of this Detailed Design acknowledge the Traditional Custodians of the lands on which we deliver our services, the Yued people of Noongar Boodjar, and recognise their enduring connection to land, waters and community. We pay our respects to them and their cultures, and to Elders past, present and emerging.

DISCLAIMER

This Detailed Design has been prepared for the Shire of Dandaragan by Three Chillies Design based on assumptions as identified throughout the text and upon information, consultation, data and conclusions supplied by others.

While all due care and consideration have been used in the preparation of this Detailed Design, the consultants advise that all recommendations, actions and information provided in this document are based upon research as referenced in this document. Accordingly, detailed information in this regard will require additional professional consultation to adequately manage and maintain the facilities and reduce risk.

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INTRODUCTION

Project Overview

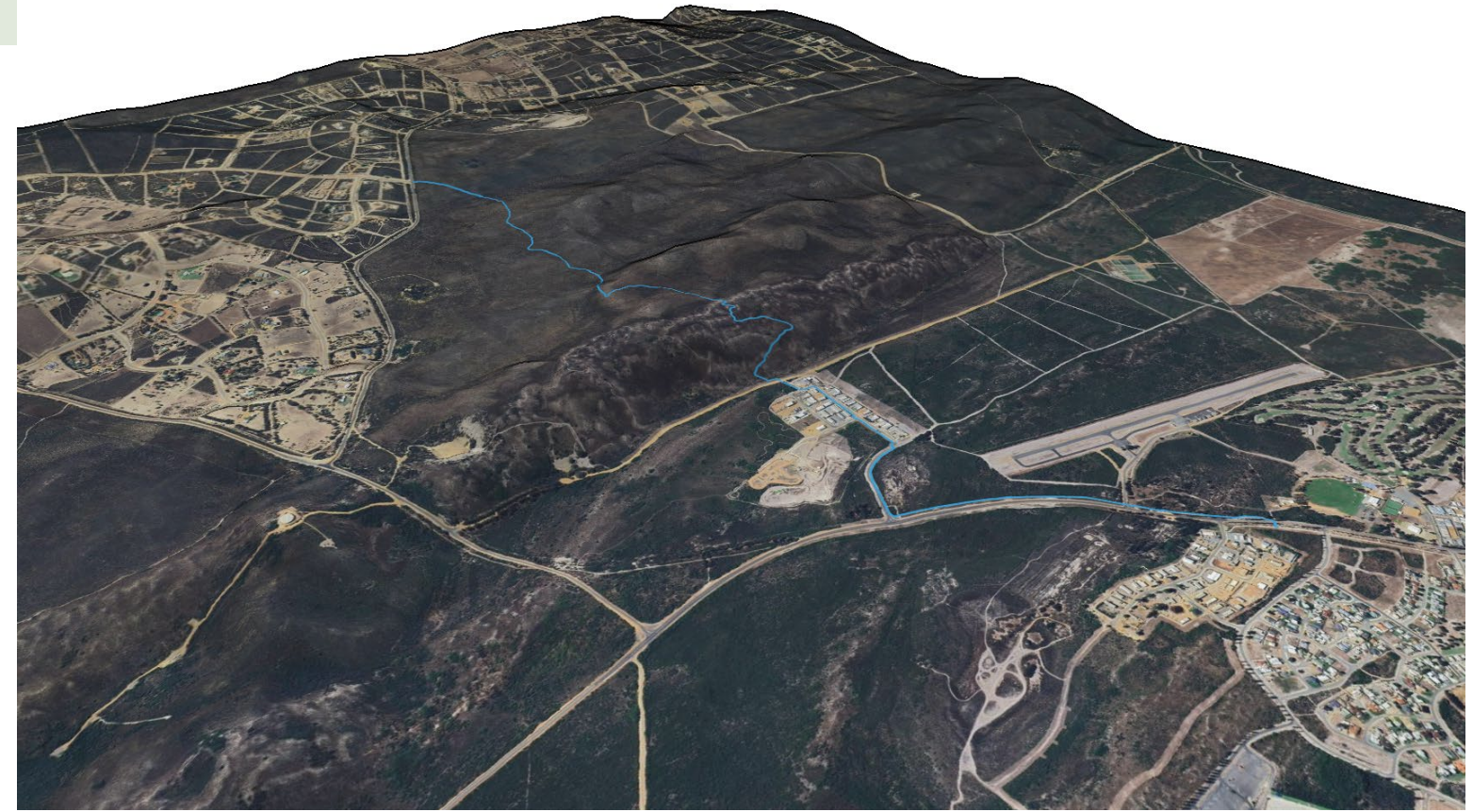
The Shire of Dandaragan have commissioned Three Chillies Design to develop an alignment for a shared use path connecting Jurien Bay townsite to Coalseam Light Industrial Park and to the rural estates of Alta Mare and Jurien Bay Heights. The proposed pathway would take pedestrians and cyclists off the verge of major roads, providing a safer and more enjoyable route to and from the estates and to local businesses such as the Kakka Alley Brewery.

DESIGN OVERVIEW

Design Considerations

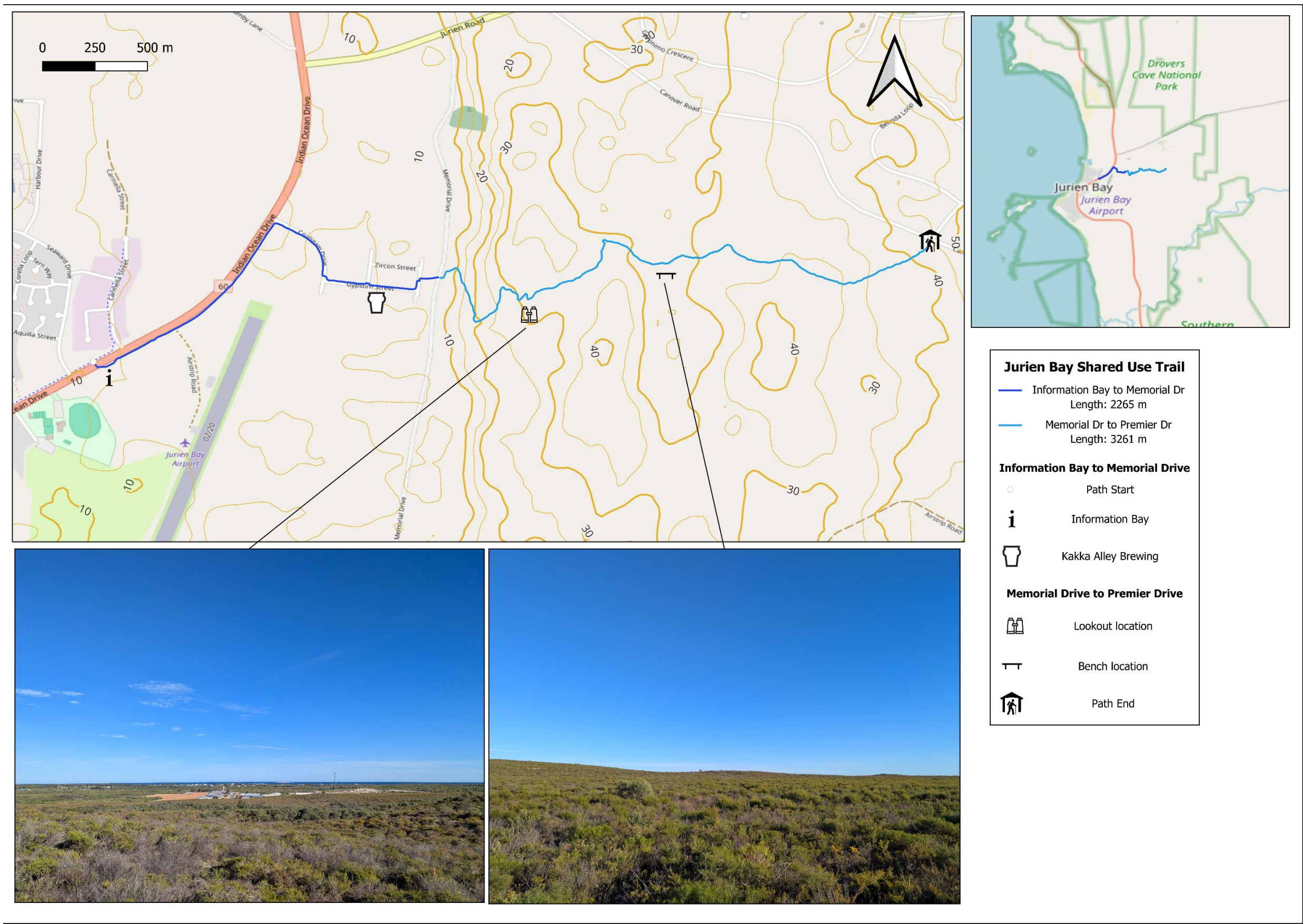
The path alignment has been designed with special consideration to the following-

- Path alignment avoids private land. It has been routed through local road reserve, Crown land and land managed by the Department of Planning, Lands and Heritage.
- The path alignment links existing infrastructure including the existing shared use paths in town, the Jurien Bay Information Bay, Coalseam Light Industrial Park and the rural estates.
- The number of road crossings has been kept to a minimum and where they are deemed necessary, they have been located with good sightlines in low-speed traffic areas.
- Care has been taken to route the alignment avoiding steep ascents, descents or side slopes. This ensures the trail is accessible to all users and reduces the amount of benching required during construction.
- The alignment integrates natural contours and reverse grading so that water is shed wherever possible, ensuring excellent drainage whichever material is ultimately chosen for the path surface.
- The alignment has avoided the necessity of destruction of any significant vegetation, including large trees. Determining the presence of priority flora and fauna or indigenous heritage sites along the alignment is beyond the scope of this design.



A 3dimensional rendering of the proposed path alignment. (Elevation not to scale)

PATH ALIGNMENT OVERVIEW



INFORMATION BAY TO MEMORIAL DRIVE



Alignment Description (Information Bay to Memorial Drive)

The proposed alignment diverges from the Jurien Bay PSP just before Carmella Street allowing a connection to the tourist information bay. It then cuts through some dense vegetation to follow behind the existing verge trees up to Airstrip Rd (*inset map bottom left*). Crossing Airstrip Road, the next section (*approx. 200 m*) is low lying with evidence of inundation. We would advise lifting this section of path, along with installation of culverts as necessary.

The alignment continues in a north easterly direction, running behind the existing power poles wherever possible to keep users separated from the road and provide some shade from roadside vegetation. Some clearing of the existing vegetation will be necessary to achieve this alignment. At the corner of Indian Ocean Drive and Coalseam Drive a culvert will be necessary to cross the existing drainage channel. We would also recommend the path run behind the Coalseam industrial area sign so that users have a clear sight line around the corner.

The alignment then follows the south side of Coalseam Drive with the installation of another culvert being necessary to facilitate drainage from the road. We recommend the path cross Coalseam Drive before Gypsum Street.

The next section is optional (*approx. 485 m*). Cyclists or pedestrians could use the road or verge to travel through the industrial area. However, if funding allows, we recommend continuing the path through the industrial area on the north side of Gypsum Street. The south side is obstructed with power transmission poles. The alignment follows around onto Limestone Way before exiting the industrial area to the left of the gravel track opposite Jurien Landscaping Supplies. The alignment travels up a slight hill, staying to the left of this track, to cross Memorial Drive.

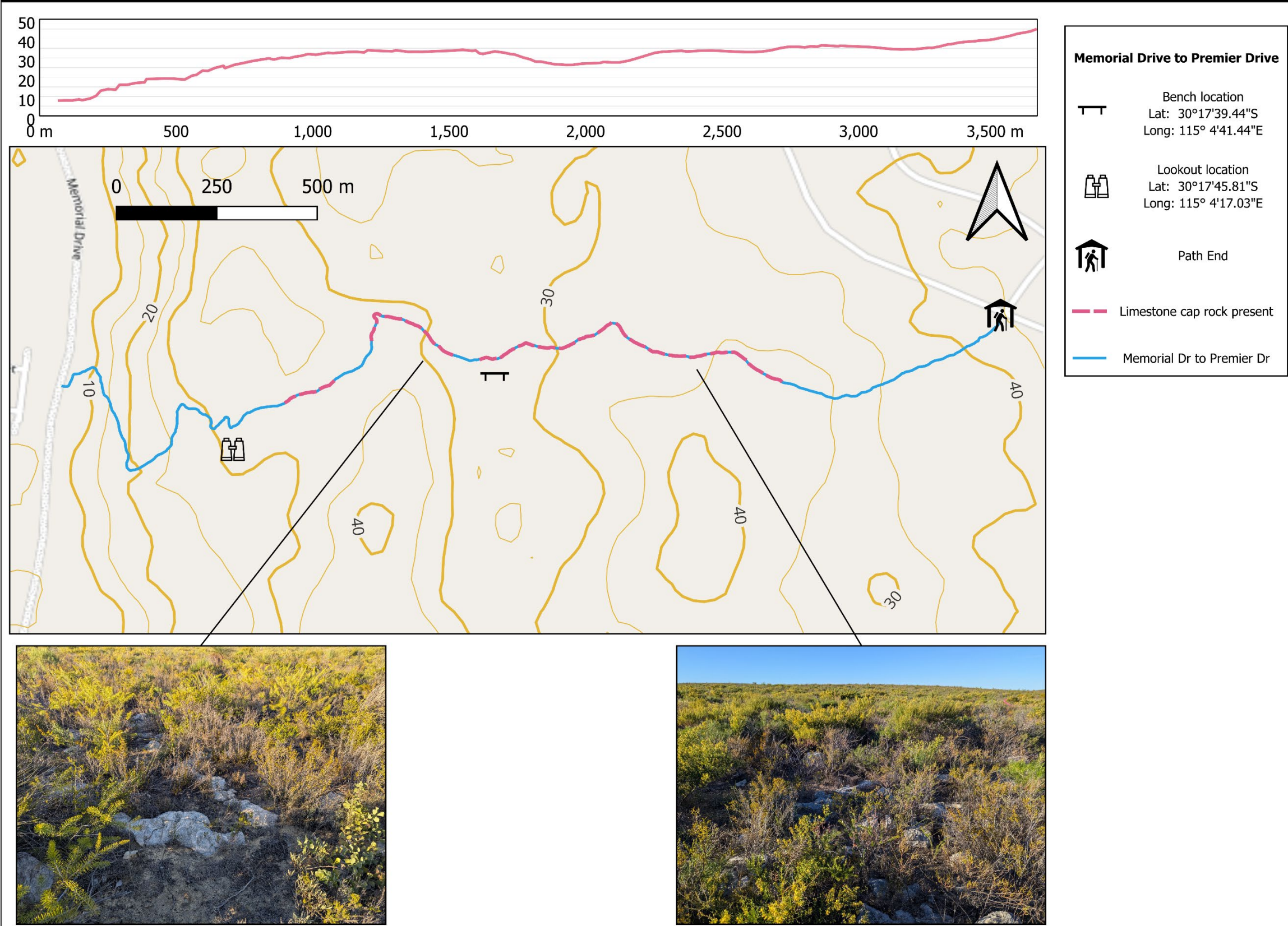
Proposed Construction Methodology

We have provided indicative costings to construct this section with a compacted road base surface, however, it is assumed that this section of path will be constructed in concrete as per the Shires existing path network.



Munda Biddi, Sandpatch, Albany, Western Australia

MEMORIAL DRIVE TO PREMIER DRIVE

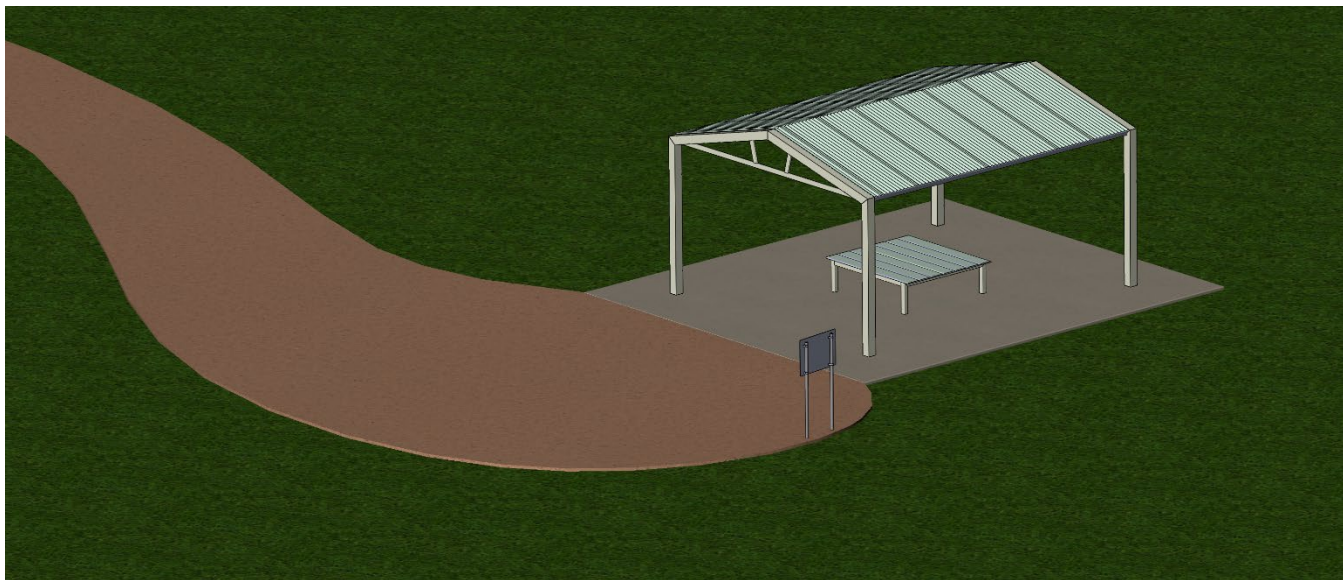


Alignment Description (Memorial Drive to Premier Drive)

After crossing Memorial Drive the alignment winds to the top of the sand dune overlooking Jurien Bay. At the top there is an ideal location for a lookout or bench with views to the ocean. The alignment then crosses a plateau before descending the backside of the sand dune. A low point at approximately the 2km mark offers some protection from the wind and would make an ideal location for a bench. The alignment then climbs gently before terminating at the intersection of Premier Drive and Canover Road.

Throughout this section of the alignment are areas of limestone caprock. These will need to be taken into consideration during construction. The total length of trail effected is approximately 1300 m.

At the path's end, on the western side of Canover road, an option could see a large rest area serving as a start/end of trip location. This area could feature a four posted, open sided shelter with either benches or seating platforms and an information sign. The signage could display information about notable locations/businesses within the estates along with a map providing direction to those places. The addition of a sculpture with significance to the trail or local area would add a point of interest.



Example end of trip location

Proposed Construction Methodology

- Slash alignment to 4 m wide using a Positrack mounted slashing deck.
- Spray vegetation in the areas of limestone caprock as it will not be possible to grub roots effectively.
- Once vegetation in the limestone caprock has died off, use a Positrack equipped with a road profiler to flatten high points in the cap rock to a width of 2.5 m.
- Grub roots and organic matter and box out/bench the alignment to a width of 2.5 m. Organic matter can be spread to the sides of the trail or taken off site as required.
- Lay 75 mm crushed limestone basecourse to a depth of 200 mm and compact (recommended).
- Lay road base top course to a depth of 75 mm and compact (recommended).



Wilderness Ocean Walk, Denmark, Western Australia

INDICATIVE COSTINGS

These costings are for materials, machinery and labour to construct a path with a limestone subgrade and 20mm road base surface at 2.5 m wide. They do not include a redundancy factor. They are not intended as a formal quote.

	Information Bay to Memorial Drive (\$ ex gst)	Memorial Drive to Premier Drive (\$ ex gst)
Design Documentation	2265	3261
Slashing/Box out/Bench/Compact subgrade	19,252	27,718
Profiling of cap rock	NA	2,574
Cart/Spread/Compact limestone base course	88,335	127,179
Cart/Spread/Compact road base top course	89,467	128,809
Bench/lookout areas (x 2)		10,000
End of trip location (6 x 5 m shelter, 2m seating platform, signage, excludes sculpture cost)		35,000
Subtotal	199,319	334,541
Total		\$533,860 ex gst