

April 2025

Taronga Zoo Sky Safari

Appendix JJ
Cable Car Clearance
Requirements
RTS Revision 2

PREPARED BY



PREPARED FOR





TZ Sky Safari Cable Car Revitalization Cable Car Tender Phase

Doc #:	M013_R1
To:	Sky Safari Team
From:	Steve Dorau, SCJ Alliance
Date:	March 24, 2024 April 16, 2025
RE:	Ropeline Profile Recommendations

Purpose

SCJ Alliance (SCJ) prepared this memorandum to offer our cable car expertise in relationship to the ropeline profile design for the proposed Ski Safari Revitalization project.

Current Design

The project team has been carrying the ropeline profile shown in Figure 1. This profile was developed to accomplish the following goals:

- Maintain a clearance of 2.4 m above the primate and elephant barn exhibits as required by the AS4722 ropeway standard
- Maintain a clearance of 4.0 m above pedestrian areas as required by the AS4722 ropeway standard
- Maintain a fire mitigation clearance of 10 m above the Food Court
- Maintain clearance and avoid impacts to the protected hoop pine trees

It should be noted that due to the increase in the cable car cabin size, the cables will likely sag more than the previous Sky Safari cable car system under similar conditions and taller pylons will likely be required to achieve the same result.

SCJ is of the opinion that the existing ropeline profile design is well-suited to the project site, meets the intent of the AS4722 ropeway standard and will result in a successful project.

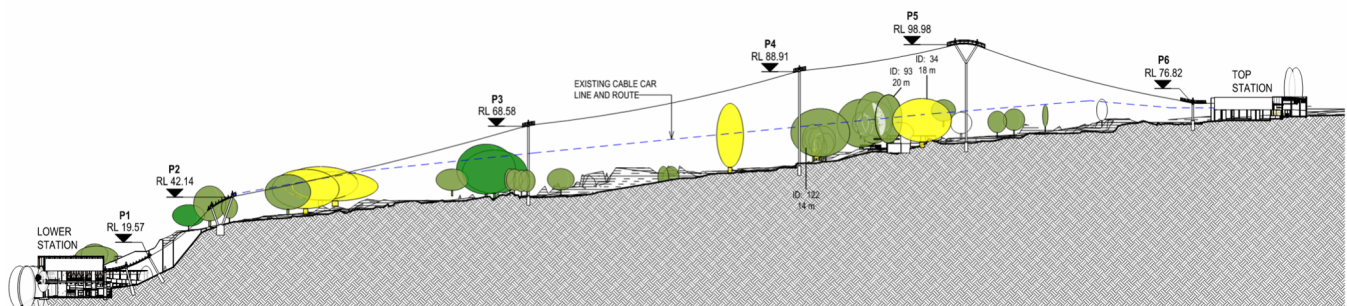


Figure 1

Alternate Design

For comparison, SCJ reviewed an alternative concept in which the heights of the pylons for the Sky Safari Revitalization project are kept in conformance with the general height of the previous Sky Safari cable car system. The results of this analysis are shown in Figure 2. It should be noted that the proposed cable car system has larger cabins and requires more width for clearance than the existing system.

It is SCJ's opinion that this alternative is not appropriate for the project site as it fails to meet the requirements of the AS4722 ropeway standard and industry standards in the following ways:

- The clearance above the trail just uphill of Pylon 2 would be just 3.3 m, short of the 4 m requirement
- The revised ropeline profile would impact the Primate Building and Elephant Barn
- The clearance above the Food Court would only be 2.0 m, short of the recommended 10 m of clearance
- The protected hoop pines would be impacted by the wider proposed cable car system as the cable cars pass between the trees at greater width than the current system
- The area between Pylons 5 and 6 would have insufficient clearance for pedestrians and zoo staff as a minimum of 4 m is required

SCJ is of the opinion that the alternative ropeline profile shown in Figure 2 is not suited to the project site and would not meet the requirements of the AS4722 ropeway standard.

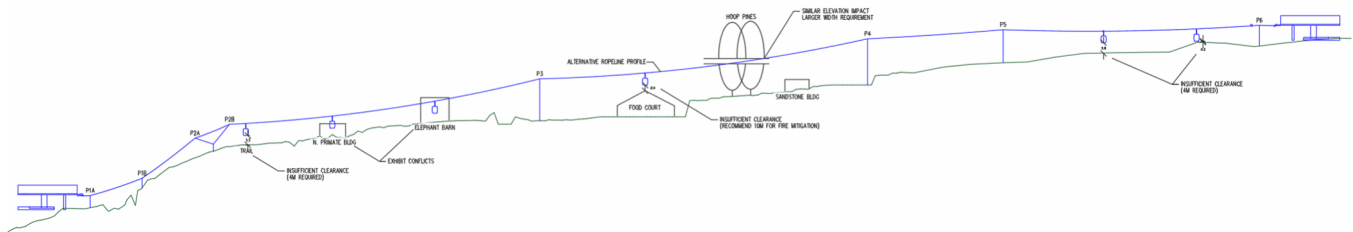


Figure 2