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## Appendix L: Urban Design Treatment Strategy



# ELEVENTH ROAD BRIDGE URBAN DESIGN & TREATMENT STRATEGY

## 1. Introduction

This paper relates to the new Road-Over-Rail Grade Separation at Eleventh Road being delivered as part of the Byford Rail Extension project. It seeks to outline the considerations of the aesthetic impact of the bridge and associated infrastructure, and the efforts made to reduce the impact to both the immediate environment and local stakeholders

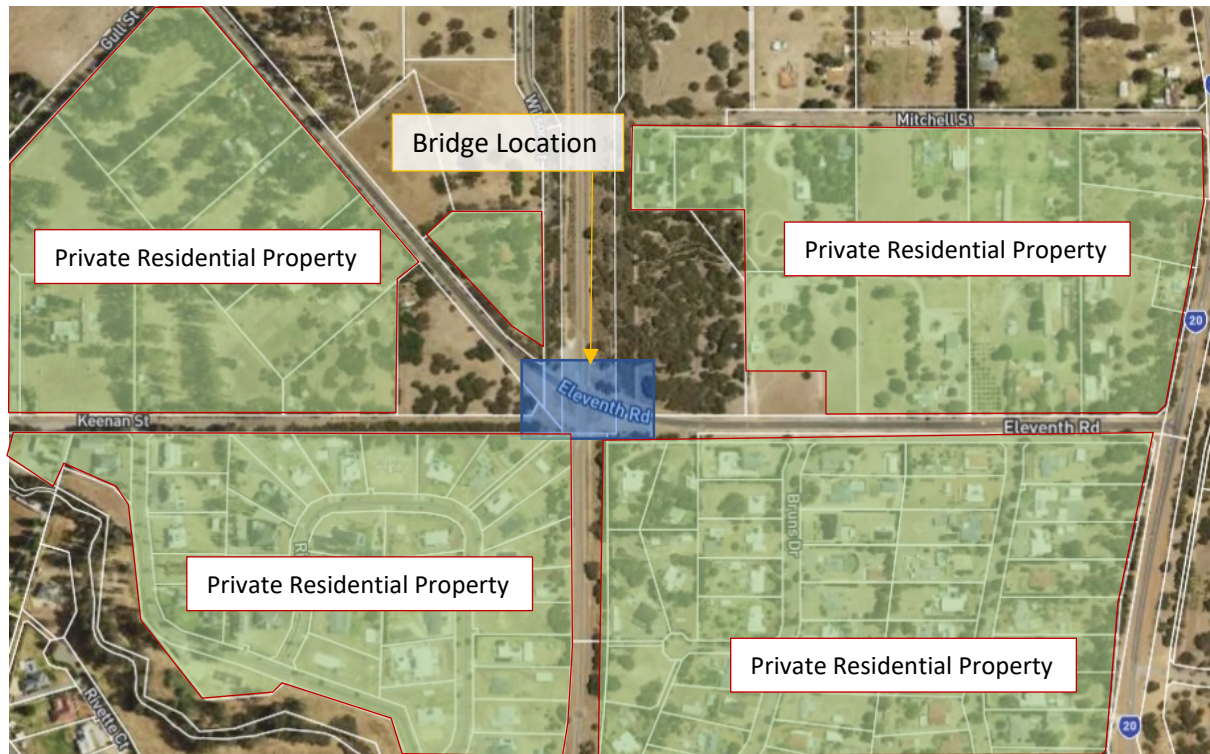


Figure One: Project Location

## 2. Prominence

The intersection between Eleventh Road and the PTA rail corridor sits in a rural location in flat terrain. With the elevated roadway rising to approximately 10m from the current ground level, the bridge will inevitably become a prominent feature in the landscape.

The prominence of the structure has been reviewed from the viewpoint of Road Users, Principle Shared Path (PSP) users, and local residents.

Due to the alignment of Eleventh Road, the longitudinal bridge elevation is not visible to road users on either the eastern or western approaches, and as such the visual impact to road users has not been a major consideration. By contrast, users of the PSP are presented with the prominent northern and southern elevations, making the treatment of the circa 50m either side of the rail corridor a major focal point.

Local residents are largely situated in the subdivisions to the South of Eleventh Road, making the full southern elevation highly prominent. On the West of the rail the structural height is somewhat masked by the earth embankment, with a maximum vertical retaining wall height of 4.5m away from the abutments. The distance between the roadway and the subdivision property boundary here is a minimum of 50metres; which also assists in reducing the immediate visual impact to residents.

On the East of the rail there is insufficient space to accommodate a battered embankment, and the retaining walls are both taller (maximum approximately 10m), and closer to the property boundary (only 10-20m whilst still at significant height). Residents of the south-eastern subdivision are also impacted by changes to the local road network, as maintaining their direct access to Eleventh Road is not physically possible, and they will instead be provided with a new local cul-de-sac which feeds back to a relocated access point onto Eleventh Road further to the East.

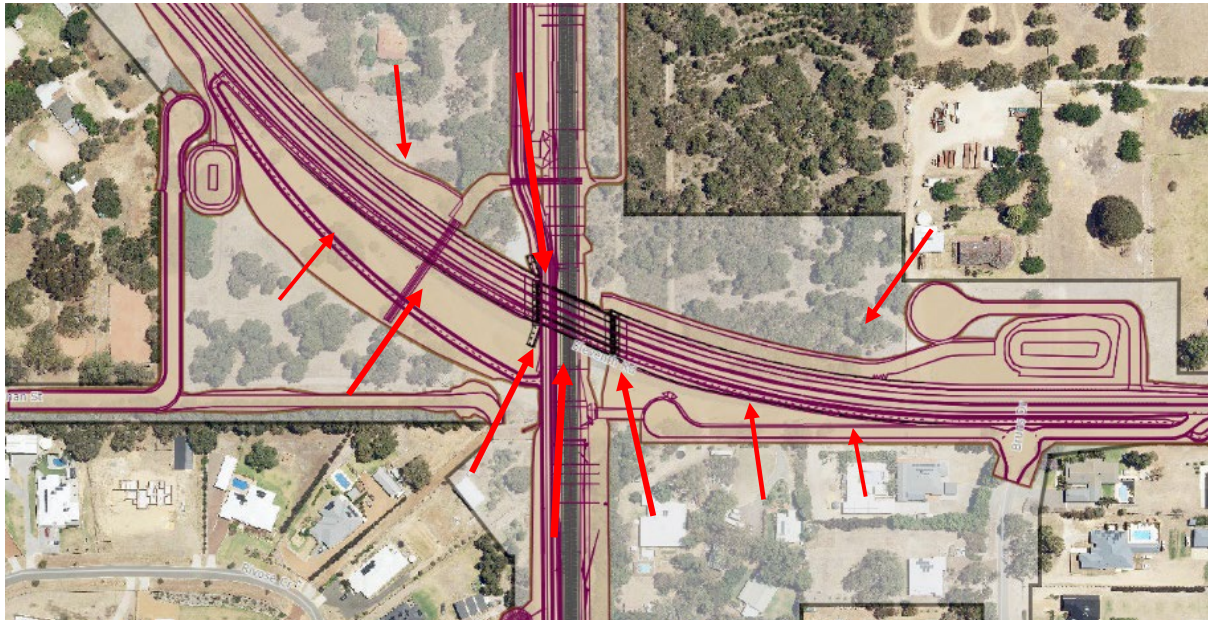


Figure Two: Prominent Visual Aspects

### 3. Aesthetic Treatment Strategy

Based on these varying levels of impact, along with further assessments around the likelihood for graffiti/vandalism, a painted treatment will be provided to all walls, with various sections of the retaining walls receiving additional 'relief' within the concrete panel faces. This is generally in line with the approach for Main Roads WA grade-separation infrastructure, noting that MRWA will be responsible for maintenance of the Mechanically Stabilised Earth (MSE) wall structures. Figure 3 and Table 1 outline this assessment.

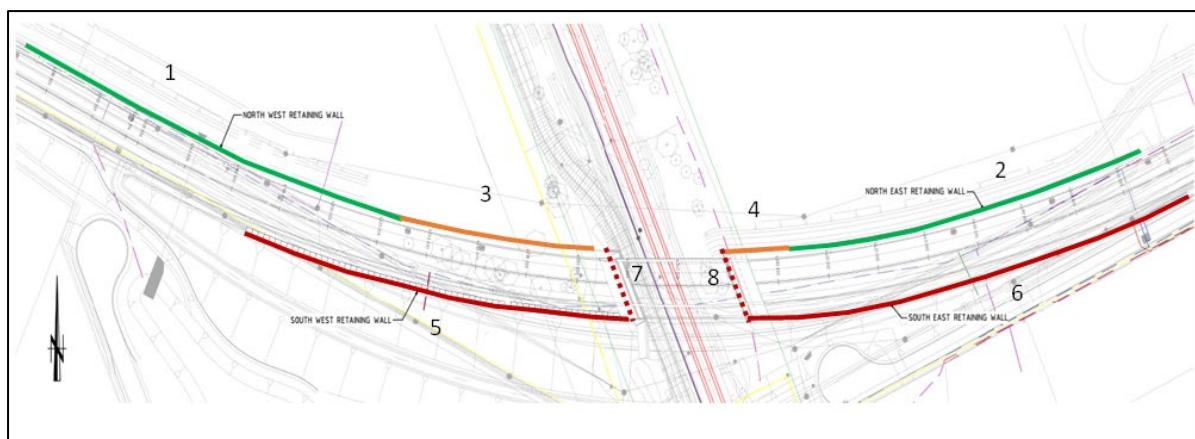


Figure Three: Breakdown of Aesthetic Treatment Areas



Area	Road User Visibility	PSP User Visibility	Local Stakeholder Visibility	Likelihood of graffiti	Proposed Treatment
1	LOW	LOW	LOW	LOW	Paint
2	LOW	LOW	LOW	LOW	Paint
3	LOW	HIGH	LOW	HIGH	Paint & Relief
4	LOW	MEDIUM	LOW	MEDIUM	Paint & Relief
5	LOW	HIGH	HIGH	HIGH	Paint & Relief
6	LOW	MEDIUM	HIGH	HIGH	Paint & Relief
7	LOW	HIGH	HIGH	HIGH	Paint & Relief
8	LOW	HIGH	HIGH	HIGH	Paint & Relief

Table One: Consideration of Treatment Area Prominence for users

#### 4. Screening

In consideration of the elevated nature of both the roadway and Shared Path on the southern edge of Eleventh Road an assessment has been carried out on the appropriate extent of screening to address a possible reduction in the visual privacy of private properties. This has generally been based upon the MRWA guidelines which propose visual assessments where the walls of a residence are within 100m of the path or roadway. Whilst the subdivision to the southwest does not trigger this requirement, the Bruns Drive subdivision does require visual screening, and it is proposed that this will be a lightweight structure affixed to the top of the retaining walls.

The aesthetic of this screen is still to be determined, but will consider:

- The requirement to be visually impermeable, since the adjacent Shared Path would mean that any significant penetrations would render it ineffective
- The increased height that the screening (nominally 1.8m high from the roadway) adds to the overall structure, and the proximity to private properties

In addition to the visual screens, PTA compliant anti-throw screens will be provided for safety reasons, centred about the track position. The visual privacy screens on the southeast approach would commence at the eastern edge of these screens.

#### 5. Stakeholder Engagement

Engagement sessions to date have focussed on the impacts to residents of changes to the road networks both during construction and after completion, rather than the aesthetic of the bridge. These sessions have yielded valuable insight into stakeholder concerns and preferences and have been the driver behind some proposed design changes, including the change of the revised Bruns Drive / Eleventh Road intersection from an entry-only to an exit-only arrangement.

Future engagement is intended to establish stakeholder opinion on proposed aesthetic treatments and incorporate feedback where appropriate.

#### 6. Landscaping Strategy

As noted previously, retention of existing trees will be adopted as the initial approach to screening the infrastructure. Figure Four indicates the level of retention currently planned. Tree planting will generally be used to provide shading along the Shared Path, with semi-mature trees being utilised on the East of the rail to ensure some level of screening from day one where the retaining walls are known to present a large aesthetic impact to adjacent properties.

Areas of high public visibility, namely the triangular portion of land to the west of the bridge accommodating the Shared Path, will be subject to the greatest attempts to retain trees to support the blending of the structure into its environment.

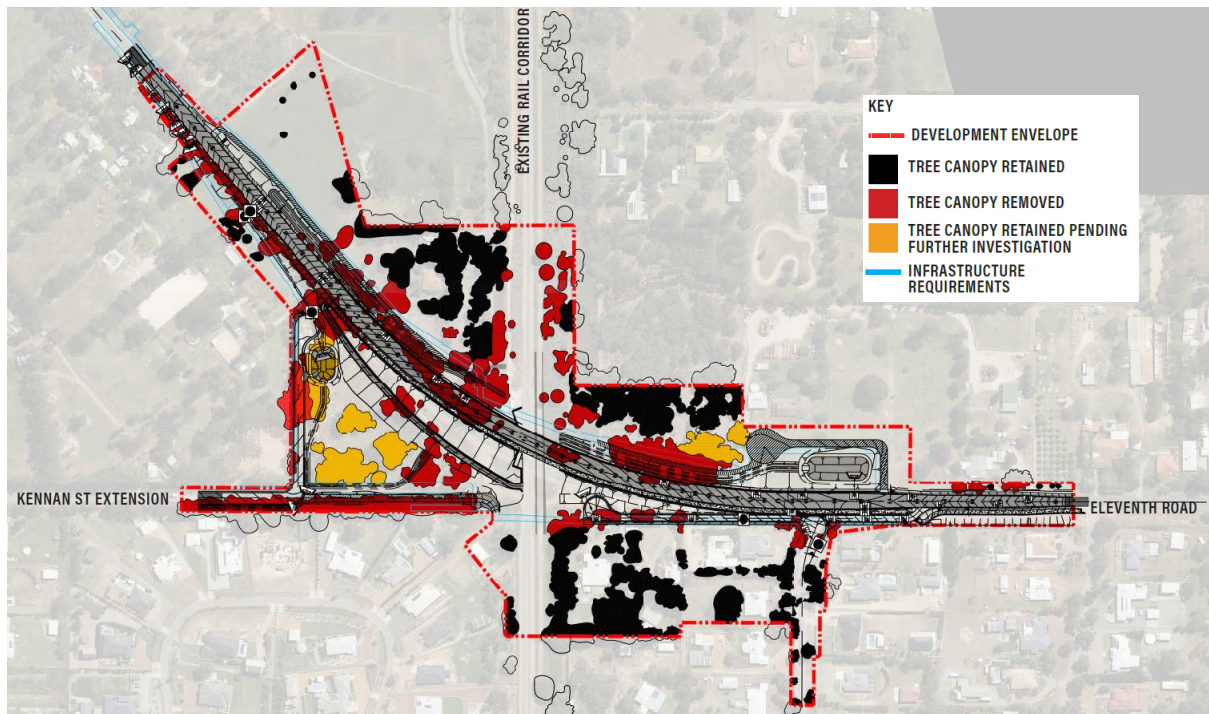


Figure Four: Proposed Tree Retention

## 7. Precedent Imagery





