MELBOURNE METRO RAIL PROJECT ENVIRONMENT EFFECTS STATEMENT INQUIRY AND ADVISORY COMMITTEE

MMRA TECHNICAL NOTE

TECHNICAL NOTE NUMBER:	022
DATE:	5 August 2016
PRECINCT:	Western Portal
EES/MAP BOOK REFERENCE:	Technical Appendix E (Section 17.1.1)
SUBJECT:	Western Portal – Transmission Line Relocation Options

NOTE:

Land requirement for 1-39 Hobsons Road

1. There are two options considered in the EES for the Western Portal – Option A and B.
2. With each portal option there would be a different arrangement for the relocation of the Ausnet Services 220kV high voltage transmission line (**transmission line**).
3. The existing transmission line currently runs along the north side of the existing rail corridor (Sunbury line) and the southern boundary of the property at 1-39 Hobson Road (Figure 1).

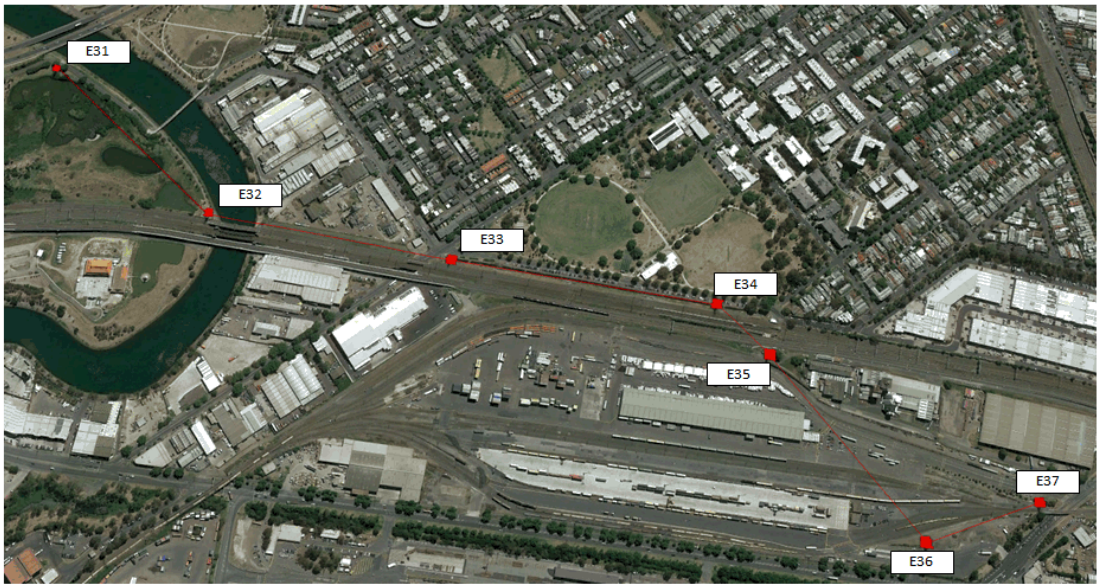

Figure 1: Existing transmission line and tower locations

Western Portal Option A

4. The Western Portal Option A commences its separation from the existing Sunbury line and begins to decline into the Melbourne Metro tunnel east of the Kensington Road Bridge.

5. The new railway line would be located on the northern side of the existing rail alignment, which conflicts with the location of existing 220kV electrical transmission towers.

6. As a result of the alignment conflict, MMRA is required to relocate the existing tower alignment away from the works site. This would need to occur as Early Works.

7. This 220kV transmission line supplies a large proportion of Melbourne's power, so it is important to maintain power at all time during the relocation. This creates complexities and requires MMRA to carry out a number of temporary relocations of the existing transmission towers to facilitate the ultimate realignment of the line.

8. The project is required to relocate two existing towers (E33 and E34) that are north of the rail line between Kensington Road and South Kensington Station. Two temporary towers would need to be constructed to facilitate the shift (Figure 2).

9. One temporary tower (E33) is proposed to be located within the property of 1-39 Hobson Road. The temporary tower would be located on the south eastern corner to minimise the impact to the property (Figure 3).

10. The other temporary tower (E34) would be located east of the existing tower that is adjacent to South Kensington Station (Figure 4).

11. Once the temporary towers are installed and commissioned, the existing towers would be dismantled. Once the new alignment has been

commissioned we would be able to construct the permanent transmission line towers.

12. Under Option A for the Western Portal, the permanent tower for E33 would be located within the existing VicTrack Rail Corridor adjacent to the southern boundary of 1-39 Hobson Road and on the western side of Kensington Road utilising the existing Ausnet Services easement (Figure 5). The temporary tower (E33) would then be dismantled. No compulsory land acquisition would be required.

13. Under Option A, the permanent tower for E34 would be located on the south side of the rail alignment within the VicTrack rail siding area (Figure 3). The temporary tower (E34) east of south Kensington Station would then be dismantled.

14. This would remove the existing transmission towers away from the work site enabling unimpeded access for the construction contractor for main works.

15. All locations of the temporary and permanent transmission towers shown in the following figures are indicative and final locations would be determined through detailed design.

Figure 2: Proposed transmission line and tower locations

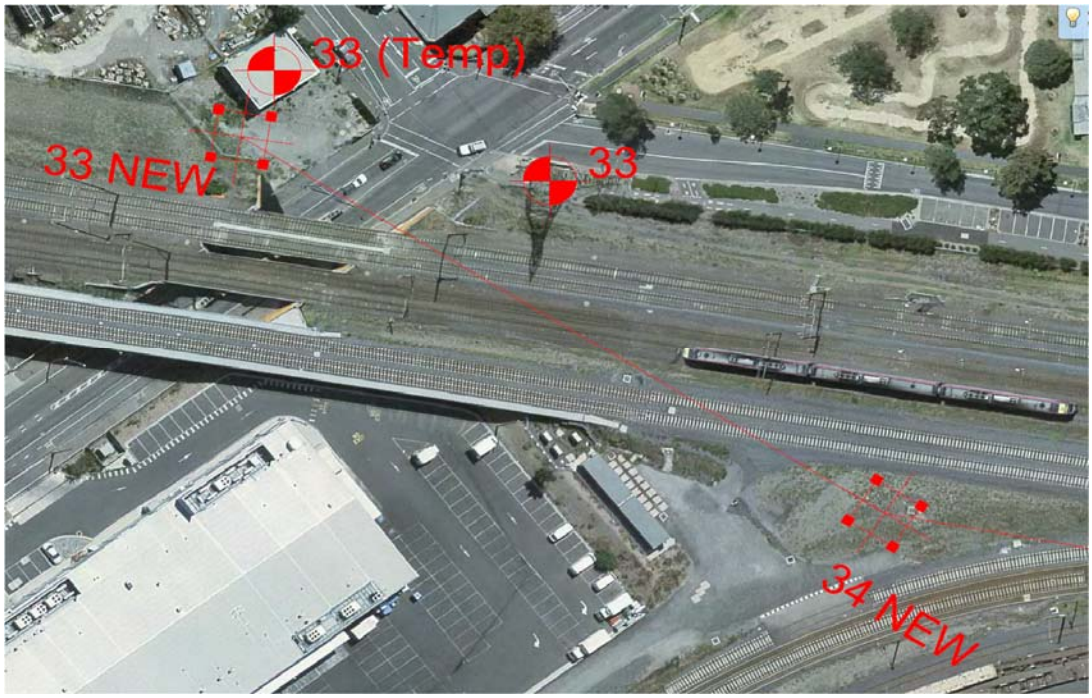

Figure 3: Indicative temporary transmission tower locations for Tower 33 and new Tower 34

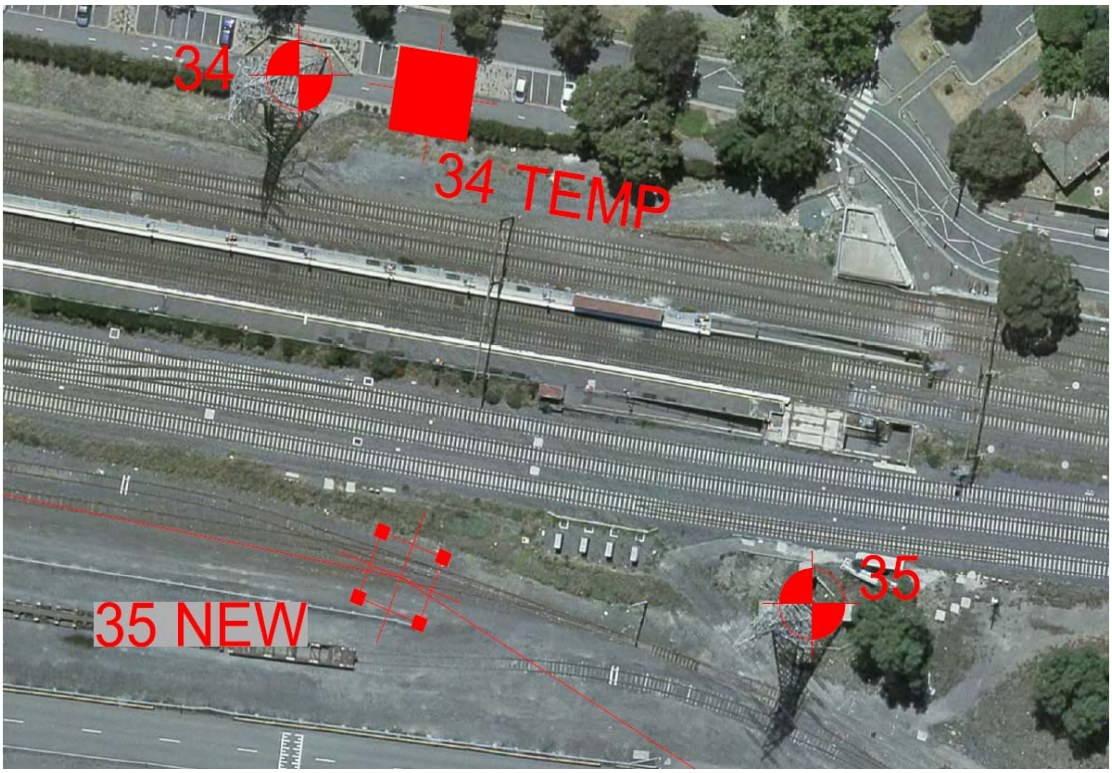

Figure 4: Indicative temporary transmission tower locations for Tower 34

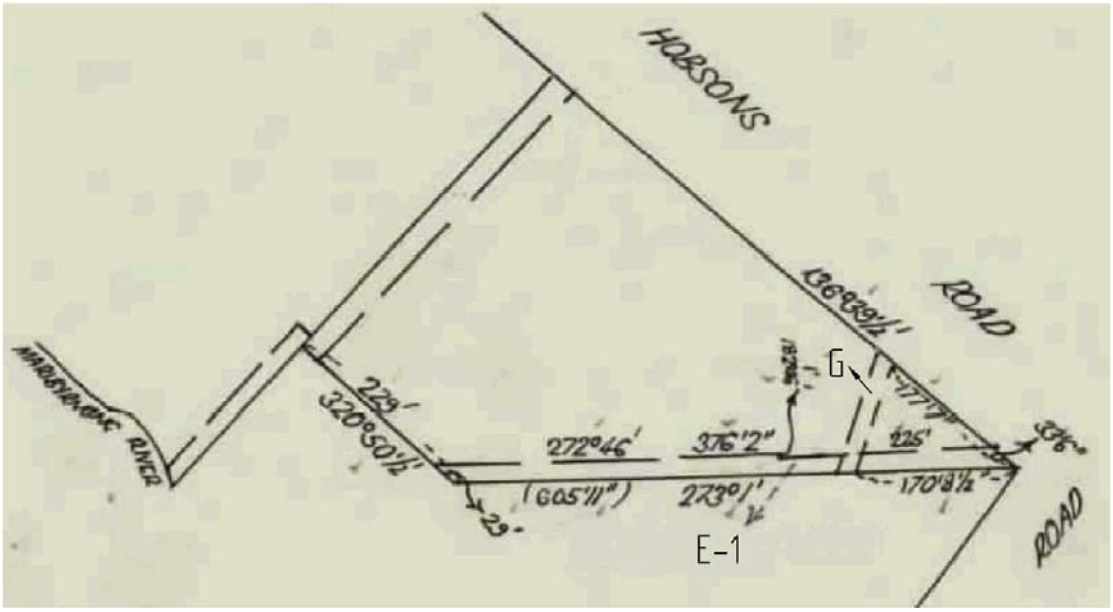

Figure 5: Existing transmission line easement location on 1-39 Hobsons Road

Western Portal Option B

16. The Western Portal Option B separates from the existing Sunbury rail line east of Kensington Road Bridge requiring the existing rail embankment to be widened to the north and a new rail bridge structure over Kensington Road.

17. Similar to Option A, the alignment of the new rail line in Option B is in conflict with the transmission alignment and MMRA is required to relocate the existing transmission line away from the works site.

18. Western Portal Option B requires relocation of the same two existing towers (E33 and E34) that are north of rail line between Kensington Road and South Kensington Station (Figure 1). Two temporary towers would need to be constructed to facilitate the shift.

19. The temporary and permanent tower location for E34 would be the same for both portal options.

20. The main difference between Western Portal Option B and Option A is that, for Option B, the rail embankment would be widened to the north of its existing location (east of Kensington Road) to provide sufficient room to construct the new bridge structure over Kensington Road. This would result in MMRA being unable to construct a permanent transmission tower for E33 within the VicTrack rail corridor.

21. Under Option B, a temporary tower for E33 would not be required within 1-39 Hobsons Rd. A permanent tower (E33) would be located within 1-39 Hobsons Road. It would be located in a similar location as the E33 temporary tower under Option A (Figure 3). This area of the property is bound by existing easements on both sides (sewer and electrical easements). Land acquisition would be required to facilitate additional area

for an easement. The area required for the transmission line easement would be agreed with Ausnet Services.

CORRESPONDENCE: No correspondence.

ATTACHMENTS: No attachments.