

Our Ref: 17101

23 November 2021

Sasco Developments Pty Ltd  
Email: [joe@sascodevelopments.com.au](mailto:joe@sascodevelopments.com.au)

**Attention: Mr Joe Sassine**

Dear Joe,

**RE: 1-20 RAILWAY ROAD MEADOWBANK  
RESPONSE TO COUNCIL FEEDBACK – VEHICLE ACCESS**

As requested, The Transport Planning Partnership (TPPP) has provided a response to feed back provided by City of Ryde (Council) dated 18 November 2021 regarding the vehicle access and surrounding road network arrangements associated with the proposed development at 1-20 Railway Road Meadowbank.

Council has requested a preliminary civil design package from the applicant addressing a number of items.

The following sets out the proposed design principles to be incorporated into the preliminary civil design package, namely the results of vehicle swept analysis to determine road width, kerb alignment and line marking (centre line markings).

- 1. The future configuration/treatment at the intersections of Constitution Rd/Faraday Ln, Underdale Ln/Faraday Ln and Bay Dr/Faraday Ln, which are to be designed to safely accommodate the following turning movements for a 12.5m long Heavy Rigid Vehicle (HRV):**
  - **An HRV making a Left turn from ~~Faraday Ln~~ Constitution Rd into ~~Constitution Rd~~ Faraday Lane at the same time as an HRV is making a right turn from Faraday Ln onto Constitution Rd.**
  - **An HRV making a Left turn from Underdale Ln into Faraday Ln at the same time as an HRV is making a right turn from Faraday Ln onto Underdale Ln; and**
  - **An HRV making a Left turn from Bay Dr into Underdale Ln at the same time as an HRV is making a right turn from Underdale Ln onto Bay Dr.**

The vehicle swept paths for a 12.5m long HRV undertaking the requested turning movements are presented in Attachment A. The swept paths show the HRV movements at the following intersections:

- Constitution Road / Faraday Lane
- Faraday Lane / Underdale Lane
- Bay Drive / Underdale Lane

In undertaking the swept path analysis, the following road design considerations have been implemented:

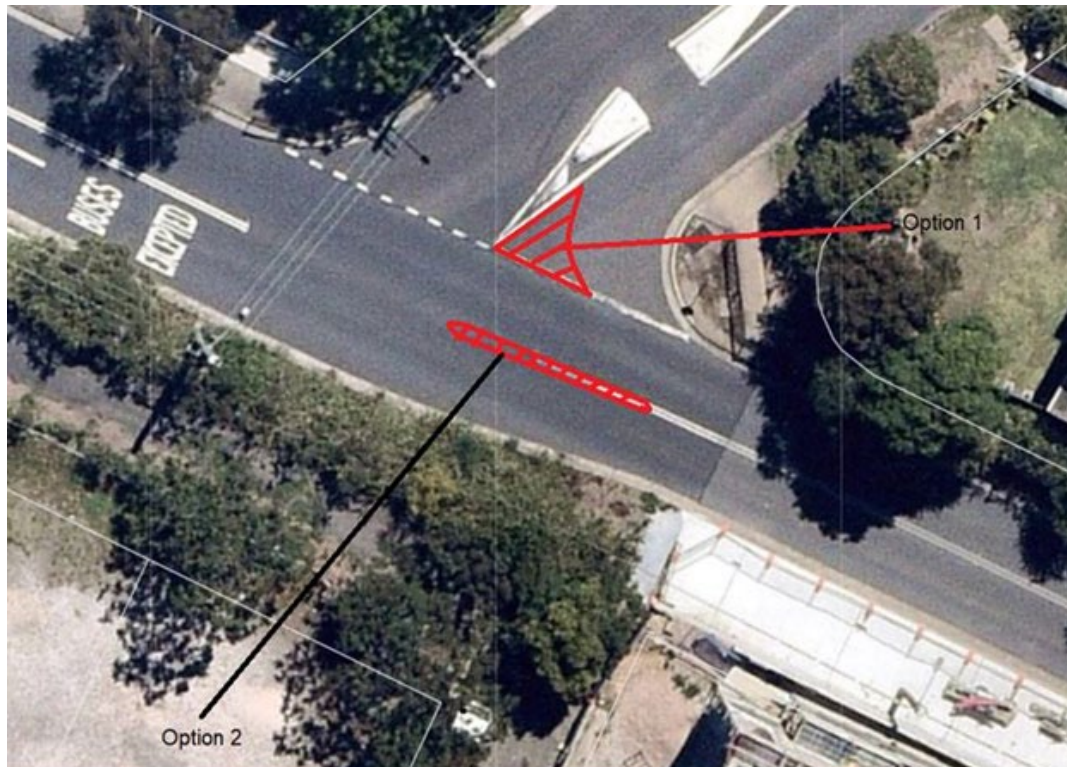
- Faraday Lane and Underdale Lane to be widened from approximately 6m to 9m kerb to kerb.
- Road widening of Faraday Lane and Underdale Road to occur within the development site of 1-20 Railway Street (Site).
- Set back of property line for the site to include provisions for footpaths on both Faraday Lane and Underdale Lane.
- It is noted that simultaneously “moving” HRVs passing around a 90 degree corner are extremely onerous and not reflective of the existing characteristics of the surrounding road network nor the intended future road network. Notwithstanding this, the swept paths provided in Attachment A have been prepared on the basis that a turning HRV with the priority can turn and pass a HRV stopped on the non priority route.
- The kerb radius at intersections of the widened roads are to be minimised while allowing HRV movements. It is noted that kerb radii will be developed in the detail design.
- The dividing line for two-way vehicle movements to be generally located in the centre of the road but has been varied to accommodate HRV turning paths within the 9m kerb to kerb widths. The recommended dividing line location is shown in Attachment A.

**2. The future treatment of the junction of Constitution Rd/See St and the loading dock driveway off Constitution to address the traffic safety issue associated with direct access into the loading dock from See St by a truck as well as traffic efficiency issues identified in the traffic modelling analysis. Two potential options to be shown in the design for review by Council (and public consideration) are:**

- **Option 1 – Provision of half triangular raised concrete island with supplementary traffic signage within See Street to restrict traffic exiting See St onto Constitution Rd to left out.**
- **Option 2 – A short 600mm wide median which extends partially across See St restricting traffic exiting See St onto Constitution Rd to left out.**

**See rough markups below as indicative guide.**

Mark Up below provided by Council via Email (12/11/21)



The swept path for HRV access to and from the proposed development's loading dock driveway at Constitution Road via a left in / right out only movement and turning from See Street into Constitution Road are provided in Attachment A.

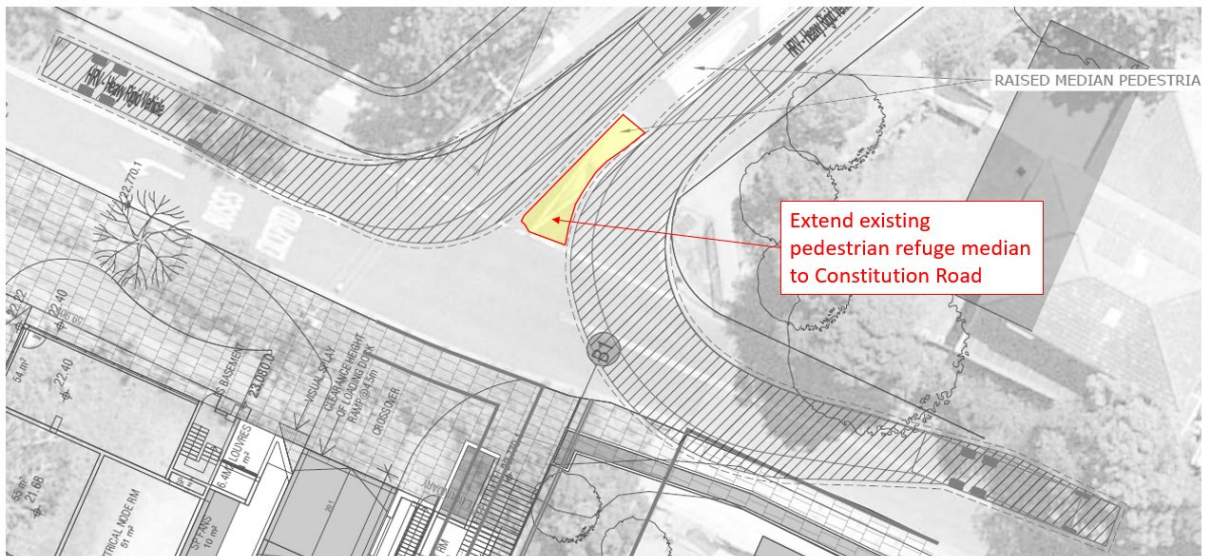
The implementation of a median in Construction Road (Option A) would restrict the following desired movements:

- left turn from See Street to Constitution Road
- right turn from Site's loading dock to Constitution Road

Thus, the implementation of Option 1 is not feasible.

The swept paths for a HRV turning left from See Street into Constitution Road indicate the existing difficulty that these vehicles have making this turn and not crossing the Constitution Road centreline.

Notwithstanding the above there is potential to extend the existing pedestrian refuge median in See Street to Constitution Road and create discouragement to vehicles turning right out of See Street. This is shown in the image below.



In addition to the above, Council's recommendation that vehicle access movements to/from the loading dock are to be restricted to left in / right out only by signage is supported will be incorporated into the design.

Should you have any queries regarding the above or require further information, please do not hesitate to contact the undersigned on 8437 7800.

Yours sincerely,

**Jason Rudd**  
**Director**

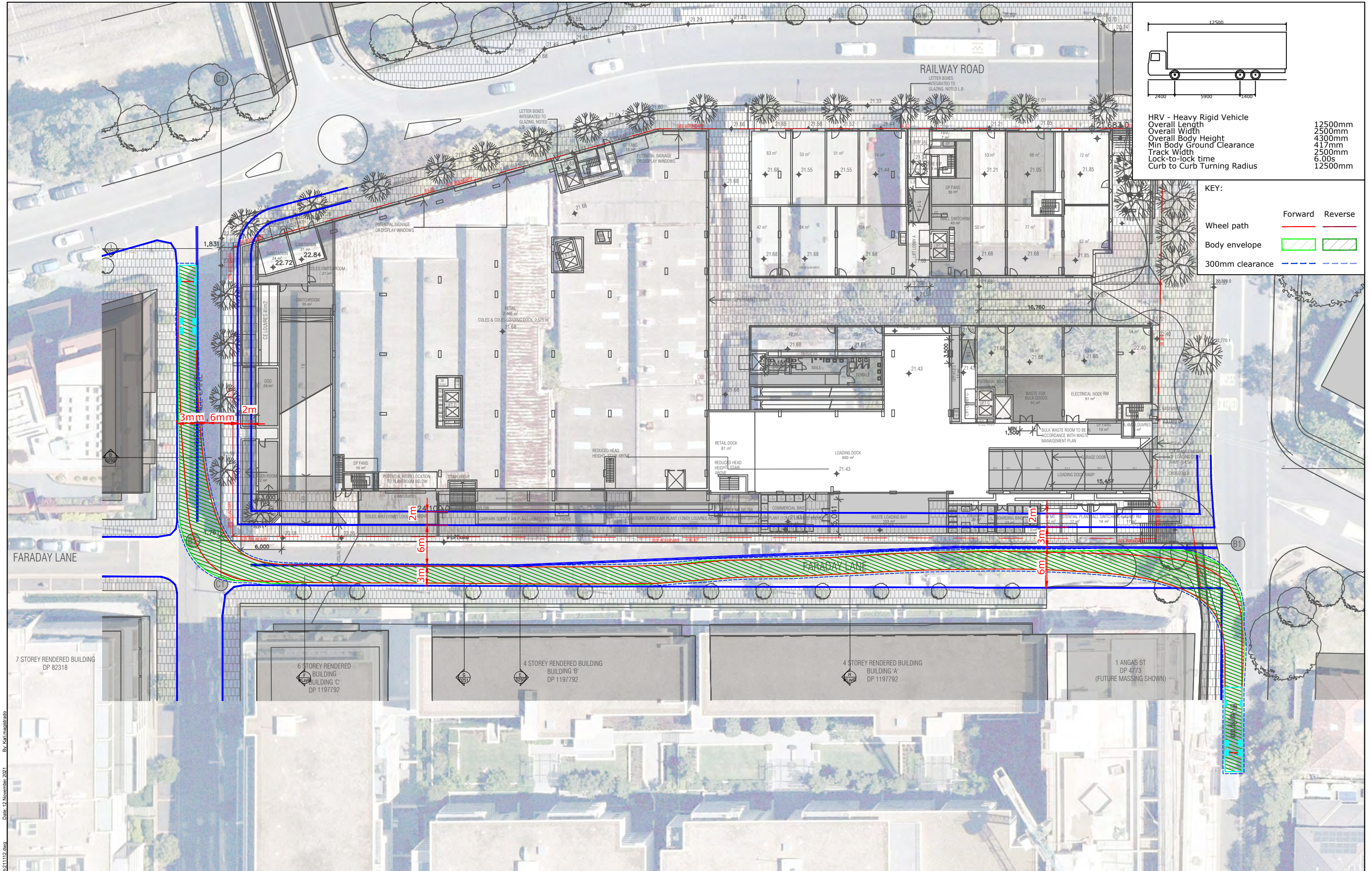
# Attachment A

## Vehicle Swept Path Analysis









| REV. | DESCRIPTION          | DRAWN | CHECK | APP'D | DATE     |
|------|----------------------|-------|-------|-------|----------|
| A    | ISSUE FOR DISCUSSION | KM    | JR    | JR    | 12/11/21 |
|      |                      |       |       |       |          |
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PROJECT

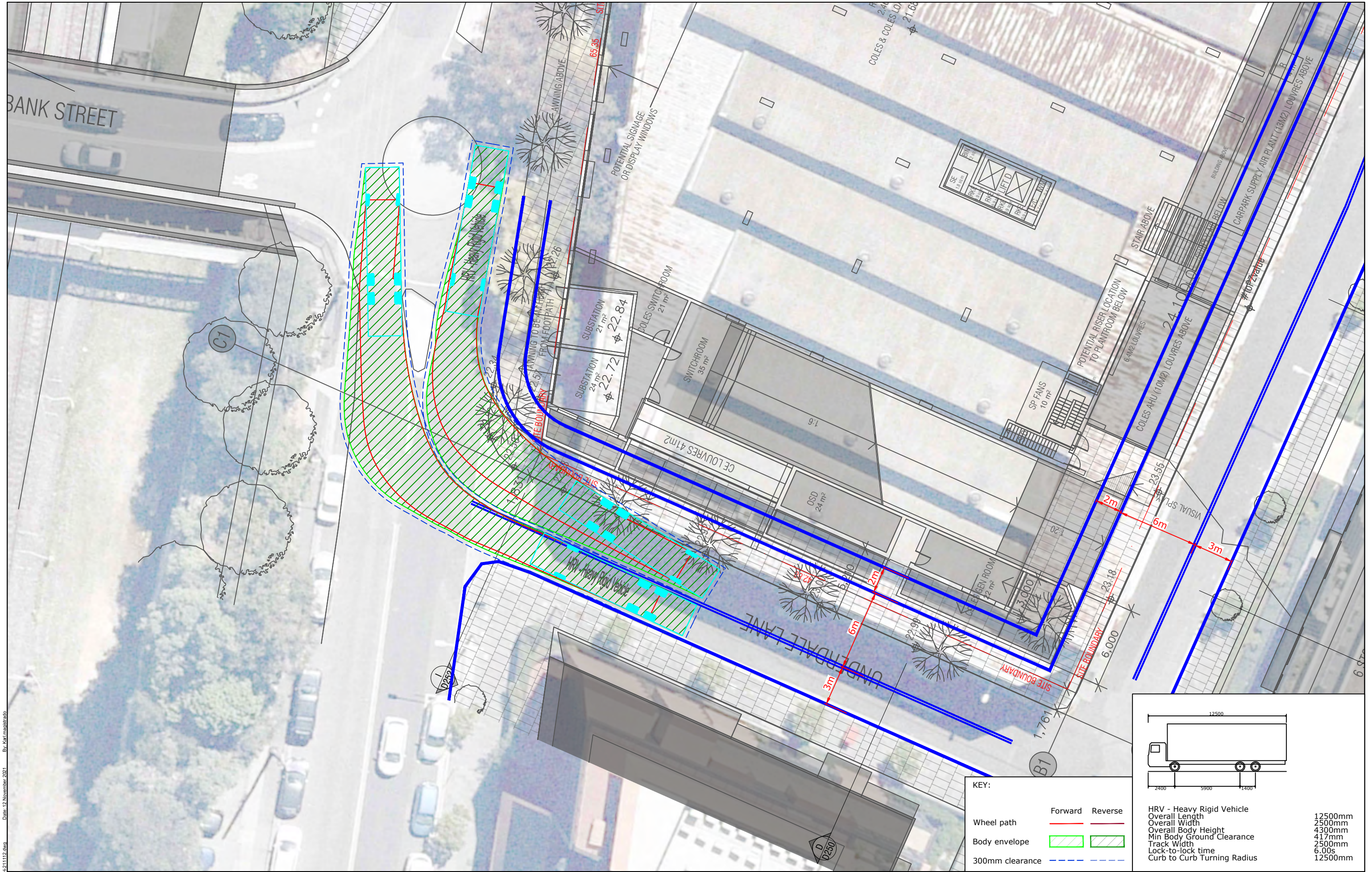
Railway Parade, Meadowbank

TITLE

SWEPT PATH ANALYSIS  
AS2890.2 12.5m HEAVY RIGID VEHICLE

|             |                  |
|-------------|------------------|
| DWG No.     | 17101CAD026      |
| FIGURE 2    |                  |
| DATE STAMP  | 12 NOVEMBER 2021 |
| PROJECT No. | 17101            |
| SCALE       | 1:500 @A3        |
| REV.        | A                |





| REV. | DESCRIPTION          | DRAWN | CHECK | APP'D | DATE     |
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| A    | ISSUE FOR DISCUSSION | KM    | JR    | JR    | 12/11/21 |
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PROJECT

Railway Parade, Meadowbank

TITLE

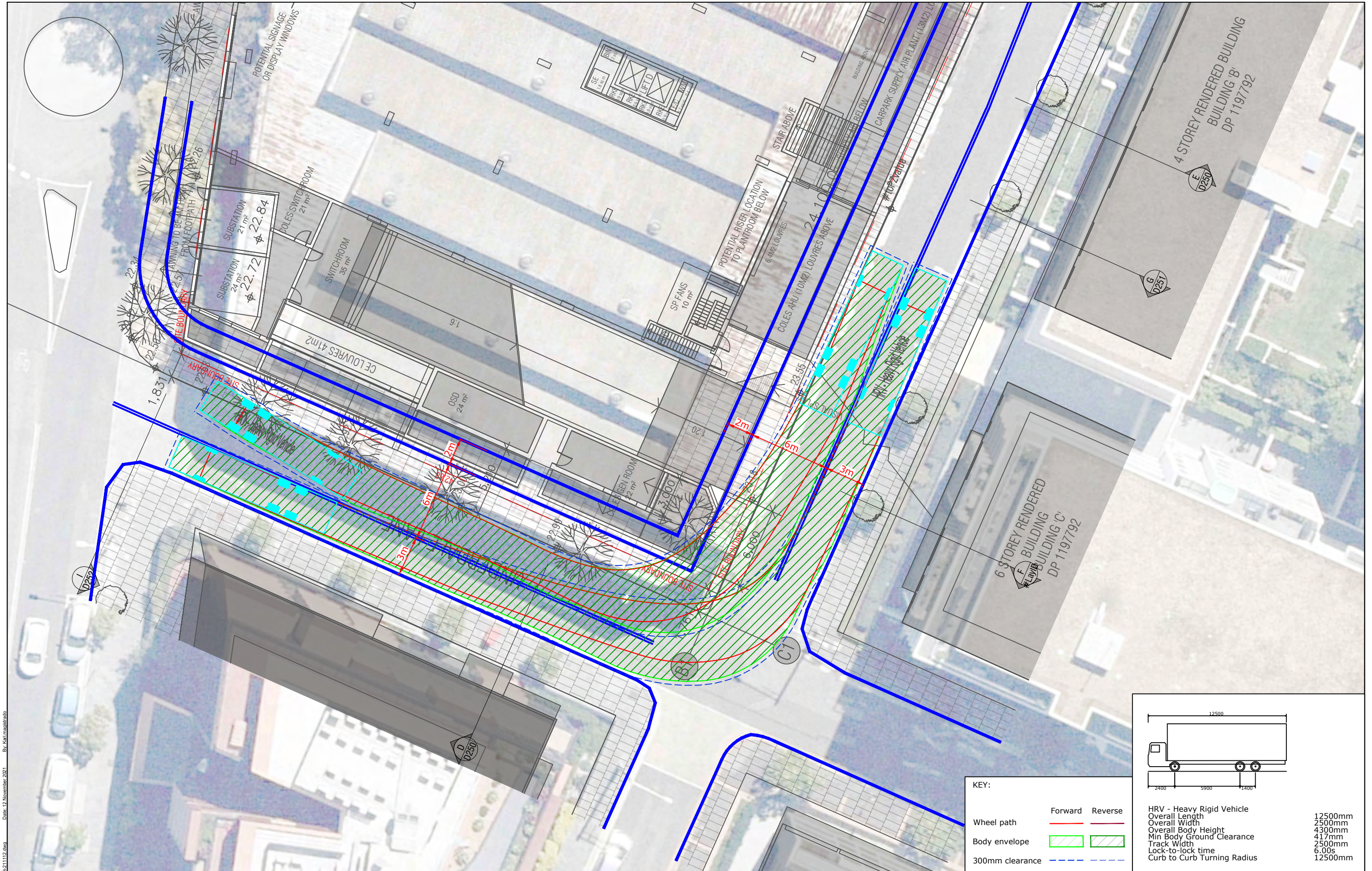
SWEPT PATH ANALYSIS - RAILWAY ROAD - UNDERDALE LANE  
AS2890.2 12.5m HEAVY RIGID VEHICLE

DWG No. 17101CAD026  
FIGURE 3

DATE STAMP  
12 NOVEMBER 2021

PROJECT No. 17101    SCALE 1:250 @A3    REV. A





| REV. | DESCRIPTION          | DRAWN | CHECK | APP'D | DATE     |
|------|----------------------|-------|-------|-------|----------|
| A    | ISSUE FOR DISCUSSION | KM    | JR    | JR    | 12/11/21 |
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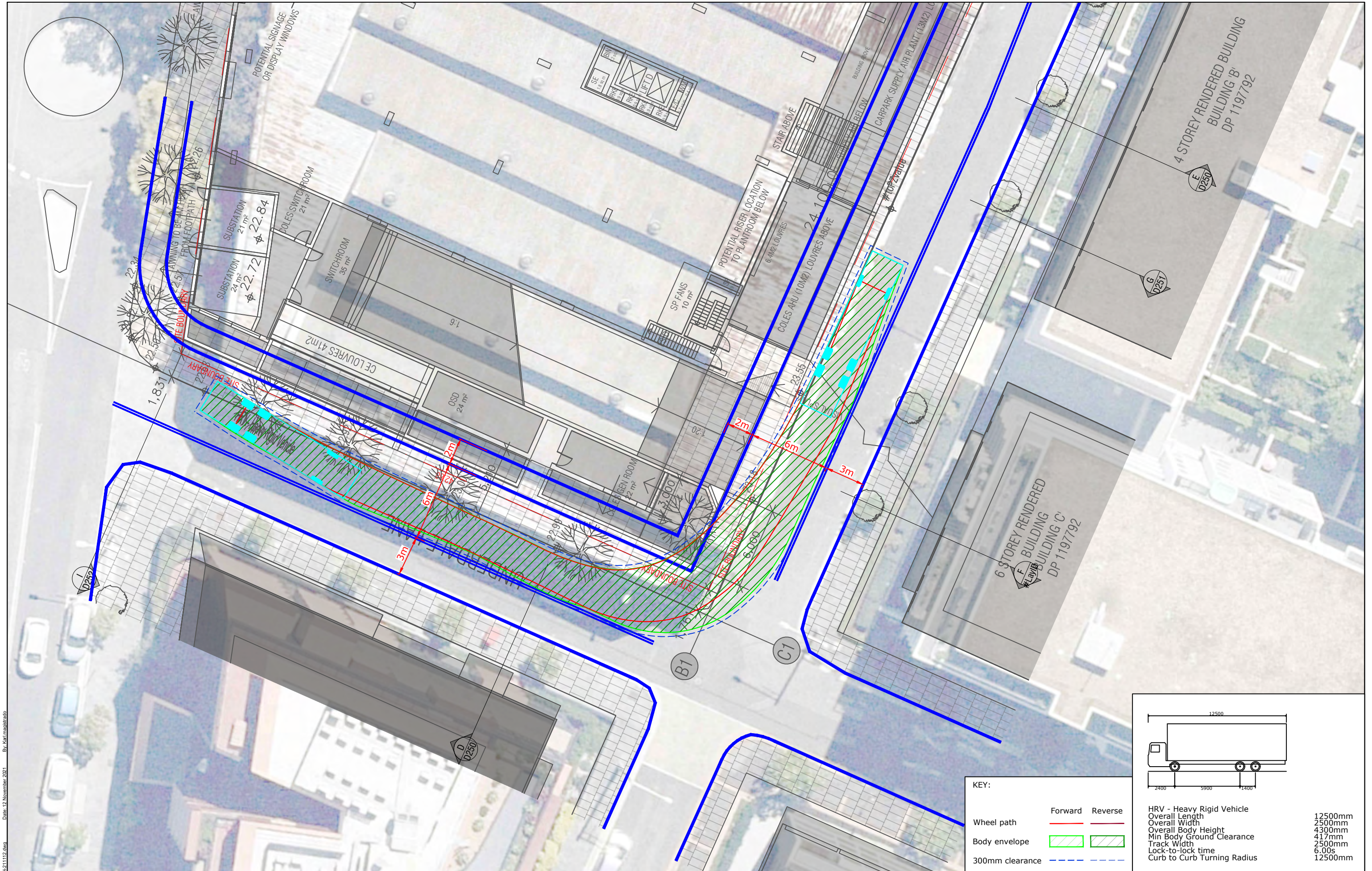


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| PROJECT | RAILWAY PARADE, MEADOWBANK                                                                |  |  |
| TITLE   | SWEPT PATH ANALYSIS - UNDERDALE LANE - FARADAY LANE<br>AS2890.2 12.5m HEAVY RIGID VEHICLE |  |  |

|             |                         |      |  |
|-------------|-------------------------|------|--|
| DWG No.     | 17101CAD026<br>FIGURE 4 |      |  |
| DATE STAMP  | 12 NOVEMBER 2021        |      |  |
| PROJECT No. | SCALE                   | REV. |  |
| 17101       | 1:250 @A3               | A    |  |

HRV - Heavy Rigid Vehicle  
Overall Length 12500mm  
Overall Width 2500mm  
Overall Body Height 4300mm  
Min Body Ground Clearance 417mm  
Track Width 2500mm  
Lock-to-lock time 6.00s  
Curb to Curb Turning Radius 12500mm





Filename: 17101CAD026-SWEPT PATH-211112.dwg Date: 12 November 2021 By: Karl Manistrado

| REV. | DESCRIPTION          | DRAWN | CHECK | APP'D | DATE     |
|------|----------------------|-------|-------|-------|----------|
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PROJECT

TITLE

RAILWAY PARADE, MEADOWBANK

SWEPT PATH ANALYSIS - UNDERDALE LANE - FARADAY LANE  
AS2890.2 12.5m HEAVY RIGID VEHICLE

KEY:

Wheel path

Body envelope

300mm clearance

Forward

Reverse

DWG No.

17101CAD026  
FIGURE 4A

DATE STAMP

12 NOVEMBER 2021

PROJECT No.

17101

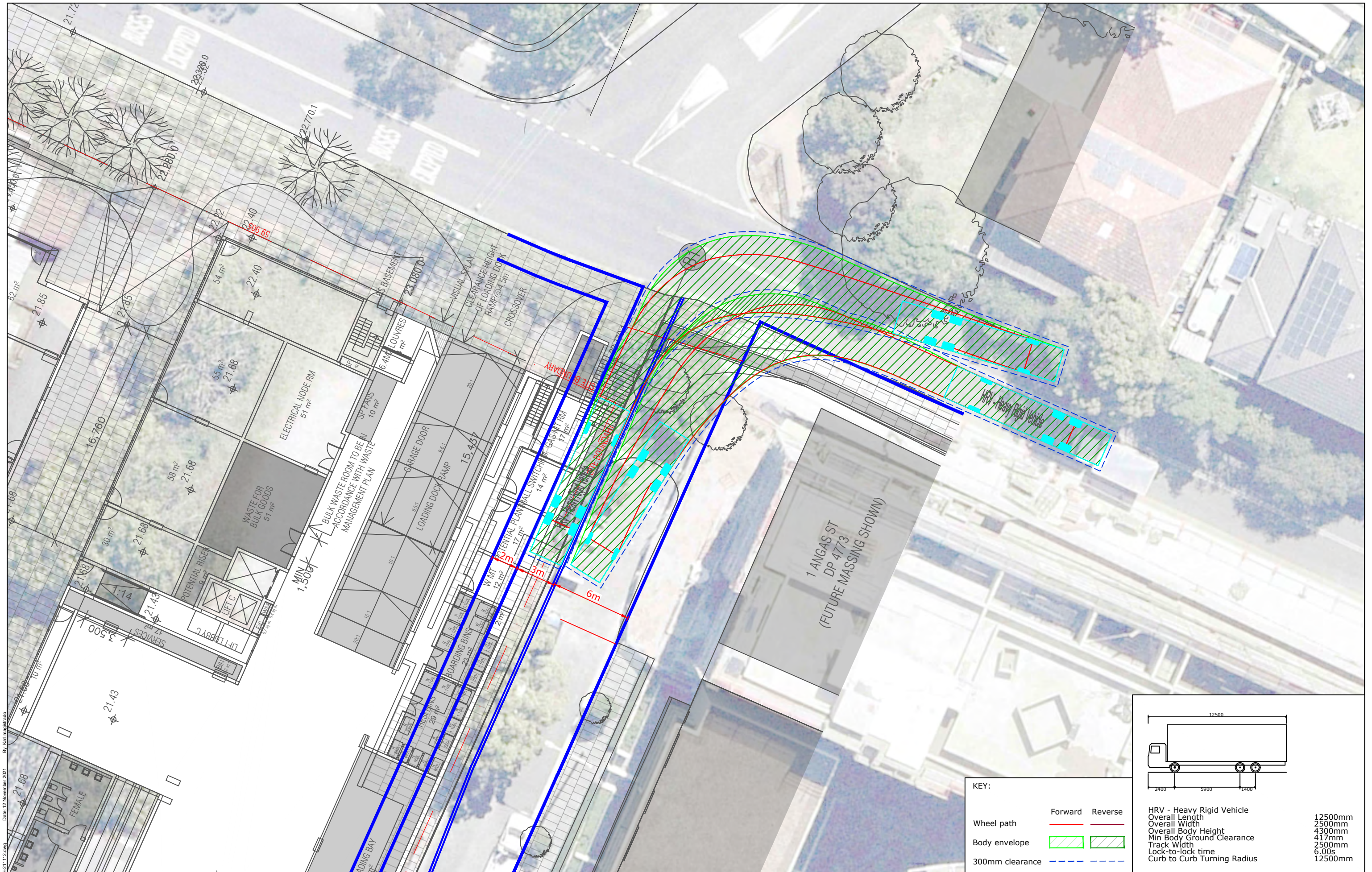
SCALE

1:250 @A3

REV.

A





Filename: 17101CAD026-SWEPT PATH-211121.dwg Date: 12 November 2021 By: Karl Maitland

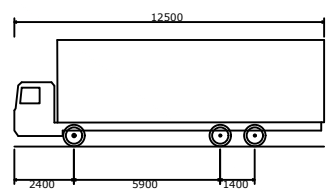
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| A    | ISSUE FOR DISCUSSION | KM    | JR    | JR    | 12/11/21 |
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PROJECT  
RAILWAY PARADE, MEADOWBANK

TITLE  
SWEPT PATH ANALYSIS - UNDERDALE LANE - CONSTITUTION ROAD  
AS2890.2 12.5m HEAVY RIGID VEHICLE

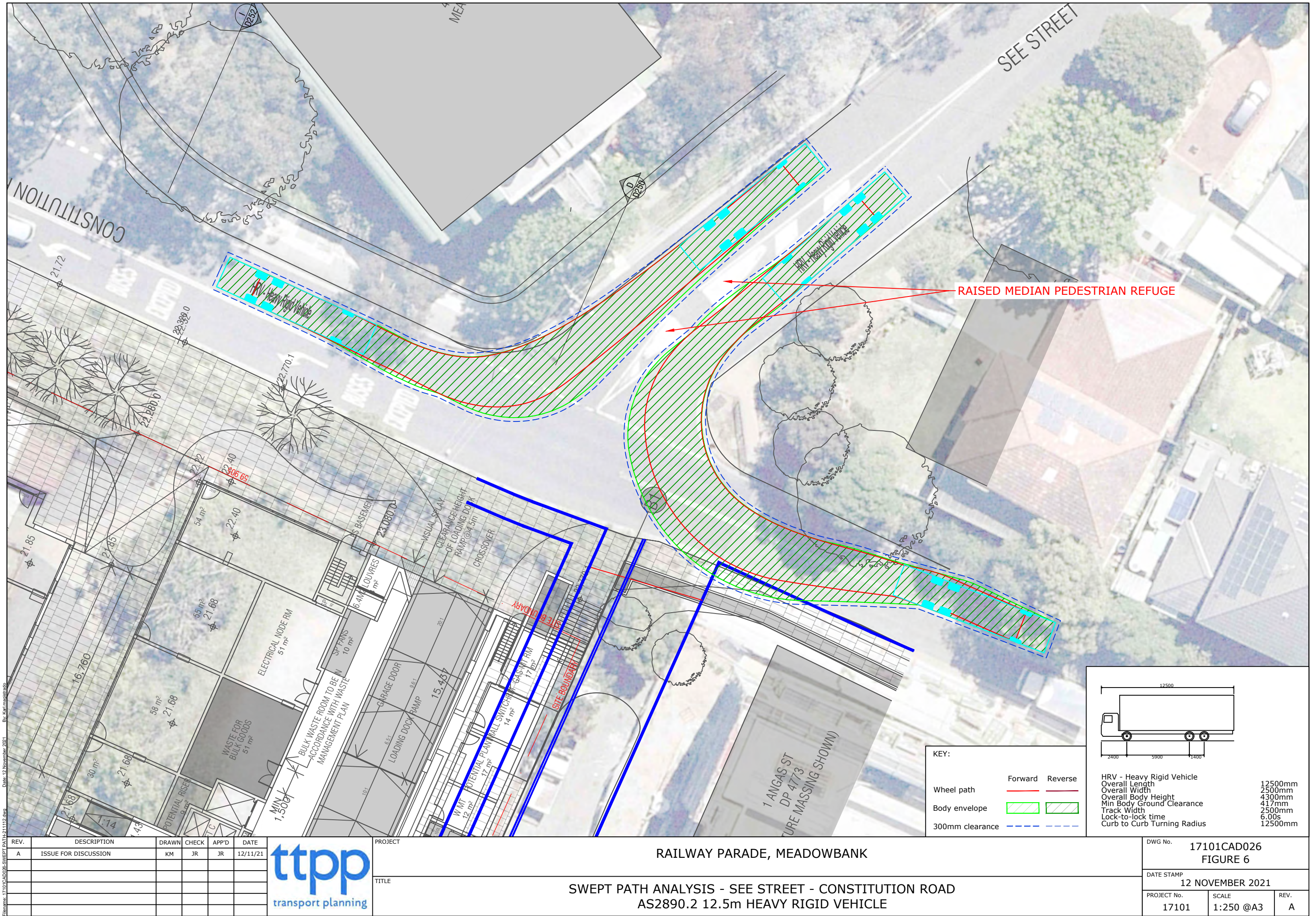
| KEY:            |         |         |
|-----------------|---------|---------|
| Wheel path      | Forward | Reverse |
| Body envelope   |         |         |
| 300mm clearance |         |         |



HRV - Heavy Rigid Vehicle  
Overall Length 12500mm  
Overall Width 2500mm  
Overall Body Height 4300mm  
Min Body Ground Clearance 417mm  
Track Width 2500mm  
Lock-to-lock time 6.00s  
Curb to Curb Turning Radius 12500mm

|                  |           |             |  |
|------------------|-----------|-------------|--|
| DWG No.          |           | 17101CAD026 |  |
|                  |           | FIGURE 5    |  |
| DATE STAMP       |           |             |  |
| 12 NOVEMBER 2021 |           |             |  |
| PROJECT No.      | SCALE     | REV.        |  |
| 17101            | 1:250 @A3 | A           |  |





File name: 17101CAD026-SWEPT PATH-12.5m HVR.dwg Date: 12 November 2021 By: Karl Maniagrad

| REV. | DESCRIPTION          | DRAWN | CHECK | APP'D | DATE     |
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| A    | ISSUE FOR DISCUSSION | KM    | JR    | JR    | 12/11/21 |
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PROJECT

Railway Parade, Meadowbank

TITLE

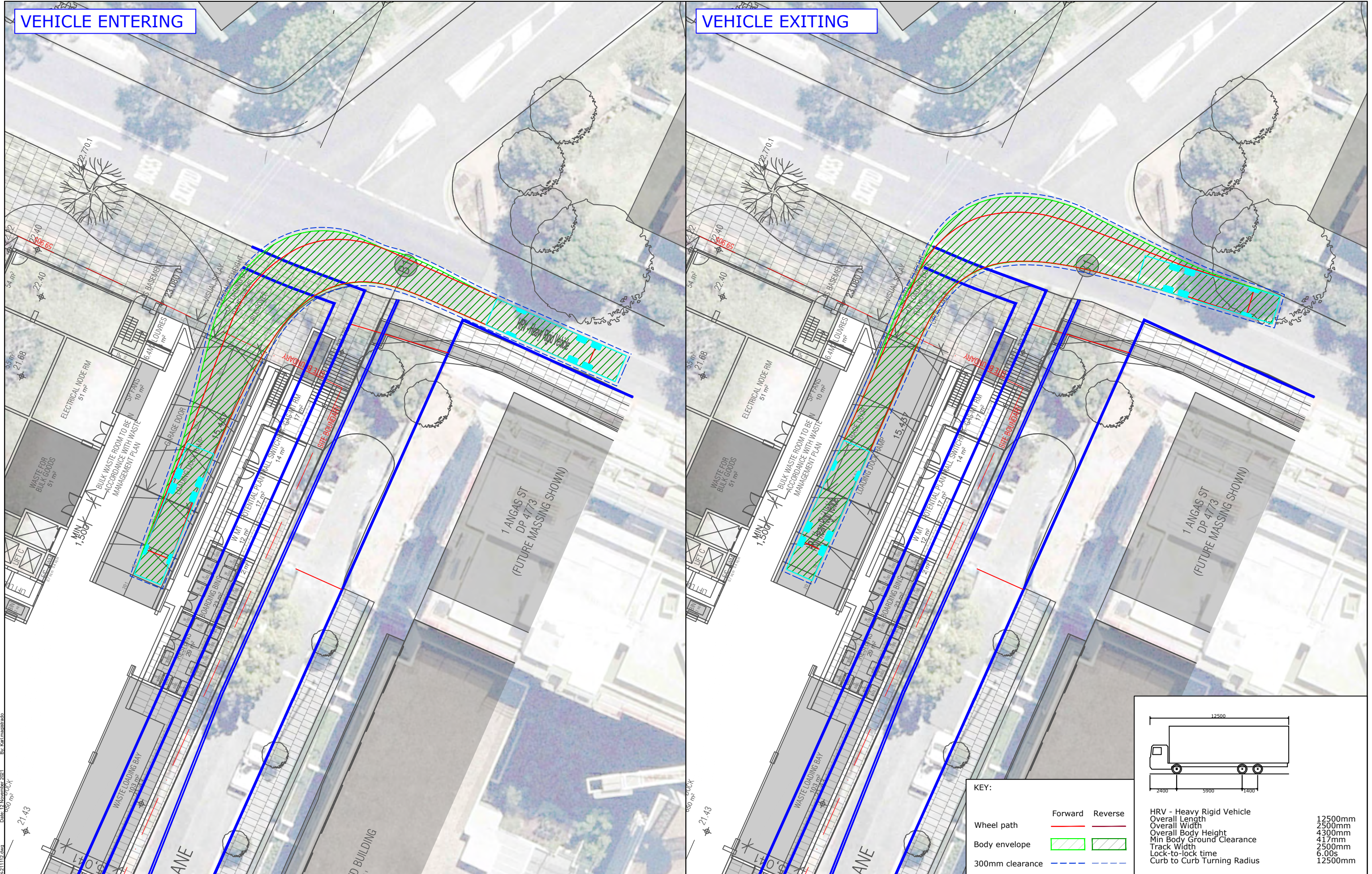
SWEPT PATH ANALYSIS - SEE STREET - CONSTITUTION ROAD  
AS2890.2 12.5m HEAVY RIGID VEHICLE

|                                 |                 |        |
|---------------------------------|-----------------|--------|
| DWG No. 17101CAD026<br>FIGURE 6 |                 |        |
| DATE STAMP 12 NOVEMBER 2021     |                 |        |
| PROJECT No. 17101               | SCALE 1:250 @A3 | REV. A |



VEHICLE ENTERING

VEHICLE EXITING



| REV. | DESCRIPTION          | DRAWN | CHECK | APP'D | DATE     |
|------|----------------------|-------|-------|-------|----------|
| A    | ISSUE FOR DISCUSSION | KM    | JR    | JR    | 12/11/21 |
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|---------|-----------------------------------------------------------------------------------------------------|--|--|
| PROJECT | RAILWAY PARADE, MEADOWBANK                                                                          |  |  |
| TITLE   | SWEPT PATH ANALYSIS - CONSTITUTION ROAD - LOADING DOCK ACCESS<br>AS2890.2 12.5m HEAVY RIGID VEHICLE |  |  |

|             |                         |      |  |
|-------------|-------------------------|------|--|
| DWG No.     | 17101CAD026<br>FIGURE 7 |      |  |
| DATE STAMP  | 12 NOVEMBER 2021        |      |  |
| PROJECT No. | SCALE                   | REV. |  |
| 17101       | 1:300 @A3               | A    |  |