



## **TRANSPORT IMPACT ASSESSMENT**

PROPOSED WELLBEING PRECINCT AND INDUSTRIAL  
LOTS (VANTAGE STAGE 3)

LOT 301, 302, 303 AND 401, VANTAGE ESTATE, YATALA

Prepared for

**FRASERS PROPERTY INDUSTRIAL**

**6 APRIL 2023**

## DOCUMENT REGISTER

RTE Reference 22301

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### Document History

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|         |              |         | Name / Position                       | Signature                                                                           |
| 1       | 6 April 2023 | DA      | Luke Rytenskild<br>Director RPEQ 6293 |  |

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## 1.0 INTRODUCTION

Rytenskild Traffic Engineering (RTE) has been engaged by Frasers Property Industrial to prepare a Traffic Impact Assessment of Stage 3 of the proposed wellbeing precinct and industrial precinct (Vantage Estate) at Yatala.

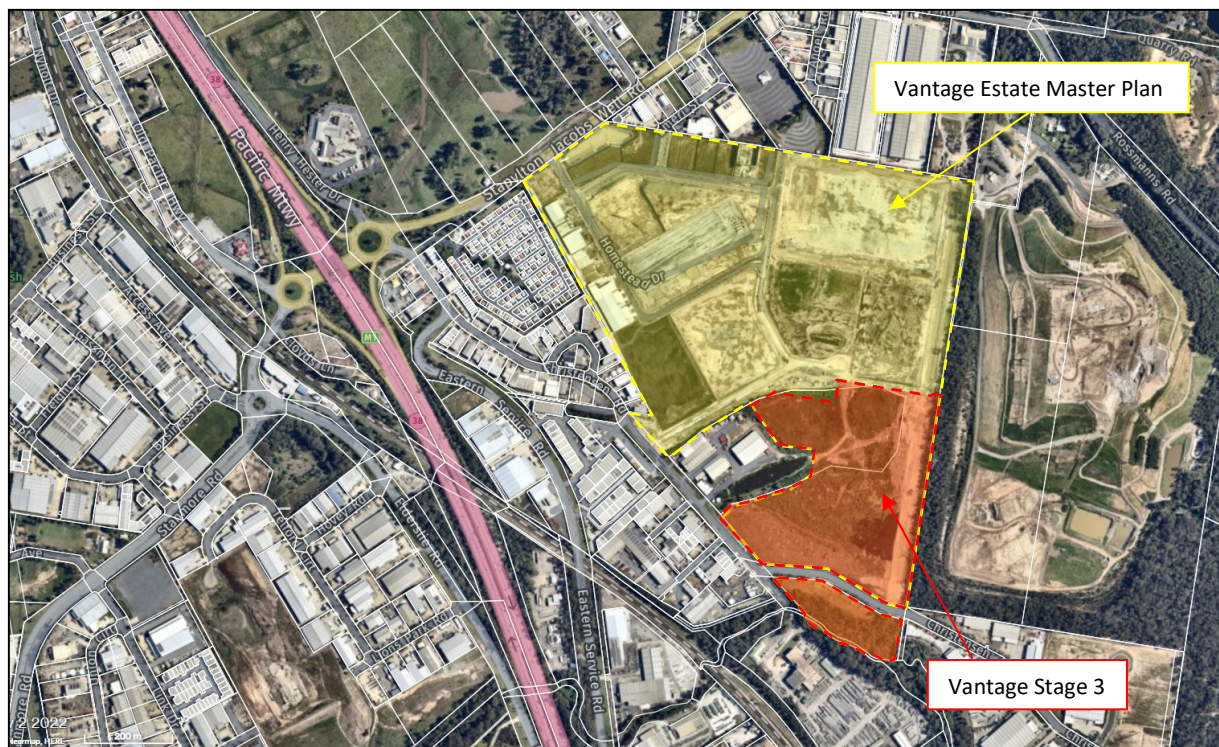
This report forms part of a Development Application to be lodged with the Gold Coast City Council. The following issues have been assessed during the study:

- Access by service vehicles;
- Design of the Christensen Road / Highlands Street intersection;
- Compliance of internal road network design.

## 2.0 SUBJECT SITE

As shown in Figure 2.1, the subject site is for Stage 3 of the approved Vantage Industrial Estate.

The site is located within the low and medium impact industry zone.



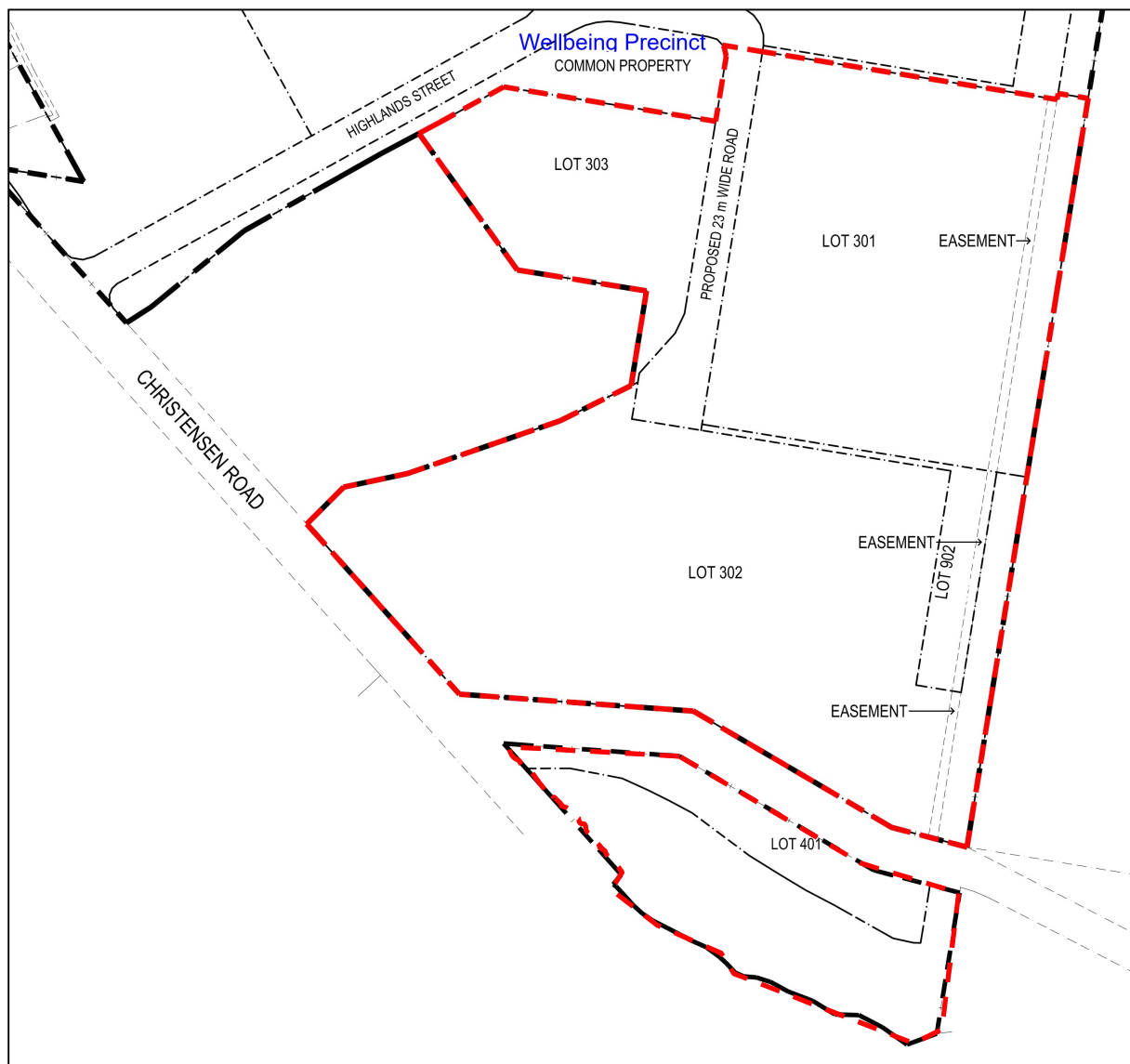
**FIGURE 2.1 – LOCATION OF SUBJECT SITE**

### 3.0 PROPOSED PLAN OF DEVELOPMENT

The proposed plan of development is for Stage 3 of the Vantage Industrial Estate. Stage 3 comprises of five lots (Lots 301, 302, 303 and 401), and a wellbeing precinct to be developed on common property.

It is proposed that each of the proposed lots along the northern side of Christensen Road will gain access via a new road which will intersect with Highlands Street.

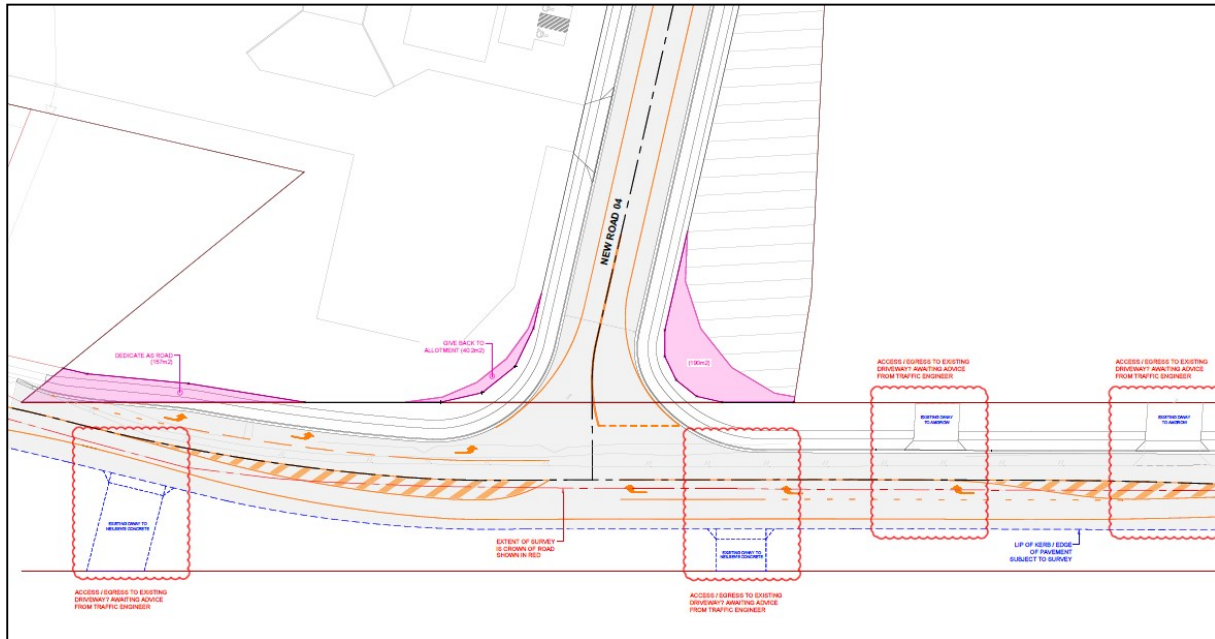
The proposed plan of reconfiguration is shown in Figure 3.1.



**FIGURE 3.1 – PROPOSED STAGE 3 PLAN**

#### 4.0 CHRISTENSEN ROAD / HIGHLANDS STREET INTERSECTION

It is planned that the Christensen Road / Highlands Street intersection be constructed as a priority controlled junction with dedicated Type AUL and CHR left and right turn treatments. The planned intersection layout is provided in Figure 4.1.



**FIGURE 4.1 – CURRENTLY PLANNED LAYOUT FOR THE  
CHRISTENSEN ROAD / HIGHLANDS STREET INTERSECTION**

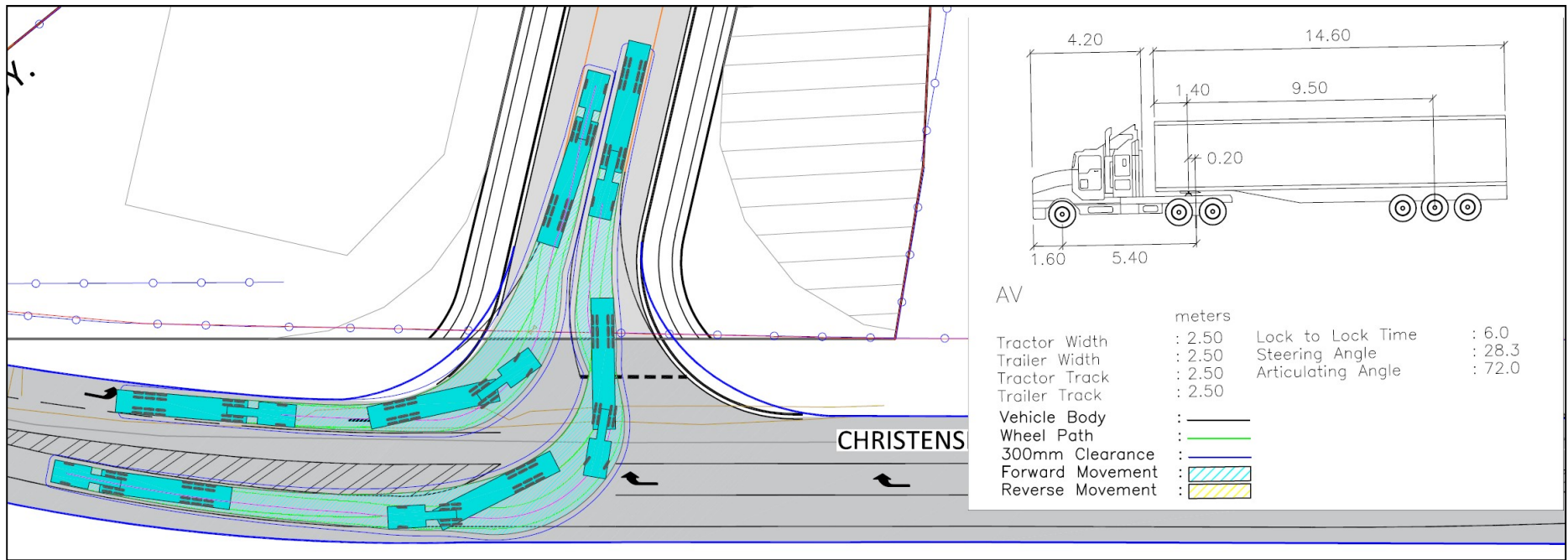
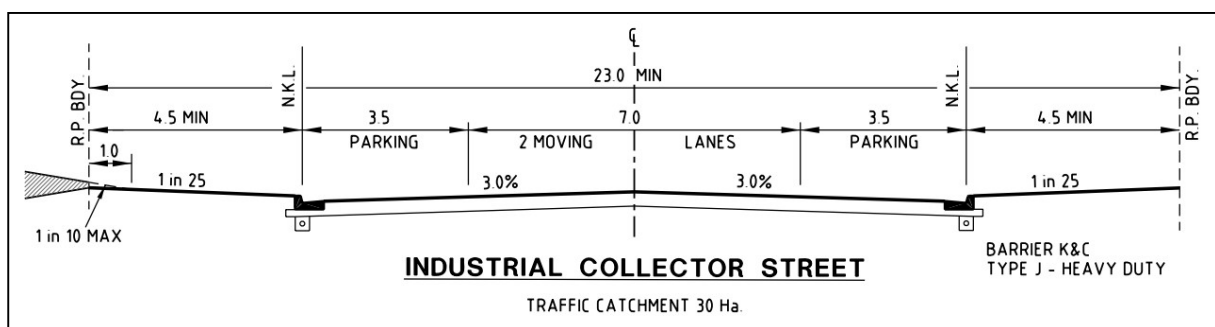


FIGURE 4.3 – SWEEP PATH OF ARTICULATED VEHICLE (AV) AT THE CHRISTENSEN ROAD / HIGHLANDS STREET INTERSECTION

## 5.0 ROAD NETWORK DESIGN

The proposed road profiles have been designed in accordance with the *Gold Coast City Council Infrastructure Planning Policy*. The new proposed 23 metre road extending from Highlands Street has been designed as an Industrial Collector Road. The proposed road profile and classification is shown in Figure 6.1, with a concept plan of the new road section connecting to Stage 3 shown in Figures 5.2 and 5.3.

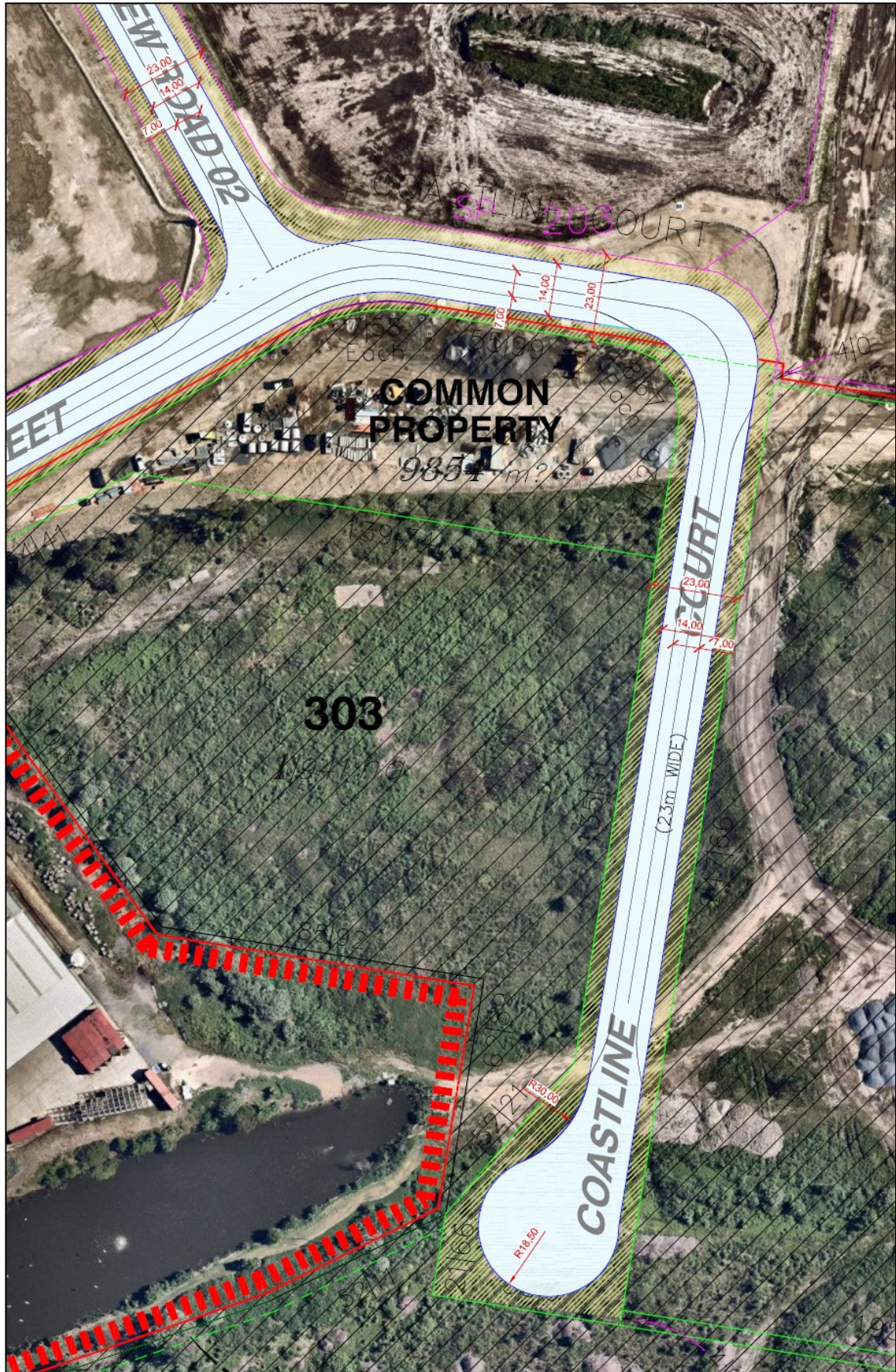
A swept path analysis has been prepared for the proposed road layout in accordance with AS2890.2:2018. As shown in Figures 5.4 and 5.5, the design allows for a truck up to the size of an Articulated Vehicle (AV).



**FIGURE 5.1 – PROPOSED NEW ROAD CROSS SECTION**



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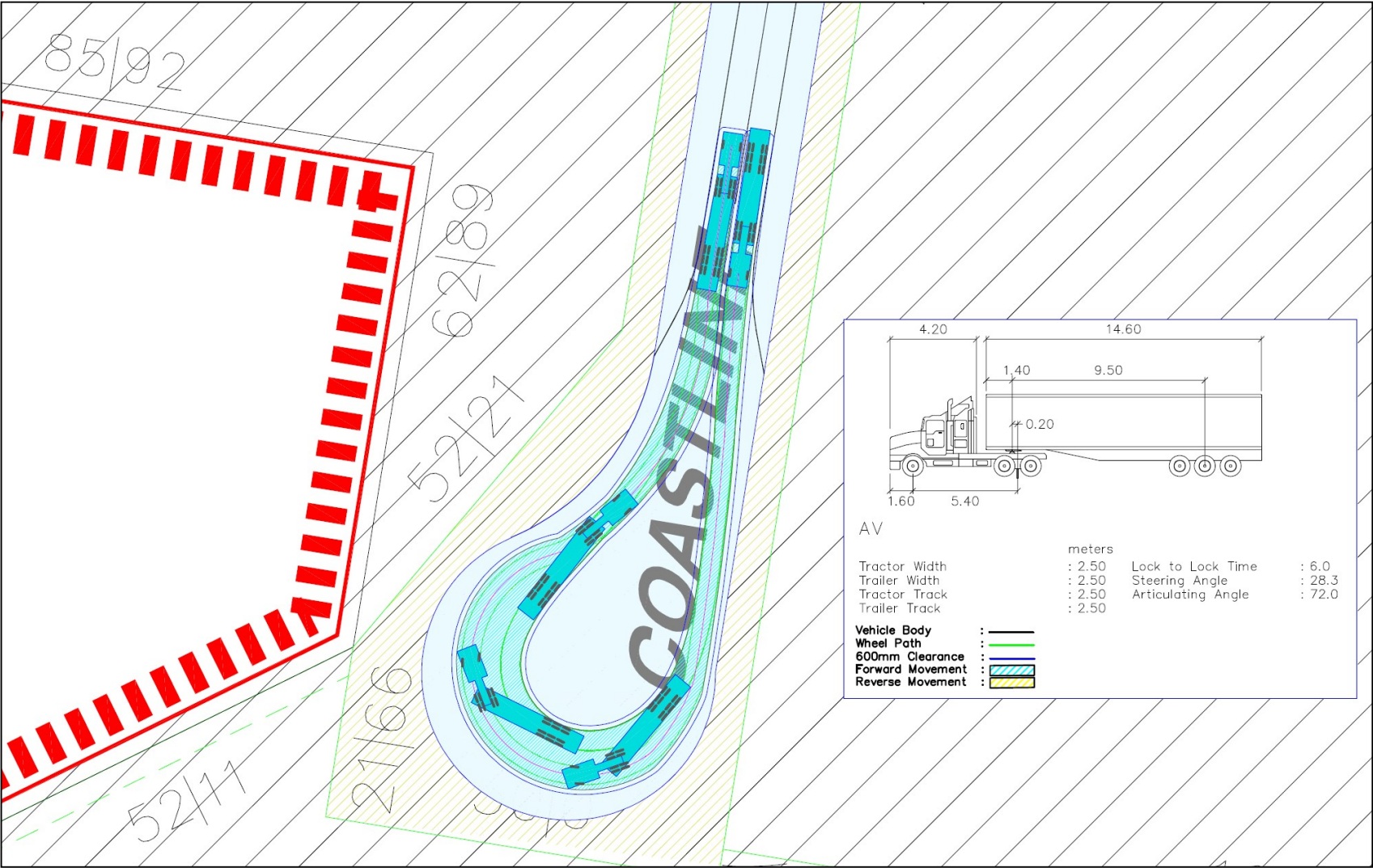


FIGURE 5.4 – SWEEP PATH OF A 20m ARTICULATED VEHICLE (CUL-DE-SAC)

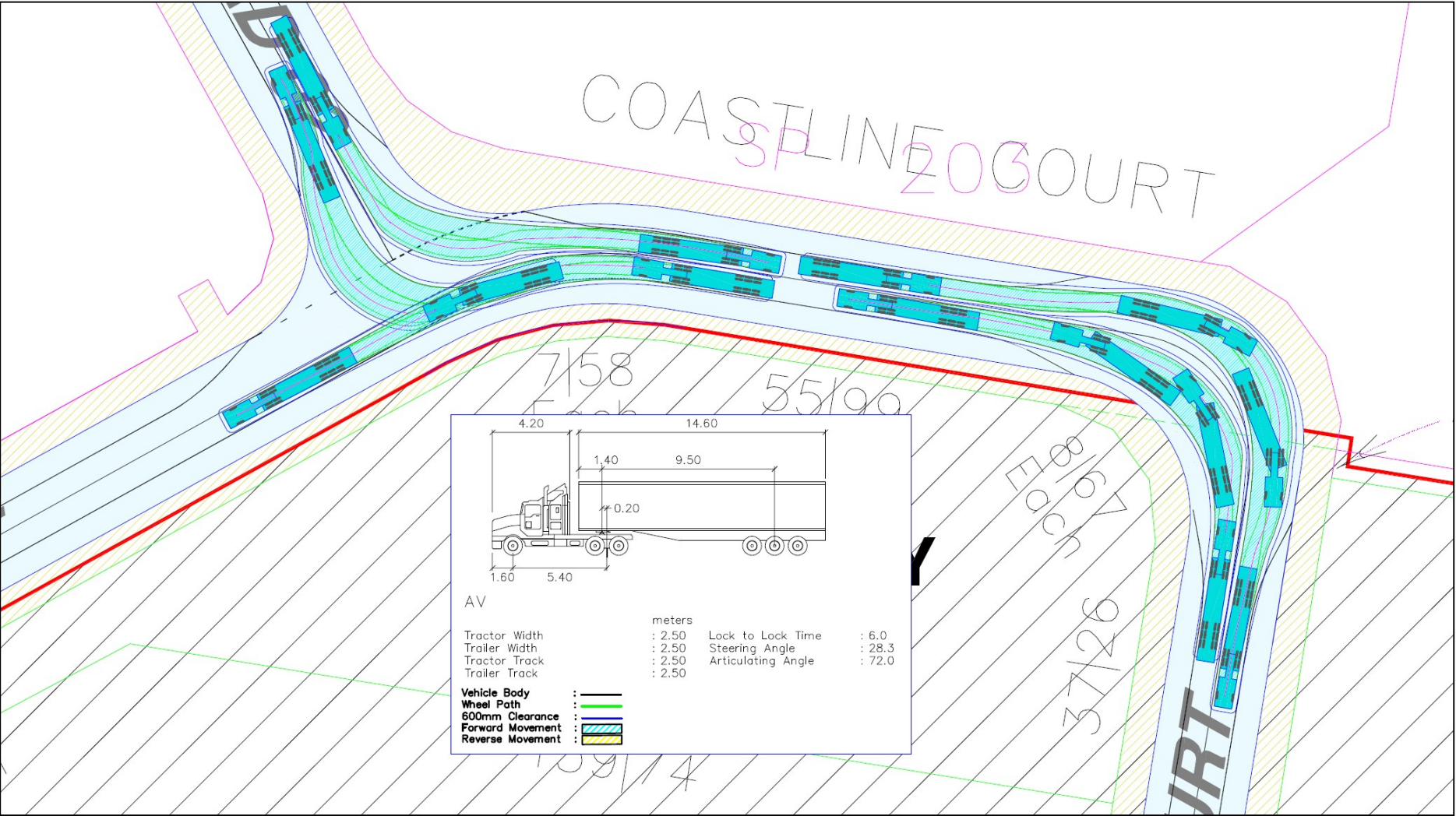


FIGURE 5.5 – SWEEP PATH OF A 20m ARTICULATED VEHICLE  
(INTERSECTION MANOEUVRING)

## 6.0 ROAD NETWORK IMPACT

### 6.1 Background Traffic

As shown as Attachment A, Christensen Road has been surveyed to carry in the order of 3,000 vehicles per day near the proposed intersection location in 2018. Given that Christensen Road does not provide through connection to the wider network, it is considered that any increase in background demand is directly associated with the planned future connection across Sandy Creek.

### 6.2 Development Trip Generation

In accordance with the original traffic impact assessment, the following trip generation rates have been adopted for the analysis.

0.42 trips / 100m<sup>2</sup> GFA / peak hour, and 4 trips / 100m<sup>2</sup> GFA / day.

The above rate is considered to be reasonable for the proposal and is consistent with the rate adopted for Stages 1 and 2. Application of the above rate to the area associated with Stage 3 results in a peak hour demand of 331 trips during the morning and afternoon peak hour periods as shown in Table 6.1.

**Table 6.1 - Estimated Peak Hour Development Traffic Generation (STAGE3 ONLY)**

| Stage   | Lot Area (m <sup>2</sup> ) | Est GFA (m <sup>2</sup> ) | Morning Peak Hour |     |       | Afternoon Peak Hour |     |       |
|---------|----------------------------|---------------------------|-------------------|-----|-------|---------------------|-----|-------|
|         |                            |                           | In                | Out | Total | In                  | Out | Total |
| STAGE 3 | 175,245                    | 78,860                    | 215               | 116 | 331   | 67                  | 264 | 331   |

- Assumes 45% site cover
- Peak Hour Distribution: AM Peak 65 / 35, PM Peak 20/80
- Potential floor areas have been estimated through application of a 45% site coverage.

### 6.3 Impact on Christensen Road / Highlands Street Intersection

The impacts of the overall estate upon the wider road network have previously been assessed as part of the preliminary approval. Therefore, only impacts on the Christensen Road / Highlands Street intersection have been assessed as part of the analysis. It is noted that the subject change results in a reduction in access points along the northern side of Christensen Road to a single point, with the access on the southern side of Christensen Road retained.

For the purposes of the analysis a sensitivity assessment has been prepared for the Christensen Road / Highlands Street intersection based on the background traffic generated by Stages 1 and 2 (Appendix B), and resultant estimate for Stage 3, including the Common Property lot and Lots 301, 302 and 303, as follows:

| Stage                                  | Lot Area (m2) | Est GFA (m2) | Morning Peak Hour |     |       | Afternoon Peak Hour |     |       |
|----------------------------------------|---------------|--------------|-------------------|-----|-------|---------------------|-----|-------|
|                                        |               |              | In                | Out | Total | In                  | Out | Total |
| Common Property + Lots 301, 302 & 303. | 156,245       | 70,310       | 191               | 104 | 295   | 59                  | 236 | 295   |

- Assumes 45% site cover
- Peak Hour Distribution: AM Peak 65 / 35, PM Peak 20/80
- Potential floor areas have been estimated through application of a 45% site coverage.

As shown as Attachment C, the Christensen Road / Highlands Street intersection under priority control will operate within acceptable criteria with Stage 3 of the site in operation. It is therefore determined that the proposed change in the access arrangements along Christensen Road will not have adverse impact on the safety and efficiency of the frontage road and the intersection.

It is noted that the model assumes that Christensen Road is a 'NO THROUGH ROAD' and therefore does not generate a significant background traffic demand. Further investigation is required at future stages as the connection over Sandy Creek is established.

## 7.0 SUMMARY OF CONCLUSIONS & RECOMMENDATIONS

- The proposed plan of subdivision for Stage 3 of the Vantage Industrial Estate in Yatala. The new stage comprises of 4 industrial dwelling lots (301, 302, 303 & 401), and an additional wellbeing precinct.
- It is proposed that Lots 301, 302 and 303 will gain access via a new 23 metre road off Highlands Street. Lots 302 and 402 will gain access via Christensen Road.
- It is proposed planned that the Christensen Road / Highlands Street intersection be constructed as a priority controlled junction with dedicated Type AUL and CHR left and right turn treatments.
- Given the current status of road network planning and the sensitivity of the network to new connections and upgrades (due to congestion), traffic signals may not be warranted for some time.
- The proposed road profiles have been designed in accordance with the *Gold Coast City Council Infrastructure Planning Policy*.

## APPENDIX

APPENDIX A –TRAFFIC SURVEY ON CHRISTENSEN ROAD

APPENDIX B – STAGE 1 & 2 DEVELOPMENT TRAFFIC ESTIMATES (APPROVED)

APPENDIX C – DETAILED SIDRA OUTPUT (CHRISTENSEN ROAD / HIGHLANDS STREET INTERSECTION

APPENDIX D - RESPONSE TO TRANSPORT CODE

APPENDIX E - STATE

**APPENDIX A - TRAFFIC SURVEY ON CHRISTENSEN ROAD (2018)**

**Weekly Vehicle Counts**

**WeeklyVehicle-41**

**Site:** Christensen Rd Yatala.0.1NS  
**Description:** Christensen Rd, Yatala just south of Maiella St  
**Filter time:** 20:21 Sunday, 11 March 2018 => 21:52 Thursday, 15 March 2018  
**Scheme:** Vehicle classification (AustRoads94)  
**Filter:** Cls(1-12) Dir(NESW) Sp(10,160) Headway(>0) Span(0 - 100) Lane(0-16)

|               | Mon    | Tue    | Wed    | Thu    | Fri    | Sat    | Sun    | Averages |        |
|---------------|--------|--------|--------|--------|--------|--------|--------|----------|--------|
|               | 12 Mar | 13 Mar | 14 Mar | 15 Mar | 16 Mar | 17 Mar | 18 Mar | 1 - 5    | 1 - 7  |
| Hour          |        |        |        |        |        |        |        |          |        |
| 0000-0100     | 3      | 4      | 7      | 12     | *      | *      | *      | 6.5      | 6.5    |
| 0100-0200     | 6      | 10     | 10     | 18     | *      | *      | *      | 11.0     | 11.0   |
| 0200-0300     | 6      | 7      | 6      | 10     | *      | *      | *      | 7.3      | 7.3    |
| 0300-0400     | 17     | 22     | 20     | 22     | *      | *      | *      | 20.3     | 20.3   |
| 0400-0500     | 77     | 74     | 85     | 82     | *      | *      | *      | 79.5     | 79.5   |
| 0500-0600     | 243    | 242    | 249    | 230    | *      | *      | *      | 241.0    | 241.0  |
| 0600-0700     | 196    | 226    | 208    | 180    | *      | *      | *      | 202.5    | 202.5  |
| 0700-0800     | 214    | 236    | 241    | 217    | *      | *      | *      | 227.0    | 227.0  |
| 0800-0900     | 225    | 234    | 200    | 235    | *      | *      | *      | 223.5    | 223.5  |
| 0900-1000     | 198    | 235    | 218    | 219    | *      | *      | *      | 217.5    | 217.5  |
| 1000-1100     | 220    | 230    | 216    | 188    | *      | *      | *      | 213.5    | 213.5  |
| 1100-1200     | 209    | 216    | 192    | 216    | *      | *      | *      | 208.3    | 208.3  |
| 1200-1300     | 217    | 198    | 227    | 232    | *      | *      | *      | 218.5    | 218.5  |
| 1300-1400     | 207    | 237    | 241    | 234    | *      | *      | *      | 229.8    | 229.8  |
| 1400-1500     | 258    | 244    | 284    | 267    | *      | *      | *      | 263.3    | 263.3  |
| 1500-1600     | 244    | 239    | 245    | 243    | *      | *      | *      | 242.8    | 242.8  |
| 1600-1700     | 222    | 222    | 233    | 234    | *      | *      | *      | 227.8    | 227.8  |
| 1700-1800     | 107    | 94     | 103    | 108    | *      | *      | *      | 103.0    | 103.0  |
| 1800-1900     | 32     | 38     | 46     | 35     | *      | *      | *      | 37.8     | 37.8   |
| 1900-2000     | 15     | 14     | 19     | 0      | *      | *      | *      | 12.0     | 12.0   |
| 2000-2100     | 7      | 5      | 14     | 0      | *      | *      | *      | 6.5      | 6.5    |
| 2100-2200     | 9      | 11     | 10     | 0      | *      | *      | *      | 7.5      | 7.5    |
| 2200-2300     | 19     | 16     | 23     | *      | *      | *      | *      | 19.3     | 19.3   |
| 2300-2400     | 0      | 4      | 3      | *      | *      | *      | *      | 2.3      | 2.3    |
| <b>Totals</b> |        |        |        |        |        |        |        |          |        |
| 0700-1900     | 2353   | 2423   | 2446   | 2428   | *      | *      | *      | 2412.5   | 2412.5 |
| 0600-2200     | 2580   | 2679   | 2697   | 2608   | *      | *      | *      | 2641.0   | 2641.0 |
| 0600-0000     | 2599   | 2699   | 2723   | *      | *      | *      | *      | 2662.7   | 2662.7 |
| 0000-0000     | 2951   | 3058   | 3100   | *      | *      | *      | *      | 3028.2   | 3028.2 |

## APPENDIX B - STAGE 1 & 2 DEVELOPMENT TRAFFIC ESTIMATES (APPROVED)

(RTE TRAFFIC REPORT DATED 10 MARCH 2022, REF20337)

- Development Traffic Estimates

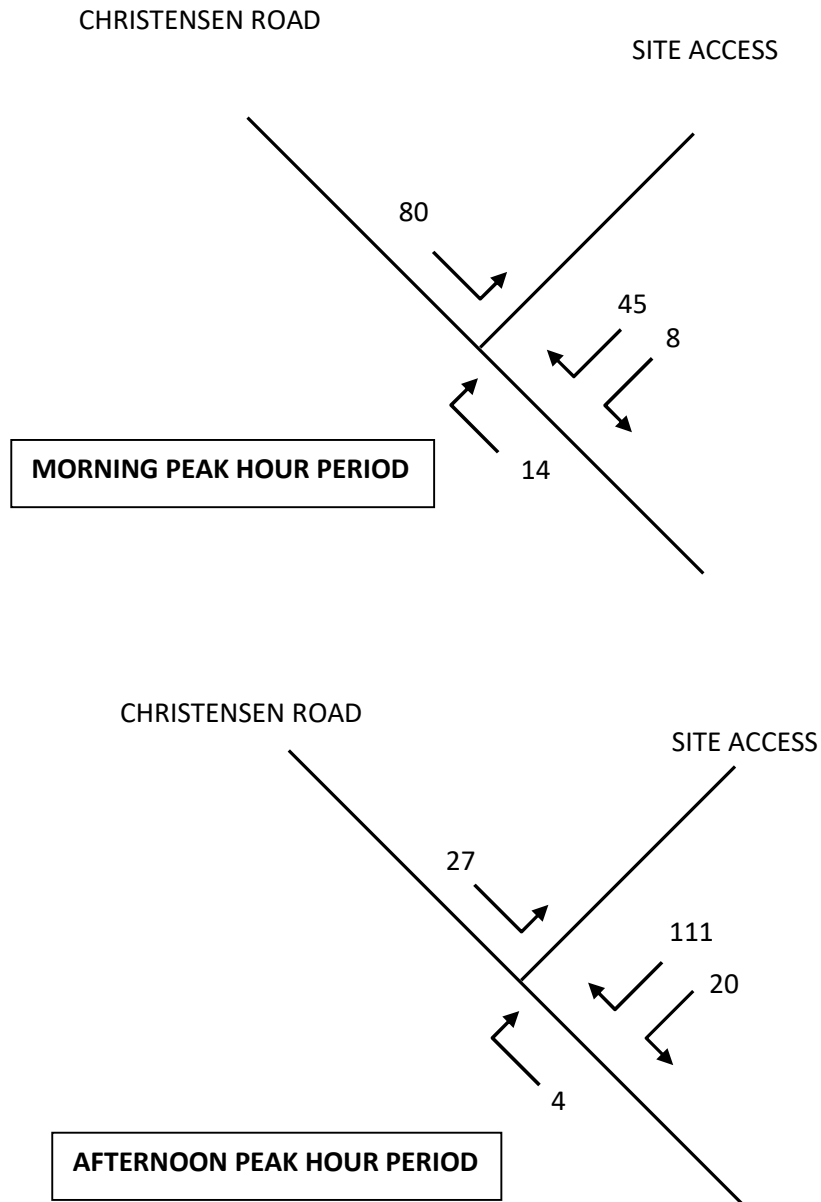
**Table 4.1 - Estimated Peak Hour Development Traffic Generation (STAGES 1 & 2 ONLY)**

| Stage                | Lot Area (m <sup>2</sup> ) | Est GFA (m <sup>2</sup> ) | Morning Peak Hour |            |            | Afternoon Peak Hour |            |            |
|----------------------|----------------------------|---------------------------|-------------------|------------|------------|---------------------|------------|------------|
|                      |                            |                           | In                | Out        | Total      | In                  | Out        | Total      |
| STAGE 1              | 119833                     | 53925                     | 147               | 79         | <b>226</b> | 46                  | 180        | <b>226</b> |
| STAGE 2              | 276677                     | 124505                    | 340               | 183        | <b>523</b> | 105                 | 427        | <b>523</b> |
| <b>TOTAL TRAFFIC</b> |                            |                           | <b>487</b>        | <b>262</b> | <b>749</b> | <b>151</b>          | <b>607</b> | <b>749</b> |

Assumes 45% site cover

Peak Hour Distribution: AM Peak 65 / 35, PM Peak 20/80

- Development Traffic Distribution



**FIGURE 4.2 – STAGES 1 & 2 DEVELOPMENT TRAFFIC ESTIMATES  
AT THE CHRISTENSEN ROAD INTERSECTION**

**APPENDIX C – DETAILED SIDRA OUTPUT (CHRISTENSEN ROAD / HIGHLANDS STREET INTERSECTION)**

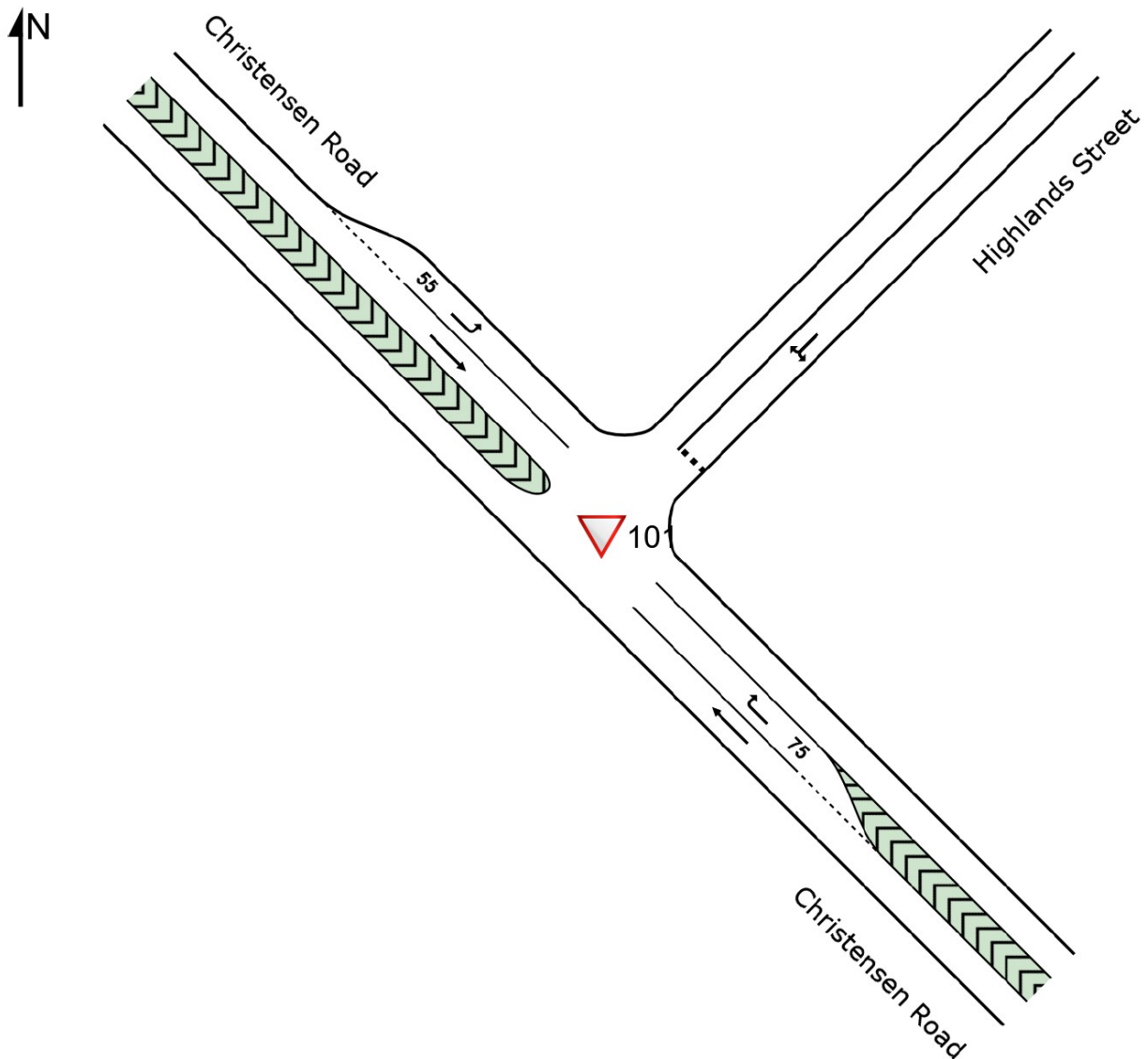
AM PEAK - BACKGROUND TRAFFIC (STAGES 1 & 2 + 2018 SURVEY)

PM PEAK - BACKGROUND TRAFFIC (STAGES 1 & 2 + 2018 SURVEY)

AM PEAK - DESIGN TRAFFIC (BACKGROUND + STAGE 3)

PM PEAK - DESIGN TRAFFIC (BACKGROUND + STAGE 3)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



## MOVEMENT SUMMARY

▽ Site: 101 AM Peak (Christensen Rd - New Rd Int) -  
Background (2018 + S1 + S2) (Site Folder: Stage 3 - Access via  
Christensen Road )]

22301 - Christensen Road / Highlands Street (Site Access Intersection)  
Site Category: (None)  
Give-Way (Two-Way)

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] m |           |                     |                  |             |
| SouthEast: Christensen Road  |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 5                            | T1   | 125           | 15.0   | 125           | 15.0   | 0.070     | 0.0         | LOS A            | 0.0               | 0.0      | 0.00      | 0.00                | 0.00             | 60.0        |
| 6                            | R2   | 14            | 15.0   | 14            | 15.0   | 0.013     | 6.6         | LOS A            | 0.1               | 0.4      | 0.32      | 0.57                | 0.32             | 51.6        |
| Approach                     |      | 139           | 15.0   | 139           | 15.0   | 0.070     | 0.7         | NA               | 0.1               | 0.4      | 0.03      | 0.06                | 0.03             | 59.0        |
| NorthEast: Highlands Street  |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 7                            | L2   | 8             | 15.0   | 8             | 15.0   | 0.076     | 6.3         | LOS A            | 0.3               | 2.3      | 0.41      | 0.65                | 0.41             | 51.2        |
| 9                            | R2   | 45            | 15.0   | 45            | 15.0   | 0.076     | 8.5         | LOS A            | 0.3               | 2.3      | 0.41      | 0.65                | 0.41             | 50.9        |
| Approach                     |      | 53            | 15.0   | 53            | 15.0   | 0.076     | 8.1         | LOS A            | 0.3               | 2.3      | 0.41      | 0.65                | 0.41             | 51.0        |
| NorthWest: Christensen Road  |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 10                           | L2   | 80            | 15.0   | 80            | 15.0   | 0.048     | 5.7         | LOS A            | 0.0               | 0.0      | 0.00      | 0.57                | 0.00             | 53.0        |
| 11                           | T1   | 125           | 15.0   | 125           | 15.0   | 0.070     | 0.0         | LOS A            | 0.0               | 0.0      | 0.00      | 0.00                | 0.00             | 60.0        |
| Approach                     |      | 205           | 15.0   | 205           | 15.0   | 0.070     | 2.2         | NA               | 0.0               | 0.0      | 0.00      | 0.22                | 0.00             | 57.0        |
| All Vehicles                 |      | 397           | 15.0   | 397           | 15.0   | 0.076     | 2.5         | NA               | 0.3               | 2.3      | 0.07      | 0.22                | 0.07             | 56.8        |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## MOVEMENT SUMMARY

**Site: 101 - PM Peak (Christensen Rd - New Rd Int) - Background (2018 + S1 + S2) (Site Folder: Stage 3 - Access via Christensen Road )]**

22301 - Christensen Road / Highlands Street (Site Access Intersection)  
Site Category: (None)  
Give-Way (Two-Way)

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |     |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|-----|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |     | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % | v/c       | sec         | [ Veh. veh       | Dist ] m          |     |           |                     |                  |             |
| SouthEast: Christensen Road  |      |               |      |               |      |           |             |                  |                   |     |           |                     |                  |             |
| 5                            | T1   | 142           | 15.0 | 142           | 15.0 | 0.080     | 0.0         | LOS A            | 0.0               | 0.0 | 0.00      | 0.00                | 0.00             | 60.0        |
| 6                            | R2   | 4             | 15.0 | 4             | 15.0 | 0.004     | 6.4         | LOS A            | 0.0               | 0.1 | 0.29      | 0.55                | 0.29             | 51.7        |
| Approach                     |      | 146           | 15.0 | 146           | 15.0 | 0.080     | 0.2         | NA               | 0.0               | 0.1 | 0.01      | 0.02                | 0.01             | 59.7        |
| NorthEast: Highlands Street  |      |               |      |               |      |           |             |                  |                   |     |           |                     |                  |             |
| 7                            | L2   | 20            | 15.0 | 20            | 15.0 | 0.188     | 6.5         | LOS A            | 0.8               | 6.1 | 0.45      | 0.69                | 0.45             | 51.0        |
| 9                            | R2   | 111           | 15.0 | 111           | 15.0 | 0.188     | 8.8         | LOS A            | 0.8               | 6.1 | 0.45      | 0.69                | 0.45             | 50.7        |
| Approach                     |      | 131           | 15.0 | 131           | 15.0 | 0.188     | 8.4         | LOS A            | 0.8               | 6.1 | 0.45      | 0.69                | 0.45             | 50.8        |
| NorthWest: Christensen Road  |      |               |      |               |      |           |             |                  |                   |     |           |                     |                  |             |
| 10                           | L2   | 27            | 15.0 | 27            | 15.0 | 0.016     | 5.7         | LOS A            | 0.0               | 0.0 | 0.00      | 0.57                | 0.00             | 53.0        |
| 11                           | T1   | 142           | 15.0 | 142           | 15.0 | 0.080     | 0.0         | LOS A            | 0.0               | 0.0 | 0.00      | 0.00                | 0.00             | 60.0        |
| Approach                     |      | 169           | 15.0 | 169           | 15.0 | 0.080     | 0.9         | NA               | 0.0               | 0.0 | 0.00      | 0.09                | 0.00             | 58.7        |
| All Vehicles                 |      | 446           | 15.0 | 446           | 15.0 | 0.188     | 2.9         | NA               | 0.8               | 6.1 | 0.13      | 0.24                | 0.13             | 56.4        |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## MOVEMENT SUMMARY

**Site: 101 - AM Peak (Christensen Rd - New Rd Int) - Design (Background + Stage 3) (Site Folder: Stage 3 - Access via Christensen Road )]**

22301 - Christensen Road / Highlands Street (Site Access Intersection)  
Site Category: (None)  
Give-Way (Two-Way)

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % ] | [ Total veh/h | HV % ] |           |             |                  | [ Veh. veh        | Dist m ] |           |                     |                  |             |
| SouthEast: Christensen Road  |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 5                            | T1   | 125           | 15.0   | 125           | 15.0   | 0.070     | 0.0         | LOS A            | 0.0               | 0.0      | 0.00      | 0.00                | 0.00             | 60.0        |
| 6                            | R2   | 14            | 15.0   | 14            | 15.0   | 0.017     | 7.8         | LOS A            | 0.1               | 0.5      | 0.46      | 0.64                | 0.46             | 50.9        |
| Approach                     |      | 139           | 15.0   | 139           | 15.0   | 0.070     | 0.8         | NA               | 0.1               | 0.5      | 0.05      | 0.06                | 0.05             | 58.9        |
| NorthEast: Highlands Street  |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 7                            | L2   | 8             | 15.0   | 8             | 15.0   | 0.270     | 6.5         | LOS A            | 1.2               | 9.3      | 0.55      | 0.79                | 0.57             | 49.7        |
| 9                            | R2   | 149           | 15.0   | 149           | 15.0   | 0.270     | 10.4        | LOS B            | 1.2               | 9.3      | 0.55      | 0.79                | 0.57             | 49.5        |
| Approach                     |      | 157           | 15.0   | 157           | 15.0   | 0.270     | 10.2        | LOS B            | 1.2               | 9.3      | 0.55      | 0.79                | 0.57             | 49.5        |
| NorthWest: Christensen Road  |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 10                           | L2   | 271           | 15.0   | 271           | 15.0   | 0.162     | 5.8         | LOS A            | 0.0               | 0.0      | 0.00      | 0.57                | 0.00             | 52.9        |
| 11                           | T1   | 125           | 15.0   | 125           | 15.0   | 0.070     | 0.0         | LOS A            | 0.0               | 0.0      | 0.00      | 0.00                | 0.00             | 60.0        |
| Approach                     |      | 396           | 15.0   | 396           | 15.0   | 0.162     | 3.9         | NA               | 0.0               | 0.0      | 0.00      | 0.39                | 0.00             | 55.0        |
| All Vehicles                 |      | 692           | 15.0   | 692           | 15.0   | 0.270     | 4.7         | NA               | 1.2               | 9.3      | 0.13      | 0.42                | 0.14             | 54.3        |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## MOVEMENT SUMMARY

▼ Site: 101 PM Peak (Christensen Rd - New Rd Int) -  
Design (Background + Stage 3) (Site Folder: Stage 3 - Access  
via Christensen Road )]

22301 - Christensen Road / Highlands Street (Site Access Intersection)  
Site Category: (None)  
Give-Way (Two-Way)

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] m |           |                     |                  |             |
| SouthEast: Christensen Road  |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 5                            | T1   | 142           | 15.0 | 142           | 15.0 | 0.080     | 0.0         | LOS A            | 0.0               | 0.0      | 0.00      | 0.00                | 0.00             | 60.0        |
| 6                            | R2   | 4             | 15.0 | 4             | 15.0 | 0.004     | 6.7         | LOS A            | 0.0               | 0.1      | 0.34      | 0.56                | 0.34             | 51.6        |
| Approach                     |      | 146           | 15.0 | 146           | 15.0 | 0.080     | 0.2         | NA               | 0.0               | 0.1      | 0.01      | 0.02                | 0.01             | 59.7        |
| NorthEast: Highlands Street  |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 7                            | L2   | 20            | 15.0 | 20            | 15.0 | 0.571     | 9.0         | LOS A            | 4.8               | 37.6     | 0.65      | 0.98                | 1.02             | 48.1        |
| 9                            | R2   | 347           | 15.0 | 347           | 15.0 | 0.571     | 12.8        | LOS B            | 4.8               | 37.6     | 0.65      | 0.98                | 1.02             | 47.9        |
| Approach                     |      | 367           | 15.0 | 367           | 15.0 | 0.571     | 12.6        | LOS B            | 4.8               | 37.6     | 0.65      | 0.98                | 1.02             | 47.9        |
| NorthWest: Christensen Road  |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 10                           | L2   | 86            | 15.0 | 86            | 15.0 | 0.051     | 5.7         | LOS A            | 0.0               | 0.0      | 0.00      | 0.57                | 0.00             | 53.0        |
| 11                           | T1   | 142           | 15.0 | 142           | 15.0 | 0.080     | 0.0         | LOS A            | 0.0               | 0.0      | 0.00      | 0.00                | 0.00             | 60.0        |
| Approach                     |      | 228           | 15.0 | 228           | 15.0 | 0.080     | 2.2         | NA               | 0.0               | 0.0      | 0.00      | 0.22                | 0.00             | 57.1        |
| All Vehicles                 |      | 741           | 15.0 | 741           | 15.0 | 0.571     | 7.0         | NA               | 4.8               | 37.6     | 0.33      | 0.55                | 0.51             | 52.6        |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## APPENDIX D – RESPONSE TO CAR PARKING, ACCESS, AND TRANSPORT INTEGRATION CONSTRAINT CODE (2003)

### Part 7 Codes

#### Division 3 Constraint Codes

#### Chapter 4 Car Parking, Access and Transport Integration

##### 1.0 Purpose

To ensure that transport needs, including car parking and service vehicle requirements, associated with the development of land are met by:

- supply of car and bicycle parking facilities;
- provision of loading and service facilities; and
- integration of public transport with private and public development in the City.

Key objectives include:

- a) the availability of car park opportunities that are easy to locate and use, in close proximity to all major developments and uses within the City, with on-site provision available for occupants and on-street provision and/or public car parks available for visitors;
- b) the effective use of all car park infrastructure provided in the City; and
- c) streets that are pedestrian and cyclist friendly.

## 2.0 Application

- 2.1 This code applies to development indicated as self, code or impact assessable in the Table of Development in the domain or Local Area Plan (LAP) within which the development is proposed.
- 2.2 This code specifically applies to development (whether on private or public land) that requires one or more of the following:
  - private or public car parking;
  - bicycle parking and associated facilities;
  - goods loading and circulation in public or private places; and
  - integration of public transport with private or public development in the City.
- 2.3 This code also applies to any development that is proposed for sites identified on Domain Maps or the Priority Infrastructure Plan Maps as being affected by Future Road Requirements, including areas required for future road corridor development.
- 2.4 Where a domain or LAP Place Code contains car parking requirements that differ from this code, the LAP requirements take precedence.
- 2.5 Performance Criteria PC1-PC24 apply to all code and impact assessable development referred to in this code. For development identified as self assessable, in the relevant domain or LAP, only the acceptable solutions to Performance Criteria PC1-PC16 apply.

### 3.0 Development Requirements

| Performance Criteria                                                                                                                                                                                                                                                                                                             | Acceptable Solutions                                                                                                                                                                                                                                                                                           | How does the proposal comply with the Acceptable Solution or Performance Criteria? | Internal Use:<br>Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated?<br>Is a request for further information required? |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Development that is Self Assessable, Code Assessable or Impact Assessable</b>                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                |                                                                                    |                                                                                                                                                         |
| <b>Protection and Preservation of Areas Required for Road Widening, the Provision of Public Transport Facilities or New Transport Corridors</b>                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                |                                                                                    |                                                                                                                                                         |
| PC1<br>Land affected by any proposed road realignment or widening must not have development constructed over that part of the land required for road realignment or road widening.                                                                                                                                               | AS1<br>All sites that are affected by Future Road Requirement as shown on the Domain Maps, do not have buildings or structures erected forward of the indicated building setback line. This requirement does not apply to a fence with a height not exceeding 1.8 metres and a width not exceeding 0.5 metres. | NOT APPLICABLE, THE PROPOSED CHANGE DOES NOT IMPACT ON FUTURE ROAD REQUIREMENTS    |                                                                                                                                                         |
| <b>Port Cocheres</b>                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                |                                                                                    |                                                                                                                                                         |
| PC2<br>Where provision is made for a <i>porte cochere</i> , it must be designed to enable vertical clearance, manoeuvring, access and queuing of vehicles. The capacity of the <i>porte cochere</i> and associated access and manoeuvring must accommodate vehicles entirely within the site, including the queuing of vehicles. | AS2<br>The <i>porte cochere</i> has a minimum vertical clearance of 4.5 metres.                                                                                                                                                                                                                                | NOT APPLICABLE, PROPOSAL DOES NOT PROVIDE A PORTE COCHERE.                         |                                                                                                                                                         |
| <b>Design of Car Parking Areas and Car Park Spaces</b>                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                |                                                                                    |                                                                                                                                                         |
| PC3<br>All car parking spaces must be constructed and line marked to the correct size and standard.                                                                                                                                                                                                                              | AS3.1<br>All car parking spaces and facilities are constructed, sealed, line marked and maintained in accordance with the layout requirements of <b>AS2890.1 – Parking</b>                                                                                                                                     | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |

| Performance Criteria                                                                                                                                                                                                                  | Acceptable Solutions                                                                                                                                                                                                                                                                                                                                                                          | How does the proposal comply with the Acceptable Solution or Performance Criteria? | Internal Use:<br>Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated?<br>Is a request for further information required? |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                       | <b>Facilities Part 1: Off Street Car Parking and AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.</b><br><b>AS3.2</b><br>Where the development includes a combination of low turnover and high turnover car spaces, the parking spaces and aisles are designed to the high turnover or Class 3 requirements in <b>AS2980.1 – Parking Facilities Part 1: Off Street Car Parking.</b> |                                                                                    |                                                                                                                                                         |
| <b>PC4</b><br>Car parking areas must be landscaped to reduce visual impact and to provide opportunities for shade.                                                                                                                    | <b>AS4</b><br>In car parking areas exceeding 300m <sup>2</sup> in site area:<br>a) at least 5% of the area is landscaped;<br>b) a landscaped buffer, with a minimum height of 600mm and width of 1500mm, is provided along any public street frontage and the common boundary to the adjoining property; and<br>c) one landscaped tree bay is to be provided for every 21 car parking spaces. | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |
| <b>Signs and Line Marking</b>                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                    |                                                                                                                                                         |
| <b>PC5</b><br>Signs and line marking must be provided to indicate the location of the car park and the position of the access points for all car parks used by the public where:<br>a) a car park is located at the rear of the site; | <b>AS5.1</b><br>Signs incorporate the standard Service Sign Series 'P' sign, as detailed under <b>Guide Signs</b> in the <b>Manual of Uniform Traffic Control Devices, Queensland.</b> (This does not apply to residential developments with less than 10 units)                                                                                                                              | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |

| Performance Criteria                                                                                                                               | Acceptable Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | How does the proposal comply with the Acceptable Solution or Performance Criteria? | Internal Use:<br>Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated?<br>Is a request for further information required? |
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| b) access to the car park is not located in the main frontage road;<br>c) there are a number of access points serving different parts of the site. | AS5.2<br>Signs are used to mark car parking bays which are provided for disabled drivers, motorcycles and special zones, such as bus zones.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                    |                                                                                                                                                         |
| <b>Tandem Car Spaces</b>                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                    |                                                                                                                                                         |
| PC6<br>Tandem car parking must only be used in circumstances where no inconvenience arises from its use.                                           | AS6.1<br>Tandem car parking spaces (ie. two car parking spaces, nose to tail) are counted as one space, except in the following cases:<br>a) the development is for residential purposes;<br>b) the tandem spaces are to be used by the occupants of the site, in one tenancy;<br>c) the car park area is to be operated as a public car park with on-site management. In this case, a tandem car park may be counted as no more than 1.5 car spaces.<br><br>AS6.2<br>The minimum length of the tandem car space is 10.4 metres.<br><br>AS6.3<br>Tandem garages have a minimum internal length of 11 metres. | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |
| <b>Access to Car Park Areas</b>                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                    |                                                                                                                                                         |
| PC7<br>Car parking areas must not cause vehicle                                                                                                    | AS7.1<br>For developments in excess of 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A                                   |                                                                                                                                                         |

| Performance Criteria                                                                       | Acceptable Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | How does the proposal comply with the Acceptable Solution or Performance Criteria? | Internal Use:<br>Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated?<br>Is a request for further information required? |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| queues into the frontage road system or encourage drivers to reverse into the road system. | residential units with frontage to major roads, a turn round facility with a minimum diameter of 12.0m is provided between the gate and the road.<br>AS7.2<br>All car parking facilities, except those associated with detached dwellings and duplex dwellings is designed so that all vehicles enter and exist the site in a forward gear.<br>AS7.3<br>Provision is made for a defined queuing area, free of any parking manoeuvres or internal intersections in accordance with the provisions of the <b>Table to Acceptable Solution AS7.3</b> , for developments comprising of more than two dwelling units and where a security gate is proposed. | RECONFIGURATION OF A LOT.                                                          |                                                                                                                                                         |

| Table to Acceptable Solution AS7.3   |                                   |
|--------------------------------------|-----------------------------------|
| Car Park Capacity (Number of Spaces) | Minimum Queue Length (Vehicles) * |
| 1 to 25                              | 1                                 |
| 26 to 50                             | 2                                 |
| 51 to 75                             | 3                                 |
| 76 to 100                            | 4                                 |
| 101 to 150                           | 5                                 |
| 151 to 200                           | 6                                 |

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|                                                                            |                                       |
|----------------------------------------------------------------------------|---------------------------------------|
| 201 to 250                                                                 | 7                                     |
| More than 250                                                              | 7 plus 1% of capacity over 250 spaces |
| <b>* Note: Each vehicle shall be taken to occupy 6.0 metres in length.</b> |                                       |

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| Performance Criteria                                                                                                                                               | Acceptable Solutions                                                                                                                                                                                                                                                                                                                                                                               | How does the proposal comply with the Acceptable Solution or Performance Criteria? | Internal Use:<br>Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated?<br>Is a request for further information required? |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| PC8<br>Car parking areas providing more than 20 car parking spaces must allow for the separation of vehicles and pedestrians.                                      | AS8<br>Sealed pedestrian footpaths, at a gradient not exceeding 1:12, are provided from the car parking area along the shortest possible route to the point of destination.                                                                                                                                                                                                                        | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |
| PC9<br>Access to car parking spaces must be provided for employees and visitors.                                                                                   | AS9.1<br>Car park areas have no gateways, doors or similar devices which restrict vehicular access by employees or visitors.                                                                                                                                                                                                                                                                       | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |
| <b>Driveways and Crossovers</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                    |                                                                                                                                                         |
| PC10<br>Driveways from car parks or developments into public roads must be minimised to reduce interference with public road traffic and pedestrians.              | AS10.1<br>The maximum number of crossovers for residential developments is one for detached dwelling properties and two for multiple unit dwelling complexes.<br>AS10.2<br>The maximum number of crossovers for non-residential developments is two crossovers per property.<br>AS10.3<br>A vehicle crossover is separated from any other vehicle crossover by a minimum distance of three metres. | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |
| PC11<br>All development must make provision for safe access to roads or streets adjacent to the site. Crossovers must be constructed to a standard consistent with | AS11.1<br>The geometric design of entry and exit driveways conforms with <b>Standard Drawing No 59218 of Planning Scheme Policy 11 – Land Development</b>                                                                                                                                                                                                                                          | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |

| Performance Criteria         | Acceptable Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | How does the proposal comply with the Acceptable Solution or Performance Criteria? | Internal Use:<br>Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated?<br>Is a request for further information required? |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| the vehicles using the site. | <p><b>Guidelines.</b></p> <p>AS11.2<br/>Access to roads or streets adjacent to the site is consistent with <b>AS2890.1 – Parking Facilities Part 1: Off Street Car Parking</b> and <b>AS2890.2 – Off Street Parking Part 2: Commercial Vehicles</b>.</p> <p>AS11.3<br/>Where separate entry and exit driveways are used, the first driveway reached from the kerbside land is clearly delineated and sign-posted.</p> <p>AS11.4.1<br/>Access to developments on dual carriageway roads is left in/left out.<br/>OR</p> <p>AS11.4.2<br/>A new intersection is provided between the access way and the dual carriageway.</p> <p>AS11.5<br/>Developments with traffic signal controlled or roundabout access to the frontage road dedicate land as public road to accommodate all intersection infrastructure, including traffic signal loops.</p> <p>AS11.6<br/>The boundaries of the frontage road are modified to accommodate all intersection infrastructure within the public road.</p> |                                                                                    |                                                                                                                                                         |

| Performance Criteria                                                                                                                                                                       | Acceptable Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | How does the proposal comply with the Acceptable Solution or Performance Criteria? | Internal Use:<br>Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated?<br>Is a request for further information required? |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                            | AS11.7<br>Developments with new traffic signal controlled access, within network traffic systems, provide the necessary infrastructure to integrate the new signals.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                    |                                                                                                                                                         |
| <b>Internal Circulation</b>                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                    |                                                                                                                                                         |
| PC12<br>All developments must provide internal circulation to avoid use of the public road system for movement between different car parking and vehicle service areas in the development. | AS12.1<br>The internal layout of the site is consistent with <b>AS2890.1 – Parking Facilities Part 1: Off Street Car Parking</b> and <b>AS2890.2 – Off Street Parking Part 2: Commercial Vehicles</b> .<br>AS12.2<br>Parking and circulation aisles have a maximum length of 100 metres.<br>AS12.3<br>Dead end aisles do not exceed 20 metres in length.<br>AS12.4<br>Aisle design does not include cross intersections.<br>AS12.5<br>Car parking space/s is/are not located in areas used for manoeuvring of heavy vehicles.<br>AS12.6<br>Car parks are designed so that vehicles do not reverse across pedestrian crossings. | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |

| Performance Criteria                                                                                                                                                                                                                  | Acceptable Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | How does the proposal comply with the Acceptable Solution or Performance Criteria? | Internal Use:<br>Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated?<br>Is a request for further information required? |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                       | AS12.7<br>Speed humps are not provided in entry or exit queuing areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                    |                                                                                                                                                         |
| <b>Loading Bay and Set Down Area Requirements</b>                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                    |                                                                                                                                                         |
| PC13<br>Development must make provision for loading bays and set down areas for the:<br>a) collection and set down of passengers;<br>b) parking of trailers;<br>c) service vehicle parking; and<br>d) loading and unloading of goods. | AS13<br>Loading and set down areas are provided consistent with the <b>AS2890.2 – Off Street Parking Part 2: Commercial Vehicles</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |
| <b>Design Service Vehicle Requirements</b>                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                    |                                                                                                                                                         |
| PC14<br>Development must provide for the required 'design service vehicle' to service the development.                                                                                                                                | AS14.1<br>Provision is made for service vehicles, in accordance with the <b>Table to Acceptable Solution AS14.1</b> .<br>AS14.2<br>Provision is made for service vehicles, in accordance with the <b>Table to Acceptable Solution AS14.2</b> , for sites less than 4,000m <sup>2</sup> in area that require access by service vehicles.<br>AS14.3<br>Provision is made for height clearance of 4.5 metres for service station canopies and access clearance height associated with the appropriate design vehicle in other applicable developments.<br>AS14.4<br>A driveway which caters for heavy | NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.         |                                                                                                                                                         |

| Performance Criteria | Acceptable Solutions                                                                                                                                                                                                   | How does the proposal comply with the Acceptable Solution or Performance Criteria? | Internal Use:<br>Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated?<br>Is a request for further information required? |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      | vehicles is designed in accordance with <b>AS2890.2 – Off Street Parking Part 2: Commercial Vehicles</b> and <b>Standard Drawing No 59218 Section 7.4 of Planning Scheme Policy 11 – Land Development Guidelines</b> . |                                                                                    |                                                                                                                                                         |

**Table to Acceptable Solution AS14.1**

| Use or Development         | Service Vehicle Provisions |
|----------------------------|----------------------------|
| Aged Persons Accommodation | HRV                        |
| Animal Husbandry           | AV                         |
| Aquaculture                | HRV                        |
| Bulk Garden Supplies       | HRV                        |
| Cafe                       | SRV                        |
| Cinema                     | SRV                        |
| Commercial Services        | SRV                        |
| Community Care Centre      | SRV                        |
| Community Purposes         | SRV                        |
| Convenience Shop           | SRV                        |
| Educational Establishment  | SRV                        |
| Fast Food Premises         | HRV                        |
| Freight Depot              | AV                         |
| Fuel Depot                 | AV                         |
| Funeral Parlour            | SRV                        |

| Table to Acceptable Solution AS14.1                                                                                                                                                                                                                                                                                                            |                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Use or Development                                                                                                                                                                                                                                                                                                                             | Service Vehicle Provisions |
| Hospital                                                                                                                                                                                                                                                                                                                                       | HRV                        |
| Industry                                                                                                                                                                                                                                                                                                                                       | AV                         |
| Indoor Recreation including:<br>a) squash court or any other court game;<br>b) meeting place, public hall, pinball parlour, amusement arcade;<br>c) theatre, cinema;<br>d) licensed club;<br>e) skating rink, swimming pool;<br>f) gymnasium; and<br>g) public library, public lecture hall, art gallery, museum, any other indoor recreation. | SRV                        |
| Kennel                                                                                                                                                                                                                                                                                                                                         | SRV                        |
| Manufacturers Shop                                                                                                                                                                                                                                                                                                                             | HRV                        |
| Marina                                                                                                                                                                                                                                                                                                                                         | AV                         |
| Marina Shop                                                                                                                                                                                                                                                                                                                                    | SRV                        |
| Market                                                                                                                                                                                                                                                                                                                                         | SRV                        |
| Medical Centre                                                                                                                                                                                                                                                                                                                                 | SRV                        |
| Milk Depot                                                                                                                                                                                                                                                                                                                                     | AV                         |
| Mini-Storage Warehousing                                                                                                                                                                                                                                                                                                                       | HRV                        |
| Minor Tourist Facility                                                                                                                                                                                                                                                                                                                         | SRV                        |
| Motel                                                                                                                                                                                                                                                                                                                                          | SRV                        |
| Motor Vehicle Repairs                                                                                                                                                                                                                                                                                                                          | HRV                        |
| Night Club                                                                                                                                                                                                                                                                                                                                     | SRV                        |

| Table to Acceptable Solution AS14.1                                                                                                                                                        |                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Use or Development                                                                                                                                                                         | Service Vehicle Provisions |
| Outdoor Sport and Recreation:<br>a) tennis court or other court game (where not ancillary to other development);<br>b) lawn bowls;<br>c) skating rinks, swimming pools;<br>d) golf course. | SRV                        |
| Office                                                                                                                                                                                     | SRV                        |
| Place of Worship                                                                                                                                                                           | SRV                        |
| Reception Room                                                                                                                                                                             | SRV                        |
| Resort Hotel                                                                                                                                                                               | HRV                        |
| Restaurant                                                                                                                                                                                 | SRV                        |
| Restricted Club                                                                                                                                                                            | HRV                        |
| Retail Plant Nursery                                                                                                                                                                       | HRV                        |
| Rural Industry                                                                                                                                                                             | AV                         |
| Salvage Yard                                                                                                                                                                               | HRV                        |
| Service Industry                                                                                                                                                                           | SRV                        |
| Service Station                                                                                                                                                                            | AV                         |
| Shop                                                                                                                                                                                       | SRV                        |
| Shop with GFA of less than 400m <sup>2</sup>                                                                                                                                               | SRV                        |
| Shop with GFA 400m <sup>2</sup> – 1500m <sup>2</sup>                                                                                                                                       | HRV                        |
| Shop with GFA larger than 1500m <sup>2</sup>                                                                                                                                               | AV                         |
| Shopping Centre Development                                                                                                                                                                | AV                         |
| Showroom                                                                                                                                                                                   | HRV                        |
| Storage                                                                                                                                                                                    | SRV                        |
| Take-Away Food Premises                                                                                                                                                                    | SRV                        |

**Table to Acceptable Solution AS14.1**

| Use or Development     | Service Vehicle Provisions |
|------------------------|----------------------------|
| Tavern                 | HRV                        |
| Temporary Use          | AV                         |
| Theatre                | SRV                        |
| Tourist Shop           | SRV                        |
| Transit Centre         | HRV                        |
| Transport Terminal     | AV                         |
| Vehicle Hire Premises  | AV                         |
| Vehicle Sales Premises | AV                         |
| Warehouse              | AV                         |
| Waterfront Industry    | HRV                        |

**Note:** SRV: Small Rigid Vehicle as defined in AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.  
 HRV: Heavy Rigid Vehicle as defined in AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.  
 AV: Articulated Vehicle as defined in AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.

**Table to Acceptable Solution AS14.2**

**HRV and AV Requirements**

| Site Area (m <sup>2</sup> )  | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Less than 1000m <sup>2</sup> | Demonstrate that the development can accommodate the particular design vehicle but a separate service bay and associated manoeuvring are not required.<br><br>Where it can be demonstrated that loading and unloading can take place within the road reserve, without impacting on the safe and efficient operation of traffic and with no detrimental impact on amenity, Council or its delegate may determine that HRV and AV access is not required. |

**Table to Acceptable Solution AS14.2**

**HRV and AV Requirements**

|                                         |                                                                                                                                                                                                                                                                              |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1000m <sup>2</sup> – 2000m <sup>2</sup> | <ul style="list-style-type: none"> <li>a) service bay for HRV is required.</li> <li>b) restricted manoeuvring on site for HRV or AV (as required).</li> <li>c) full on-site manoeuvring for other classes of service vehicle is required.</li> </ul>                         |
| 2000m <sup>2</sup> – 4000m <sup>2</sup> | <ul style="list-style-type: none"> <li>a) service bay to be provided for HRV or AV (as required).</li> <li>b) restricted manoeuvring on site for AV (as required).</li> <li>c) full on-site manoeuvring for HRV and other classes of service vehicle is required.</li> </ul> |

## APPENDIX E – STATE CODE 6 RESPONSE

# State code 6: Protection of state transport networks

Table 6.2.2: All development

| Performance outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Acceptable outcomes                  | Response                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Network impacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                      |                                                                                                                                |
| <p><b>PO1 Development does not result in a worsening of the safety of a state-controlled road.</b></p> <p><b>Note:</b> To demonstrate compliance with this performance outcome, it is recommended that a Registered Professional Engineer of Queensland (RPEQ) certified road safety audit or road safety assessment (as applicable) is provided.</p> <p>Further information on determining whether a road safety audit or road safety assessment is required is provided in section 9 of the Guide to Traffic Impact Assessment, Department of Transport and Main Roads, 2017.</p> | No acceptable outcome is prescribed. | <b>COMPLIES</b>                                                                                                                |
| <p><b>PO2 Development does not result in a worsening of the infrastructure condition of a state-controlled road or road transport infrastructure.</b></p> <p><b>Note:</b> To demonstrate compliance with this performance outcome, it is recommended that a RPEQ certified traffic impact assessment and pavement impact assessment are provided.</p> <p>Further information on how to prepare a traffic impact assessment and pavement impact assessment is provided in the Guide to Traffic Impact Assessment, Department of Transport and Main Roads, 2017.</p>                  | No acceptable outcome is prescribed. | <b>COMPLIES – THE PROPOSAL DOES NOT INTRODUCE ADDITIONAL AREA NOT PREVIOUSLY ADDRESSED AS PART OF THE PRELIMINARY APPROVAL</b> |
| <p><b>PO3 Development does not result in a worsening of operating conditions on a state-controlled road or the surrounding road network.</b></p> <p><b>Note:</b> To demonstrate compliance with this performance outcome,</p>                                                                                                                                                                                                                                                                                                                                                       | No acceptable outcome is prescribed. | <b>COMPLIES – THE PROPOSAL DOES NOT INTRODUCE ADDITIONAL AREA NOT PREVIOUSLY ADDRESSED AS PART OF THE PRELIMINARY APPROVAL</b> |

| Performance outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Acceptable outcomes                                                                                                                                                                            | Response                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>it is recommended that an RPEQ certified traffic impact assessment is provided.</p> <p>Further information on how to prepare a traffic impact assessment is provided in the Guide to Traffic Impact Assessment, Department of Transport and Main Roads, 2017.</p>                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                |                                                                                      |
| PO4 Development does not impose traffic loadings on a state-controlled road which could be accommodated on the local road network.                                                                                                                                                                                                                                                                                                                                                                                                                     | AO4.1 The layout and design of the development directs traffic generated by the development to the local road network.                                                                         | <b>COMPLIES</b>                                                                      |
| PO5 Upgrade works on, or associated with, a state-controlled road are built in accordance with relevant design standards.                                                                                                                                                                                                                                                                                                                                                                                                                              | AO5.1 Upgrade works on a state-controlled road are designed and constructed in accordance with the Road Planning and Design Manual, 2nd edition, Department of Transport and Main Roads, 2016. | <b>NOT APPLICABLE, NO UPGRADE WORKS ARE PROPOSED ON THE STATE CONTROLLED NETWORK</b> |
| <p>PO6 Development involving the haulage of fill, extracted material or excavated spoil material exceeding 10,000 tonnes per year does not damage the pavement of a state-controlled road.</p> <p>Note: It is recommended that a transport infrastructure impact assessment and pavement impact assessment are provided.</p> <p>Further information on how to prepare a traffic impact assessment is provided in the Guide to Traffic Impact Assessment, Department of Transport and Main Roads, 2017.</p>                                             | AO6.1 Fill, extracted material and spoil material is not transported to or from the development site on a state-controlled road.                                                               | <b>NOT APPLICABLE TO TRAFFIC IMPACT ASSESSMENT</b>                                   |
| <p>PO7 Development does not adversely impact on the safety of a railway crossing.</p> <p>Note: It is recommended that a traffic impact assessment be prepared to demonstrate compliance with this performance outcome. An impact on a level crossing may require an Australian Level Crossing Assessment Model (ALCAM) assessment to be undertaken. Section 2.2 – Railway crossing safety of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this</p> | AO7.1 Development does not require a new railway crossing.                                                                                                                                     | <b>COMPLIES</b>                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | OR<br>AO7.2 A new railway crossing is grade separated.                                                                                                                                         |                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | OR all of the following acceptable outcomes apply:<br><br>AO7.3 Upgrades to a level crossing are designed and                                                                                  |                                                                                      |

| Performance outcomes                                                                                                          | Acceptable outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Response        |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| performance outcome.                                                                                                          | <p>constructed in accordance with AS1742.7 – Manual of uniform traffic control devices, Part 7: Railway crossings and applicable rail manager standard drawings.</p> <p>Note: It is recommended a traffic impact assessment be prepared to demonstrate compliance with this acceptable outcome. An impact on a level crossing may require an Australian Level Crossing Assessment Model (ALCAM) assessment to be undertaken. Section 2.2 – Railway crossing safety of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this acceptable outcome</p> <p>AND</p> |                 |
|                                                                                                                               | <p><b>A07.4</b> Access points achieve sufficient clearance from a level crossing in accordance with AS1742.7 – Manual of uniform traffic control devices, Part 7: Railway crossings by providing a minimum clearance of 5 metres from the edge running rail (outer rail) plus the length of the largest vehicle anticipated on-site.</p> <p>Note: Section 2.2 of the Guide to Development in a Transport Environment: Rail, Department of Transport and Main Roads, 2015, provides guidance on how to comply with this acceptable outcome.</p> <p>AND</p>                                                                                                     |                 |
|                                                                                                                               | <p><b>A07.5</b> On-site vehicle circulation is designed to give priority to entering vehicles at all times.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |
| PO8 Development does not result in a worsening of the infrastructure condition of a railway or rail transport infrastructure. | No acceptable outcome is prescribed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>COMPLIES</b> |
| PO9 Development does not result in a worsening of operating conditions of a railway                                           | No acceptable outcome is prescribed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>COMPLIES</b> |
| Stormwater and drainage                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |

| Performance outcomes                                                                                                                                                                   | Acceptable outcomes                                                                                                                                                                                                                                                                                                | Response                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| PO10 Development does not result in an actionable nuisance, or worsening of, stormwater, flooding or drainage impacts in a state transport corridor or state transport infrastructure. | No acceptable outcome is prescribed.                                                                                                                                                                                                                                                                               | <b>NOT APPLICABLE TO TRAFFIC IMPACT ASSESSMENT</b> |
| PO11 Run-off from the development site is not unlawfully discharged to a state transport corridor or state transport infrastructure.                                                   | <b>AO11.1</b> Development does not create any new points of discharge to a state transport corridor.<br>AND                                                                                                                                                                                                        | <b>NOT APPLICABLE TO TRAFFIC IMPACT ASSESSMENT</b> |
|                                                                                                                                                                                        | <b>AO11.2</b> Stormwater run-off is discharged to a lawful point of discharge.<br><br>Note: Section 3.49 of the Queensland Urban Drainage Manual, Institute of Public Works Engineering Australasia (Queensland Division) Fourth Edition, 2016, provides further information on lawful points of discharge.<br>AND |                                                    |
|                                                                                                                                                                                        | <b>AO11.3</b> Development does not worsen the condition of an existing lawful point of discharge to a state transport corridor.                                                                                                                                                                                    |                                                    |
| PO12 Run-off from the development site does not cause siltation of stormwater infrastructure affecting a state transport corridor or state transport infrastructure.                   | <b>AO12.1</b> Run-off from the development site is not discharged to stormwater infrastructure for a state transport corridor.                                                                                                                                                                                     | <b>NOT APPLICABLE TO TRAFFIC IMPACT ASSESSMENT</b> |
| <b>Planned upgrades</b>                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                    |                                                    |
| PO13 Development does not impede delivery of planned upgrades of state transport infrastructure.                                                                                       | <b>AO13.1</b> Development is not located on land identified by the Department of Transport and Main Roads as land required for the planned upgrade of state transport infrastructure.<br><br>Note: Land required for the planned upgrade of state transport                                                        | <b>COMPLIES</b>                                    |

| Performance outcomes | Acceptable outcomes                                                                                                                                                                                                                                                                                                                                                            | Response |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|                      | infrastructure is identified in the DA mapping system.                                                                                                                                                                                                                                                                                                                         |          |
|                      | OR                                                                                                                                                                                                                                                                                                                                                                             |          |
|                      | AO13.2 Development is sited and designed so that permanent buildings, structures, infrastructure, services or utilities are not located on land identified by the Department of Transport and Main Roads as land required for the planned upgrade of state transport infrastructure.                                                                                           |          |
|                      | OR all of the following acceptable outcomes apply:<br><br>AO13.3 Structures and infrastructure located on land identified by the Department of Transport and Main Roads as land required for the planned upgrade of state transport infrastructure are able to be readily relocated or removed without materially affecting the viability or functionality of the development. |          |
|                      | AND                                                                                                                                                                                                                                                                                                                                                                            |          |
|                      | AO13.4 Vehicular access for the development is consistent with the function and design of the planned upgrade of state transport infrastructure.                                                                                                                                                                                                                               |          |
|                      | AND                                                                                                                                                                                                                                                                                                                                                                            |          |
|                      | AO13.5 Development does not involve filling and excavation of, or material changes to, land required for a planned upgrade to a state transport infrastructure.                                                                                                                                                                                                                |          |
|                      | AND                                                                                                                                                                                                                                                                                                                                                                            |          |

| Performance outcomes | Acceptable outcomes                                                                                | Response |
|----------------------|----------------------------------------------------------------------------------------------------|----------|
|                      | AO13.6 Land is able to be reinstated to the predevelopment condition at the completion of the use. |          |

Table 6.2.3: Public passenger transport infrastructure

| Performance outcomes                                                                                                                                                                                                              | Acceptable outcomes                                                                                                                                              | Response       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Public passenger transport infrastructure</b>                                                                                                                                                                                  |                                                                                                                                                                  |                |
| PO14 Development does not damage or interfere with public passenger transport infrastructure, public passenger services or pedestrian or cycle access to public passenger transport infrastructure and public passenger services. | AO14.1 Vehicular access and associated road access works are not located within 5 metres of public passenger transport infrastructure.<br><br>AND                | COMPLIES       |
|                                                                                                                                                                                                                                   | AO14.2 Development does not necessitate the relocation of existing public passenger transport infrastructure.<br><br>AND                                         | COMPLIES       |
|                                                                                                                                                                                                                                   | AO14.3 Development does not obstruct pedestrian or cyclist access to public passenger transport infrastructure or public passenger services.<br><br>AND          | COMPLIES       |
|                                                                                                                                                                                                                                   | AO14.4 The normal operation of public passenger transport infrastructure or public passenger services is not interrupted during construction of the development. | COMPLIES       |
| PO15 Upgraded or new public passenger transport infrastructure is provided to accommodate the demand for public passenger transport generated by the development.                                                                 | No acceptable outcome is prescribed.                                                                                                                             | NOT APPLICABLE |

| Performance outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Acceptable outcomes                         | Response              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------|
| <p><b>Note:</b> To demonstrate compliance with this performance outcome, it is recommended a public transport impact assessment be prepared in accordance with appendix 1 of the State Development Assessment Provisions Supporting Information – Public Passenger Transport Infrastructure, Department of Transport and Main Roads, 2017.</p> <p>New or upgraded public passenger transport infrastructure provided should be in accordance with the Public Transport Infrastructure Manual, Department of Transport and Main Roads, 2015.</p> <p>Refer to the SDAP Supporting Information: Public passenger transport infrastructure, Department of Transport and Main Roads, 2017, for further guidance on how to comply with the performance outcome.</p> |                                             |                       |
| <p><b>PO16 Development is designed to ensure the location of public passenger transport infrastructure prioritises and enables efficient public passenger services.</b></p> <p><b>Note:</b> Chapters 2 and 5 of the Public Transport Infrastructure Manual, Department of Transport and Main Roads, 2015 provides guidance on how to comply with this performance outcome.</p> <p>Refer to the SDAP Supporting Information: Public passenger transport infrastructure, Department of Transport and Main Roads, 2017, for further guidance on how to comply with the performance outcome.</p>                                                                                                                                                                  | <b>No acceptable outcome is prescribed.</b> | <b>NOT APPLICABLE</b> |

| Performance outcomes                                                                                                                                                                                                                                                                                                                                                                                                           | Acceptable outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Response               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <p><b>PO17 Development enables the provision or extension of public passenger services to the development and avoids creating indirect or inefficient routes for public passenger services.</b></p> <p><b>Note:</b> Refer to the SDAP Supporting Information: Public passenger transport infrastructure, Department of Transport and Main Roads, 2017, for further guidance on how to comply with the performance outcome.</p> | <p>No acceptable outcome is prescribed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p><b>COMPLIES</b></p> |
| <p><b>PO18 New or modified road networks are designed to enable development to be serviced by public passenger services.</b></p> <p><b>Note:</b> Refer to the SDAP Supporting Information: Public passenger transport infrastructure, Department of Transport and Main Roads, 2017, for further guidance on how to comply with the performance outcome.</p>                                                                    | <p>AO18.1 Roads catering for buses are arterial or sub-arterial roads, collector or their equivalent.</p> <p>AND</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p><b>COMPLIES</b></p> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                | <p><b>AO18.2 Roads intended to accommodate buses are designed and constructed in accordance with parts 3, 4-4C and 6 of the Road Planning and Design Manual 2<sup>nd</sup> edition, Volume 3: Guide to Road Design, Department of Transport and Main Roads, 2016 and Part 13 of the Manual of Uniform Traffic Control Devices, Department of Transport and Main Roads, 2018.</b></p> <p><b>Note:</b> Parts 3, 4-4C and 6 of the Road Planning and Design Manual, Volume 3: Guide to Road Design, Department of Transport and Main Roads, 2016, must be read in conjunction with the following standards where specified in the Manual:</p> <ol style="list-style-type: none"> <li>1. Supplement to Austroads Guide to Road Design (Parts 3,4-4C and 6), Department of Transport and Main Roads, 2014, and</li> <li>2. Austroads Guide to Road Design (Parts 3,4-4C and 6).</li> </ol> | <p><b>COMPLIES</b></p> |

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| Performance outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Acceptable outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Response                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>AND</b><br>AO20.3 Development does not result in public passenger services movements through car parking aisles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>COMPLIES</b>                                           |
| <p><b>PO21 Taxi facilities are provided to accommodate the demand generated by the development.</b></p> <p><b>Note:</b> Guidance on how to meet the performance outcome are available in chapter 7 of the Public Transport Infrastructure Manual, Department of Transport and Main Roads, 2015.</p> <p>Refer to the SDAP Supporting Information: Public passenger transport infrastructure, Department of Transport and Main Roads, 2017, for further guidance on how to comply with the performance outcome.</p> | No acceptable outcome is prescribed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>NOT APPLICABLE</b>                                     |
| <p><b>PO22 Taxi facilities are located and designed to provide convenient, safe and equitable access for passengers.</b></p> <p><b>Note:</b> Refer to the SDAP Supporting Information: Public passenger transport infrastructure, Department of Transport and Main Roads, 2017, for further guidance on how to comply with the performance outcome.</p>                                                                                                                                                           | <p>AO22.1 A taxi facility is provided parallel to the kerb and adjacent to the main entrance.</p> <p><b>AND</b></p> <p>AO22.2 Taxi facilities are designed in accordance with:</p> <ol style="list-style-type: none"> <li>1. AS2890.5–1993 Parking facilities – on-street parking and AS1428.1–2009 Design for access and mobility – general requirements for access – new building work</li> <li>2. AS1742.11–1999 Parking controls – manual of uniform traffic control devices</li> <li>3. AS/NZS 2890.6–2009 Parking facilities – offstreet parking for people with disabilities</li> <li>4. Disability standards for accessible public transport 2002 made under section 31(1) of the</li> </ol> | <p><b>NOT APPLICABLE</b></p> <p><b>NOT APPLICABLE</b></p> |

| Performance outcomes                                                                                                                                                                                                                                                                                                                                                                 | Acceptable outcomes                                                                                                                                                                                              | Response                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                      | <p><i>Disability Discrimination Act 1992</i></p> <p><b>5. AS/NZS 1158.3.1 – Lighting for roads and public spaces, Part 3.1: Pedestrian area (category P) lighting – Performance and design requirements.</b></p> |                              |
| <p><b>PO23 Educational establishments are designed to ensure the safe and efficient operation of public passenger services and pedestrian access.</b></p> <p><b>Note:</b> Refer to the SDAP Supporting Information: Public passenger transport infrastructure, Department of Transport and Main Roads, 2017, for further guidance on how to comply with the performance outcome.</p> | <p><b>AO23.1 Educational establishments are designed in accordance with the provisions of the Planning for Safe Transport Infrastructure at Schools, Department of Transport and Main Roads, 2011.</b></p>       | <p><b>NOT APPLICABLE</b></p> |