PSA CONSULTING

# Allans Creek Poultry Farm Extension
# Traffic Impact Assessment

Tilley Road, Bromelton

**27 March 2023**

ALLANS CREEK POULTRY

# Document Control

**Document:** Project Name: Allans Creek Poultry Farm Tilley - Farm Extension DA
PSA Job Number: 1381
Report Name: Traffic Impact Assessment

**This document has been prepared for:**

**Contact:** Barry Shonhan
Director
Allans Creek Farm Pty Ltd

**This document has been prepared by:**

**Contact:** Hannah Richardson
PSA Consulting (Australia) Pty Ltd
PO Box 10824, Adelaide Street, Brisbane QLD 4000
Telephone +61 7 3220 0288
hannah@psaconsult.com.au
www.psaconsult.com.au

## Revision History

| VERSION | DATE | DETAILS | AUTHOR | AUTHORISATION |
|---|---|---|---|---|
| V1 | 27 March 2023 | FINAL | - HAMISH FLETT | HANNAH RICHARDSON RPEQ 17016 |

## General Disclaimer

The information contained in this document produced by PSA Consulting (Australia) Pty Ltd is for the use of the Allans Creek Farm Pty Ltd for the purpose for which it has been prepared and PSA Consulting (Australia) Pty Ltd undertakes no duty of care to or accepts responsibility to any third party who may rely upon this document.

# TABLE OF CONTENTS



## LIST OF APPENDICES



## LIST OF FIGURES

## LIST OF TABLES

# 1 INTRODUCTION

PSA Consulting has been engaged by Allans Creek Farms to prepare a Change Application for an Approved Intensive Animal Industry, including the preparation of a Traffic Impact Assessment. This report is the Traffic Impact Assessment which outlines the process and findings of the traffic assessments undertaken for the proposed development.

## 1.1 BACKGROUND

The site has an existing development approval for an Intensive Animal Industry (Poultry Farm) consisting of 8 sheds (417,000 Birds), dwelling house and caretakers' accommodation.

The Applicant has secured a contract for these sheds with Inghams and is intended to commence operations later this year. Inghams have expressed an interest in expanding the farm by an additional 4 sheds (208,500 birds) which will increase the overall farm population to 625,500.

The sheds will be identical to those constructed at the northern end of the existing farm, as shown in Figure 1. The tail end of the farm dam in this location will be filled to create a level building pad for construction. A new ring road will be built around the existing and proposed sheds in accordance with new requirements requested by Inghams. The sheds will maintain the minimum setback to Allan Creek as per the existing approval. The farm will operate in accordance with the approved Site Based Management Plan and no change to the access point or other operations is proposed.

This Traffic Impact Assessment outlines the associated traffic impacts of the additional 4 sheds. It has been undertaken in line with the Guide to Traffic Impact Assessments, Queensland Government, 2017.

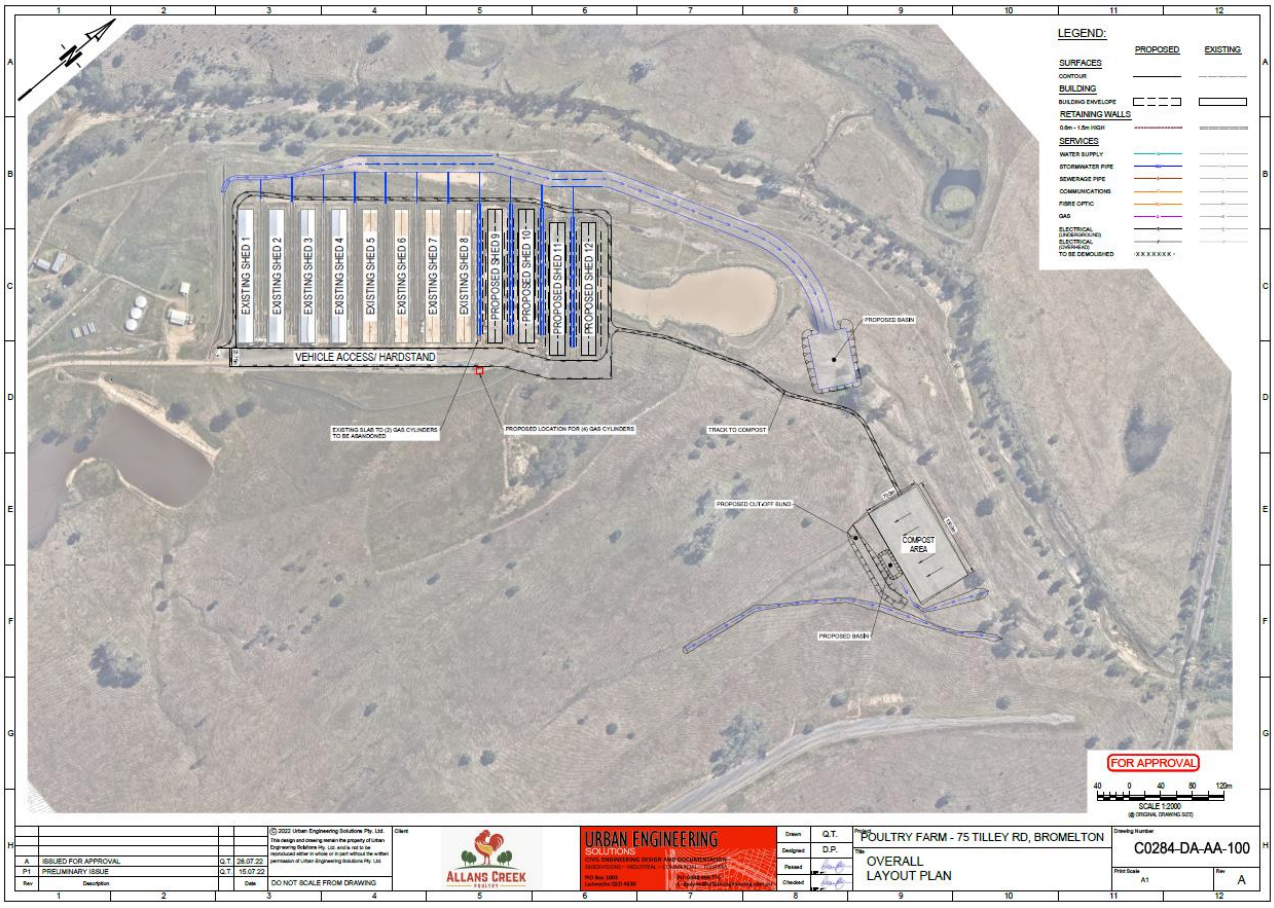



**Figure 1: Proposed Development** (Source: Urban Engineering, 2023)

## 1.2 SITE LOCATION AND DESCRIPTION

The subject land is situated at 75 Tilley Road and 2215 Beaudesert Boonah Road, Bromelton. It is approximately 8 Kilometres north-west of the commercial centre of Beaudesert.

The site consists of a three (3) large rural allotments and has a total area of approximately 551.12 ha. The primary land for the proposed development on which the poultry sheds will be constructed is Lot 50. The two other lots will be used for infrastructure purposes only. The real property descriptions of the lots are as follows:

- Lot 50 on SP179833 (127.2394 ha)
- Lot 7 on RP32768
- Lot 41 on WD3423 (121.585 ha)

Lot 7 is burdened by an easement, Easement B on SP218701. Lots 50 and 41 are not constrained by easements.

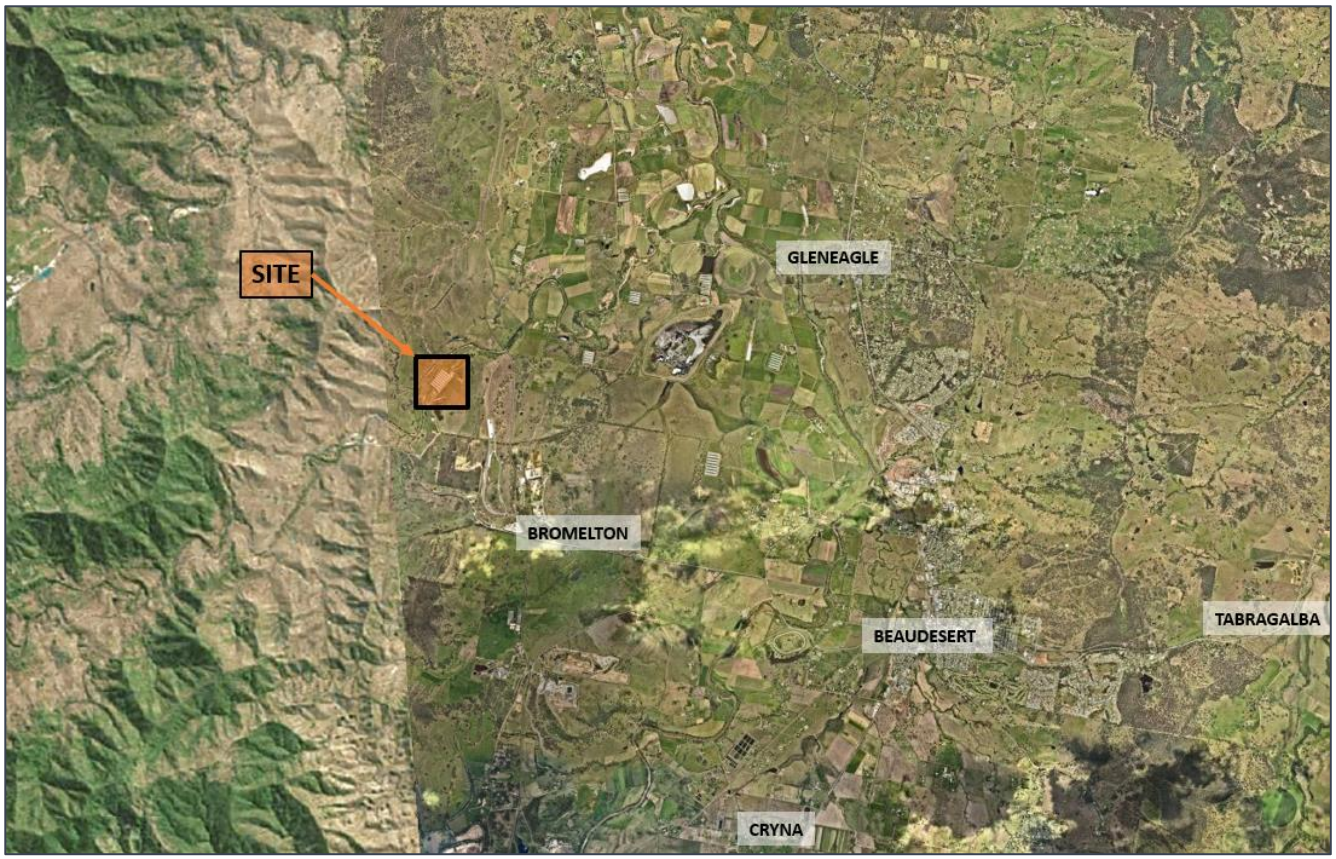



**Figure 2: Location of Site** (Source: Nearmap accessed on 10 May 2022; PSA Consulting)

## 1.3 SCOPE

The following scope was agreed with Allans Creek Farms and is included in this TIA:

- Review any previous Traffic Impact Assessments in the area to determine background traffic volumes.
- Determine changes to development traffic generation and distribution in consultation with the client.
- Undertake revised SIDRA intersection assessment for the site access on Tilley Road / Beaudesert-Boonah Road.
- Undertake link volume assessment on Tilley Road / Beaudesert-Boonah Road.
- Assess provision and layout of proposed on-site parking and manoeuvring against relevant SRRC requirements and Australian Standards.
- Prepare a draft Traffic Impact Assessment Report (letter format) for client review.
- Finalise Traffic Impact Assessment report for submission with the Development Application

# 2 EXISTING SITUATION

## 2.1 LAND USE AND ZONING

The subject site has an existing development approval for an Intensive Animal Industry (Poultry Farm) consisting of 8 sheds (417,000 Birds), dwelling house and caretakers' accommodation.

The land is situated on the periphery of the Bromelton industrial area. It has convenient access to Beaudesert-Boonah Road, which is situated approximately 350 metres to the south of the primary lot. The Brisbane-Sydney Rail line runs past the north-east corner of Lot 50.

To the east of the Lot 50 is land included in the Major Industry Precinct which is to be developed as a major intermodal freight facility. To the north are large unimproved rural holdings included in the Transition and Rural Uses Precinct. To the south-east of the site is a livestock sales yard and rural property used for the purposes of an earthmoving depot. The western boundaries of Lot 7 and Lot 41 adjoin land associated with the Wyaralong Dam.

Other uses in the wider locality include the Scenic Rim Regional Council's Waste Management Facility on the eastern side of the rail corridor and a general industry (fabrication of large concrete girders and similar building products) off Recycling Street. Poultry farms also feature in this area and are concentrated mainly to the north-east of the site, off Dunn and Brabazon Roads. Other rural properties in proximity to the site are used predominantly for grazing purposes.

## 2.2 SITE ACCESS

Access to the primary Lot 50 is via Beaudesert Boonah Road and Tilley Road. Other than the existing rural blocks, there is no further development of Tilley Road, as shown in Figure 3.


**Figure 3: Site Access via Tilley Road** (Source: Nearmap accessed on 10 May 2022)

## 2.3 EXISTING ROAD NETWORK

As mentioned above, Tilley Road and Beaudesert Boonah Road provide vehicular access to the primary Lot 50. Due to the rural nature of the development and the site, there are no facilities or infrastructure related to public transport or active transport located in vicinity to the site.

### 2.3.1 Tilley Road

Tilley Road is a sealed two-way road which provides access to the site and existing rural lots. There are no major traffic movements associated with the existing rural lots. Therefore, the development generated trips equal the traffic volumes on Tilley Road, as further outlined in Section 4.3.

### 2.3.2 Beaudesert Boonah Road

Beaudesert Boonah Road is a state controlled road which provides access to Tilley Road and the site. Details are as follows:

- Connects the townships of Beaudesert and Boonah as an east west link.
- Posted speed limit: 100km/h; Design speed 110 km/hr.
- Two-way – two lane road (i.e., 1 lane in each direction).
- Relatively large road reserve.
- Current Average Annual Daily Traffic (AADT) in the vicinity of the site of approximately 3550 vehicles total in both directions (Source: Queensland Globe; 2018 AADT data).
- Based on Pavement Impact Assessment from Rytenskild Traffic Group from July 2016: assume 10% peak hour flow and 50% directional split -> 178 vehicles per hour per direction in the AM and PM peak.

### 2.3.3 Beaudesert Boonah Road / Tilley Road Intersection

Tilley Road used to be a simple access of Beaudesert Boonah Road, as shown in Figure 4. As part of the Allans Creek Farm Approval from 2016, a BAR/ BAL intersection was designed, which has been constructed and is on maintenance. An extract of the design is shown in Figure 5 with Approved Design Plans included in Appendix A.

No road safety issues have been identified during the site visit and the new intersection will improve the safety of the access.


**Figure 4: Beaudesert Boonah Road / Tilley Road –Intersection** (Source: Nearmap accessed on 10 May 2022)

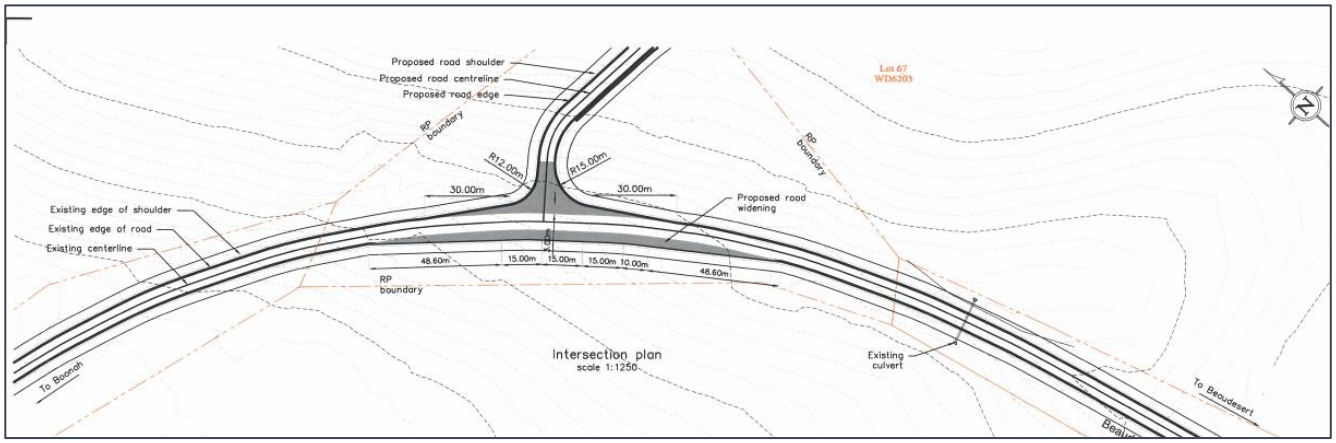



**Figure 5: Beaudesert Boonah Road / Tilley Road Intersection Design (Source: Ryacon Engineers Pty Ltd, 02/15)**

### 2.3.4 Existing Freight Network

Trucks will make up a large proportion of the vehicles travelling to and from the site. There is an existing extensive freight network connecting the site to Brisbane, the Gold Coast, Boonah and beyond, via Beaudesert Boonah Road, as shown in Figure 6.

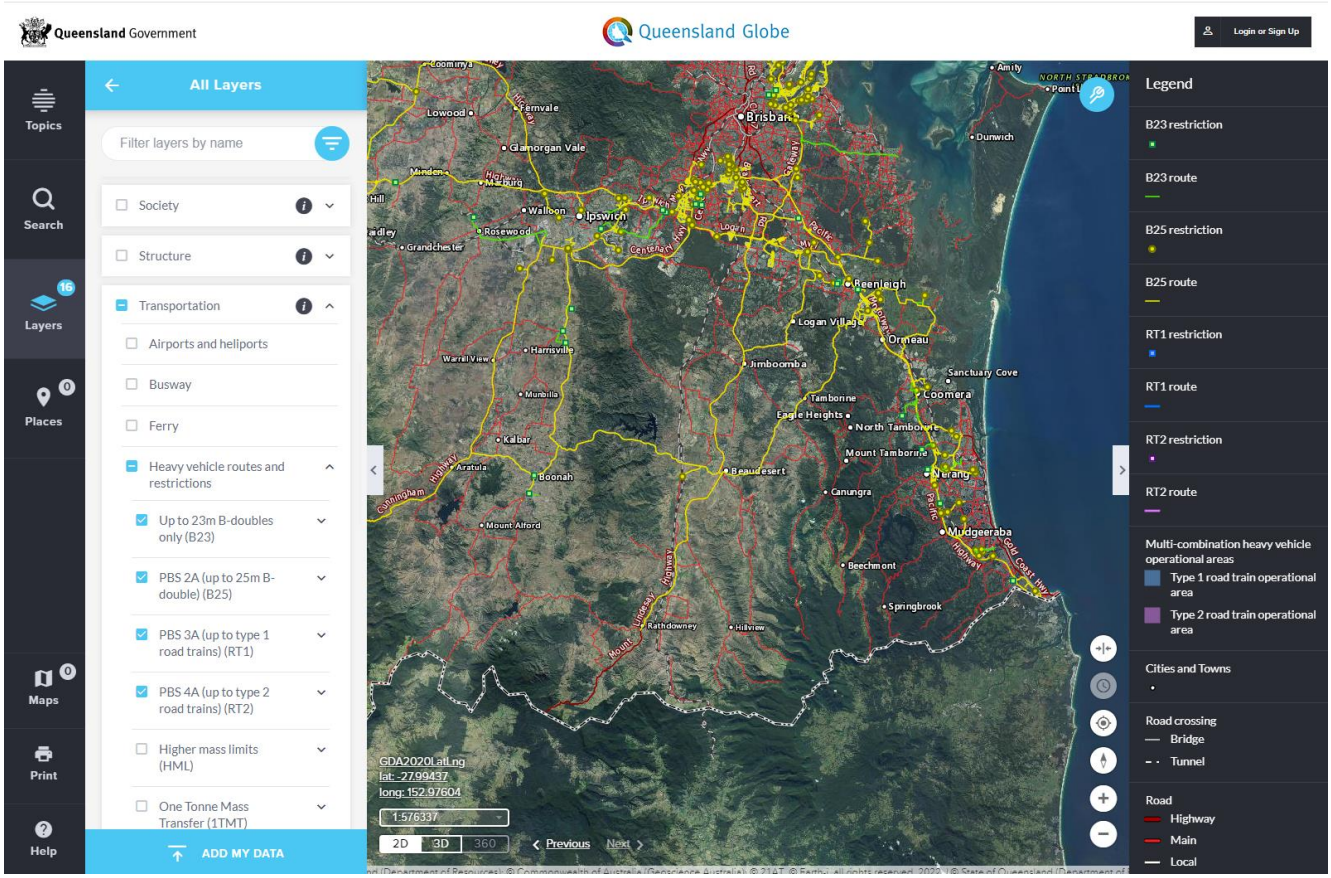



**Figure 6: Freight Network connected to the site** (Source: Queensland Globe, accessed 4 May 2022)

## 2.4 PARKING

The site is a large rural block including large open areas which are available for vehicles to stop and park. The number of cars and trucks on site at any given time is very low. Therefore, parking is not considered to be an issue and has not been further assessed for this development.

## 2.5 PAVEMENT

A comprehensive Pavement Impact Assessment was undertaken for the previous Change Application of this site by Rytenskild Traffic Group in July 2017. The report concluded that the impact of the development is less than 1% of current wheel loadings and that this, in accordance with GARID, this impact is considered minor and does not warrant any further assessment.

# 3 PROPOSED DEVELOPMENT

## 3.1 PROPOSED DEVELOPMENT LAYOUT

The proposed development is the construction of 4 additional bird sheds of 52,125 birds each, bringing the total development to 12 sheds with a total farm population of 625,500. The sheds will be identical to those approved and located at the Northern end of the existing farm, as shown in Figure 7.

A new ring road will be built around the existing and proposed sheds. The sheds will maintain the minimum setback to Allan Creek as per the existing approval. The farm will operate in accordance with the approved Site Based Management Plan and no change to the access point or other operations is proposed.

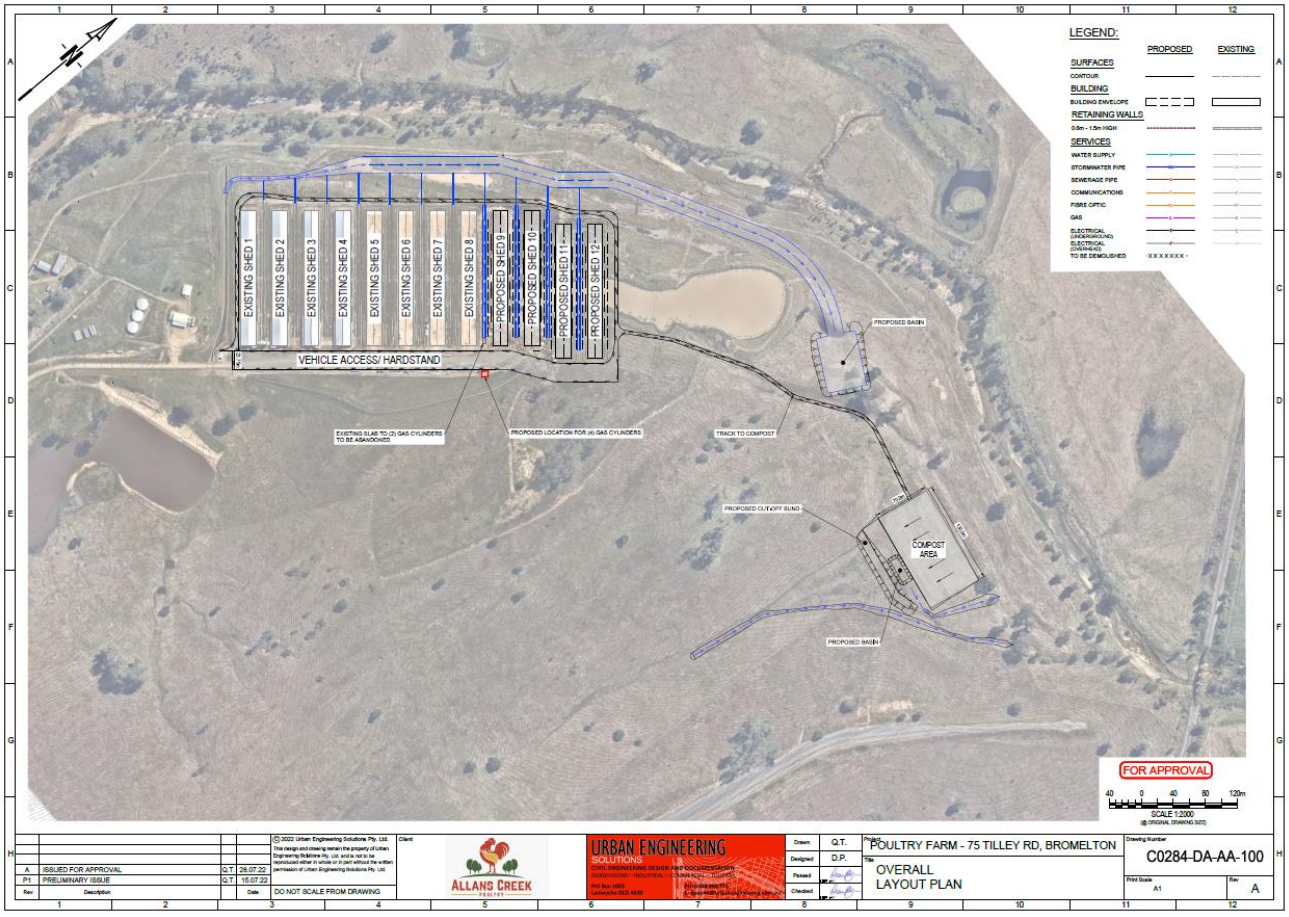



**Figure 7: Proposed Development** (Source: Urban Engineering, 2023)

## 3.2 OPERATIONAL DETAILS

Operation details have been extracted from the 2016 Planning Report by TJ Kelly Surveys Pty Ltd and are outlined below.

The farm will be responsible for growing, then supplying chickens to a processing plant. In simple terms, it is the farm's responsibility to provide the infrastructure and labour to grow the birds. The processor provides the day old chickens and the feed.

The farm will typically work on a 60 day cycle, with an approximate 50 day growing cycle and 10 day cleanout. A growing cycle is made up of the placement of new litter, the placement of day old birds, the growing of birds and the progressive removal of birds. There will be on average about 5.5 of these cycles per year. New litter will be layered on the shed floor as required. The cleaning of the sheds and the removal of litter will be carried out after every cycle.

A batch of day old chickens are delivered to the farm from a hatchery and are subsequently collected at various stages of the growing cycle and transported to a processing plant. Day old chicks are placed via the brooding area of the sheds. Fully stocked, each new shed will have up to 52,125 birds.

They are grown for about 8 weeks (50 days) with one thin out at about day 35 or as required. This provides a range of bird sizes for the market and keeps the total bird weight down in the sheds as the birds grow.

A typical rearing cycle consists of one to two day old chickens trucked to the site from a hatchery and released within brooding sections until the chickens are old enough to maintain their own body temperature (typically at about two weeks of age). During the initial period, the internal shed temperature is maintained at about 32°C decreasing to about 20°C when the birds are 2 to 3 weeks of age. When the initial brooding period coincides with periods of cold weather, shed heating is provided.

The birds will be transported from the site by truck. The birds will be placed into plastic hinged transport cages to ensure noise during transportation is minimised.

Hours of operation will vary depending on the stage within the growing cycle. Farm associated activities will occur during standard hours for the majority of days, however the catch-out of birds will occur during the night and into the early hours of the morning. This is standard practice for the poultry industry as it reduces stress to the birds and enables more efficient catch-outs.

At the conclusion of each cycle, the shed is cleaned out. Typically, this process involves the roof and walls being thoroughly hosed down prior to the litter being removed. The litter acts as a highly efficient and effective absorber hence no wastewater leaves the shed. The spent litter is then stockpiled inside the shed ready for removal and transported from the farm in covered trucks. The floors are then swept and the shed is fumigated ensuring its readiness for the commencement of the next cycle.

This Traffic Impact Assessment investigates the impact of adding 4 new sheds to the currently approved 8 sheds, resulting in a total of 12 sheds on site.

## 3.3 PROPOSED ACCESS AND PARKING

Access will remain to be via Beaudesert Boonah Road and Tilley Road. There is a large area of rural land available for parking within the site in the vicinity of the approved and new sheds. There are no concerns regarding parking on site.

# 4 DEVELOPMENT TRAFFIC

## 4.1 TRAFFIC GENERATION

The traffic generation of the proposed development is based on the information included in the Pavement Impact Assessment from Rytenskild Traffic Group, July 2016 which in turn, is based on recorded traffic volumes for similar poultry farm in Mount Walker.

It should be noted that there is no increase in the number if vets associated with the additional development, however they might be attending a few more times throughout the year creating additional trips. The proposed development is associated with 1 additional full time equivalent (FTE) staff member. The estimated traffic generation for the additional 4 sheds, as well as the total of 12 sheds is shown in Table 1 and has been estimated to be 20 trips per day.

Assuming an industry accepted and suitable peak hour factor of 10%, the total proposed development is estimated to create an additional 2 vehicle movements per peak hour, 1 in and 1 out.

**Table 1: Estimated Traffic Generation for the Proposed Development (Source: * Source: Pavement Impact Assessment by Rytenskild Traffic Group, 2016)**

| Purpose | Vehicle Type | Recorder (Actual) One-way trips* | Estimated traffic generated by existing 8 sheds* | Estimated traffic generated by additional 4 new sheds | Estimated traffic generated by total 12 sheds on site |
|---|---|---|---|---|---|
| **Birds** | | **400,000** | 417,000 | 208,500 | 625,500 |
| **Staff** | **Car** | **730** | 807 | 376 | 1183 |
| **Veterinary** | **Car** | **60** | 66 | 31 | 97 |
| **Gas Delivery** | **Rigid Truck** | **4** | 5 | 2 | 7 |
| **Litter Removal** | **Rigid Truck** | **132** | 146 | 68 | 214 |
| **Litter Removal** | **Semi-Trailer** | **200** | 221 | 103 | 324 |
| **Day Olds Delivery** | **Semi-Trailer** | **25** | 28 | 13 | 41 |
| **Feed Delivery** | **Semi-Trailer** | **340** | 376 | 175 | 551 |
| **Bird Collection** | **Semi-Trailer** | **550** | 608 | 283 | 891 |
| **Dead Bird Removal** | **Rigid Truck** | **60** | 66 | 0 | 0 |
| **Diesel/ Miscellaneous** | **Cars & Rigid Truck** | **104** | 115 | 54 | 169 |
| **TOTAL VEHICLES PER ANNUM** | | **2205** | **2372** | **1105** | **3477** |
| **TOTAL DAILY VEHICLE TRIPS (IN & OUT)** | | | 4744 | 2211 | 6955 |
| **AVERAGE DAILY VEHICLE TRAFFIC GENERATION (IN and OUT)** | | | **13** | **7** | **20** |
| | **DAILY VEHICLES IN** | | **7** | **4** | **10** |
| | **DAILY VEHICLES OUT** | | | | |
| **CARS** | **DAILY VEHICLES IN** | | 2.4 | 1.1 | 3.5 |
| | **DAILY VEHICLES OUT** | | 2.4 | 1.1 | 3.5 |
| **RIGID TRUCKS** | **DAILY VEHICLES IN** | | 0.7 | 0.3 | 1.1 |
| | **DAILY VEHICLES OUT** | | 0.7 | 0.3 | 1.1 |
| **ARTICULATED VEHICLES** | **DAILY VEHICLES IN** | | 3.4 | 1.6 | 5.0 |
| | **DAILY VEHICLES OUT** | | 3.4 | 1.6 | 5.0 |

Traffic counts for 'Dead Bird Removal' have not been included in estimates due to proposed on-site composting of mortalities.

## 4.2 TRIP DISTRIBUTION

Beaudesert Boonah Road connects the site to Boonah and Scenic Rim Regional Council to the west and Beaudesert, Brisbane and the Gold Coast to the east. It is assumed that the large majority of trips will be towards the east coming from and accessing locations in Beaudesert, Brisbane, the Gold Coast or other Queensland location.

## 4.3 DEVELOPMENT TRAFFIC VOLUMES ON THE NETWORK

The peak hour traffic generated by the proposed development of a total of 12 sheds is shown in Figure 8.

One (1) trip in and one (1) trip out of the development have been estimated for the peak hour which is negligibly low.

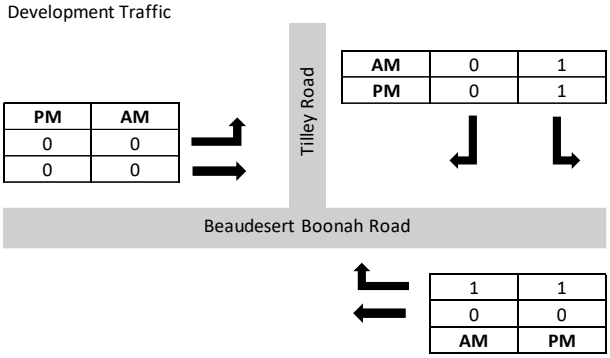



**Figure 8: Development Traffic Volumes on the Network**

# 5 IMPACT ASSESSMENT AND MITIGATION

## 5.1 TRANSPORT IMPACT ASSESSMENT

The development is a rural Intensive Animal Industry (Poultry Farm), which by default, requires large loads to be delivered to and from the site. Access to the site via active transport or public transport is therefore not suitable. Staff trips to the site via active transport or public transport have been considered. However, due to the rural location of the facility and the very small number of staff members, it has been assumed that the demand is negligible. Active transport and public transport access to the site has therefore not been considered in more detail.

## 5.2 TRAFFIC IMPACT ASSESSMENT

### 5.2.1 Existing And Future Year Traffic Volumes

The existing background traffic volumes for Beaudesert Boonah Road have been sourced from Queensland Globe. A 10% peak hour factor and 50%/50% directional split has been assumed. Growth of 3% per annum has been assumed for the years after 2022. The resulting background traffic volumes for the 2022 base year, the 2025 year of opening and 2035 10 years after opening are shown in Figure 9.

The traffic volumes including background traffic plus development traffic for all relevant years are shown in Figure 10.

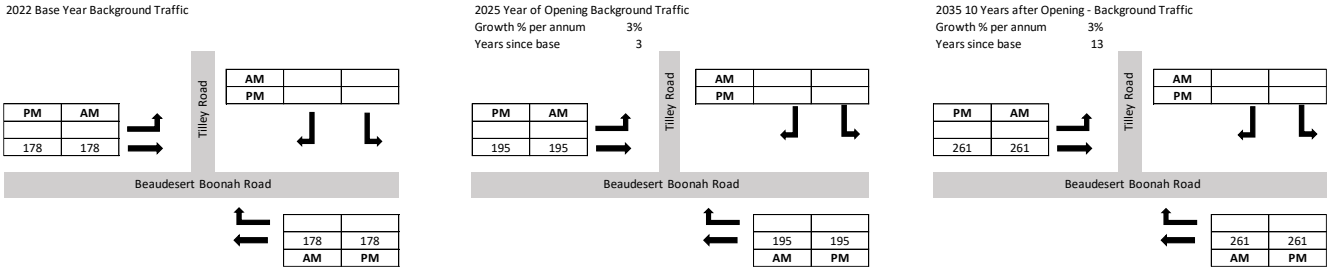



**Figure 9: Existing and Future Background Traffic Volumes**

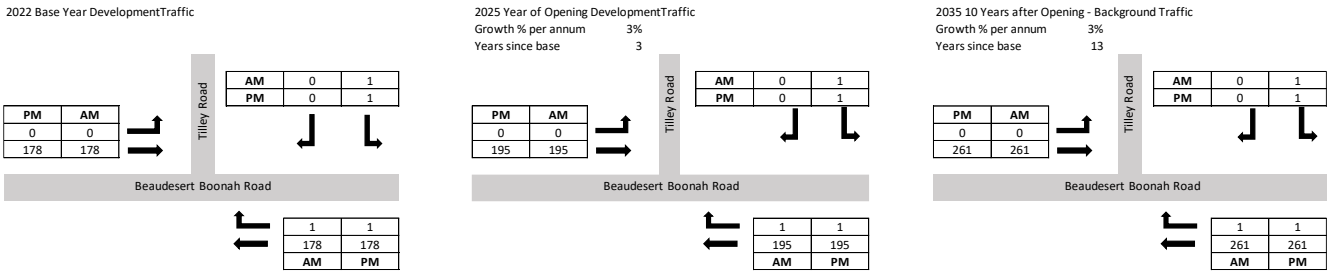



**Figure 10: Existing and Future Traffic Volumes with Development**

### 5.2.2 Existing And Future Year Traffic Assessment

The traffic generated by the proposed development, being 1 trip in and 1 trip out during the peak hours, are so low, that any impacts are negligible. No SIDRA intersection assessment has been undertaken as there are no operational concerns with 1 vehicle per hour turning in and out of Tilley Road.

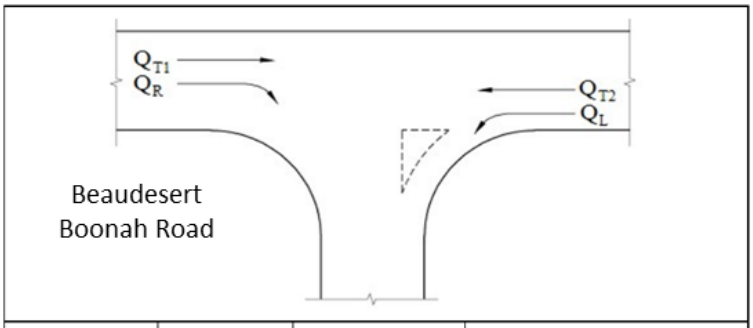
## 5.3 INTERSECTION TREATMENT

### 5.3.1 Beaudesert Boonah Road / Tilley Road – Turn Warrant Assessment

A review of the turn warrants as per the "Road Planning and Design Manual" (RPDM) has been undertaken on the 2035 (10 years after opening) development traffic volumes for the proposed development. The assessment I outlined in the following figures and tables.

The assessment shows that basic right and left turn treatments, as already designed for the previous development approval, will continue to be sufficient for the additional development.

***Figure 4A-2 - Calculation of the major road traffic volume parameter '$Q_M$'***




| Road Type | Turn Type | Splitter Island | $Q_M$ (veh/h) |
|---|---|---|---|
| 2 Lane 2 Way | Right | No | = $Q_{T1}$ + $Q_{T2}$ + $Q_L$ |
| | | Yes | = $Q_{T1}$ + $Q_{T2}$ |
| | Left | Yes/No | = $Q_{T2}$ |
| 4 Lane 2 Way | Right | No | = 50% x $Q_{T1}$ + $Q_{T2}$ + $Q_L$ |
| | | Yes | = 50% x $Q_{T1}$ + $Q_{T2}$ |
| | Left | Yes/No | = 50% x $Q_{T2}$ |
| 6 Lane 2 Way | Right | No | = 33% x $Q_{T1}$ + $Q_{T2}$ + $Q_L$ |
| | | Yes | = 33% x $Q_{T1}$ + $Q_{T2}$ |
| | Left | Yes/No | = 33% x $Q_{T2}$ |

**Figure 11: Calculation of QM** (Source: RPDM Figure 4A-2; PSA Consulting)

**Table 2: Beaudesert Boonah Road / Tilley Road – Turn Warrant Assessment**

| | LEFT TURN | RIGHT TURN |
|---|---|---|
| **2035** | | |
| AM peak | $Q_L$=0<br>$Q_M$=261<br>Treatment: BAL | $Q_R$=1<br>$Q_M$= $Q_{T1}$+$Q_{T2}$+$Q_L$ =261+261+1=523<br>Treatment: BAR |
| PM peak | $Q_L$=0<br>$Q_M$=261<br>Treatment: BAL | $Q_R$=1<br>$Q_M$= $Q_{T1}$+$Q_{T2}$+$Q_L$ =261+261+1=523<br>Treatment: BAR |

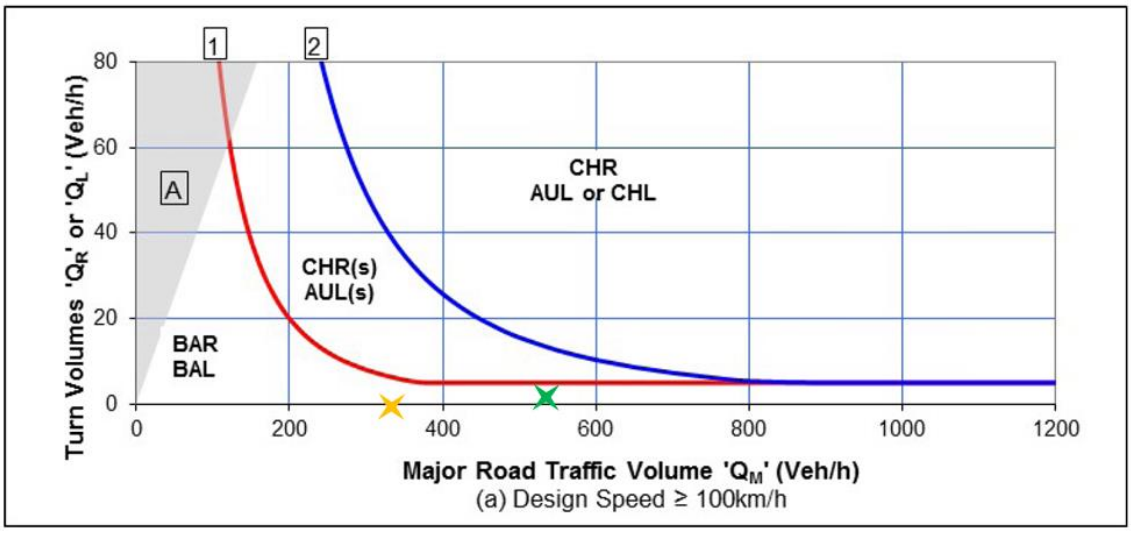



**Figure 12: Beaudesert Boonah Road / Tilley Road, 2035 Turn Warrant Assessment** (Source: RPDM Figure 4A-1; PSA Consulting)

### 5.3.2 Beaudesert Boonah Road / Tilley Road – Existing Sight Distance

The existing sight distances from Tilley Road towards Beaudesert Boonah Road are shown in Figure 13. At least 300 meters of sight distance should be achievable from the new intersection. It is assumed that sight distances were confirmed as part of the intersection design in 2016.

**Figure 13: Beaudesert Boonah Road - Sight Distances (Source: Nearmap, PSA)**

### 5.3.3 Site Access from Tilley Road – Required Access Sight Distance

From the Austroads Guide to Road Design Part 4A, a required approach sight distance for a road with a design speed of 110 km/hr is 193 to 209 meters. as shown in Table 3. As this is less than the required Safe Intersection Sight Line outlined in Section 3.4.2, this will automatically be achieved when the Safe Intersection Sight Distance has been confirmed.

**Table 3: Beaudesert Boonah Road – Required Approach Sight Distance (Source: Austroads)**

Table 3.1: Approach sight distance (ASD) and corresponding minimum crest vertical curve size for sealed roads (S < L)

| Design speed (km/h) | Based on approach sight distance for a car[1] $h_1$ = 1.1, $h_2$ = 0, $d$ = 0.36[2] | | | | | |
|---|---|---|---|---|---|---|
| | $R_T$ = 1.5 sec[3] | | $R_T$ = 2.0 sec | | $R_T$ = 2.5 sec | |
| | ASD (m) | $K$ | ASD (m) | $K$ | ASD (m) | $K$ |
| 40 | 34 | 5.3 | 40 | 7.2 | – | – |
| 50 | 48 | 10.5 | 55 | 13.8 | – | – |
| 60 | 64 | 18.8 | 73 | 24.0 | – | – |
| 70 | 83 | 31.1 | 92 | 38.9 | – | – |
| 80 | 103 | 48.5 | 114 | 59.5 | – | – |
| 90 | 126 | 72.3 | 139 | 87.3 | 151 | 104 |
| 100 | 151 | 104 | 165 | 124 | 179 | 146 |
| 110 | – | – | 193 | 171 | 209 | 198 |
| 120 | – | – | 224 | 229 | 241 | 264 |
| 130 | – | – | 257 | 301 | 275 | 344 |
| Truck stopping capability provided by the minimum crest curve size[4] | $h_1$ = 2.4 m, $h_2$ = 0 m, $d$ = 0.22 | | | | | |

### 5.3.4 Beaudesert Boonah Road / Tilley Road – Required Safe Intersection Sight Distance

From the Austroads Guide to Road Design Part 4A, a safe intersection sight distance for a road with a design speed of 110 km/hr is 285-300meters, as shown in Table 4. Based on the assessment from section 5.3.2, this should be achievable, although clearing of some vegetation might be beneficial.

**Table 4: Beaudesert Boonah Road – Required Safe Intersection Sight Distance (Source: Austroads)**

Table 3.2: Safe intersection sight distance (SISD) and corresponding minimum crest vertical curve size for sealed roads (S < L)

| Design speed (km/h) | Based on safe intersection sight distance for cars[1] $h_1$ = 1.1; $h_2$ = 1.25, $d$ = 0.36[2]; Observation time = 3 sec | | | | | |
|---|---|---|---|---|---|---|
| | $R_T$ = 1.5 sec[3] | | $R_T$ = 2.0 sec | | $R_T$ = 2.5 sec | |
| | SISD (m) | $K$ | SISD (m) | $K$ | SISD (m) | $K$ |
| 40 | 67 | 4.9 | 73 | 6 | – | – |
| 50 | 90 | 8.6 | 97 | 10 | – | – |
| 60 | 114 | 14 | 123 | 16 | – | – |
| 70 | 141 | 22 | 151 | 25 | – | – |
| 80 | 170 | 31 | 181 | 35 | – | – |
| 90 | 201 | 43 | 214 | 49 | 226 | 55 |
| 100 | 234 | 59 | 248 | 66 | 262 | 74 |
| 110 | – | – | 285 | 87 | 300 | 97 |
| 120 | – | – | 324 | 112 | 341 | 124 |
| 130 | – | – | 365 | 143 | 383 | 157 |

## 5.4 ROAD LINK CAPACITY ASSESSMENT

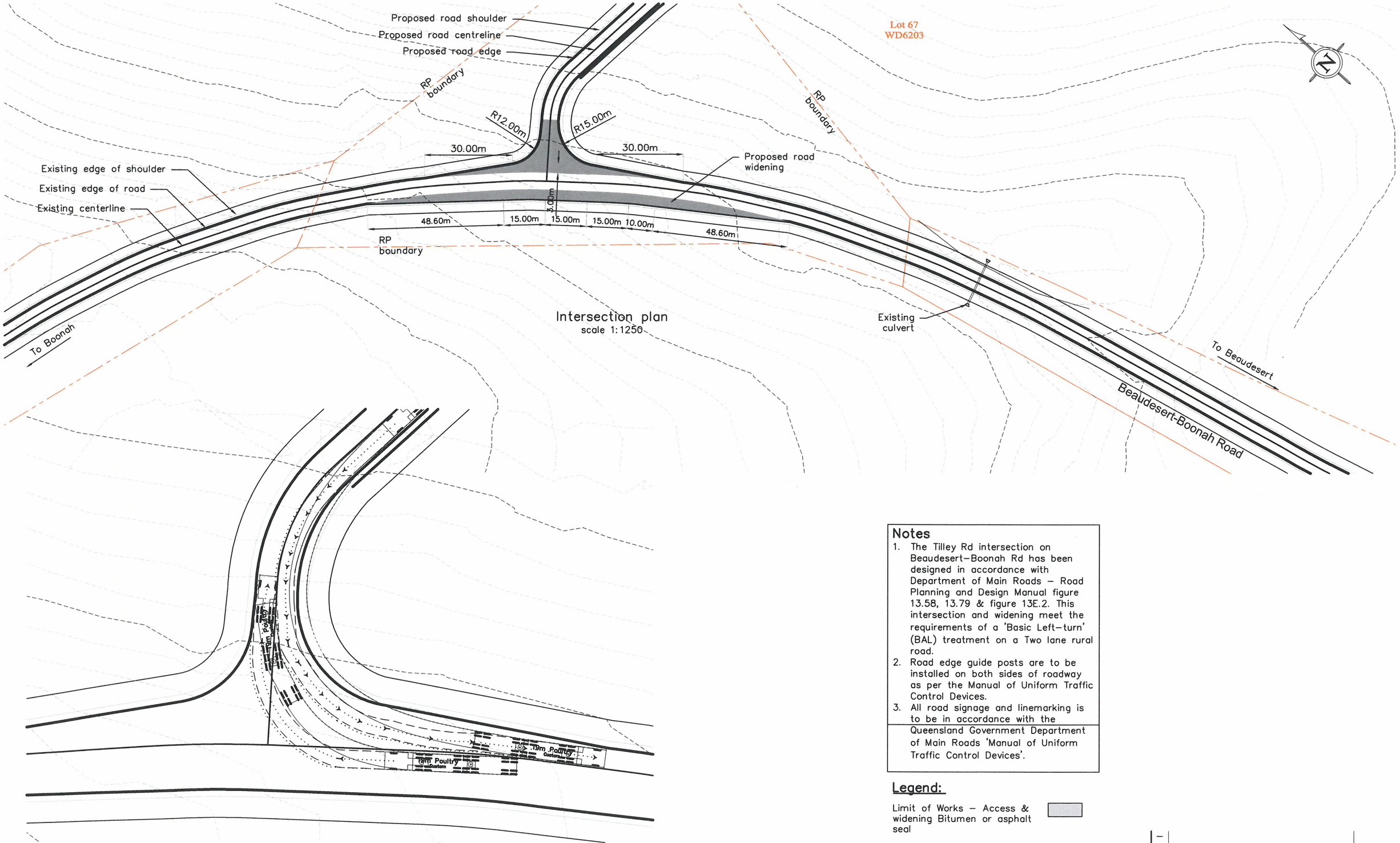
The traffic volume added to Beaudesert Boonah Road by the proposed development is one (1) additional vehicle in each direction per peak hour. This equates to 0.5% of the total road link volume in 2022 and 0.4% in 2035. This is minute and the impacts are negligible. Therefore, as per GTIA 2017, no further assessment is required.

# 6 CONCLUSION AND RECOMMENDATIONS

- This Traffic Impact Assessment has been undertaken to support a change application for an existing Intensive Animal Industry (Poultry Farm) at 75 Tilley Road and 2215 Beaudesert Boonah Road. The proposed development includes the addition of 4 sheds bringing the total number of sheds to 12, with a total farm population of 625,500.
- Access to the site is via Beaudesert Boonah Road and Tilley Road. An upgraded intersection of Tilley Road and Beaudesert Boonah Road (with BAL and BAR) has been completed in accordance with the current approval for the 8 sheds.
- The total proposed development, including 8 approved and 4 additional sheds, is estimated to generate 1 vehicle trip in and out of the site per peak hour respectively.
- This low traffic generation is not anticipated to impact on the intersection performance of Beaudesert Boonah Road/ Tilley Road.
- This low traffic generation is not anticipated to impact on the road link performance of Beaudesert Boonah Road.
- No pavement impacts are anticipated.
- The turn warrant assessment confirmed that a BAL and BAR continue to be appropriate intersection treatments for the base year, year of opening (2025) and 10 years after opening (2035).
- Sight distances are expected to be achieved based on the proposed Beaudesert Boonah Road / Tilley Road BAR / BAL intersection treatment.
- Overall, the development is not anticipated to have any major impacts on the local or state-controlled road network.

# APPENDIX 1: BEAUDESERT BOONAH ROAD / TILLEY ROAD INTERSECTION DESIGN PLANS

**AP01**




## Notes

1. The Tilley Rd intersection on Beaudesert–Boonah Rd has been designed in accordance with Department of Main Roads – Road Planning and Design Manual figure 13.58, 13.79 & figure 13E.2. This intersection and widening meet the requirements of a 'Basic Left–turn' (BAL) treatment on a Two lane rural road.
2. Road edge guide posts are to be installed on both sides of roadway as per the Manual of Uniform Traffic Control Devices.
3. All road signage and linemarking is to be in accordance with the Queensland Government Department of Main Roads 'Manual of Uniform Traffic Control Devices'.

## Legend:

Limit of Works – Access & widening Bitumen or asphalt seal

| REVISION | DATE |
|---|---|
| P1 Preliminary Design | |


Ryacon. Engineers Pty Ltd
Consulting Engineers & Project Managers
P.O. Box 554 Phone: 07 5541 3500
Beaudesert Q 4285 Fax: 07 5541 2244
www.ryacon.com.au



CONSULT AUSTRALIA Member Firm

CLIENT
M & F TILLEY
2215 BOONAH BEAUDESERT RD
BROMELTON QLD 4285

PROJECT
ALLAN CREEK POULTRY FARM
TILLEY RD
BEAUDESERT QLD 4285

DRAWING
TILLEY RD CONCEPT PLAN
BAR & BAL OPTION

| DES. NSW | DATE 01/15 | DWN NSW | DATE 02/15 |
|---|---|---|---|
| APPROVED G. RYAN (Director) R.P.E.Q. 3678 | | DATE | |
| DWG. NO. 140501-03 | | REVISION P1 | |

R:\Jobs\140501 TilleyM\Design\X_Ref\140501-Civil-P4.dwg, 17/11/2015 12:06:10 PM