

Appendix G

Traffic Assessment



AGL Note – The West Laydown area has been removed from the Amendment Report (refer p. 30). All references to the West Laydown area within the appendices should be ignored and not considered as part of the proposed amendment.

11 August 2020

P1451 AGL Newcastle Power Station Laydown addendum

Aurecon
Level 5, 116 Military Road
Neutral Bay NSW 2089

Attn: Katie Schultz

Dear Katie,

Review of laydown areas associated with construction of AGL Power Station Tomago

We have now completed our review of the information you have provided for the laydown areas for the above project and provide the following advice with regards to traffic issues. This document has been prepared as an Addendum to the traffic report prepared by Seca Solution "Newcastle Power Station" Traffic Impact Assessment dated 29th October 2019.

Proposal

Three separate laydown areas are proposed for the construction phase of the project and are described below.

Central Laydown -Lots 2 and 3

A construction laydown area is proposed on parts of Lots 2 and 3, DP104356. This laydown area adjoins the NPS Site to the west and is within the Proposal area assessed in the EIS. The laydown area would be used temporarily for storage of equipment and containers, and some pre-assembly of equipment, during construction of the NPS. Hours of operation for the laydown would be as per the EIS.

Preparation of this laydown would include minor earthworks, including clearing and grubbing, compacting the surface, and installing security fencing. There is no intention of any chemical/liquid storage, stockpiling of soils or erodible materials, or wash-down or washouts at this location, minimising the risk of its use. Site drainage for the laydown area would be connected into the construction sediment ponds proposed in the EIS.

East Laydown - Newcastle Gas Storage Facility (NGSF)

A Laydown Area is proposed within the existing Newcastle Gas Storage Facility (NGSF), which is located to the east of the NPS. This proposed laydown has been previously cleared and paved as part of the NGSF construction phase and was used as a contractor carpark at that time. As such, no earthworks are required. Uses and hours of operation would be as noted for the proposed laydown on Lots 2 and 3.

West Laydown at 235 Old Maitland Road, Hexham

A Laydown Area is proposed at 235 Old Maitland Road, Hexham which is located beside the Pacific Highway to the west of the NPS. This proposed laydown has been previously cleared and paved and has been used by various contractors to AGL and Jemena. As such, no earthworks are required. Uses and hours of operation would be as noted for the proposed laydown on Lots 2 and 3. This laydown is outside the current project area.



Operational characteristics

The Laydown areas will be in use during the total period of the construction of the NPS, assumed to be for a maximum of 24 months. They will operate for the standard hours adopted for the construction of the NPS.

The following occupancy is assumed for each of the laydown areas:

- At least one person at the laydown area 24 hours per day, 7 days per year (assumes that one person is present at during night shifts and during daytime on Sundays).
- The number of people may increase to up to 10 people at times during the hours of operation. (assumes 10 people on the laydown area during daytime, 7 days per week)
- 20 light vehicles and 10 heavy vehicles accessing the laydown area in any 24-hour period.

Traffic Impacts

Central Laydown - Lots 2 and 3

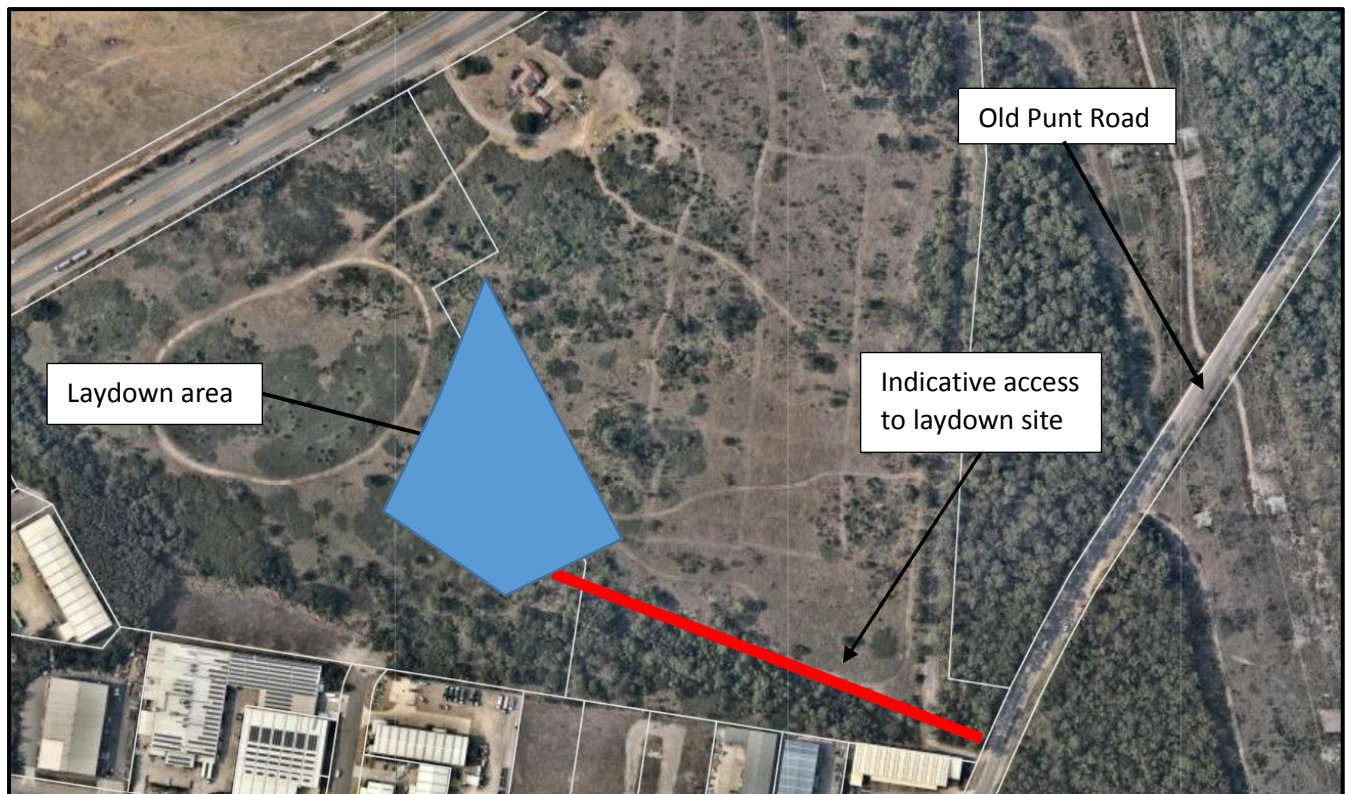
A construction laydown area is proposed on parts of Lots 2 and 3, DP104356. This laydown area adjoins the NPS Site to the west and is within the Proposal area assessed in the EIS. The laydown area would be used temporarily for storage of equipment and containers, and some pre-assembly of equipment, during construction of the NPS.

This site has road frontage to Old Punt Road only and is located adjacent to the NPS site. Access would be provided via the proposed access to be provided for the NPS site. The following operational characteristic would be applied to this laydown area:

- Access would be provided via the new access point to be provided for the NPS project
- No separate access would be provided for direct connection between this laydown site and Old Punt Road
- All vehicle access would be via Old Punt Road and the signal-controlled intersection with the Pacific Highway. This would require vehicles to turn right into the access road and left out only.
- No vehicles associated with the construction works would access the site from the south on Old Punt Road.
- When moving construction material from this laydown site, there would be no external road movement with an access provided direct between this site and the construction site.

The traffic signal-controlled intersection of Old Punt Road and the Pacific Highway allows for all turning movements and has been assessed previously for the NPS project with regard to construction traffic. This assessment included the collection of traffic data and Sidra modelling and demonstrates that this intersection has adequate capacity to cater for the construction traffic activities associated with the NPS project.

Movement of product between this laydown area and the construction site does not need to travel on the public road and as such there is no traffic impacts created by these movements.



East Laydown - Newcastle Gas Storage Facility (NGSF)

A Laydown Area is proposed within the existing Newcastle Gas Storage Facility (NGSF), which is located to the east of the NPS. This proposed laydown has been previously cleared and paved as part of the NGSF construction phase and was used as a contractor carpark at that time.

This land is located within the existing facility and is accessed via a private access road that connects with Old Punt Road via a Stop controlled T intersection, with Old Punt Road being the priority road. This access road allows for 2-way traffic movements including trucks and has an overall pavement width of 7 metres. The intersection of Old Punt Road and the private road is currently used by trucks entering and exiting the Tomago Smelter site and allows for B-double access. This intersection is located on the outside of a slight curve on Old Punt Road and ensures that good visibility is available for traffic exiting this side road. The following operational characteristic would be applied to this laydown area:

- All vehicle access would be via Old Punt Road and the signal-controlled intersection with the Pacific Highway. This would require vehicles to turn left into the private access road and right out only.
- When providing delivery from this laydown site to the construction site, vehicles would turn right out of the private haul road onto Old Punt Road and then turn right into the construction site via the new access to be provided as part of the construction for the project.
- No vehicles associated with the construction works would access the laydown site from the south on Old Punt Road.

The traffic signal-controlled intersection of Old Punt Road and the Pacific Highway allows for all turning movements and has been assessed previously for the NPS project with regard to construction traffic. This assessment included the collection of traffic data and Sidra modelling and demonstrates that this intersection has adequate capacity to cater for the construction traffic activities associated with the NPS project.

For the turn movements at the intersection of Old Punt Road and the private access road, the intersection is considered to provide adequate capacity for the project. For the laydown operations, the movements will be a left turn in and then a right turn out and the existing intersection provides a safe and acceptable layout for these movements.

For delivery of material from this layout site to the construction area, traffic will turn left out of this private access road to travel along Old Punt Road to then turn right into the construction site, via the new site access on Old Punt Road. Returning vehicles will exit the construction site and then turn right into the private access road to access this laydown site. These traffic movements can be safely completed at the intersection of Old Punt Road and the private access road with no road upgrades.

The volume of traffic associated with the movement of product between the laydown area and the construction site will be 1 or 2 truck movements per hour, which shall have a negligible impact upon the operation of the road network between the laydown area and the construction site. The only impact shall be at the intersection of Old Punt Road and the private road to the NGSF an with 1 or 2 truck movements per hour the impact shall be negligible. The trucks shall then use the access to the construction site, which allows for a sheltered right turn lane to accommodate the right turn movement into the site, which ensures that there are minor delays only for the through traffic movement son Old Punt Road.



West Laydown at 235 Old Maitland Road, Hexham

This site is located off Old Maitland Road within an existing industrial area with this section of road forming part of an approved B-double route connecting to Maitland Road. This B-double route extends past the site and continues to the south on Old Maitland Road; however it does not extend for the full length of Old Maitland Road. It does not extend past the existing residential lots fronting Old Maitland Road.

The existing lot has been previously cleared and paved and has been used by various contractors to AGL and Jemena. As such, no earthworks or construction work will be required prior to utilising this land.

Old Maitland Road connects with Maitland Road via a 3-way signal controlled intersection. These traffic signals do not permit a right turn from Maitland Road into Old Maitland Road, but allow for all other turning movements. The right turn ban at this location means that any vehicle wishing to access the laydown site from the Newcastle area including the Port of Newcastle would need to turn right at the previous traffic signals adjacent to the Hexham Bowling Club. These traffic signals permit vehicles including heavy vehicles to turn right into Old Maitland Road with a sheltered right turn lane. No right turn however is permitted from these traffic signals from Old Maitland Road into Maitland Road.

Based on the above road network operations and restrictions, the following operational characteristic would be applied to this laydown area:

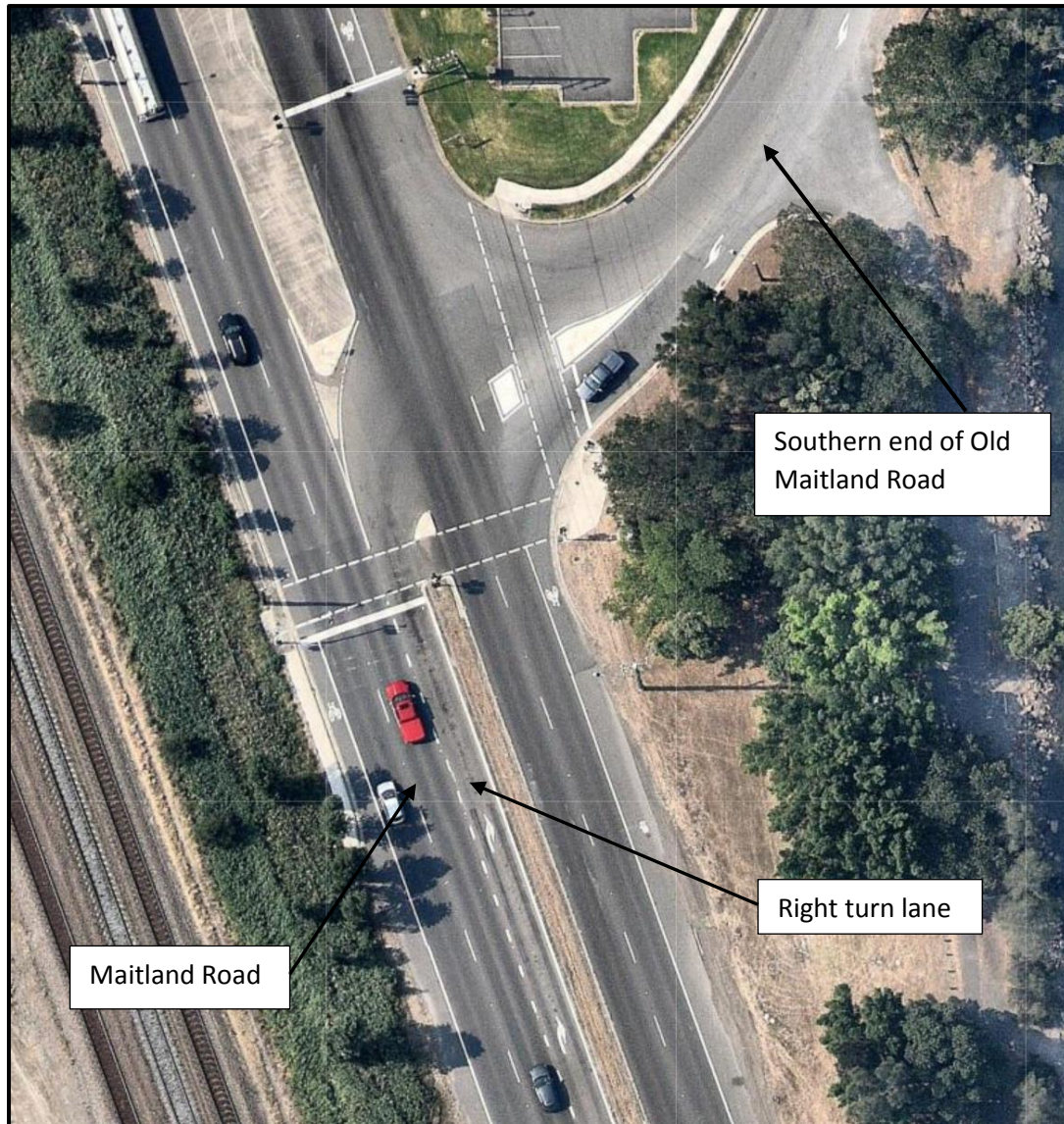
- No B-double access permitted from the south direct to Old Maitland Road
- B-double access is available for southbound traffic movements on Maitland Road via the northern traffic signal-controlled intersection with Old Maitland Road
- All vehicle entry movements to the site from the south would turn right at the traffic signals at the southern connection to Old Maitland Road.
- All vehicle movements into the site from the north would turn left into Old Maitland Road via the northern signal-controlled intersection of Old Maitland Road and Maitland Road
- Access to the site is available direct off Old Maitland Road via two separate gated access points.
- For movement of construction material from this layout to the construction site, all vehicles would exit the site onto Old Maitland Road, then turn right out of Old Maitland Road at the traffic signals and proceed via the Pacific Highway to then turn right into Old Punt Road to then access the construction site via the new access to be provided as part of the project work.

The site access is located on a reasonably straight section of road and allows for safe entry and exit movements. The western most driveway is located 140 metres east of the traffic signals at Maitland Road and would not be expected to create a queue back to these traffic signals associated with vehicles accessing this site. With 1 or 2 trucks travelling between this laydown area and the construction site the impact shall be negligible and not impact upon the overall operation of the signal controlled northern intersection of Maitland Road and Old Maitland Road.

The traffic signals at the southern connection to Old Maitland Road have a sheltered right turn lane on Maitland Road with a length of 120 metres, adequate to store 20 cars or 6 heavy vehicles. These traffic signals are vehicle actuated allowing for minimum stoppage of the heavy through traffic demands along Maitland Road, especially in the commuter peaks in the morning and afternoon. Observations on site show that this right turn lane is underutilised and as such there is capacity for increased demands associated with the laydown site for the construction work associated with the overall project. With 1 or 2 trucks an hour potentially using these signals to deliver material to the laydown area the impact shall be negligible.



NOTE – the building shown on the above photo of the site has been demolished since the timing of this photo.

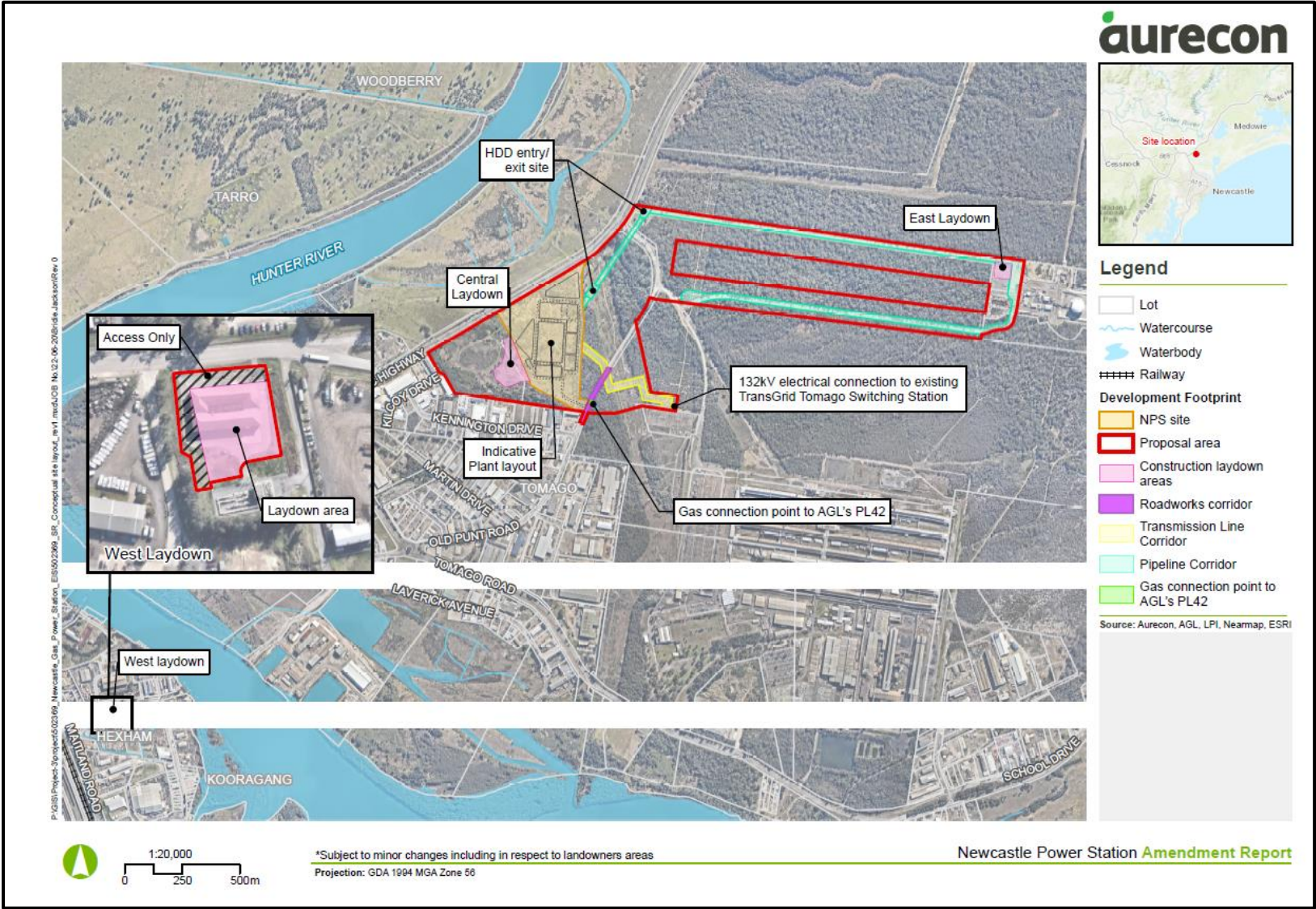


Based upon the above assessment work, it is concluded that no road upgrade works are required to support the construction activities associated with the three proposed laydown areas.

Yours sincerely,

Sean Morgan
Director

Attachment A – Plan for laydown areas



Attachment B – West laydown and access route

