Cross River Rail Environmental Impact Statement

Request for Project Change 9

Changes to the Project and changes to the Imposed Conditions – Southern Portal Area

Response to Submissions Report

Date: March 2021

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CROSSRIVERRAIL

Queensland Government

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1. Introduction

The Cross River Rail Delivery Authority (the Delivery Authority) established by the *Cross River Rail Delivery Authority Act 2016* (Qld) is the proponent for the Cross River Rail (CRR) Project. The CRR Project is a declared coordinated project for which an Environmental Impact Statement (EIS) was required under the *State Development and Public Works Organisation Act 1971* (SDPWO Act).

The EIS for the CRR Project (2011 EIS) was evaluated by the Coordinator-General who recommended the project proceed, subject to the Imposed Conditions in the evaluation report dated 20 December 2012. Since the 2012 evaluation report, ten Requests for Project Change (RfPC) have been submitted and eight have been evaluated by the Coordinator-General.

The Evaluated Project is the authorised CRR Project as described in Imposed Condition 1 of the Coordinator-General's Project-wide Imposed Conditions.

The Proposed Changes to the Evaluated Project have been identified for the Southern Portal Area Works as part of the detailed design phase and due to further development of the construction methodology. These changes were outlined in Request for Project Change 9 (RfPC9) and are being evaluated by the Coordinator-General.

1.1 Process for Evaluation of Project Changes

The process by which the changes to the CRR Project are to be addressed and assessed is established in Part 4, Division 3A of the SDPWO Act.

In November 2020, the Delivery Authority made an application to the Coordinator-General to formally request the evaluation of Proposed Changes to the CRR Project and proposed amendments to the existing Imposed Conditions.

The Coordinator-General determined that public notification of the Proposed Changes was required. The Proposed Changes to the CRR Project were publicly notified on 28 November 2020, until 5pm on 24 December 2020.

1.2 Purpose

The purpose of this document is to provide responses to key matters raised in submissions received by the Coordinator-General about the Proposed Changes. This Response to Submissions Report forms part of the RfPC9 submission to the Coordinator-General. This report covers:

- Summary of submissions received;
- Key matters raised in the submissions; and
- The Proponent's response to key matters raised.

2. Consultation on the Request for Project Change

The public notification period commenced on 28 November 2020 and closed at 5pm on 24 December 2020.

A range of consultation activities were undertaken throughout the consultation period, which aimed to:

- Inform the community and key stakeholders of RfPC-9; and
- Communicate the RfPC-9 process, including how to provide a submission to the Coordinator-General.

A full description of the consultation undertaken is provided in the RfPC9 Consultation Report (**Attachment A**).

3. Submissions on the Request for Project Change

A total of eighteen (18) submissions were received by the Coordinator-General during the consultation period. Copies of all submissions, including a breakdown of issues raised, were provided to the Delivery Authority by the Coordinator-General for consideration and response. Of the 18 submissions, twelve (12) were received from private individuals, five (5) from state agencies and one (1) from a local government.

3.1 Summary of Key Issues Raised

Each submission has been analysed and a summary of issues raised is presented in Figure 1 below.

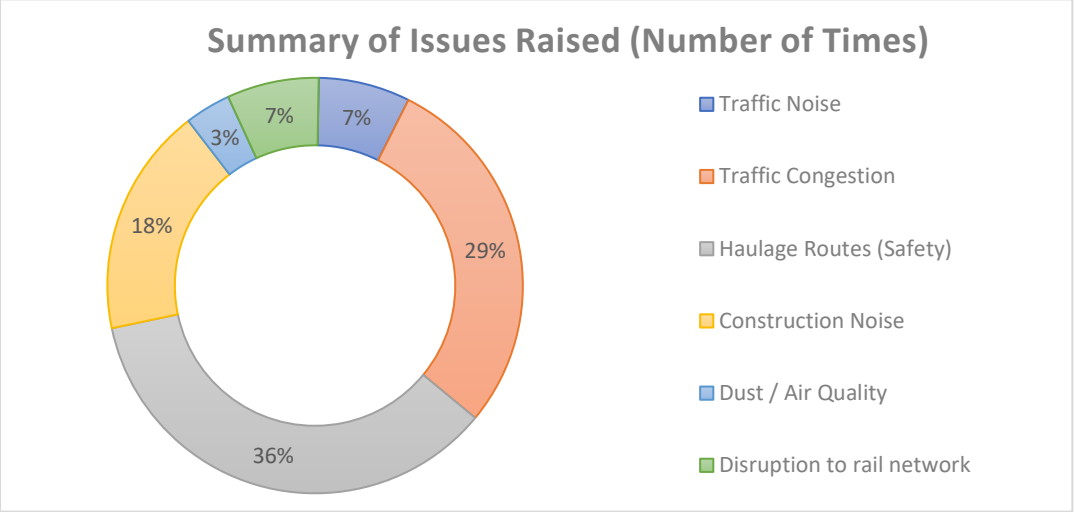

Figure 1: Summary of issues raised in submissions

Further details on issues raised in RfPC9 submissions is provided in **Error! Reference source not found.**.

Issues raised	Summary
Haulage routes (safety)	• Proposed additional heavy vehicle haulage route via Peter Doherty Street not supported: request that the Project use the currently approved route via Boggo Road/Joe Baker/Peter Doherty. • Traffic management at the Peter Doherty Street and Annerley Road intersection needs to ensure the interface between light vehicles, heavy vehicles, pedestrians, and cyclists is safely managed. • Traffic management within the Boggo Road precinct during school drop off and pick-up times needs to ensure the safety of school students. • Insufficient traffic analysis or impact assessment undertaken regarding the Peter Doherty right hand turn proposal.
Traffic congestion	• Additional heavy vehicles on Annerley Road which is already a busy road. • Proposed changes to the intersection at Annerley Road/Peter Doherty Street not supported.
Traffic noise	• Noise impacts from heavy vehicle movements on Peter Doherty Street.
Construction Noise	• Noise impacts from construction works at the Southern Portal Worksite.
Air quality	• Dust impacts from construction works at the Southern Portal Worksite.
Disruption to rail network	• Disruption to operational rail network as a result of proposed changes associated with construction methodology for the Southern Portal Worksite.

Table 1: Summary of issues raised in submissions

4. Response to Issues Raised

This section outlines the Delivery Authority's responses to issues raised in submissions to the Coordinator-General.

4.1 Traffic and Transport

Sixty-five percent of issues raised in submissions related to traffic congestion and safety matters, including:

- concerns regarding traffic analysis, intersection design or impact assessment; and
- concerns relating to an increase in the construction traffic due to the Proposed Changes and impacts for traffic congestion and safety of other road users (including pedestrians and cyclists).

4.1.1 Response – traffic and transport

The Traffic Impact Assessment (TIA) provided at Volume 3 of RfPC9 presented potential site access options for the Southern Portal Area Works, being:

- **Option 1** – access and egress via Peter Doherty Street (access from Annerley Road northbound, right turn into Peter Doherty for access, left turn out of Peter Doherty for egress, with an associated intersection upgrade;
- **Option 2** – access and egress via Peter Doherty Street (access from Stanley Street then Annerley Road southbound, left turn in, left turn out);
- **Option 3** – use of current approved construction access and egress using Boggo Road, Joe Baker and Peter Doherty in a one-way loop;
- **Option 4** – use Railway Terrace (via Stanley Street, Annerley, Rawnsley Street), with egress via Railway Terrace (using Dutton Street and Annerley Road).

In the RfPC9 application, the preferred access option was identified to be Option 1, involving a reconfiguration of the Annerley Road/Peter Doherty Street intersection.

The majority of submitters, including Brisbane City Council (BCC) as the relevant road authority, raised concerns relating to the traffic assessment presented in RfPC9, including:

- requesting additional traffic analysis to justify the proposed heavy vehicle access route via a right hand turn from Annerley Road into Peter Doherty Street to access the Southern Portal Area Works; and
- further consideration of intersection design requirements and analysis to demonstrate how potential traffic, pedestrian and bike user impacts may be adequately addressed.

Submitters also suggested that further analysis of Option 3 be pursued, given Option 3 is currently the approved access for Project works in this location.

The Delivery Authority undertook a detailed review of the matters raised in submissions regarding the proposed intersection design changes. It was determined that while a technical intersection design solution that complied with AusRoads design standards could be accomplished for Option 1, satisfying Brisbane City Council's intersection design preferences in a timeframe that supported Project delivery requirements may not be achieved.

Having considered the matters raised by BCC and other submitters and following further consultation with BCC, a detailed Traffic Impact Assessment (TIA) of Option 3 (Construction vehicles access via Boggo Road/Joe Baker and egress via Peter Doherty Street) has been undertaken for Southern Portal Area Works.

This TIA is provided at **Attachment B - Additional Traffic Impact Assessment Report**.

This TIA has been prepared to supplement the TIA provided at Attachment D of RfPC9 Volume 3 – technical reports, which assessed the impact of the proposed Heavy Vehicle (HV) routes associated

with construction activities. The first assessment was prepared with regard to road design, safety and traffic operations and included an option review of four access routes to the Southern Portal Area. This TIA provides a detail assessment of Option 3 (Construction vehicle access via Boggo Road / Joe Baker Street and egress via Peter Doherty Street).

Based on this assessment, the proposed haulage route for the Southern Portal Worksite is now Option 3.

This TIA addresses and resolves a number of key traffic related matters raised in submissions, including:

- There is no longer a requirement to change the existing configuration of the Annerley Road / Peter Doherty Street intersection;
- Traffic modelling has been updated based on 24 June 2020 observed traffic loads, upscaled by 10% in consultation with BCC, to better reflect 'normal' traffic conditions (rather than COVID19 traffic loads);
- Swept-path and safety assessment analysis has been updated, which considers the new Brisbane South State Secondary College and the existing Dutton Park State School;
- A nominal value of 60 vehicles per hour and 50 pedestrians per hour were added to the network in year 2020 to encapsulate traffic associated with the new Brisbane South State Secondary College. To reflect planned growth of the school (i.e. Year 7 at 2021, Years 7 and 8 at year 2022), the nominal values of 60 vehicles per hour and 50 pedestrians per hour at year 2020 have been doubled;
- SIDRA intersection modelling analysis of the Annerley Road / Peter Doherty Street, Annerley Road / Boggo Road and Boggo Road / Dutton Park School access intersections has been updated, which confirmed that Degree of Saturation [DOS (%)] and average intersection delays remain within acceptable operating parameters. The analysis indicates that the 95th percentile queue length during peak hours will be 14.3m for the left turn onto Annerley Road from Peter Doherty Street and 5.7m for the right turn onto Boggo Road from Annerley Road. The modelled addition of construction traffic during the peak periods does not increase total intersection delays by more than 5%.

4.1.2 Haulage Route

Concerns relating to the proposed haulage route were raised by submitters who also requested that the Project use the currently approved route.

As discussed in Section 4.1.1 above, the proposed haulage route for the Southern Portal Worksite is now Option 3, with construction vehicles to access the works via Boggo Road and egress via Peter Doherty Street under the approved haulage route.

The proposed haulage route (Option 3) does not trigger an upgrade to the Peter Doherty Street / Annerley Road intersection. This option requires an entry / exit through the existing site gates on Peter Doherty Street and Joe Baker Street.

RfPC9, at section 3.4.4.4, identified an updated Outline Environmental Management Plan (OEMP) sub-plan (Construction Traffic Management Plan – Appendix H2 BCC Haulage Restrictions Site 1) would require approval to facilitate the bi-directional use of Peter Doherty Street.

As a consequence of Option 3 now being the proposed haulage route, in response to submissions, an update to Appendix H2 of the approved OEMP is no longer required.

4.1.3 Road Safety

In addition to concerns relating to the proposed haulage route change, submitters commented on road safety concerns relating to the proposed site access route.

As discussed in Sections 4.1.1 and 4.1.2 above, the revised haulage route (Option 3) does not trigger an upgrade to the Peter Doherty Street / Annerley Road intersection.

The interactions between cyclists riding in lane along Annerley Road / Boggo Road / Joe Baker Street / Peter Doherty Street and heavy vehicles was previously considered as part of the Evaluated Project, and has been considered in the Road Safety Assessment at Section 6 of the updated TIA.

To further improve pedestrian (including school children) and cyclist safety at the Boggo Road pedestrian crossing, upgrades to the existing traffic management measures will be implemented. This will include installing a fence along both sides of Boggo Road as a measure to guide / redirect pedestrians and cyclist to the designated crossing point. This crossing point will be attended by traffic controllers during the hours of operation of the Boggo Road and Southern Portal Area worksites that overlap with school hours and peak pedestrian and cyclist flows through this area.

Consistent with the TIA, spoil haulage and materials/equipment deliveries to support 'Extended hours work' under Coordinator-General Imposed Condition 10 will be minimised as far as practicable during the periods of 8:15am - 9:00am and 3:00pm - 3:15pm.

Key elements of the pedestrian guidance fencing and pathway design are as follows:

- Tubular handrail fencing to provide a barrier and restrict access outside of the designated path of travel;
- 3m separation between the two fences; and
- Tactile Ground Surface Indicators (TGSIs) to direct pedestrians to the crossing point.

Figure 2: Boggo Road – pedestrian fencing and guidance scheme to controlled crossing point

4.1.4 Traffic Noise

The Proposed Change to the haulage route for the Southern Portal Worksite has raised concerns relating to increase in road traffic noise.

As the preferred construction vehicle access is now via Boggo Road and egress via Peter Doherty Street, the number of heavy vehicle movements on Peter Doherty Street will reduce, resulting in reduced traffic noise levels compared to the haulage route option originally proposed in the RfPC9 application (access/egress via Peter Doherty Street).

The predicted road traffic noise levels at Boggo Road due to the Southern Portal works are consistent with the Evaluated Project as identified in RfPC9, Section 5.1 of Attachment B Volume 3 Technical Reports.

As detailed in Section 3.4.2.2 of RfPC9 Volume 1, the predicted change in traffic noise is considered insignificant and is unlikely to impact Directly Affected Persons. The Department of Transport and Main Roads Transport Noise Management Code of Practice (NCoP) has been used as guidance to assess categorisation of noise impacts from traffic noise. This assessment, which is consistent with the methodology used for the current Evaluated Project, determined that the predicted increase of up to 2dBA will be difficult for most people to detect.

4.1.5 Traffic Management

The Environmental Management Framework (EMF) that has been established for the Project includes a Construction Traffic Management Plan (CTMP) and a construction Haulage Management Plan (HMP) as sub-plans to the Construction environmental Management Plan (CEMP).

In response to the matters raised in submissions regarding the construction traffic access to the Southern Portal Area worksite, the construction traffic route will revert to the currently approved Annerley Road, Boggo Road, Joe Baker and Peter Doherty Street one way access and egress, which will be managed in accordance with the current EMF.

A site-specific CTMP sub-plan for the Southern Portal Area worksite will be updated in consultation with BCC prior to the commencement of these works.

This sub-plan will address safety requirements of all relevant road users and include management strategies and mitigation measures associated with road traffic, pedestrians, cyclists, motorists and public transport operations. The mitigation measures identified in the TIA that will be implemented through the site-specific CTMP sub-plan in consultation with BCC include:

- Temporary removal of car parking along Joe Baker Street;
- Realignment of Joe Baker Street (to utilise the area of the existing car parks);
- Reducing the diameter of the raised central island at the Joe Baker/Peter Doherty Street Intersection and installation of line marking to delineate the trafficable areas of the roundabout; and
- Removal of the raised splitter islands on the Joe Baker Street approach to the Joe Baker/Peter Doherty intersection and installation of line marking.

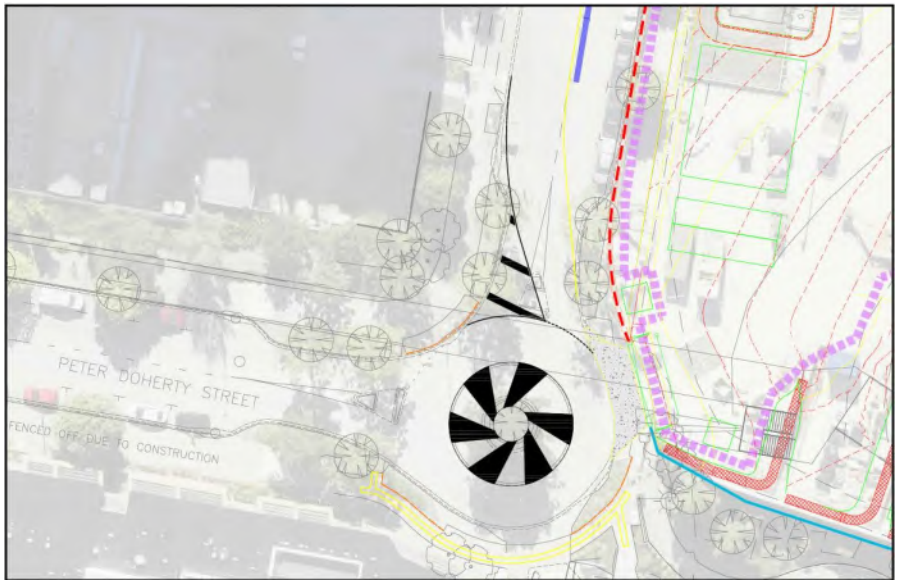

Figure 3: Joe Baker/Peter Doherty guidance scheme – island/roundabout modifications

4.1.6 Description of associated changes to construction methodology

Section 1.4 of RfPC9, Volume 1, provided the context of the proposed changes, including the physical extent of the works, description of work zones and an estimated schedule of works for the Southern Portal Area. This is reproduced below.

The Southern Portal Area is shown as zones A, B, C, D, E and F on Figure 4.

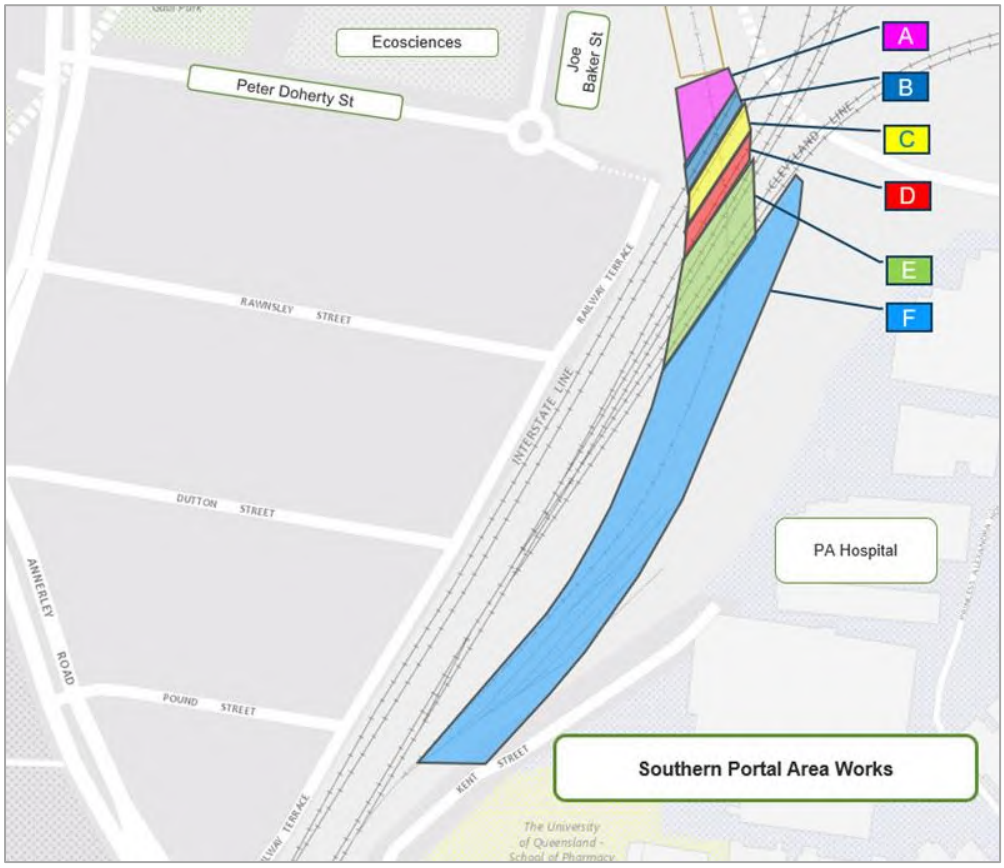

Figure 4: Map of the Southern Portal Area

Works requiring a longer 24/7 rail possession were identified to occur in Zone D. Zone D involves an estimated 40-day closure of the 'middle road' track to undertake cut and cover construction activities. The estimated schedule and staging of works were provided in RfPC9 and is presented again below. The work stages as described will overlap.

- Excavation and piling (higher impact activity) 10 to 11 days
- Formwork, reinforcement and concrete works 21 to 22 days
- Track reinstatement 10 to 11 days

In the RfPC9 application, the preferred access option was identified to be Option 1, involving a reconfiguration of the Annerley Road/Peter Doherty Street intersection.

Option 1 was the preferred solution for providing access into the Boggo Road/Southern Portal Area worksites, as it provided two separate accesses for heavy vehicles to manage the peak heavy vehicle traffic loading during August/September 2021 – one access via Boggo Road to the Boggo Road Station and cavern worksite, and the second access via Peter Doherty Street directly to the Southern Portal Area worksite.

In response to matters raised in submissions, the Project will instead utilise access Option 3 (the current endorsed heavy vehicle access to the Project worksites via Boggo Road, Joe Baker Street, and exit via Peter Doherty Street).

While access Option 3 addresses key matters raised in submissions regarding traffic impacts, Option 3 introduces significant time/delivery risks to achieving the successful completion of the 'middle road' rail possession (Zone D above), associated with the introduction of peak heavy vehicle loadings on the one-way access system during August/September 2021.

Achieving the 'middle road' rail possession within the allowable 40 day track closure period is critical to ensuring public transport disruptions associated with the Southern Portal Area works are not increased.

To successfully commence and complete the 'middle road' rail possession, heavy vehicle access is required to be constructed through Zones B and C. This activity was planned to be conducted during standard work hours (6.30am to 6.30pm), however, to address time constraints associated with the peak vehicle loadings introduced as part of utilising heavy vehicle access Option 3, the Project will now be required to undertake an additional 14 days of 24/7 works in Zones B and C.

Updates to the work zone activities and schedules are provided in Table 2 and Figure 5.

Zone	Description	Access via	Working Hours	Estimated Duration
A	Boggo South cut and cover	Boggo Road / Joe Baker St	6.30am-6.30pm Mon-Sat	10 months
B	Dual gauge demolition and reconstruction Construction of access to Zone D	Boggo Road / Joe Baker St	6.30am-6.30pm Mon-Sat 24 hours 7 days	7 months 14 days
C	Freight flyover underpinning Construction of access to Zone D	Boggo Road / Joe Baker St	6.30am-6.30pm Mon-Sat 24 hours 7 days	7 months 14 days
D	Middle Road construction cut and cover with sheet piling	Boggo Road / Joe Baker St	24 hours 7 days	10 days (Easter 2021) 40 days (Quarter 3/Quarter 4 2021)
E	Brownfield rail construction cut and cover	Kent Street	6.30am-10.00pm Mon - Sat	6 months (3 months of which would include works 6.30pm-10.00pm)
F	Greenfield rail construction - dive and cut and cover structure	Kent Street	6.30am-6.30pm Mon - Sat	12 months

Table 2: Updated work zones and zone activities

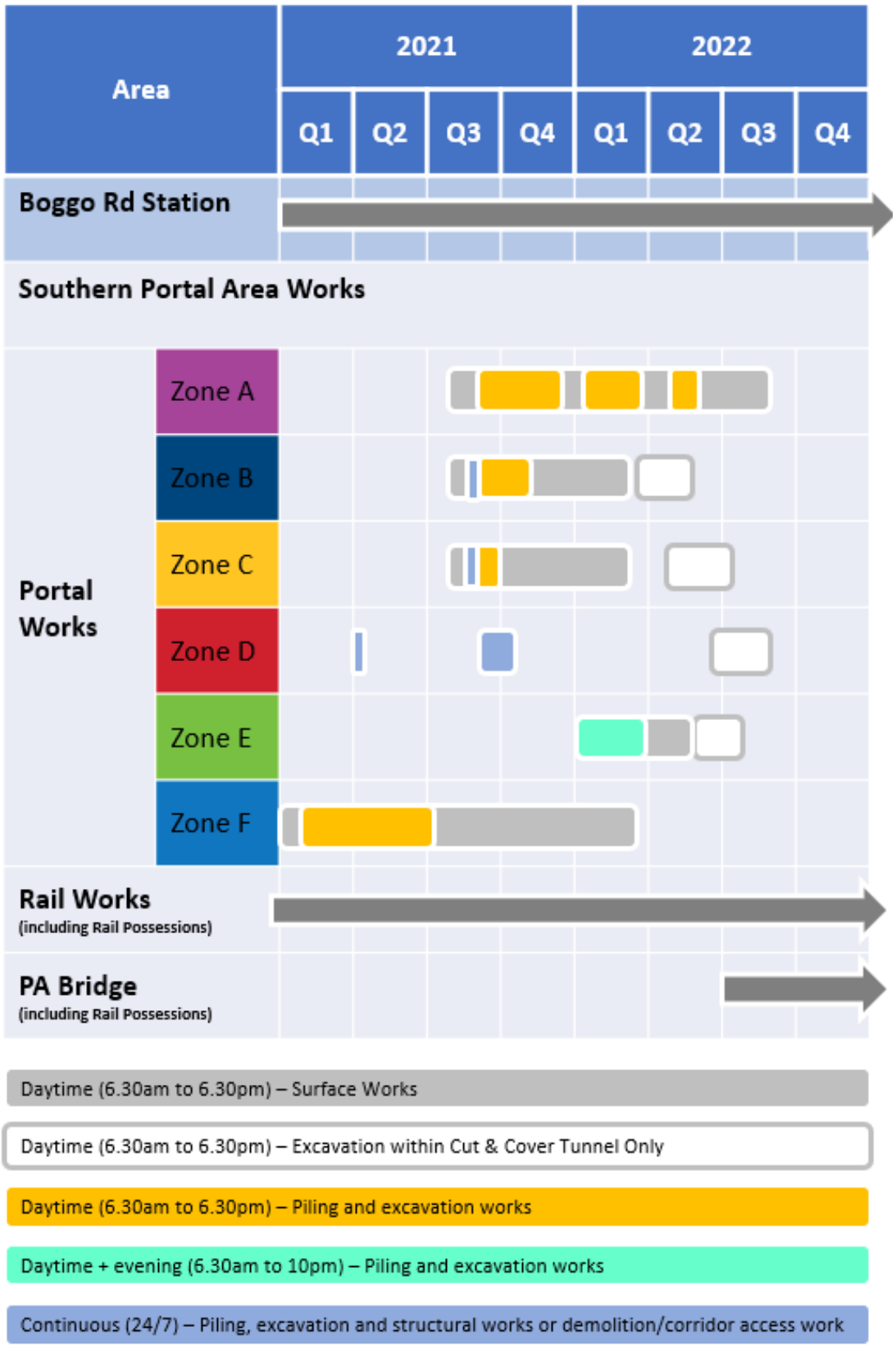

Figure 5: Updated estimated schedule of works

The works requiring a longer 24/7 rail possession are now identified to occur in Zones B and C, in addition to Zone D.

Works in Zones B and C will involve a 14-day, 24/7 operation to undertake track demolition works and to construct safe access to Zone D, in addition to the 40-day closure of the 'middle road' track to undertake cut and cover construction activities. The estimated schedule and staging of works is provided below. The work stages within Zone D will overlap.

Zones B and C

- Rail infrastructure demolition, construction access 14 days

Zone D

- Excavation and piling (higher impact activity) 10 to 11 days
- Formwork, reinforcement and concrete works 21 to 22 days
- Track reinstatement 10 to 11 days

4.1.7 Effect of associated changes to construction methodology - noise

The effects of noise from the Southern Portal Area works were presented in section 3.4.1.2 of RfPC9, Volume 1. The relevant components of that assessment remain current and are re-presented below.

Table 4 presents a summary of predicted construction noise levels at four selected noise sensitive receivers located close to work Zones B, C and D; being:

- 41 Peter Doherty Street (Leukaemia Foundation);
- Rawnsley Street (residential – BOB_1);
- Railway Terrace (residential – BOG_1)); and
- Railway Terrace (residential – DUT_3).

The data has been extracted from Tables C6A to C6F in Appendix C of the Construction Noise Mitigation Design Report found at Volume 3, Attachment A of RfPC9.

The noise level presented in Table 4 is a maximum (peak) predicted level within Stage 2 (construction works in zones B, C, D & F). The maximum (peak) level of predicted noise is not expected to be generated for the entirety of the period of works and is based on a 'worst case' scenario whereby all equipment is running simultaneously, which is a conservative estimate of the construction impacts.

The noise levels and sources will be mitigated by applying the same noise mitigation and management strategies to reduce the predicted noise levels as was presented in Section 3.4 of RfPC9 Volume 1. Noise monitoring will be conducted during construction to validate the modelling and confirm actual noise levels.

Table 3 shows where noise levels may be above the Construction Noise Goals. The Construction Noise Goals are based on Note 2 of Imposed Condition 11 where modelling has applied recommended facade corrections to determine an external noise goal. This means that where internal noise levels are unable to be measured or monitored, the typical noise reductions presented in the relevant State guideline, such as the Guideline Planning for Noise Control, Ecoaccess, DEHP, January 2017 have been applied.

The actual noise level will be dependent on:

- the construction stage and the type of construction activities being undertaken;
- the period of work;
- the type of receiver; and
- proximity of the nearest receiver to the works.

NCA	Representative Location	Receiver Type	Construction Noise Goals (CNGs), dBA				Predicted Noise Level Range, dBA		Potential noise levels above Imposed noise goals, dBA	
			Day ($L_{eq\ 15min}$)	Day ($L_{10\ 15min}$)	OOH ($L_{eq\ 15min}$)	Night (L_{max})	Day ($L_{eq\ 15min}$)	OOH ($L_{eq\ 15min}$)	Day ($L_{eq\ 15min}$)	OOH ($L_{eq\ 15min}$)
STAGE 2: 3 Months (construction works within zones B, C, D & F)										
BOG_1	41 Peter Doherty Street (Leukaemia Foundation)	Residential	62	72	57	59	56 - 82	52 - 70	20	13
BOG_1	Rawnsley Street	Residential	47	57	42	49	54 - 71	47 - 60	24	18
BOG_1	Railway Terrace	Residential	47	57	42	49	53 - 74	46 - 64	27	22
DUT_3	Railway Terrace	Residential	47	57	42	49	50 - 66	41 - 55	19	13

Table 3: Construction noise assessment – Stage 2 works including 24/7 works

The overall effect of the changes to the construction methodology as a result of changing the changes to the heavy vehicle construction access route is a 14-day cumulative increase in the period of 24/7 works.

Consistent with the mitigation approach presented in section 3.4.1.3 of RfPC9 Volume 1, various noise mitigation and management strategies will be put into place to respond to the predicted noise levels.

At some receiver locations, noise levels may be above the Construction Noise Goals and there may be no physical mitigation measures that can be applied at the source of the noise to achieve the Construction Noise Goals. In these cases, mitigation will be determined in consultation with the affected receivers, in accordance with Imposed Condition 9, and, where triggered, Imposed Condition 11(c).

4.2 Noise

Submitters raised concerns about noise impacts from construction works at the Southern Portal Worksite and how noise impacts from work at night would be communicated and managed.

The analysis conducted for RfPC9 showed that:

- the predicted construction noise levels for sensitive receivers at Boggo Road due to the Southern Portal Area works are below the construction noise goals.
- Some residents and facilities in Peter Doherty Street, as well as some residents in Rawnsley Street and Railway Terrace are predicted to experience exceedances of the construction noise goals for periods during the Southern Portal Works.

There is an existing EMF that is applied to the CRR Project through the Imposed Conditions. Environmental impacts, community consultation and engagement are all managed in accordance with the EMF. The detail of the EMF is set out in Section 2.1 of RfPC9, Volume 1 and includes a Noise and Vibration Management Plan (NVMP) and Community Engagement Plan (Sub-Plans to the endorsed CEMP).

The Outline EMP approved by the Coordinator-General incorporates a Community and Stakeholder Engagement Plan with the following relevant objectives and required outcomes:

> *"Local communities, residents and businesses likely to be directly affected by construction works for the Project are aware of the nature, timing and predicted effects of the works in advance of their commencement;*
>
> *Communities have access to an effective and responsive communication and complaints process to address and respond to community issues;*
>
> *Consultation with the community and stakeholders is commenced well in advance of the commencement of construction works…such consultation is to be conducted in sufficient detail to address specific construction impacts and mitigation requirements;*
>
> *Consultation with affected entities about possible mitigation measures is conducted in confidence;*
>
> *Early and on-going engagement with owners and occupants of premises adjacent or close to the proposed works about the scale, location, potential effects and mitigation measures;*
>
> *Early notification to owners and occupants of sensitive receivers that are predicted to be affected by construction works in terms of their scale, duration, location and potential effects.*

The approved Outline EMP also includes a Noise and Vibration Management Plan. This Noise and Vibration Management plan provides performance criteria for air-borne noise that includes, amongst other things, that:

> *"Where predictive modelling conducted prior the commencement of works in a locality, indicates that the noise goals are likely to be exceeded:*
>
> *- potentially Directed Affected Persons must be identified and consulted regarding the potential impacts and the mitigation measures proposed to address the impacts;*
>
> *- mitigation measures must be developed in consultation with potentially Directly Affected Persons on a "case by case" basis prior to commencement of the works;*
>
> *- agreed mitigation measures must be included in a mitigation register and implemented prior the undertaking Project Works."*

Under Coordinator-General Imposed Condition 4, a Construction Environmental Management Plan (Construction EMP) must be developed and endorsed by the independent Environmental Monitor as being consistent with the Outline EMP and the Coordinator-General's Imposed Conditions for the Project.

The Construction EMP implements the Coordinator-General's Imposed Conditions and the approved Outline EMP.

The Construction EMP for the Tunnel, Stations and Development Package, which includes a Noise and Vibration Management Plan (NVMP) and Community Engagement Plan, has been endorsed by the Environmental Monitor as being consistent with the Outline EMP and the Imposed Conditions.

The endorsed Construction EMP NVMP includes consultation and mitigation measures to ensure appropriate management of potential impacts with Directly Affected Persons, including:

- Initiate on-going and early consultations with potentially Directly Affected Persons to notify them of the proposed works and to determine suitable mitigation measures and implement the CEMP to achieve the outcomes developed in consultation with the potentially Directly Affected Persons.
- Where Out of Hours works are unavoidable, they are to be undertaken in accordance with:
    - Project Out of Hours Work Protocol (a delivery partner works authorisation procedure under the endorsed Construction EMP);
    - Outcomes of consultation with the DA and any Directly Affected Persons;

- Construction EMP NVMP and any specific agreed mitigation measures (where relevant).

For Southern Portal and Boggo Road Station Works, the Construction CEMP NVMP contains specific requirements for notification to Directly Affected Persons and near neighbours, and specific notifications to the PA Hospital, TRI Building, ESA Village (Leukaemia Foundation) and the Ecosciences facility.

The Construction EMP Community Engagement Plan (CEP) identifies property owners, residents and businesses in the following locations, relevant to the Southern Portal Works, as nearby community/directly affected persons:

- Peter Doherty Street;
- Railway Terrace, Rawnsley, Dutton, Pound Streets;
- DAPs identified according to modelling undertaken ahead of major activities.

The Construction EMP CEP identifies the type of engagement and activities that will trigger engagement with the community, including directly affected persons.

Practically, the Project has been actively and consistently engaging with Directly Affected Persons and other near neighbours that may be impacted by the Southern Portal Works since late 2019, and further consultation will occur prior to the Southern Portal Works commencing.

Key stakeholders (including Peter Doherty Street, Railway Terrace and Rawnsley Street residents) are consulted directly on a regular basis about upcoming work.

Likewise, the Project undertakes regular engagement with the Princess Alexandra Hospital. Based on that engagement, the clinical treatment areas utilised at night-time are not located adjacent to the rail corridor, are well shielded and unlikely to be impacted by the Project Works.

Early and ongoing consultation has been undertaken with the Leukaemia Foundation since 2019, and specific and detailed consultation will continue with this key stakeholder throughout project delivery.

In addition to specific stakeholders, monthly coordination meetings are held with stakeholders along Kent Street to provide briefings on upcoming work activities and to consult on proposed mitigation measures where required.

As part of the existing Project Works, and in preparation for the Southern Portal Area works, updated noise modelling will continue to be developed, with notification and engagement activities to continue as shown in Figure 6.

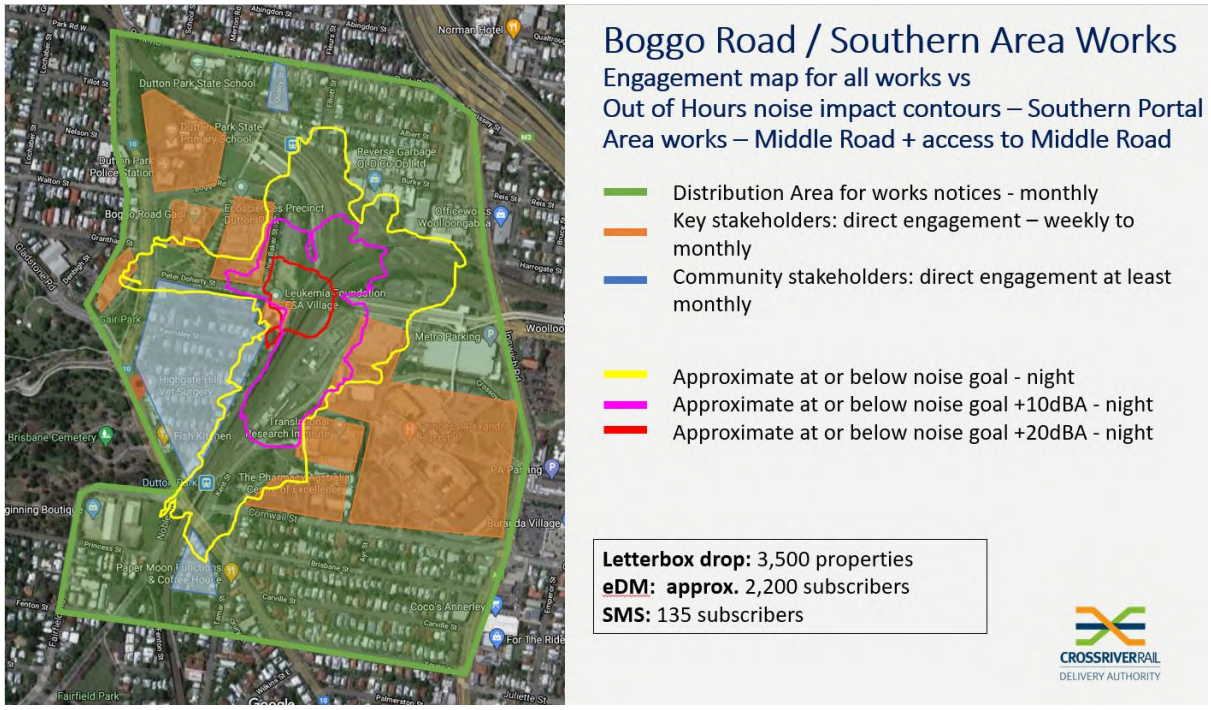

Figure 6: Boggo Road / Southern Portal Area works – notification/engagement areas

Consistent with the current endorsed Construction EMP, for Southern Portal Area works involving a period of 24/7 activities that include out of hours works:

- Notifications will be distributed across the area identified in Figure 6;
- Direct engagement will occur with key and community stakeholders shown in Figure 6, including consultation regarding predicted impacts and mitigation arrangements;
- Where the works are predicted to or monitored as generating noise levels more than 20dBA (LA10adj(15min)) above the relevant noise goal, consultation will be conducted with the potentially Directly Affected Person about particular predicted impacts and approach to mitigation measures developed on a 'case by case' basis with the Directly Affected Person, with mitigation measures incorporated into a mitigation register;
- Complaints will be managed consistent with the complaints management process provided under the endorsed Construction EMP CEP. Consistent with the CEP and as advised in works notifications previously issued to Boggo Road / Southern Portal distribution area, the Project can be contacted as follows:
    - Phone: 1800 010 875
    - Email: crossriverrail@cbgujv.com.au
    - Web: crossriverrail.qld.gov.au

4.3 Air Quality

Submitters have raised concerns about dust impacts from construction works at the Southern Portal Worksite, including associated with the Proposed Changes to the haulage route and construction methodology for the Southern Portal Worksite.

As identified in Sections 7.2 and 7.3 of Attachment E RfPC9 Volume 3 Technical Reports, the predicted concentrations and deposition rates for all pollutants and averaging periods are below the applicable air quality objective at all assessment locations.

Any potential dust impacts on nearby sensitive receivers will be managed in accordance with the existing EMF, which already applies to the CRR Project. The detail of the EMF is set out in Section 2.1 of Volume 1 of RfPC9 includes the Air Quality Management Plan (Sub-Plans to an endorsed

CEMP). The Air Quality Management Plan provides mitigation measures to manage any potential noise or dust impacts associated with the changed project.

4.4 Disruption to rail network

Submitters raised concerns about disruption to the operational rail network as a result of the proposed changes.

As stated in RfPC9, Volume 1, undertaking the Southern Portal Area Works will require periodic rail possessions and changes to rail services. Changes to rail services may include altered suburban stopping patterns or routes, and/or rail replacement services to link customers to and from impacted stations.

Travel disruption planning and management is coordinated well in advance of rail possessions with Translink, DTMR, QR and BCC. This process will be managed through an integrated, coordinated, multi-agency and multimodal response similar to the temporary bus diversion that was undertaken for Roma Street.

This approach ensures all Cross River Rail disruptions are planned and managed in consideration of other projects, events and activities across South East Queensland with the aim of keeping the city's transport networks moving whilst major construction projects are underway. A strategic and coordinated approach to delivering public communications that is based on analytics will ensure the public is informed well in advance of network disruptions, to minimise inconvenience and maximise the ability to plan their journey.

5. Updated Submission Information

An additional TIA was undertaken to support of proposed access route for the Southern Portal Worksite being Option 3 (Construction vehicles access via Boggo Road and egress via Peter Doherty Street). This TIA updates the Traffic Impact Assessment provided in the RfPC9 application under Attachment D of Volume 3 Technical Reports. This additional TIA is provided in **Attachment B**.

Based on the request from the Office of the Coordinator-General, a revised noise figure which overlays the construction work zones map at Volume 3 - Figure C1.2 with the noise catchment area map at Volume 3 - Figure 4.2 Noise Catchment Areas is provided in **Attachment C**.

As a result of reverting to construction traffic access Option 3, there is no longer a requirement to temporarily access land to support the changes to the Annerley Road / Peter Doherty Street intersection. All temporary land impacts associated with this change have been removed from the drawing set presented at Volume 2 of RfPC9. Updates to relevant General Arrangement and Property Impact Drawings are detailed in Table 4. Also included is an update to drawing CRR-003-CD-GA-216 to correct a construction methodology layer for the Albert Street cavern excavation.

CRRDA Drawing Number	Revision	Title	RfPC9 Changes	Drawing Changes
General Arrangement Drawings				
CRR-003-CD-GA-216	F	General Arrangement – Sheet 16	No	Correction of New Albert Street Station construction methodology layer from 'Trough Structure' to 'Station Cavern' as per the evaluated project. An incorrect layer was added to the drawing.
Property Impact Plans Drawings				
CRR-003-RP-GA-111	G	Property Impact Plans – Sheet 11	Yes	Removal of additional temporary requirement requested for Annerley Road and Peter Doherty Street intersection works.
CRR-003-RP-GA-112	F	Property Impact Plans – Sheet 12	Yes	Removal of additional temporary requirement requested for Annerley Road and Peter Doherty Street intersection works.
CRR-003-RP-GA-133	A	Property Impact Plans – Sheet 33	Yes	Removed this drawing sheet from Volume 2 as the additional temporary requirement requested for Annerley Road and Peter Doherty Street intersection works is no longer needed.

Table 4: Drawing amendments associated with removal of Annerley Road / Peter Doherty intersection works

For completeness, an updated General Arrangements and Property Impacts drawing set incorporating revised 'Key Plan' is provided at **Attachment D**.

6. Conclusion

The Delivery Authority has reviewed and responded to each of the submissions received in response to RfPC9.

In consideration of the submissions, and following further discussions with BCC, the proposed haulage and site access route arrangements for the Southern Portal Area works has been changed so that construction vehicles will access the Southern Portal Area worksite via Boggo Road / Joe Baker Street and exit via Peter Doherty Street. This provides a one-way circulation for construction vehicles and removes the need to upgrade the intersection between Peter Doherty Street and Annerley Road.

To support this changed methodology, an additional TIA has been undertaken, and is included at **Attachment B**. Construction traffic management will be addressed through an updated site-specific CTMP sub-plan, which will be developed in consultation with BCC.

As a consequence of the capacity limitations associated with the changed haulage methodology, additional working hours will be required in Zones B and C, in addition to Zone D. It is estimated that the change will require approximately 14 days of 24/7 works in Zones B and C.

Further information about noise impacts and the management of construction noise has been included in this report, including:

- information about engagement with Directly Affected Persons in accordance with the existing Imposed Conditions, the approved Outline EMP and the endorsed CEMP; and
- a revised noise figure overlaying the construction work zones with the noise catchment area map (**Attachment C**).

The assessments have demonstrated that the proposed changes to the Cross River Rail Project, carried out in accordance with the existing imposed conditions including the EMF, appropriately balances the delivery of the Project and the achievement of environmental outcomes.

It is requested that the Coordinator-General evaluate the requested change, including the requested amendment to Condition 1 of the Imposed Conditions.