COVERSHEET

THE UNIVERSITY OF WESTERN AUSTRALIA

Faculty of Engineering and Mathematical Sciences

Assignment, Report & Laboratory Coversheet for Individual & Group Assignment

SUBMITTING STUDENT		
SURNAME Huynh	**GIVEN NAMES** Trieu	**STUDENT NUMBER** 23728208
UNIT NAME Project Management and Engineering Practice		**UNIT CODE** GENG5505
TITLE/TOPIC OF ASSIGNMENT Brisbane Airport New Parallel Runway - Dryandra Road Works		**NAME OF LECTURER/TUTOR** Cosimo Faiello / Kelly Boden-Hawes
DATE/TIME DUE Monday 24th April 2023, 5:00 p.m.	**DATE/TIME SUBMITTED** Monday 24th April 2023, 1:00 p.m.	

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FOR GROUP ASSIGNMENTS ONLY	STUDENT NUMBER
NAME	
1. Fatima Akere	23733085
2. Trieu Huynh	23728208
3. Benjamin Montague	22734447
4. Bhat Adarsh Nagresh	23828099
5. Nicole Olver	22228999
6. Rayhan Santoso	22725128
7.	
8.	

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SIGN: Bhat Adarsh Nagesh	**SIGN:**
SIGN:	**SIGN:**
SIGN:	**SIGN:**
SIGN:	**SIGN:**

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Brisbane Airport New Parallel Runway – Dryandra Road Works Project

GENG5505: Project Management and Engineering Practice

THE UNIVERSITY OF WESTERN AUSTRALIA

Authors:
Fatima Akere (23733085)
Trieu Huynh (23728208)
Benjamin Montague (22734447)
Bhat Adarsh Nagesh (23828099)
Nicole Olver (22228999)
Rayhan Santoso (22725128)

Group D Wednesday 12PM to 1PM
Unit Coordinator: Cosimo Faiello
Workshop Facilitator: Kelly Boden-Hawes

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Word Count

Sections	Target	Word
Section A	1500	1779
Section B	2500	2629
Section C	2000	1537
Total	6000 ± 5%	5945

Disclaimer

This case study is solely an educational exercise. The content is in no way affiliated with, endorsed by or associated in any way with Brisbane Airport Corporation or any other organisation.

Acknowledgement

The writers of this report; Fatima, Trieu, Benjamin, Adarsh, Nicole, and Rayhan, would like to express our heartfelt gratitude to Kaushik Nandlal, Project Manager at Brisbane Airport Corporation, for providing us with valuable information and insights that proved instrumental in the successful completion of this report.

Throughout our interactions, Kaushik displayed an unwavering commitment to helping us obtain the information we needed, going above and beyond to ensure that we had access to all the necessary documents. His inputs helped us to better understand the complexities of the project. We are grateful for his time, efforts and support in helping us achieve our goals.

1. Executive Summary

This report provides an outline, analysis, and recommendations for the Dryandra Road Works project, which was a infrastructure sub-project of the New Parallel Runway project at Brisbane Airport. It was completed successfully, albeit two months later than initially anticipated. The project was evaluated using the stages of the project lifecycle and PMBOK project management competencies.

The primary challenge encountered during this project was a lack of available personnel resources in a highly competitive resourcing environment, as three other major infrastructure projects were taking place concurrently in Brisbane at the time. This impacted the procurement, human resources, quality, time, communication, and stakeholder management aspects of the project.

In light of these challenges, the report recommends several strategies to address these issues and prevent them in future projects. The recommendations include effective resource management, enhanced contract procurement, improved quality control measures, better communication, and relationship management.

Overall, this report provides insights for project managers and stakeholders on how to successfully manage and deliver large-scale infrastructure projects in a competitive environment, and how to navigate common challenges that may arise during project execution.

Abbreviations

ABC	Airport Building Controller
BAC	Brisbane Airport Corporation Pty Ltd
DRW	Dryandra Road Works
EIS	Environmental Impact Statement
HR	Human Resources
MCD	McConnell Dowell
MDP	Major Development Plan
NPR	New Parallel Runway
PMBOK	Project Management Body of Knowledge
PCG	Project Control Group
PMP	Project Management Plan
QA	Quality Assurance
RFI	Request for information
SMT	Senior Management Team
TBL	Triple Bottom Line

2. Section A

2.1. Project Background

Brisbane Airport's New Parallel Runway (NPR) project was undertaken by the Brisbane Airport Corporation Pty Limited (BAC), in Queensland, Australia. The new runway doubled Brisbane Airport's capacity and accommodated the forecasted growth of domestic and international travel through the airport. The NPR project's planning spanned 7 years from 2005, construction took 8 years, and the final cost was $1.1 billion. Despite the project's size and complexity, BAC delivered it within scope, on time and under budget by $200 million (BAC, 2019). As the scope of the overall project was vast, this case study will focus on one of its major sub-projects, the Dryandra Road Works (DRW) project.

Figure 1: Key statistics from the NPR project (BAC, 2020)

The DRW was a contract in the second phase of the NPR project. Due to the planned construction of taxiways linking the NPR to the existing runway (see Figure 2), construction of the Dryandra Road underpass was essential to ensure continued road vehicle access between the Domestic Terminal and the airport's northern facilities, such as the General Aviation precinct and Plane Spotters' Area. The project was worth $120 million (BAC, 2019).

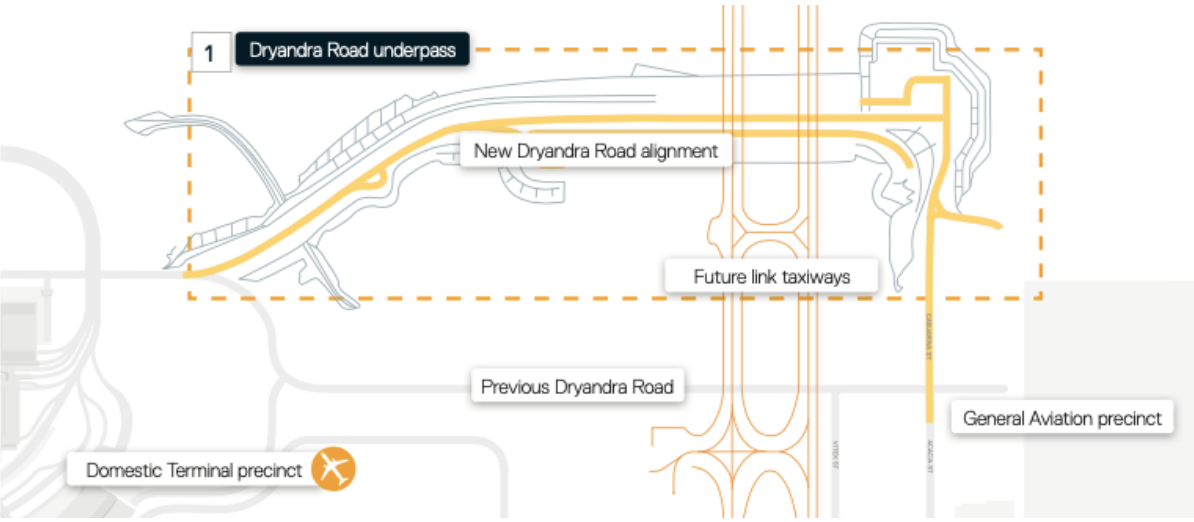

Figure 1: Dryandra Road underpass (BAC, 2019)

The major works involved were (BAC, 2017):

- Diversion of the Dryandra Road and associated roadworks,
- Construction of the underpass structure to support aircrafts,
- New and relocated critical utilities, including potable water, sewer, power, communications and security systems, and
- Bulk earthworks, including movement of 750,000 m^3 of sand.

2.2. Environmental and Social Impact

BAC's project planning and delivery demonstrated a commitment to the triple bottom line (TBL) approach, with consideration of environmental and social factors. This aligns with sustainable development principles and underscores BAC's dedication to sustainability.

Brisbane Airport is located on the coast and is surrounded by commercial and residential suburbs, industrial areas, and various important wetlands, floodways, and water systems. As such, environmental concerns were paramount. The planning, construction, and completion of this project accounted for the potential impacts on all these systems. BAC obtained all relevant environmental approvals from local, state, and federal governments. A federally approved Construction Environmental Management Plan was developed and used throughout the project (BAC, 2019).

Social impacts were also considered, including:

- The effects on air quality from dust, plant, and vehicle pollutants,
- Noise from construction activities,
- Visual pollution of areas nearby, and
- Increased traffic levels during construction.

These were managed with extensive community engagement and mitigation measures developed in Environmental Compliance Plans (BAC, 2007).

2.3. Project Stakeholders:

As per PMBOK, a stakeholder is defined as someone or something that may or may not benefit from a project but can significantly impact its outcome. Different stakeholders have different levels of power and interest in the project, so identifying and engaging with stakeholders appropriately was a priority for BAC and crucial for the DRW project's success (Hartley, 2018).

2.3.1. External

A major external stakeholder of the overall NPR project was the Australian Government's Department of Transport and Regional Services, which was responsible for approving all aspects of the project and appointed the Airport Environment Office and Airport Building Officer to administer legislation regarding the project (BAC, 2007). Other major external stakeholders were all the groups directly affected by the project, including airlines and businesses operating out of the Brisbane Airport, and residents and community facilities in the surrounding area that were potentially affected by noise, air pollution, and changing road and air traffic conditions. The engagement and communication methods with these groups was planned in BAC's Phase 2 Stakeholder Engagement Plan and is summarised in Attachment 3 of Phase 2 Construction Communication Plan (BAC, 2018).

Community Engagement

The community surrounding the area of the NPR were a very large, important stakeholder group, since it had the potential to be significantly impacted by the construction and operation of the new runway, and also held power through the Australian, state and local government to influence

decisions. BAC engaged in an extensive community consultation and engagement process as part of the NPR concept phase. This included writing and releasing an Environmental Impact Statement (EIS) and Major Development Plan (MDP), which looked at the construction and operational impacts of the new runway, and invited public commentary (BAC, 2023). This EIS/MDP was prepared by over 30 consultancy teams that BAC commissioned with the task, and was prepared over 2005-2006, before being taken to the public in 2007 (BAC, 2012). BAC also created a website, a Community Experience Centre, and a dedicated email address and phone line to allow members of the community to find out more information, as well as running regular information sessions, and a Community Forum, where feedback was received from the public.

Specific to the DRW project phase, there were additional public communication tools implemented during the execution of the project, such as a project enquiry phone line, media releases, social media, site visits and milestone events, and advertising. The procedures for these communications styles are outlined in BAC's Phase 2 Construction Communication Plan (BAC, 2018).

2.3.2. Internal

BAC Team

Major internal stakeholders for the DRW project were the NPR team and senior management team (SMT). Communication within the NPR team was conducted through team emails and weekly meetings. The SMT held monthly Project Control Group (PCG) meetings (BAC, 2018).

Service Providers

Other major stakeholders were the two main external service providers engaged for the project, Jacobs and McConnell Dowell (MCD).

Jacobs was contracted to design the DRW underpass and associated works. They were initially engaged in 2015 for the design phase, and remained part of the project to deliver construction support services, and commissioning (Mr K Nandlal 2023, pers.comm., 5 Apr).

MCD were tendered as the head contractor for the construction of the DRW project. They were also in charge of designing minor components. MCD engaged a high proportion of subcontractors throughout the project (Mr K Nandlal 2023, pers.comm., 5 Apr).

2.3.3. All Project Stakeholders

A complete list of DRW stakeholders can be found in Appendix 1.

2.4. Project Timeline

Construction of the underpass was planned to commence in March 2017 and be completed in August 2018, however the actual start date was May 2017 and it was officially opened to traffic in October 2018. A progress chart of the major milestones for the DRW project can be seen in Figure 3, which was adapted from the Dryandra Road Traffic Switch Progress Chart provided by BAC (BAC, 2017).

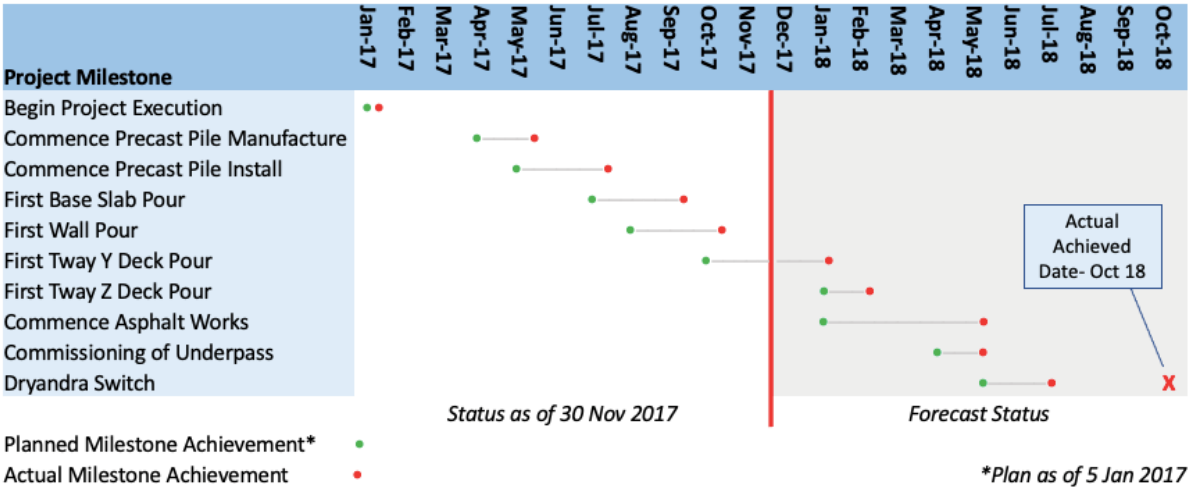

Figure 3: Dryandra Road Traffic Switch Progress Chart

As seen, the actual execution of the project took longer to deliver compared to the original plan from January 2017. The final major milestone, the switch of traffic from the existing Dryandra Road to the new underpass, can be used as a benchmark to gauge the project timeline. Contractually, this milestone was set to be reached by 4 July 2018. The January 2017 plan set the target to reach this milestone by 24 May 2018, giving a 41 day 'buffer' zone between the planned and the contracted

completion (BAC, 2017). Despite having this buffer, the traffic switch was still delivered months late, officially opening in October 2018.

2.4.1. Time Management

Initially, MCD produced a detailed construction program which tracked critical activities for the project. However, the team faced challenges in adhering to the initial program, possibly due to lengthy QA processes. Tracking the project was done well with monthly reports, and extension of time requests were submitted and granted early enough to minimise the length of the project (Mr K Nandlal 2023, pers.comm., 15 Apr).

2.5. Procurement Management

BAC undertook a rigorous procurement process where the contract for design was awarded to Jacobs. The engineering services provided by Jacobs included concept development, creation of detailed design documentation, provision of technical support during construction, and obtaining certification of compliance from the Airport Building Controller (ABC).

The relationship-based contract for construction was awarded to MCD based on a competitive offer with innovative construction methodology. Although it was a construct-only contract, it involved multiple design tasks that proved to be challenging for MCD. BAC made every effort to communicate the design requirements of the contract during the tendering process and after the contract was awarded. However, due to the project's complexity and the highly technical nature, it presented challenges that were not typical for many contractors (Mr K Nandlal 2023, pers.comm., 12 Apr).

2.6. Human Resource Management

At the time, resourcing was a significant challenge not only for this project but for all infrastructure projects in the Brisbane area. This was due to the concurrent occurrence of three other major projects, namely the Kingsford Smith Drive upgrade project (worth $650 million), the Gateway Upgrade North project (worth $1.1 billion), and the NPR Airfields Works project (worth $400 million). Increased demand for limited available resources posed significant challenges, and impacted time management, quality management and relationships (Mr K Nandlal 2023, pers.comm., 12 Apr).

Additionally, several personnel changes occurred during the project, including the default of a major subcontractor for external reasons in the middle of the project (Mr K Nandlal 2023, pers.comm., 4 April). While the final product was delivered to specification, it may have made it difficult to maintain consistency in relationship management throughout the project.

It is also common for teams to experience initial teething issues in the forming and storming stages of team development (Hartley, 2018), and this project was no exception. BAC and external service providers encountered challenges in their working relationship that were addressed by HR and Team Management Plan developed by BAC (BAC, 2017). A formal relationship process, which involved facilitated workshops, development of a relationship charter, buddy system and various follow-up procedures were used.

2.7. Quality Management

Ongoing quality control is an imperative iterative process to ensure the final project handed over is up to the standard defined in the early life cycles of the project. At the time of personnel resourcing on the project, MCD were faced with difficulties in resourcing due to its challenging environment which may have impeded the required QA process. MCD may have also struggled with the quality compliance documentation because they may not have as much experience in major aviation projects and they were not well-versed in the industry's standards and expectations in comparison to BAC.

2.8. Project outcomes

Overall, the project was deemed successful by both BAC and MCD, and a high-quality outcome was delivered with no major defects to date. However some challenges were encountered during construction:

- The opening of the underpass was several months late, which had the potential to delay the subsequent Airfield contract. However, due to good planning, float from the overall program allowed the NPR to still be delivered on time.
- Some areas of the project experienced challenges stemming from difficulties in resourcing.

3. Section B

3.1. Introduction

As a project progresses, it moves through different stages of project evolution, each with their own key objectives, stakeholders, activities and outcomes. These stages are known as 'life-cycle' stages. For many projects, it is appropriate to identify four clearly defined life-cycle stages: concept, planning, execution, and finalisation (Hartley, 2018).

The project idea is devised and explored in the 'concept' stage. This stage for the DRW commenced in 2005, when the Dryandra Road underpass was considered in the concept of the overall NPR project to allow for the optimal location of the linking taxiways.

The 'planning' stage involves all project work being planned, scheduled and costed. The planning stage can be considered as occurring between 2015, when Jacobs was engaged to complete the detailed design of the project, to early 2017, evidenced by the output dates of documents such as the PMP (BAC, 2017) and Construction Program (BAC, 2018).

The 'execution' stage sees construction commence and includes monitoring, reviewing, and correcting the progress of the project according to plans created in the previous stage. The execution of the DRW project, as previously mentioned, was from May 2017 to October 2018.

The project is completed, contracts are closed out, and deliverables are handed over to the client in the 'finalisation' stage. This stage may also include an evaluation of benefits from the project. This stage took place after construction was completed in October 2018.

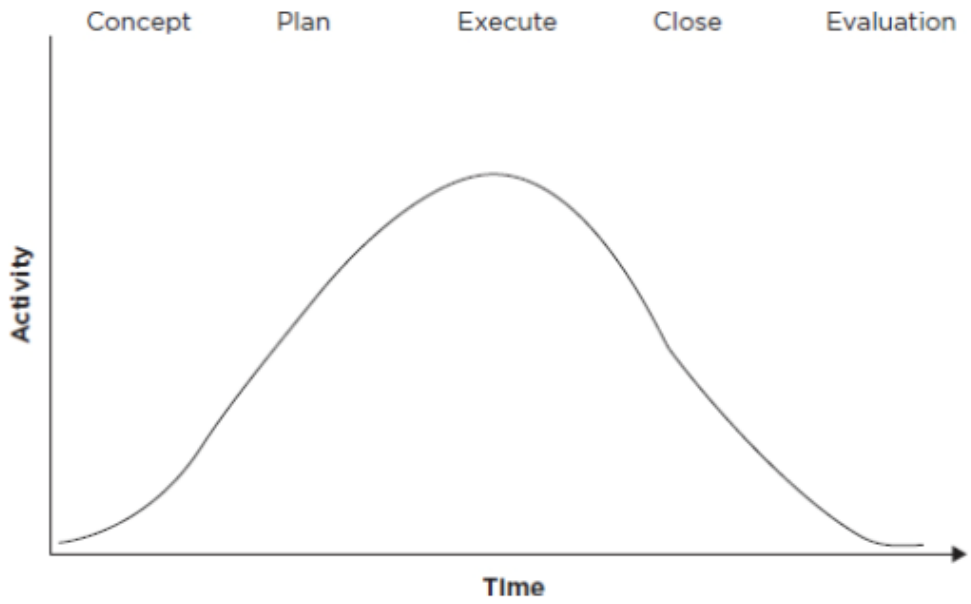

Figure 4: Activity vs Time over Project Lifecycle (Hartley, 2018)

Figure 4 shows the amount of activity typically involved in a project as it progresses through its lifecycles. This is reflected in this case-study analysis, where most challenges were identified to occur in the planning and execution stages, which is also where most of the project action took place.

3.2. Concept

3.2.1. Stakeholder Management

3.2.1.1 Stakeholder engagement

As mentioned in Section A, BAC engaged in extensive community consultation during the concept phase of the NPR project. BAC should be commended on the depth and breadth of their communication tools, and the respect they displayed to the community by allowing feedback from the public and addressing this in further reports.

It may be deemed unnecessary to undertake significant community engagement specifically for the DRW phase of the project, since it was included in the overall project which was presented to the public. BAC evidently held this view since their communication plan reflected this, and their engagement methods, particularly the EIS/MDP report and feedback system, were very thorough. However, this process was carried out in 2007-2008. Due to unforeseen events such as the Global Financial Crisis, and the sheer scope and complexity of the project planning, the execution of the entire project did not begin until 2012, and the DRW sub-project began in 2017. There was nearly a 5-year gap between the conduction of the public engagement and the commencement of the project, and nearly a decade to the commencement of the DRW.

The primary purpose of the EIS/MDP report was to gain government approvals for the project, but it also served as a significant source of public information, and more importantly, it specifically invited public input. BAC did continue the use of the communication tools detailed in section 2.3.1 throughout DRW, such as the dedicated phone line and email address, website, and media releases. However, the comprehensive EIS/MDP report, or an equivalent communication method which expressly sought public input and concerns, was not revisited or undertaken a second time, despite the extensive time span between when it was conducted and the conclusion of the NPR project.

This is an issue since there would be members of the community who moved into the area during this time, and interest and concerns within the community could have changed over this period. Without the comprehensive community engagement, there were limited ways in which these could be expressed to BAC, compared with the active engagement period in 2007/08. BAC went above and

beyond using all the correct tools, but the significant timelapse between when the public was engaged and when the project commenced likely lessened their effectiveness in capturing the true needs and being able to address the concerns of the community.

3.3. Planning

3.3.1. Quality Management

3.3.1.1 Resourcing Allocation

At the start of the project, MCD experienced difficulties in securing sufficient resources, mainly due to a skill shortage and many on-going projects. MCD's resourcing ultimately was spread thin across the project and this resulted in some less experienced professionals having very limited access to senior guidance. As a result, this factor likely contributed to why they may not have fully appreciated the extensive quality requirements and the difference in expectations between MCD and BAC. Given the complexity, technicality, and onerous nature of the quality requirements, it is possible that MCD did not initially comprehend them entirely. Conversely, BAC had a strong grasp of the requirements due to their extensive experience in the industry and prior involvement in the front-end design and were able to step-in and guide the quality assurance process directly.

3.3.2. Procurement Management

3.3.2.1 Contract documentation

A significant challenge for BAC and MCD was the management of extensive and onerous requirements and specifications. The works involved were complex and highly technical, which necessitated the development of comprehensive and detailed contract documentation. Contract documentation is a crucial form of communication between parties and can easily become cumbersome and confusing. Due to the confidential nature of contract documentation, it was unavailable for analysis. However, given the project's vast scope it may be inferred that it was difficult for contractors to navigate and fully appreciate the requirement documentation.

3.3.2.2 Contract procurement

Several key personnel nominated in the tender by MCD were not available at the start of the contract, leading to a slight issue with staffing all positions in the organisational chart (Mr K Nandlal 2023, pers.comm., 16 April). Nominated key personnel are usually chosen for their expertise and experience. However, in the context of the difficult resourcing environment, it may have been difficult to source replacement personnel with comparable expertise. Although personnel changes are quite

common on large projects, a long period between the early stages of procurement and contract award may have increased the likelihood of this occurring.

3.3.3. Human Resource Management

3.3.3.1 MCD's subcontractor management

The scope of work performed by MCD themselves was small in comparison to the work performed by subcontractors (Mr K Nandlal 2023, pers.comm., 16 April). The use of subcontractors is common in large projects, but management of multiple subcontractors introduces challenges and complexity. Effective project management, communication and coordination is required to ensure their work meets the requirements and objectives of the project.

3.3.3.2 BAC team

As seen in Figure 5, BAC, as the client, had a well-resourced and dedicated project team consisting of a mix of project managers, engineers, inspectors, quality personnel, safety personnel and administrative personnel (BAC, 2017). This is an unusual approach, as most clients do not dedicate such extensive resources to supervise works, however it can be an effective way to ensure the project meets requirements and expectations are met.

This approach would have allowed BAC to have a more hands-on approach to managing the project's technical and quality requirements. However, it could have also introduced potential issues in the client-contractor relationship. For example, the contractor may have seen the client team as being too involved in the project's operations, creating a situation where the contractor's authority and ability to make decisions is compromised. It may also cause a heavy reliance on the client to manage and deliver the project.

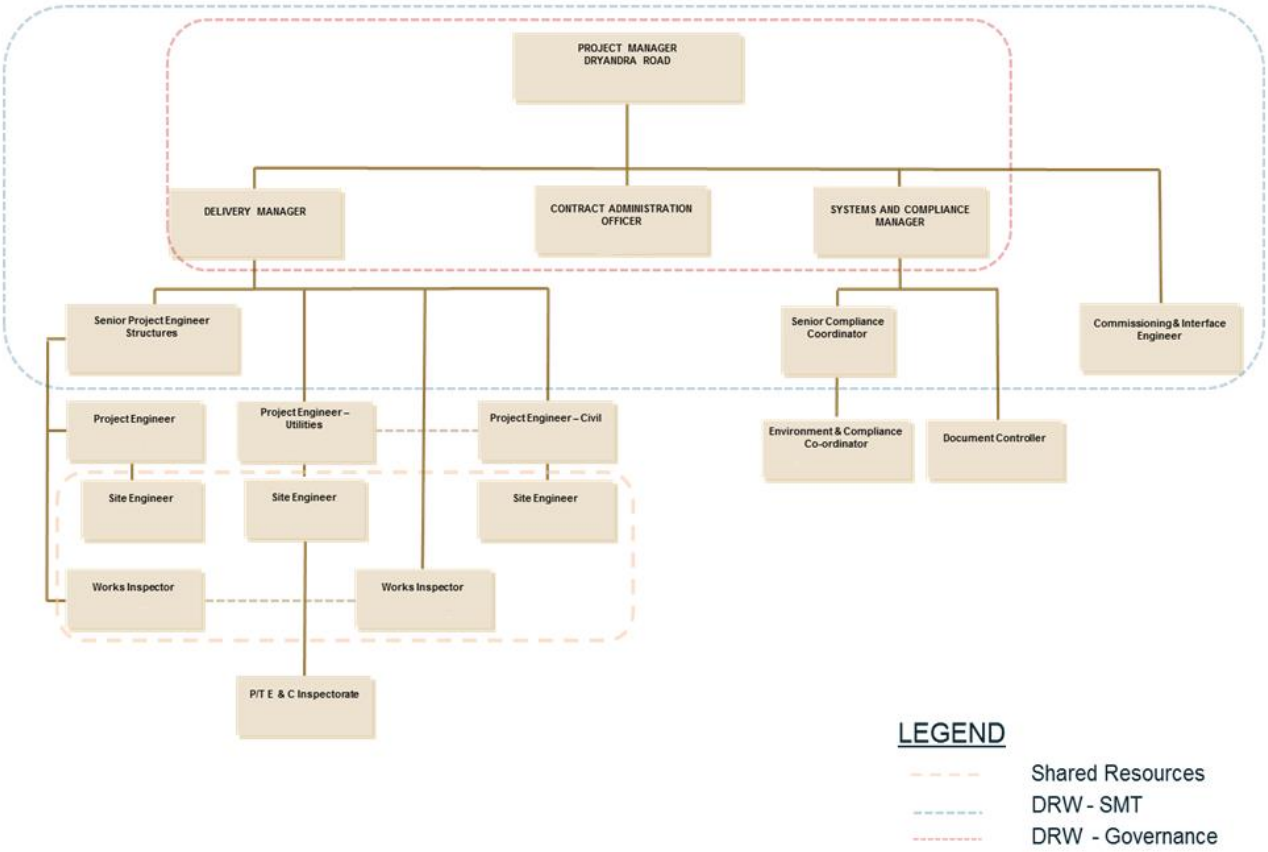

Figure 5: BAC's Organisational Structure for DRW (BAC, 2017)

3.4. Execution

3.4.1. Quality Management

3.4.1.1 Quality compliance documentation

The delta between the parties created different understandings regarding the requirements of the design, which lead to a large amount of scrutiny from BAC and request for information (RFI) memos to clarify details from MCD to prevent further reworks later (Mr K Nandlal 2023, pers.comm., 04 April). As a result, the back-and-forth discussions were vital and assured in the end that the quality of the work was not compromised but this came at the cost of time when time was already a significant constraint.

3.4.2. Procurement Management

3.4.2.1 Head contractor personnel management

As stated earlier, a significant proportion of works in the project were carried out by subcontractors under MCD's management. However, due to a difficult resourcing environment, there was a high turnover of personnel, including the default of a major subcontractor midway through the project due to external factors Finding suitable replacements or filling gaps with new subcontractors could have been a challenging task for MCD. It may have placed additional pressure on MCD who were already dealing with the complexities of managing multiple subcontractors.

In addition, managing the necessary QA requirements may have become more challenging, as MCD would have had to communicate these requirements to replacement subcontractors and ensure their understanding of them. The process of communicating such onerous requirements was necessary but had the potential to impact the project timeline. Establishing good rapport between the replacement subcontractor, MCD and BAC would also be crucial, but involves a significant amount of time and effort.

3.4.3. Human Resource Management

3.4.3.1 Relationship management

Relationship issues are not uncommon for large projects involving many personnel, and the DRW project was no exception. Several factors may have affected these issues, including:

- A constrained resourcing environment that stretched personnel thin. At the beginning of the project, MCD did not have a full team, and personnel had to cover gaps in the organisational chart, potentially causing stress and strain.
- In contrast, BAC were well informed, amply resourced, and able to assist with quality management, which was a great help in ensuring quality standards were met. Although there is no evidence to suggest this notion, MCD could have perceived BAC's involvement as disempowering or indicative of a lack of trust, potentially affecting their relationship.
- Managing multi-generational teams can be challenging, especially given the diversity in personnel with regards to ages, experience, attitudes, and personalities. Lack of available resources meant that MCD employed some graduate engineers, who potentially had limited experience and different expectations. This may have led to some challenges in a high-stress, deadline-driven environment. However, BAC responded by implementing a buddy system where senior engineers from BAC supported junior engineers from MCD, creating a supportive and collaborative environment that equipped less experienced engineers to navigate unfamiliar QA processes and requirements (Mr K Nandlal 2023, pers.comm., 16 April). This also demonstrates BAC's commitment to professional development.

The implementation of BAC's HR and Team Management Plan (see Figure 6) facilitated a formal relationship process, which was successful and a good working relationship was established between all parties. This was also evidenced by some personnel describing the project as highly challenging, but equally rewarding (Mr K Nandlal 2023, pers.comm., 12 April).

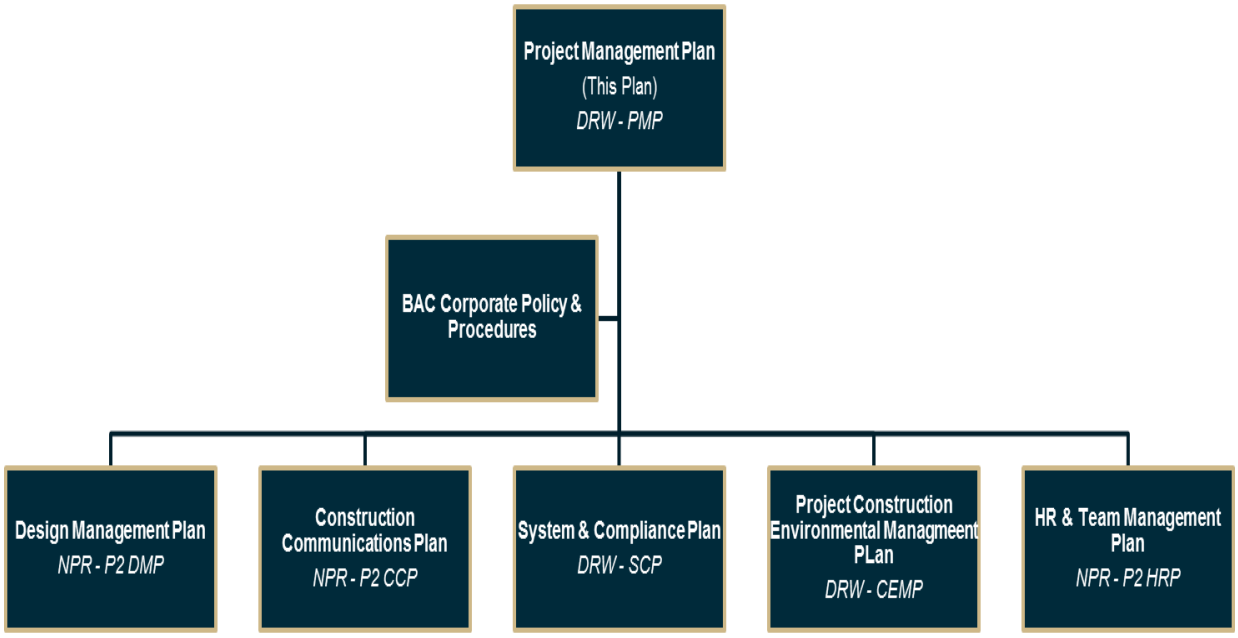

Figure 6: Management Plan Framework, including HR & Team Management Plan (BAC, 2017)

3.4.4. Communication Management

3.4.4.1 Communication Structure

Due to the approval structure of all companies involved, and the challenges faced by MCD when staffing their team for this project, there were some inefficiencies in the way decisions and approvals were communicated between and within involves parties. It was reported that communication regarding any changes being sought was relayed through each intermediary party before making its way to the recipient, and sometimes stalled within a company as it required escalation for approval (Mr K Nandlal 2023, pers.comm., 17 April). Figure 7 displays this reported communication structure that was present during the project.

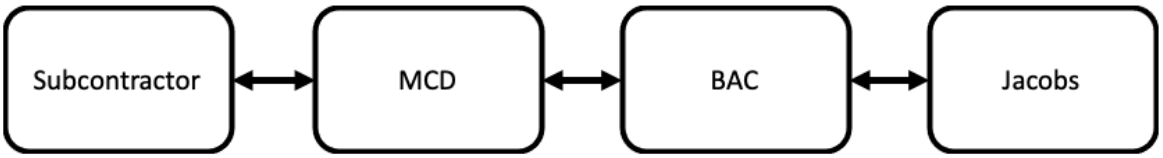

Figure 7: Communication paths within DRW project

This process was slow and inefficient. Whilst it could be attributed to inappropriate communication medium and frequency, this was not the case, as regular meetings and notices can be seen to be scheduled with all major stakeholders in BAC's PMP (BAC, 2017). Communications between MCD and their subcontractors were not acquired for inspection, but it must be assumed that they also had appropriate communication methods in place, since they were dealing with a large number of companies and the project was an overall success, a feat that would not be achievable without proper communication.

Instead, this problem likely occurred due to a lack of senior representatives present at the project site from key stakeholders. This meant that, if decisions had to be made, there were not always team members present with the authority to give approval, and therefore any changes had to be escalated and communicated through company levels, instead of immediately being resolved. This was caused by the difficulties faced when acquiring staff for this project, and the subsequent potential understaffing. It could potentially also be attributed to companies keeping decision-making power at high levels, instead of allowing employees to have autonomy and approval power. This could be justifiable and necessary for the companies to ensure decision-makers have enough experience and knowledge, but can cause the communication process to become prolonged.

3.4.5. Time Management

3.4.5.1 Construction program

Another problem that occurred during the execution phase of DRW was the difficulty that MCD faced with completing the complex and challenging tasks of the project, made all the more challenging by the aforementioned staffing challenges and high staff turnover. This is evidenced by the project taking longer than expected, as discussed in the above section 2.4. Particularly in the initial phase of the

project, the staffing issues, coupled with an unavoidable teething phase at the beginning of a project when the project processes and team dynamics are settled into, caused the execution of the project to begin later than initially planned (see progress chart in Figure 3).

MCD produced a detailed construction target program, which was revised as necessary. An intricate system was used for tracking activity in the program, indicating not only the progress of the actual work and the remaining work, but also any work on the critical path, and key project milestones (BAC, 2018). The legend used for MCD's construction program is shown in Figure 8.

Figure 8: MCD Phase 2 Construction Program Legend (BAC, 2018)

This crucial time management tool was used appropriately, particularly in its capability in identifying critical works, and thus cannot be deemed to be the cause of the problem. As such, it can be attributed to the lack of available human resources and high staff turnover, and the consequential limited capabilities of the MCD team, particularly in the beginning of the project.

3.5. Finalisation

3.5.1. Quality Management

3.5.1.1 ABC Certificate of Compliance

During the finalisation of the project, a certificate of compliance must be issued by the project's elected airport building controller regarding the acceptance of works completed as outlined in section 3.04 of Airports Act *1996* (Cth).

In the instance of this project Jacobs was employed to certify the compliance of the works. This may have posed a conflict of interest due to the inherent biases Jacobs would possess regarding their own design. Being the designer of the project, it places Jacobs in a position where they are much more likely to defend their own design specifications due to their in-depth understanding of the design, rather than accept alterations and partially concede blame for a defective or not realistically feasible design given the constraints of the project. The lack of an impartial certifying entity potentially contributed to prolonging the certification process.

3.5.2. Communication Management

There were no identifiable problems with communication in the finalisation stage. However, it should be noted that BAC commissioned Program Delivery Services and iConnect Consulting to conduct an independent lessons learned review of the contractual and relationship aspects of construction, after the DRW project was concluded (Mr K Nandlal 2023, pers.comm., 16 April). Whilst the project undoubtedly had challenges, it is to be commended that BAC took the step of producing this document. It provided valuable insights from all major stakeholders involved, highlighting what did not work well (Rowe & Sikes, 2006).

4. Section C

This section details recommendations proposed to address the procurement, communication, human resource, quality and stakeholder management issues analysed in Section B. These recommendations are intended for consideration by BAC to help prevent or address the challenges experienced during the DRW project. Furthermore, if similar issues arise in future projects these recommendations can be readily implemented, leading to more favourable outcomes.

4.1. Managing resource constraints

Resourcing constraints were a major issue for this project and affected many aspects of the project such as human resource, quality, time, and communication management. This was largely out of BAC's control due to an environment where competition for personnel was high and availability was limited. However, if they have not already done so, BAC may want to consider the following suggestions going forward to better prepare them for a similar situation in the future:

- Review the allocated budget for resourcing and consider increasing it to improve the chances of successfully securing personnel. Although budget and cost information was unavailable for analysis, it is worth noting that the overall NPR project was under budget by $200 million, indicating that BAC may have had the capacity to increase the budget.
- Develop and implement a contingency plan for inadequate resources, which would have been identified in a risk register. The plan could include restructuring the organisational chart so that personnel can cover areas that need additional resources, upskilling existing personnel, and other relevant measures to address the constraints.

These two strategies may help ensure an adequate number of skilled personnel are available to carry out the intended works of the project, ensuring high quality outcomes and less stress on existing resources.

4.2. Contractor procurement

The management of detailed and complex QA requirements were challenging for the head contractor in this project. To increase the understanding of requirements by all parties prior to contract award, BAC could consider conducting interviews and workshops involving key leaders and project

managers of shortlisted tenderers in the final stages of procurement. This approach would allow a better understanding between BAC and the tenderer through a rigorous review of the following areas:

- Clear understanding of the requirements and constraints of the contract, demonstrating that the tenderer appreciates any complex requirements, and can accurately estimate the necessary resources, time and costs.
- Subcontractor management, especially where a significant proportion of work will be completed by subcontractors, with clarification of roles, responsibilities and accountability for the management of subcontractors. This ensures that subcontractors fully understand the quality requirements and demonstrates whether contingency plans are in place to deal with constrained resources and the replacement of subcontractors.
- Roles, responsibilities and accountability for QA management.

This additional activity can provide valuable insight into the potential tenderer's capabilities and experience, whilst clarifying requirement expectations between both parties.

4.3. Contract documentation

For extensive and onerous requirements where confusion can easily result, contract documentation detailing requirements and specifications should be as clear as possible. To ensure clarity, documentation should be critically reviewed to assess that they are fit for purpose and easily understood by tenderers. The approach taken to developing requirements should include:

- Reviewing the quantum and purpose of requirements. All requirements should be real, relevant and important to minimise excessively long documentation.
- Ensuring requirements are clear, consistent, and structured to improve understanding by tenderers.
- Prioritising the ease and practicality of use of the requirements.

By implementing these strategies, the efficacy of contract documentation in effectively communicating the requirements can be improved. This in turn enables tenderers to accurately plan resources, time, and costs. A more precise estimate can be given by contractors to BAC, and this would ensure that BAC's expectations can be met.

Furthermore, having staff with more familiarity with the QA process could have facilitated smoother execution, given the extensive QA requirements. Whilst this may have been out of the control of project managers in this project due to scarce resources, BAC could consider the following contract inclusions to increase the likelihood of obtaining staff with relevant QA experience:

- Specifying the minimum years' relevant experience for all key management and technical roles in the contractor's organisation structure.
- Including a requirement for tenderers to prove that their personnel meet the minimum criteria and key responsibilities for all roles in the proposed organisation chart, including qualifications, minimum years' experience on similar projects, and experience in similar roles.
- To help deal with high turnover of personnel, a provision for any replacements of key personnel to meet the minimum criteria in the tender and be subject to review and approval by BAC.
- Performance incentives or penalties to motivate contractors to focus on personnel retention, and to meet time and quality requirements (Hartley, 2018).

Considering the above contract documentation inclusions can help secure personnel who are more capable of handling the quality requirements, leading to potentially less time delays and rework.

4.4. Communication

To deal with high turnover of personnel and ensure continuity of project, especially with regards to quality management, the following communication strategies can be considered:

- Maintaining clear and open communication with contractors and subcontractors. This can help identify potential personnel turnover early on, and address any issues as they arise, improving personnel retention.
- Proper documentation and knowledge transfer. Clear, precise and up to date documentation of project tasks and responsibilities is critical in facilitating the seamless transfer of knowledge. Personnel will be able to more effectively step in and assume their new roles, reducing the disruption to the project's schedule and quality.

4.5. Relationship management

Although a HR and team management plan was in place and allowed for a formal relationship process, it would have been ideal to prevent any issues from arising in the first place. Placing a greater focus on understanding personality differences and encouraging collaboration and teamwork throughout the life of this and future projects may help improve relationships.

With regards to personality differences, diversity in a team should be encouraged and embraced, but a better understanding of team members' personalities can help identify where potential misunderstandings and miscommunications may occur and how to deal with them. A widely used tool is the Myer-Briggs Type Indicator (MBTI®), which indicates an individuals' preferences with how they communicate and interact with others (Hartley, 2018). Information gleaned from MBTI personality assessments can be used by project managers to ensure team members are performing in roles that play to their strengths, facilitate team discussions, improve communication, identify potential conflict, and build stronger teams (Smith, 2001).

The relationship may also benefit from a greater focus on collaboration and teamwork through activities such as:

- A joint relationship workshop with BAC and MCD at the commencement of the contract. This could have helped cultivate a unified team mindset, fostering a shared philosophy of collaboration to achieve overall project objectives. It would also aid in establishing a foundation for expectations, processes, and behaviours during the contract.
- Setting regular milestones to acknowledge achievements and reward performance (Hartley, 2018). This will help build trust, provide an incentive for meeting expectations, and create a positive work environment.

These activities will help encourage a culture of mutual respect and open communication, which in turn can lead to better collaboration, innovation and productivity.

4.6. ABC Certification Process

The allocation of Jacobs to conduct the certification of works process opened the project up to the risk of delay due to disagreements stemming from bias. In the future, it is recommended that this process is to be carried out by an independent party. This will in turn remove the bias from the certification process. A third-party certifier can achieve this through allowing deviances from the original design to be approved or disapproved in a neutral environment whilst keeping the focus on certifying works safely, fairly and in a timely manner that protects the project schedule. Hence, delays due to disputes regarding what party is to blame for the change, such as arguments regarding if it was the designer's poor design or the contractor's poor work, can be kept to a minimum because the certifier of the works has no conflicting interests. It should be noted that although a third party will assume the position of the certifier, all stakeholders such as the contractor and the designer will still be appropriately consulted throughout the process to ensure all considerations are heard which will ensure the integrity of the process.

4.7. Stakeholder engagement

As addressed in Section 3.2.1, the large timespan between extensive community engagement and the execution of the NPR project, particularly the later stages including DRW, had the potential to cause BAC to depart from community expectations. The public community is a major project stakeholder, and hence has the capability to hold BAC accountable for their social and environmental impacts, and ultimately has a say in the overall success of the project (Turcotte, 2012).

To maintain maximal public engagement and satisfaction, it is recommended that BAC invest in a secondary report, similar to the original EIS/MDP, to be distributed amongst the community and inviting feedback, for projects that take place over many years. This will allow BAC to understand the priorities and concerns of the public, including capturing any change that has occurred since the first process. This would have the potential to enhance the relationship with the community and ensure their satisfaction with the project outcomes.

5. Conclusion

The Dryandra Road Works project can be deemed an overall success. Despite being delivered several months late, it did not ultimately delay the completion of the overall New Parallel Runway project. The newly constructed Dryandra Road underpass represents a crucial piece of infrastructure contributing to the ongoing success of Brisbane Airport. Its successful completion is a testament to the project team's hard work and dedication.

Like many large projects, several issues arose throughout this project's life cycle. These issues were examined in the context of the PMBOK project management competencies, revealing difficulties in the areas of human resources, procurement, quality, communication and time management. The key issue faced was lack of resourcing in a highly competitive resourcing environment, which had cascading effects on the relationship between BAC and external service providers, the project's QA process, communication, and the overall schedule.

To prevent similar challenges in future major projects, several key recommendations are proposed, including strategies for better resource management, more robust contract procurement, enhanced quality control measures, and improved communication and relationship management. These recommendations may help BAC to continue delivering successful outcomes on future projects.

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7. Appendices

7.1. Appendix 1: Stakeholder List

The DRW stakeholders can be categorised in six major groups: BAC, government, industry, community, and media. The members of each group are summarised in the list below (BAC, 2018):

BAC	Internal	• NPR team • Senior management team/board • BAC general staff
	NPR contractors	• McConnel Dowell • Jacobs • Subcontractors
	Third parties	• Air services • Traditional owners
Government	Federal	• Elected government representatives and officers
	Queensland state	• Regulator agencies management and officers
Industry	Aviation	• Airlines • Airport tenants • Emergency Services
Community	Residents	• Residents in airport neighbouring suburbs
Media	Traditional	• Print • Radio • TV
	Social	• BAC and NPR website • Social media

7.2. Appendix 2: Correspondence log with Kaushik Nandlal

Correspondence took place with Kaushik Nandlal, project manager at Brisbane Airport Corporation, to obtain information and documents regarding the NPR and DRW projects. Trieu Huynh was the main point of contact.

Date	Method	Summary
8/3/23	Email	Introductions.
13/3/23	Email	Setting up meeting.
15/3/23	Teams meeting Attendees: Trieu Huynh, Nicole Olver, Bhat Adarsh Nagresh	Initial request for documents and information.
15/3/23	Email	Various project documents received with thanks.
21/3/23	Email	Various project documents received with thanks.
30/3/23	Email	Various project documents received with thanks. Setting up another meeting.
5/4/23	Teams meeting Attendees: Trieu Huynh, Nicole Olver, Bhat Adarsh Nagresh	Information and insights provided.
5/4/23	Email	Various project documents received with thanks.
11/4/23	Email	Draft case study submitted for review by BAC.
12/4/23	Teams meeting Attendees: Trieu Huynh, Nicole Olver	Feedback received from BAC and changes to case study discussed.
15/4/23	Email	Additional information and comments provided.
16/4/23	Email	Additional information and comments provided.
17/4/23	Email	Deadline for submission to BAC decided.
19/4/23	Email	Draft case study submitted for review by BAC.
21/4/23	Email and phone call	Final feedback received from BAC.
23/4/23	Email	Final copy of report submitted to BAC with thanks.

7.3. Appendix 3: NPR Phase 1 Stakeholder Engagement Plan

Brisbane Airport Corporation

New Parallel Runway (NPR) Phase 1
Stakeholder Engagement Plan (SEP)

Approved

Prepared by BWH Communication
May 2012

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1. Introduction

Brisbane Airport Corporation (BAC) is planning to start work on Phase 1 of the New Parallel Runway (NPR) project in mid-2012. Phase 1 consists of two major contracts including the Civil Works Contract followed by the Dredging and Reclamation Works Contract.

The Civil Works contract is expected to be awarded in mid-2012 with construction to start soon after. The Dredging and Reclamation Contract is expected to be awarded in late-2012 with pumping operations not expected to commence before mid 2013. BAC will seek its Board's approval to undertake Phase 1 works from mid-2012. This initial work – Phase 1 of construction – is expected to continue until the first quarter of 2015. Delivery of Phase 1 will be on track for the NPR to be operational in late 2020.

Receiving Australian Government approval in 2007, the $1.3billion NPR will deliver much needed additional capacity to Brisbane's existing runway system enabling Brisbane Airport to cope with expected passenger growth. Forecasts show the total number of flights at Australia's third busiest airport is expected to rise from 227,000 in 2014/15 to 393,000 by 2035. This significant infrastructure investment is expected to benefit the entire South East Queensland economy, contributing an additional $2.14 billion in Gross Regional Product and around 42,500 jobs by 2023.

With more than 20 years of planning invested in the NPR, BAC has already undertaken significant communication and engagement with its stakeholders and wider public on the project. It culminated with a two-year information campaign and a formal 90-day consultation period required as part of the Environmental Impact Statement and Major Development Plan (EIS/MDP) process.

The EIS/MDP investigation and report analysed the economic, environmental and social impacts of the NPR, the findings of which led to the Government's approval of the project.

This NPR Phase 1 Stakeholder Engagement Plan (SEP) has been developed with reference to the Australian Government approved Public Engagement Strategy (2009) for the project. It provides context around the work that has happened to date, stipulates key messages, maps stakeholders and issues, provides a strategy for communication, outlines the tools and approach matched to stakeholders and specifies process and evaluation requirements.

2. Situation analysis

The $1.3billion NPR project is intended to address Brisbane airport's forecast growth and has been the subject of major planning, stakeholder and community consultation for more than two decades.

Key features of the NPR project include:

- The construction of a new runway 3,300 metres long including associated taxiways, navigational aids and land-based access infrastructure. Clearing and filling an area of around 360 hectares
- Adjustments to the 14/32 east-west runway to enable capacity to be maintained during the construction of the NPR
- Dual link taxiways linking the NPR to the existing runway system and terminal area
- Sand extraction of up to 13 million cubic metres of sand from Middle Banks, Moreton Bay to provide fill and surcharge material for the runway
- Development of changes to current airspace to accommodate new arrival and departure procedures.

After some delay as a consequence of world economic conditions, 2012 will mark the start of construction of the project. Phase 1 Civil Works are expected to commence in mid-2012 and sand extraction, the key component of the Phase 1 Dredging and Reclamation Works, is due to start at Middle Banks, Moreton Bay, around mid-2013. It is expected that extraction will take around 12 months, with overall completion of the contract expected in early 2015. This SEP covers consultation and information related to activity occurring during this time.

Work during Phase 1 of construction will include:

Civil Works

The Civil Works contract includes the construction of major new drainage and some repairs to Runway 14/32 (the smaller cross runway) which will be closed for up to six months. Works include:

- Vegetation clearing for drainage, services, access and treatment works
- Construction of new major drains into Kedron Brook Floodway and Serpentine Inlet and connections into the existing drainage network
- Treatment of excavated acid sulphate soil
- The relocation of some associated services
- The permanent closure of some 14/32 taxiways
- Establishment of a turning area
- Resurfacing of some sections of the 14/32 runway (by BAC)
- Construction of site access roads and security arrangements.

Dredging and Reclamation Works

- Clearing, mulching and disposal of the bulk of vegetation including fauna relocation and management
- Construction of perimeter bunds
- Construction of a temporary dredge pump-out in the Brisbane River
- Construction of a temporary pipeline from the Brisbane River to the NPR site
- Construction of settling basins to handle dredge tail water
- Extraction of up to 13 million cubic metres of sand from Middle Banks, Moreton Bay and pumping ashore from the Brisbane River to the NPR site
- Filling of Jackson Creek and de-stocking of this tidal waterway
- Establishment of wick drains to assist settlement
- Earthmoving of dredged sand to form reclamation platforms
- Management and collection of 48-60 million cubic metres of dredge tail water before its discharge back into Moreton Bay
- Placement of ground settlement monitoring devices.

3. Public engagement

Ongoing public consultation throughout the course of development and operation is a condition of approval of the NPR.

Since commencing the process, BAC has been committed to robust, inclusive and comprehensive community consultation that goes above and beyond the legislative requirements imposed through the approval process.

BAC understands that the community has concerns about airport noise and wider environmental issues.

Therefore, to assist with widespread understanding of the NPR project and its likely impacts, BAC has developed and maintained tools, forums and materials, including:

- All volumes of the EIS/MDP (available online at www.bne.com.au)
- A summary of the EIS/MDP, which provides a synopsis of the key findings of the economic, environmental and social impacts of the NPR development, including mitigation strategies (available online at www.bne.com.au)
- The supplementary report to the EIS/MDP outlining issues raised during the formal submission period and BAC's response to the matters raised (available online at www.bne.com.au)
- An online and on-site Community Experience Centre, located at Airport Village, for visitors to source information about the NPR and airport matters generally (http://bne.com.au/experience-centre)
- The maintenance of a project email address and dedicated phone line for members of the community to ask questions about the NPR and airport matters generally (info@bacnpr.com.au / NPR community phone line to be finalised)
- Regular community information sessions held in neighbourhoods surrounding the airport (approximately quarterly)
- The Brisbane Airport Community Forum, which provides opportunities for the community to raise and discuss any issues, while also allowing BAC to outline any development or airport issues for feedback.

3.1 Public engagement during Phase 1 construction

Given the level of consultation that has already occurred around the NPR, this plan accepts that much of the Brisbane community – and beyond – is already aware of the project, and has been provided with significant opportunities to comment. The widespread consultation, a legislative requirement, saw BAC receive only 196 formal submissions on the proposal, 20 of which were in favour of the project. Additionally, the stakeholder relations campaign received various industry commendations at a state and national level.

However, the SEP also acknowledges that it has been several years since the EIS/MDP process when communication was most active and frequent. Consequently, there will be members of the community, including school-leavers, first-home buyers, new residents and business operators who have moved into the city after the initial communication campaign occurred and will not be informed about the development.

BAC will highlight that, based on the EIS/MDP findings and public consultation, the NPR has obtained approvals from the Australian and Queensland Governments. It will reiterate that a stringent Environmental Management Plan will be implemented, which outlines best practice management strategies, measures and monitoring requirements, to ensure any potential issues around the construction of the NPR are avoided and/or addressed and that all conditions of approval will be implemented. Key messages will refer to the importance of the airport having infrastructure in place to manage growth and contribute to the South East Queensland (SEQ) economy, as well as achieving a balance between development and community and environmental impacts.

Ongoing communication will be important for managing community expectations. The NPR is still several years away from actual operation and due to the on-site visibility of the preparatory works and at Middle Banks, Moreton Bay, engagement with surrounding communities will be vital to keep them informed of developments.

At the same time that NPR civil works are due to start, the Department of Transport and Infrastructure will be undertaking the Brisbane Airport Curfew Review (Curfew Review), which will involve input from the wider Brisbane community and will put the airport business and future operations – including the NPR – into the spotlight. Therefore, BAC needs to be prepared to outline progress on the NPR, explain the benefits, any costs and answer questions regarding the project including future impacts of its operation.

Public engagement also recognises that both Local and State Government elections occurred in early 2012. These elections resulted in a number of new elected representatives with little knowledge about the airport and the NPR project taking up seats and divisions around the airport, thus requiring thorough briefings.

Australian Government elections are expected between August and November 2013, ahead of which members and candidates will also need to be briefed about the project. These briefings will occur in addition to BAC's regular briefings for Australian Government ministers and elected representatives.

4. Timing

The SEP is focused on communicating to the public and stakeholders around **Phase 1 of construction** running between June 2012 and early 2015.

The BAC Board is expected to sign off the start of civil works mid-2012, paving the way for BAC to appoint contractors and start works.

Anticipating that work is to be approved, key dates are outlined below:

Curfew Review	To be advised by the Department of Infrastructure and Transport (March 2012)	May/June 2012
Civil works		
BAC Board to consider NPR (Civil Works) construction program	Subject to the Aero-pricing Agreement being agreed (May 2012)	May 2012
Civil contract awarded		**June 2012**
Establish site compounds for civil and sand extraction contractors at the northern edge of the Central Parking Area (CPA)		August 2012 – October 2012
Vegetation clearing for drainage, services, access and treatment works	• A paved access road leading from the CPA to the NPR site entry with internal site access road to be unpaved • Clearing, mulching and stockpiling of vegetation for the drain, access road and treatment area footprints (approx. 60 ha)	August 2012 – October 2012
Construction of new major drains into Kedron Brook Floodway (KBFD) and Serpentine Inlet (SID) and connections into the existing drainage network	• Drains excavated and material placed in treatment areas for later re-use • Drain construction will include bare earth, rock batters and mangrove benching areas • Construction will be visible from certain vantage points on the Gateway and Moreton Drive • Signs to be erected reinforcing no public access into the newly constructed drains and plans for security fencing being erected in the future	September 2012 – January 2013 Two year growth period
Cross Runway works commence (Runway 14/32)	• Associated services relocated • Some taxiways closed permanently • Stormwater pipes to be constructed • Terminal Area Radar upgrade	August 2012 – January 2013
Sand extraction		
BAC Board to consider NPR (Dredging and Reclamation Works) construction program	Subject to the Aero-pricing Agreement being agreed (October 2012)	October 2012
Dredge and Reclamation Works Contract Awarded		
Bulk clearing of NPR runway site	• Staged clearing of approx. 300 ha • Material to be mulched, stockpiled and transported off site (alternative uses onsite being investigated)	January 2013 – July 2013
Pipeline construction and sand extraction mooring established	• Pipeline established through BAC/Brisbane City Council and sewerage reserve property • No residential land affected	January 2013 – June 2013
Sand extraction and pumping ashore		July 2013 – July 2014
BAC 2014 Master Plan published		TBC

Timing continued		
Demobilise from site		September 2014 – early 2015
Phase 1 of construction complete		**Early 2015**
Ground settlement period		2014 – 2018
Phase 2 Construction	Pavements and Civil Construction works	2017 – 2020
New Parallel Runway operational		**2020**

5. Goal and objectives

The following goals and objectives are anticipated to be achieved through the SEP:

Whole of project goal: To implement a coordinated and proactive communication program that meets individual and key stakeholder expectations and which supports the smooth delivery of the NPR Phase 1 construction.

Objectives

- Satisfy both Federal and State Government public engagement expectations and requirements
- Meet BAC's corporate policy for active engagement with community, government and other stakeholders
- Continue to build BAC's public reputation as a responsible organisation that effectively balances the provision of airport infrastructure, with environmental and social priorities
- Educate and inform stakeholders about the work happening during Phase 1 of the NPR construction and likely issues
- To educate and inform all stakeholders about the reasons behind building the NPR
- To establish wide approval and acceptance of the NPR project
- Provide sufficient opportunities/activities for all stakeholders to receive information and provide feedback.

6. Key messages

6.1 General

	Supporting facts and figures
1. Construction on Brisbane Airport's $1.3 billion New Parallel Runway has begun 2. The NPR will be built in two main stages: ▪ Phase 1 – involves site preparation which includes new drainage and clearing and filling the footprint of the site to consolidate the underlying soft soils; and ▪ Phase 2 - involves the construction of the runway pavements and airfield infrastructure 3. The New Parallel Runway is expected to be operational by around 2020 4. This development will help Brisbane Airport keep pace with domestic and international traffic growth over the next 50 years 5. Passengers, business, tourism and the entire South East Queensland economy are set to benefit through new jobs and greater numbers of visitors and improved connectivity with the global economy 6. The New Parallel Runway has received all major local, state and federal government approvals necessary to begin work on the project 7. A scientifically rigorous Environmental Impact Study and Major Development Plan process has been undertaken, including over two years of community consultation 8. A comprehensive environmental management system has been developed specifically for the NPR and it will be used to minimise the impact of construction on the environment and surrounding communities 9. Brisbane Airport Corporation will ensure the community is kept informed about the New Parallel Runway – from planning and construction through to take off 10. Brisbane Airport Corporation encourages members of the community to seek further information by calling the 1300 hotline, emailing the project team or visiting the Community Experience Centre online or at Airport Village 11. The operational aim of the New Parallel Runway is to maximise the number of flights arriving and landing over Moreton Bay 12. Brisbane Airport is getting busier due to Queensland's growing economy, population and tourism – the New Parallel Runway is vital infrastructure needed to cater for increasing numbers of visitors 13. The NPR is catering to demand, not creating it.	~ **XX** number of construction jobs to be created over this period ~ This first phase of construction represents a **$xx** investment ~ The Global Financial Crisis pushed the timing on the NPR delivery ~ These latest works should be complete by beginning of 2015 ~ The NPR will be 3,300m long, 2km west and parallel to the existing main runway ~ Brisbane airport is Australia's third busiest airport ~ The investment in the NPR should have a direct economic benefit to the region of around $5billion per annum ~ To build the NPR 2,700 jobs will be created in the Brisbane region and by 2035 the NPR will have facilitated around 7,800 jobs for people in SEQ ~ Existing infrastructure is already approaching capacity, increasingly causing delays and major disruption to services arriving and departing Brisbane ~ Overall passenger movements through Brisbane airport are expected to rise from 25.3 million in 2014/15 to around 50 million by 2035 ~ The total number of flights is forecast to grow from 227,000 in 2014/15 and to 393,000 by 2035 ~ About 70% of the materials and resources required for the project will be sourced from SEQ ~ Federal Government approval was given in September 2007

6.2 Construction messages

Key message	Supporting facts and figures
1. Thanks to the foresight of the Australian Government's planning taskforce the buffer zone surrounding Brisbane Airport will minimise the effect of construction noise for the community 2. Where there are any night works planned, BAC will liaise closely with it local neighbours to communicate what is happening when 3. The construction site is separated from the current airport infrastructure and its facilities 4. Work associated with the first stage of construction means the cross runway will be closed for up to six months. The airport's operation will be adjusted to account for this short-term closure. 5. Anyone with questions about the work can call the project team on 1300 xxx xxx or via email to info@bacnpr.com.au	~ There is a buffer zone of over 6km from the end of the runway to the nearest residence ~ This compares with 600 metres for Sydney, Adelaide, Cairns and Coolangatta airports and 3km for Perth ~ Work includes ▪ Vegetation clearing ▪ Drainage work ▪ Upgrades to the 13/42 runway ▪ Relocation of some services ▪ Sand extraction ~ The MDP/EIS comprised of detailed technical and environmental investigations ~ Direct, indirect and cumulative impacts were assessed and strategies developed to avoid, mitigate or minimise any negative effects ~ BAC has committed to a 285 hectare Airport Biodiversity Zone where no development will occur to protect local flora and fauna.

6.3 Sand extraction

Key message	Supporting facts and figures
1. To create a stable site for the New Parallel Runway, around 13 million cubic metres of sand will be extracted from Middle Banks in Moreton Bay 2. Sand extraction from Middle Banks, Moreton Bay is expected to start around mid-2013 3. The sand extraction work will not impact on shipping, tourism or fisheries operating in the bay 4. The Queensland Government's investigations into sand extraction at Middle Banks, the investigations undertaken during the NPR's Environmental Impact Statement and our own more recent research shows that sand extraction will have little if any effect on the Moreton Bay marine environment 5. Throughout the sand extraction process, there will be a monitoring program in place that will provide real-time data on a range of environmental values such as water quality 6. In 2008 a pilot sand extraction program was conducted at the NPR extraction site that validated the water quality modelling results of the EIS/MDP 7. A 24/7 real-time monitoring program, the same as will be in place for the NPR works, demonstrated that no harmful effects occurred in the environmentally sensitive areas either side of the extraction footprint.	~ Middle Banks in Moreton Bay is located approximately 20km north-east of the mouth of the Brisbane River, west of Tangalooma Point on Moreton Island ~ The Queensland Government has studied and approved sand extraction from Moreton Bay for several projects, including the airport development ~ Sand was taken from this site to build the airport in the early 1980s and again in the early 1990s for the construction of the International Terminal with no harmful impacts ~ A sand extraction footprint has been selected that avoids seagrass, areas with a high abundance of marine life and areas currently used for extractive industry, commercial fishing, ferry, tourism and shipping operations ~ Water quality monitoring reports from the pilot sand extraction program of 2008 were submitted to the Qld EPA that clearly demonstrated that no harmful effects occurred due to extraction works.

7. Stakeholders

This SEP outlines all public and external stakeholders that BAC will need to engage with regarding this stage of the NPR development.

A separate plan has been developed outlining internal audiences.

The identification of stakeholders will be facilitated through a number of sources including:

- Stakeholder lists created since the two-year public engagement and communication program around the NPR development
- Desktop research of potential stakeholders that may be interested in the construction of the NPR, including an analysis of surrounding suburbs around the airport to identify any education and health facilities, including schools, preschools, aged care centres and hospitals
- BAC's own stakeholder and contacts database (to be provided)

General categories of stakeholders include:

Aviation

- ~ Airlines operating into and out of Brisbane airport
- ~ Airlines that may operate into and out of Brisbane airport in the future
- ~ General aviation operators
- ~ Representatives of other airports in SEQ
- ~ Civil Aviation Safety Authority (CASA)
- ~ Airservices Australia (Airservices)
- ~ Royal Flying Doctor Service
- ~ Regional Aviation Association of Australia

Airport users

- ~ Airport users (meeters, greeters and passengers)

Non-aviation airport tenants / operators

- ~ Terminal retail tenants
- ~ Ground transport operators (GTOs)
- ~ Brisbane Airport Tenants Environment Committee
- ~ Brisbane Airport Ground Transport Operators Forum (BAGTOF)

Tenants directly affected by NPR works

- Avis / Hertz
- Qantas Flight Catering (AaE)
- Qantas valet parking
- Car rental overflow areas
- Royal Flying Doctor Service

Business / industry / education

- Business / industry groups & associations
- Businesses within radius of airport
- Australian Catholic University
- Schools within radius of airport

Australian Government

- Elected representatives
- Australian Government officers (departmental and agency)

Queensland Government

- Elected representatives
- Queensland Government officers (departmental and agency)

Brisbane City Council

- Elected representatives
- Brisbane City Council officers

Moreton Bay Regional Council

- Elected representatives
- Council officers

Redland City Council

- Elected representatives
- Council officers

Airport consultative groups

- Brisbane Airport Community Aviation Consultation Group (BACACG)
- Brisbane Airport and Area Round Table
- Brisbane Airport Technical Noise Working Group

Tourism

- Tourism Queensland
- Queensland Tourism Industry Council
- Ecotourism Australia

Residents

- Resident (0 – 5km radius) Pinkenba, Nudgee Beach and others
- Resident (5 – 10k radius)
- Resident (10 – 15km radius)
- Resident (15 – 20km radius)
- Community groups representing various residents across the Brisbane City Council area

Media

- Brisbane print, electronic & online
- Regional media (SEQ)
- National publications and broadcast

Special interest groups

- Fisheries
- Shipping
- Environmental interest groups
- Traditional owners

8. Research

Planning for a western parallel runway started over 20 years ago, with it identified as a strategy to address forecast growth at the capital city airport since 1991.

In 2005/6, BAC commissioned over 30 consultancy teams to prepare the EIS/MDP to meet Australian Government legislation requiring BAC to assess expected economic, social and environmental impacts of building the NPR.

The EIS/MDP, which included detailed technical and environmental investigations, considered the following impacts of the NPR:

Importantly, all direct, indirect and cumulative impacts were assessed and strategies developed to avoid, mitigate or minimise any negative effects.

BAC's assessment of the NPR, undertaken through the EIS/MDP, was the subject of a robust and inclusive two-year public engagement campaign. Following its publication the draft was subject to a public comment period for 90 days (ran between November 2006 and February 2007). BAC received 196 submissions to the proposal. BAC addressed all submissions through a Supplementary Report, and with the EIS/MDP formed the final submission to Government.

Based on the EIS/MDP research findings, the NPR received Australian Government approval on 18 September 2007.

During the next stage of the NPR project, BAC is committed to ensuring ongoing community engagement and that any views, feedback and opinions around the project is captured. Tools and tactics to achieve this are outlined within the SEP.

9. SWOT analysis

To help develop the overall strategy of the NPR Phase 1 SEP, an analysis of strengths, weaknesses, opportunities and threats was considered. These are outlined here:

Strengths	Weaknesses

• Established airport team with long history and knowledge of the project
• Australian Government approval of the NPR
• EIS/MDP completed
• Political support for the project
• More than 20 years of planning and research
• Strong established reputation of community consultation
• Established forums to continue consultation
• Majority of community already aware and knowledgeable about the project
• NPR is good for the entire South East Queensland economy bringing:
  • Jobs
  • Tourism
  • New business
  • Responding to airport growth
  • Increases freight capacity
• Brisbane airport has buffer zones in place that exceed Australian standards
• Buffer zones minimise impacts on the community
• Ongoing referral of the NPR as a strategy to manage growth/noise
• Studies have found the NPR is the best (only) option to manage growth from a social, economic and environmental perspective
• BAC commitment to provide additional information to interested parties
	• Long-term campaigns by proponents against the NPR
	• New communities that may not be aware of the project, including:
	  • New BAC staff
	  • New BAC tenants
	  • New homeowners
	  • New businesses
	  • School leavers
	  • First homebuyers
	  • Those who have recently moved to the state
	• These (see above) uninformed communities questioning the work
	• Construction work can be viewed on site
	• Uncertainty around Federal Labor Party leadership
	• Uncertainty around the 2012 curfew review
	• Active publics from surrounding communities already upset about airport noise
	• Length of time since the EIS/MDP and active/frequent consultation

Opportunities	**Threats**

• Opportunity to create new relationships/partnerships with:
  • New partners
  • Investors
  • Airlines
  • Passengers
  • Surrounding communities
• Engage with, educate and inform new and existing communities about the NPR and the airport generally
• The plan is long term to ensure the airport can respond to growth
• Improved safety/capacity of the airport
• New local, state and federal government representatives
• Talk about initiatives and mitigation strategies being introduced to minimise impacts on the surrounding communities
• BAC will assess growth and development as part of the 2014 Master Plan process
	• Contractors and other third parties not delivering/meeting contractual obligations
	• Protest from various communities about the NPR development
	• Uncertainty around the global economy and potential impacts on the airport
	• Ongoing delays and disruptions as a consequence of increasing traffic on the current runway and threat to Brisbane Airport's reputation
	• New local, state and federal government representatives
	• Protest over dredging in Gladstone and links to the Brisbane activity
	• NPR doesn't go ahead
	• Any unforeseen impact as a consequence of construction
	• Adverse media coverage
	• Issues at other Australian airports that may be connected to Brisbane – for example noise complaints

10. Communication and stakeholder engagement strategy

BAC's Public Engagement Strategy, 2009, sets out the approach to be taken in respect to how it manages community information and input during the construction of the NPR.

To ensure there is widespread understanding of the NPR and its many benefits, BAC will continue to adopt a two-way communication strategy, which provides stakeholders with the opportunity to participate in and to comment on issues of interest or concern, to seek further information, and to help shape the airport's future plans.

For the purposes of this SEP, BAC is required to ensure there are effective channels in place to inform the community of the construction work happening on site and around the sand extraction at Middle Banks in Moreton Bay, and provide opportunities for comment. In addition, BAC must be in a position to respond to queries and questions, collate all feedback and consider the community input as part of its ongoing planning and operation of the NPR.

Therefore the approach during this latest development program of the NPR is to:

- Ensure regular communication with stakeholders to make certain they have knowledge of the NPR project, understand what is happening on the site during this phase of construction and empower the community to remain connected to the project
- Establish various materials and channels to ensure the wide range of stakeholders are able to access and understand the project
- Make information available in a timely way, using proven methods
- Provide adequate channels for stakeholder feedback or complaint
- Ensure feedback or complaints from stakeholders flow through to the project team and where appropriate, remedial or other action is taken
- Prepare regular reports on engagement activities

This strategy is intended to cover Phase 1 Construction, including civil, sand extraction and reclamation works between June 2012 and first quarter of 2015.

Evolution of the radial approach to communication

During the public engagement program initiated around the EIS/MDP, BAC implemented a radial approach to communication, which divided communities by distance from the airport at 5, 10, 15 and 20km radius. This geographic approach enabled tools and channels to be selected that would be relevant for particular stakeholders.

For instance, those within a five kilometre radius of the airport would experience more noise and may notice construction effects compared with those located further away and would require a significant degree of detail about the new runway and its potential impacts. All stakeholders within the 5km radius of the airport are to be considered Level 1 stakeholders, (individuals or organisations that will have an active interest in the NPR or are potentially directly impacted physically, socially or financially).

During this later stage of work, BAC has further developed the radial approach to reflect the geometry of the runways and their relationship with surrounding areas, as shown in the map below.

11. Understanding the project

An NPR Engagement Team will work closely with the BAC NPR project executives and BAC public affairs and corporate communication team to ensure information about the project and activities is gathered and distributed to relevant stakeholders in a timely manner.

Detailed minutes will be taken at the meeting to ensure the SEP can be formulated and progressed.

Likewise these meetings will be useful for the public engagement team to feedback any stakeholder feedback/ comments and potential issues that need to be considered as part of project and stakeholder engagement planning.

12. Making information available

Details of the approach and tools follow, and their use during engagement is covered in the Communication Plan Activity Calendar (Appendix 1). These are the mechanisms through which information relating to the project will be made available to the public, including the channels which stakeholders can comment and questions can be registered and, where required, responded to.

13. Timeliness of information

BAC understands the importance of providing stakeholders with access to information in a timely manner, which provides adequate opportunity to peruse, gather more information if required and respond.

14. Communication tools and techniques

Outlined below are details on the tools BAC should develop to reach, inform and influence target audiences during Phase 1 of construction. This plan covers the External Public only and should be run in conjunction with the Internal Communication Plan.

14.1 BAC website

The BAC website should continue to provide information about the NPR development through the Projects and Development navigational menu. Stakeholders should be able to sign up for alerts, notifying them when updates have been made. Updated copy about the various construction and extraction work will be uploaded throughout the Phase 1 construction period.

14.2 Email alerts

Members of the NPR database should be alerted to the fact that new information has been uploaded onto the NPR/BAC site. The current database of contacts will be emailed and asked if they wish to stay on the BAC database.

14.3 1300 local call hotline

The 1300 hotline will operate during the NPR construction, staffed between 9.00am and 5.00pm Monday to Friday, with a message bank available to take messages out of operating hours.

The phone line will be staffed by people who are informed about the project, ensuring any queries can be answered quickly and efficiently. Where questions of a technical nature arise that cannot be answered immediately, details of the query will be taken and a response provided as soon as the information is available.

All calls to the phone line are logged in a database and the information will form the basis of regular reports on stakeholder contact.

14.4 Consultation Manager

For effective contact database management and future reporting purposes, BAC is establishing a Consultation Manager account to log and record stakeholder queries. This system allows detailed reports to be prepared, helping BAC detect and respond to any stakeholder issues.

14.5 Media relations

The media is a recognised conduit to the broadest number of stakeholders. Given the significant investment in the NPR and interest in the project, briefings and media releases will be used to announce key milestones around construction activity.

BAC should be prepared for some stakeholders to use the media to broadcast their views and protest about the NPR development. The public engagement team and BAC corporate communications team should monitor coverage, respond to any journalist requests and reply to Letters to the Editor to correct any wrong information published as well as outline the benefits and need for the NPR.

Advertising will be used but limited to newspapers where construction activity is likely to impact on surrounding communities.

14.6 Briefings and presentations – elected government stakeholders

Throughout the course of the NPR construction, interested local, state and federal government elected representatives will be kept informed. These will be an important stakeholder group as members of the community may seek further information or complain through their local councilor or MP. These briefings can be either individual or group meetings.

It is intended that materials will be used to support the briefings including PowerPoint presentations and leave-behind documents, such as information kits containing fact sheets, contact cards and other relevant data to allow the Councilor or MP to pass on accurate information to interested constituents.

14.7 Briefings and presentations – other stakeholders

Throughout the construction of the NPR, presentations will be made to community, special interest groups and business stakeholders. These presentations are likely to take the form of general or small group meetings where representatives of the project team deliver information about the NPR's progress and take questions from the audience.

Presentations are to be supported by a range of materials including PowerPoint presentations and information kits.

Feedback forms will be provided, along with details on how to make contact with the team or comment.

14.8 Briefings and presentations – BAC forums

Regular updates should be provided to established forums including the Brisbane Airport Community Forum, the Brisbane Airport Round Table and Brisbane Airport Community Aviation Consultative Group to inform and take feedback on the NPR project.

14.9 Contact card

To enable community stakeholders to ask questions or feedback on the NPR, a contact card will be created featuring the project 1300 number and email address for distribution via airport staff, businesses, elected representatives or other community stakeholders.

14.10 Fact sheets

To ensure that a wide-range of stakeholders can request information without being bamboozled by jargon and technical descriptions, simple, concise and informative fact sheets will be added to the suite of material already developed as part of the EIS/MDP consultation process.

The existing materials should be reviewed to ascertain any factual updates and new information produced breaking down major aspects of civil works and sand extraction activities.

These should be available as printed items and as online downloadable PDFs. They will form a major part of the Information Kit that will be prepared for general distribution among stakeholders.

14.11 Letters

Coinciding with the start of Phase 1 construction, civil works (~July/August 2012), the start of sand extraction (~July 2013) and the completion of works (~December 2014), letters will be drafted and distributed around milestone dates to residents and businesses within 5 and 10km radius of the airport outlining activity occurring and channels available for further information. Distribution is suggested via mailbox drop.

14.12 Events

Where BAC is attending or organising public, community or other stakeholder events or briefings, these should be assessed for opportunities to profile the NPR project or whether the project is likely to form part of stakeholder questioning. If appropriate, a relevant project team member will attend or information provided for dissemination to attendees. BAC may also choose to hold events to coincide with project milestones.

14.13 Presentation space

BAC will establish an NPR presentation space and meeting room to hold NPR specific meetings and briefings. This space will be within the Banksia Place facility, where the NPR project team is located and which is close to the project site.

14.14 Availability of studies and reports

For further information about potential social, economic and environmental impacts of the NPR and BAC mitigation strategies, the EIS will continue to be made available as a downloadable PDF on the BAC website. In addition, BAC should ensure that hard copies of the Draft EIS/MDP are still available at key locations such as libraries, Council offices and offices of elected representatives. Members of the community can also request the EIS/MDP via CD-Rom free of charge.

14.15 Comment / enquiry form

To support the 1300 hotline, comment/enquiry forms will also be developed. These forms will be used to officially log the details of calls and will include a process that will ensure any queries are answered as quickly as possible. Details from the forms will be logged on the official database from which formal reports will be developed throughout the NPR project.

14.16 3D digital animations and mapping

To illustrate the work occurring, BAC will show stakeholders materials already designed/created during former stages of the NPR planning.

14.17 Social media

Photo galleries of ongoing construction work will be posted on Facebook / Pinterest intermittently for interested stakeholders. Where appropriate, information about the project will be released via Twitter. All social media channels will be monitored. There may be an opportunity to stream footage from the construction site either to BAC head office or Banksia Place, as well as via social media channels. These opportunities will be investigated during the project.

14.18 Displays

Portable displays outlining the current stage of the NPR work will be developed for use in the community experience centre and at other events.

14.19 Above and Beyond booklet and summary document

Where queries arise from different stakeholders about noise, BAC will provide access to the Above and Beyond booklet and summary document that outline issues around managing aircraft noise. Printed and online copies will be available for interested parties and via community forums and other airport-based forums.

14.20 BAC regular publications

BAC to promote the work happening on the NPR through its existing channels including its business magazine BNE, bmag and Tenant e-News.

15. Distribution channels

Construction Phase 1: Project Commencement July 2012	
Typical information	**Communication channels**
• Background to the NPR ▪ Benefits ▪ Importance of project ▪ EIS/MDP • Australian, state and local Government approvals • Details of Phase 1 of work • Timings • BAC's commitment to stakeholder communication throughout the construction of the project and beyond • Contact details for further information	• Briefings with: • Local, state and federal elected representatives and leave behind information kits for interested constituents • Local, state and federal government departments • Airlines and other industry stakeholders • Regular BAC forums including • BAC Board members • Regular community group sessions (already organised) • Brisbane Airport Community Forum • Brisbane Airport Round Table members • Brisbane Airport Community Aviation Consultative Group • Pinkenba/Nudgee Beach community meetings (already organised) • General Aviation businesses • Project reference in bmag • Project fact sheet and other fact sheets as required • Update NPR copy on BAC website • Construction update (continuing from previous update issued by BAC monthly) • Q&As • Contact card • 1300 hotline • Project email • Briefings and presentations to stakeholders on request • Updated Questions and Answers (FAQs) • Updated display at the Experience Centre • Links to the EIS/MDP • On site signage installed on boundaries • Display at project team office (Banksia Place)

Construction Phase 1: Ongoing civil works July 2012 – July 2013	
Typical information	**Communication channels**
• Update on project (six monthly) • Contact details	• Briefings and presentations on request • Ongoing monitoring and response to media enquiries • Update NPR copy on BAC website • Q&As about the project • 1300 hotline • Project email • Fact sheets • Updated display at the Experience Centre • Establish a meeting and presentation room at Banksia Place • Attendance at community events and festivals with updated information • Ensure a project spokesperson attends any general airport community or stakeholder event with NPR project information • YouTube (time-lapse) video of construction work happening on site • Articles in BNE magazine and other relevant publications that BAC contribute to or publish • Ongoing updates on BAC website • Email alerts to stakeholders as new information is posted • Construction updates

Construction Phase 1: Sand extraction work July 2013 – July 2014	
Typical information	**Communication channels**
• Background to the NPR ▪ Benefits ▪ Importance of project ▪ EIS/MDP • Sand extraction process • Timings • Australian Government approval • Any environmental/social impacts and mitigation strategies • BAC's commitment to stakeholder communication throughout the construction of the project and beyond • Contact details for further information	• Briefings with: • Local, state and federal elected representatives and leave behind information kits for interested constituents • Local, state and federal government departments • Airlines and other industry stakeholders • Regular BAC forums including • BAC Board members • Regular community group sessions (already organised) • Brisbane Airport Community Forum • Brisbane Airport Round Table members • Brisbane Airport Community Aviation Consultative Group • Pinkenba/Nudgee Beach community meetings (already organised) • General Aviation businesses • Phone or face-to-face briefings with shipping/ fisheries /tourism operators in Moreton Bay • Meeting with residents of Moreton Island, inviting relevant elected representatives to attend • Letters / phone calls sent to environmental, commercial or other interest groups with an interest in the NPR development • Media briefing • Emails sent to individuals and groups on the NPR stakeholder database • Update NPR copy on BAC website • Q&As • Contact card • 1300 hotline • Project email • Briefings and presentations to stakeholders on request • Fact sheets (printed and online) • Updated display at the Experience Centre • Construction Updates • Links to the EIS/MDP • Posters on ferries and at tourist locations operating at Moreton Bay • Ongoing updates on BAC website • Email alerts to stakeholders as new information is posted • Articles in BNE magazine and other relevant publications that BAC contribute to or publish

16. Roles and responsibilities:

Defined below are the roles and responsibilities of the people who will be involved in the conduct of the NPR Phase 1 Public Engagement and Communication Plan. These roles may alter during the course of the program should specific needs arise that require additional, alternative or technical human resources.

NPR Engagement Team

~ Paul Coughlan
~ Karyn Rains
~ Rachel Crowley and nominated others in the Public Affairs and Corporate Communication team
~ Robyn Willey – BWH Communication (Stakeholder Engagement Manager) (should BWH be appointed)
~ Krista Connolly – BWH Communication (Assistant Stakeholder Engagement Manager)

Roles and responsibilities

~ Development of the NPR Phase 1 Public Engagement and Communication Plan
~ Approval of plan
~ Approval of engagement materials
~ Liaison with stakeholders as required
~ Review, discuss, revise plan
~ Frequency of contact with stakeholders
~ Preferred methods of engagement

Production and database management team

~ Robyn Willey
~ Krista Connolly
~ Lauren Creevey – BWH Communication project coordinator
~ Designer – Plum Design (a subsidiary of BWH Communication)

Roles and responsibilities

~ Drafting and production of stakeholder engagement tools
~ Distribution of materials to stakeholders
~ Coordinating information for advertisements
~ Maintenance of stakeholder database, including monitoring of 1300 number, feedback forms
~ Preparation and distribution of minutes and reports arising from meetings relating to stakeholder engagement and project communication
~ Preparation of reports on stakeholder contact

For further details on information protocols are included in the Internal Communication Plan (ICP).

17. Information management and reporting

Detailed, accurate and timely reporting and response to queries or feedback are imperative to the integrity of the engagement and communication plan and how stakeholders perceive communication. Outlined below is the planned approach:

17.1 Database management

The stakeholder engagement team will maintain a database of stakeholder contact. The database, developed through Consultation Manager software, will be used to capture information about the contact including details of feedback and queries or comments on specific topics. The database will be web-based and from it various reports for BAC and nominated others.

17.2 Maintenance of records

Detailed records will cover information including:

- Number of briefings provided to government, community and business stakeholders
- Number of visits to the BAC website, including email queries or feedback
- Number of additional copies of the EIS/MDP provided to the community, either as a digital CD-Rom or downloaded from the BAC website during Phase 1
- Number of calls made to the 1300 number including reference to content and BAC response
- Number of stakeholder contacts analysed by specific issues associated with the project, i.e. environment, noise, flight paths, sand extraction, cultural heritage, economic development etc.
- Media coverage.

In addition, records of meeting reports, summaries, communication material, feedback/request for information forms will be maintained in date order by the stakeholder engagement team.

18. Evaluation

Evaluation mechanisms will include a range of ongoing processes to determine:

Evaluation mechanisms will include a range of ongoing processes to determine:

- Whether objectives were achieved and to what degree of success
- Which engagement tools and techniques attracted the greatest level of response
- The extent to which identified stakeholders participated in the program
- Whether stakeholders felt that they were listened to and were adequately able to express their views.

Evaluation methods may include:

- Regular review and analysis of feedback received through 1300 number and briefings and presentations, which will allow for both quantitative and qualitative evaluation
- Meetings with identified key government stakeholders to determine levels of personal and constituent satisfaction with the level of communication and engagement
- Peer review and evaluation of the program by BAC Public Affairs team
- Monitoring and analysis of media reports
- Regular meetings of the BAC and BWH team to discuss achievements and refine the engagement plan in line with feedback and reports on progress.

19. Glossary of terms

Term	Meaning
BAC	Brisbane Airport Corporation
NPR	New Parallel Runway
BCC	Brisbane City Council
EIS	Environmental Impact Statement
MDP	Major Development Plan
SEP	Stakeholder Engagement Plan
SEQ	South East Queensland
Curfew Review	Brisbane Airport Curfew Review 2012
CASA	Civil Aviation Safety Authority
Airservices	Airservices Australia
GTO	Ground Transport Operators
ICP	Internal Communication Plan

APPENDIX 1: NEW PARALLEL RUNWAY – COMMUNICATION PLAN ACTIVITY CALENDAR (March – December 2012)

ACTIVITY	Mar	April	May	June	2/7	9/7	16/7	23/7	30/7	6/8	13/8	20/8	27/8	3/9	10/9	17/9	24/9	1/10	8/10	15/10	22/10	29/10	5/11	12/11	19/11	26/11	3/12	10/12	17/12	24/12	31/12
Materials Preparation																															
Set up Consultation Manager database																															
Draft letter to local area elected representatives and Ministers about commencement of work on NPR																															
Draft and post updated web copy re the NPR project																															
Draft and post updated web copy re construction schedule																															
Discuss changes required for Community Experience Centre with BAC Corporate Comms team																															
Audit of current fact sheets and creation of relevant new fact sheets																															
Design and print stakeholder communication materials including printed contact cards, feedback forms etc																															
Draft FAQs for website and undertake regular review and updates																															
Draft hypothetical Q&As to respond to potential issues (internal only)																															
Draft new PowerPoint presentation outlining the NPR project for presentation to stakeholders																															
Design and install signage on site boundaries outlining no public access (BAC)																															
Design template for construction updates																															
Draft copy for BAC's regular publications as required																															
✈ Bmag (dates to be finalised with BAC Corporate Communication team)																															
✈ BNE (dates to be confirmed)										Copy due for Sept														Copy due for Dec							
✈ Tenant e-news					3/7 copy due		17/7 copy due		31/7 copy due		14/8 copy due		28/8 copy due		11/9 copy due		25/9 copy due		9/10 copy due		23/10 copy due		6/11 copy due		20/11 copy due		4/12 copy due				
✈ P&C eNews distr.					2/7	9/7	16/7	23/7	30/7	6/8	13/8	20/8	27/8	3/9	10/9	17/9	24/9	1/10	8/10	15/10	22/10	29/10	5/11	12/11	19/11	26/11	3/12	10/12	17/12	24/12	
Meetings, briefings and enquiries																															
Monitor and respond to calls to 1300 number and enquiries to email address ✈ Prepare fortnightly summary for project team ✈ Ongoing database management																															
Board meetings (NPR briefing dates to be confirmed) Paul Coughlan/ Karyn Rains			25/5					27/7					31/8				28/9				26/10					30/11					
Staff updates (Staff Talks and other forums) as required																															
Briefings for council, state and federal elected representatives ahead of work starting																															
Briefings for council, state and federal elected representatives on request																															
Briefings for council, state and federal government departments ahead of work starting																															
Briefings for airlines and other industry stakeholders																															
Briefings for community/industry/business/ special interest groups on request																															
Briefings for general aviation representatives ahead of work starting on cross runway																															
Briefing with the Australian Catholic University																															
Briefings with BAC forums at normal scheduled meetings																															
✈ Community information session				5/6				29/7												20/10											
✈ BACACG				20/06							13/8																3/12				
✈ BAART				12/6										4/9													4/12				
General activity																															
Email update sent to NPR database on project approval																															
Email update sent to NPR database on construction start (TBC)																															

Brisbane Airport Corporation
NPR Phase 1 Stakeholder Engagement Plan – Activity Calendar

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New Parallel Runway
Approved • May 2012

ACTIVITY	Mar	April	May	June	2/7	9/7	16/7	23/7	30/7	6/8	13/8	20/8	27/8	3/9	10/9	17/9	24/9	1/10	8/10	15/10	22/10	29/10	5/11	12/11	19/11	26/11	3/12	10/12	17/12	24/12	31/12
Send project letter with contact cards to MPs and Councillors (within 5km of airport)																															
Project team update																															
Fortnightly meeting of engagement team																															
Monthly meeting of Steering Group																															
Advertising / bmag																															
Prepare copy for Bmag																															
Events																															
Involvement in events as required – activities including planning, copy writing, preparation, event management, attendance etc.																															
Planning and execution of site tours as required																															
Festivals																															
✈ Teneriffe Festival date to be confirmed (July)																															
✈ Morningside Festival date to be confirmed (July)																															
✈ Bulimba Festival date to be confirmed (August)																															
✈ Racecourse Road Festival date to be confirmed (September)																															
✈ Nundah Festival date to be confirmed (September)																															
Website and email alerts																															
Fortnightly overview of website to ensure accuracy of information																															
Upload fact sheets as available																															
Ad hoc construction updates as required and sent to NPR email database																															
Media																															
Media monitoring																															
Draft media release re NPR construction work approval and issue (date to be confirmed)																															
Respond to all media queries and critical coverage of project																															

BRISBANE AIRPORT CORPORATION – NEW PARALLEL RUNWAY – COMMUNICATION PLAN ACTIVITY CALENDAR (January 2013 – January 2015)

ACTIVITY	Jan 13	Feb 13	Mar 13	April 13	May 13	June 13	July 13	Aug 13	Sep 13	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	April 14	May 14	June 14	July 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15						
Materials Preparation																															
Review and update communication plan to ensure relevance																															
Draft letter to local area elected representatives re stage of project and timing																															
Creation of relevant new fact sheets as required																															
Regular review and updates of FAQs																															
Review and update hypothetical Q&As based on current stage of construction																															
Draft copy for BAC's regular publications as required – Dates to be confirmed																															
✈ Bmag																															
✈ BNE (dates to be confirmed)																															
✈ Tenant e-news																															
✈ P&C eNews distr.																															
Meetings, briefings and enquiries																															
Monitor and respond to calls to 1300 number and to email address ✈ Prepare fortnightly summary for project team ✈ Ongoing database management																															
Board meetings (NPR briefing dates to be confirmed) Paul Coughlan/ Karyn Rains																															
Staff updates (Staff Talks and other forums) as required																															
Briefings for Federal Government electoral candidates (dates to be confirmed)																															
Briefings for council, state and federal government elected representatives and departments ahead of sand pipeline/ site clearing work and sand extraction starting																															
Briefings for council, state and federal elected representatives on request																															
Briefings for airlines and other industry stakeholders																															
Briefings/ letters/ phone calls for community/ business/ industry / special interest groups interested in sand extraction																															
Briefings for community/industry/business/ special interest groups on request																															
Briefings with BAC forums at normal scheduled meetings (dates to be provided)																															
✈ Community information session																															
✈ BACACG																															
✈ BAART																															
General activity																															
Email construction updates as required to NPR database																															
Project team update																															
Fortnightly meeting of Engagement Team / monthly meeting of Steering Group																															
Advertising																															
Book advertising with Quest Newspapers within 10 km radius of airport site																															
Write and design advertising																															
Advertisement (EGN) regarding NPR dredging work to be placed in Quest Newspapers 1 month – 2 weeks before work starts (dates to be confirmed): ✈ Northside Chronicle ✈ City North News ✈ City News ✈ South-East Advertiser ✈ Wynnum Herald																															

Brisbane Airport Corporation
NPR Phase 1 Stakeholder Engagement Plan – Activity Calendar

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New Parallel Runway
Approved • May 2012

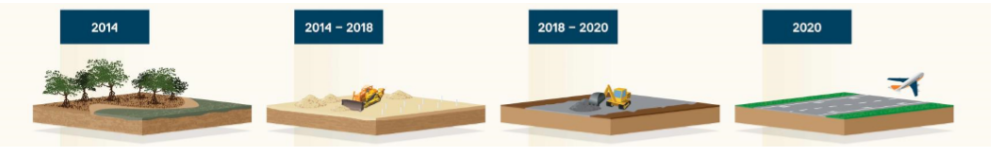
ACTIVITY	Jan 13	Feb 13	Mar 13	April 13	May 13	June 13	July 13	Aug 13	Sep 13	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	April 14	May 14	June 14	July 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15						
Events																															
Involvement in other events as required – activities including planning, copy writing, preparation, event management, attendance etc.																															
Website and email alerts																															
Fortnightly overview of website to ensure accuracy of information																															
Upload fact sheets as available																															
Ad hoc construction updates as required and sent to NPR email database																															
Media																															
Media monitoring																															
Draft media release/ reactive comment re sand extraction																															
Respond to all media queries and critical coverage of project																															

7.4. Appendix 4: DRW Project Management Plan

BRISBANE AIRPORT AUSTRALIA

February 2017
Version # 1

New Parallel Runway Project
Dryandra Road Works
Project Management Plan



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1. INTRODUCTION

1.1. Purpose

The Dryandra Road Works Contract is one of two major works contracts that comprise NPR Phase 2 scope of works to be delivered in order to achieve full operational capacity of the New Parallel Runway by June 30 2020.

The Dryandra Road Works (DRW) team has been formed to successfully deliver the construction and commissioning of the Dryandra Road Works, which includes the following key deliverables:

- **Road-works** including the Dryandra Road Diversion, associated connection roads and tie in works. This involves the construction of approximately 1.1km of 13.5m wide sealed restricted airside and 14m wide public landside roads through the underpass with associated traffic infrastructure and airport security fencing;
- **Structures** including grade separation of the airside perimeter road bridges, taxiway bridges, and underpass approaches. The underpass structure is founded on 701 reinforced concrete piles, and includes approximately 21,000 m3 of reinforced concrete formed into base slabs for the diversion roads and walls supporting two taxiway bridges and two airside perimeter road bridges;
- **New and relocated utilities** including the diversion of critical existing airport trunk utilities from the existing Dryandra Road via the underpass alignment inclusive of potable water, sewer, power, communications and security systems. Additionally the construction of a new utilities compound that locates a switch-room building, electrical substation, backup diesel power generators and underpass stormwater management pump station, and;
- **Airfield bulk earthworks** including the rehandling of approximately 750,000m3 of sand to further surcharge of airside perimeter road embankments, future link taxiway embankments and future apron areas.

In delivery of these works, the DRW team is responsible for the management of a range of interfaces including environmental, cultural heritage, community relations, stakeholder relations and Human Resources management in addition to other NPR and BAC Contract works.

This Systems and Compliance (SCP) provides the framework for the compliance of the work under contract (WUC) of the Project.

1.2. Scope

This PMP details the project scope and objectives, NPR and DRW team structures, management systems and resource planning to be adopted to ensure the Project objectives are achieved.

It includes an introduction to the various discipline-specific management plans and provides the framework for the Contract Administration, Delivery and Compliance.

This PMP is guided by the objectives for the NPR project identified by the BAC Board, which include:

Time:	**Open NPR project on time without material consequential impact and complete related components to meet other airport requirements.** (i) Timely completion and operation of the DRW to support the achievement of full operational capacity of the New Parallel Runway by June 30 2020, (ii) Dryandra Road Underpass is operational to reflect the Apron and Terminal expansion schedules and business case costs.
Cost:	**Complete NPR Project within NPR Phase 2 budget.** (i) Deliver the DRW Contract through minimal capital expenditure without compromising other project objectives, (ii) Minimise consequential costs on BAC businesses, BAC operations and interface issues.
Function & Performance:	**Ensure NPR meets the required functional and asset performance requirements.** Incorporate appropriate design life in assets, including; (i) Structures – 100 years (ii) Pavements – 40 years (iii) Wearing course – 10 years

	(iv) Incorporate all safety, environmental, regulatory and reasonable community requirements; (v) Deliver required whole of life asset outcomes; (vi) Deliver prescribed quality; (vii) Deliver required operational performance; (viii) Incorporate prescribed future proofing, including conduits and pits for all lighting, and, (ix) Compliance with CASA.
Reputation:	**Protect and promote BAC's Reputation in relation to the development and delivery of airport infrastructure.** (i) Maximise positive impacts on Stakeholders, and; (ii) Minimise impacts on operational businesses and customers.
Governance:	**Deliver NPR Phase 2 in a manner which meets the governance and control requirements of the Board and BAC management.** (i) Ensure best practice ethics and behaviours (ii) Accurate timely and comprehensive information transfer within BAC between stakeholders; and (iii) Ensure no third party impediments (ic. CASA, ASA, DIRD).
Compliance:	**Comply with all approvals, requirements and law.** (i) Comply with environmental obligations; (ii) Comply with planning approvals; (iii) Comply with safety regulations; (iv) Comply with aviation regulations; (v) Comply with BAC policy and procedures; (vi) Ensure BAC policies and capacity can manage this project in conjunction with other project and business demands; and (vii) Otherwise comply with all regulations and law.

1.3. Hierarchy of Plans

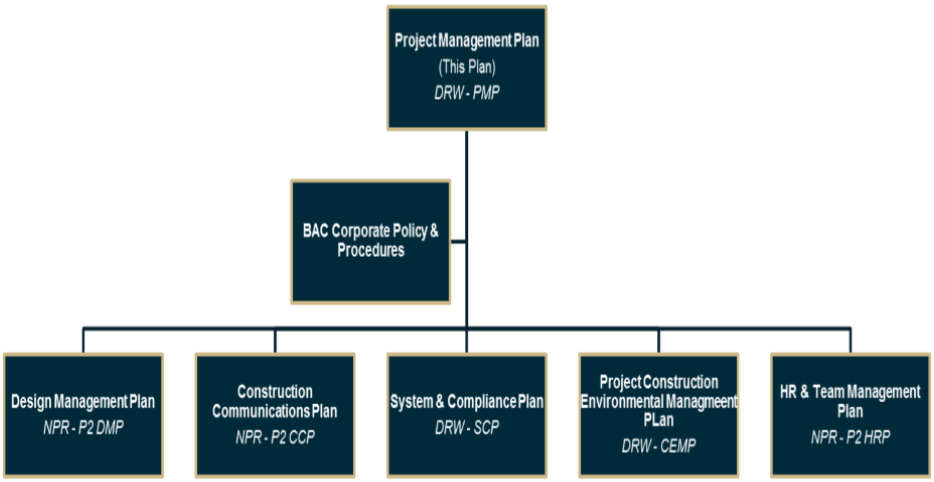


Figure 1: Management Plan Framework

This Systems and Compliance Plan shall be read in conjunction with the referenced supporting Plans.

The key content, structure and contributions of the supporting management plans to the Dryandra Road Works Systems and Compliance Plan are as illustrated by Figure 1.

Table 1 should be used as a guide for access to the specific detail of requirements, management procedures, processes and obligations documented within each of the contributing management plans as relevant.

Table 1 - Management Plan Key Content Roadmap

DRW – PMP (This Plan)	NPR – P2 DMP	NPR – P2 CCP
• Project Summary; • Project & Contract Governance Frameworks; • NPR Project Roles & Responsibilities; • DRW Team Roles & Responsibilities; • NPR/DRW Organisational Interfaces; • Contract Reporting; • Project Management Methodology; • NPR Contract Works Interfaces; • BAC Contract Interfaces; • Third Party & Minor Works Interfaces.	• Planning, Design & Operational Readiness; • Planning & Design Stakeholder Management; • Roles, Responsibilities & Contract Team Interfaces; • Design Interface & Co-Ordination (Project wide); • Design Change Processes; • Safety in Design (Project wide); • Operational Interface Management; • Planning & Design Reporting.	• Communication & Engagement Approach; • Construction Stakeholders; • Roles & Responsibilities; • Communication Procedures (internal, external & Third Parties); • Complaints Management; • Complaints Logging & Reporting; • Key Messages (Phase 2 Delivery & Airspace).
DRW – SCP	**DRW – CEMP**	**NPR – P2 HRP**
• Compliance Framework; • Compliance Register; • Approvals Management; • Contractor Design (process compliance); • Safety in Design; • Quality Compliance; • WHS Compliance; • Environmental Compliance; • Risk Management; • Document Control; • Inspection & Audit (internal & external); • Audit Schedule(s).	• Environmental Objectives; • General & Specific Requirements of ECP's; • Contractor CEMP Requirements; • Evaluation of Compliance; • Contractor Specific Activity Requirements; • Training & Awareness; • Incident Response & Reporting; • Spill Reporting; • Environmental Compliance Plans.	• Roles, Responsibilities & Corporate Interface; • Resourcing & Recruitment; • Team & Corporate Induction; • Performance management; • Training & Development; • Health & Well-Being Management; • Rostering & Personnel Administration.

1.4. Definitions

Acronym	Definition
ABC	Airport Building Controller
AEO	Airport Environment Officer
ARFF	Aviation Rescue and Fire Fighting
ASA	Airservices Australia
BAC	Brisbane Airport Corporation
BMS	Biodiversity Management Strategy
CASA	Civil Aviation Safety Authority
CEMP	Construction Environment Management Plan
DAMP	Drug and Alcohol Management Plan
DoEE	Department of Energy and Environment
DoIRD	Department of Infrastructure and Regional Development
DRW	Dryandra Road Works Project
EIS	Environmental Impact Statement
MDP	Major Development Plan
MRTS	Main Roads Technical Specification
MUTCD	Manual of Uniform Traffic Control Devices
NORA	Notice of Risk Activity
NPR	New Parallel Runway
PC	Principal Contractor
SPD	Strategic Planning and Development Group
TMR	Department of Transport and Main Roads
WHS	Work Health and Safety
WUC	Works under contract

1.5. Application

This PMP is designed to satisfy the requirements of the following documents:

- Project Objectives as set down by the BAC Board;
- BAC NPR Phase 2 Delivery Plan 2014 ;
- Dryandra Road Works Contract Dec. 2016;
- BAC Corporate Policy and Procedures
- DRW Project Management Plan

Where an ambiguity is detected between the procedures and requirements in this PMP, and other NPR project wide Management Plans, then the procedures in the Project Management Plans shall take precedence.

1.6. Authorisation

This PMP is issued and administered with my authority. All NPR personnel employed on this project shall perform their duties in accordance with the requirements of this SCP and any relevant system and compliance procedures, specific project procedures and agreed valid instructions.

Signed:

Ian Davies, Project Manager – Dryandra Road Works, New Parallel Runway **Date**

Signed:

Paul Coughlan, Project Director – New Parallel Runway **Date**

1.7. Revision

Revisions to the plans shall be made as required to reflect project requirements. Revisions to text shall be marked using the Microsoft Word “Track Changes” facility.

Revisions are approved and issued under cover of an updated Revision Status Table.

Controlled electronic versions of plans will be available via the DRW Document Controller.

The title page of the Management Plan records whether the particular Management Plan is issued as a "Controlled" copy, or "Uncontrolled" copy. Owners of controlled copies will be issued with all revisions promptly.

The minimum frequency for Management Reviews is as detailed in Section 7.0 – ‘Management Plan Review’ of the System and Compliance Management Plan.

All of the attachments are uncontrolled documents and may be changed frequently on the Project. This will not warrant updating of the Management Plan and they are attached to display the context of the documents only. The updated versions of the attachments will be kept “LIVE” on the Project computer server. .

1.8. Distribution

The Systems and Compliance Manager will issue the various Management Plans to those members of the

This PMP and all other management plans are available to all members of the DRW Project Team and can be found on the link below:

- DRW Management Plans

This PMP, other Management Plans listed in Section 6 of this PMP and any attachments thereto are copyright protected and shall not be copied or reproduced without the express permission of an authorised representative of BAC.

Table 2 - Management Plan Distribution Checklist

	DRW PMP	DRW P2 DMP	NPR P2 CCP	DRW SCP	DRW CEMP	NPR P2 HRP
NPR Project Director – Paul Coughlan	☒	☒	☒	☒	☒	☒
DRW Project Manager – Ian Davies	☒	☒	☒	☒	☒	☒
DRW System & Compliance Manager – Peter Dorn	☒	☐	☐	☒	☒	☐
NPR Design Manager – Garry Wickham	☐	☒	☐	☐	☐	☐
NPR Approvals & Communications Manager – Karyn Rains	☒	☐	☒	☐	☐	☐
DRW Delivery Manager – Ant Halapua	☒	☒	☒	☒	☒	☒
DRW Senior Project Engineer – Structures – Dave Smith	☐	☐	☐	☐	☐	☐
Airfield Works Project Manager – Peter Lyons	☒	☒	☒	☐	☐	☒

1.8.1 DRW Document Library

A Library of documents relevant to the Dryandra Road Works will be established. This library will be principally in electronic form under the following categories:

- BAC Specific Documents;
- NPR Project Specific Documents;
- DRW Contract Specific Documents (controlled copies);
- Standards & Standard drawings;
- Guidelines;
- Industry & Reference reports; and
- Data Sheets.

The library register will identify those documents that are also available in hard copy for reference by the project team.

2. Governance

2.1. BAC Governance

Governance arrangements for the DRW Contract remain in place from the completed NPR phase 1 Works. The governance arrangements of relevance to the DRW Contract are described within this section.

2.1.1 BAC Board

The Board set, and routinely update BAC Corporate policy. Although the NPR team functions as a dedicated project team, it remains bound to comply with BAC Corporate Policy with regard to the following:

1) Financial transactions and financial delegations;

2) Corporate Relations and external communications;
3) Corporate Risk and Compliance;
4) Brisbane Airport on-site advertising;
5) External audit;
6) Internal audit;
7) Procurement policy;
8) Workplace Health and Safety;
9) Bullying, harassment and unlawful discrimination;
10) Fraud and corruption;
11) Honorariums and gifts;
12) Resilience.

The above referenced policies is not an exhaustive list, and all policy documents may be accessed via the BAC intranet home portal.

The BAC board also retains governance over major capital expenditure above that approved prior to Contract Award. NPR Status reports are submitted to the Board quarterly by the NPR Project Director.

The balance of NPR project governance has been delegated to a Project Control Group (PCG), which reports periodically to the Board via the externally appointed PCG Chair (Mr Ron Finlay) and the Project Director (Mr Paul Coughlan).

2.1.2 NPR Project Control Group (PCG)

The Project Control Group (PCG) was formed specifically for the NPR Project, and performs a project governance role on behalf of, and is accountable to the BAC Board.

Membership of the PCG comprises the following:

- PCG Chairman (Ron Finlay);
- BAC CEO & Managing Director;
- BAC General Manager Assets;
- BAC General Manager Strategic Planning & Development;
- BAC General Counsel & Company Secretary;
- BAC General Manger Operations;
- BAC Chief Financial Officer;
- BAC Corporate Risk & Compliance Manager; and
- BAC Head of Airport Development.

The PCG typically meets on a 4 to 6 week basis, to review progress of all activities of the NPR Project, including the Dryandra Road Works. Additionally the PCG provides advice to the project via the Project Director regarding existing or emerging issues, approvals, project and corporate risk and compliance matters. Key subject matter includes;

1) Interface issues between Phases 1, 2 and 3 of the PNR project;
2) Financial performance and status of NPR Contracts;
3) Contractual performance of NPR Contracts, including progress and program;
4) Status and timing of required actions associated with regulatory authorities including CASA, DIRD etc.;
5) Third Party interfaces and applicable matters (including Airservices, Authorities etc.);
6) Interfaces between the NPR, other BAC planning, development or operational works;
7) Risk and Compliance matters;
8) Environmental performance;
9) WHS performance;
10) Communications and Stakeholder Engagement; and
11) Project Approvals.

The PCG Report, recommendations and accompanying input documents are tabled in advance of the PCG meeting. Meeting minutes are recorded, published internally and made available to the NPR Project Team.

2.1.3 Contract Relationship Framework

General

The Contract obligates the DRW Team and the Contractor to jointly commit to establishing and maintaining a project team built on relationships that will observe the following principles;

1) Act as stated in the Contract and in the spirit of mutual co-operation for the benefit of the WUC;
2) At all times deal with each other fairly and reasonably;
3) Communicate and expeditiously reconcile any matter that may affect the quality, proper performance and timely completion of the Milestones and the WUC;
4) Be dedicated to achieving agreed common goals; and
5) At all times perform their duties and obligations in a manner consistent with the Relationship Charter.

Relationship Principles

A Relationship Charter will be developed via a series of workshop that include the Contractor, BAC's Designer (Jacobs), and the DRW Team. The relationship principles developed will then be evolved through project objectives to establish agreed Values, Principles and Behaviours to guide team communications, meetings and interactions. Review of the collective team's performance against these behaviours throughout Contract delivery will form the basis for periodic joint review and reflection throughout the project.

Relationship Management

Project Leadership Team (PLT)

The DRW Team representatives on the PLT will be the NPR Project Director, and the BAC General Manager Assets. The MCD representatives on the PLT comprise the MCD (Australia) Managing Director, and Operations Manager. There will be at least on representative from Jacobs, being their Part C Project Director. Full details of the membership, duties and processes associated with the PLT are provided within the Formal Deed bound into Volume 1 of the Contract.

The objective of the PLT is to provide a forum for regular and formal interaction between two senior executives of the Principal, Contractor and Designer, for the purpose of providing guidance and leadership to the parties and their personnel involved in the WUC. The PLT shall meet regularly, review and provide advice on matters reported by the SMT.

Any matters of confidential / commercial nature that are required between BAC and one only of the other two parties will be held outside of the PLT on an as required basis.

The PLT will determine the required frequency of meetings, and minutes of these meetings will be documented. The PLT will provide regular updates of the Dispute Resolution Advisor (DRA), including meetings and site inspection to be held bi-monthly as a minimum.

Senior Management Team (SMT)

The DRW Team representative on the SMT is the NPR Project Manager. The MCD representative is the MCD Project Manager, and the Part C Site based Design Manager will represent the Designer (Jacobs). The SMT will meet weekly initially, which may be amended following initial establishment activities. The Minutes of the SMT meeting will be distributed to the PLT, Delivery Manager (BAC) and Construction Manager (MCD).Full details of the membership, duties and processes associated with the PLT are provided within the Formal Deed bound into Volume 1 of the Contract.

The objective of the SMT is to provide a forum for regular and formal interaction between senior Site representatives of the parties for the purpose of maintaining a regular overview of the WUC. This includes jointly monitoring the progress of the WUC, real or potential issues that may affect the performance of the works, and any relevant resourcing or logistics issues or constraints.

Achieving early resolution of any issues that may affect the proper performance and timely completion of the WUC; and providing leadership to employees and Subcontractors to ensure they are genuinely committed to the relationship principles is a prime duty of the SMT.

Contractor Incentives and KPI's

BAC have identified a series of specific KPI's that relate to aspects of Contractor performance that have potential (if poorly managed) to adversely impact on the efficiency and security of the Brisbane Airport operations.

These KPI's relate to four (4) key areas of Contractor performance, including;

1) Contractor's Planning & Approval Compliance;
2) Contractor's Systems, Functionality, and Document Control Compliance;
3) Contractor's Stakeholder and Third Party Interface Performance;
4) Airport Security and Airfield Operations Compliance.

Implementation & Reporting

Specific weightings and measures have been applied to these KPI's, as detailed within Schedule 7 to Volume 1 of the Contract. A Financial incentive pool has been provided for payment to The Contractor, based on meeting the hurdle criteria set.

The SMT must measure, document and report to the PLT on the Contractor's performance with regard to whether hurdle criteria have or have not been met. The PLT will determine the entitlement to payment of the incentive pool in accordance with the methods set out in the Formal Deed and Schedule 7 of Volume 1 of the Contract.

2.1.4 DRW Contract Team Governance

Membership of the DRW Contract governance team comprises the Delivery Manager, Systems and Compliance Manager, Contract Administration Officer, and is chaired by the Project Manager.

This forum meets twice monthly with a view to addressing key governance matters affecting the DRW team. Typical subject matter for this forum shall include reconciling the following key issues with regard to impact, required communications and actions within the DRW team:

- BAC wide interface, governance issues, policy or procedural change;
- PCG Inputs, outputs and impacts on the administration of the Contract;
- NPR wide interface management;
- DRW PLT/ SMT inputs, outputs and actions;
- Strategic interface with Jacobs regarding resource planning, design, cost, and certification;
- General Contract time, cost, quality performance;
- Strategic risk & system compliance performance;
- Training & development;
- Team & individual performance management;
- Team health & well-being; and
- Office logistics

2.2. BAC Corporate

As indicated in the compliance framework the compliance requirements of BAC Corporate have been captured and are incorporated into the compliance requirements within this plan. This ensures that all WUC is conducted in accordance with BAC Corporate requirements as well as all regulatory and contractual obligations.

2.3. Dryandra Road Works Project

The SCP has been developed to ensure the WUC completed in the DRW project is conducted in accordance with the contractual requirements. The two primary documents that detail the requirements for this project are:

- Dryandra Road Works Contract
- Specification – Dryandra Roads Works Contract - IH053700-30000-CM-SP-0001

These documents along with all supporting documentation can be found can be found on the link below:

- DRW Project - Contract Documents

2.4. Reporting

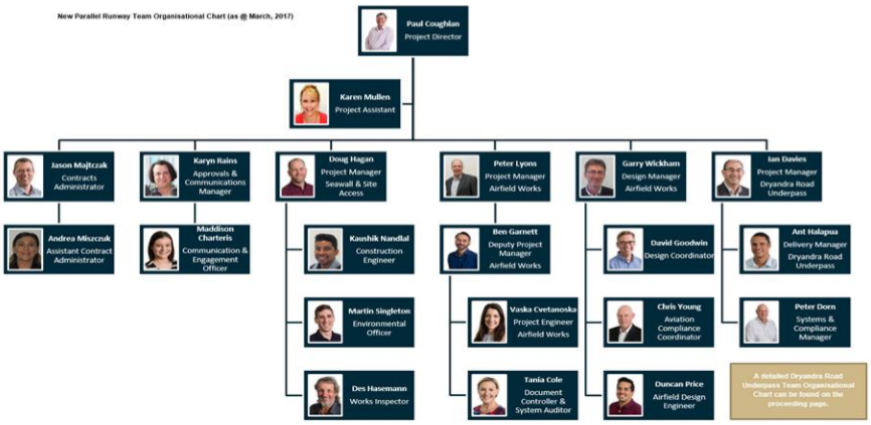
A reporting schedule has been developed for the DRW project. The schedule has been designed to ensure that all reporting, both regulatory and BAC Corporate, is conducted in accordance with required timeframes and is of a high standard. Detailed reporting requirements for the DRW project are documented within this SCP in Section **Error! Reference source not found.** Reporting.

3. Roles, Responsibilities and Authorities

3.1. NPR Organisational Structure

3.1.1 General

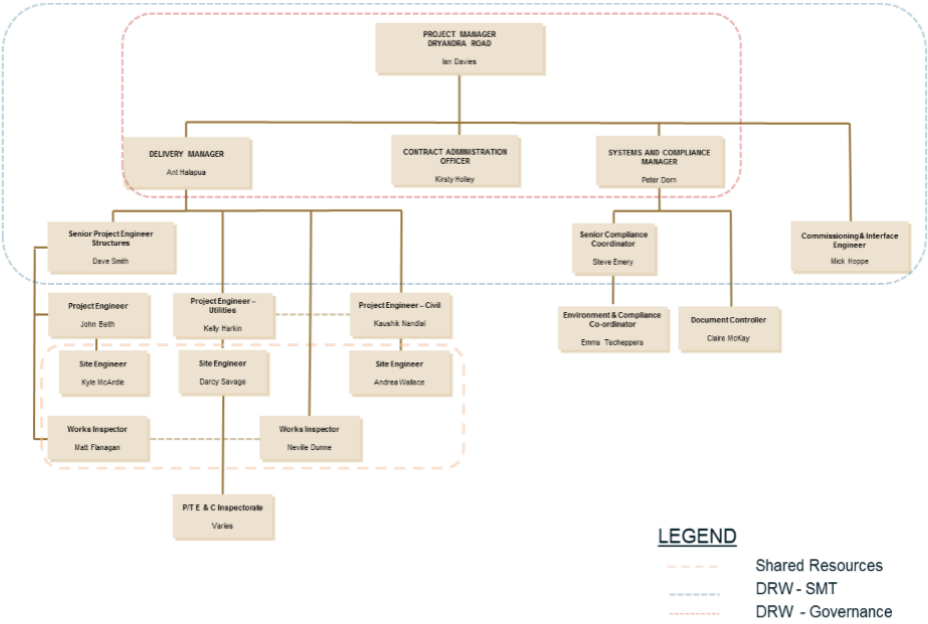
The NPR Organisational Structure is led by the Project Director, reporting to the General Manager Assets. This structure comprises three Contract delivery teams reporting to the Project Director via each of the Contract Team Project Managers. Additionally there are dedicated streams of NPR wide responsibility reporting to the Project Director that address project wide issues that are not within the scope of individual Contract Works packages, or involve project wide support to all Contract delivery teams.



3.2. DRW Organisational Structure

3.2.1 General

The DRW Organisational Structure is led by the Project Manager, reporting to the Project Director as illustrated within section 3.1.1. This structure comprises a Delivery Management, System & Compliance Management, and Contract Administration Stream.



3.3. DRW Support Services

3.3.1 General

The DRW Team retain access to technical and legal support services, as summarised below.

3.3.2 Legal Services

Minter Ellison is a Consultant that has been appointed to provide legal services to the NPR Phase 2 project.

Access to legal services from Minter Ellison shall ONLY be via the NPR Contracts Advisor (refer section 3.5.6).

3.3.3 Geotechnical Consultant Services

Golder Associates is a Consultant appointed to provide surcharge design and geotechnical advice to the NPR project team. Access to geotechnical services from Golder Associates shall be via the DRW Project Manager, and where this may involve interface with contract works adjacent the DRW, then via consultation with the NPR Design Manager.

3.3.4 Survey Services

Gerard Cooper & Associates (GC) have been engaged to provide survey services to the NPR Project.

GC have undertaken and reported the surcharge settlement monitoring as an ongoing activity during and post completion of phase 1 sand placement.

In the case of DRW, the preference and priority is to utilise the BAC survey resources in the first instance. BAC resources are limited and therefore survey needs must be planned well in advance to ensure availability.

Any conflict between BAC surveyor availability, and team requirement shall be reported to the Delivery Manager prior to consulting GC.

3.3.5 Other Consultants

Throughout the delivery of the DRW project, other Consultants may be required in order to provide specialist advice in response to issues or risks identified during the delivery of the works.

The DRW project manager will appoint such consultants as required, and where necessary, authorised by the NPR Project Director.

3.4. DRW Team Authority Levels

3.4.1 General

The delegation of responsibilities, and authority levels that accompany these responsibilities have been assigned for the Dryandra Road Works team. The current version of matrices defining these is located

- DRW Authority Matrix
- DRW Responsibility Matrix

3.4.2 Delegation of Responsibility

The delegation of responsibility matrix identifies that all members of the DRW team have a responsibility to contribute to the governance and delivery of the Dryandra Road Works, based upon the six level classification noted below.

Legend			
	A	Approve	By self
	O	Oversee/Manage/Lead	Direct others
	L	Liaise/Coordinate	Colloborate with others
	S	Support/Assist	Support
	P	Process/Implement/Investigate	Do
	M	Monitor/Surveilance/Investigate/Report	Do

It is important to Team success that all members of the Team actively operate at the right level in the resolution of issues by managing up or down as delegated in discharging their allocated responsibilities.

3.4.3 Delegation of Authority

The delegation of authority matrix identifies the limit of authority that accompanies allocated responsibilities, based upon a four level classification as shown below.

Legend	
1	Authority - PRIMARY[1]
2	Authority - ALTERNATE[2], that is, applicable when primary is unavailable due to unplanned circumstance (e.g. sick leave)
L	Authority - LIMITED, that is, dependent on the scope of responsibility of the individual (refer 'Responsibilities' matrix)
	Inform Only - Limited to key personnel for matrix purposes

All team personnel are obligated to observe the limits of authority as described by the authorities matrix and respect the limitations on approval authority and accompanying financial delegations.

Approved financial and program delegations are defined by table 2 of the authorities matrix, however key delegations within the team include:

- Project Manager: $200,000 and max. 10 day EOT
- Delivery Manager: $100,000 and Nil EOT

3.5. NPR/DRW Organisational Interfaces

3.5.1 NPR – Senior Management Team (NPR – SMT)

This forum is chaired by the NPR Project Director and the group includes DRW & AFW project managers, the NPR Design Manager and the NPR Approvals and Communications Manager. This group will meet on a weekly basis or as otherwise required. Key subject matter within this forum includes;

1) Governance Matters;
2) Contracts Reporting & interface management;
3) Design Matters;
4) Risk review;
5) Communications & Stakeholder Matters;
6) Approvals;
7) Third Party Interfaces, and;
8) Other BAC Projects Interfaces;

3.5.2 Design Management

Further to completion of the Phase 2 engineering design, throughout the construction delivery phase, the NPR Design Manager performs a governance and co-ordination responsibility project wide, including those issues pertinent to the Dryandra Road Works Contract.

The NPR Design Manager (Garry Wickham) is responsible for the management of those strategic planning and design interfaces of a project wide nature that are not of a Contract specific nature including ongoing scoping and design development by Airservices and other agencies, ongoing strategic airport and operational planning and projects, project wide regulatory compliance and approval matters, BAC and Third Party operational readiness planning and preparation works.

Contract specific actions arising from these interfaces will be identified, communicated and co-ordinated with each of the Contract Delivery teams (including DRW) to ensure ongoing co-ordination and focus on all matters required to achieve an operational runway by mid - 2020.

A Phase 2 Design Management Plan is under development and will provide clarity regarding these project wide interfaces, strategic relationships and required technical interfaces and communication protocols. Key elements of this management plan include:

- Management of the Strategic Planning & Development (SPD) Interface;
- Management of the Airservices strategic relationship including operational planning, project wide facilities design development and co-ordination, program and infrastructure impact management;
- Management of the Airport Building Controller (ABC) strategic relationship and process controls;

3.5.3 Approvals & Communications Management

The NPR Approvals and Communications Manager (Karyn Rains) performs this responsibility project wide, including those issues pertinent to the Dryandra Road Works Contract.

The NPR Approvals and Communications Manager (ACM) governs the DRW team with regard to communications and information management involving the public, media and external communications. This responsibility include the centralised receipt, registering and validation of complaints. The ACM will liaise with the DRW team with regard to delegation of specific actions regarding complaints management, approvals and communications matter.

Further to this, a Phase 2 Communications Plan has been developed which provides clarity regarding:

- The framework for Phase 2 Stakeholder communications;
- BAC's stakeholder engagement approach to be followed;
- Communication procedures to be followed by each of the Contract delivery Teams;
- Centralised receipt, validation and co-ordination of complaints management; and
- Communications interface with Phase 3 Airspace planning.

NPR Project Approvals are managed by the ACM for all initial and ongoing approvals and accompanying reporting obligations. Key project approvals relevant to DRW include:

1) The Major Development Plan approved in 2007. This approval requires an annual compliance report to be prepared by the ACM and signed by the BAC CEO.
2) Condition 12 of the MDP requires a monthly compliance report to be prepared and tabled to the DIRD airport representative, the AEO

3.5.4 Contract Administration

The NPR Contract Administrator performs this responsibility project wide, including co-ordination of project reporting in Finance1.

The DRW Contract Administration Officer is responsible for the preparation of relevant administrative and financial reporting requirements for this contract package, and co-ordinating with the NPR Contract Administrator in relation to the overall NPR project delivery and relevant reporting and corporate interface requirements.

3.5.5 Master Program

The NPR Programmer (Rob Thomson) is responsible for the development and reporting on the NPR Master program. This responsibility includes monthly review and status of the DRW Contract Program with the DRW Delivery Team. Any schedule variance to the Master Program will be identified and required actions agreed via the SMC.

The DRW Delivery team is required to monitor and document the performance of all activities of the Contractor in relation to the following:

- All relevant weather data, including rainfall event details, and actual works affected during, and after the event;
- Actual commencement date for each activity nominated in the Contractor's program;
- Actual completion date for each activity nominated in the Contractor's program;
- Any observations regarding change in resource effort applied by the Contractor from that planned;
- Any delays to a program activities and the contributory cause.

The above information shall be documented via the iTWOcx daily diary. The Master programmer will undertake a monthly review and update of the Contractor's program status and provide program monitoring updates.

3.5.6 Contracts Management

The NPR Contracts Advisor (David Thorpe) is independent of the Contract delivery teams and reports to the Project Director.

One of the responsibilities within this role is the provision of advice (on an as needs basis) to the DRW team from a Contractual viewpoint. Examples of such advice may include:

- Clarification of contractual implication associated with an obligation or requirement under the Contract;
- Advice regarding the legitimacy or otherwise of a notified Contractual Claim with regard to the application of the Contract;
- Advice regarding interpretation or application of Third Party Agreement obligations (ASA / Telstra etc.) under the Contract;
- Advice regarding the Contractual rights of BAC under the Contract, and if necessary, reference to access of the BAC Corporate legal team, and,

- Clarification as to whether the advice required of the DRW team is of a Contractual, or Legal nature, and relevant actions required in each case.

In providing such advice, should a matter be identified as being of a legal nature, or require a legal opinion, the NPR Contractual Advisor will facilitate obtaining such required Legal advice via BAC's Legal Consultant Minter Ellison.

To be clear, no legal advice shall be sought directly from Minter Ellison by the DRW Team. Upon receipt of a legal opinion, the NPR Contractual Advisor will then inform the Project Manager DRW (as Principal's Representative) of the required commercial or contractual application of such advice.

3.5.7 Human Resources Management

The NPR project will be supported by the BAC Corporate HR Team. The People and Services Manager (Belinda O'Connor) from Corporate HR has been appointed as the Manager responsible for co-ordination of the DRW team's HR support requirements.

The management of this interface will be the responsibility of the DRW Project Manager, in accordance with the NPR Human Resources Plan.

Key aspects of this plan that are important to the DRW team include:

- Recruitment of DRW Resource requirements;
- Co-ordination and support regarding framework for performance management;
- Cultural alignment with working and managing the "BAC Way",
- Training and development plan for the DRW Team; and
- Implementation & logistics associated with the NPR Health & Well-Being Plan.

4. PROJECT SUMMARY

4.1. Design Consultancy Agreement

A Design Consultancy Agreement (NPR) for Phase Two Design Services was executed on 12 February 2015. This agreement (which remains current) provides for engineering services by Jacobs Group (Australia) Pty Ltd. in three parts, as follows:

- Part A – Scope Confirmation and Concept Design (completed);
- Part B – Detailed Design Documentation (completed for DRW), and;
- Part C – Construction Attendance and Certification.

The design package that is now incorporated within the Dryandra Road Works Contract was developed under this Consultancy Agreement (Refer Volume 2 & 3 of the Contract).

This Consultancy Agreement was established on the basis of a commitment by BAC and Jacobs to establishing and maintaining a commitment to a relationship charter, jointly developed between the parties, as detailed within the Consultancy Agreement. This will be carried forward into Part C Services via a tri partied agreement as outlined within section 2.1.3.

The requirements of the Consultancy Agreement in relation to Part C are described within clause 3.5 of the Scope of Services (Annexure Part I to the Design Consultancy Agreement).

A summary outlining the key deliverables under Part C of this agreement is included in Table 3 on the proceeding page.

Post completion of the Part B design and documentation, the scope of the Part C Services, including clarification of Jacobs responsibilities was updated and agreed. The updated agreement reflects and aligns with the requirements the Dryandra Road Works Contract documents (and obligations described within).

Attachment add link to this to this PMP, (Jacobs Part C: Table of Responsibilities; - Management Elements) provides more specific details of the responsibilities to be performed by Jacobs, the DRW Team, and the interfaces to be managed, by management element between the two parties. The document can be found on the link below:

- Jacobs Design Responsibilities and Interface

The services to be provided by Jacobs for Part C of the Design Consultancy Agreement shall be performed on a cost reimbursable basis, with an upper limit fee. Specific details of the resourcing, fee structure, and Jacobs Part C certification strategy have been developed as an amendment to the consultancy agreement.

The DRW Project Manager, and Jacobs Part C Manager (Robert Sommerville) are responsible for ensuring these services are performed within the agreed upper limiting fee. Key activities that are integral to this include:

- Weekly resource planning, in concert with Contractor's Three (3) week look ahead program;
- Monthly Jacobs report, and monthly NPR wide progress meeting, and;
- Three monthly Part C specific governance meeting between Jacobs / BAC PLT representatives.

Table 3 - Extract outline of Part C Requirements from the Scope of Services relevant to DRW (Annexure Part 1 to the Jacobs Design Consultancy Agreement

PART C GENERAL REQUIREMENTS	
Activity	**Deliverables**
Construction Phase Attendance	• Attendance at site inspections (only) in support of Design Consultant obligations regarding Design Certification. • Engineering attendance to site based issues and technical response/advice, in order to maintain the design intent. • Attendance at Contractor progress meetings • Progressive review and comment on Contractor mark up of As Built drawings • Monthly Progress Report (Design Context)
Quality Assurance	• Review and comment on Contractor Quality system, procedures and protocols • Review and comment on Contractor proposed work method statements, Inspection and Test Plans (ITPs) and associated documentation • Attendance to relevant critical witness / hold point releases • Responding to relevant RFI's, and NCR's in order to protect the integrity of the design intent • Attendance and critical technical review of all construction trials, including the proposed methodology and implementation. • Review and technical acceptance of contractor submissions including for example; concrete mix designs, asphalt mix designs, and permanent supply items.
Designer Verification / Certification	• Progressive certification of completed works where practical • Monthly reporting of status / relevant issues regarding certification matters • Final certification of constructed works (Refer Section 4.20 and Annexure D of design Consultancy Agreement) •
Final Inspection / Defects Management	• Review and comment on the acceptability of technical content within draft Operations and Maintenance Manuals, required by the construction Contract. • Assisting the NPR Project Team with final Inspection / defects and omissions lists / close out • Contribution to the NPR Project Team's Final Project Report, including relevant reference / requirements relating to completed infrastructure from design perspective, and ongoing operations and maintenance.

4.2. Dryandra Road Works Construction Contract

4.2.1 General

The scope of work to be delivered by the Contractor under the Dryandra Road Works Contract is documented in detail within clause A2.4 of the Specification (IH053700-30000-CM-SP-0001). This contract comprises the following key elements:

1) **Construct Only Works elements**; - including the cast in place reinforced concrete underpass structure, new and relocated utilities including HV and LV power, communications, sewer, water and recycled water. Relocation works include a critical Fibre Optic service used by Airservices Australia in the control of aircraft movements within the Airport, and relocation of Telstra communications servicing the General Aviation Area and BAC tenants;

2) **Design and Construct Works elements**; - including precast reinforced concrete piles, pile splices, a prefabricated electrical switch-room building, directional drilling for utility services conduits, and cathodic protection for nominated utility installations;

3) **Temporary Works Design and Construct elements**; - including significant dewatering to facilitate underpass construction, temporary excavation and site stability provisions, formwork, falsework, roads and drainage to facilitate the permanent works;

4) **Performance based supply items**; - including electrical systems, uninterruptable power supply (UPS), container diesel backup generator, fire indicator panel (FIP), programmable logic controller (PLC), pad mounted sub stations and passive fire protection system.

4.2.2 Contract Documents

The Contract comprises five (5) Volumes, including:

- Volume 1 – General Conditions of Contract & Formal Deed;
- Volume 2 – Specifications;
- Volume 3 – Drawings;
- Volume 4 – Compliance Documents;
- Volume 5 – Reference Documents.

A copy of all documents comprising each volume of the Contract are located within the DRW filing structure and hard copies within the reference library.

4.3. Programme

4.3.1 General

The Contract duration is eighty seven (87) weeks, and includes three (3) separable portions described as follows:

1) Separable Portion 1 – Link Taxiway West Works Area;
2) Separable Portion 2 – Shared Access Work Area, and;
3) Separable Portion 3 – Balance of Works Under the Contract (WUC).

The program is a “wet” program and hence incorporates the Contractor assessed provisions for inclement weather. The Contract does not include provision for extension of time for wet weather.

The Contractor is only entitled to an extension of time to the completion date for the Contract if due to a “qualifying cause of delay” as defined under the Agreed Terms within the Contract.

Liquidated damages apply to separable portion one ($11k/ day), and separable portion three (3) $26k / day, as detailed within Schedule 1 to the Contract.

4.3.2 *Contract Milestones*

Further to execution by the Contractor, the Contract commencement date, for purpose of monitoring Contractor performance is 5 January 2017, with a Contract Completion date of 5 September 2018.

Table 4 provides details of key dates applicable, for which Contractor progress will be monitored and reported monthly to the PCG.

Table 4 - Dryandra Road Works Contract - Key Dates

Milestone Description	Key Date
Commencement Date	5 January 2017
Separable Portions: • SP1 Link Taxiway West Work Area (30wks) • SP2 Shared Access Work Area (41wks) • SP3 Balance of WUC (87wks)	 2 August 2017 18 October 2017 5 September 2018
Milestones (Contract) MS1 Link TWY west surcharge (24wks MS2 Dryandra Road traffic switch (78wks) MS3 Link TWY east surcharge (83wks)	 21 June 2017 4 July 2018 8 August 2018

4.4. Project Insurances

BAC have placed a program of Principal Arranged Insurances (PAI). The program of PAI's takes effect from 01 February 2017.

Details regarding the insured parties, duration, and payment of deductibles is provided within Clause 22 of the General Conditions of Contract.

The Contractor will be provided with log in details for a "portal" for the purpose of visibility of the current policy wording only.

The Contractor is obliged to provide specific insurance with regard to public liability and other insurances as specified within Clause 23 of the General Conditions of Contract.

The Contract Administration officer is responsible for the management and administration of compliance with Insurance requirements of the Contract, including:

- Proof of insurance;
- Preservation of insurance,
- Notification of claims; and
- Administrative activities associated with settlement of claims.

5. DRW DELIVERY MANAGEMENT METHODOLOGY

5.1. DRW Works Management

The role & responsibilities of the Delivery Management stream includes:

1.	**DRW Works Management**	- Design Management – technical; - Works Approvals & NORA; - Access & Security Management; - Maintenance Management; - Other.
2.	**DRW Contract Management**	- Scope Management; - Contractor Design Co-Ordination; - Contractor Claims & Variations; - Contract Provisional Works; - Sub-Contractor Management;
3.	**DRW Contract Administration**	- Contract Insurances; - Contract Security; - Contractor Progress Claims & Payments; - Contract Notices; - Administration of contract variation issues

Further detail regarding allocation of responsibilities is provided within the responsibilities delegation matrix which can be found on the link below:

- DRW Responsibilities Matrix

5.2. Other NPR Contract Works Interfaces

Critical to successful delivery of the Dryandra Road Works is the management of Contract Interfaces. As the Dryandra Road Works are constructed within the wider footprint of the Airfield Works, a number of key infrastructure and programming interfaces result. Table BB (over page) provides a summary of the critical interfaces between the Dryandra Rd Works and Airfield Works that must be positively managed by the two Contract delivery teams.

Table 5 - Critical DRW / Airfield Interfaces to be managed

Item	Element	Infrastructure Interface	Program Interface	Responsibility	Documentation (*where relevant*)
1 AFW Contract - Underpass Structure					
a)	Survey & Set Out	Set out for the location, orientation, and level of the underpass structure must align with the same for link taxiways – to avoid conflict between the two contractor methods of survey set out & control	Must be issued to AFW Team prior to AFW Contract Commencement (*03 July 2017*) CHECK PD	Delivery Manager	Survey Control Report to be provided by DRW Contractor & to be issued & adopted by AFW.
b)	Backfilling Conformance	Backfilling to the underpass structure by DRW Contractor must be conforming, documented & demonstrated to AFW Contractor for information	Must be completed & closed out one month prior to release of site to AFW Contractor - (*Target 01 Oct 2018*)	SPE Structures	Quality system compliance & verification documents. via summary report of completed backfill work lots.
c)	Link Taxiway Power & Coms.	Power and communications conduits & pits connecting to AFW Link Taxiway services must align with nominated locations / levels. Need to agree means of physical marking / location	Must be completed & closed out one month prior to release of site to AFW Contractor - (*Target 01 Oct 2018*)	SPE Civil & Utilities	Quality system compliance & verification documents via summary report of completed backfill work lots. Marked in field & joint inspection.
d)	Bridge deck power & coms. conduits	Conduit extensions will project beyond the bridge into the taxiway corridor. Conduits are terminated with end caps – and direct buried with no pit installed. Location, alignment, and level are key interface to be managed Need to agree means of physical marking / location.	Must be completed & closed out one month prior to release of site to AFW Contractor. - (*Target 01 Oct 2018*)	SPE Civil & Utilities	Marked in field & joint inspection.
e)	Utility relocation cut - overs	Potential for disruption depending on timing of critical activities between Contracts. Requires communication & management of timing to mitigate impact.	Varies – however confirmed timing to be agreed / co-ordinated	SPE Civil & Utilities	N/A

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Item	Element	Infrastructure Interface	Program Interface	Responsibility	Documentation (*where relevant*)
f)	Works adjacent ASA Fibre Optic	Possible that AFW & DRW works adjacent the ASA Fibre optic may be concurrent. Requires AFW Contractor Program (once awarded). Ongoing interface with AFW team required.	Timing / sequencing of ASA permits to work in proximity of fibre optic. Potential conflict. (*Ongoing interface*)	SPE Civil & Utilities	Programming particulars.
2 AFW Contract - Airfield Surcharge & Bulk Earthworks					
a)	Retained Surcharge	Golder surcharge design identified minimum extent of surcharge NOT to be removed. Extent of footprint to identified & agreed with AFW team	Prior to commencement of bulk earthworks by DRW Contractor	SPE Civil & Utilities	Survey & set out co-ordinates to be confirmed.
b)	Compaction & Surcharge – Airfield Roads (west of underpass)	Bulk earthworks includes embankment construction and surcharge for Airside Perimeter Roads **west** of the underpass. The location, extent, orientation & timeliness of these works must align with AFW requirements, and demonstrate conformance. Surcharge monitoring and reporting is required until the date for P.C. Handover interface to AFW is required.	Completion of works within Milestone 1 & SP1 thresholds Delay interface with AFW if exceeded. (F5/F6 by 30 Sep 17)	SPE Civil & Utilities	Make QA & compliance verification records available to AFW Team for inspection.
c)	Compaction & Surcharge – Airfield Roads (east of underpass)	Bulk earthworks includes embankment construction and surcharge for Airside Perimeter Roads **east** of the underpass. The location, extent, orientation & timeliness of these works must align with AFW requirements, and demonstrate conformance. Surcharge monitoring and reporting is required until the date for P.C Handover interface to AFW is required.	No Contract milestone to control completion of surcharge placement. Must actively manage MCD to adhere to program dates. Delay interface with AFW if exceeded. (F3 & 4 by 30 Sep 17)	SPE Civil & Utilities	Make QA & compliance verification records available to AFW Team for inspection.

Item	Element	Infrastructure Interface	Program Interface	Responsibility	Documentation (*where relevant*)
d)	Gap Infill – Link taxiway	Bulk earthworks includes embankment construction and surcharge for the Link Taxiways within the existing Dryandra and Airside Road footprints. The location, extent, orientation & timeliness of these works must align with AFW requirements, and demonstrate conformance. Handover interface to AFW is required.	Completion of works within Milestone 3 threshold. NOTE – Contract to be amended – This scope now being deleted from DRW & incorporated directly into AFW Contract.	SPE Civil & Utilities	N/A – now directly AFW scope – removing interface. NOTE – Confirmation that utilities to be removed can be decommissioned.
3 Recycled Water Pipeline					
a)	Pipework connections	Set out for the location, alignment, and level of the pipeline must align between pipeline Contract works and DRW Works. Relevance related to pipeline connection – including pipe size / fittings compatibility etc. Co-ordination / handover interface from Recycled pipeline team to DRW is required.	~~Timing for completion of pipeline is to be confirmed.~~ Now completed ~~Interface with DRW Contractor program required to be managed~~.	SPE Civil & Utilities	~~Survey Conformance to be provided by RCW Contractor – or co-ordination of verification survey with DRW Contractor.~~ DRW Contractor to confirm connection / tie in.
b)	Proximity to ASA Fibre Optic	Water main installation adjacent ASA fibre optic will require permit to work. DRW works require similar permit adjacent Fibre optic in other locations	Timing interface & potential for concurrent permit applications – to be managed.	SPE Civil & Utilities	Contract teams to co-ordinate / check program interface & action as necessary.
4 HV, LV, Communications, Security					
a)	Connections to Utilities Compound	Handover interface. Requires co-ordination of "as built" DRW infrastructure as compared with that documented within AFW Contract. Includes Link T/Way conduits.	Target by 30 June 2017	SPE Civil & Utilities	Provide DWG locating connection point to Airfield Works team.
5 Shared Site Access Road					
a)	Condition reports	Handover interface. Requires co-ordination of "as built" DRW records (as relevant) and condition report for road corridor / handover inspection within AFW Contract.	Handover on completion By DRW (18 Oct 017)	SPE Civil & Utilities	Condition Report / as built data. (as relevant)

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5.3. BAC Contract Works Interfaces

Further to interface management within the NPR project, including the Airfield Works, the DRW contract in particular interfaces with a number of other BAC Contracts.

Table 6 (below) provides a summary of the critical interfaces between these projects and Dryandra Rd Works that must be positively managed between the DRW Contract delivery team and relevant BAC Contract team.

Table 6 - Critical DRW / BAC Interfaces to be managed

Item	Element	Infrastructure Interface	Program Interface	Responsibility	Documentation (*where relevant*)
1 Domestic Northern Apron Extension					
a)	Shared access / conflict	Contractor compounds will be adjacent – potential interface to be managed. Maintenance of access to critical DNAE activities – i.e. concrete apron pours etc. Potential for use of Shared Access Road by DNAE & conflicts that may arise. Requires routine interface management	Current timing – Project deferred to 2018 or beyond & interface removed. Timing of DRW traffic management / traffic switch / disruption Note –	SPE Civil & Utilities	Individual Contract Programs
b)	Utilities	Utilities scope for DNAE deleted or reduced. Resultant change management to be identified by DNAE detailed design. May impact location of DRW terminations / pits for future connection	N/A	SPE Civil & Utilities / DNAE Project Manager / AFW Design Manager	Design Documents / schedules / Delivery programs as relevant..
2 Temporary Airside Diversion Road (Link Taxiway)					
a)	Airside Road Surcharge Infill	Diversion must be in place prior to surcharge gap infill to airside road (Link taxiway) & airside security diverted. Interface with BAC Contract delivery Team	Works to be completed by AFW team by no later than 30 April 2018	SPE Civil & Utilities / BAC (Garry Wickham)	Works to be completed by AFW NOTE _ completed 17 April 2018..
3 Domestic Terminal Convention Centre / Hotel					

DRW Project Management Plan Page 26

Item	Element	Infrastructure Interface	Program Interface	Responsibility	Documentation (*where relevant*)
a)	Utility Connections to ASA and DTB	New utilities infrastructure to connect fibre optic to ASA Control Tower – includes road crossing of Dryandra Rd / conduits and cabling routes adjacent the Hotel Site	Timing for road crossing Timing for site access. *(Target receipt from Hotel 30 May 2017)*	SPE Civil & Utilities	Quality system compliance & verification documents. Survey co-ordinates / as built data.
b)	Cranes – Line of Sight Interface	ATC will control line of sight requirements for 14/32 runway visibility. Potential risk that Hotel crane boom & DRW crane boom(s) collectively restrict line of site & one / or other is shut down Ongoing interface management required depending on life of Hotel carnage requirements.	Period of Underpass construction	SPE Structures	Depending on Hotel program & demob. Of crane. Ongoing monitoring activity.
4 Taxiway H – Code E Upgrade					
a)	Relocation of affected Tennant	During critical works activities – Tennant affected to be relocated to site adjacent RFDS. Timing requires interface management with Utilities works Casuarina St precinct.	6 month period 2017 – subject to commencement date.	SPE Civil & Utilities	N/A – other than programming documents
5 Other					

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6. PROJECT SPECIFIC MANAGEMENT PLANS

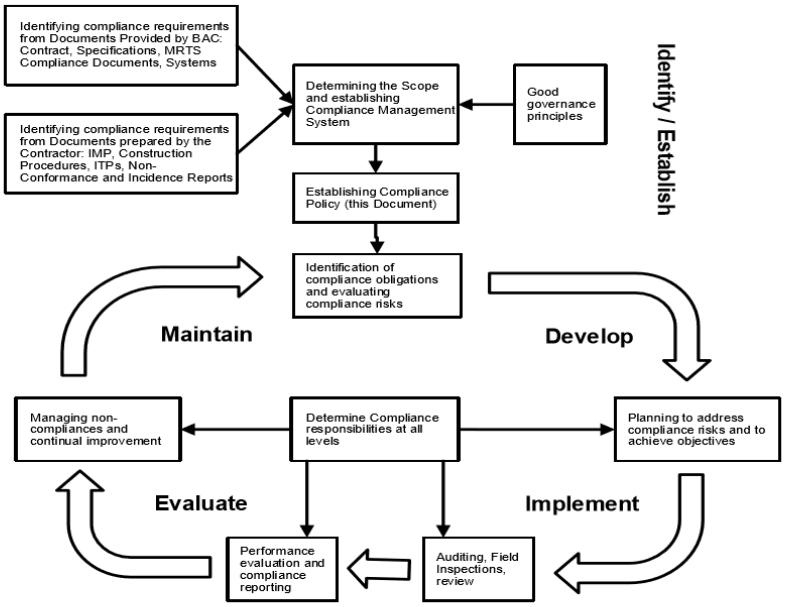
6.1. Systems and Compliance

6.1.1 General

The management processes and controls associated with ensuring Contract and Systems compliance by the Contractor including Quality, WHS, and Environmental compliance is documented within the System & Compliance Plan (DRW SCP).

6.1.2 Compliance Framework

The process flowchart that underpins the Compliance Framework is as shown in Figure 2.



6.1.3 Compliance Register

The Compliance Register identifies all overarching BAC Policy requirements, applicable legislative provisions, and Contract obligations. It provides a route map for monitoring and track any change in identified legislative or corporate requirements and obligations that must be actioned in order to maintain and where necessary update compliance requirements to be met and delivered by the Dryandra Road Works.

Further details are provided within the System & Compliance Plan.

6.1.4 Risk Management

The management of risk is a vital activity of the DRW Project Team in the management of the project delivery. The approach of the DRW team is detailed within the System & Compliance Plan. This includes provision for the identification of risk, current & future controls to be implemented to effectively mitigate and the assignment of responsibility for action.

6.1.5 Document & Record Control

The document control requirements for the DRW Contract are identified within the System & Compliance Plan including control of the following key elements;

- Filing structure;
- File naming conventions;
- Document numbering conventions;
- Records management;
- Aconex protocols, including document & mail structures, communication protocols, workflows and registers;
- Use of the Beakon WHS document & management system; and
- Use of outlook.

6.1.6 Auditing

The System & Compliance Plan documents the framework, process controls and frequency for internal and external inspections and auditing of the Contractor, as well as the Corporate, Third Party and Project team auditing requirements.

Further details associated with the application of these process controls is provided within the System & Compliance Plan (DRW SCP) which can be found on the link below:

- Systems and Compliance Management Plan

6.2. Stakeholder & Communication Management

The NPR Construction Communications Plan provides an outline and guide to the resources, systems and procedures to sensitively and effectively guide communication and stakeholder engagement requirements and responsibilities of the DRW Team in concert with the wider NPR team.

Adherence to the required communications protocols, and "rules of engagement" internally and externally are essential. These rules vary depending on the nature of the communication or engagement according to the following categories:

a) BAC internal engagement procedure;
b) AirServices engagement procedure;
c) Third Party engagement procedure;
d) Government agency engagement procedure;
e) Airport Tenants engagement procedure,
f) Affected Community (off airport) engagement procedure;
g) Construction Alerts;
h) Team Alerts,
i) External Briefing procedures, and
j) Site Visits., which includes detailed tables

Further details associated with the application of these process controls is provided within the Construction Communications Plan (NPR – P2 CCP) which provide expanded tables identifying key primary contacts and communication tools to be observed. The plan can be found on the link below:

- NPR Phase 2 Construction Communication Plan

6.3. HR & Team Performance

The NPR Team Performance Plan has been developed for use project wide, and the DRW Project Manager is responsible, through the appointed governance team for the requirements of this plan being implemented. The plan outlines the resources and procedures to be utilised in the management of human resources and team performance outcomes. Issues including:

a) NPR Resourcing;
b) Induction Management;
c) Team Culture and the BAC Way,
d) Performance and Health and Well Being,

Further details associated with the management of team performance is provided within the HR & Team Performance Plan (NPR - HRP). The plan can be found on the link below:

- Human Resources and Team Performance Plan

7. PROJECT MANAGEMENT SOFTWARE

7.1. Cumulus

Cumulus is BAC's internal knowledge and record management system that incorporates version control, information sharing platform and avoid / minimise confusion over document status and history.

The DRW team has established its document control system based upon continued use of the BAC G Drive, and within the Assets / NPR document framework structure due to ongoing interface difficulties with other BAC document management tools such as ACONEX, Follow Me Desktop and file interface management.

The project team intends to transition the document management from G Drive to Cumulus during the life of the Contract, subject to full resolution of the system interface issues, mitigation of interface risk to project team, and timing for this having been achieved relative to Contract completion.

7.2. Aconex

Aconex is a web-based communication system that is utilised by the Principal. All communications made for the Project and directed to the Contractor, the designer and approved consultants are to be made via Aconex in accordance with the 'New Parallel Runway - Phase 2 - Aconex - Project Instruction'. Details are included within the DRW - SCP.

7.3. Beakon

Beakon is the BAC WHS contractor management system used for the Project by both the Principal and the Contractor. It is a web based system that allows contractors to upload safety documentation, request work approvals, submit NORA's and complete worker inductions (where applicable).

7.4. iTWOcx

iTWO cx is a web based document management system. The DRW team will use iTWOcx for Quality System document and records management, and for the management of project site diaries.

The iTWOcx quality system module performs the following key quality document management tasks:

- ITP Library – including creation and version control of ITP's;
- Lot and Sub Lot Management – including division of the project work areas into discrete portions of work;
- NCR's – including the documentation of NCR's, allocation of responsibility for rectification and close out, and verification documentation;
- Lot verification – including relevant input documents, test results and records management.

Site diary records incorporated within iTWO cx will provide controlled data capture and traceability of diary entries throughout the project including site photographs.

Both modules of iTWOcx being used within DRW are supported via an indexed database with full search capability.

7.5. Prima Vera 6 & ASTA

The Contract program must be prepared via use of either Prima Vera P6 or Asta Power Project software. The DRW team will monitor and review Contractor's program and progress using this software, in liaison with the NPR Master Programmer Rob Thomson. (refer section 3.5.5 for details).

7.6. Finance 1

Finance 1 is the software used by BAC for financial records, accounting and forecast reporting. Purchase orders and accruals will be managed within the DRW Contract using the Finance 1 financial management and accounting tools.

8. PROJECT REPORTING

8.1. General

Reporting shall be carried out in accordance with the Reporting Schedule included within the System and Compliance Plan. Each DRW Team member is responsible for internal reporting as required by internal systems and procedures.

Reporting to Statutory Authorities shall take place as detailed in each of the relevant Management Plans.

8.2. Monthly PCG Report

The Project Manager will provide a monthly report on the progress and financial status of the Project to the PCG.

The monthly PCG report will cover the status of key aspects of the Contract performance including:

- Health and safety – status and update;
- Program information – progress to date and forecast completion date;
- Financial information - budget review, cost to date, forecast cost at completion;
- Design information – as applicable ;
- Approvals;
- Contractor procurement – as applicable;
- Contractor and DRW Team resources – status and update;
- Quality – status and update of key issues;
- Environmental – status and update of key issues;
- Human resources and industrial relations – as applicable;
- Community and stakeholder relations – via NPR CSM;
- Cultural heritage – as applicable – via CSM.

8.3. Monthly Designer Report

BAC's phase 2 designer, Jacobs, shall provide a monthly (tbc) progress review report to the DRW Project Manager.

The Jacobs monthly report shall address design and quality performance issues relevant to the WUC including:

- Overview of Quality System Status and outstanding issues;
- Jacobs Part C – Resource management;
- Jacobs Part C – Financial status and forecast;
- Contractor Design Status & Issues;
- Design Change;
- Contractor Rework;
- Emerging Issues
- Other (section to be refined).

Monthly reports will commence upon finalisation of the Part C Scope and the Contractors program and timing of commencement of major activities on site.

8.4. Daily Reports

Daily site diaries will kept by all inspectorate staff and reviewed by the Senior Project Engineers. The daily diaries shall record details of Contractor activities, work resources, accomplishments, materials consumed, weather conditions, and particulars of any delays by activity type.

The daily diary reports shall be recorded in the iTWOcx platform in accordance with the System and Compliance Plan.

8.5. Contractor Reports

The Contractor is obliged to provide mandatory weekly and monthly reports, including:

- Monthly Design Report (cl 9.4);
- Monthly Environment Compliance Report (cl 15.4);

- Monthly Program Update Report (cl 42.4);
- Monthly Progress Report (cl 42.5, & Spec cl B5.2);
- Weekly Activity Reporting (Spec. cl B5.1);
- Incident Reporting (cl B5.3).

All Contractor reports shall be submitted via the Systems and Compliance Manager and be reviewed in accordance with the System and Compliance Plan.

BAC comments on the weekly, or monthly reports shall be noted within the minutes of the relevant weekly construction co-ordination meeting minutes, or monthly site meeting minutes, as relevant.

9. TEAM MEETINGS

9.1. PCG Meetings

PCG meeting are held eight times per year (or as required) in accordance with a prescribed calendar as part of the NPR specific governance protocols. PCG meetings are facilitated by an externally appointed chair (Mr Ron Finlay).

9.2. NPR Management Meetings

NPR management meetings will occur monthly, or as required. These meetings will be chaired by the NPR Project Director.

9.3. Contract Team Meetings

The Contract Team meetings are comprised as follows:

- DRW team governance meetings which will be held fortnightly, and chaired by the Project Manager;
- iSMT meetings comprising the senior management team within DRW will be held weekly and chaired by the DRW Delivery Manager; and
- DRW Team meetings which will be held monthly, chaired by the Project Manager and include the full DRW Contract team.

9.4. Designer Interface Meetings

Interface meeting with the NPR designer (Jacobs) will be held on the following basis:

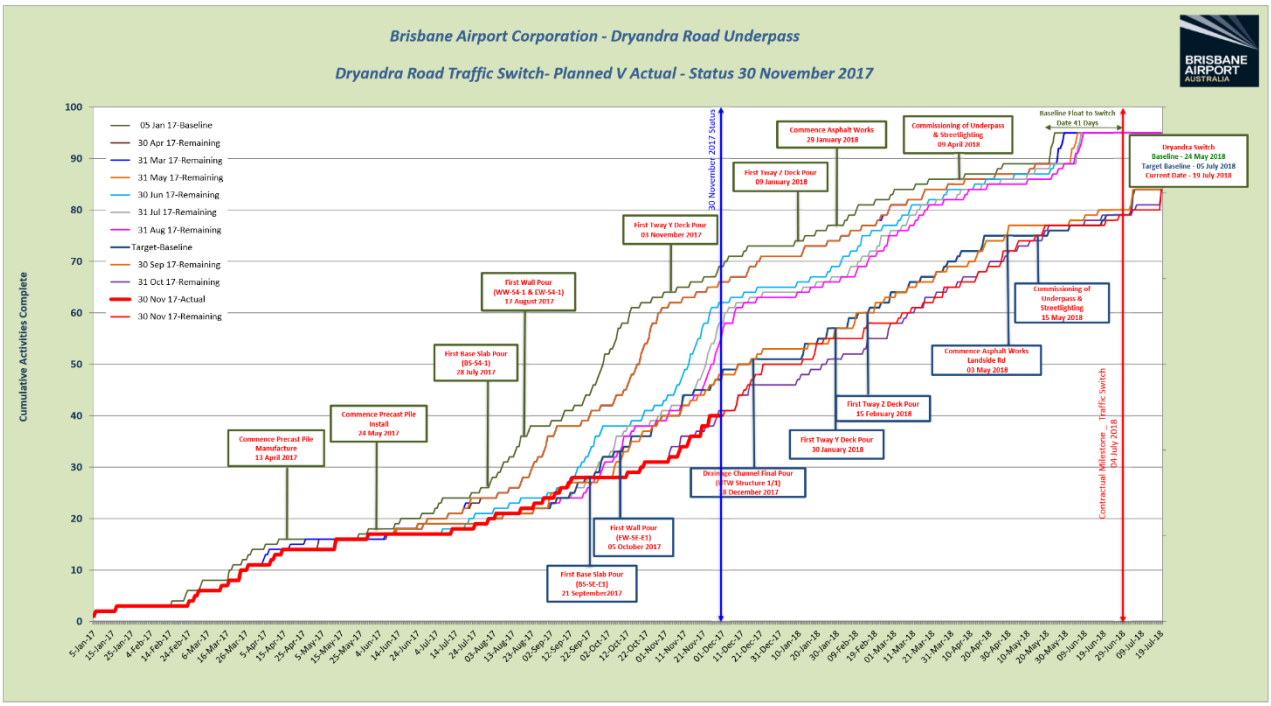
- Weekly Resource planning meeting will be chaired by the DRW Delivery manager and attended by the Compliance Manager (as required) and the Jacobs Site Team leader;
- Monthly Project wide co-ordination meetings to be chaired by the NPR Design Manager and attended by the DRW and AFW team project managers as well as the Jacobs Site Team leader from each of the major works Contracts (DRW & AFW);
- Quarterly governance meeting that will be chaired by the NPR Project director and attended by the BAC and Jacobs PLT members.

9.5. Contractor Meetings

Several routine meeting will be required between the DRW and Contractor teams. Key meetings within the overall meeting schedule will include:

- Contractor Construction Progress meetings which will be held weekly and chaired by the DRW Delivery Manager;
- Contract Site Meetings to be held monthly and chaired by the DRW Project Manager;
- Contract Program Review meetings which will be held monthly (or as otherwise required), and chaired by the DRW Project Manager;
- Design review meetings, which will be held routinely as required. These meetings will be chaired by the Contractor's Design Manager.

7.5. Appendix 5: Dryandra Road Traffic Switch – Planned V Actual – Status 30 November 2017



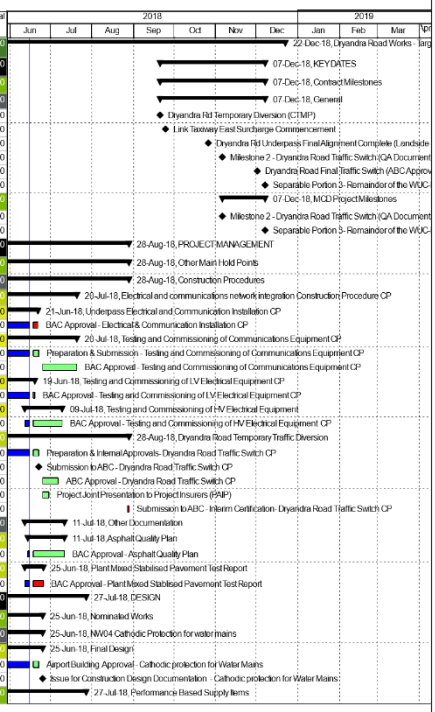
7.6. Appendix 6: DRW Target Program (Revision 5)

Project ID: 2772
Filter, Layout: DRW-TP
Program ID: NR-1187-TP2-PU-67

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

Page 1 of 28
Print Date: 22-Jun-18

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 2		388.0	15-Jul-17 A	22-Dec-18	0.0
KEY DATES		59.0	20-Sep-18	07-Dec-18	0.0
Contract Milestones		78.0	20-Sep-18	07-Dec-18	0.0
General		78.0	20-Sep-18	07-Dec-18	0.0
KD-610	Dryandra Rd Temporary Diversion (CTMP)	0.0		20-Sep-18*	-20.0
KD-620	Link Taxiway East Surcharge Commencement	0.0		24-Sep-18	74.0
KD-630	Dryandra Rd Underpass Final Alignment Complete (Landside & Airside)	0.0		26-Oct-18	0.0
KD-280	Milestone 2 - Dryandra Road Traffic Switch (QA Document Submission)	0.0		05-Nov-18	32.0
KD-600	Dryandra Road Final Traffic Switch (ABC Approval)	0.0		01-Dec-18	6.0
KD-300	Separable Portion 3- Remainder of the WUC-Practical Completion	0.0		07-Dec-18	0.0
MCD Project Milestones		24.0	05-Nov-18	07-Dec-18	0.0
KD-220	Milestone 2 - Dryandra Road Traffic Switch (QA Document Submission)	0.0		05-Nov-18	32.0
KD-240	Separable Portion 3- Remainder of the WUC-Practical Completion	0.0		07-Dec-18	0.0
PROJECT MANAGEMENT		116.0	19-Mar-18A	28-Aug-18	-9.0
Other Main Hold Points		116.0	19-Mar-18A	28-Aug-18	-9.0
Construction Procedures		116.0	19-Mar-18A	28-Aug-18	-9.0
Electrical and communications network integration Construction Procedure CP		85.0	19-Mar-18A	20-Jul-18	22.0
Underpass Electrical and Communication Installation CP		20.0	24-May-18A	21-Jun-18	-5.0
PM-2870	BAC Approval - Electrical & Communication Installation CP	20.0	24-May-18A	21-Jun-18	-5.0
Testing and Commissioning of Communications Equipment CP		53.0	17-May-18A	20-Jul-18	16.0
PM-3020	Preparation & Submission - Testing and Commissioning of Communications Equipment CP	10.0	17-May-18A	22-Jun-18	14.0
PM-3030	BAC Approval - Testing and Commissioning of Communications Equipment CP	20.0	25-Jun-18	20-Jul-18	14.0
Testing and Commissioning of LV Electrical Equipment CP		20.0	19-Mar-18A	19-Jun-18	42.0
PM-3070	BAC Approval - Testing and Commissioning of LV Electrical Equipment CP	20.0	19-Mar-18A	19-Jun-18	42.0
Testing and Commissioning of HV Electrical Equipment		20.0	12-Jun-18A	09-Jul-18	9.0
PM-3480	BAC Approval - Testing and Commissioning of HV Electrical Equipment CP	20.0	12-Jun-18A	09-Jul-18	9.0
Dryandra Road Temporary Traffic Diversion		95.0	14-May-18A	28-Aug-18	-14.0
PM-1660	Preparation & Internal Approvals- Dryandra Road Traffic Switch CP	30.0	14-May-18A	22-Jun-18	21.0
PM-3520	Submission to ABC - Dryandra Road Traffic Switch CP	0.0		22-Jun-18	30.0
PM-1890	ABC Approval - Dryandra Road Traffic Switch CP	10.0	25-Jun-18	06-Jul-18	21.0
PM-3540	Project Joint Presentation to Project Insurers (PAIP)	5.0	25-Jun-18	29-Jun-18	30.0
PM-3530	Submission to ABC - Interim Certification - Dryandra Road Traffic Switch CP	2.0	27-Aug-18	28-Aug-18	-13.0
Other Documentation		22.0	12-Jun-18A	11-Jul-18	7.0
Asphalt Quality Plan		20.0	14-Jun-18A	11-Jul-18	7.0
PM-3560	BAC Approval - Asphalt Quality Plan	20.0	14-Jun-18A	11-Jul-18	7.0
Plant Mixed Stabilised Pavement Test Report		10.0	12-Jun-18A	25-Jun-18	-12.0
PM-3580	BAC Approval - Plant Mixed Stabilised Pavement Test Report	10.0	12-Jun-18A	25-Jun-18	-12.0
DESIGN		153.0	04-Dec-17A	27-Jul-18	37.0
Nominated Works		22.0	28-May-18A	25-Jun-18	2.0
NW04 Cathodic Protection for water mains		22.0	28-May-18A	25-Jun-18	2.0
Final Design		22.0	28-May-18A	25-Jun-18	2.0
PM-2550	Airport Building Approval - Cathodic protection for Water Mains	20.0	28-May-18A	22-Jun-18	2.0
DES-2550	Issue for Construction Design Documentation - Cathodic protection for Water Mains	0.0	25-Jun-18		2.0
Performance Based Supply Items		153.0	04-Dec-17A	27-Jul-18	37.0



- Remaining Level of Effort
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work

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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

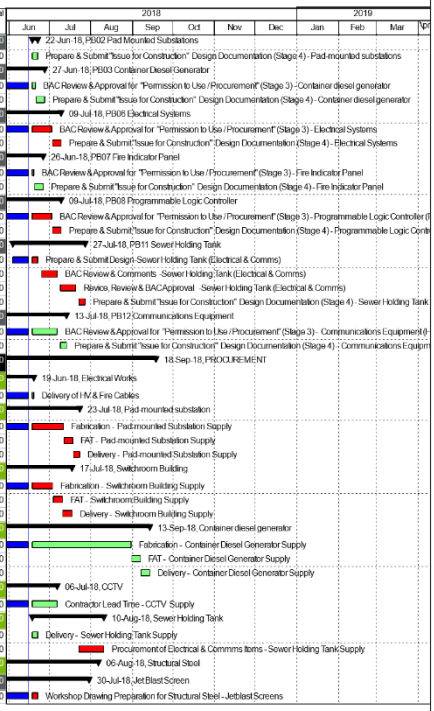
Date	Revision	Checked	Approved
21-Jun-18	DRW-Program Updated as on 15/06/2018	AG	

Project ID: 2772
Filter, Layout: DRW-TP
Program ID: NR-1187-TP2-PU-67

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

Page 2 of 28
Print Date: 22-Jun-18

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
PB02 Pad Mounted Substations		5.0	18-Jun-18	22-Jun-18	3.0
DES-1460	Prepare & Submit "Issue for Construction" Design Documentation (Stage 4) - Pad-mounted substations	5.0	18-Jun-18	22-Jun-18	3.0
PB03 Container Diesel Generator		108.0	06-Dec-17A	27-Jun-18	49.0
DES-3980	BAC Review & Approval for "Permission to Use / Procurement" (Stage 3) - Container diesel generator	10.0	06-Dec-17A	20-Jun-18	11.0
DES-1470	Prepare & Submit "Issue for Construction" Design Documentation (Stage 4) - Container diesel generator	5.0	21-Jun-18	27-Jun-18	42.0
PB06 Electrical Systems		60.0	09-Apr-18A	09-Jul-18	-2.0
DES-4070	BAC Review & Approval for "Permission to Use / Procurement" (Stage 3) - Electrical Systems	10.0	09-Apr-18A	02-Jul-18	-1.0
DES-1500	Prepare & Submit "Issue for Construction" Design Documentation (Stage 4) - Electrical Systems	5.0	03-Jul-18	09-Jul-18	-1.0
PB07 Fire Indicator Panel		127.0	04-Dec-17A	26-Jun-18	8.0
DES-4100	BAC Review & Approval for "Permission to Use / Procurement" (Stage 3) - Fire Indicator Panel	10.0	04-Dec-17A	19-Jun-18	5.0
DES-1510	Prepare & Submit "Issue for Construction" Design Documentation (Stage 4) - Fire Indicator Panel	5.0	20-Jun-18	26-Jun-18	8.0
PB08 Programmable Logic Controller		131.0	20-Dec-17A	09-Jul-18	-2.0
DES-4130	BAC Review & Approval for "Permission to Use / Procurement" (Stage 3) - Programmable Logic Controller (PLC	10.0	20-Dec-17A	02-Jul-18	-1.0
DES-1520	Prepare & Submit "Issue for Construction" Design Documentation (Stage 4) - Programmable Logic Controller (F	5.0	03-Jul-18	09-Jul-18	-1.0
PB11 Sewer Holding Tank		44.0	04-Jun-18A	27-Jul-18	0.0
DES-4450	Prepare & Submit Design-Sewer Holding Tank (Electrical & Comms)	10.0	04-Jun-18A	22-Jun-18	-10.0
DES-4480	BAC Review & Comments -Sewer Holding Tank (Electrical & Comms)	10.0	25-Jun-18	06-Jul-18	-10.0
DES-4460	Revice, Review & BACApproval -Sewer Holding Tank (Electrical & Comms)	10.0	09-Jul-18	20-Jul-18	-10.0
DES-4470	Prepare & Submit "Issue for Constriction" Design Documentation (Stage 4) - Sewer Holding Tank (Electrical & C	5.0	23-Jul-18	27-Jul-18	0.0
PB12 Communications Equipment		111.0	16-Feb-18A	13-Jul-18	49.0
DES-4190	BAC Review & Approval for "Permission to Use / Procurement" (Stage 3) - Communications Equipment (Hardw.	10.0	16-Feb-18A	06-Jul-18	42.0
DES-1540	Prepare & Submit "Issue for Construction" Design Documentation (Stage 4) - Communications Equipment (Har	5.0	09-Jul-18	13-Jul-18	42.0
PROCUREMENT		193.0	15-Dec-17A	18-Sep-18	7.0
Electrical Works		30.0	26-Feb-18A	19-Jun-18	20.0
PROC-3530	Delivery of HV & Fire Cables	30.0	26-Feb-18A	19-Jun-18	20.0
Pad-mounted substation		91.0	22-Jan-18A	23-Jul-18	-2.0
PROC-2430	Fabrication - Pad-mounted Substation Supply	70.0	22-Jan-18A	11-Jul-18	-2.0
PROC-2440	FAT - Pad-mounted Substation Supply	5.0	12-Jul-18	18-Jul-18	-2.0
PROC-2450	Delivery - Pad-mounted Substation Supply	3.0	19-Jul-18	23-Jul-18	-2.0
Switchroom Building		132.0	08-Jan-18A	17-Jul-18	-7.0
PROC-2390	Fabrication - Switchroom Building Supply	90.0	08-Jan-18A	03-Jul-18	-7.0
PROC-2400	FAT - Switchroom Building Supply	5.0	04-Jul-18	10-Jul-18	-7.0
PROC-2410	Delivery - Switchroom Building Supply	5.0	11-Jul-18	17-Jul-18	-7.0
Container diesel generator		130.0	15-Dec-17A	13-Sep-18	1.0
PROC-2470	Fabrication - Container Diesel Generator Supply	130.0	15-Dec-17A	30-Aug-18	1.0
PROC-2480	FAT - Container Diesel Generator Supply	5.0	31-Aug-18	06-Sep-18	1.0
PROC-2490	Delivery - Container Diesel Generator Supply	5.0	07-Sep-18	13-Sep-18	1.0
CCTV		50.0	15-May-18A	06-Jul-18	50.0
PROC-2190	Contractor Lead Time - CCTV Supply	50.0	15-May-18A	06-Jul-18	50.0
Sewer Holding Tank		45.0	18-Jun-18	10-Aug-18	-11.0
PROC-2840	Delivery - Sewer Holding Tank Supply	5.0	18-Jun-18	22-Jun-18	23.0
PROC-3690	Procurement of Electrical & Commms Items - Sewer Holding Tank Supply	15.0	23-Jul-18	10-Aug-18	-10.0
Structural Steel		55.0	21-May-18A	06-Aug-18	24.0
Jet Blast Screen		50.0	22-May-18A	30-Jul-18	-10.0
PROC-2330	Workshop Drawing Preparation for Structural Steel - Jetblast Screens	20.0	22-May-18A	22-Jun-18	-9.0



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

McCONNELL DOWELL
CREATIVE CONSTRUCTION™

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

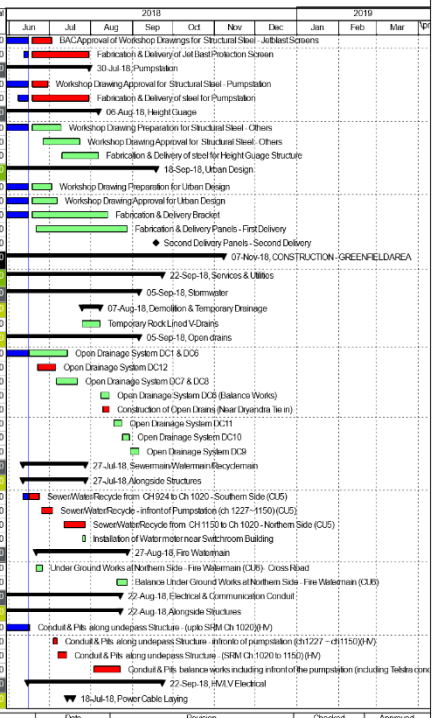
Date	Revision	Checked	Approved
21-Jun-18	DRW-Program Updated as on 15/06/2018	AG	

Project ID: 2772
Filter, Layout: DRW-TP
Program ID: NR-1187-TP2-PU-67

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

Page 3 of 28
Print Date: 22-Jun-18

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
PROC-2340	BAC Approval of Workshop Drawings for Structural Steel - Jetblast Screens	20.0	28-May-18A	02-Jul-18	-10.0
PROC-2350	Fabrication & Delivery of Jet Blast Protection Screen	35.0	12-Jun-18A	30-Jul-18	-10.0
Pumpstation		40.0	21-May-18A	30-Jul-18	6.0
PROC-3660	Workshop Drawing Approval for Structural Steel - Pumpstation	20.0	21-May-18A	29-Jun-18	-6.0
PROC-3620	Fabrication & Delivery of steel for Pumpstation	30.0	08-Jun-18A	30-Jul-18	-6.0
Height Guage		47.0	28-May-18A	06-Aug-18	24.0
PROC-3650	Workshop Drawing Preparation for Structural Steel - Others	20.0	28-May-18A	09-Jul-18	24.0
PROC-3670	Workshop Drawing Approval for Structural Steel - Others	20.0	26-Jun-18	23-Jul-18	24.0
PROC-3630	Fabrication & Delivery of steel for Height Guage Structure	20.0	10-Jul-18	06-Aug-18	24.0
Urban Design		179.0	01-Mar-18A	18-Sep-18	6.0
PROC-3570	Workshop Drawing Preparation for Urban Design	10.0	01-Mar-18A	02-Jul-18	9.0
PROC-3560	Workshop Drawing Approval for Urban Design	10.0	04-Apr-18A	06-Jul-18	14.0
PROC-3550	Fabrication & Delivery Bracket	45.0	28-May-18A	13-Aug-18	14.0
PROC-3680	Fabrication & Delivery Panels - First Delivery	47.0	21-Jun-18*	27-Aug-18	6.0
PROC-3600	Second Delivery Panels - Second Delivery	0.0	18-Sep-18		6.0
CONSTRUCTION - GREENFIELD AREA		354.0	15-Jul-17A	07-Nov-18	7.0
Services & Utilities		107.0	18-May-18A	22-Sep-18	34.0
Stormwater		92.0	18-May-18A	05-Sep-18	49.0
Demolition & Temporary Drainage		12.0	25-Jul-18	07-Aug-18	73.0
SER-4620	Temporary Rock Lined V-Drains	12.0	25-Jul-18	07-Aug-18	73.0
Open drains		92.0	18-May-18A	05-Sep-18	49.0
SER-4900	Open Drainage System DC1 & DC6	26.0	18-May-18A	14-Jul-18	4.0
SER-1430	Open Drainage System DC12	12.0	22-Jun-18*	05-Jul-18	-8.0
SER-4940	Open Drainage System DC7 & DC8	14.0	06-Jul-18	21-Jul-18	18.0
SER-3700	Open Drainage System DC8 (Balance Works)	6.0	08-Aug-18	14-Aug-18	48.0
CON-SP3-30050	Construction of Open Drains (Near Dryandra Tie in)	4.0	10-Aug-18	14-Aug-18	-6.0
SER-4920	Open Drainage System DC11	5.0	18-Aug-18	23-Aug-18	46.0
SER-3730	Open Drainage System DC10	5.0	24-Aug-18	29-Aug-18	46.0
SER-4650	Open Drainage System DC9	6.0	30-Aug-18	05-Sep-18	46.0
Sewermain/Watermain/Recyclemain		41.0	11-Jun-18A	27-Jul-18	5.0
Alongside Structures		41.0	11-Jun-18A	27-Jul-18	5.0
SER-2650	Sewer/Water/Recycle from CH924 to Ch 1020 - Southern Side (CU5)	12.0	11-Jun-18A	23-Jun-18	-13.0
SER-6200	Sewer/Water/Recycle - infront of Pumpstation (ch 1227~1150)(CU5)	8.0	25-Jun-18	03-Jul-18	-13.0
SER-3830	Sewer/Water/Recycle from CH1150 to Ch 1020 - Northern Side (CU5)	14.0	12-Jul-18	27-Jul-18	-13.0
SER-5920	Installation of Water meter near Switchroom Building	2.0	26-Jul-18	27-Jul-18	5.0
Fire Watermain		57.0	21-Jun-18	27-Aug-18	9.0
SER-4580	Under Ground Works at Northern Side - Fire Watermain (CU6) - Cross Road	4.0	21-Jun-18*	25-Jun-18	1.0
SER-6670	Balance Under Ground Works at Northern Side - Fire Watermain (CU6)	7.0	20-Aug-18	27-Aug-18	9.0
Electrical & Communication Conduit		72.0	21-May-18A	22-Aug-18	-17.0
Alongside Structures		72.0	21-May-18A	22-Aug-18	-17.0
SER-2860	Conduit & Pits along undepass Structure - (upto SRM Ch 1020)(HV)	18.0	21-May-18A	18-Jun-18	-13.0
SER-6550	Conduit & Pits along undepass Structure - infronto of pumpstation (ch1227 ~ ch1150)(HV)	3.0	04-Jul-18	08-Jul-18	-13.0
SER-3910	Conduit & Pits along undepass Structure - (SRM Ch 1020 to 1150) (HV)	6.0	07-Jul-18	13-Jul-18	-13.0
SER-4950	Conduit & Pits balance works including infront of the pumpstation (including Telstra conduits)(LV & Comms)	18.0	03-Aug-18	22-Aug-18	-17.0
HV/LV Electrical		84.0	15-Jun-18A	22-Sep-18	5.0
Power Cable Laying		4.0	14-Jul-18	18-Jul-18	6.0



Remaining Level of Effort
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McCONNELL DOWELL
CREATIVE CONSTRUCTION™

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

Date	Revision	Checked	Approved
21-Jun-18	DRW-Program Updated as on 15/06/2018	AG	

Project ID: 2772
Filter, Layout: DRW-TP
Program ID: NR-1187-TP2-PU-67

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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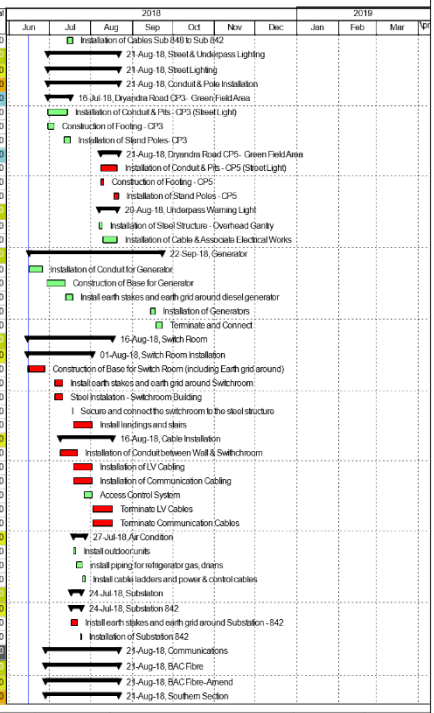
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
SER-3180	Installation of Cables Sub 848 to Sub 842	4.0	14-Jul-18	18-Jul-18	6.0
Street & Underpass Lighting		44.0	30-Jun-18	21-Aug-18	-12.0
Street Lighting		44.0	30-Jun-18	21-Aug-18	-12.0
Conduit & Pole Installation		44.0	30-Jun-18	21-Aug-18	-12.0
Dryandra Road CP3- Green Field Area		14.0	30-Jun-18	16-Jul-18	5.0
SER-5750	Installation of Conduit & Pits - CP3 (Street Light)	13.0	30-Jun-18	14-Jul-18	5.0
SER-5760	Construction of Footing - CP3	4.0	30-Jun-18	04-Jul-18	5.0
SER-5770	Installation of Stand Poles- CP3	4.0	12-Jul-18	16-Jul-18	5.0
Dryandra Road CP5- Green Field Area		11.0	08-Aug-18	21-Aug-18	-12.0
SER-5790	Installation of Conduit & Pits - CP5 (Street Light)	10.0	08-Aug-18	20-Aug-18	-12.0
SER-5800	Construction of Footing - CP5	3.0	08-Aug-18	10-Aug-18	-12.0
SER-5810	Installation of Stand Poles - CP5	3.0	18-Aug-18	21-Aug-18	-12.0
Underpass Warning Light		11.0	07-Aug-18	20-Aug-18	29.0
SER-3940	Installation of Steel Structure - Overhead Gantry	3.0	07-Aug-18	09-Aug-18	29.0
SER-3960	Installation of Cable & Associate Electrical Works	8.0	10-Aug-18	20-Aug-18	29.0
Generator		84.0	16-Jun-18	22-Sep-18	2.0
SER-6570	Installation of Conduit for Generator	8.0	16-Jun-18	25-Jun-18	53.0
SER-1730	Construction of Base for Generator	12.0	29-Jun-18	12-Jul-18	50.0
SER-5650	Install earth stakes and earth grid around diesel generator	5.0	13-Jul-18	18-Jul-18	50.0
SER-1790	Installation of Generators	3.0	14-Sep-18	17-Sep-18	2.0
SER-5860	Terminate and Connect	5.0	18-Sep-18	22-Sep-18	2.0
Switch Room		52.0	15-Jun-18A	16-Aug-18	37.0
Switch Room Installation		40.0	15-Jun-18A	01-Aug-18	-1.0
SER-1720	Construction of Base for Switch Room (including Earth grid around)	12.0	15-Jun-18A	27-Jun-18	-2.0
SER-5930	Install earth stakes and earth grid around Switchroom	5.0	05-Jul-18	10-Jul-18	-2.0
SER-5510	Steel Installation - Switchroom Building	5.0	05-Jul-18	10-Jul-18	-2.0
SER-5520	Secure and connect the switchroom to the steel structure	1.0	18-Jul-18	18-Jul-18	-8.0
SER-5530	Install landings and stairs	12.0	19-Jul-18	01-Aug-18	-1.0
Cable Installation		33.0	09-Jul-18	16-Aug-18	37.0
SER-5330	Installation of Conduit between Wall & Swithchroom	12.0	09-Jul-18	21-Jul-18	-5.0
SER-5560	Installation of LV Cabling	12.0	19-Jul-18	01-Aug-18	-8.0
SER-5580	Installation of Communication Cabling	12.0	19-Jul-18	01-Aug-18	-8.0
SER-2900	Access Control System	5.0	27-Jul-18	01-Aug-18	49.0
SER-5950	Terminate LV Cables	12.0	02-Aug-18	16-Aug-18	-8.0
SER-5940	Terminate Communication Cables	12.0	02-Aug-18	16-Aug-18	-8.0
Air Condition		8.0	19-Jul-18	27-Jul-18	3.0
SER-5590	Install outdoor units	2.0	19-Jul-18	20-Jul-18	3.0
SER-5600	Install piping for refrigerator gas, drians	4.0	21-Jul-18	25-Jul-18	3.0
SER-5610	Install cable ladders and power & control cables	2.0	26-Jul-18	27-Jul-18	3.0
Substation		7.0	17-Jul-18	24-Jul-18	-3.0
Substation 842		7.0	17-Jul-18	24-Jul-18	-3.0
SER-5660	Install earth stakes and earth grid around Substation - 842	5.0	17-Jul-18*	21-Jul-18	-2.0
SER-4890	Installation of Substation 842	1.0	24-Jul-18	24-Jul-18	-3.0
Communications		46.0	28-Jun-18	21-Aug-18	-11.0
BAC Fibre		46.0	28-Jun-18	21-Aug-18	-11.0
BAC Fibre-Amend		46.0	28-Jun-18	21-Aug-18	-11.0
Southern Section		46.0	28-Jun-18	21-Aug-18	-11.0



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CREATIVE CONSTRUCTION™

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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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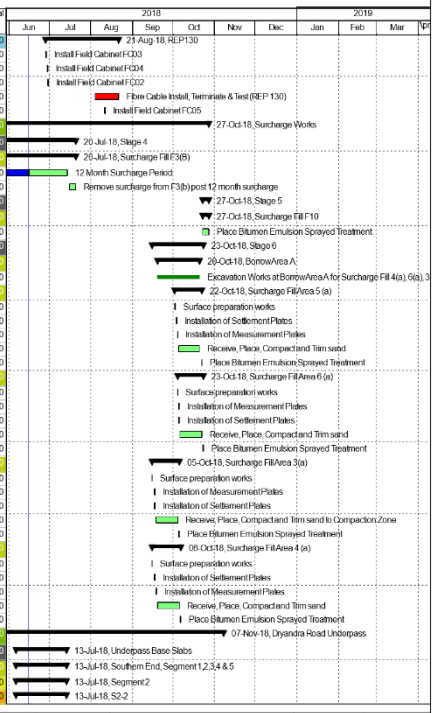
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
REP130		46.0	28-Jun-18	21-Aug-18	-11.0
SER.6120	Install Field Cabinet FC03	1.0	28-Jun-18	28-Jun-18	18.0
SER.6130	Install Field Cabinet FC04	1.0	29-Jun-18	29-Jun-18	18.0
SER.6110	Install Field Cabinet FC02	1.0	30-Jun-18	30-Jun-18	18.0
SER.6050	Fibre Cable Install, Terminate & Test (REP 130)	14.0	04-Aug-18	21-Aug-18	-11.0
SER.6040	Install Field Cabinet FC05	1.0	11-Aug-18	11-Aug-18	-7.0
Surcharge Works		345.0	15-Jul-17A	27-Oct-18	15.0
Stage 4		268.0	15-Jul-17A	20-Jul-18	11.0
Surcharge Fill F3(B)		268.0	15-Jul-17A	20-Jul-18	11.0
CON-SP3-30020	12 Month Surcharge Period	365.0	15-Jul-17A	14-Jul-18	13.0
CON-SP3-21020	Remove surcharge from F3(b) post 12 month surcharge	5.0	16-Jul-18	20-Jul-18	11.0
Stage 5		5.0	23-Oct-18	27-Oct-18	17.0
Surcharge Fill F10		5.0	23-Oct-18	27-Oct-18	17.0
CON-SP3-1410	Place Bitumen Emulsion Sprayed Treatment	5.0	23-Oct-18	27-Oct-18	17.0
Stage 6		32.0	15-Sep-18	23-Oct-18	9.0
Borrow Area A		27.0	19-Sep-18	20-Oct-18	10.0
CON-SP1-1380	Excavation Works at Borrow Area A for Surcharge Fill 4(a), 6(a), 3(a) & 5(a)	27.0	19-Sep-18	20-Oct-18	10.0
Surcharge Fill Area 5 (a)		18.0	02-Oct-18	22-Oct-18	10.0
CON-SP3-3010	Surface preparation works	1.0	02-Oct-18	02-Oct-18	10.0
CON-SP3-3030	Installation of Settlement Plates	1.0	03-Oct-18	03-Oct-18	10.0
CON-SP3-3170	Installation of Measurement Plates	1.0	04-Oct-18	04-Oct-18	10.0
CON-SP3-3050	Receive, Place, Compact and Trim sand	14.0	05-Oct-18	20-Oct-18	10.0
CON-SP3-3160	Place Bitumen Emulsion Sprayed Treatment	1.0	22-Oct-18	22-Oct-18	10.0
Surcharge Fill Area 6 (a)		17.0	04-Oct-18	23-Oct-18	9.0
CON-SP3-2750	Surface preparation works	1.0	04-Oct-18	04-Oct-18	9.0
CON-SP3-2930	Installation of Measurement Plates	1.0	05-Oct-18	05-Oct-18	9.0
CON-SP3-2770	Installation of Settlement Plates	1.0	05-Oct-18	05-Oct-18	9.0
CON-SP3-2790	Receive, Place, Compact and Trim sand	14.0	06-Oct-18	22-Oct-18	9.0
CON-SP3-2890	Place Bitumen Emulsion Sprayed Treatment	1.0	23-Oct-18	23-Oct-18	9.0
Surcharge Fill Area 3(a)		17.0	15-Sep-18	05-Oct-18	24.0
CON-SP3-3000	Surface preparation works	1.0	15-Sep-18	15-Sep-18	9.0
CON-SP3-3150	Installation of Measurement Plates	1.0	17-Sep-18	17-Sep-18	10.0
CON-SP3-3020	Installation of Settlement Plates	1.0	17-Sep-18	17-Sep-18	10.0
CON-SP3-3040	Receive, Place, Compact and Trim sand to Compaction Zone	14.0	18-Sep-18	04-Oct-18	10.0
CON-SP3-3130	Place Bitumen Emulsion Sprayed Treatment	1.0	05-Oct-18	05-Oct-18	24.0
Surcharge Fill Area 4 (a)		18.0	15-Sep-18	06-Oct-18	23.0
CON-SP3-2740	Surface preparation works	1.0	15-Sep-18	15-Sep-18	9.0
CON-SP3-2760	Installation of Settlement Plates	1.0	17-Sep-18	17-Sep-18	9.0
CON-SP3-2920	Installation of Measurement Plates	1.0	18-Sep-18	18-Sep-18	9.0
CON-SP3-2780	Receive, Place, Compact and Trim sand	14.0	19-Sep-18	05-Oct-18	9.0
CON-SP3-2880	Place Bitumen Emulsion Sprayed Treatment	1.0	06-Oct-18	06-Oct-18	23.0
Dryandra Road Underpass		139.0	17-May-18A	07-Nov-18	5.0
Underpass Base Slabs		30.0	06-Jun-18A	13-Jul-18	21.0
Southern End, Segment 1,2,3,4 & 5		30.0	06-Jun-18A	13-Jul-18	21.0
Segment 2		30.0	06-Jun-18A	13-Jul-18	21.0
S2-2		30.0	06-Jun-18A	13-Jul-18	21.0



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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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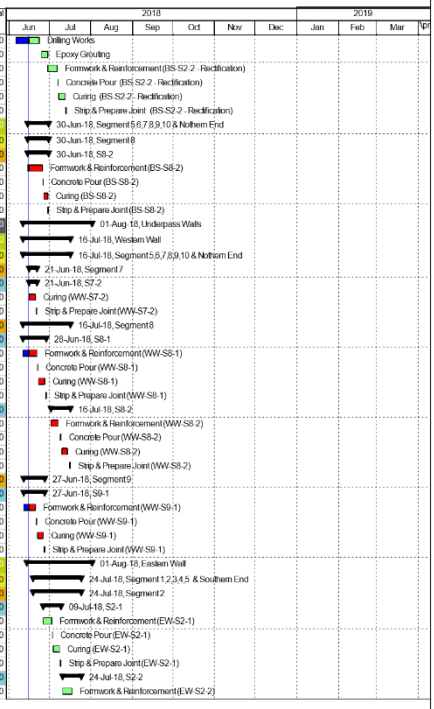
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON-SP3-50970	Drilling Works	16.0	06-Jun-18A	23-Jun-18	21.0
CON-SP3-50980	Epoxy Grouting	5.0	25-Jun-18	29-Jun-18	21.0
CON-SP3-50990	Formwork & Reinforcement (BS-S2-2 - Rectification)	6.0	30-Jun-18	06-Jul-18	21.0
CON-SP3-51000	Concrete Pour (BS-S2-2 - Rectification)	1.0	07-Jul-18	07-Jul-18	21.0
CON-SP3-51010	Curing (BS-S2-2 - Rectification)	5.0	08-Jul-18	12-Jul-18	25.0
CON-SP3-51020	Strip & Prepare Joint (BS-S2-2 - Rectification)	1.0	13-Jul-18	13-Jul-18	21.0
Segment 5,6,7,8,9,10 & Nothern End		13.0	15-Jun-18A	30-Jun-18	-13.0
Segment 8		13.0	15-Jun-18A	30-Jun-18	-13.0
S8-2		13.0	15-Jun-18A	30-Jun-18	-13.0
CON-SP3-8820	Formwork & Reinforcement (BS-S8-2)	8.0	15-Jun-18A	25-Jun-18*	-13.0
CON-SP3-8860	Concrete Pour (BS-S8-2)	1.0	26-Jun-18	26-Jun-18	-13.0
CON-SP3-9030	Curing (BS-S8-2)	3.0	27-Jun-18	29-Jun-18	-15.0
CON-SP3-9250	Strip & Prepare Joint (BS-S8-2)	1.0	30-Jun-18	30-Jun-18	-13.0
Underpass Walls		50.0	11-Jun-18A	01-Aug-18	29.0
Western Wall		29.0	11-Jun-18A	16-Jul-18	-12.0
Segment 5,6,7,8,9,10 & Nothern End		29.0	11-Jun-18A	16-Jul-18	-12.0
Segment 7		5.0	16-Jun-18	21-Jun-18	-7.0
S7-2		5.0	16-Jun-18	21-Jun-18	-7.0
CON-SP3-14850	Curing (WW-S7-2)	5.0	16-Jun-18	20-Jun-18	-8.0
CON-SP3-15220	Strip & Prepare Joint (WW-S7-2)	1.0	21-Jun-18	21-Jun-18	-7.0
Segment 8		29.0	11-Jun-18A	16-Jul-18	-12.0
S8-1		15.0	11-Jun-18A	28-Jun-18	-11.0
CON-SP3-15360	Formwork & Reinforcement (WW-S8-1)	8.0	11-Jun-18A	21-Jun-18	-11.0
CON-SP3-15660	Concrete Pour (WW-S8-1)	1.0	22-Jun-18	22-Jun-18	-11.0
CON-SP3-15770	Curing (WW-S8-1)	5.0	23-Jun-18	27-Jun-18	-13.0
CON-SP3-16010	Strip & Prepare Joint (WW-S8-1)	1.0	28-Jun-18	28-Jun-18	-11.0
S8-2		12.0	02-Jul-18	16-Jul-18	-12.0
CON-SP3-14600	Formwork & Reinforcement (WW-S8-2)	6.0	02-Jul-18	07-Jul-18	-13.0
CON-SP3-14860	Concrete Pour (WW-S8-2)	1.0	09-Jul-18	09-Jul-18	-13.0
CON-SP3-14950	Curing (WW-S8-2)	5.0	10-Jul-18	14-Jul-18	-15.0
CON-SP3-15270	Strip & Prepare Joint (WW-S8-2)	1.0	16-Jul-18	16-Jul-18	-13.0
Segment 9		13.0	12-Jun-18A	27-Jun-18	-10.0
S9-1		13.0	12-Jun-18A	27-Jun-18	-10.0
CON-SP3-15670	Formwork & Reinforcement (WW-S9-1)	7.0	12-Jun-18A	20-Jun-18	-10.0
CON-SP3-15890	Concrete Pour (WW-S9-1)	1.0	21-Jun-18	21-Jun-18	-10.0
CON-SP3-15990	Curing (WW-S9-1)	5.0	22-Jun-18	26-Jun-18	-12.0
CON-SP3-16100	Strip & Prepare Joint (WW-S9-1)	1.0	27-Jun-18	27-Jun-18	-10.0
Eastern Wall		40.0	14-Jun-18A	01-Aug-18	16.0
Segment 1,2,3,4,5 & Southern End		30.0	19-Jun-18	24-Jul-18	20.0
Segment 2		30.0	19-Jun-18	24-Jul-18	20.0
S2-1		11.0	26-Jun-18	09-Jul-18	22.0
CON-SP3-12270	Formwork & Reinforcement (EW-S2-1)	6.0	26-Jun-18*	02-Jul-18	22.0
CON-SP3-12610	Concrete Pour (EW-S2-1)	1.0	03-Jul-18	03-Jul-18	22.0
CON-SP3-12720	Curing (EW-S2-1)	5.0	04-Jul-18	08-Jul-18	25.0
CON-SP3-13170	Strip & Prepare Joint (EW-S2-1)	1.0	09-Jul-18	09-Jul-18	22.0
S2-2		12.0	11-Jul-18	24-Jul-18	20.0
CON-SP3-11430	Formwork & Reinforcement (EW-S2-2)	6.0	11-Jul-18	17-Jul-18	21.0



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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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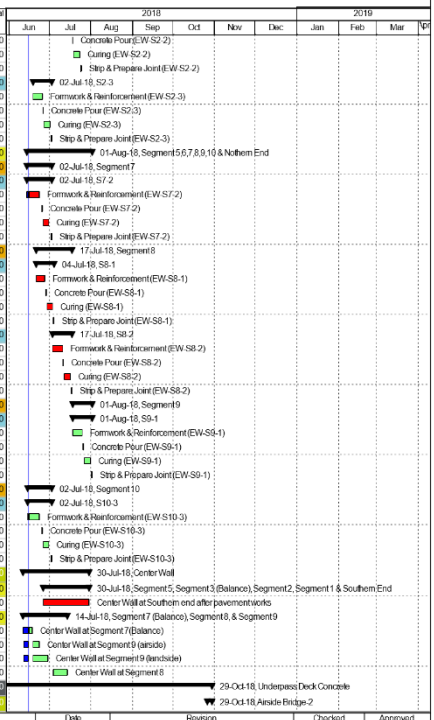
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON-SP3-11700	Concrete Pour(EW-S2-2)	1.0	18-Jul-18	18-Jul-18	21.0
CON-SP3-11770	Curing (EW-S2-2)	5.0	19-Jul-18	23-Jul-18	25.0
CON-SP3-12140	Strip & Prepare Joint(EW-S2-2)	1.0	24-Jul-18	24-Jul-18	21.0
S2-3		12.0	19-Jun-18	02-Jul-18	27.0
CON-SP3-12620	Formwork & Reinforcement(EW-S2-3)	6.0	19-Jun-18*	25-Jun-18	22.0
CON-SP3-12980	Concrete Pour(EW-S2-3)	1.0	26-Jun-18	26-Jun-18	28.0
CON-SP3-13070	Curing (EW-S2-3)	5.0	27-Jun-18	01-Jul-18	32.0
CON-SP3-13550	Strip & Prepare Joint(EW-S2-3)	1.0	02-Jul-18	02-Jul-18	28.0
Segment 5,6,7,8,9,10 & Nothern End		40.0	14-Jun-18A	01-Aug-18	16.0
Segment 7		15.0	14-Jun-18A	02-Jul-18	-16.0
S7-2		15.0	14-Jun-18A	02-Jul-18	-16.0
CON-SP3-14550	Formwork & Reinforcement(EW-S7-2)	6.0	14-Jun-18A	23-Jun-18	-15.0
CON-SP3-14830	Concrete Pour(EW-S7-2)	1.0	25-Jun-18	25-Jun-18	-15.0
CON-SP3-14890	Curing (EW-S7-2)	5.0	26-Jun-18	30-Jun-18	-18.0
CON-SP3-15240	Strip & Prepare Joint(EW-S7-2)	1.0	02-Jul-18	02-Jul-18	-16.0
Segment 8		22.0	21-Jun-18	17-Jul-18	-12.0
S8-1		11.0	21-Jun-18	04-Jul-18	-12.0
CON-SP3-15410	Formwork & Reinforcement(EW-S8-1)	6.0	21-Jun-18	27-Jun-18*	-13.0
CON-SP3-15710	Concrete Pour(EW-S8-1)	1.0	28-Jun-18	28-Jun-18	-13.0
CON-SP3-15800	Curing (EW-S8-1)	5.0	29-Jun-18	03-Jul-18	-15.0
CON-SP3-16050	Strip & Prepare Joint(EW-S8-1)	1.0	04-Jul-18	04-Jul-18	-13.0
S8-2		12.0	03-Jul-18	17-Jul-18	-12.0
CON-SP3-14640	Formwork & Reinforcement(EW-S8-2)	7.0	03-Jul-18	10-Jul-18	-13.0
CON-SP3-14900	Concrete Pour(EW-S8-2)	1.0	11-Jul-18	11-Jul-18	-13.0
CON-SP3-14990	Curing (EW-S8-2)	5.0	12-Jul-18	16-Jul-18	-15.0
CON-SP3-15310	Strip & Prepare Joint(EW-S8-2)	1.0	17-Jul-18	17-Jul-18	-13.0
Segment 9		13.0	18-Jul-18	01-Aug-18	13.0
S9-1		13.0	18-Jul-18	01-Aug-18	13.0
CON-SP3-15930	Formwork & Reinforcement(EW-S9-1)	7.0	18-Jul-18	25-Jul-18	14.0
CON-SP3-16060	Concrete Pour(EW-S9-1)	1.0	26-Jul-18	26-Jul-18	14.0
CON-SP3-16120	Curing (EW-S9-1)	5.0	27-Jul-18	31-Jul-18	17.0
CON-SP3-16220	Strip & Prepare Joint(EW-S9-1)	1.0	01-Aug-18	01-Aug-18	14.0
Segment 10		15.0	15-Jun-18A	02-Jul-18	41.0
S10-3		15.0	15-Jun-18A	02-Jul-18	41.0
CON-SP3-15320	Formwork & Reinforcement(EW-S10-3)	8.0	15-Jun-18A	23-Jun-18	44.0
CON-SP3-15650	Concrete Pour(EW-S10-3)	1.0	25-Jun-18	25-Jun-18	44.0
CON-SP3-15730	Curing (EW-S10-3)	5.0	26-Jun-18	30-Jun-18	52.0
CON-SP3-15940	Strip & Prepare Joint(EW-S10-3)	1.0	02-Jul-18	02-Jul-18	43.0
Center Wall		51.0	11-Jun-18A	30-Jul-18	33.0
Segment 5, Segment 3 (Balance), Segment 2, Segment 1 & Southern End		30.0	26-Jun-18	30-Jul-18	-10.0
CON-SP3-50890	Center Wall at Southern end after pavement works	30.0	26-Jun-18*	30-Jul-18	-10.0
Segment 7 (Balance), Segment 8, & Segment 9		38.0	11-Jun-18A	14-Jul-18	46.0
CON-SP3-16530	Center Wall at Segment 7(Balance)	9.0	11-Jun-18A	18-Jun-18	4.0
CON-SP3-50880	Center Wall at Segment 9 (airside)	10.0	12-Jun-18A	23-Jun-18	64.0
CON-SP3-30260	Center Wall at Segment 9 (landside)	10.0	12-Jun-18A	29-Jun-18	4.0
CON-SP3-30250	Center Wall at Segment 8	10.0	04-Jul-18	14-Jul-18	1.0
Underpass Deck Concrete		123.0	21-May-18A	29-Oct-18	7.0
Airside Bridge-2		30.0	26-Oct-18	29-Oct-18	8.0



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

McCONNELL DOWELL
CREATIVE CONSTRUCTION™

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

Date	Revision	Checked	Approved
21-Jun-18	DRW-Program Updated as on 15/06/2018	AG	

Project ID: 2772
Filter, Layout: DRW-TP
Program ID: NR-1187-TP2-PU-67

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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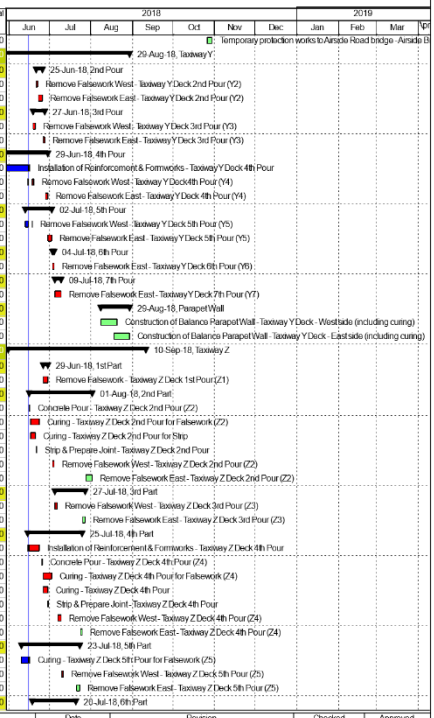
Print Date: 22-Jun-18

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON-SP3-30340	Temporary protection works to Airside Road bridge - Airside Bridge 2	3.0	26-Oct-18	29-Oct-18	8.0
Taxiway Y		89.0	21-May-18A	29-Aug-18	45.0
2nd Pour		4.0	21-Jun-18	25-Jun-18	0.0
CON-SP3-20270	Remove Falsework West - Taxiway Y Deck 2nd Pour (Y2)	2.0	21-Jun-18	22-Jun-18	0.0
CON-SP3-52450	Remove Falsework East - Taxiway Y Deck 2nd Pour (Y2)	2.0	23-Jun-18	25-Jun-18	0.0
3rd Pour		8.0	19-Jun-18	27-Jun-18	0.0
CON-SP3-20440	Remove Falsework West - Taxiway Y Deck 3rd Pour (Y3)	2.0	19-Jun-18	20-Jun-18	0.0
CON-SP3-52460	Remove Falsework East - Taxiway Y Deck 3rd Pour (Y3)	2.0	26-Jun-18	27-Jun-18	0.0
4th Pour		29.0	21-May-18A	29-Jun-18	0.0
CON-SP3-20310	Installation of Reinforcement & Formworks - Taxiway Y Deck 4th Pour	5.0	21-May-18A	16-Jun-18	0.0
CON-SP3-20540	Remove Falsework West - Taxiway Y Deck 4th Pour (Y4)	2.0	15-Jun-18A	19-Jun-18	0.0
CON-SP3-52490	Remove Falsework East - Taxiway Y Deck 4th Pour (Y4)	2.0	28-Jun-18	29-Jun-18	0.0
5th Pour		17.0	13-Jun-18A	02-Jul-18	0.0
CON-SP3-20530	Remove Falsework West - Taxiway Y Deck 5th Pour (Y5)	2.0	13-Jun-18A	18-Jun-18	0.0
CON-SP3-52480	Remove Falsework East - Taxiway Y Deck 5th Pour (Y5)	2.0	30-Jun-18	02-Jul-18	0.0
6th Pour		2.0	03-Jul-18	04-Jul-18	0.0
CON-SP3-52470	Remove Falsework East - Taxiway Y Deck 6th Pour (Y6)	2.0	03-Jul-18	04-Jul-18	0.0
7th Pour		4.0	05-Jul-18	09-Jul-18	0.0
CON-SP3-52500	Remove Falsework East - Taxiway Y Deck 7th Pour (Y7)	4.0	05-Jul-18	09-Jul-18	0.0
Parapet Wall		18.0	08-Aug-18	29-Aug-18	45.0
CON-SP3-52860	Construction of Balance Parapet Wall - Taxiway Y Deck - West side (including curing)	10.0	08-Aug-18	20-Aug-18	48.0
CON-SP3-52870	Construction of Balance Parapet Wall - Taxiway Y Deck - East side (including curing)	10.0	18-Aug-18	29-Aug-18	45.0
Taxiway Z		81.0	31-May-18A	10-Sep-18	42.0
1st Part		4.0	26-Jun-18	29-Jun-18	-13.0
CON-SP3-20570	Remove Falsework - Taxiway Z Deck 1st Pour (Z1)	4.0	26-Jun-18	29-Jun-18	-13.0
2nd Part		39.0	16-Jun-18	01-Aug-18	3.0
CON-SP3-20750	Concrete Pour - Taxiway Z Deck 2nd Pour (Z2)	1.0	16-Jun-18	16-Jun-18	-13.0
CON-SP3-52580	Curing - Taxiway Z Deck 2nd Pour for Falsework (Z2)	7.0	17-Jun-18	23-Jun-18	-15.0
CON-SP3-20770	Curing - Taxiway Z Deck 2nd Pour for Strip	4.0	17-Jun-18	20-Jun-18	-7.0
CON-SP3-20810	Strip & Prepare Joint - Taxiway Z Deck 2nd Pour	1.0	21-Jun-18	21-Jun-18	-8.0
CON-SP3-20870	Remove Falsework West - Taxiway Z Deck 2nd Pour (Z2)	2.0	03-Jul-18	04-Jul-18	-15.0
CON-SP3-52650	Remove Falsework East - Taxiway Z Deck 2nd Pour (Z2)	4.0	28-Jul-18	01-Aug-18	3.0
3rd Part		20.0	05-Jul-18	27-Jul-18	3.0
CON-SP3-20700	Remove Falsework West - taxiway Z Deck 3rd Pour (Z3)	2.0	05-Jul-18	06-Jul-18	-15.0
CON-SP3-52660	Remove Falsework East - Taxiway Z Deck 3rd Pour (Z3)	2.0	26-Jul-18	27-Jul-18	3.0
4th Part		33.0	15-Jun-18A	25-Jul-18	3.0
CON-SP3-20780	Installation of Reinforcement & Formworks - Taxiway Z Deck 4th Pour	7.0	15-Jun-18A	23-Jun-18	-15.0
CON-SP3-20880	Concrete Pour - Taxiway Z Deck 4th Pour (Z4)	1.0	25-Jun-18	25-Jun-18	-15.0
CON-SP3-52610	Curing - Taxiway Z Deck 4th Pour for Falsework (Z4)	7.0	26-Jun-18	02-Jul-18	-18.0
CON-SP3-20900	Curing - Taxiway Z Deck 4th Pour	4.0	26-Jun-18	29-Jun-18	-11.0
CON-SP3-20920	Strip & Prepare Joint - Taxiway Z Deck 4th Pour	1.0	30-Jun-18	30-Jun-18	-10.0
CON-SP3-20970	Remove Falsework West - Taxiway Z Deck 4th Pour (Z4)	2.0	07-Jul-18	09-Jul-18	-15.0
CON-SP3-52670	Remove Falsework East - Taxiway Z Deck 4th Pour (Z4)	2.0	24-Jul-18	25-Jul-18	3.0
5th Part		35.0	10-Jun-18A	23-Jul-18	3.0
CON-SP3-52620	Curing - Taxiway Z Deck 5th Pour for Falsework (Z5)	7.0	10-Jun-18A	16-Jun-18	1.0
CON-SP3-20830	Remove Falsework West - Taxiway Z Deck 5th Pour (Z5)	2.0	10-Jul-18	11-Jul-18	-15.0
CON-SP3-52680	Remove Falsework East - Taxiway Z Deck 5th Pour (Z5)	2.0	21-Jul-18	23-Jul-18	3.0
6th Part		28.0	18-Jun-18	20-Jul-18	-7.0



Remaining Level of Effort
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McCONNELL DOWELL
CREATIVE CONSTRUCTION™

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

Date	Revision	Checked	Approved
21-Jun-18	DRW-Program Updated as on 15/06/2018	AG	

Project ID: 2772
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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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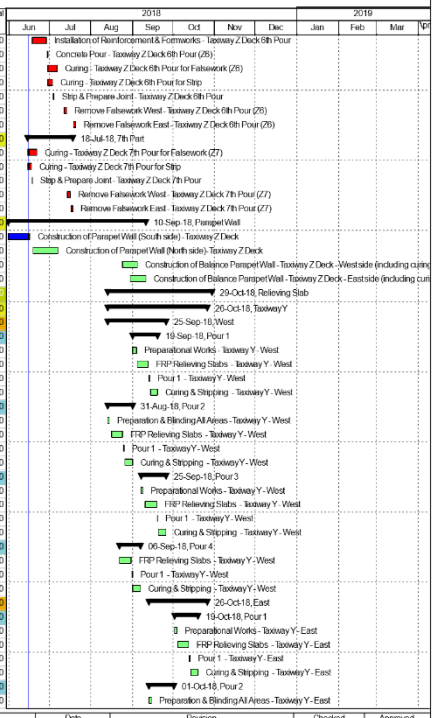
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON-SP3-20890	Installation of Reinforcement & Formworks - Taxiway Z Deck 6th Pour	10.0	18-Jun-18	28-Jun-18	-15.0
CON-SP3-20940	Concrete Pour - Taxiway Z Deck 6th Pour (Z6)	1.0	29-Jun-18	29-Jun-18	-15.0
CON-SP3-52630	Curing - Taxiway Z Deck 6th Pour for Falsework (Z6)	7.0	30-Jun-18	06-Jul-18	-17.0
CON-SP3-20960	Curing - Taxiway Z Deck 6th Pour for Strip	4.0	30-Jun-18	03-Jul-18	-11.0
CON-SP3-20980	Strip & Prepare Joint - Taxiway Z Deck 6th Pour	1.0	04-Jul-18	04-Jul-18	-9.0
CON-SP3-20990	Remove Falsework West - Taxiway Z Deck 6th Pour (Z6)	2.0	12-Jul-18	13-Jul-18	-15.0
CON-SP3-52690	Remove Falsework East - Taxiway Z Deck 6th Pour (Z6)	2.0	19-Jul-18	20-Jul-18	-7.0
7th Part		28.0	15-Jun-18A	18-Jul-18	-7.0
CON-SP3-52640	Curing - Taxiway Z Deck 7th Pour for Falsework (Z7)	7.0	15-Jun-18A	21-Jun-18	0.0
CON-SP3-20850	Curing - Taxiway Z Deck 7th Pour for Strip	3.0	15-Jun-18A	17-Jun-18	-10.0
CON-SP3-20910	Strip & Prepare Joint - Taxiway Z Deck 7th Pour	1.0	18-Jun-18	18-Jun-18	-8.0
CON-SP3-20930	Remove Falsework West - Taxiway Z Deck 7th Pour (Z7)	2.0	14-Jul-18	16-Jul-18	-15.0
CON-SP3-52700	Remove Falsework East - Taxiway Z Deck 7th Pour (Z7)	2.0	17-Jul-18	18-Jul-18	-7.0
Parapet Wall		86.0	31-May-18A	10-Sep-18	45.0
CON-SP3-52670	Construction of Parapet Wall (South side) - Taxiway Z Deck	17.0	31-May-18A	16-Jun-18	23.0
CON-SP3-20950	Construction of Parapet Wall (North side) - Taxiway Z Deck	17.0	19-Jun-18	07-Jul-18	8.0
CON-SP3-52880	Construction of Balance Parapet Wall - Taxiway Z Deck - West side (including curing)	10.0	24-Aug-18	04-Sep-18	45.0
CON-SP3-52890	Construction of Balance Parapet Wall - Taxiway Z Deck - East side (including curing)	10.0	30-Aug-18	10-Sep-18	45.0
Relieving Slab		61.0	13-Aug-18	29-Oct-18	8.0
Taxiway Y		59.0	13-Aug-18	26-Oct-18	8.0
West		36.0	13-Aug-18	25-Sep-18	23.0
Pour 1		15.0	01-Sep-18	19-Sep-18	26.0
CON-SP3-60700	Preparational Works - Taxiway Y - West	2.0	01-Sep-18	03-Sep-18	8.0
CON-SP3-60710	FRP Relieving Slabs - Taxiway Y - West	8.0	04-Sep-18	12-Sep-18	8.0
CON-SP3-60720	Pour 1 - Taxiway Y - West	1.0	13-Sep-18	13-Sep-18	31.0
CON-SP3-60730	Curing & Stripping - Taxiway Y - West	6.0	14-Sep-18	19-Sep-18	37.0
Pour 2		16.0	13-Aug-18	31-Aug-18	7.0
CON-SP3-60620	Preparation & Blinding All Areas - Taxiway Y - West	2.0	13-Aug-18	14-Aug-18	6.0
CON-SP3-60630	FRP Relieving Slabs - Taxiway Y - West	8.0	16-Aug-18	24-Aug-18	8.0
CON-SP3-60640	Pour 1 - Taxiway Y - West	1.0	25-Aug-18	25-Aug-18	8.0
CON-SP3-60650	Curing & Stripping - Taxiway Y - West	6.0	26-Aug-18	31-Aug-18	10.0
Pour 3		16.0	07-Sep-18	25-Sep-18	23.0
CON-SP3-60740	Preparational Works - Taxiway Y - West	2.0	07-Sep-18	08-Sep-18	8.0
CON-SP3-60750	FRP Relieving Slabs - Taxiway Y - West	8.0	10-Sep-18	18-Sep-18	8.0
CON-SP3-60760	Pour 1 - Taxiway Y - West	1.0	19-Sep-18	19-Sep-18	26.0
CON-SP3-60770	Curing & Stripping - Taxiway Y - West	6.0	20-Sep-18	25-Sep-18	31.0
Pour 4		13.0	22-Aug-18	06-Sep-18	8.0
CON-SP3-60670	FRP Relieving Slabs - Taxiway Y - West	8.0	22-Aug-18	30-Aug-18	8.0
CON-SP3-60680	Pour 1 - Taxiway Y - West	1.0	31-Aug-18	31-Aug-18	8.0
CON-SP3-60690	Curing & Stripping - Taxiway Y - West	6.0	01-Sep-18	06-Sep-18	10.0
East		34.0	13-Sep-18	26-Oct-18	8.0
Pour 1		13.0	02-Oct-18	19-Oct-18	14.0
CON-SP3-60880	Preparational Works - Taxiway Y - East	2.0	02-Oct-18	03-Oct-18	9.0
CON-SP3-60890	FRP Relieving Slabs - Taxiway Y - East	8.0	04-Oct-18	12-Oct-18	9.0
CON-SP3-60900	Pour 1 - Taxiway Y - East	1.0	13-Oct-18	13-Oct-18	14.0
CON-SP3-60910	Curing & Stripping - Taxiway Y - East	6.0	14-Oct-18	19-Oct-18	17.0
Pour 2		15.0	13-Sep-18	01-Oct-18	7.0
CON-SP3-60810	Preparation & Blinding All Areas - Taxiway Y - East	2.0	13-Sep-18	14-Sep-18	6.0



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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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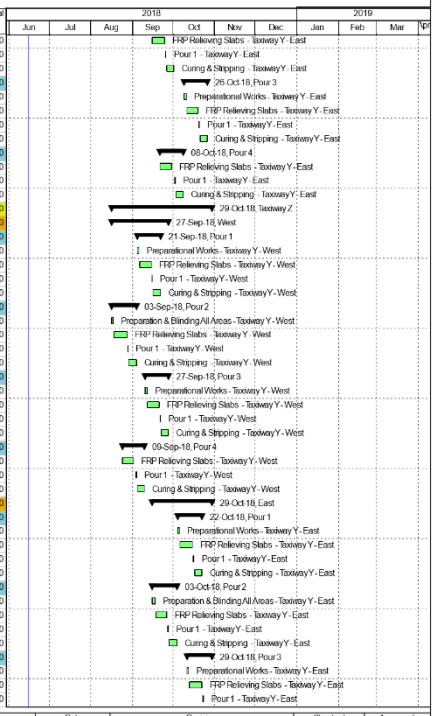
Print Date: 22-Jun-18

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON-SP3-60820	FRP Relieving Slabs - Taxiway Y - East	8.0	15-Sep-18	24-Sep-18	8.0
CON-SP3-60830	Pour 1 - Taxiway Y - East	1.0	25-Sep-18	25-Sep-18	8.0
CON-SP3-60840	Curing & Stripping - Taxiway Y - East	6.0	26-Sep-18	01-Oct-18	10.0
Pour 3		14.0	09-Oct-18	26-Oct-18	8.0
CON-SP3-60920	Preparational Works - Taxiway Y - East	2.0	09-Oct-18	10-Oct-18	8.0
CON-SP3-60930	FRP Relieving Slabs - Taxiway Y - East	8.0	11-Oct-18	19-Oct-18	8.0
CON-SP3-60940	Pour 1 - Taxiway Y - East	1.0	20-Oct-18	20-Oct-18	8.0
CON-SP3-60950	Curing & Stripping - Taxiway Y - East	6.0	21-Oct-18	26-Oct-18	10.0
Pour 4		13.0	21-Sep-18	08-Oct-18	6.0
CON-SP3-60850	FRP Relieving Slabs - Taxiway Y - East	8.0	21-Sep-18	29-Sep-18	8.0
CON-SP3-60860	Pour 1 - Taxiway Y - East	1.0	02-Oct-18	02-Oct-18	8.0
CON-SP3-60870	Curing & Stripping - Taxiway Y - East	6.0	03-Oct-18	08-Oct-18	9.0
Taxiway Z		59.0	16-Aug-18	29-Oct-18	6.0
West		38.0	16-Aug-18	27-Sep-18	21.0
Pour 1		15.0	04-Sep-18	21-Sep-18	26.0
CON-SP3-61030	Preparational Works - Taxiway Y - West	2.0	04-Sep-18	05-Sep-18	6.0
CON-SP3-61040	FRP Relieving Slabs - Taxiway Y - West	8.0	06-Sep-18	14-Sep-18	6.0
CON-SP3-61050	Pour 1 - Taxiway Y - West	1.0	15-Sep-18	15-Sep-18	29.0
CON-SP3-61060	Curing & Stripping - Taxiway Y - West	6.0	16-Sep-18	21-Sep-18	35.0
Pour 2		19.0	16-Aug-18	03-Sep-18	5.0
CON-SP3-60960	Preparation & Blinding All Areas - Taxiway Y - West	2.0	16-Aug-18	17-Aug-18	6.0
CON-SP3-60970	FRP Relieving Slabs - Taxiway Y - West	8.0	18-Aug-18	27-Aug-18	6.0
CON-SP3-60980	Pour 1 - Taxiway Y - West	1.0	28-Aug-18	28-Aug-18	6.0
CON-SP3-60990	Curing & Stripping - Taxiway Y - West	6.0	29-Aug-18	03-Sep-18	7.0
Pour 3		18.0	10-Sep-18	27-Sep-18	21.0
CON-SP3-61070	Preparational Works - Taxiway Y - West	2.0	10-Sep-18	11-Sep-18	6.0
CON-SP3-61080	FRP Relieving Slabs - Taxiway Y - West	8.0	12-Sep-18	20-Sep-18	6.0
CON-SP3-61090	Pour 1 - Taxiway Y - West	1.0	21-Sep-18	21-Sep-18	24.0
CON-SP3-61100	Curing & Stripping - Taxiway Y - West	6.0	22-Sep-18	27-Sep-18	29.0
Pour 4		13.0	24-Aug-18	09-Sep-18	6.0
CON-SP3-61000	FRP Relieving Slabs - Taxiway Y - West	8.0	24-Aug-18	01-Sep-18	6.0
CON-SP3-61010	Pour 1 - Taxiway Y - West	1.0	03-Sep-18	03-Sep-18	6.0
CON-SP3-61020	Curing & Stripping - Taxiway Y - West	6.0	04-Sep-18	09-Sep-18	7.0
East		34.0	15-Sep-18	29-Oct-18	6.0
Pour 1		14.0	04-Oct-18	22-Oct-18	12.0
CON-SP3-61180	Preparational Works - Taxiway Y - East	2.0	04-Oct-18	05-Oct-18	7.0
CON-SP3-61190	FRP Relieving Slabs - Taxiway Y - East	8.0	06-Oct-18	15-Oct-18	7.0
CON-SP3-61200	Pour 1 - Taxiway Y - East	1.0	16-Oct-18	16-Oct-18	12.0
CON-SP3-61210	Curing & Stripping - Taxiway Y - East	6.0	17-Oct-18	22-Oct-18	14.0
Pour 2		14.0	15-Sep-18	03-Oct-18	6.0
CON-SP3-61110	Preparation & Blinding All Areas - Taxiway Y - East	2.0	15-Sep-18	17-Sep-18	6.0
CON-SP3-61120	FRP Relieving Slabs - Taxiway Y - East	8.0	19-Sep-18	26-Sep-18	6.0
CON-SP3-61130	Pour 1 - Taxiway Y - East	1.0	27-Sep-18	27-Sep-18	6.0
CON-SP3-61140	Curing & Stripping - Taxiway Y - East	6.0	28-Sep-18	03-Oct-18	8.0
Pour 3		15.0	11-Oct-18	29-Oct-18	6.0
CON-SP3-61220	Preparational Works - Taxiway Y - East	2.0	11-Oct-18	12-Oct-18	6.0
CON-SP3-61230	FRP Relieving Slabs - Taxiway Y - East	8.0	13-Oct-18	22-Oct-18	6.0
CON-SP3-61240	Pour 1 - Taxiway Y - East	1.0	23-Oct-18	23-Oct-18	6.0



Remaining Level of Effort
Actual Level of Effort
Actual Work
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McCONNELL DOWELL
CREATIVE CONSTRUCTION™

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

Date	Revision	Checked	Approved
21-Jun-18	DRW-Program Updated as on 15/06/2018	AG	

Project ID: 2772
Filter, Layout: DRW-TP
Program ID: NR-1187-TP2-PU-67

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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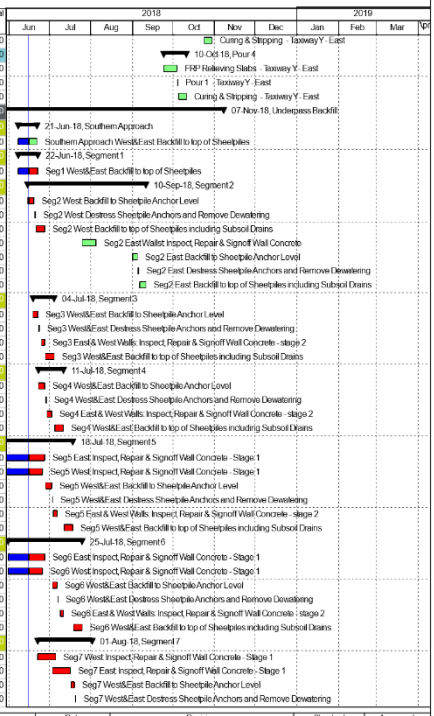
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON-SP3-61250	Curing & Stripping - Taxiway Y - East	6.0	24-Oct-18	29-Oct-18	7.0
Pour 4		12.0	24-Sep-18	10-Oct-18	5.0
CON-SP3-61150	FRP Relieving Slabs - Taxiway Y - East	8.0	24-Sep-18	03-Oct-18	6.0
CON-SP3-61160	Pour 1 - Taxiway Y - East	1.0	04-Oct-18	04-Oct-18	6.0
CON-SP3-61170	Curing & Stripping - Taxiway Y - East	6.0	05-Oct-18	10-Oct-18	7.0
Underpass Backfill		143.0	23-May-18A	07-Nov-18	6.0
Southern Approach		5.0	08-Jun-18A	21-Jun-18	18.0
CON-SP3-51570	Southern Approach West&East Backfill to top of Sheetpiles	5.0	08-Jun-18A	21-Jun-18	18.0
Segment 1		6.0	08-Jun-18A	22-Jun-18	-17.0
CON-SP3-51560	Seg1 West&East Backfill to top of Sheetpiles	6.0	08-Jun-18A	22-Jun-18	-17.0
Segment 2		74.0	15-Jun-18A	10-Sep-18	9.0
CON-SP3-51510	Seg2 West Backfill to Sheetpile Anchor Level	3.0	15-Jun-18A	19-Jun-18	-17.0
CON-SP3-51520	Seg2 West Destress Sheetpile Anchors and Remove Dewatering	1.0	20-Jun-18	20-Jun-18	-17.0
CON-SP3-51530	Seg2 West Backfill to top of Sheetpiles including Subsoil Drains	6.0	21-Jun-18	27-Jun-18	-17.0
CON-SP3-51100	Seg2 East Wallst Inspect, Repair & Signoff Wall Concrete	10.0	25-Jul-18*	04-Aug-18	31.0
CON-SP3-51630	Seg2 East Backfill to Sheetpile Anchor Level	3.0	01-Sep-18	04-Sep-18	9.0
CON-SP3-51640	Seg2 East Destress Sheetpile Anchors and Remove Dewatering	1.0	05-Sep-18	05-Sep-18	9.0
CON-SP3-51650	Seg2 East Backfill to top of Sheetpiles including Subsoil Drains	4.0	06-Sep-18	10-Sep-18	9.0
Segment 3		14.0	19-Jun-18	04-Jul-18	-17.0
CON-SP3-51260	Seg3 West&East Backfill to Sheetpile Anchor Level	4.0	19-Jun-18	22-Jun-18	-17.0
CON-SP3-51270	Seg3 West&East Destress Sheetpile Anchors and Remove Dewatering	1.0	23-Jun-18	23-Jun-18	-17.0
CON-SP3-60330	Seg3 East & West Walls Inspect, Repair & Signoff Wall Concrete - stage 2	3.0	25-Jun-18	27-Jun-18	-17.0
CON-SP3-51280	Seg3 West&East Backfill to top of Sheetpiles including Subsoil Drains	6.0	28-Jun-18	04-Jul-18	-17.0
Segment 4		16.0	23-Jun-18	11-Jul-18	-17.0
CON-SP3-51290	Seg4 West&East Backfill to Sheetpile Anchor Level	4.0	23-Jun-18	27-Jun-18	-15.0
CON-SP3-51300	Seg4 West&East Destress Sheetpile Anchors and Remove Dewatering	1.0	28-Jun-18	28-Jun-18	-15.0
CON-SP3-60340	Seg4 East & West Walls Inspect, Repair & Signoff Wall Concrete - stage 2	3.0	29-Jun-18	02-Jul-18	-15.0
CON-SP3-51310	Seg4 West&East Backfill to top of Sheetpiles including Subsoil Drains	6.0	05-Jul-18	11-Jul-18	-17.0
Segment 5		49.0	26-May-18A	18-Jul-18	-17.0
CON-SP3-51140	Seg5 East Inspect, Repair & Signoff Wall Concrete - Stage 1	15.0	26-May-18A	27-Jun-18	-13.0
CON-SP3-51050	Seg5 West Inspect, Repair & Signoff Wall Concrete - Stage 1	15.0	26-May-18A	25-Jun-18	-11.0
CON-SP3-51320	Seg5 West&East Backfill to Sheetpile Anchor Level	4.0	28-Jun-18	02-Jul-18	-13.0
CON-SP3-51330	Seg5 West&East Destress Sheetpile Anchors and Remove Dewatering	1.0	03-Jul-18	03-Jul-18	-13.0
CON-SP3-60350	Seg5 East & West Walls Inspect, Repair & Signoff Wall Concrete - stage 2	3.0	04-Jul-18	06-Jul-18	-13.0
CON-SP3-51340	Seg5 West&East Backfill to top of Sheetpiles including Subsoil Drains	6.0	12-Jul-18	18-Jul-18	-17.0
Segment 6		48.0	31-May-18A	25-Jul-18	-17.0
CON-SP3-51160	Seg6 East Inspect, Repair & Signoff Wall Concrete - Stage 1	12.0	31-May-18A	27-Jun-18	-7.0
CON-SP3-51150	Seg6 West Inspect, Repair & Signoff Wall Concrete - Stage 1	12.0	31-May-18A	25-Jun-18	-5.0
CON-SP3-51350	Seg6 West&East Backfill to Sheetpile Anchor Level	4.0	03-Jul-18	06-Jul-18	-11.0
CON-SP3-51360	Seg6 West&East Destress Sheetpile Anchors and Remove Dewatering	1.0	07-Jul-18	07-Jul-18	-11.0
CON-SP3-60360	Seg6 East & West Walls Inspect, Repair & Signoff Wall Concrete - stage 2	3.0	09-Jul-18	11-Jul-18	-11.0
CON-SP3-51370	Seg6 West&East Backfill to top of Sheetpiles including Subsoil Drains	6.0	19-Jul-18	25-Jul-18	-17.0
Segment 7		35.0	22-Jun-18	01-Aug-18	-17.0
CON-SP3-51170	Seg7 West Inspect, Repair & Signoff Wall Concrete - Stage 1	12.0	22-Jun-18	05-Jul-18	-7.0
CON-SP3-51180	Seg7 East Inspect, Repair & Signoff Wall Concrete - Stage 1	12.0	03-Jul-18	16-Jul-18	-16.0
CON-SP3-51380	Seg7 West&East Backfill to Sheetpile Anchor Level	3.0	17-Jul-18	19-Jul-18	-16.0
CON-SP3-51390	Seg7 West&East Destress Sheetpile Anchors and Remove Dewatering	1.0	20-Jul-18	20-Jul-18	-16.0



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McCONNELL DOWELL
CREATIVE CONSTRUCTION™

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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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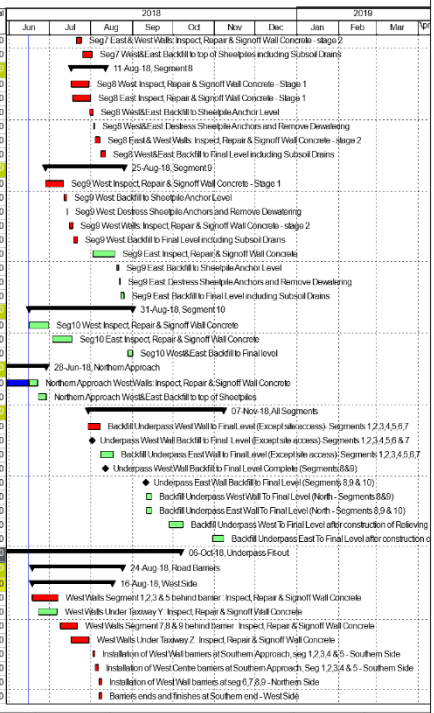
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON-SP3-60560	Seg7 East & West Walls: Inspect, Repair & Signoff Wall Concrete - stage 2	3.0	21-Jul-18	24-Jul-18	-16.0
CON-SP3-51400	Seg7 West&East Backfill to top of Sheetpiles including Subsoil Drains	6.0	26-Jul-18	01-Aug-18	-17.0
Segment 8		23.0	17-Jul-18	11-Aug-18	-13.0
CON-SP3-51190	Seg8 West Inspect, Repair & Signoff Wall Concrete - Stage 1	12.0	17-Jul-18	30-Jul-18	-13.0
CON-SP3-51200	Seg8 East Inspect, Repair & Signoff Wall Concrete - Stage 1	12.0	18-Jul-18	31-Jul-18	-13.0
CON-SP3-51410	Seg8 West&East Backfill to Sheetpile Anchor Level	3.0	31-Jul-18	02-Aug-18	-13.0
CON-SP3-51420	Seg8 West&East Destress Sheetpile Anchors and Remove Dewatering	1.0	03-Aug-18	03-Aug-18	-13.0
CON-SP3-60570	Seg8 East & West Walls: Inspect, Repair & Signoff Wall Concrete - stage 2	3.0	04-Aug-18	07-Aug-18	-13.0
CON-SP3-51430	Seg8 West&East Backfill to Final Level including Subsoil Drains	4.0	08-Aug-18	11-Aug-18	-13.0
Segment 9		30.0	26-Jun-18	25-Aug-18	18.0
CON-SP3-51210	Seg9 West Inspect, Repair & Signoff Wall Concrete - Stage 1	12.0	26-Jun-18	11-Jul-18	-6.0
CON-SP3-52820	Seg9 West Backfill to Sheetpile Anchor Level	2.0	12-Jul-18	13-Jul-18	-6.0
CON-SP3-52830	Seg9 West Destress Sheetpile Anchors and Remove Dewatering	1.0	14-Jul-18	14-Jul-18	-6.0
CON-SP3-60580	Seg9 West Walls: Inspect, Repair & Signoff Wall Concrete - stage 2	3.0	16-Jul-18	18-Jul-18	-6.0
CON-SP3-52840	Seg9 West Backfill to Final Level including Subsoil Drains	3.0	19-Jul-18	21-Jul-18	-6.0
CON-SP3-51220	Seg9 East Inspect, Repair & Signoff Wall Concrete	14.0	02-Aug-18	18-Aug-18	14.0
CON-SP3-51440	Seg9 East Backfill to Sheetpile Anchor Level	2.0	20-Aug-18	21-Aug-18	14.0
CON-SP3-51450	Seg9 East Destress Sheetpile Anchors and Remove Dewatering	1.0	22-Aug-18	22-Aug-18	18.0
CON-SP3-51460	Seg9 East Backfill to Final Level including Subsoil Drains	3.0	23-Aug-18	25-Aug-18	18.0
Segment 10		65.0	10-Jun-18	31-Aug-18	9.0
CON-SP3-51230	Seg10 West Inspect, Repair & Signoff Wall Concrete	13.0	16-Jun-18	30-Jun-18	57.0
CON-SP3-51240	Seg10 East Inspect, Repair & Signoff Wall Concrete	13.0	03-Jul-18	17-Jul-18	43.0
CON-SP3-51490	Seg10 West&East Backfill to Final level	4.0	28-Aug-18	31-Aug-18	9.0
Northern Approach		32.0	23-May-18A	28-Jun-18	13.0
CON-SP3-51250	Northern Approach West Walls: Inspect, Repair & Signoff Wall Concrete	10.0	23-May-18A	22-Jun-18	13.0
CON-SP3-51500	Northern Approach West&East Backfill to top of Sheetpiles	5.0	23-Jun-18	28-Jun-18	13.0
All Segments		85.0	30-Jul-18	07-Nov-18	6.0
CON-SP3-51600	Backfill Underpass West Wall to Finsll.evel (Except site access). Segments 1,2,3,4,5,6,7	8.0	30-Jul-18	07-Aug-18	-17.0
CON-SP3-51580	Underpass West Wall Backfill to Finsll. Level (Except site access).Segments 1,2,3,4,5,6 & 7	0.0		01-Aug-18	-17.0
CON-SP3-60780	Backfill Underpass East Wall to Finsll.evel (Except site access). Segments 1,2,3,4,5,6,7	8.0	08-Aug-18	17-Aug-18	28.0
CON-SP3-51700	Underpass West Wall Backfill to Final Level Complete (Segments 8&9)	0.0		11-Aug-18	-13.0
CON-SP3-51660	Underpass East Wall Backfill to Final Level (Segments 8,9 & 10)	0.0		10-Sep-18	9.0
CON-SP3-51710	Backfill Underpass West Wall To Final Level (North - Segments 8&9)	4.0	11-Sep-18	14-Sep-18	9.0
CON-SP3-51670	Backfill Underpass East Wall To Final Level (North - Segments 8,9 & 10)	4.0	11-Sep-18	14-Sep-18	9.0
CON-SP3-60790	Backfill Underpass West To Final Level after construction of Relieving slab	8.0	28-Sep-18	08-Oct-18	24.0
CON-SP3-60800	Backfill Underpass East To Final Level after construction of Relieving slab	8.0	30-Oct-18	07-Nov-18	6.0
Underpass Fit-out		115.0	17-May-18A	06-Oct-18	11.0
Road Barriers		58.0	18-Jun-18	24-Aug-18	29.0
West Side		51.0	18-Jun-18	16-Aug-18	-14.0
CON-SP3-60370	West Walls Segment 1,2,3 & 5 behind barrier: Inspect, Repair & Signoff Wall Concrete	18.0	18-Jun-18*	07-Jul-18	-2.0
CON-SP3-52420	West Walls Under Tasway Y: Inspect, Repair & Signoff Wall Concrete	12.0	23-Jun-18	06-Jul-18	7.0
CON-SP3-60380	West Walls Segment 7,8 & 9 behind barrier: Inspect, Repair & Signoff Wall Concrete	12.0	09-Jul-18	21-Jul-18	-2.0
CON-SP3-52430	West Walls Under Tasway Z: Inspect, Repair & Signoff Wall Concrete	12.0	17-Jul-18	30-Jul-18	-9.0
CON-SP3-52040	Installation of West Wall barriers at Southern Approach, seg 1,2,3,4 & 5 - Southern Side	2.0	02-Aug-18	03-Aug-18	-15.0
CON-SP3-52400	Installation of West Centre barriers at Southern Approach, Seg 1,2,3,4 & 5 - Southern Side	2.0	04-Aug-18	06-Aug-18	-15.0
CON-SP3-52070	Installation of West Wall barriers at seg 6,7,8,9 - Northern Side	2.0	07-Aug-18	08-Aug-18	-15.0
CON-SP3-60290	Barriers ends and finishes at Southern end - West Side	2.0	07-Aug-18	08-Aug-18	-11.0



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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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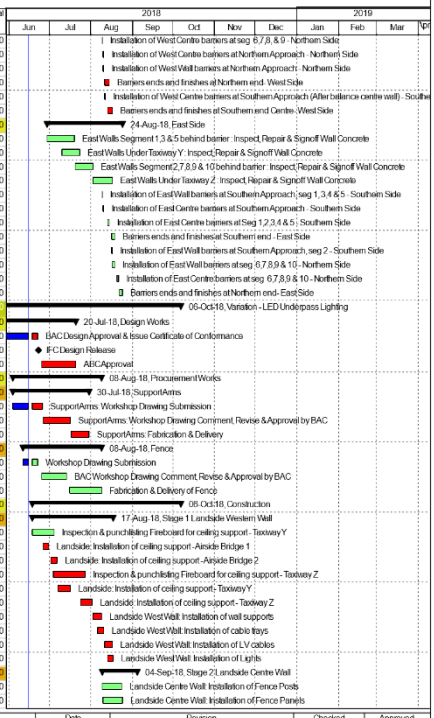
Print Date: 22-Jun-18

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CON-SP3-52080	Installation of West Centre barriers at seg. 6,7,8,& 9 - Northern Side	1.0	09-Aug-18	09-Aug-18	-14.0
CON-SP3-52790	Installation of West Centre barriers at Northern Approach - Northern Side	1.0	10-Aug-18	10-Aug-18	-14.0
CON-SP3-52780	Installation of West Wall barriers at Northern Approach - Northern Side	1.0	10-Aug-18	10-Aug-18	-14.0
CON-SP3-52800	Barriers ends and finishes at Northern end- West Side	3.0	11-Aug-18	14-Aug-18	-13.0
CON-SP3-52050	Installation of West Centre barriers at Southern Approach (After balance centre wall) - Southern Side	1.0	11-Aug-18	11-Aug-18	-14.0
CON-SP3-52260	Barriers ends and finishes at Southern end Centre- West Side	3.0	13-Aug-18	16-Aug-18	-14.0
East Side		48.0	29-Jun-18	24-Aug-18	29.0
CON-SP3-60390	East Walls Segment 1,3 & 5 behind barrier: Inspect, Repair & Signoff Wall Concrete	18.0	29-Jun-18*	19-Jul-18	19.0
CON-SP3-52720	East Walls Under Taxiway Y: Inspect, Repair & Signoff Wall Concrete	12.0	10-Jul-18	23-Jul-18	37.0
CON-SP3-60400	East Walls Segment 2,7,8,9 & 10 behind barrier: Inspect, Repair & Signoff Wall Concrete	12.0	20-Jul-18	02-Aug-18	19.0
CON-SP3-52730	East Walls Under Taxiway Z: Inspect, Repair & Signoff Wall Concrete	12.0	02-Aug-18	16-Aug-18	9.0
CON-SP3-52410	Installation of East Wall barriers at Southern Approach, seg 1, 3,4 & 5 - Southern Side	1.0	09-Aug-18	09-Aug-18	23.0
CON-SP3-52740	Installation of East Centre barriers at Southern Approach - Southern Side	1.0	10-Aug-18	10-Aug-18	40.0
CON-SP3-52750	Installation of East Centre barriers at Seg 1,2,3,4 & 5 - Southern Side	2.0	13-Aug-18	14-Aug-18	21.0
CON-SP3-52760	Barriers ends and finishes at Southern end - East Side	3.0	16-Aug-18	18-Aug-18	21.0
CON-SP3-52060	Installation of East Wall barriers at Southern Approach, seg 2 - Southern Side	1.0	16-Aug-18	16-Aug-18	9.0
CON-SP3-52090	Installation of East Wall barriers at seg. 6,7,8,9 & 10 - Northern Side	2.0	17-Aug-18	18-Aug-18	9.0
CON-SP3-52770	Installation of East Centre barriers at seg. 6,7,8,9 & 10 - Northern Side	2.0	20-Aug-18	21-Aug-18	16.0
CON-SP3-52810	Barriers ends and finishes at Northern end- East Side	3.0	22-Aug-18	24-Aug-18	16.0
Variation - LED Underpass Lighting		115.0	17-May-18A	06-Oct-18	3.0
Design Works		53.0	17-May-18A	20-Jul-18	-6.0
VAR-1010	BAC Design Approval & Issue Certificate of Conformance	10.0	17-May-18A	22-Jun-18	-11.0
VAR-1020	IFC Design Release	0.0	23-Jun-18		-7.0
VAR-1150	AIB C Approval	20.0	25-Jun-18	20-Jul-18	-5.0
Procurement Works		48.0	04-Jun-18A	08-Aug-18	7.0
Support Arms		41.0	04-Jun-18A	30-Jul-18	-11.0
VAR-1040	SupportArms: Workshop Drawing Submission	10.0	04-Jun-18A	25-Jun-18	-11.0
VAR-1330	SupportArms: Workshop Drawing Comment, Revise & Approval by BAC	15.0	26-Jun-18	16-Jul-18	-11.0
VAR-1340	SupportArms: Fabrication & Delivery	10.0	17-Jul-18	30-Jul-18	-11.0
Fence		43.0	11-Jun-18A	08-Aug-18	7.0
VAR-1290	Workshop Drawing Submission	10.0	11-Jun-18A	22-Jun-18	7.0
VAR-1310	BAC Workshop Drawing Comment, Revise & Approval by BAC	15.0	25-Jun-18	13-Jul-18	7.0
VAR-1300	Fabrication & Delivery of Fence	18.0	16-Jul-18	08-Aug-18	7.0
Construction		94.0	18-Jun-18	06-Oct-18	4.0
Stage 1 Landside Western Wall		52.0	18-Jun-18	17-Aug-18	-15.0
VAR-1430	Inspection & punchlisting Fireboard for ceiling support - Taxiway Y	15.0	18-Jun-18	04-Jul-18	3.0
VAR-1180	Landside: Installation of ceiling support - Airside Bridge 1	5.0	26-Jun-18*	30-Jun-18	-9.0
VAR-1360	Landside: Installation of ceiling support - Airside Bridge 2	5.0	02-Jul-18	06-Jul-18	-15.0
VAR-1440	Inspection & punchlisting Fireboard for ceiling support - Taxiway Z	21.0	04-Jul-18	27-Jul-18	-15.0
VAR-1350	Landside: Installation of ceiling support - Taxiway Y	8.0	07-Jul-18	16-Jul-18	-9.0
VAR-1230	Landside: Installation of ceiling support - Taxiway Z	8.0	24-Jul-18	01-Aug-18	-15.0
VAR-1190	Landside West Wall: Installation of wall supports	6.0	02-Aug-18	08-Aug-18	-15.0
VAR-1200	Landside West Wall: Installation of cable trays	5.0	06-Aug-18	10-Aug-18	-15.0
VAR-1210	Landside West Wall: Installation of LV cables	4.0	11-Aug-18	16-Aug-18	-15.0
VAR-1220	Landside West Wall: Installation of Lights	4.0	13-Aug-18	17-Aug-18	-15.0
Stage 2 Landside Centre Wall		22.0	09-Aug-18	04-Sep-18	31.0
VAR-1240	Landside Centre Wall: Installation of Fence Posts	12.0	09-Aug-18	23-Aug-18	8.0
VAR-1370	Landside Centre Wall: Installation of Fence Panels	12.0	10-Aug-18	24-Aug-18	17.0



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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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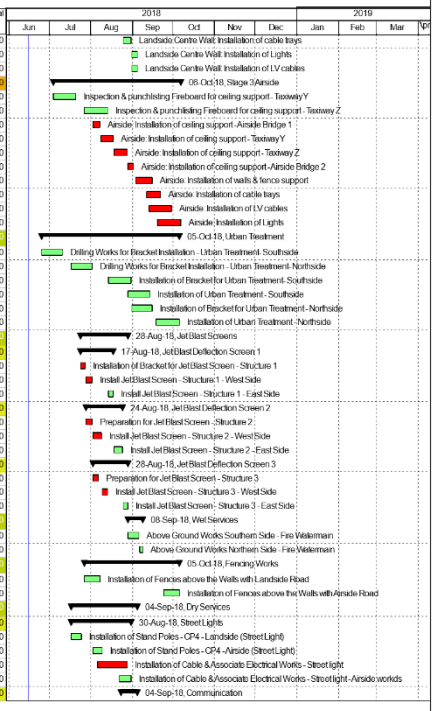
Print Date: 22-Jun-18

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
VAR-1250	Landside Centre Wall: Installation of cable trays	5.0	25-Aug-18	30-Aug-18	17.0
VAR-1270	Landside Centre Wall: Installation of Lights	4.0	31-Aug-18	04-Sep-18	31.0
VAR-1260	Landside Centre Wall: Installation of LV cables	4.0	31-Aug-18	04-Sep-18	31.0
Stage 3 Airside		80.0	04-Jul-18	05-Oct-18	0.0
VAR-1450	Inspection & punchlisting Fireboard for ceiling support - Taxiway Y	15.0	04-Jul-18	20-Jul-18	15.0
VAR-1460	Inspection & punchlisting Fireboard for ceiling support - Taxiway Z	15.0	27-Jul-18	13-Aug-18	3.0
VAR-1380	Airside: Installation of ceiling support - Airside Bridge 1	5.0	02-Aug-18	07-Aug-18	0.0
VAR-1390	Airside: Installation of ceiling support - Taxiway Y	8.0	08-Aug-18	17-Aug-18	0.0
VAR-1400	Airside: Installation of ceiling support - Taxiway Z	8.0	18-Aug-18	27-Aug-18	0.0
VAR-1410	Airside: Installation of ceiling support - Airside Bridge 2	5.0	28-Aug-18	01-Sep-18	0.0
VAR-1060	Airside: Installation of walls & fence support	12.0	03-Sep-18	15-Sep-18	0.0
VAR-1070	Airside: Installation of cable trays	10.0	11-Sep-18	21-Sep-18	0.0
VAR-1080	Airside: Installation of LV cables	15.0	13-Sep-18	29-Sep-18	0.0
VAR-1090	Airside: Installation of Lights	15.0	19-Sep-18	06-Oct-18	0.0
Urban Treatment		87.0	25-Jun-18	05-Oct-18	7.0
CON-SP3-61260	Drilling Works for Bracket Installation - Urban Treatment- Southside	14.0	25-Jun-18*	10-Jul-18	46.0
CON-SP3-61270	Drilling Works for Bracket Installation - Urban Treatment- Northside	14.0	17-Jul-18	01-Aug-18	42.0
CON-SP3-50700	Installation of Bracket for Urban Treatment- Southside	14.0	14-Aug-18	30-Aug-18	17.0
CON-SP3-50720	Installation of Urban Treatment - Southside	15.0	28-Aug-18	13-Sep-18	10.0
CON-SP3-50710	Installation of Bracket for Urban Treatment - Northside	14.0	31-Aug-18	15-Sep-18	18.0
CON-SP3-4460	Installation of Urban Treatment - Northside	15.0	18-Sep-18	05-Oct-18	7.0
Jet Blast Screens		30.0	24-Jul-18	28-Aug-18	22.0
Jet Blast Deflection Screen 1		21.0	24-Jul-18	17-Aug-18	22.0
CON-SP3-3980	Installation of Bracket for Jet Blast Screen - Structure 1	4.0	24-Jul-18	27-Jul-18	-12.0
CON-SP3-3210	Install Jet Blast Screen - Structure 1 - West Side	4.0	28-Jul-18	01-Aug-18	-12.0
CON-SP3-50930	Install Jet Blast Screen - Structure 1 - East Side	3.0	14-Aug-18	17-Aug-18	22.0
Jet Blast Deflection Screen 2		23.0	28-Jul-18	24-Aug-18	22.0
CON-SP3-5040	Preparation for Jet Blast Screen - Structure 2	4.0	28-Jul-18	01-Aug-18	-12.0
CON-SP3-5050	Install Jet Blast Screen - Structure 2 - West Side	6.0	02-Aug-18	08-Aug-18	-12.0
CON-SP3-50940	Install Jet Blast Screen - Structure 2 - East Side	6.0	18-Aug-18	24-Aug-18	22.0
Jet Blast Deflection Screen 3		22.0	02-Aug-18	28-Aug-18	22.0
CON-SP3-5060	Preparation for Jet Blast Screen - Structure 3	4.0	02-Aug-18	06-Aug-18	-10.0
CON-SP3-5070	Install Jet Blast Screen - Structure 3 - West Side	4.0	09-Aug-18	13-Aug-18	-12.0
CON-SP3-50950	Install Jet Blast Screen - Structure 3 - East Side	3.0	25-Aug-18	28-Aug-18	22.0
Wet Services		11.0	28-Aug-18	08-Sep-18	23.0
SER-5300	Above Ground Works Southern Side - Fire Waterman	8.0	28-Aug-18	05-Sep-18	20.0
SER-4590	Above Ground Works Northern Side - Fire Waterman	3.0	06-Sep-18	08-Sep-18	23.0
Fencing Works		59.0	27-Jul-18	05-Oct-18	14.0
CON-SP3-3140	Installation of Fences above the Walls with Landside Road	10.0	27-Jul-18	07-Aug-18	4.0
CON-SP3-32540	Installation of Fences above the Walls with Airside Road	10.0	24-Sep-18	05-Oct-18	14.0
Dry Services		42.0	17-Jul-18	04-Sep-18	20.0
Street Lights		38.0	17-Jul-18	30-Aug-18	22.0
SER-5780	Installation of Stand Poles - CP4 - Landside (Street Light)	7.0	17-Jul-18	24-Jul-18	11.0
SER-6010	Installation of Stand Poles - CP4 - Airside (Street Light)	7.0	02-Aug-18	09-Aug-18	31.0
SER-5850	Installation of Cable & Associate Electrical Works - Street light	18.0	06-Aug-18	27-Aug-18	-12.0
SER-6490	Installation of Cable & Associate Electrical Works - Street light - Airside workds	8.0	22-Aug-18	30-Aug-18	22.0
Communication		11.0	23-Aug-18	04-Sep-18	20.0



Remaining Level of Effort
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McCONNELL DOWELL
CREATIVE CONSTRUCTION™

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

Date	Revision	Checked	Approved
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Project ID: 2772
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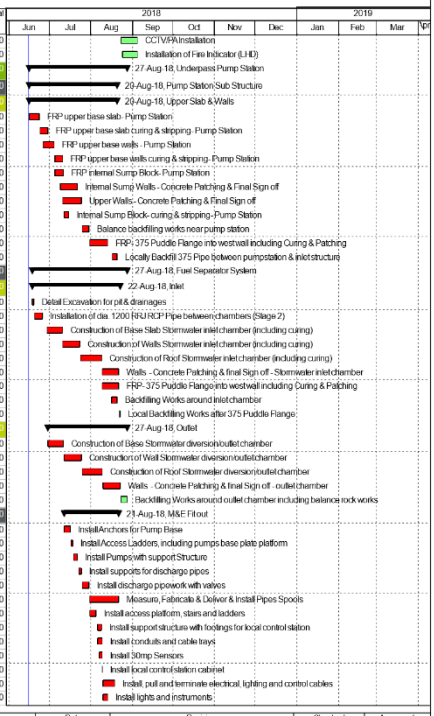
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
SER.1910	CCTV/FIAInstallation	11.0	23-Aug-18	04-Sep-18	20.0
SER.2040	Installation of Fire Indicator (LHD)	10.0	24-Aug-18	04-Sep-18	17.0
Underpass Pump Station		59.0	16-Jun-18	27-Aug-18	13.0
Pump Station Sub Structure		53.0	16-Jun-18	20-Aug-18	-10.0
Upper Slab & Walls		53.0	16-Jun-18	20-Aug-18	-10.0
CON.SP3.2520	FRP upper base slab- Pump Station	7.0	16-Jun-18	23-Jun-18	-13.0
CON.SP3.60420	FRP upper base slab curing & stripping- Pump Station	6.0	24-Jun-18	29-Jun-18	-15.0
CON.SP3.3860	FRP upper base walls - Pump Station	8.0	26-Jun-18	04-Jul-18	-12.0
CON.SP3.60430	FRP upper base walls curing & stripping- Pump Station	6.0	05-Jul-18	10-Jul-18	-7.0
CON.SP3.60450	FRP internal Sump Block- Pump Station	6.0	05-Jul-18	11-Jul-18	-12.0
CON.SP3.60470	Internal Sump Walls - Concrete Patching & Final Sign off	12.0	09-Jul-18	21-Jul-18	0.0
CON.SP3.60440	Upper Walls - Concrete Patching & Final Sign off	12.0	11-Jul-18	24-Jul-18	-6.0
CON.SP3.60460	Internal Sump Block- curing & stripping- Pump Station	4.0	12-Jul-18	15-Jul-18	-13.0
CON.SP3.3870	Balance backfilling works near pump station	5.0	25-Jul-18	30-Jul-18	-6.0
CON.SP3.60480	FRP- 375 Puddle Flange into west wall including Curing & Patching	12.0	31-Jul-18	13-Aug-18	-9.0
CON.SP3.60520	Locally Backfill 375 Pipe between pumpstation & inlet structure	3.0	17-Aug-18	20-Aug-18	-11.0
Fuel Separator System		60.0	18-Jun-18	27-Aug-18	14.0
Inlet		56.0	18-Jun-18	22-Aug-18	13.0
CON.SP3.4010	Detail Excavation for pit & drainages	2.0	18-Jun-18	19-Jun-18	-10.0
CON.SP3.32390	Installation of dia. 1200 RRJ RCP Pipe between chambers (Stage 2)	5.0	20-Jun-18*	25-Jun-18	-10.0
CON.SP3.4000	Construction of Base Slab Stormwater inlet chamber (including curing)	10.0	29-Jun-18	10-Jul-18	-13.0
CON.SP3.4030	Construction of Walls Stormwater inlet chamber (including curing)	11.0	11-Jul-18	23-Jul-18	-13.0
CON.SP3.4040	Construction of Roof Stormwater inlet chamber (including curing)	14.0	24-Jul-18	08-Aug-18	-13.0
CON.SP3.60490	Walls - Concrete Patching & final Sign off - Stormwater inlet chamber	10.0	09-Aug-18	21-Aug-18	-12.0
CON.SP3.60510	FRP- 375 Puddle Flange into west wall including Curing & Patching	10.0	09-Aug-18	21-Aug-18	-13.0
CON.SP3.4100	Backfilling Works around inlet chamber	4.0	16-Aug-18	20-Aug-18	-11.0
CON.SP3.61280	Local Backfilling Works after 375 Puddle Flange	1.0	22-Aug-18	22-Aug-18	-13.0
Outlet		49.0	30-Jun-18	27-Aug-18	14.0
CON.SP3.4020	Construction of Base Stormwater diversion/outlet chamber	10.0	30-Jun-18*	11-Jul-18	-13.0
CON.SP3.4050	Construction of Wall Stormwater diversion/outlet chamber	11.0	12-Jul-18	24-Jul-18	-13.0
CON.SP3.4060	Construction of Roof Stormwater diversion/outlet chamber	14.0	25-Jul-18	09-Aug-18	-13.0
CON.SP3.60500	Walls - Concrete Patching & final Sign off - outlet chamber	10.0	10-Aug-18	22-Aug-18	-13.0
CON.SP3.4070	Backfilling Works around outlet chamber including balance rock works	4.0	23-Aug-18	27-Aug-18	14.0
M&E Fit out		34.0	12-Jul-18	21-Aug-18	-12.0
CON.SP3.61290	Install Anchors for Pump Base	4.0	12-Jul-18	16-Jul-18	-12.0
CON.SP3.50330	Install Access Ladders, including pumps base plate platform	2.0	17-Jul-18	18-Jul-18	-12.0
CON.SP3.50010	Install Pumps with support Structure	3.0	19-Jul-18	21-Jul-18	-12.0
CON.SP3.50020	Install supports for discharge pipes	2.0	23-Jul-18	24-Jul-18	-12.0
CON.SP3.50040	Install discharge pipework with valves	5.0	25-Jul-18	30-Jul-18	-12.0
CON.SP3.51860	Measure, Fabricate & Deliver & Install Pipes Spools	18.0	31-Jul-18	21-Aug-18	-12.0
CON.SP3.50610	Install access platform, stairs and ladders	5.0	31-Jul-18	04-Aug-18	-12.0
CON.SP3.50070	Install support structure with footings for local control station	3.0	06-Aug-18	08-Aug-18	-12.0
CON.SP3.50050	Install conduits and cable trays	4.0	06-Aug-18	09-Aug-18	-11.0
CON.SP3.50080	Install 30mp Sensors	3.0	07-Aug-18	09-Aug-18	-11.0
CON.SP3.50080	Install local control station cabinet	1.0	09-Aug-18	09-Aug-18	-12.0
CON.SP3.50100	Install, pull and terminate electrical, lighting and control cables	7.0	10-Aug-18	18-Aug-18	-12.0
CON.SP3.50090	Install lights and instruments	3.0	10-Aug-18	13-Aug-18	-11.0



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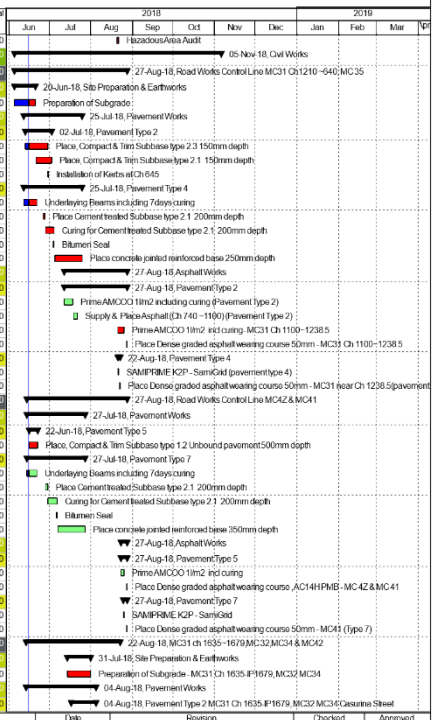
CON-SP3-51850	Hazadous Area Audit	2.0	20-Aug-18	21-Aug-18	-12.0
Civil Works		122.0	05-Jun-18A	05-Nov-18	6.0
Road Works Control Line MC31 Ch1210 ~640, MC 35		67.0	05-Jun-18A	27-Aug-18	-14.0
Site Preparation & Earthworks		20.0	05-Jun-18A	20-Jun-18	-12.0
CON-SP3-2060	Preparation of Subgrade	20.0	05-Jun-18A	20-Jun-18	-12.0
Pavement Works		40.0	12-Jun-18A	25-Jul-18	15.0
Pavement Type 2		22.0	13-Jun-18A	02-Jul-18	-8.0
CON-SP3-2250	Place, Compact & Trim Subbase type 2.3 150mm depth	20.0	13-Jun-18A	29-Jun-18	-8.0
CON-SP3-2120	Place, Compact & Trim Subbase type 2.1 150mm depth	10.0	21-Jun-18	02-Jul-18	-8.0
CON-SP3-52390	Installation of Kerbs at Ch 645	1.0	30-Jun-18	30-Jun-18	-8.0
Pavement Type 4		38.0	12-Jun-18A	25-Jul-18	-15.0
CON-SP3-51690	Underlaying Beams including 7days curing	9.0	12-Jun-18A	21-Jun-18	-12.0
CON-SP3-2370	Place Cement treated Subbase type 2.1 200mm depth	2.0	26-Jun-18*	27-Jun-18	-15.0
CON-SP3-51680	Curing for Cement treated Subbase type 2.1 200mm depth	7.0	28-Jun-18	04-Jul-18	-18.0
CON-SP3-51720	Bitumen Seal	1.0	04-Jul-18	04-Jul-18	-15.0
CON-SP3-2400	Place concrete jointed reinforced base 250mm depth	18.0	05-Jul-18	25-Jul-18	-15.0
Asphalt Works		39.0	12-Jul-18	27-Aug-18	14.0
Pavement Type 2		39.0	12-Jul-18	27-Aug-18	-14.0
CON-SP3-51610	Prime AMCOO 1l/m2 including curing (Pavement Type 2)	6.0	12-Jul-18	18-Jul-18	8.0
CON-SP3-51620	Supply & Place Asphalt (Ch 740 ~1100) (Pavement Type 2)	3.0	19-Jul-18	21-Jul-18	8.0
CON-SP3-52180	Prime AMCOO 1l/m2 incl curing -MC31 Ch 1100~1238.5	5.0	21-Aug-18	25-Aug-18	-14.0
CON-SP3-52120	Place Dense graded asphalt wearing course 50mm - MC31 Ch 1100~1238.5	1.0	27-Aug-18	27-Aug-18	-14.0
Pavement Type 4		2.0	21-Aug-18	22-Aug-18	-11.0
CON-SP3-52190	SAMIPRIME K2P - SamiGrid (pavement type 4)	1.0	21-Aug-18	21-Aug-18	-11.0
CON-SP3-52130	Place Dense graded asphalt wearing course 50mm - MC31 near Ch 1238.5(pavement type 4)	1.0	22-Aug-18	22-Aug-18	-11.0
Road Works Control Line MC4Z & MC41		61.0	14-Jun-18A	27-Aug-18	39.0
Pavement Works		37.0	14-Jun-18A	27-Jul-18	26.0
Pavement Type 5		6.0	16-Jun-18	22-Jun-18	-8.0
CON-SP3-2420	Place, Compact & Trim Subbase type 1.2 Unbound pavement 500mm depth	6.0	16-Jun-18	22-Jun-18	-8.0
Pavement Type 7		37.0	14-Jun-18A	27-Jul-18	26.0
CON-SP3-52850	Underlaying Beams including 7days curing	9.0	14-Jun-18A	21-Jun-18	32.0
CON-SP3-2480	Place Cement treated Subbase type 2.1 200mm depth	2.0	28-Jun-18	29-Jun-18	27.0
CON-SP3-51730	Curing for Cement treated Subbase type 2.1 200mm depth	7.0	30-Jun-18	08-Jul-18	32.0
CON-SP3-51740	Bitumen Seal	1.0	08-Jul-18	08-Jul-18	27.0
CON-SP3-2510	Place concrete jointed reinforced base 350mm depth	18.0	07-Jul-18	27-Jul-18	27.0
Asphalt Works		4.0	23-Aug-18	27-Aug-18	42.0
Pavement Type 5		4.0	23-Aug-18	27-Aug-18	31.0
CON-SP3-52200	Prime AMCOO 1l/m2 incl curing	3.0	23-Aug-18	25-Aug-18	31.0
CON-SP3-52110	Place Dense graded asphalt wearing course ,AC14HPMB - MC4Z & MC41	1.0	27-Aug-18	27-Aug-18	31.0
Pavement Type 7		2.0	25-Aug-18	27-Aug-18	42.0
CON-SP3-52210	SAMIPRIME K2P - SamiGrid	1.0	25-Aug-18	25-Aug-18	42.0
CON-SP3-52170	Place Dense graded asphalt wearing course 50mm - MC41 (Type 7)	1.0	27-Aug-18	27-Aug-18	42.0
MC31 ch 1635~1679,MC 32,MC34 & MC42		55.0	14-Jun-18A	22-Aug-18	-10.0
Site Preparation & Earthworks		15.0	14-Jul-18	31-Jul-18	-15.0
CON-SP3-51880	Preparation of Subgrade - MC31 Ch 1635-IP1679, MC32 MC34	15.0	14-Jul-18	31-Jul-18	-15.0
Pavement Works		42.0	14-Jun-18A	04-Aug-18	-15.0
Pavement Type 2 MC31 Ch 1635-IP1679, MC32 MC34 Casurina Street		17.0	17-Jul-18	04-Aug-18	-15.0



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CON-SP3-51890	Supply and place Subbase type 2.3 150mm	15.0	17-Jul-18	02-Aug-18	-15.0
CON-SP3-51900	Supply and place Subbase type 2.1 150mm	15.0	19-Jul-18	04-Aug-18	-15.0
Pavement Type 4 MC 31 - Ch 1620-1635		34.0	14-Jun-18A	26-Jul-18	8.0
CON-SP3-51930	Underlying beams including Curing 7 days	9.0	14-Jun-18A	21-Jun-18	-5.0
CON-SP3-52030	Place Cement treated Subbase type 2.1 200mm depth	3.0	26-Jun-18	28-Jun-18	-8.0
CON-SP3-52010	Curing for Cement treated Subbase type 2.1 200mm depth	7.0	29-Jun-18	05-Jul-18	-9.0
CON-SP3-52020	Bitumen Seal	1.0	05-Jul-18	05-Jul-18	-8.0
CON-SP3-52000	Place concrete jointed reinforced base 250mm depth	18.0	06-Jul-18	26-Jul-18	-8.0
Asphalt Works		12.0	08-Aug-18	22-Aug-18	-10.0
Pavement Type 2 MC31 Ch 1635-IP1679, MC32 MC34 Casurina Street		8.0	08-Aug-18	17-Aug-18	-15.0
CON-SP3-51910	PrimeAMCOO 1lm2 incl curing	3.0	08-Aug-18	10-Aug-18	-15.0
CON-SP3-51920	Supply and place asphalt,AC14M (ASS PMB) Casuarina St	5.0	11-Aug-18	17-Aug-18	-15.0
Pavement Type 4 MC 31 - Ch 1620-1635		2.0	21-Aug-18	22-Aug-18	-10.0
CON-SP3-60560	SAMIPRIME K2P - SamiGrid (pavement type 4)	1.0	21-Aug-18	21-Aug-18	-10.0
CON-SP3-52140	Place Dense graded asphalt wearing course 50mm - near MC31 Ch 1614.5 (pavement Type 4)	1.0	22-Aug-18	22-Aug-18	-10.0
Underpass Structure - Type 9&10		46.0	18-Aug-18	11-Oct-18	9.0
Asphalt Works		46.0	18-Aug-18	11-Oct-18	9.0
Landside		33.0	18-Aug-18	25-Sep-18	22.0
CON-SP3-52220	SAMIPRIME K2P Type 9 - Underpass Structure (Landside Road)	3.0	18-Aug-18	21-Aug-18	-15.0
CON-SP3-52230	Type 9 Supply and spray 10mm PMB - Underpass Structure (Landside Road)	4.0	22-Aug-18	25-Aug-18	-15.0
CON-SP3-52150	Place Dense Graded Asphalt Wearing Course (50mm)AC14M - Underpass Structure (Landside Road)	2.0	27-Aug-18	28-Aug-18	-15.0
CON-SP3-60270	Installation of Expansion Joints (Landside Road)	24.0	29-Aug-18	25-Sep-18	22.0
Airside		33.0	03-Sep-18	11-Oct-18	9.0
CON-SP3-52240	SAMIPRIME K2P Type 10 - Underpass Structure(Airside Road)	3.0	03-Sep-18	05-Sep-18	9.0
CON-SP3-52250	Type 10 Supply and spray 10mm PMB - Underpass Structure(Airside Road)	4.0	06-Sep-18	10-Sep-18	9.0
CON-SP3-52160	Place Dense Graded Asphalt Wearing Course (50mm)AC14M - Underpass Structure(Airside Road)	2.0	11-Sep-18	12-Sep-18	9.0
CON-SP3-60280	Installation of Expansion Joints - Underpass Structure(Airside Road)	24.0	13-Sep-18	11-Oct-18	9.0
Service Area		72.0	23-Jun-18	15-Sep-18	30.0
Preparation Works		60.0	23-Jun-18	01-Sep-18	14.0
CON-SP3-32660	Backfilling works for Switchroom/substation foundation	5.0	23-Jun-18	28-Jun-18	13.0
CON-SP3-1790	Prepare and Trim Subgrade	5.0	28-Aug-18	01-Sep-18	14.0
Pavement / Kerbs Works		8.0	03-Sep-18	11-Sep-18	30.0
CON-SP3-1810	Place Subbase type 2.1 Unbound Pavement 200 mm	4.0	03-Sep-18	06-Sep-18	14.0
CON-SP3-52290	Supply and install concrete kerb BCC type Edge restraint	2.0	07-Sep-18	08-Sep-18	30.0
CON-SP3-52300	Channel Type 28 to TMR STD	2.0	10-Sep-18	11-Sep-18	30.0
Asphalt Works		4.0	12-Sep-18	15-Sep-18	30.0
CON-SP3-52310	PrimeAMCOO 1lm2 incl curing	3.0	12-Sep-18	14-Sep-18	30.0
CON-SP3-1870	Place Dense graded Asphalt, AC7M (25mm) (4741 m2) - Service Area	1.0	15-Sep-18	15-Sep-18	30.0
Sitewide Roadworks		105.0	04-Jul-18	05-Nov-18	8.0
Signs		10.0	17-Sep-18	27-Sep-18	30.0
CON-SP3-32570	Installation of balance Signs including Gantries	10.0	17-Sep-18	27-Sep-18	30.0
Road Works - Finishing Works		55.0	04-Aug-18	09-Oct-18	10.0
CON-SP3-60530	FRP Hob around Gully pits, Curing, Punchlisting & Sign off - Landside South	8.0	04-Aug-18	13-Aug-18	-12.0
CON-SP3-60540	FRP Hob around Gully pits, Curing, Punchlisting & Sign off - Landside North	8.0	08-Aug-18	17-Aug-18	-15.0
CON-SP3-2500	Installation of Guardrail - Sothern end	6.0	09-Aug-18	16-Aug-18	1.0
CON-SP3-3180	Installation of Signs including Gantries for Dryandra traffic switch	10.0	13-Aug-18	24-Aug-18	-10.0
CON-SP3-52270	Installation of Guardrail - Northern end	2.0	17-Aug-18	18-Aug-18	-5.0

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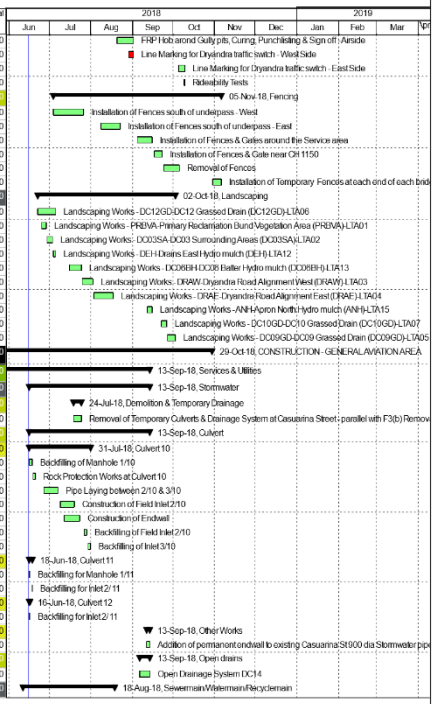
CON-SP3-60550	FRP Hob around Gully pits, Curing, Punchlisting & Sign off - Airside	12.0	20-Aug-18	01-Sep-18	9.0
CON-SP3-3200	Line Marking for Dryandra traffic switch - West Side	4.0	29-Aug-18	01-Sep-18	-15.0
CON-SP3-52710	Line Marking for Dryandra traffic switch - East Side	4.0	05-Oct-18	09-Oct-18	10.0
CON-SP3-80320	Rideability Tests	1.0	09-Oct-18	09-Oct-18	10.0
Fencing		105.0	04-Jul-18	05-Nov-18	8.0
CON-SP3-50820	Installation of Fences south of underpass - West	20.0	04-Jul-18	26-Jul-18	4.0
CON-SP3-50830	Installation of Fences south of underpass - East	12.0	08-Aug-18	22-Aug-18	24.0
CON-SP3-1550	Installation of Fences & Gates around the Service area	11.0	04-Sep-18	15-Sep-18	14.0
CON-SP3-2590	Installation of Fences & Gate near CH 1150	6.0	17-Sep-18	22-Sep-18	14.0
CON-SP3-1800	Removal of Fences	10.0	24-Sep-18	05-Oct-18	24.0
CON-SP3-2950	Installation of Temporary Fences at each end of each bridges	6.0	30-Oct-18	05-Nov-18	8.0
Landscaping		86.0	22-Jun-18	02-Oct-18	24.0
CON-SP3-60090	Landscaping Works - DC12GD-DC12 Grassed Drain (DC12GD)-LTA06	12.0	22-Jun-18	05-Jul-18	75.0
CON-SP3-60000	Landscaping Works - PREVA-Primary Reclamation Bund Vegetation Area (PREVA)-LTA01	4.0	25-Jun-18*	28-Jun-18	41.0
CON-SP3-60010	Landscaping Works - DC03SA-DC03 Surrounding Areas (DC03SA)-LTA02	4.0	29-Jun-18	03-Jul-18	41.0
CON-SP3-60020	Landscaping Works - DEH Drains East Hydro mulch (DEH)-LTA12	2.0	04-Jul-18	05-Jul-18	41.0
CON-SP3-60030	Landscaping Works - DC06BH-DC06 Batter Hydro mulch (DC06BH)-LTA13	8.0	16-Jul-18	24-Jul-18	35.0
CON-SP3-60040	Landscaping Works - DRAW-Dryandra Road Alignment West (DRAW)-LTA03	8.0	25-Jul-18	02-Aug-18	35.0
CON-SP3-60050	Landscaping Works - DRAE-Dryandra Road Alignment East (DRAE)-LTA04	12.0	03-Aug-18	17-Aug-18	35.0
CON-SP3-60060	Landscaping Works -ANH-Apron North Hydro mulch (ANH)-LTA15	4.0	12-Sep-18	15-Sep-18	24.0
CON-SP3-60070	Landscaping Works - DC10GD-DC10 Grassed Drain (DC10GD)-LTA07	4.0	22-Sep-18	26-Sep-18	24.0
CON-SP3-60080	Landscaping Works - DC09GD-DC09 Grassed Drain (DC09GD)-LTA05	4.0	27-Sep-18	02-Oct-18	24.0
CONSTRUCTION - GENERAL AVIATION AREA		285.0	13-Nov-17A	29-Oct-18	19.0
Services & Utilities		247.0	13-Nov-17A	13-Sep-18	52.0
Stormwater		76.0	16-Jun-18	13-Sep-18	52.0
Demolition & Temporary Drainage		5.0	19-Jul-18	24-Jul-18	11.0
SER-5970	Removal of Temporary Culverts & Drainage System at Casuarina Street - parallel with F3(b) Removal	5.0	19-Jul-18	24-Jul-18	11.0
Culvert		76.0	16-Jun-18	13-Sep-18	52.0
Culvert 10		39.0	16-Jun-18	31-Jul-18	49.0
SER-3500	Backfilling of Manhole 1/10	2.0	16-Jun-18	18-Jun-18	40.0
SER-1800	Rock Protection Works at Culvert 10	2.0	19-Jun-18	20-Jun-18	84.0
SER-3570	Pipe Laying between 2/10 & 3/10	10.0	27-Jun-18*	07-Jul-18	7.0
SER-3530	Construction of Field Inlet 2/10	10.0	09-Jul-18	19-Jul-18	7.0
SER-3560	Construction of Endwall	10.0	12-Jul-18	23-Jul-18	7.0
SER-3540	Backfilling of Field Inlet 2/10	2.0	27-Jul-18	28-Jul-18	7.0
SER-1640	Backfilling of Inlet 3/10	2.0	30-Jul-18	31-Jul-18	7.0
Culvert 11		2.0	16-Jun-18	18-Jun-18	7.0
SER-3600	Backfilling for Manhole 1/11	1.0	16-Jun-18	16-Jun-18	7.0
SER-1820	Backfilling for Inlet 2/11	1.0	18-Jun-18	18-Jun-18	7.0
Culvert 12		1.0	16-Jun-18	16-Jun-18	103.0
SER-3650	Backfilling for Inlet 2/11	1.0	16-Jun-18	16-Jun-18	103.0
Other Works		3.0	11-Sep-18	13-Sep-18	52.0
SER-3680	Addition of permanent endwall to existing Casuarina St 900 dia Stormwater pipe to suit DC14	3.0	11-Sep-18	13-Sep-18	52.0
Open drains		7.0	06-Sep-18	13-Sep-18	52.0
SER-4630	Open Drainage System DC14	7.0	06-Sep-18	13-Sep-18	52.0
Sewermain/Watermain/Recyclemain		59.0	11-Jun-18A	18-Aug-18	-15.0



Remaining Level of Effort
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McCONNELL DOWELL
CREATIVE CONSTRUCTION™

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

Date	Revision	Checked	Approved
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Project ID: 2772
Filter, Layout: DRW-TP
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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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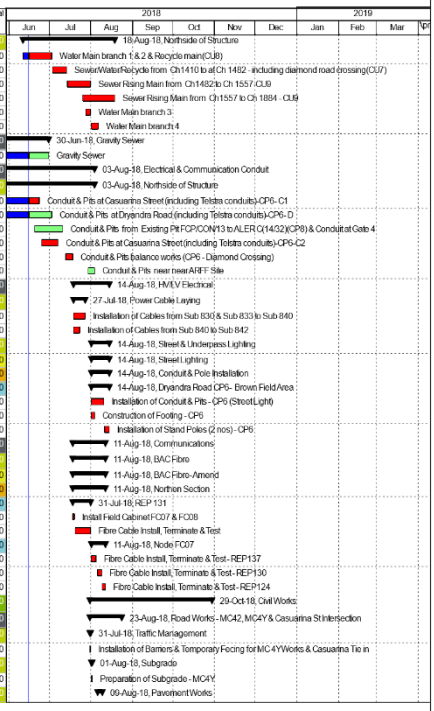
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Northside of Structure		59.0	11-Jun-18A	18-Aug-18	-15.0
SER-4500	Water Main branch 1 & 2 & Recycle main(CU8)	19.0	11-Jun-18A	02-Jul-18	-15.0
SER-2930	SewerWaterRecycle from Ch1410 to at Ch 1482 - including diamond road crossing(CU7)	10.0	03-Jul-18	13-Jul-18	-15.0
SER-2870	Sewer Rising Main from Ch1482 to Ch 1557 -CU9	15.0	14-Jul-18	31-Jul-18	-15.0
SER-3800	Sewer Rising Main from Ch1557 to Ch 1884 - CU9	20.0	26-Jul-18	18-Aug-18	-15.0
SER-2780	Water Main branch 3	3.0	28-Jul-18	31-Jul-18	-11.0
SER-2790	Water Main branch 4	5.0	01-Aug-18	06-Aug-18	-11.0
Gravity Sewer		14.0	13-Nov-17A	30-Jun-18	17.0
SER-2600	Gravity Sewer	14.0	13-Nov-17A	30-Jun-18	17.0
Electrical & Communication Conduit		59.0	28-May-18A	03-Aug-18	7.0
Northside of Structure		59.0	28-May-18A	03-Aug-18	7.0
SER-3020	Conduit & Pits at Casuarina Street (including Telstra conduits)-CP6- C1	18.0	28-May-18A	23-Jun-18	-10.0
SER-6260	Conduit & Pits at Dryandra Road (including Telstra conduits)-CP6- D	30.0	29-May-18A	02-Jul-18	9.0
SER-3200	Conduit & Pits from Existing PitFCP/CON/13 to ALER Q(14/32)(CP8) & Conduit at Gate 4	18.0	20-Jun-18*	10-Jul-18	4.0
SER-3880	Conduit & Pits at Casuarina Street (including Telstra conduits)-CP6-C2	12.0	25-Jun-18	07-Jul-18	-10.0
SER-5910	Conduit & Pits balance works (CP6 - Diamond Crossing)	5.0	13-Jul-18	18-Jul-18	-10.0
SER-4510	Conduit & Pits near near ARFF Site	5.0	30-Jul-18	03-Aug-18	7.0
HV/LV Electrical		23.0	19-Jul-18	14-Aug-18	-7.0
Power Cable Laying		8.0	19-Jul-18	27-Jul-18	-3.0
SER-3130	Installation of Cables from Sub 830 & Sub 833 to Sub 840	8.0	19-Jul-18	27-Jul-18	-3.0
SER-3140	Installation of Cables from Sub 840 to Sub 842	4.0	19-Jul-18	23-Jul-18	-1.0
Street & Underpass Lighting		12.0	01-Aug-18	14-Aug-18	-7.0
Street Lighting		12.0	01-Aug-18	14-Aug-18	-7.0
Conduit & Pole Installation		12.0	01-Aug-18	14-Aug-18	-7.0
Dryandra Road CP6- Brown Field Area		12.0	01-Aug-18	14-Aug-18	-7.0
SER-5820	Installation of Conduit & Pits - CP6 (Street Light)	9.0	01-Aug-18	10-Aug-18	-7.0
SER-5830	Construction of Footing - CP6	3.0	01-Aug-18	03-Aug-18	-7.0
SER-5840	Installation of Stand Poles (2 nos) - CP6	3.0	11-Aug-18	14-Aug-18	-7.0
Communications		22.0	18-Jul-18	11-Aug-18	-1.0
BAC Fibre		22.0	18-Jul-18	11-Aug-18	-1.0
BAC Fibre-Amend		22.0	18-Jul-18	11-Aug-18	-1.0
Northen Section		22.0	18-Jul-18	11-Aug-18	-1.0
REP 131		12.0	18-Jul-18	31-Jul-18	-1.0
SER-6080	Install Field Cabinet FC07 & FC08	2.0	18-Jul-18	19-Jul-18	-4.0
SER-6090	Fibre Cable Install, Terminate & Test	10.0	20-Jul-18	31-Jul-18	-1.0
Node FC07		10.0	01-Aug-18	11-Aug-18	-1.0
SER-6100	Fibre Cable Install, Terminate & Test - REP137	4.0	01-Aug-18	04-Aug-18	-1.0
SER-6140	Fibre Cable Install, Terminate & Test - REP130	3.0	06-Aug-18	08-Aug-18	-1.0
SER-6150	Fibre Cable Install, Terminate & Test - REP124	3.0	09-Aug-18	11-Aug-18	-1.0
Civil Works		76.0	31-Jul-18	29-Oct-18	19.0
Road Works - MC42, MC4Y & Casuarina St Intersection		20.0	31-Jul-18	23-Aug-18	-9.0
Traffic Management		1.0	31-Jul-18	31-Jul-18	-12.0
CON-SP3-4300	Installation of Barriers & Temporary Fecing for MC4YWorks & Casuarina Tie in	1.0	31-Jul-18	31-Jul-18	-12.0
Subgrade		1.0	01-Aug-18	01-Aug-18	-12.0
CON-SP3-52330	Preparation of Subgrade - MC4Y	1.0	01-Aug-18	01-Aug-18	-12.0
Pavement Works		4.0	06-Aug-18	09-Aug-18	-15.0



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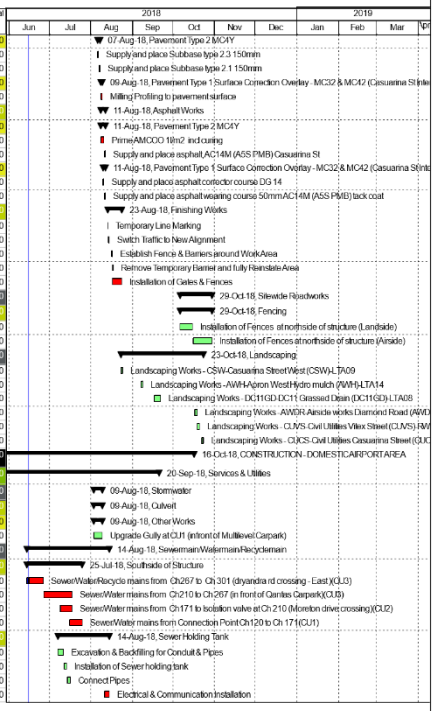
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Pavement Type 2 MC4Y		2.0	06-Aug-18	07-Aug-18	-15.0
CON-SP3-52340	Supply and place Subbase type 2.3 150mm	1.0	06-Aug-18	06-Aug-18	-15.0
CON-SP3-52350	Supply and place Subbase type 2.1 150mm	1.0	07-Aug-18	07-Aug-18	-15.0
Pavement Type 1 Surface Correction Overlay - MC32 & MC42 (Casuarina St Intersection)		2.0	08-Aug-18	09-Aug-18	-15.0
CON-SP3-51970	Milling Profiling to pavement surface	2.0	08-Aug-18	09-Aug-18	-15.0
Asphalt Works		4.0	08-Aug-18	11-Aug-18	-15.0
Pavement Type 2 MC4Y		4.0	08-Aug-18	11-Aug-18	-15.0
CON-SP3-52360	Prime AMCOO 1ltm2 incl curing	3.0	08-Aug-18	10-Aug-18	-15.0
CON-SP3-52370	Supply and place asphalt AC14M (A5S PMB) Casuarina St	1.0	11-Aug-18	11-Aug-18	-15.0
Pavement Type 1 Surface Correction Overlay - MC32 & MC42 (Casuarina St Intersection)		2.0	10-Aug-18	11-Aug-18	-15.0
CON-SP3-51980	Supply and place asphalt corrector course DG 14	1.0	10-Aug-18	10-Aug-18	-15.0
CON-SP3-51990	Supply and place asphalt wearing course 50mm AC14M (A5S PMB) tack coat	1.0	11-Aug-18	11-Aug-18	-15.0
Finishing Works		9.0	13-Aug-18	23-Aug-18	-9.0
CON-SP3-4340	Temporary Line Marking	1.0	13-Aug-18	13-Aug-18	-4.0
CON-SP3-4350	Switch Traffic to New Alignment	1.0	14-Aug-18	14-Aug-18	-4.0
CON-SP3-4360	Establish Fence & Barriers around Work Area	1.0	16-Aug-18	16-Aug-18	-4.0
CON-SP3-4370	Remove Temporary Barrier and fully Reinstate Area	1.0	17-Aug-18	17-Aug-18	-4.0
CON-SP3-30010	Installation of Gates & Fences	6.0	17-Aug-18	23-Aug-18	-9.0
Sitewide Roadworks		20.0	06-Oct-18	29-Oct-18	14.0
Fencing		20.0	06-Oct-18	29-Oct-18	14.0
CON-SP3-50840	Installation of Fences at northside of structure (Landside)	8.0	06-Oct-18	15-Oct-18	14.0
CON-SP3-50850	Installation of Fences at northside of structure (Airside)	12.0	16-Oct-18	29-Oct-18	14.0
Landscaping		52.0	23-Aug-18	23-Oct-18	24.0
CON-SP3-60100	Landscaping Works - CSW-Casuarina Street West (CSW)-LTA09	2.0	23-Aug-18	24-Aug-18	35.0
CON-SP3-60110	Landscaping Works -AWH-Apron West Hydro mulch (AWH)-LTA14	2.0	07-Sep-18	08-Sep-18	24.0
CON-SP3-60120	Landscaping Works - DC11GD-DC11 Grassed Drain (DC11GD)-LTA08	5.0	17-Sep-18	21-Sep-18	24.0
CON-SP3-60130	Landscaping Works -AWDR-Airside works Diamond Road (AWDR)-RW03	2.0	17-Oct-18	18-Oct-18	24.0
CON-SP3-60140	Landscaping Works - CLVS-Civil Utilities Vilex Street (CLVS)-RW02	2.0	19-Oct-18	20-Oct-18	24.0
CON-SP3-60150	Landscaping Works - CUCS-Civil Utilities Casuarina Street (CUCS)-RW01	2.0	22-Oct-18	23-Oct-18	24.0
CONSTRUCTION - DOMESTIC AIRPORT AREA		182.0	22-Feb-18A	16-Oct-18	24.0
Services & Utilities		161.0	22-Feb-18A	20-Sep-18	36.0
Stormwater		6.0	03-Aug-18	09-Aug-18	71.0
Culvert		6.0	03-Aug-18	09-Aug-18	71.0
Other Works		6.0	03-Aug-18	09-Aug-18	71.0
SER-6380	Upgrade Gully at CU1 (infront of Multilevel Carpark)	6.0	03-Aug-18	09-Aug-18	71.0
Sewermain/Watermain/Recyclemain		53.0	14-Jun-18A	14-Aug-18	-12.0
Southside of Structure		36.0	14-Jun-18A	25-Jul-18	-15.0
SER-6270	Sewer/Water/Recycle mains from Ch267 to Ch 301 (dryandra rd crossing - East)(CU3)	11.0	14-Jun-18A	26-Jun-18	-14.0
SER-2630	Sewer/Water mains from Ch210 to Ch 267 (in front of Qantas Carpark)(CU3)	18.0	27-Jun-18*	17-Jul-18	-14.0
SER-2620	Sewer/Water mains from Ch171 to Isolation valve at Ch 210 (Moreton drive crossing)(CU2)	8.0	09-Jul-18*	17-Jul-18	-15.0
SER-6560	Sewer/Water mains from Connection Point Ch120 to Ch 171(CU1)	9.0	16-Jul-18	25-Jul-18	-15.0
Sewer Holding Tank		33.0	07-Jul-18	14-Aug-18	-12.0
SER-4000	Excavation & Backfilling for Conduit & Pipes	4.0	07-Jul-18*	11-Jul-18	12.0
SER-2750	Installation of Sewer holding tank	2.0	12-Jul-18	13-Jul-18	12.0
SER-4010	Connect Pipes	2.0	14-Jul-18	16-Jul-18	12.0
SER-4020	Electrical & Communication Installation	3.0	11-Aug-18	14-Aug-18	-12.0



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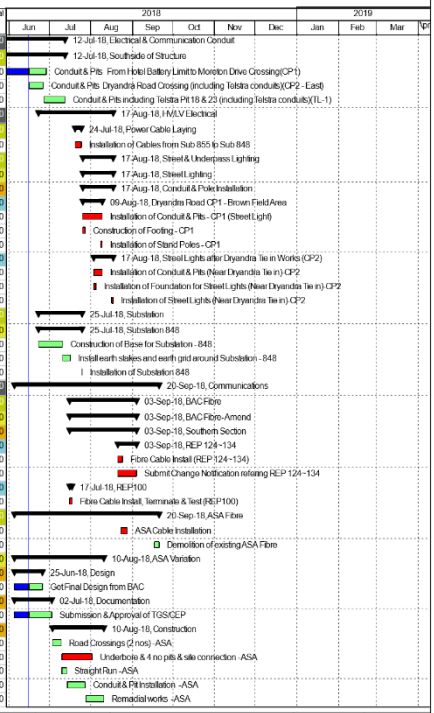
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Electrical & Communication Conduit		102.0	22-Feb-18A	12-Jul-18	20.0
Southside of Structure		102.0	22-Feb-18A	12-Jul-18	20.0
SER-2800	Conduit & Pits From Hotel Battery Limit to Moreton Drive Crossing(CP1)	19.0	22-Feb-18A	28-Jun-18	9.0
SER-6280	Conduit & Pits Dryandra Road Crossing (including Telstra conduits)(CP2 - East)	9.0	16-Jun-18	26-Jun-18	11.0
SER-4070	Conduit & Pits including Telstra Pit 18 & 23 (including Telstra conduits)(TL-1)	14.0	27-Jun-18	12-Jul-18	20.0
HV/LV Electrical		47.0	23-Jun-18	17-Aug-18	-8.0
Power Cable Laying		4.0	20-Jul-18	24-Jul-18	-2.0
SER-3120	Installation of Cables from Sub 855 to Sub 848	4.0	20-Jul-18	24-Jul-18	-2.0
Street & Underpass Lighting		19.0	26-Jul-18	17-Aug-18	-8.0
Street Lighting		19.0	26-Jul-18	17-Aug-18	-8.0
Conduit & Pole Installation		19.0	26-Jul-18	17-Aug-18	-8.0
Dryandra Road CP1 - Brown Field Area		13.0	26-Jul-18	09-Aug-18	-8.0
SER-5690	Installation of Conduit & Pits - CP1 (Street Light)	13.0	26-Jul-18	09-Aug-18	-8.0
SER-5700	Construction of Footing - CP1	2.0	26-Jul-18	27-Jul-18	-5.0
SER-5710	Installation of Stand Poles - CP1	2.0	08-Aug-18	09-Aug-18	-8.0
Street Lights after Dryandra Tie in Works (CP2)		12.0	03-Aug-18	17-Aug-18	-8.0
CON-SP3-52380	Installation of Conduit & Pits (Near Dryandra Tie in) CP2	6.0	03-Aug-18	09-Aug-18	-8.0
CON-SP3-30080	Installation of Foundation for Street Lights (Near Dryandra Tie in) CP2	2.0	03-Aug-18	04-Aug-18	-4.0
CON-SP3-30180	Installation of Street Lights (Near Dryandra Tie in) CP2	2.0	16-Aug-18	17-Aug-18	-8.0
Substation		28.0	23-Jun-18	25-Jul-18	-3.0
Substation 848		28.0	23-Jun-18	25-Jul-18	-3.0
SER-1830	Construction of Base for Substation - 848	15.0	23-Jun-18	10-Jul-18	4.0
SER-5670	Install earth stakes and earth grid around Substation - 848	5.0	11-Jul-18	16-Jul-18	4.0
SER-1840	Installation of Substation 848	1.0	25-Jul-18	25-Jul-18	-3.0
Communications		92.0	05-Jun-18A	20-Sep-18	6.0
BAC Fibre		42.0	16-Jul-18	03-Sep-18	-17.0
BAC Fibre- Amend		42.0	16-Jul-18	03-Sep-18	-17.0
Southern Section		42.0	16-Jul-18	03-Sep-18	-17.0
REP 124~134		12.0	21-Aug-18	03-Sep-18	-17.0
SER-6060	Fibre Cable Install (REP 124~134)	4.0	21-Aug-18	24-Aug-18	-17.0
SER-6700	Submit Change Notification referring REP 124~134	12.0	21-Aug-18	03-Sep-18	-17.0
REP100		2.0	16-Jul-18	17-Jul-18	-1.0
SER-6070	Fibre Cable Install, Terminate & Test (REP100)	2.0	16-Jul-18*	17-Jul-18	-1.0
ASA Fibre		92.0	05-Jun-18A	20-Sep-18	6.0
SER-3780	ASA Cable Installation	4.0	23-Aug-18	27-Aug-18	-17.0
SER-6190	Demolition of existing ASA Fibre	4.0	17-Sep-18	20-Sep-18	6.0
ASA Variation		58.0	05-Jun-18A	10-Aug-18	7.0
Design		18.0	05-Jun-18A	25-Jun-18	4.0
SER-6200	Get Final Design from BAC	18.0	05-Jun-18A	25-Jun-18	4.0
Documentation		24.0	05-Jun-18A	02-Jul-18	4.0
SER-6300	Submission & Approval of TGS/CEP	24.0	05-Jun-18A	02-Jul-18	4.0
Construction		34.0	03-Jul-18	10-Aug-18	7.0
SER-6310	Road Crossings (2 nos) - ASA	6.0	03-Jul-18	09-Jul-18	4.0
SER-6320	Underbore & 4 no pits & site connection - ASA	20.0	10-Jul-18*	01-Aug-18	0.0
SER-6320	Straight Run - ASA	4.0	10-Jul-18	13-Jul-18	4.0
SER-6330	Conduit & Pit Installation - ASA	12.0	14-Jul-18	27-Jul-18	4.0
SER-6340	Remedial works - ASA	12.0	28-Jul-18	10-Aug-18	7.0



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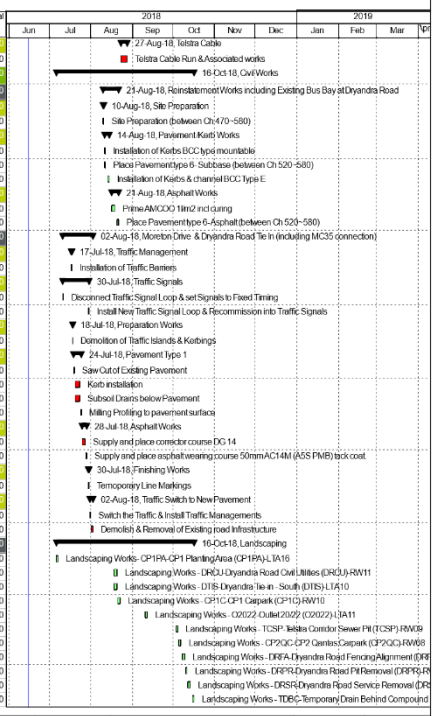
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Telstra Cable		4.0	23-Aug-18	27-Aug-18	-14.0
SER-2320	Telstra Cable Run &Associated works	4.0	23-Aug-18	27-Aug-18	-14.0
Civil Works		89.0	06-Jul-18	16-Oct-18	24.0
Reinstatement Works including Existing Bus Bay at Dryandra Road		9.0	10-Aug-18	21-Aug-18	32.0
Site Preparation		1.0	10-Aug-18	10-Aug-18	32.0
CON-SP3-30280	Site Preparation (between Ch 470~580)	1.0	10-Aug-18	10-Aug-18	32.0
Pavement /Kerb Works		3.0	14-Aug-18	14-Aug-18	35.0
CON-SP3-30290	Installation of Kerbs BCC type mountable	1.0	11-Aug-18	11-Aug-18	32.0
CON-SP3-30320	Place Pavement type 6 - Subbase (between Ch 520~580)	1.0	11-Aug-18	11-Aug-18	37.0
CON-SP3-30300	Installation of Kerbs & channel BCC Type E	2.0	13-Aug-18	14-Aug-18	32.0
Asphalt Works		5.0	16-Aug-18	21-Aug-18	32.0
CON-SP3-52280	Prime AMCDO 1lim2 incl curing	3.0	16-Aug-18	18-Aug-18	32.0
CON-SP3-30330	Place Pavement type 6-Asphalt (between Ch 520~580)	2.0	20-Aug-18	21-Aug-18	32.0
Moreton Drive & Dryandra Road Tie In (including MC35 connection)		20.0	11-Jul-18	02-Aug-18	-6.0
Traffic Management		1.0	17-Jul-18	17-Jul-18	-6.0
CON-SP3-2540	Installation of Traffic Barriers	1.0	17-Jul-18	17-Jul-18	-6.0
Traffic Signals		17.0	11-Jul-18	30-Jul-18	-6.0
CON-SP3-4780	Disconnect Traffic Signal Loop & set Signals to Fixed Timing	1.0	11-Jul-18	11-Jul-18	-6.0
CON-SP3-4790	Install New Traffic Signal Loop & Recommission into Traffic Signals	1.0	30-Jul-18	30-Jul-18	-6.0
Preparation Works		1.0	18-Jul-18	18-Jul-18	-6.0
CON-SP3-52320	Demolition of Traffic Islands & Kerbings	1.0	18-Jul-18	18-Jul-18	-6.0
Pavement Type 1		5.0	19-Jul-18	24-Jul-18	-6.0
CON-SP3-51750	Saw Cut of Existing Pavement	1.0	19-Jul-18	19-Jul-18	-6.0
CON-SP3-51770	Kerb installation	3.0	20-Jul-18	23-Jul-18	-6.0
CON-SP3-51760	Subsoil Drains below Pavement	3.0	20-Jul-18	23-Jul-18	-6.0
CON-SP3-51780	Milling Profiling to pavement surface	1.0	24-Jul-18	24-Jul-18	-6.0
Asphalt Works		4.0	25-Jul-18	28-Jul-18	-6.0
CON-SP3-51790	Supply and place corrector course DG 14	3.0	25-Jul-18	27-Jul-18	-6.0
CON-SP3-51800	Supply and place asphalt wearing course 50mm AC14M (A5S PMB) tack coat	1.0	28-Jul-18	28-Jul-18	-6.0
Finishing Works		1.0	30-Jul-18	30-Jul-18	-6.0
CON-SP3-3880	Temoporary Line Markings	1.0	30-Jul-18	30-Jul-18	-6.0
Traffic Switch to New Pavement		3.0	31-Jul-18	02-Aug-18	-6.0
CON-SP3-30030	Switch the Traffic & Install Traffic Managements	1.0	31-Jul-18	31-Jul-18	-6.0
CON-SP3-4440	Demolish & Removal of Existing road Infrastructure	2.0	01-Aug-18	02-Aug-18	-6.0
Landscaping		86.0	06-Jul-18	16-Oct-18	24.0
CON-SP3-60160	Landscaping Works- CP1PA-CP1 Planting Area (CP1PA)-LTA16	2.0	06-Jul-18	07-Jul-18	41.0
CON-SP3-60170	Landscaping Works - DRCU-Dryandra Road Civil Utilities (DRCU)-RW11	2.0	18-Aug-18	20-Aug-18	35.0
CON-SP3-60190	Landscaping Works - DTIS-Dryandra Tie-in - South (DTIS)-LTA10	2.0	18-Aug-18	20-Aug-18	37.0
CON-SP3-60180	Landscaping Works - CP1C-CP1 Carpark (CP1C)-RW10	2.0	21-Aug-18	22-Aug-18	35.0
CON-SP3-60200	Landscaping Works - O2022-Outlet 20222 (O2022)-LTA11	2.0	10-Sep-18	11-Sep-18	24.0
CON-SP3-60210	Landscaping Works - TCSP-Telstra Corridor Sewer Pit (TCSP)-RW09	2.0	03-Oct-18	04-Oct-18	24.0
CON-SP3-60220	Landscaping Works - CP2QC-CP2 Qantas Carpark (CP2QC)-RW08	2.0	05-Oct-18	06-Oct-18	24.0
CON-SP3-60230	Landscaping Works - DRFA-Dryandra Road Fencing Alignment (DRFA)-RW07	2.0	08-Oct-18	09-Oct-18	24.0
CON-SP3-60240	Landscaping Works - DRPR-Dryandra Road Pit Removal (DRPR)-RW06	2.0	10-Oct-18	11-Oct-18	24.0
CON-SP3-60250	Landscaping Works - DRSR-Dryandra Road Service Removal (DRSR)-RW05	2.0	12-Oct-18	13-Oct-18	24.0
CON-SP3-60260	Landscaping Works - TDBC-Temporary Drain Behind Compound (TDBC)-RW04	2.0	15-Oct-18	16-Oct-18	24.0



Remaining Level of Effort
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McCONNELL DOWELL
CREATIVE CONSTRUCTION™

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

Date	Revision	Checked	Approved
21-Jun-18	DRW-Program Updated as on 15/06/2018	AG	

Project ID: 2772
Filter, Layout: DRW-TP
Program ID: NR-1187-TP2-PU-67

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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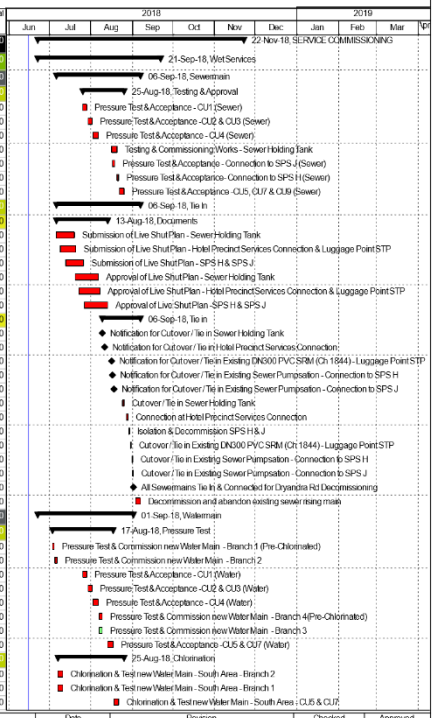
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
SERVICE COMMISSIONING		121.0	22-Jun-18	22-Nov-18	5.0
Wet Services		75.0	22-Jun-18	21-Sep-18	32.0
Sewermain		51.0	06-Jul-18	06-Sep-18	-14.0
Testing & Approval		26.0	26-Jul-18	25-Aug-18	-15.0
SER-2910	Pressure Test&Acceptance - CU1 (Sewer)	3.0	26-Jul-18	28-Jul-18	-6.0
SER-4740	Pressure Test&Acceptance -CU2 & CU3 (Sewer)	3.0	30-Jul-18	01-Aug-18	-6.0
SER-5160	Pressure Test&Acceptance - CU4 (Sewer)	4.0	02-Aug-18	06-Aug-18	-6.0
SER-4030	Testing & Commissioning Works - Sewer Holding Tank	4.0	16-Aug-18	20-Aug-18	-12.0
SER-5220	Pressure Test&Acceptance - Connection to SPS J (Sewer)	2.0	17-Aug-18	18-Aug-18	-15.0
SER-5200	Pressure Test&Acceptance- Connection to SPS H (Sewer)	2.0	20-Aug-18	21-Aug-18	-15.0
SER-2360	Pressure Test&Acceptance -CU5, CU7 & CU9 (Sewer)	4.0	22-Aug-18	25-Aug-18	-15.0
Tie In		51.0	06-Jul-18	06-Sep-18	-14.0
Documents		27.0	06-Jul-18	13-Aug-18	-13.0
SER-6770	Submission of Live Shut Plan - Sewer Holding Tank	10.0	06-Jul-18	19-Jul-18	-13.0
SER-6790	Submission of Live Shut Plan - Hotel Precinct Services Connection & Luggage Point STP	10.0	09-Jul-18	20-Jul-18	-12.0
SER-6810	Submission of Live Shut Plan - SPS H & SPS J	10.0	13-Jul-18	26-Jul-18	-13.0
SER-6780	Approval of Live Shut Plan - Sewer Holding Tank	12.0	20-Jul-18	06-Aug-18	-13.0
SER-6800	Approval of Live Shut Plan - Hotel Precinct Services Connection & Luggage Point STP	12.0	23-Jul-18	07-Aug-18	-12.0
SER-6820	Approval of Live Shut Plan -SPS H & SPS J	12.0	27-Jul-18	13-Aug-18	-13.0
Tie in		24.0	09-Aug-18	06-Sep-18	-15.0
SER-6620	Notification for Cutover / Tie in Sewer Holding Tank	0.0	09-Aug-18		-15.0
SER-6630	Notification for Cutover / Tie in Hotel Precinct Services Connection	0.0	11-Aug-18		-15.0
SER-6640	Notification for Cutover / Tie in Existing DN300 PVC SRM (Ch 1844) - Luggage Point STP	0.0	16-Aug-18		-15.0
SER-6650	Notification for Cutover / Tie in Existing Sewer Pumpsation - Connection to SPS H	0.0	17-Aug-18		-15.0
SER-6660	Notification for Cutover / Tie in Existing Sewer Pumpsation - Connection to SPS J	0.0	18-Aug-18		-15.0
SER-4040	Cutover / Tie in Sewer Holding Tank	2.0	24-Aug-18	25-Aug-18	-15.0
SER-5350	Connection at Hotel Precinct Services Connection	2.0	27-Aug-18	28-Aug-18	-15.0
SER-6540	Isolation & Decommission SPS H & J	1.0	29-Aug-18	29-Aug-18	-15.0
SER-2380	Cutover / Tie in Existing DN300 PVC SRM (Ch 1844) - Luggage Point STP	1.0	30-Aug-18	30-Aug-18	-15.0
SER-5290	Cutover / Tie in Existing Sewer Pumpsation - Connection to SPS H	1.0	31-Aug-18	31-Aug-18	-15.0
SER-5270	Cutover / Tie in Existing Sewer Pumpsation - Connection to SPS J	1.0	01-Sep-18	01-Sep-18	-15.0
SER-6500	All Sewermains Tie In & Connected for Dryandra Rd Decomissioning	0.0		01-Sep-18	-15.0
SER-3110	Decommission and abandon existing sewer rising main	4.0	03-Sep-18	06-Sep-18	-15.0
Watermain		59.0	22-Jun-18	01-Sep-18	48.0
Pressure Test		39.0	03-Jul-18	17-Aug-18	60.0
SER-5010	Pressure Test & Commission new Water Main - Branch 1 (Pre-Chlorinated)	2.0	03-Jul-18	04-Jul-18	-10.0
SER-5040	Pressure Test & Commission new Water Main - Branch 2	2.0	05-Jul-18	06-Jul-18	-10.0
SER-6380	Pressure Test&Acceptance - CU1 (Water)	3.0	26-Jul-18	28-Jul-18	-6.0
SER-6390	Pressure Test&Acceptance -CU2 & CU3 (Water)	3.0	30-Jul-18	01-Aug-18	-6.0
SER-6400	Pressure Test&Acceptance - CU4 (Water)	4.0	02-Aug-18	06-Aug-18	-6.0
SER-5100	Pressure Test & Commission new Water Main - Branch 4(Pre-Chlorinated)	3.0	07-Aug-18	09-Aug-18	-3.0
SER-5070	Pressure Test & Commission new Water Main - Branch 3	3.0	07-Aug-18	09-Aug-18	66.0
SER-6410	Pressure Test&Acceptance -CU5 & CU7 (Water)	4.0	13-Aug-18	17-Aug-18	-11.0
Chlorination		42.0	07-Jul-18	25-Aug-18	58.0
SER-5050	Chlorination & Test new Water Main - South Area - Branch 2	3.0	07-Jul-18	10-Jul-18	-8.0
SER-5020	Chlorination & Test new Water Main - South Area - Branch 1	3.0	07-Jul-18	10-Jul-18	-8.0
SER-6440	Chlorination & Test new Water Main - South Area - CU5 & CU7	3.0	18-Aug-18	21-Aug-18	-11.0



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CREATIVE CONSTRUCTION™

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Project ID: 2772
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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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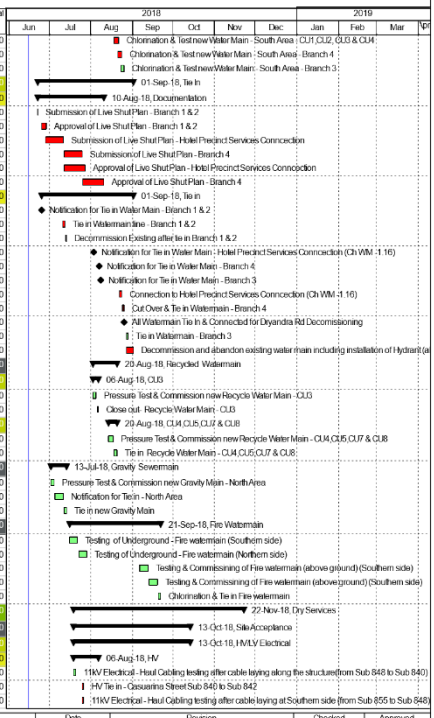
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
SER-6430	Chlorination & Test new Water Main - South Area - CU1,CU2, CU3 & CU4	3.0	18-Aug-18	21-Aug-18	-11.0
SER-5110	Chlorination & Test new Water Main - South Area - Branch 4	3.0	21-Aug-18	23-Aug-18	-11.0
SER-5080	Chlorination & Test new Water Main - South Area - Branch 3	3.0	23-Aug-18	25-Aug-18	56.0
Tie In		59.0	22-Jun-18	01-Sep-18	48.0
Documentation		38.0	22-Jun-18	10-Aug-18	-1.0
SER-6710	Submission of Live Shut Plan - Branch 1 & 2	1.0	22-Jun-18*	22-Jun-18	-2.0
SER-6720	Approval of Live Shut Plan - Branch 1 & 2	4.0	25-Jun-18	28-Jun-18	0.0
SER-6730	Submission of Live Shut Plan - Hotel Precinct Services Connection	10.0	28-Jun-18*	11-Jul-18	-5.0
SER-6750	Submission of Live Shut Plan - Branch 4	10.0	12-Jul-18	25-Jul-18	-1.0
SER-6740	Approval of Live Shut Plan - Hotel Precinct Services Connection	12.0	12-Jul-18	27-Jul-18	-5.0
SER-6760	Approval of Live Shut Plan - Branch 4	12.0	26-Jul-18	10-Aug-18	-1.0
Tie in		57.0	25-Jun-18	01-Sep-18	46.0
SER-5060	Notification for Tie in Water Main - Branch 1 & 2	0.0	25-Jun-18		-8.0
SER-5380	Tie in Watermain line - Branch 1 & 2	2.0	11-Jul-18	12-Jul-18	-10.0
SER-6680	Decommission Existing after tie in Branch 1 & 2	1.0	13-Jul-18	13-Jul-18	-10.0
SER-1700	Notification for Tie in Water Main - Hotel Precinct Services Connection (Ch WM -1.16)	0.0	03-Aug-18		-9.0
SER-5120	Notification for Tie in Water Main - Branch 4	0.0	07-Aug-18		-10.0
SER-5090	Notification for Tie in Water Main - Branch 3	0.0	08-Aug-18		47.0
SER-2220	Connection to Hotel Precinct Services Connection (Ch WM -1.16)	2.0	22-Aug-18	23-Aug-18	-11.0
SER-5380	Cut Over & Tie in Watermain - Branch 4	2.0	24-Aug-18	25-Aug-18	-11.0
SER-6510	All Watermain Tie In & Connected for Dryandra Rd Decomissioning	0.0		25-Aug-18	-5.0
SER-5370	Tie in Watermain - Branch 3	2.0	27-Aug-18	28-Aug-18	56.0
SER-3090	Decommission and abandon existing water main including installation of Hydrant (along Dryandra Road)	6.0	27-Aug-18	01-Sep-18	-11.0
Recycled Watermain		15.0	02-Aug-18	20-Aug-18	47.0
CU3		4.0	02-Aug-18	06-Aug-18	56.0
SER-4830	Pressure Test & Commission new Recycle Water Main - CU3	3.0	02-Aug-18	04-Aug-18	56.0
SER-6450	Close out - Recycle Water Main - CU3	1.0	06-Aug-18	06-Aug-18	56.0
CU4,CU5,CU7 & CU8		5.0	14-Aug-18	20-Aug-18	47.0
SER-2560	Pressure Test & Commission new Recycle Water Main - CU4,CU5,CU7 & CU8	3.0	14-Aug-18	17-Aug-18	47.0
SER-4870	Tie in - Recycle Water Main - CU4,CU5,CU7 & CU8	2.0	18-Aug-18	20-Aug-18	47.0
Gravity Sewermain		10.0	02-Jul-18	13-Jul-18	21.0
SER-2970	Pressure Test & Commission new Gravity Main - North Area	3.0	02-Jul-18	04-Jul-18	21.0
SER-2980	Notification for Tie in - North Area	5.0	05-Jul-18	11-Jul-18	17.0
SER-2960	Tie in new Gravity Main	2.0	12-Jul-18	13-Jul-18	21.0
Fire Watermain		58.0	16-Jul-18	21-Sep-18	35.0
SER-4600	Testing of Underground - Fire watermain (Southern side)	6.0	16-Jul-18*	21-Jul-18	58.0
SER-4910	Testing of Underground - Fire watermain (Northern side)	6.0	23-Jul-18	28-Jul-18	58.0
SER-5310	Testing & Commissioning of Fire watermain (above ground) (Southern side)	6.0	06-Sep-18	12-Sep-18	20.0
SER-4610	Testing & Commissioning of Fire watermain (above ground) (Southern side)	6.0	13-Sep-18	19-Sep-18	20.0
SER-6480	Chlorination & Tie in Fire watermain	2.0	20-Sep-18	21-Sep-18	35.0
Dry Services		107.0	19-Jul-18	22-Nov-18	5.0
Site Acceptance		73.0	19-Jul-18	13-Oct-18	0.0
HV/LV Electrical		73.0	19-Jul-18	13-Oct-18	0.0
HV		16.0	19-Jul-18	06-Aug-18	-3.0
SER-3000	11kV Electrical - Haul Cabling testing after cable laying along the structure(from Sub 848 to Sub 840)	2.0	19-Jul-18	20-Jul-18	6.0
SER-5000	HV Tie in - Casuarina Street Sub 840 to Sub 842	2.0	25-Jul-18	26-Jul-18	-2.0
SER-3010	11kV Electrical - Haul Cabling testing after cable laying at Southern side (from Sub 855 to Sub 848)	2.0	25-Jul-18	26-Jul-18	-2.0



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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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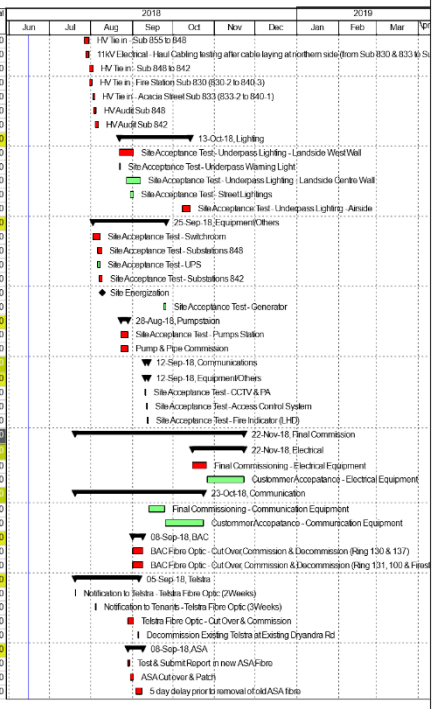
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
SER.4990	HV Tie in - Sub 855 to 848	3.0	27-Jul-18	30-Jul-18	-2.0
SER.2060	11kV Electrical - Haul Cabling testing after cable laying at northern side (from Sub 830 & 833 to Sub 840)	2.0	28-Jul-18	30-Jul-18	-3.0
SER.4980	HV Tie in - Sub 848 to 842	3.0	31-Jul-18	02-Aug-18	-2.0
SER.4960	HV Tie in - Fire Station Sub 830 (830.2 to 840.3)	2.0	31-Jul-18	01-Aug-18	-3.0
SER.4970	HV Tie in - Acacia Street Sub 833 (833.2 to 840.1)	2.0	02-Aug-18	03-Aug-18	-3.0
SER.5880	HV Audit Sub 848	2.0	03-Aug-18	04-Aug-18	-2.0
SER.5990	HV Audit Sub 842	2.0	04-Aug-18	06-Aug-18	-3.0
Lighting		45.0	22-Aug-18	13-Oct-18	0.0
VAR.1100	Site Acceptance Test - Underpass Lighting - Landside West Wall	10.0	22-Aug-18	01-Sep-18	-11.0
SER.3970	Site Acceptance Test - Underpass Warning Light	1.0	22-Aug-18	22-Aug-18	28.0
VAR.1420	Site Acceptance Test - Underpass Lighting - Landside Centre Wall	10.0	27-Aug-18	06-Sep-18	31.0
SER.3040	Site Acceptance Test - Street Lightings	3.0	30-Aug-18	01-Sep-18	22.0
VAR.1320	Site Acceptance Test - Underpass Lighting - Airside	6.0	08-Oct-18	13-Oct-18	0.0
Equipment/Others		46.0	02-Aug-18	25-Sep-18	2.0
SER.2210	Site Acceptance Test - Switchroom	5.0	02-Aug-18	07-Aug-18	-1.0
SER.6000	Site Acceptance Test - Substations 848	3.0	06-Aug-18	08-Aug-18	-2.0
SER.2470	Site Acceptance Test - UPS	2.0	06-Aug-18	07-Aug-18	10.0
SER.2440	Site Acceptance Test - Substations 842	3.0	07-Aug-18	09-Aug-18	-3.0
SER.5960	Site Energization	0.0		09-Aug-18	-3.0
SER.2460	Site Acceptance Test - Generator	2.0	24-Sep-18	25-Sep-18	2.0
Pumpstaion		5.0	23-Aug-18	28-Aug-18	-13.0
CON.SP3.4120	Site Acceptance Test - Pumps Station	5.0	23-Aug-18	28-Aug-18	-13.0
CON.SP3.4510	Pump & Pipe Commission	5.0	23-Aug-18	28-Aug-18	-13.0
Communications		3.0	10-Sep-18	12-Sep-18	16.0
Equipment/Others		3.0	10-Sep-18	12-Sep-18	16.0
SER.2100	Site Acceptance Test - CCTV & PA	1.0	10-Sep-18	10-Sep-18	16.0
SER.3070	Site Acceptance Test - Access Control System	1.0	11-Sep-18	11-Sep-18	16.0
SER.2140	Site Acceptance Test - Fire Indicator (LHD)	1.0	12-Sep-18	12-Sep-18	16.0
Final Commission		106.0	20-Jul-18	22-Nov-18	5.0
Electrical		34.0	15-Oct-18	22-Nov-18	5.0
CON.SP3-50170	Final Commissioning - Electrical Equipment	10.0	15-Oct-18	25-Oct-18	0.0
CON.SP3-50600	CustommerAccopatanco - Electrical Equipment	24.0	26-Oct-18	22-Nov-18	5.0
Communication		80.0	20-Jul-18	23-Oct-18	31.0
CON.SP3-50320	Final Commissioning - Communication Equipment	10.0	13-Sep-18	24-Sep-18	16.0
CON.SP3-60610	CustommerAccopatanco - Communication Equipment	24.0	25-Sep-18	23-Oct-18	31.0
BAC		7.0	01-Sep-18	08-Sep-18	-17.0
SER.5900	BAC Fibre Optic - Cut Over,Commission & Decommission (Ring 130 & 137)	7.0	01-Sep-18	08-Sep-18	-17.0
SER.2340	BAC Fibre Optic - Cut Over, Commission & Decommission (Ring 131, 100 & Firestation)	7.0	01-Sep-18	08-Sep-18	-17.0
Telstra		40.0	20-Jul-18	05-Sep-18	-14.0
SER.6590	Notification to Telstra - Telstra Fibre Optic (2Weeks)	1.0	20-Jul-18	20-Jul-18	-14.0
SER.6580	Notification to Tenants - Telstra Fibre Optic (3Weeks)	1.0	04-Aug-18	04-Aug-18	-14.0
SER.2350	Telstra Fibre Optic - Cut Over & Commission	5.0	28-Aug-18	01-Sep-18	-14.0
SER.6530	Decommission Existing Telstra at Existing Dryandra Rd	1.0	05-Sep-18	05-Sep-18	-14.0
ASA		11.0	28-Aug-18	08-Sep-18	-17.0
SER.6600	Test & Submit Report in new ASA Fibre	2.0	28-Aug-18	29-Aug-18	-17.0
SER.6690	ASA Cutover & Patch	3.0	30-Aug-18	01-Sep-18	-17.0
SER.6610	5 day delay prior to removal of old ASA fibre	5.0	03-Sep-18	07-Sep-18	-17.0



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on 20180615

Date	Revision	Checked	Approved
21-Jun-18	DRW-Program Updated as on 15/06/2018	AG	

Project ID: 2772
Filter, Layout: DRW-TP
Program ID: NR-1187-TP2-PU-67

Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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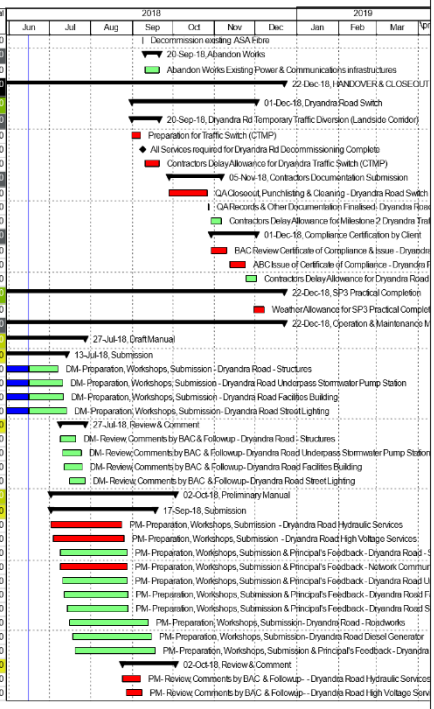
Print Date: 22-Jun-18

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
SER.6180	Decommission existing ASA Fibre	1.0	08-Sep-18	08-Sep-18	-17.0
Abandon Works		10.0	10-Sep-18	20-Sep-18	36.0
SER.2390	Abandon Works Existing Power & Communications infrastructures	10.0	10-Sep-18	20-Sep-18	36.0
HANDOVER & CLOSEOUT		173.0	07-May-18A	22-Dec-18	0.0
Dryandra Road Switch		72.0	31-Aug-18	01-Dec-18	4.0
Dryandra Rd Temporary Traffic Diversion (Landside Corridor)		18.0	31-Aug-18	20-Sep-18	-17.0
HOC-1480	Preparation for Traffic Switch (CTMP)	6.0	31-Aug-18	06-Sep-18	-15.0
HOC-1490	All Services required for Dryandra Rd Decommissioning Complete	0.0		08-Sep-18	-17.0
WEAT-10001060	Contractors Delay Allowance for Dryandra Traffic Switch (CTMP)	10.0	10-Sep-18	20-Sep-18	-17.0
Contractors Documentation Submission		32.0	28-Sep-18	05-Nov-18	28.0
HOC-1330	QA Closeout, Punchlisting & Cleaning - Dryandra Road Switch	24.0	28-Sep-18	26-Oct-18	0.0
HOC-1320	QA Records & Other Documentation Finalised- Dryandra Road Switch	1.0	27-Oct-18	27-Oct-18	0.0
WEAT-10001020	Contractors Delay Allowance for Milestone 2 Dryandra Traffic Switch (QA Doc. Submission)	7.0	29-Oct-18	05-Nov-18	28.0
Compliance Certification by Client		27.0	29-Oct-18	01-Dec-18	4.0
HOC-1350	BAC Review Certificate of Compliance & Issue - Dryandra Road Switch	10.0	29-Oct-18	09-Nov-18	0.0
HOC-1360	ABC Issue of Certificate of Compliance - Dryandra Road Switch	10.0	12-Nov-18	23-Nov-18	0.0
WEAT-10001050	Contractors Delay Allowance for Dryandra Road Traffic Switch (ABC Approval)	7.0	24-Nov-18	01-Dec-18	5.0
SP3 Practical Completion		173.0	07-May-18A	22-Dec-18	0.0
WEAT-10001070	Weather Allowance for SP3 Practical Completion	7.0	30-Nov-18	07-Dec-18	0.0
Operation & Maintenance Manuals		173.0	07-May-18A	22-Dec-18	0.0
Draft Manual		59.0	07-May-18A	27-Jul-18	30.0
Submission		40.0	07-May-18A	13-Jul-18	29.0
HOC-1050	DM- Preparation, Workshops, Submission - Dryandra Road - Structures	40.0	07-May-18A	07-Jul-18	30.0
HOC-1070	DM- Preparation, Workshops, Submission - Dryandra Road Underpass Stormwater Pump Station	40.0	07-May-18A	10-Jul-18	30.0
HOC-1080	DM- Preparation, Workshops, Submission - Dryandra Road Facilities Building	40.0	07-May-18A	11-Jul-18	29.0
HOC-1100	DM- Preparation, Workshops, Submission- Dryandra Road Street Lighting	40.0	07-May-18A	13-Jul-18	29.0
Review & Comment		15.0	09-Jul-18	27-Jul-18	25.0
HOC-1510	DM- Review, Comments by BAC & Followup - Dryandra Road - Structures	10.0	09-Jul-18*	20-Jul-18	30.0
HOC-1520	DM- Review, Comments by BAC & Followup- Dryandra Road Underpass Stormwater Pump Station	10.0	11-Jul-18*	24-Jul-18	28.0
HOC-1530	DM- Review, Comments by BAC & Followup- Dryandra Road Facilities Building	10.0	12-Jul-18*	25-Jul-18	27.0
HOC-1540	DM- Review, Comments by BAC & Followup- Dryandra Road Street Lighting	10.0	16-Jul-18*	27-Jul-18	25.0
Preliminary Manual		75.0	02-Jul-18	02-Oct-18	15.0
Submission		66.0	02-Jul-18	17-Sep-18	12.0
HOC-1190	PM- Preparation, Workshops, Submission - Dryandra Road Hydraulic Services	45.0	02-Jul-18*	23-Aug-18	-4.0
HOC-1240	PM- Preparation, Workshops, Submission - Dryandra Road High Voltage Services	45.0	04-Jul-18*	25-Aug-18	-6.0
HOC-1180	PM- Preparation, Workshops, Submission & Principal's Feedback - Dryandra Road - Structures	42.0	09-Jul-18	27-Aug-18	30.0
HOC-1250	PM- Preparation, Workshops, Submission & Principal's Feedback - Network Communications Infrastructure – A	42.0	09-Jul-18*	27-Aug-18	-7.0
HOC-1200	PM- Preparation, Workshops, Submission & Principal's Feedback - Dryandra Road Underpass Stormwater Pur	40.0	11-Jul-18	27-Aug-18	30.0
HOC-1210	PM- Preparation, Workshops, Submission & Principal's Feedback - Dryandra Road Facilities Building	40.0	12-Jul-18	28-Aug-18	29.0
HOC-1230	PM- Preparation, Workshops, Submission & Principal's Feedback - Dryandra Road Street Lighting	38.0	14-Jul-18	28-Aug-18	29.0
HOC-1170	PM- Preparation, Workshops, Submission- Dryandra Road - Roadworks	50.0	16-Jul-18*	12-Sep-18	16.0
HOC-1220	PM- Preparation, Workshops, Submission- Dryandra Road Diesel Generator	50.0	18-Jul-18*	14-Sep-18	14.0
HOC-1260	PM- Preparation, Workshops, Submission & Principal's Feedback - Dryandra Road CCTV	50.0	20-Jul-18*	17-Sep-18	12.0
Review & Comment		27.0	24-Aug-18	02-Oct-18	15.0
HOC-1560	PM- Review, Comments by BAC & Followup- - Dryandra Road Hydraulic Services	10.0	24-Aug-18	06-Sep-18	-4.0
HOC-1580	PM- Review, Comments by BAC & Followup- - Dryandra Road High Voltage Services	10.0	27-Aug-18	07-Sep-18	-5.0



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Filter, Layout: DRW-TP
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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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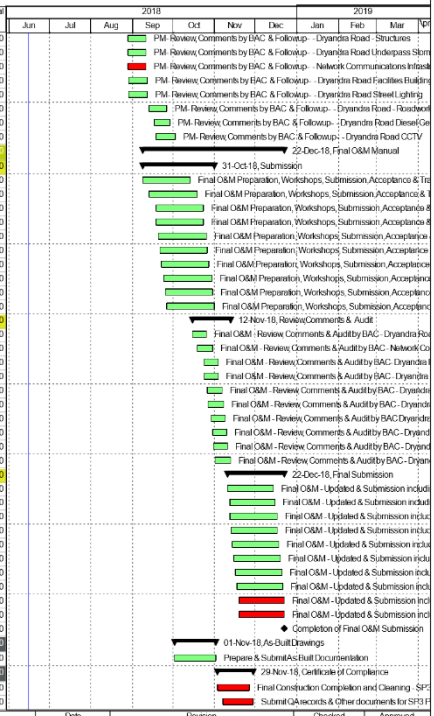
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
HOC-1610	PM-Review,Comments by BAC & Followup- - Dryandra Road - Structures	10.0	28-Aug-18	10-Sep-18	25.0
HOC-1620	PM-Review,Comments by BAC & Followup- - Dryandra Road Underpass Stormwater Pump Station	10.0	28-Aug-18	10-Sep-18	25.0
HOC-1590	PM-Review,Comments by BAC & Followup- - Network Communications Infrastructure – Airport North	10.0	28-Aug-18	10-Sep-18	6.0
HOC-1630	PM-Review,Comments by BAC & Followup- - Dryandra Road Facilities Building	10.0	29-Aug-18	11-Sep-18	24.0
HOC-1640	PM-Review,Comments by BAC & Followup- - Dryandra Road Street Lighting	10.0	29-Aug-18	11-Sep-18	24.0
HOC-1550	PM-Review,Comments by BAC & Followup- - Dryandra Road - Roadworks	10.0	13-Sep-18	26-Sep-18	13.0
HOC-1570	PM-Review,Comments by BAC & Followup- - Dryandra Road Diesel Generator	10.0	17-Sep-18	28-Sep-18	11.0
HOC-1600	PM-Review,Comments by BAC & Followup- - Dryandra Road CCTV	10.0	18-Sep-18	02-Oct-18	15.0
Final O&M Manual		90.0	08-Sep-18	22-Dec-18	0.0
Submission		45.0	08-Sep-18	31-Oct-18	5.0
HOC-1290	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Dryandra Road Hydraulic Services	30.0	08-Sep-18	13-Oct-18	20.0
HOC-1400	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Network Communications Infrastructu	30.0	13-Sep-18	18-Oct-18	16.0
HOC-1270	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Dryandra Road - Roadworks	30.0	18-Sep-18	23-Oct-18	12.0
HOC-1410	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Dryandra Road CCTV	30.0	18-Sep-18	23-Oct-18	12.0
HOC-1300	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Dryandra Road Underpass Stormwa	30.0	20-Sep-18	25-Oct-18	10.0
HOC-1390	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Dryandra Road High Voltage Service	30.0	21-Sep-18	26-Oct-18	9.0
HOC-1380	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Dryandra Road Street Lighting	30.0	22-Sep-18	27-Oct-18	8.0
HOC-1280	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Dryandra Road - Structures	30.0	24-Sep-18	29-Oct-18	7.0
HOC-1310	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Dryandra Road Facilities Building	30.0	25-Sep-18	30-Oct-18	6.0
HOC-1370	Final O&M Preparation, Workshops, Submission,Acceptance & Training - Dryandra Road Diesel Generator	30.0	26-Sep-18	31-Oct-18	5.0
Review,Comments & Audit		25.0	15-Oct-18	12-Nov-18	5.0
HOC-1660	Final O&M - Review Comments & Audit by BAC - Dryandra Road Hydraulic Services	10.0	15-Oct-18	25-Oct-18	20.0
HOC-1670	Final O&M - Review Comments & Audit by BAC - Network Communications Infrastructure	10.0	19-Oct-18	30-Oct-18	16.0
HOC-1650	Final O&M - Review Comments & Audit by BAC - Dryandra Road - Roadworks	10.0	24-Oct-18	03-Nov-18	12.0
HOC-1680	Final O&M - Review Comments & Audit by BAC - Dryandra Road CCTV	10.0	24-Oct-18	03-Nov-18	12.0
HOC-1700	Final O&M - Review Comments & Audit by BAC - Dryandra Road Underpass Stormwater Pump Station	10.0	26-Oct-18	06-Nov-18	10.0
HOC-1740	Final O&M - Review Comments & Audit by BAC - Dryandra Road High Voltage Services	10.0	27-Oct-18	07-Nov-18	9.0
HOC-1730	Final O&M - Review Comments & Audit by BAC Dryandra Road Street Lighting	10.0	29-Oct-18	08-Nov-18	8.0
HOC-1690	Final O&M - Review Comments & Audit by BAC - Dryandra Road - Structures	10.0	30-Oct-18	09-Nov-18	7.0
HOC-1710	Final O&M - Review Comments & Audit by BAC - Dryandra Road Facilities Building	10.0	31-Oct-18	10-Nov-18	6.0
HOC-1720	Final O&M - Review Comments & Audit by BAC - Dryandra Road Diesel Generator	10.0	01-Nov-18	12-Nov-18	5.0
Final Submission		37.0	10-Nov-18	22-Dec-18	0.0
HOC-1750	Final O&M - Updated & Submission including maintenance records - Dryandra Road Hydraulic Services	30.0	10-Nov-18	14-Dec-18	7.0
HOC-1760	Final O&M - Updated & Submission including maintenance records - Dryandra Road - Structures	30.0	12-Nov-18	15-Dec-18	6.0
HOC-1770	Final O&M - Updated & Submission including maintenance records - Network Communications Infrastructure	30.0	12-Nov-18	17-Dec-18	6.0
HOC-1780	Final O&M - Updated & Submission including maintenance records - Dryandra Road - Roadworks	30.0	13-Nov-18	17-Dec-18	5.0
HOC-1790	Final O&M - Updated & Submission including maintenance records - Dryandra Road CCTV	30.0	14-Nov-18	18-Dec-18	4.0
HOC-1800	Final O&M - Updated & Submission including maintenance records - Dryandra Road Underpass Stormwater P	30.0	15-Nov-18	19-Dec-18	3.0
HOC-1810	Final O&M - Updated & Submission including maintenance records - Dryandra Road High Voltage Services	30.0	16-Nov-18	20-Dec-18	2.0
HOC-1820	Final O&M - Updated & Submission including maintenance records - Dryandra Road Street Lighting	30.0	17-Nov-18	21-Dec-18	1.0
HOC-1830	Final O&M - Updated & Submission including maintenance records - Dryandra Road Facilities Building	30.0	19-Nov-18	22-Dec-18	0.0
HOC-1840	Final O&M - Updated & Submission including maintenance records - Dryandra Road Diesel Generator	30.0	19-Nov-18	22-Dec-18	0.0
HOC-1850	Completion of Final O&M Submission	0.0		22-Dec-18	0.0
As-Built Drawings		27.0	02-Oct-18	01-Nov-18	24.0
HOC-1450	Prepare & Submit As-Built Documentation	27.0	02-Oct-18	01-Nov-18	24.0
Certificate of Compliance		23.0	03-Nov-18	29-Nov-18	0.0
HOC-1420	Final Construction Completion and Cleaning - SP3 Practical Completion	20.0	03-Nov-18	28-Nov-18	0.0
HOC-1470	Submit QA records & Other documents for SP3 Practical Completion	20.0	07-Nov-18	29-Nov-18	0.0



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Dryandra Road Works - Target Program (Rev 5) - Progress Updated as on

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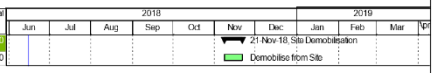
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Site Demobilisation		12.0	08-Nov-18	21-Nov-18	7.0
HOC-1460	Demobilise from Site	12.0	08-Nov-18	21-Nov-18	7.0



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7.7. Appendix 7: Phase 2 Construction Communication Plan

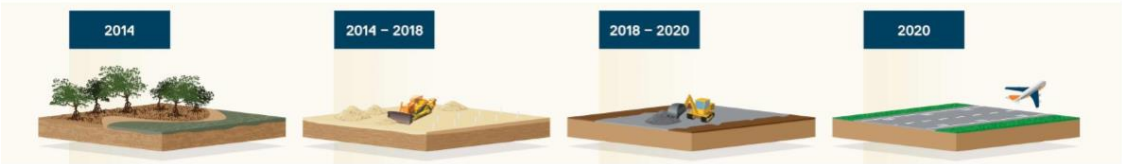
BRISBANE AIRPORT AUSTRALIA

May 2018

Version 3.0

New Parallel Runway Project

Phase 2 Construction Communication Plan (P2 CCP)



Brisbane Airport Corporation Pty Ltd
E: newrunway@bne.com.au W: www.bne.com.au Freecall:1800 737 075

BRISBANE AIRPORT AUSTRALIA

New Parallel Runway

Phase 2 Construction Communication Plan

May 2018

BRISBANE AIRPORT CORPORATION PTY LTD
11 THE CIRCUIT, SKYGATE
BRISBANE AIRPORT QLD 4008
PO BOX 61, HAMILTON CENTRAL
QLD 4007 AUSTRALIA

T +61 (0)7 3406 3000
F +61 (0)7 3406 3111
E INFO@BNE.COM.AU
W BNE.COM.AU
ABN 54 076 870 650

Document Revision			
Revision	**Date**	**Document Description**	**Author**
0	15 July 2016	Initial draft	Maddison Charteris
1	20 February 2017	Advanced draft	Karyn Rains
2	10 January 2018	Issued for use	Karyn Rains
3	3 May 2018	Amends: i) New public NPR email, ii) P2-CCP Pro 1, iii) Attachment 3 update	Karyn Rains
4			
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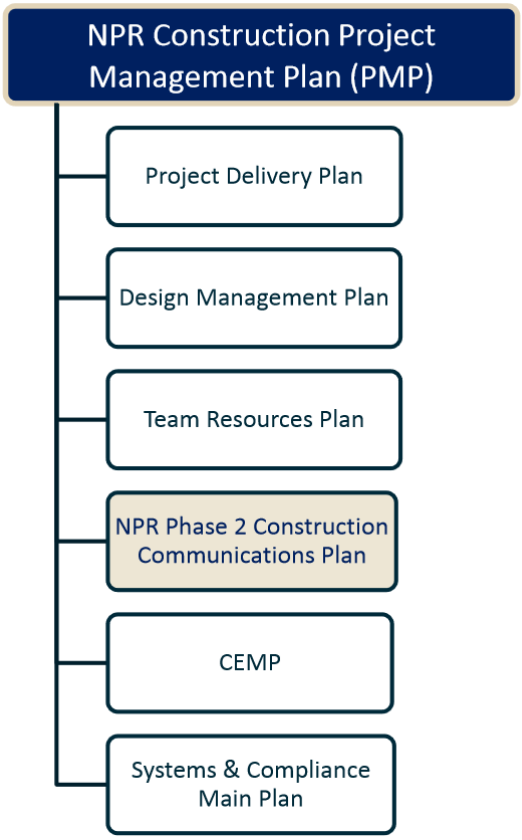
NPR Construction Project Management Plan (PMP)
Project Delivery Plan
Design Management Plan
Team Resources Plan
NPR Phase 2 Construction Communications Plan
CEMP
Systems & Compliance Main Plan

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1.0 INTRODUCTION

This Phase 2 Construction Communication Plan (P2 CCP) has been prepared as a tool to guide communication and stakeholder engagement requirements and responsibilities for BAC's Construction Team and its contractors through the various parts of Phase 2 construction.

The general principles establishing what aspects of communication are to be managed by the contractor have been outlined in the tender and contract documents. To ensure construction communications are managed consistently and efficiently, this Plan provides greater detail around the processes to be followed for:

1. Internal NPR Team and broader BAC communications;
2. Construction contractors and Third Parties; and
3. External stakeholders like affected tenants and communities; and
4. The General Public.

Information has also been included which provides context on what other relevant sections of BAC with an NPR communications responsibility will be implementing up till opening in 2020.

Phase 2 Construction communications will be largely aimed at the same audiences and outcomes as Phase 1 focussing on ground based construction impacts to airport (airside and landside) and relevant non-airport stakeholder community groups. The P2 CCP covers the period from the commencement of construction until opening of the runway.

Communications for the commissioning of the new runway system will bring elements of both construction and airspace together moving toward opening in 2020. The communication strategy and protocols associated with this are not included within this Plan. Refer to Section below.

Commissioning requirements for the Dryandra Road Works will be addressed in a separate document and be attached as an Addendum to this Plan when prepared. Completion of the works are expected in Q3 2018.

1.1. SCOPE OF THIS PLAN

This Plan outlines the communication and stakeholder engagement strategy for Phase 2 Construction of the New Parallel Runway (NPR) project. Phase 2 Construction consists of three (3) main contract packages targeted to commence and finish as follows:

1. Seawall and Site Access (Aug 2016 – Mar 2017);
2. Dryandra Road Underpass (Jan 2017 – Sept 2018); and
3. Airfield Pavement Construction (July 2017 – 2020).

The following describes the main activities of each of these and a diagram of their locations is in **Figure 1**.

Seawall and Site Access Works
The seawall and site access contract was awarded to Hall Contracting and construction commenced on site in August 2016. Works were completed in June 2017.

The seawall works involved the re-engineering of an old dumped rock wall for 1720m along the airport foreshore for protection against coastal erosion. The seawall is a rock structure extending from the Old Cribb Island bathing sheds to Serpentine Inlet.

Additionally, approximately 1km of new sealed site access road within the NPR site has been constructed as an extension to the current site access road network. This includes a heavy vehicle slip lane and off ramp structure from Moreton Drive to the NPR site access road network.

The Dryandra Road Works
The Dryandra Road Works contract was awarded in early 2017, with construction commencing on site in March 2017 and a targeted completion in September 2018. McConnell Dowell (MCD) is the Principal Contractor for the works.

This works package involves the construction of a four-lane underpass to allow vehicular traffic to pass under the link taxiways that connect the NPR system to the existing system and terminals. This will include 1.1km of roadway for airside (2 lanes) and landside (2 lanes) traffic to maintain access between the airfield and facilities north and south of the link taxiways. Vehicles will pass under while aircraft will taxi above. The design weight of the taxiway bridges which sit atop the underpass will take the largest aircraft in the world.

Airfield Works
The Airfield Works contract, the final and largest construction contract for the NPR was awarded in June 2017. This works package contains the bulk of the works to construct the airfield pavements and all other necessary infrastructure including key elements such as:

1. Rehandling of approximately 4.5 million m³ of sand to be pushed off the existing platforms once required ground settlement has been achieved;
2. Construction of the runway (3,300m x 60m);
3. Construction of the taxiway system (up to 12km x 25km of taxiway pavements);
4. Installation of airfield infrastructure including navigational aids, lighting, multiple utilities, signage, operation roads, airfield drainage and landscaping, security fencing and control systems.

Skyway, a 50:50 Joint Venture (JV) between BMD Constructions and CPB Pty Ltd, is the Principal Contractor.

Airfield Commissioning for Operations
A detailed strategy and the communications structure which supports the new system commissioning and opening is being developed by the NPR Operational Readiness and Testing (ORAT) team. This separate plan will describe in greater detail all the communication and co-ordination activities required before flight operations can commence. Many different parties within multiple organisations must plan and complete their different responsibilities in a timely and co-ordinated manner in order for the runway to open. Hence, the requirement for a stand-alone Commissioning Communications Plan will be developed as part of the ORAT roll out.

Commissioning requirements for the Dryandra Road Works will also be addressed within a separate commissioning plan and supporting communication sub-plan.

1.2. OBJECTIVES OF THE PLAN

The objectives of this (Client) NPR Phase 2 Construction Communication Plan are:

1. To provide accessible, reliable information to all construction stakeholders throughout the construction period.
2. To ensure the NPR Construction team and its contractors are familiar with the communication protocols relevant to their project roles and responsibilities;
3. To ensure project communications improve the overall understanding of the project; and
4. To enhance BAC's corporate reputation for open and honest communications.

These objectives will be achieved by the following:

1. Identify all stakeholders of the Phase 2 Construction;
2. Establish or maintain existing communication channels effective and appropriate to the needs of the stakeholders;
3. Develop and deliver information at a level of detail and frequency appropriate to the information needs of the various stakeholder groups;
4. Give timely notice of upcoming activities or events to those stakeholders likely to be inconvenienced or negatively affected by the activity.
5. Provide mechanisms to achieve two-way information in a timely way; and

6. Establish internal communication procedures which facilitate efficient dissemination of information whilst maintaining consistency and accuracy which align with BAC's corporate communications.

1.3. BAC'S ENGAGEMENT APPROACH

BAC is committed to honest, inclusive and comprehensive community and stakeholder communication that goes above and beyond the legislative requirements imposed through the approval process. The key values for all communications regarding the NPR are:

- Truth
- Clarity
- Understanding and
- Advocacy

(source: *NPR External Communications and Engagement Framework 2016-2020*, Corporate Relations Jan 2017)

BRISBANE AIRPORT AUSTRALIA

PHASE 2 CONSTRUCTION CONTRACTS

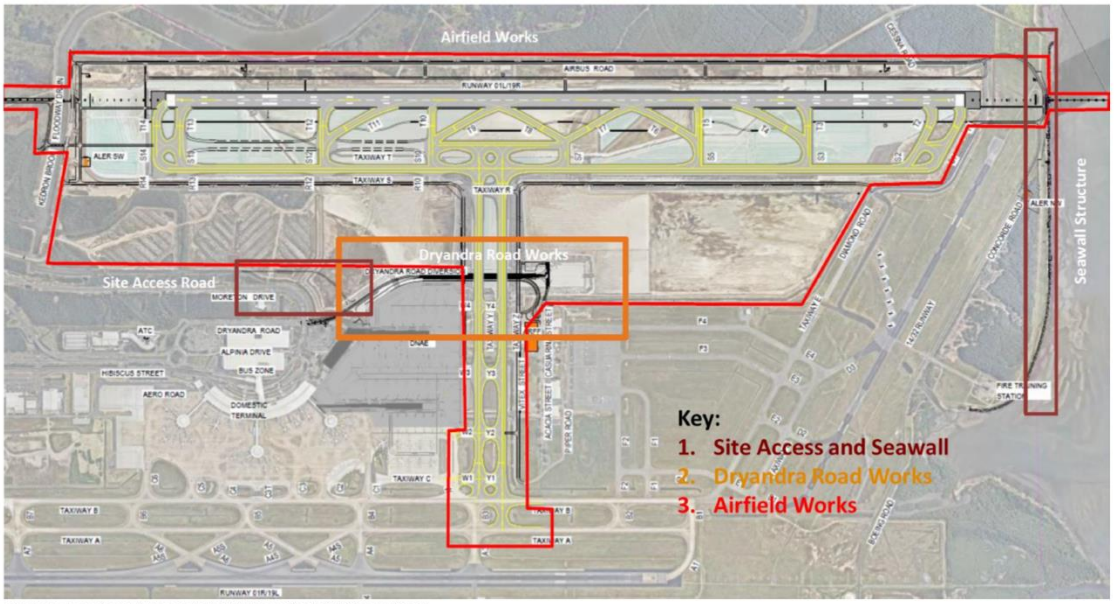

Figure 1: Location of three main NPR Phase 2 construction contracts

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1.4. CONTEXT OF THE P2 CCP WITHIN OVERALL NPR COMMUNICATIONS

The New Parallel Runway (NPR) project at Brisbane Airport has been under construction since August 2012 and is on track to open in 2020. The project is being delivered as three major phases:

EIS/MDP:	Planning and environment assessment phase to gain major approvals	2005-2007	Complete
Phase 1:	Phase 1 Construction – Site Preparation and Ground Improvements	2012-2015	Complete
Phase 2:	Phase 2 Construction – Airfield, Dryandra, Site Access & Seawall	2016-2020	Underway
Phase 3:	Airspace – Final Preparation for new flight paths and noise modelling	2016-2020	Underway
	Community Engagement – co-ordination of external communications	2017-2021	Underway

Construction
Following the successful delivery of Phase 1 Construction the NPR Project Team, led by Project Director Paul Coughlan, is now responsible for delivering Phase 2 Construction which includes all ground based elements of the design and construction of the new runway system and airfield including interfacing with Airservices Australia (Airservices) who will construct and install all necessary navigation aids.

Phase 3 Airspace
NPR Phase 3, led by Phase 3 Project Director Mark Willey, is responsible for co-managing, with Airservices, to complete the final preparations for the introduction of the new operating modes for parallel runways. This includes finalising the flight path procedures, overseeing the associated noise modelling refresh and leading the regulatory and aviation industry engagement on the final airspace design.

Phase 3 Community Engagement
The successful opening of the new runway, and the fulfilment of a condition of Commonwealth approval for the project, relies on rolling out a comprehensive, well-planned program of public communications leading up to and after parallel runway operations commence. The NPR Communication Management Team (CMT), led by Rachel Crowley, BAC Head of Corporate Relations, and supported by the NPR Construction (Phase 2), Airspace (Phase 3) and Corporate Relations teams, has been formed to co-ordinate all communications, external and internal of BAC, between 2017 and 2020 to ensure message consistency while avoiding duplication and overload.

During this period other critical public communication processes including the 2019 Master Plan process (2018-2019) and other major project approvals and announcements will occur. These have also been incorporated into the NPR communication planning to ensure co-ordinated, timely and consistent distribution of information.

The CMT has developed the NPR Communication Engagement Plan (CEP) as the overarching plan which identifies all relevant stakeholders in years 2017 to 2021 and outlines at a high level the types and frequency of communications. Each CMT member has been assigned a communication area of responsibility and will prepare Sub-Plans which drill down to greater levels of detail in their area in order to monitor and track progress of their specific area of responsibility. A copy of the CMT org and document structure is in **Attachment 1** and the NPR Project external stakeholder groups is in **Attachment 2.**

Phase 2 Construction Communications is an individual element of the overarching CEP and this P2 CCP is the NPR Construction Sub-Plan. This P2 CCP extracts the stakeholders, communication methods and timings from the CEP and assigns construction team responsibilities providing the level of detail required for use by the team and its contractors.

2.0 STAKEHOLDER ENGAGEMENT ACTION PLAN

Stakeholders to the entire NPR project for the years 2017 – 2021 have been identified in the NPR CEP and have been categorised in NPR Stakeholder Groups as per Attachment 2. Stakeholders for Phase 2 Construction is a subset of these stakeholders and has been selected from within each of the NPR stakeholder groups for specific Phase 2 Construction attention.

This Phase 2 Stakeholder Engagement Action Plan lists:
1. Aspects of the project requiring or triggering some form of stakeholder engagement. (Refer Section 2.1 below)
2. The range of engagement tools in our Toolbox (Refer Section 2.2) and
3. The Action Plan Summary Sheet (Refer to **Attachment 3**)

The Action Plan Summary Sheet brings all of the communication elements together into one table and is the key summary document which should be used as a first resource for any P2 construction engagement activity and is Attachment 3 to this Plan. It includes details of the individual stakeholder, purpose for engagement, the First Point of Contact from within the NPR team, the typical communication tools and channels to be used to engage with each of them and the timing and/or frequency for engagement.

The Action Plan Summary Sheet also refers to a number of Communication Procedures which provide greater detail on the Rules for Engagement. These procedures are found in **Section 3.0** and are to be used by individual team members to help streamline and support the communication process.

Phase 2 Construction communications, apart from overarching CMT responsibilities as outlined in the Action Plan Summary Sheet, are managed by the Phase 2 Communications Team (NPR Comms Team), comprised of Karyn Rains and Maddison Charteris, in co-ordination with the various BAC contract delivery teams and their Principal Contractors. While this Plan aims to empower NPR team members to undertake necessary communication and stakeholder engagement in the most efficient and effective way, when in doubt, consult the NPR Comms Team.

For clarity, when this Plan mentions the NPR Comms Team, direct new inquiries initially to Maddison Charteris and then to Karyn Rains if Maddison in unavailable. The NPR Comms Team will determine who in the team is best placed to undertake particular communication activities depending on the circumstances.

2.1. PROJECT ASPECTS FOR P2 CONSTRUCTION ENGAGEMENT

The main areas identified for engagement with stakeholders are listed below for each of the main Phase 2 construction contracts. This is not an exhaustive list but will be used as a good basis to plan engagement around project activities likely to interest, impact or inconvenience others.

The areas and timing for engagement will be refined further as the contracts are awarded. The NPR Comms team, in consultation with the CMT and the Project Director, will need to be able to respond adeptly should events or overall sentiment toward the project require an adjustment in BAC's approach or planned timings and events.

Site Access and Seawall
Broad coverage of all stakeholders is required for milestone points in the project delivery including:
1. Milestones:
   a. Award of the contract; and
   b. Overall completion of the works.

The parts of these works identified for specific external communications include:
2. Site Access:
   a. Moreton Drive Traffic
   b. CPA Traffic (Taxis, Car Rentals, GTOs, Non-NPR Construction traffic)
   c. Dust Amenity for Airport tenants (eg. Black and White, carparks P2 and P1)
3. Seawall:
   a. CPA Traffic (Taxis, Car Rentals, GTOs, Non-NPR Construction traffic)

b. Non-NPR Contractors accessing canal area (NPR access roads to airport and BCC land)
c. Public access along Moreton Bay foreshore
d. Mariner and Fisher activity in foreshore area

Dryandra Road Works

Broad coverage of all stakeholders is required for milestone points in the project delivery including:

1. Milestones:
   a. Award of the contract;
   b. Dryandra Road switchover; and
   c. Overall Completion of the works.

The parts of these works requiring specific external communications include:

2. Civil and Structures:
   a. Dilapidation Surveys
   b. Dust Amenity for Airport Tenants (GA Area, Black & White, P1/P2, Hotel Construction, CPA tenants)
   c. Vibration Amenity for Airport Tenants and Users (RFDS, other GA tenants, Domestic Terminal users, Airtrain, B&W, Hotel Construction, Airservices Complex and Tower)
   d. Visual Amenity for airport users
   e. CPA Traffic interface issues (Taxis, Car Rentals, GTOs, Other Construction projects)
3. Utilities:
   a. Service interruptions/cutovers – power, water, sewerage, fibre
   b. Access interruptions (GA Tenants, Domestic Terminal (Alpinia Drive lane closures), B&W, P2 Car park, Hotel Site, Airservices Complex)
4. ARFF Site earthworks:
   a. Dust Amenity (GA Area)
   b. Casuarina St Traffic
5. Commissioning:
   a. Dryandra switchover
      i) Landside - GA Tenants and Customers, plane spotters
      ii) Airside – Perimeter Rd users
   b. Public Events

Airfield Works

Broad coverage of all stakeholders is required for milestone points in the project delivery including:

1. Milestones:
   a. Award of the contract;
   b. Completion of the runway;
   c. Overall Completion of the works
   d. Official Opening Ceremony.

The parts of these works requiring specific external communications include:

2. On-Airport:
   a. CPA Traffic
   b. Moreton Drive Traffic
   c. Airport Tenant Amenity – Dust, Odour, Visual (from International Precinct north to GA Tenants)
   d. Airside Operations: Airside Perimeter Road Changes, Airside Access Changes, Airside Security Fence Changes, Aircraft Operational changes.
3. Off-Airport:
   a. Quarry delivery routes – engagement, advertising etc
   b. Other major material delivery spikes
   c. HIAL Construction: MSQ, Moreton Bay (Boaties, yachts), Moreton Bay Fishers, Bay Communities (with visual connection)
4. Commissioning (to be addressed in a stand-alone Commissioning Communication Plan).

2.2. COMMUNICATION TOOLS

There are a number of typical communication tools the NPR project has employed effectively to date and these will continue to be used in Phase 2. There are also a number of communication initiatives being developed which are outside the traditional toolkit which will also be employed during P2 Construction.

Traditional Toolkit

The traditional communications toolkit to be used for P2 Construction includes:

1. The NPR Project Contact Card (refer to Section)
2. The Project 1800 number **1800 737 075 –** attended by the NPR Construction Comms Team in 2017; responsibility for this number will be reviewed annually.
3. Project email address newrunway@bne.com.au .
4. The BAC website www.bne.com.au – Fact Sheets, Project Videos, General Information, FAQs, EIS/MDP
5. Media Releases
6. Social media postings:
   a) Facebook: www.facebook.com/BrisAirport;
   b) Twitter: https://twitter.com/brisbaneairport;
   c) Linkedin: https://au.linkedin.com/company/brisbane-airport-corporation;
   d) Instagram: brisbaneairport
7. Briefings / Letters / Database alerts
8. Construction Alerts / Team Alerts
9. Site Visits and Milestone events
10. Advertising.

New Communication Initiatives

There are a number of new communication initiatives being developed to be ready for launch at milestone points in the project many of which are targeted at the Phase 3 (flight path and noise) communication but will be blended with construction communications. These include:

1. Stand-alone NPR website (linked to the BAC website – coming in 2018)
2. Onsite display at Banksia Place (advanced technology displays – coming in 2018)
3. NPR Project newsletter Take-Off
4. NPR mobile van/mobile display (to be launched in 2018)
5. Establishment of a Guest Viewing Area (to be located at a vantage point to the site)
6. RNA Exhibit (2018 – 2020)
7. NPR Status Device (to be located in the vicinity of the project site)
8. Facilitated Webinars.

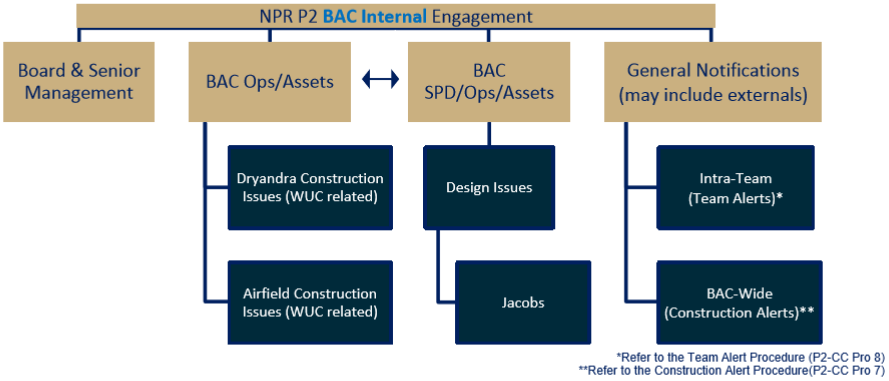
3.0 COMMUNICATION PROCEDURES

Individual overall responsibility for engagement in different aspects of the project are listed in the Action Plan Summary Sheet which also refers to a number of procedures which have been drafted, where necessary, to give greater explanation of the process to be undertaken to ensure all communications are developed and transmitted efficiently by the team. The procedures also address the process to amend or depart from the established approach where circumstances require. The following procedures have been developed for P2 Construction:

1. BAC Internal Engagement
2. Engagement with Airservices Australia
3. Engagement with Third Parties
4. Engagement with Government Agencies
5. Engagement with Airport Tenants
6. Engagement with Community
7. Construction Alerts
8. Team Alerts
9. External Briefings
10. NPR Site Tours

3.1. BAC INTERNAL ENGAGEMENT PROCEDURE

P2-CCPro 1: Internal BAC Engagement Procedure – NPR Phase 2 Construction



Background

For each construction contract (and their respective Works Under Contract (WUC)) and any design issues arising, an appropriate team member has been assigned Primary Contact responsibilities for all key BAC internal sections. The NPR Primary Contact List is in **Attachment 4** of the P2 CCP. Their role is to act as the gatekeeper between the project and that section for all construction matters for their contract or design changes.

Until such time as a formal Operational Readiness and Testing (ORAT) structure has been established, engagement with other sections of BAC will be as per this procedure.

Rules of Engagement:

For Construction and Design Consultation Matters:

1. Determine the need to discuss a matter/s with a non-NPR part of BAC;
2. Determine if there is an NPR Primary Contact assigned for the relevant area
3. If so, seek counsel from that person for any background on the issue and if this is your first time of contact ask the NPR Primary Contact to introduce you initially and then copy them in for as long as is considered necessary.
4. **Staff Talks and BAC Newsletter -** NPR Comms Team will schedule Staff Talks and BAC Newsletter with People and Culture in line with project milestones. Most suitable presenters to be nominated by NPR Comms in consultation with Project Director.

To Convey Advice of Planned Activities:

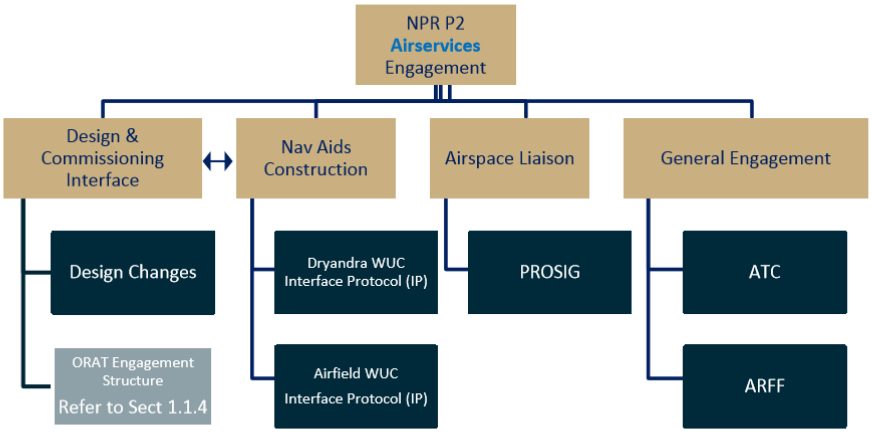
5. Relevant stakeholder groups formally advised via Construction Alert process

To Convey Advice of Unplanned Issues:

6. When an unplanned issue (whether it generates an NCR or other reporting process or not) which affects, or potentially affects public parts of the airport and/or gives reasonable cause for comment in media, social media or via BAC's compliant/inquiry process, the issue must be notified to the NPR Comms team as soon as is reasonably possible.
7. The main reason for this is to ensure our BAC Corporate Relations team which must field any of these types of inquiries are suitably advised to ensure any BAC spokesperson can provide an appropriate timely response.
8. Use NPR 1800 737075 as the best contact if not in the office or after hours.

3.2. AIRSERVICES ENGAGEMENT PROCEDURE

P2-CCPro 2: Airservices Engagement Procedure – NPR Phase 2 Construction



Background

Engagement with Airservices takes place on many fronts:

1. Phase 2 Construction issues – Navigation Infrastructure, a new Fire Station, communication fibre and services.
2. Phase 3 Airspace – flight path design, Operation rules, change of airspace regulatory process.
3. General Engagement - progress and design updates for Airservices staff, generally.

Formal agreements for Phase 2 construction areas have been developed with Airservices and exist as separate Interface Protocols for:

1. Dryandra Rd Works,
2. Airfield Works,
3. SMR Tower, and the
4. New Fire Station.

Airservices Co-ordination Groups for each of the areas are to be established. An appropriate NPR team member has been assigned Primary Contact responsibilities for the various interface areas and will be responsible for establishing and managing the Co-ordination Group (meetings, attendees, sharing of information etc). The Primary Contacts are outlined in the Action Plan Summary Sheet.

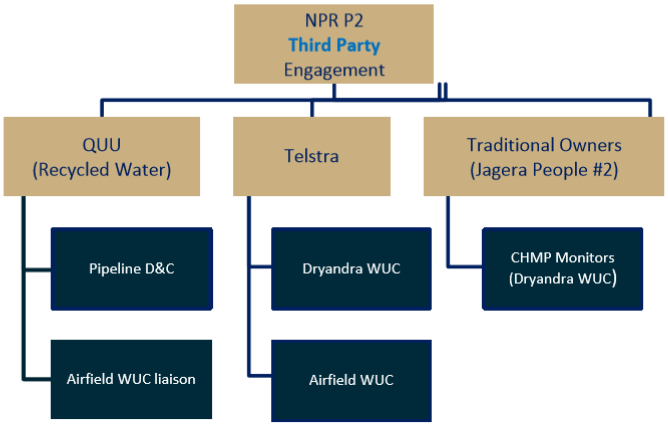
Until such time as a formal Operational Readiness and Testing (ORAT) inter organisational structure has been established, engagement with Airservices will be as per this procedure.

Rules of Engagement:

1. To engage with Airservices approach the designated Primary Contact in the first instance.
2. Check for any relevant background information and agree the most appropriate form of contact.
3. The Primary Contact is to introduce you initially (email, phone, person) and then you must copy them in for as long as is considered necessary.
4. As it is their responsibility for co-ordination of the relationship, be sure to advise the Primary Contact of the final outcome if the engagement has been for an extended time and they have not been involved for the entire process.
5. All communications with BAC's internal and external partners is to be professional and respectful at all times.

3.3. THIRD PARTY ENGAGEMENT PROCEDURE

P2-CCPro 3: Third Party Engagement Procedure – NPR Phase 2 Construction



Background

Engagement with Third Parties like QUU, Telstra, and Cultural Heritage Monitors (Dryandra Rd only) is required on a variety of construction issues:

Formal agreements exist between these third parties and the relevant construction contractor in one form or another. It is the responsibility of the contractor to manage the engagement of the third parties with respect to the WUC.

Each of these third parties also have a contractual relationship with BAC and for issues that are outside the WUC consult with the NPR Communications Manager for engagement assistance.

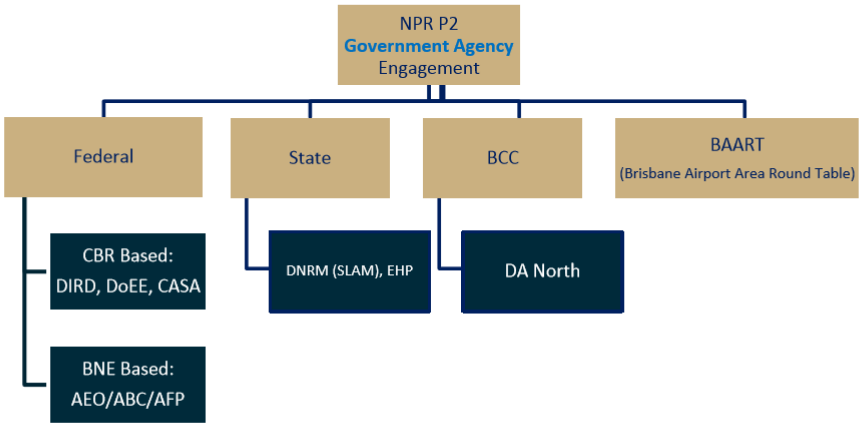
To co-ordinate issues an appropriate team member has been assigned Primary Contact responsibilities for the various interface areas with Airservices and are outlined in the Action Plan Summary Sheet.

Rules of Engagement:

1. To engage with Third Parties approach the designated Primary Contact in the first instance.
2. Check for any relevant background information and agree the most appropriate form of contact.
3. The Primary Contact is to introduce you initially (email, phone, person) and then you must copy them in for as long as is considered necessary.
4. As it is their responsibility for co-ordination of the relationship, be sure to advise the Primary Contact of the final outcome if the engagement has been for an extended time and they have not been involved for the entire process.
5. All communications with BAC's internal and external partners is to be professional and respectful at all times.

3.4. GOVERNMENT AGENCY ENGAGEMENT PROCEDURE

P2-CCPro 4: Government Agency Engagement Procedure – NPR Phase 2 Construction



Background

There are a number of Federal, State and Local Government approvals relevant to Phase 2 construction which have been obtained by BAC. Schedule 9 of the General Conditions of Contract (both major contracts) allocates responsibility for implementation of each of the conditions within each of the approvals.

Any formal approach to the Federal, State or Local Government agencies **cannot be undertaken** without consultation with BAC's NPR Communications and Approvals Manager, Karyn Rains. Exceptions to this include the ongoing engagement between the NPR team and the:

1. ABC on the various Building Approvals managed by David Goodwin
2. AEO in connection with the CEMP managed by Amandine Schneider and Martin Singleton;
3. CASA on NPR design issues managed by Garry Wickham;

AND

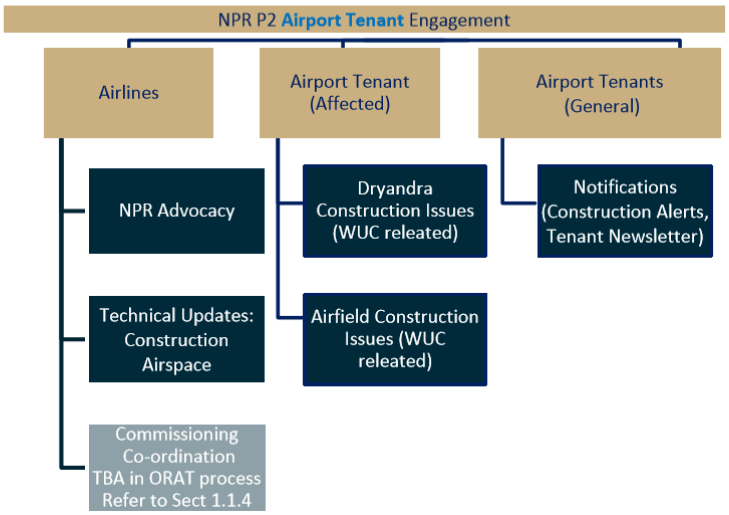
4. Notifications or other approvals which have been expressly allocated contractually to the Contractor.

Rules of Engagement:

1. Notify the NPR Communications and Approvals Manager of any issue which may need to be discussed with a Government Agency in respect of NPR approvals.
2. Agree an appropriate course of action.
3. Any formal correspondence must be approved by the NPR Approvals and Communications Manager prior to sending.

3.5. AIRPORT TENANTS ENGAGEMENT PROCEDURE

P2-CCPro 5: Airport Tenant Engagement Procedure – NPR Phase 2 Construction



Background

In consultation with the Phase 2 construction teams the activities requiring engagement with airport tenants has been identified in Section 2.1 of this P2 CCP. Relevant databases have been established in preparation for engagement.

Rules of Engagement:

Affected Tenants

1. The relevant construction lead is to advise the NPR Comms Team in a timely manner (min 4 weeks prior according to programme) of upcoming works identified for engagement activities
2. Meet with contractor to agree process for each engagement scenario
3. It is preferable for initial contact (either by phone, email or in person) to be made by the NPR Comms Team in consultation with the tenant's usual BAC Commercial contact
4. Draft preferred communication type (eg. Construction Alert/letter/other) tailored for specific affected tenants – outline issue and any continuing process
5. Send via preferred communication channel (eg. Email/letter drop to relevant tenant/s (min 1 week prior)
6. Follow up 1 day before in person or by phone
7. Agree timing for handover for ongoing contractor interface.

Tenants General

8. Information for airport tenants, generally, will be published by the Corporate Relations team supported by articles prepared by the NPR Comms Team. Articles will be preapred scheduled around construction events and milestones.
9. NPR Comms Team to seek relevant internal review for technical accuracy for all publications

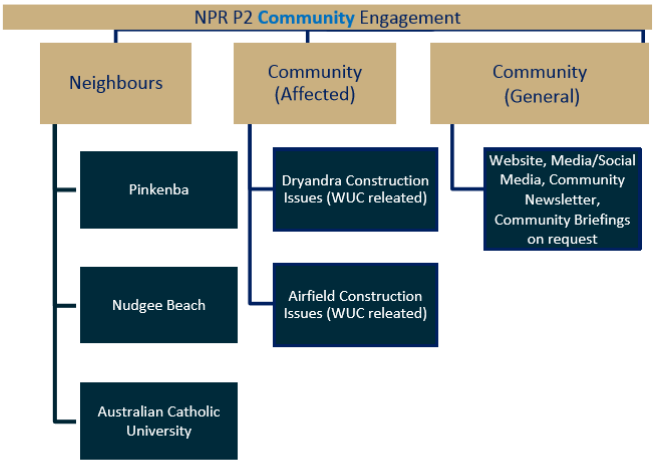
Airlines

10. All contact with our airline partners is to be co-ordinated through the NPR Comms Team.

The NPR Comms Team has final discretion to alter the approach depending on the specific situation.

3.6. COMMUNITY ENGAGEMENT PROCEDURE

P2-CCPro 6: Affected Community (Off-Airport) Engagement Procedure – NPR Phase 2 Construction



Background

In consultation with the Phase 2 construction teams and their Principal contractors the activities requiring engagement with the community have been identified in Section 2.1 of this P2 CCP. The NPR Comms Team will liaise with the Principal Contractor's communication and engagement representative to ensure a wholly co-ordinated approach. Relevant databases and/or contact lists will be established in preparation for engagement.

Rules of Engagement:

Affected Community

1. The NPR Comms Team will contact the Principal Contractor's communication and engagement representative from each contract upon contract award to confirm the approach and potential timing of upcoming external (off-airport) engagement requirements (eg. Quarry haulage, HIAL construction etc).
2. The engagement planning and any published materials are to be developed together as required.
3. The agreed communication type/s (eg. Construction Alert/letter/other) tailored for each specific affected community/issue will outline the issue, mitigating actions to be performed by the contractor and any continuing communication process, including but not limited to contact via the NPR 1800# and NPR email address.
4. All materials to be reviewed and approved by the NPR Comms Team a minimum of 4 weeks prior to commencement of affecting works.
5. Communications are to be sent via the preferred communication channel (eg. Newspaper advertisement/letter drop/other) to relevant community members at a minimum of 3 weeks prior.
6. Follow up responsibilities will be agreed between the Principal Contractor and the NPR Comms Team for each affected community/issue.
7. The relevant organisation responds to any further inquiries as required.
8. The NPR Comms is to ensure the NPR Team and Corporate Relations are aware of timing and that all relevant feedback or complaint mechanisms are in place.

Neighbours

9. Community briefings are normally undertaken at the commencement of each contract with BAC's neighbouring communities.
10. Team members and/or contractors will be approached if participation is required

Community General

11. **Community Newsletter** articles will be prepared by the NPR Comms Team scheduled around construction events and milestones for inclusion as per program
12. The NPR Comms Team will seek relevant internal review for technical accuracy for all publications.

3.7. CONSTRUCTION ALERTS

P2-CCPro 7: Construction Alert Procedure – NPR Phase 2 Construction

Background

Construction Alerts have been used as a communication tool for a number of issues through Phase 1 construction. They are used to advise large airport group/s of construction matters potentially affecting their operations or have relevance to their staff. Not all Construction Alerts go to the same recipients but generally for operational issues are distributed via the NOTAM email list.

A Construction Alert Proforma is available for use by Dryandra Road and Airfield Works from the NPR Comms Team. It normally consists of a 1 single or double sided A4 page with succinct written message and a graphic highlighting the issue/s. See example below.

Rules of Engagement:

1. NPR team members (NPR Primary Contact for the topic) advise the NPR Comms Team of important information or notice affecting other sections of BAC and/or other external parties eg. Airside or Terminal Ops
2. This information should become available through the regular weekly meetings and the 3 month look ahead.
3. NPR Primary Contact prepares draft message and graphic using existing Proforma (see right) for Comms Team review
4. Comms Team will finalise wording, formatting and graphic and have NPR Primary Contact approve Final Draft
5. NPR Comms Team confirms breadth of distribution and sends via email or Aconex, as applicable.

3.8. TEAM ALERTS

P2-CCPro 8: Team Alert Procedure – NPR Phase 2 Construction

Background

Team Alerts are to be used as a communication tool for within the team. As the NPR team expands and the opportunity for information to transmit successfully by word of mouth decreases, the Team Alert has been developed for project wide information to be shared within the wider NPR team.

A Team Alert Proforma is available for use by Dryandra Road and Airfield Works from the NPR Comms Team. It normally consists of a 1 single or double sided A4 page with succinct written message and a graphic highlighting the issue/s. See example below.

1. NPR team member/s become/s aware of information which the whole team would benefit from but may not be available to all team members. Eg. Site hazard, VIP site visit, etc.
2. NPR Team member prepares draft message and graphic or asks Comms Team to draft using existing Proforma (see right).
3. Comms Team will finalise wording, formatting and graphic for final approval for distribution.
4. NPR Comms Team confirms breadth of distribution and sends via email or Aconex, as applicable.

3.9. EXTERNAL BRIEFING PROCEDURE

P2-CCPro 9: External Briefing Procedure – NPR Phase 2 Construction

Background

To deliver accurate and consistent presentation information to external parties, a Proforma powerpoint presentation on NPR construction has been prepared by the NPR Comms Team and will be kept current with the progress of the project.

Rules of Engagement:

For General NPR Stakeholder Engagement

1. NPR Comms to liaise with CMT on timing, content, format and venue around preferred milestones for active arrangement of external briefings eg.Airfield award/sod turning, airspace release etc
2. NPR Comms to identify assistance from Construction team as required

For NPR Technical Presentation:

3. In the case of approach by an external party requesting a presentation on the project, all team members must follow the following protocol:
   i) Advise NPR Comms Team of invitation – audience, topic, venue, etc.
   ii) The NPR Comms Team will seek approval from the Project Director to accept the invitation.
   iii) Upon approval the Comms Team will provide the current Proforma presentation for use and assist with finalisation of your presentation / paper.
   iv) A final proof read of any material to be presented externally must be reviewed and approved by the Comms Team.
   v) Details are to be entered into Consultation Manager.

3.10. SITE VISITS

P2-CCPro 10: Site Visit Procedure – NPR Phase 2 Construction

Introduction
The New Parallel Runway (NPR) Project is the largest aviation project under construction in Australia and is of interest to many people. As an active construction site with large machinery, complex engineering works underway and limited all-purpose access roads, it is imperative that visitation to the site by non-construction visitors is managed appropriately.

This protocol has been developed to ensure the many different types of stakeholder are directed to the most appropriate type of site tour and briefing to gain the type of information they are seeking about the NPR. For most, a briefing from a good vantage point is adequate. For other VIP or technical visitors a close up inspection is required.

The main NPR initiative for guests without a need to be taken onto the construction site, principally for safety reasons, is to establish a **Guest Viewing Area.** Final locations are being assessed with likely vantage points the top floors of Domestic Terminal Carparks P1 and P2 or the top floor of the new Ibis Hotel.

Purpose
To set out clear guidelines for BAC staff that interact with stakeholders and/or arrange familiarisation tours of the airport in order to arrange the most appropriate type of NPR tour and briefing.

PART 1
NPR SITE TOUR OR GENERAL AIRPORT TOUR
The first priority when seeking to arrange a site visit is to identify what are the areas of most interest to the visitor/group to ensure that the most appropriate type of tour is arranged for them. For example, many groups are interested in the airport more generally, eg. the terminals, airfield operations, car parking etc and information about the NPR can be delivered as part of a broader airport tour without actually entering the NPR site. NPR staff can slot in as required to these Corporate Relations arranged airport tours.

PART 2
BOOKING PROCEDURE FOR NPR SITE VISITS & BRIEFING
In cases where it is important for the visitor to observe the site works up close as well as being briefed then please follow the protocol outlined below to arrange a visit to the NPR site. Please note anyone attending site **must** undertake some form of induction depending on the visitation circumstances.

1. All NPR site visit bookings are to be arranged with the NPR Project Communications & Engagement Officer, Maddison Charteris (maddison.charteris@bne.com.au or Ph. 3406 3353), to check availability of the site, team members, vehicles, etc.
2. Groups of 3 visitors or less can be accommodated in an NPR 4WD and driver/tour guide which is to be booked by Maddison Charteris.
3. For groups of 4 – 12 people, check with Maddison to determine availability of NPR site vehicles. If NPR vehicles are unavailable, suitable alternative transport must be arranged by the visitor group.
4. For larger groups requiring transport by bus, arrangements will be discussed on a case by case basis as site conditions and bus turning arrangements, weather conditions etc may prohibit access at certain times during the construction.
5. All visitors must comply with site access and visitor induction requirements which will be co-ordinated with the relevant Principal Contractor.

BRISBANE AIRPORT AUSTRALIA

PART 3

PERSONALISED SITE VISIT INFORMATION

1. Prepare a personalised Site Visit Guide which tracks on a diagram where on the site the visitor went/viewed including technical project information (see example below) and email to each visitor or visit co-ordinator to distribute.
2. Record in Consultation Manager.

BRISBANE'S NEW RUNWAY - CONSTRUCTION FAST FACTS

NPR PHASE 1: SITE PREPARATION AND GROUND IMPROVEMENT

Early Enabling Civil Works by BMD Constructions (2012-2013)

1 Cleared the site - 360ha
2 Built construction access roads – 8km
3 Excavated major new drains north and south - >2km
4 Treated acid sulphate soils from drain excavations - 300,000m³
5 Mulched all cleared vegetation to make topsoil - 240,000m³
6 Created new Lewin's Rail habitat - >12ha

Dredging and Reclamation by Jan De Nul (2013-2015)

7 Jumbo dredge *Charles Darwin* - 180m x 30m, 30,000 m³ capacity
8 Steel pipeline from Brisbane River end of NPR site – 8km
9 Trafficable perimeter bund to contain the dredge material – 7km
10 24/7 for 6 months to place sand – 11 Mm³
11 Largest wick drain project in Australia – 8 M linear m

Land Consolidation Period (2014-2017)

12 Settlement monitoring plates across site - >1000
13 Greatest settlement in softest parts – up to 3m

NPR PHASE 2: PAVEMENTS AND AIRFIELD CONSTRUCTION

Seawall and Site Access by Hall Contracting (2016-2017)

14 Overtop seawall at Moreton Bay foreshore – 1720m
15 Sealed Off-ramp from Moreton Drive -

Dryandra Road Underpass by McConnell Dowell (2017-2018)

16 Bulk Sand Handling – 600,000m³
17 4 lane road embankment and underpass – >1km
18 Precast Driven Piles + Sheet Piling - >25km
19 Underpass floor/walls/roof construction – up to 20,000m³ of concrete

Pavements and Airfield by Skyway - BMD & CPB JV (2017-2020)

20 Sand push off to new location – 4.5M m³
21 15km (~900,000m²) of Airfield Pavements - 1.2M tonne of aggregate
22 Runway and taxiway lights inset in pavement - >2000 light fixtures
23 High Intensity Approach Light (HIAL) – 720m from each runway end
24 Conduits for HV, LV, Comms Fibre and Water – 50+km
25 Grassing of airfield (between runways and taxiways) – 240ha
26 Airside operational roads – 12km

Complete Underway

4.0 INQUIRIES & COMPLAINTS

There are a number of methods to contact the NPR team to make an inquiry, lodge a complaint or provide feedback on the project. The following section describes what is in place and how this may change as the project enters new phases of engagement with the community, particularly when the finalised flight path and noise information is released in the latter part of 2018.

4.1. PROJECT INFORMATION LINE – 1800 737 075

The 1800 phone number 1800 737 075 has been the NPR inquiry line since the beginning of the EIS/MDP phase in 2005. It has been re-enabled since construction commenced in 2012 and is currently directed to a mobile phone attended by the NPR Comms Team and has a voicemail function for after hours' calls. All calls will be answered within business hours, and calls received after hours when inquirers have left a message will be returned in the next business hours cycle.

Depending on the future volumes of calls this number may be managed differently. Any changes will be advised when this happens.

4.2. PROJECT INFORMATION EMAIL – NEWRUNWAY@BNE.COM.AU

An email address newrunway@bne.com.au[1] has also been established for the NPR project. This is managed by BAC Corporate Relations who forwards any construction related issues to the NPR Comms Team in the first instance for a response. NPR Comms prepare a response with input from appropriate team members should it be required.

4.3. PROJECT CONTACT CARDS

Project contact cards have been distributed to BAC staff, the Board, Principal Contractor organisations, airport tenant organisations and are handed out at festivals and other public functions which BAC attend.

The purpose of the Project Contact Card (back and front face below) is to drive inquiries or complaints to the NPR 1800 number/ project email address. The initiative to have an NPR project-specific phone line and email address is:

1. Due to the prominent nature of the project and the importance of effectively managing the anticipated increased community interest in the lead up to, and commencement of, parallel runway operations; and
2. So BAC employees and its representatives who do not necessarily know all project details can direct inquirers to where accurate information can be obtained.

Contractors and BAC staff will continue to be supplied with the cards as they need.

[1] Please note that the info@bacnpr.com.au address was replaced by the newrunway@bne.com.au address in April 2018 but that any emails to the previous address are also directed to the new address.

4.4. PRINCIPAL CONTRACTOR RESPONSIBILITIES

As stipulated in the respective construction contracts the Principal Contractor (PC) is required to establish a complaint handling process. The contract specifies that the PC must direct all complaints from the public to the NPR Comms Team. From there the NPR team will seek details from the PC for a response for any verified complaint.

5.0 TIMING

This communication strategy covers stakeholder communication throughout all contracts involved within Phase 2 construction. The following table lists the indicative key contract dates. Individual activities are developed in accordance with progress of the project. Refer to **Attachment 3** for timing information.

Indicative Key Contract Dates Schedule		
Phase of Construction	**Activity**	**Indicative Dates**
Phase 1 Works	Complete	Sept 2012 - June 2015
Ground Settlement Period	Complete	2014 - 2018
Phase 2: Construction	In progress	2016 – 2020
Seawall and Site Access	Complete	August 2016 – February 2017
Dryandra Road Underpass	In progress	January 2017 – Sept 2018
Airfield Pavement Construction	In progress	Aug 2017 - 2020
New Parallel Runway operational		2020

6.0 KEY MESSAGES

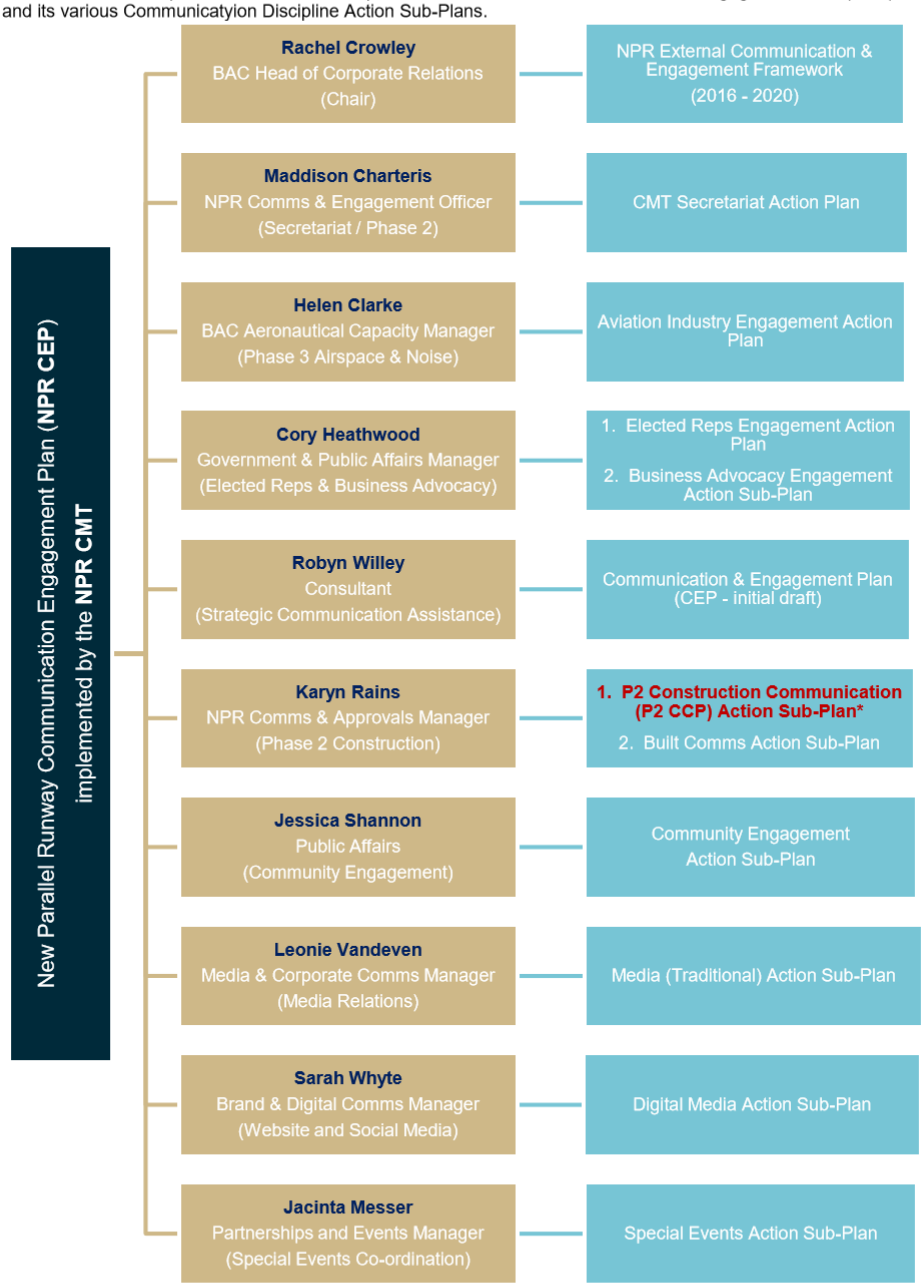
Key messages will be developed as construction and airspace projects progress. Primary responsibility for key messages sits with the CMT. The existing NPR Project key messages current as of early 2017 are in **Attachment 5**. These messages, as they are updated will be circulated to the whole team.

7.0 ATTACHMENTS

1. **NPR COMMUNICATION MANAGEMENT TEAM & DOCUMENT STRUCTURE**
2. **NPR STAKEHOLDER GROUPS**
3. **NPR P2 CONSTRUCTION STAKEHOLDER ENGAGEMENT - ACTION PLAN SUMMARY SHEET**
4. **NPR CONSTRUCTION PRIMARY CONTACT LIST**
5. **KEY MESSAGES**

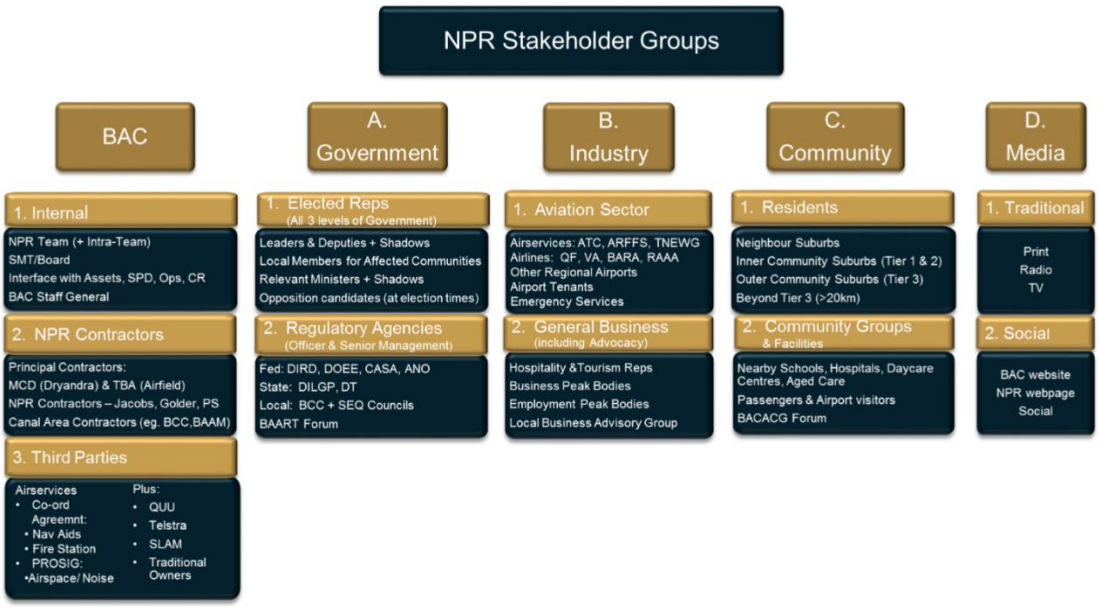
ATTACHMENT 1: NPR COMMUNICATION MANAGEMENT TEAM & DOCUMENT STRUCTURE

The CMT has developed and oversees the implementation of the NPR Communication Engagement Plan (CEP) and its various Communicatyion Discipline Action Sub-Plans.



*This Plan (P2 CCP) is a Sub-Plan to both the NPR CEP and the NPR Project Management Plan (PMP)

ATTACHMENT 2: NPR STAKEHOLDER GROUPS



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ATTACHMENT 3: NPR P2 Construction Stakeholder Engagement - Action Plan Summary Sheet

ID	Stakeholder Group	Stakeholder	Purpose for Engagement	NPR Primary Contact		Tool	Method	Timing
				Dryandra	Airfield			
BAC1	BAC Internal	NPR Team	Share whole of Team info	NPR Comms	NPR Comms	Team Alert	Team Email	Ongoing
			Dryandra - Airfield Interface Issues	Ian Davies/Ant Halapua	Peter Lyons/Ben Garnett	SMT Meeting (Weekly)	Meeting Minutes	Ongoing until completion of Dryandra Road Works
		SMT	Updates and ongoing decisions	Project Director	Project Director	PCG Papers	Monthly PCG	Between PCGs, KT updates at weekly SMT Meetings
		Board	Updates and ongoing decisions	Project Director	Project Director	CEO Board Report	Monthly Board Papers	Monthly
		Corporate Relations	Keep CR abreast of any issues arising which may affect public parts of airport and/or cause comment in media/social media or compliant/inquiry to BAC	NPR Comms	NPR Comms	**Planned** - as per Construction Alert process **Unplanned** - NPR team member to advise of observation/issue directly to the NPR Comms Team as soon as possible - supply image if possible	**Planned** - as per Construction Alert process **Unplanned** - All information to be provided to the NPR Comms team by phone or in person so they can act as initial information provider to Corporate Relations Use NPR 1800 737075 as the best contact if not in the office or after hours.	Planned - as per Construction Alert process Unplanned - contact NPR Comms as soon as possible
		BAC General	Updates	NPR Comms	NPR Comms	Weekly Internal Newsletter	Publish updates	As required
						Staff Talks	Update briefings	As required
		Interface with Assets:	General notifications	NPR Comms	NPR Comms	Construction Alert	Distribute Alert via email to various including: NOTAM list, PTCW list, Relevant Tenant Lists/Other stakeholder lists	Construction Alerts distribution will be tailored to the issue and relevant stakeholders
			Construction liaison Utilities	Mick Hoppe	Ben Garnett	Direct Personal	Meet/phone/email	As needed
			Construction liaison ICT	Mick Hoppe	Ben Garnett	Direct Personal	Meet/phone/email	As needed
			Construction liaison ACT (Other BAC projects)	Mick Hoppe	Ben Garnett	Direct Personal	Meet/phone/email	As needed
		Interface with SPD:	General Notifications	NPR Comms	NPR Comms	Construction Alert	Distribute Alert via email to various including: NOTAM list, PTCW list, Relevant Tenant Lists/Other stakeholder lists	Construction Alerts distribution will be tailored to the issue and relevant stakeholders
			P2 Design & Planning changes	Garry Wickham	Garry Wickham	Meetings as required	Meeting Minutes	
			Airspace and Noise	Karyn Rains	Karyn Rains	PROSIG + Airspace Design/Env&Comms WGs	Meeting Minutes	Regular (typically monthly) PROSIG and WG Meetings
		Interface with Operations:	General Notifications	NPR Comms	NPR Comms	Construction Alert	Distribute Alert via email to various including: NOTAM list, PTCW list, Relevant Tenant Lists/Other stakeholder lists	Construction Alerts distribution will be tailored to the issue and relevant stakeholders
			Construction liaison Environment	Emma Tscheppera	Martin Singleton	Meetings as required	Meet/phone/email	As needed
			Construction liaison OHS/Security	Peter Dorn	Ben Garnett	Meetings as required	Meet/phone/email	As needed
		Refer to Procedure P2 CCPro 1 - Internal BAC Engagement Procedure for details of Contractor and NPR team responsibilities						
BAC2	NPR contractors	Principal Contractor (PC)	Delivery of WUC	Aconex Instruction (Dryandra Rd)	Aconex Instruction (Airfield)			As per contract
		Jacobs	Design Part C delivery	Aconex Instruction (Design Part C)	Aconex Instruction (Design Part C)			As per contract
		Golder	Ongoing consultancy	Ben Garnett	Ben Garnett			As needed
		Project Support	Ongoing consultancy	Ian Davies / Steve Emery	Ben Garnett / Steve Emery			As needed

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ATTACHMENT 3: P2 Construction Stakeholder Engagement - Action Plan Summary Sheet

ID	Stakeholder Group	Stakeholder	Purpose for Engagement	NPR Primary Contact		Tool	Method	Timing
				Dryandra	Airfield			
	Other BAC Contractors	Environment Contractors	Canal Area Access	Peter Dorn	Martin Singleton			Typically when access arrangements change and as needed
		BCC - Mosquito Control	Canal Area Access	Peter Dorn	Martin Singleton			Typically when access arrangements change and as needed
		BCC - Environment (traverse to BCC land)	Canal Area Access	Peter Dorn	Martin Singleton			Typically when access arrangements change and as needed
		Traditional Owners	Cultural Heritage Monitors	Emma Tscheppera	N/A			In accordance with CHMP
BAC3	Third Parties	Airservices	Design Co-ordination	David Goodwin	David Goodwin			
			Construction Liaison	Mick Hoppe	Ben Garnett			
			Airspace Liaison	Karyn Rains	Karyn Rains			
			ORAT	Garry Wickham	Garry Wickham			
			Legal Agreements	David Thorpe	David Thorpe			
			Staff General	NPR Comms	NPR Comms	Briefings	At TAAATS Bldg, Boronia Road	Typicall at commencement of each major contract
			ARFF Staff	NPR Comms	NPR Comms	Briefings	At Main ARFF Statoin	Typicall at commencement of each major contract
			Radar Maintenance Staff	Peter Dorn	Ben Garnett	Access Inductions		
		QUU	Recycled Water Construction	Doug Hagan?	Uwe Bergmann		Weekly Construction Meetings	During pipeline construction
			Recycled Water Contract	Duncan (if required)	Duncan		Regular Co-ordination Meetings	Prior to and during Airfield Works
		Telstra	Construction Liaison	Mick Hoppe				As needed
		Traditional Owners	CHMP (Dryandra)	Amandine Schneider				In accordance with CHMP
		AFP	AFP access and site interlopers	Maddison	Maddison			Typically when access arrangements change and as needed
		Other		Ant Halapua	Ben Garnett			As required
		Refer to P2-CCPro2 and P2-CCPro 3 for Airservices and Third Party Engagement Procedures respectively for details of Contractor and NPR team responsibilities						
A	GOVERNMENT							
A1	Govt Approval Agencies:							
	Federal	CASA, DIRD, DOEE	Amendments, reporting, updates	Karyn Rains / Garry Wickham (for CASA)	Karyn Rains / Garry Wickham (for CASA)	Regulatory Meetings and Reporting	Written correspondence, meetings as required, site visits etc	as per approval / amendments and reporting require
	State	DNRM, EHP, DILGP	Amendments, reporting, updates	Karyn Rains	Karyn Rains	Regulatory Meetings and Reporting	Written correspondence, meetings as required,etc	as per approval / amendments and reporting require
	Local	BCC (DA North)	Amendments, reporting, updates	Karyn Rains	Karyn Rains	Regulatory Meetings and Reporting	Written correspondence, meetings as required,etc	as per approval / amendments and reporting require
		Refer to P2-CCPro 4: Government Agency Engagement Procedure for details of Contractor and NPR team responsibilities						
A2	Elected Reps:							
	Australian	All Qld Fed electorates, relevant Minister/Shadows	Updates and Briefings	CMT	CMT	Letter / Visit / Briefing offer	N/A	Typically at the commencement of each contract
	State	All Qld Fed electorates, relevant Minister/Shadows	Updates and Briefings	CMT	CMT	Letter / Visit / Briefing offer	N/A	Typically at the commencement of each contract
	Local	All Brisbane Ward Councillors, Mayors of adjacent Councils	Updates and Briefings	CMT	CMT	Letter / Visit / Briefing offer	N/A	Typically at the commencement of each contract and connected with Affected Community engagement
B	INDUSTRY:							

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ATTACHMENT 3: P2 Construction Stakeholder Engagement - Action Plan Summary Sheet

ID	Stakeholder Group	Stakeholder	Purpose for Engagement	NPR Primary Contact		Tool	Method	Timing
				Dryandra	Airfield			
B1	Brisbane Airport Businesses	Airlines	Construction Progress updates	Paul/Garry	Paul/Garry	Deliver Technical Updates	Co-ordinate with scheduled Commercial Discussions	NPR Comms will support Paul / Garry with presentation material
		Airport Tenants (Affected)	Construction Liaison	NPR Comms	NPR Comms	Affected Tenant Database, Construction Alerts, direct individual/precinct briefings	Personal visit, Email: info@bacnpr.com.au; Phone: 1800 373 075.	NPR Comms Team preparing P2 Construction contact list - will be input to Consultation Manager as soon as up and running
		Refer to P2-CCPro 5: Airport Tenant Engagement Procedure for details of Contractor and NPR team responsibilities						
		Airport Tenants (General)	Updates	NPR Comms	NPR Comms	Regular update articles	Newsletter by Corporate Relations	Regular updates and milestone events
B2	General Business	Greater Brisbane Business Community	Updates and Briefings	CMT	CMT	Various	Various	Various business forums
		Qld Tourism	Advocacy and updates	CMT	CMT	Various	Various	Various business forums
B3	Aviation Peak Bodies	Aviation Rep Bodies (AAA, ACI, ICAO, IATA)	Update Briefings	CMT Arranged	CMT Arranged	Peak Body Memberships/ Relationships	Briefing at Regular gatherings	Most typically delivered by CEO, SMT, Project Directors
C	COMMUNITY:							
C1	Neighbour Suburbs	Pinkenba, Nudgee Beach, Banyo	Engagement and updates	CMT	CMT	Invitation to Community Briefing - in-suburb or invite to site	Presentation by Paul/Karyn/Helen/Robyn	CMT Community to support NPR Comms in organisation
C2	Construction Affected Public	Airport Roads, Quarry Delivery Routes, Various other	Engagement, Complaint Handling	Maddison	Maddison	Identify catchment, quantify extent (numbers, hours, period etc) commence engagement early, provide accessible contact - NPR 1800 737 075#, Email:info@bacnpr.com.au	Co-ordination with contractor Comms team, advertising, letter drops, direct contact - final plan formulated with Contractor	Final approach and implementation responsibility formulated and agreed with contractor
		Refer to P2-CCPro 6: Affected Community (Off-Airport) Engagement Procedure for details of Contractor and NPR team responsibilities						
C3	General Public	Suburbs/Residents <10km	Engagement and updates	CMT	CMT	Regular updates on construction progress; transitioning to blended construction/parallel operations information from 2018.	Media segments at milestone announcements (print, radio, tv, website, social media)	Specific targetted comms will be developed on a hierarchical basis with 10km a current arbitrary boundary
		Suburbs/Residents >10km	Engagement and updates	CMT	CMT			
D	MEDIA:							
D1	Outlets	Print, Radio, TV	Updates and Briefings	CMT / LV	CMT / LV	Usual	Usual	as per Media Plan
D2	Digital	Website, social media	Updates and Briefings	CMT / Sarah Whyte	CMT / Sarah Whyte	Usual	Usual	as per Media Plan

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ATTACHMENT 4: NPR P2 CONSTRUCTION – BAC INTERNAL PRIMARY CONTACT LIST

NPR P2 CONSTRUCTION - PRIMARY CONTACT LIST

	BAC Section	Primary Contact	NPR Contact	
			Dryandra	Airfield
1.	**Assets**	David Gunning	Ian Davies	Peter Lyons
2.	ACT (Project Interface)	Zain Booker/Dave Beattie	Ian Davies/ Ant Halapua	Garry Wickham
3.	Power	Paul Gray (HV) / James Watt (PLC) / Terry Hancock (LV)	Mick Hoppe	Ben Garnett
4.	Water/Recycled	Phil Grounds / Ross Griffith	Mick Hoppe	
5.	Fibre	Lyall Thomson	Mick Hoppe	Ben Garnett
6.	ICT	Wayne Hewittson / Fran Loughrey	Mick Hoppe	Ben Garnett
7.	Operational Systems	Gabriel Leotta	Mick Hoppe	Ben Garnett
8.	**Operations**	Stephen Goodwin (GM)	Ian Davies	Peter Lyons
9.	Airside Operations	Peter Dunlop	Ant Halapua	Ben Garnett
10.	Terminal Operations	Ken Hughes	Ant Halapua	Ben Garnett
11.	Wildlife Hazard	Jackson Ring	Emma Tscheppera	Martin Singleton
12.	Security	Gary Chadwick	Ant Halapua	Ben Garnett
13.	Environment	Wendy Weir	Emma Tscheppera	Martin Singleton
14.	**SPD**	General Manager	Paul Coughlan	Paul Coughlan
15.	Airfield	Mark Willey	Ian Davies	Garry Wickham
16.	Airspace and Noise	Helen Clarke / Mark Willey	Karyn Rains / Paul Coughlan	Karyn Rains / Paul Coughlan
17.	Roads	Terry Rossitto	Garry Wickham	Garry Wickham
18.	Terminals	Matt Shinkel	Garry Wickham	Garry Wickham
19.	Services	Costel Mustatea	Garry Wickham	Garry Wickham
20.	**PTS**	Martin	Ant Halapua	Ben Garnett
21.	Taxis	Adam Hazell	Ant Halapua	Ben Garnett
22.	Car Parks	Martin Ryan / Sarah Hulse	Ant Halapua	Ben Garnett
23.	Traffic	Terry Rossitto	Ant Halapua	Ben Garnett
24.	**Commercial**			
25.	Terminal Tenants	Toby Innes	Mick Hoppe	Ben Garnett
26.	GA Tenants	Trevor Fox	Mick Hoppe	Ben Garnett
27.	CPA Tenants	Tulani Mafico	Mick Hoppe	Ben Garnett
28.	New Tenancies (ASA)	Commercial rep	David Thorpe	David Thorpe
29.	**People & Culture**	Gwilym Davies	Paul Coughlan	Paul Coughlan
30.	Recruitment	Belinda O'Connor	Ian Davies	Peter Lyons
31.	Performance Development	Tom Howard	Ant Halapua	Ben Garnett
32.	**Corporate Relations**	Rachel Crowley (Head of CR)	Karyn Rains / Maddison Charteris	
33.	Media	Leonie Vandeven	Karyn Rains / Maddison Charteris	
34.	Website	Sarah Whyte	Karyn Rains / Maddison Charteris	
35.	Government Relations	Cory Heathwood	Karyn Rains / Maddison Charteris	
36.	**Finance**	CFO (David Malek)	Paul Coughlan	Paul Coughlan
37.	Capex	Capex Accountant	Kirsty Holley	Jason Maitczak
38.	Accounts Receivable	Accounts Receivable	Kirsty Holley	Candice Knoll

ATTACHMENT 4: NPR P2 CONSTRUCTION – BAC INTERNAL PRIMARY CONTACT LIST

	BAC Section	Primary Contact	NPR Contact	
			Dryandra	Airfield
39.	Purchase Orders	Accounts Payable	Kirsty Holley	Candice Knoll
40.	**Legal**	Adam Stoker	Paul Coughlan	Paul Coughlan
41.	Advice	Adam Stoker	David Thorpe	David Thorpe
42.	Contract Preparation	Adam Stoker	Jason Maitczak	Jason Maitczak
43.	**IT**			
44.	PC Troubleshooting	Data 3 x 3067	Karen	Karen
45.	Programs & Databases	Data 3 x 3067	Claire	Tanya

The NPR Primary Contact is responsible for:

1. Managing the overall relationship with the BAC section/individual,
2. Arranging introductions of new team members as required,
3. Providing a Project First Point of Contact for the BAC section/individual to communicate with the project
4. Keeping track of the relevant outcomes of what is discussed and agreed and that all communication is recorded appropriately – ie if not in Aconex ensure capture through the project email addresses.
5. Once the matter is progressing check in with the Project First Point of Contact to clarify how they would like to be updated from there eg. Copied in, verbally updated, team meeting agenda item.
6. It is especially important for existing and long term team members to ensure the Project First Point of Contact is aware of any matters being discussed and handled by you.

ATTACHMENT 5: NPR PROJECT KEY MESSAGES (PREPARED BY THE CMT)

Airspace Design – Key Messages and Hypothetical Questions and Answers
Current as at 24 February 2017

Introduction to and purpose of key messages

Preparation for the operation of the New Parallel Runway (NPR) at Brisbane Airport, scheduled for 2020, is a highly complex task. Many thousands of individual activities involving hundreds of people and organisations need to occur in a timely and coordinated way to ensure aircraft are able to operate on the NPR from the target opening date.

As part of this detailed approach to planning, BAC and Airservices Australia are working together closely as the airspace for Brisbane Airport is designed to accommodate flights onto two parallel runways. This cooperation is facilitated through the Parallel Runway Operations Steering and Implementation Group (PROSIG), which meets on a regular basis.

The design of the airspace was undertaken as part of the Environmental Impact Statement/Major Development Plan (EIS/MDP) process completed in 2007. This current airspace design work focuses on preparing for the introduction of the new airspace design and its associated flight paths. The work is an iterative process being undertaken in three stages (1) preliminary design (current stage) (2) detailed design and (3) final design.

Airspace design at Brisbane Airport will be a source of interest/concern to many stakeholders – from air traffic controllers, airline pilots and airline operational teams, through to elected representatives, government departments and the communities that will experience arrival and/or departure overflights.

Due to this level of interest in airspace and the fact that two independent organisations (Airservices and BAC) are closely aligned in its development, it is critical that each is consistent in what is said to stakeholders.

Three sets of key messages have been prepared for three key groups:

- Set 1 for general stakeholders, including media, being whole of project key messages
- Set 2 for airlines
- Set 3 for internal stakeholders of BAC and Airservices.

The key messages are followed by hypothetical questions and answers that have been developed to reflect key messages. **These are not for publication** but should be used by BAC and Airservices to inform responses to various queries that might arise from stakeholders.

A set of Dryandra Road key messages have also been developed and are included at the end.

ATTACHMENT 5: NPR PROJECT KEY MESSAGES (PREPARED BY THE CMT)

Set 1 – whole of project key messages

- The New Parallel Runway project is on track to open in 2020 as planned.
- Thousands of tasks – both on the ground and in the air – must be completed prior to opening.
- The project demands extraordinary levels of coordination and cooperation between hundreds of individuals and organisations.
- BAC as the operator of Brisbane Airport and Airservices Australia, which is responsible for managing airspace across Australia, are working together, along with other government agencies, to facilitate a smooth path to opening.
- Information about the project, including details about construction, operation and current and future flight paths, is available on the BAC website.
- More detailed information will be made available to the community and other stakeholders as the project progresses.

Set 2 – airlines with a direct interest in airspace design (Virgin, Qantas, Jetstar, regional operators)

- Airservices and BAC are preparing for the introduction of a new airspace design for Brisbane Airport once the NPR is operational.
- The airspace design was undertaken as part of the EIS/MDP process, which was completed and approved by the Australian Government in 2007.
- That design work is now being evaluated in relation to any new procedures, technologies or policies that may have come into effect prior to finalisation and implementation, currently scheduled for 2020.
- Input from airlines, including technical and operational feedback, will be sought throughout the airspace evaluation process.
- To date the evaluation process and airline input has resulted in endorsement for the use of Closed STAR procedures in the future parallel runway environment.
- Ongoing communication and engagement with airlines, including all tiers of management and operation within individual organisations, will be a priority in the lead up to and after opening of the NPR.

Set 3 – internal stakeholders (BAC and Airservices)

- BAC and Airservices have formed the Brisbane Airport Parallel Runway Operations Steering and Implementation Group (PROSIG) to collaboratively focus on the airspace-related activities required to achieve industry readiness for NPR operations scheduled for the third quarter of 2020.
- While PROSIG is focused on airspace, BAC and Airservices are also working closely on airfield related infrastructure and systems.
- The airspace design was undertaken as part of the EIS/MDP process, which was completed and approved by the Australian Government in 2007.
- Prior to finalisation and implementation that design work is now being evaluated in relation to any new procedures, technologies or policies that may have come into effect in the intervening period.
- The evaluation is being undertaken in three phases – preliminary (current), detailed (2018) and final (2019).
- Airlines will be asked to comment on technical and operational aspects of the airspace throughout the evaluation process.

ATTACHMENT 5: NPR PROJECT KEY MESSAGES (PREPARED BY THE CMT)

Hypothetical Questions and Answers

Possible questions from the community

Q: When will the NPR open?

A: The project is on track to open in 2020 as planned.

Q: Will there be new flight paths?

A: Yes – because there will be two runways operating, both of which will require dedicated flight paths.

Q: How can I find out about these flight paths?

A: You can find out more about flight paths by downloading the Brisbane Airport Current and Future Flight Path and Noise Information Booklet from the BNE website or visit http://www.bne.com.au/corporate/flight-paths/discovery-centre to learn more about the effects on your suburb.

This information will be updated over the next few years as we continue to work with Airservices and will be conveyed to the community in advance of the runway opening.

Q: Will the future flight paths change from those shown in the booklet?

A: We want to make sure that ahead of opening we have the most up to date information on flight paths available to the community. So we're currently working with Airservices Australia, which is responsible for air traffic control and air navigation across the country, to review the predicted flight paths based on any new procedures, technology or policies that might come into play in the next four years.

Q: Do you expect there to be much difference to what we saw at the time of the EIS and at the time of the 2014 Brisbane Airport Master Plan?

A: At this stage we don't believe so, but given the timeframes involved and that some navigational and air space management procedures have changed and continue to change, we believe it is prudent to revisit the work.

Q: When will that information be available?

A: It's four years before the runway opens so our plan is to get the information out around 18 months prior to opening.

Q: Will I get more noise?

A: Either the Brisbane Airport Current and Future Flight Path and Noise Information Booklet or the online Discovery Centre at http://www.bne.com.au/corporate/flight-paths/discovery-centre is a good starting point to understand the likely noise impacts where you live.

But it's also important to know that Brisbane Airport has the largest noise buffer zone of any capital city airport in Australia. In addition, noise abatement procedures are used by air traffic control to minimise noise and, while subject to weather conditions, the new runway itself provides opportunities to increase the number of aircraft movements over Moreton Bay, particularly at night.

Q: Will I get less noise?

A: Residents living under the existing main flight paths may receive less frequency of aircraft in the early years of operation of the new runway as a number of flights are directed to that runway. However, we recommend you download the Brisbane Airport Current and Future Flight Path and Noise Information Booklet from the BNE website and/or visit the online Discovery Centre at

ATTACHMENT 5: NPR PROJECT KEY MESSAGES (PREPARED BY THE CMT)

http://www.bne.com.au/corporate/flight-paths/discovery-centre, which provides details about the expected impacts of the current and future flight paths.

Q: What is the current stage of construction?

A: Over the past four years extensive site preparation works have been underway to consolidate the ground enough for construction to take place. On 1 February 2017 BAC announced the commencement of work on the $120 million Dryandra Road Works contract. This project will create 300 new jobs during the build and is a significant structural element of the new runway project involving the construction of a reinforced concrete four-lane underpass, adjoining roadways and parts of the taxiway decks atop the structure. The underpass will allow vehicles to travel under the taxiways that will connect the new runway to the domestic and international terminals.

Q: Are there plans to introduce a curfew at Brisbane Airport once the new runway is operational?

A: No. A committee that included representatives from each level of government and industry undertook an extensive review in 2014. The committee determined that Brisbane Airport would remain curfew free due to its much larger non-residential buffer compared to other cities and the effective use of noise abatement procedures.

Q: Will the community have a say in the new flight paths?

A: The flight paths were considered as part of the EIS/MDP that was approved by the Australian Government in 2007. They have been on display to the community for close to 10 years and we will continue to provide that information right up to and well after the opening of the new runway in 2020.

NOTE: LIKE KEY MESSAGES, Q&AS WILL CONTINUE TO BE DEVELOPED AND AMENDED AS THE PROJECT PROGRESSES

END

ATTACHMENT 5: NPR PROJECT KEY MESSAGES (PREPARED BY THE CMT)

DRYANDRA ROAD KEY MESSAGES

For General Information

Design Issue	1.	The NPR Project Link Taxiways, designed to link the new runway system with the existing system and Terminals, are positioned in an east-west alignment between the Domestic Terminal precinct and the GA Area, effectively preventing at-grade road access along the existing Dryandra Road north-south alignment.
Purpose of the Works	2.	The purpose of the Dryandra Road Works is to provide and maintain continuous road transport connectivity between the Domestic Terminal and the GA and Plane Spotting Areas, while simultaneously providing the structural strength for the world's largest aircraft to taxi overhead between the new runway and Terminals without disruption.
The Works	3.	The Works involve construction of a reinforced concrete underpass structure supporting road traffic beneath while the Link Taxiways cross overhead at 90 degrees carrying aircraft traffic.
	4.	The Dryandra Road Works contract worth $120M was awarded to McConnell Dowell in January 2017 and works are expected to be complete in Sept 2018.
The Works in detail	5.	The Dryandra Road Works consist of the following major construction components: a. Above: A 30m length section of each Link Taxiway and a 30m length section of the Airside Road either side of the Links laid on a concrete deck slab supported by piles down to the bedrock; b. Under: A 400m long piled concrete underpass structure housing up to 1.1km of a four lane roadway, co-located in a corridor with one landside lane each way and one airside lane each way, which traverse under and perpendicular to the Link Taxiway and Airside Road sections overhead; c. Dimensions of underpass include: i. Landside: 4m wide traffic lanes, 2m wide shoulders; ii. Airside: 5m wide traffic lanes, 1m wide shoulders iii. Overhead clearance 4.6m d. The relocation of all services from the existing Dryandra Road alignment into the new corridor.
The Design	6.	Safety and security of passengers, tenants, employees and all other users of Brisbane Airport was paramount to BAC in the design process and the final solution appropriately reflects this.
	7.	Some of the key planning and design decisions meticulously worked through include: a. Future use and access requirements of Airport North;

ATTACHMENT 5: NPR PROJECT KEY MESSAGES (PREPARED BY THE CMT)

b. Minimising encroachment of the road and underpass infrastructure into the Domestic Terminal Area's future development footprint given it is the Airport's busiest hub servicing 80% of all Brisbane's passengers;
c. Determination of the design aircraft, road vehicles, dimensional and loading configurations, and other transport mode considerations;
d. The form of the underpass structure including comparison between underpass and tunnel options, requirements for lighting, fire protection, emergency escape routes, airfield and operational security, along with pedestrian/cycle access implications for each;
e. Roadway geometry, including the number and widths of traffic lanes, and roadside controls necessary to ensure road safety;
f. The options for location of utility services noting the impacts associated with utility maintenance, and the need for continuity of roadway availability.

Use of the Underpass	8. The type of plant and equipment used at an airport is quite unique to the airport environment and so all potential users of the underpass were considered in its design including all current and future aviation plant and equipment likely to be used at Brisbane.

For Cyclist or Pedestrian –specific queries:

Pedestrian Access	9. Pedestrians will not be permitted in the Underpass due to the significant security and safety risks.
Cyclist Access	10. Cyclists, though not encouraged, will be able to ride through the Underpass using the wide shoulders but there is no dedicated bike lane linking to or in the Underpass.
BAC Approach	11. BAC actively engages with the cycling community and has, to date, funded more than 15km of cycle paths / lanes linking Council bikeways to the main airport employment precincts of Skygate, the Terminals and the Education and Training precinct at Boronia Rd. The total investment by BAC in cycle paths and lanes is more than $2.5M. 12. It is important to note that all infrastructure design is a process that must balance level of service with user needs and budget. Unfortunately, as anyone can understand, delivering everything for everyone is not always possible. 13. It is BAC's view that, safety and security reasons aside, providing dedicated cycle and/or pedestrian lanes in the underpass cannot be justified given the high cost and low demand.
Final Word	14. BAC's top priority is the safety of all passengers, business tenants, workers and visitors of the Airport and it is our firm view that facilitating a bike lane or pedestrian access through the new Underpass is neither desirable nor warranted in light of contemporary risks associated with Airport operating environments.

7.8. Appendix 8: Meeting minutes

Meeting 1

Agenda (list prior to meeting):

- Selection of project – each member to present 2 project examples of which we narrow it down to 5-6 projects
- Decide on desired order of projects
- Decide the role of the communicator – who will write the project summary and submit it to Cosimo
- Determine other details to be submitted in project summary (page 13-14 of unit outline – points below)
    - What are your objectives as a team?
    - How will decisions be made – i.e. consensus group decision making or other?
    - When will you start considering the requirements of the final written projects? What will be the time line for the written reports? Will you assign tasks to each other, or work collectively or a combination of both?
    - What happens if someone doesn't complete their tasks?
    - Will you agree on a time line for set tasks?
    - How often do you meet? Does everyone need to attend every meeting?
    - What will happen if someone doesn't attend a meeting?
    - Expectations for communication

Meeting date	6/3/23 11:00AM
Next meeting	8/3/23 10:00AM
Attendees	☑ Adarsh ☑ Fatima ☑ Nikki ☑ Rayhan ☑ Trieu
Absent	☐ Ben
Signed	*AN, FA, NO, RS, TH*
Chairperson	Nikki
Notetaker	Trieu
Agenda item	Adarsh's Project Proposals
Presented by	Adarsh
	Digital Signature Certificate - older sibling works in the area, so he may be able to obtain information Ergonomics in the workplace Perth Airport runway upgrade - ongoing Fremantle port wharf upgrade
Agenda item	Fatima's Project Proposals
Presented by	Fatima
	Bunnings warehouse expansion - ongoing William street pedestrian bike lane

	City of Fremantle bike lane City of Fremantle Bike Plan 2019-2024_0.pdf AT_CYC_P_WABN_grants_Awarded_projects_2021_22_2022_23.pdf (transport.wa.gov.au)
Agenda item	Nikki's Project Proposals
Presented by	Nikki
	1. Brisbane Airport New Runway - lots of information available https://www.bne.com.au/corporate/projects/bne-projects/completed-projects/brisbanes-new-runway 2. Karrinyup Shopping Centre – Multiplex - will need to reach out to Multiplex - Owner: UniSuper - Managed by: AMP CapitalQ - Construction Partner: Multiplex 3. Armadale Road to North Lake Road Bridge - has the most documentation available for a completed Mainroads project - WA Mainroads https://www.mainroads.wa.gov.au/projects-initiatives/all-projects/metropolitan/Armadale-Road-North-Lake-Road-Bridge/ Lots of publications available
Agenda item	Rayhan's Project Proposals
Presented by	Rayhan
	Boola Katitjin - Murdoch university (Multiplex) Boola Katitjin (murdoch.edu.au)
Agenda item	Trieu's Project Proposals
Presented by	Trieu
	TL Robertson Library Refurbishment | Curtin Properties Gold Coast Light Rail Stage 2 - This project involved the construction of a new light rail line connecting the Gold Coast's southern suburbs to the city centre, with associated upgrades to existing infrastructure. The project was completed in 2018 and was valued at approximately AUD 420 million. Stage Two Construction | GoldLinQ Copy Project Details (infrastructure.gov.au) Sunraysia Solar Farm - This project involved the construction of a new solar farm near Balranald, New South Wales. The project included the installation of solar panels, inverters, transformers, and associated infrastructure. The project was completed in 2019 and was valued at approximately AUD 140 million. Sunraysia Solar Farm | 255MWDC Utility-scale solar PV Project Sunraysia solar farm finally complete and at full capacity, but legal dispute remains | RenewEconomy
Agenda item	Vote/consensus on order of projects
Presented by	Nikki
	☑ Trieu to make poll on Teams so we can vote on which projects we want to do ☑ Everyone to go and look at each of the projects proposed ☑ Vote on projects we want to do

Agenda item	Decide the role of the communicator – who will write the project summary and submit it to Cosimo
Presented by	Trieu
	Nikki to assume the role of communicator with Cosimo. She will CC all of us in any correspondence. ☑ Aim to submit group/project proposal by this Wednesday
Agenda item	Determine other details to be submitted in project summary (page 13-14 of unit outline – points below)
Presented by	Nikki
	☑ Nikki to write up the answers of the below points in the group/project summary ***What are your objectives as a team?*** Our objectives as a team are to do well in this unit and achieve the highest mark we possibly can. We would also like to gain valuable insight about the project management process, and have an enjoyable learning experience working in a group of people from different backgrounds and specialisations. ***How will decisions be made – i.e. consensus group decision making or other?*** Our group decisions will be made by consensus. We will have a combination of in-person and online meetings, as well as online Teams text discussions. We will make decisions either by discussing them and reaching a consensus in person, or voting in a poll. ***When will you start considering the requirements of the final written projects? What will be the time line for the written reports? Will you assign tasks to each other, or work collectively or a combination of both?*** We will start considering the requirements for the final written project now. We believe we must keep the requirements in mind as we start our project, so we remain on the right track moving forward. We will aim to stick to a timeline of having our Case Study Writing finished by the end of Week 3, our Case Study Analysis Finished by the middle of Week 5, and our Recommendations To The Case finished by the beginning of week 7, which is when the report is due. Tasks within each section will be assigned to members, before being combined and meshed together as a collective effort. Therefore, we will be using both individually and collectively assigned tasks to complete this project. ***What happens if someone doesn't complete their tasks?*** If someone does not complete their tasks, we will have a group meeting about the possibility of reporting that they did not contribute their equal share of work. If this is unable to be resolved, we will escalate the issue to Cosimo. To prevent this issue from occurring, we have agreed to maintain honest and frequent communication within the group, and share the workload if anyone is struggling to complete a task. ***Will you agree on a time line for set tasks?*** Yes, timelines will be set during our meetings and agreed upon by all parties. ***How often do you meet? Does everyone need to attend every meeting?*** We will have one in-person meeting and one online meeting per week. Everyone must do their best to attend all meetings, and must give advance notice to the group if they cannot attend. They must read the meeting minutes to stay up to date. ***What will happen if someone doesn't attend a meeting?*** If someone misses a meeting without notice, we will reach out to them and discuss this. We will ensure they read the meeting minutes and are clear on any future tasks. If someone misses several meetings in a row without explanation or notice, we will have a group

	discussion about the possibility of reporting that they did not contribute their equal share of work. We have set an expectation that all queries must be responded to within 2 days unless reasonable warning is given. If people are being unresponsive, we will again consider reporting that they have not contributed their fair share.
Agenda item	Schedule for meetings and availability
Presented by	Trieu
	Recurring weekly face to face meeting to take place on Wednesday 10-11AM. ☑ Teams meeting to occur on an as needed basis. Time to be determined. PM Teams Meeting - When2meet

Meeting 2

Agenda (list prior to meeting):

- Discussion of selected project
- Division of tasks
- Reach out to BNC to see how willing they are to support us in the project and give us additional information
- Go through documents available and ascertain what additional documents are required

Meeting date	8/3/23 10:00AM
Next meeting	15/3/23 10:00AM
Attendees	☑ Adarsh ☑ Fatima ☑ Nikki ☑ Rayhan ☑ Trieu ☑ Ben
Absent	None
Signed	*AN, FA, NO, RS, TH, BM*
Chairperson	Trieu
Notetaker	Nikki
Agenda item	Decision for additional ad hoc Teams meeting
Presented by	Trieu
	Time slots available are Tuesday and Thursday 8-9pm, and Saturday 11am-2pm. Decision is that Saturday 11am will be the recurring back-up meeting slot. The need for this meeting will be decided in the Wednesday meeting prior.
Agenda item	Discussion of selected project
Presented by	Trieu
	• Everyone should make themselves familiar with the project and documentation/publications available. • We will divide work among the group by the stages of the project management lifecycle. There will be one member allocated to the concept stage, 2 to the planning stage, 2 to the execution stage, and 1 for the finalisation stage. • Scope of documents available online were explored, seems to be a lack of documents regarding project execution and budget.
Agenda item	Communication with project managers
Presented by	Nikki
	☑ Send them an email today to introduce ourselves and see whether they would be willing to cooperate with us to send us required documents. Include a general request for execution/progress documents, and budgets. Also see who would be the best contact going forward. Email draft:

	☑ reception@bne.com.au LinkedIn contacts: ☑ Carl Krueger – Head of Major Projects at BAC ☑ Kaushik Nandlal – Project Manager at BAC ☑ John Kelleher - Senior Project Manager ☑ Thomas Parry – Project Director
Agenda item	Go through documents available and ascertain what additional documents are required
Presented by	Ben
	A lot of documentation available about concept and planning stage, some information about execution and final stage. We need to get more information about budget and costing. ☑ Create a shared folder to hold all documents found, then individual folders for each stage of the project life cycle GENG5505 Project Documents • Concept - Rayhan • Planning - Trieu, Fatima • Execution - Nikki, Adarsh • Finalisation - Ben

Meeting 3

Agenda (list prior to meeting):

- Discuss meeting with Kaushik (BAC project manager)
- Discuss documents found for each stage of the project life cycle
- Discuss what documents we still need for each stage
- Start looking at writing section A - case study
- Reminder of meeting decorum

Meeting date	15/3/23 10:00AM
Next meeting	22/3/23 10:00AM
Attendees	☑ Adarsh ☑ Nikki ☑ Rayhan ☑ Trieu
Absent	☐ Ben ☐ Fatima
Signed	*AN, NO, RS, TH*
Chairperson	Rayhan
Notetaker	Trieu
Agenda item	Discuss meeting with Kaushik (BAC project manager)
Presented by	Trieu
	Please see this link for notes from meeting 15/3/23 7:30AM Key points: • Kaushik will try to trickle some information to us today and aim to have the requested documents to us by Monday. • They would like to review our report, so we need to be really organised in order to get it to them in time for them to review before we submit • Focus on finding out what specific information and documents we need after reviewing what Kaushik is able to obtain for us. For further information, he wants us to send him pointed requests.
Agenda item	Discuss documents found for each stage of the project life cycle
Presented by	Nikki
	All documents saved in shared OneDrive folder. There is some overlap in the project life cycle stages that the documents refer to. Upon review, the documents we have may not be completely suitable for in depth analysis, so we need to source more.
Agenda item	Discuss what documents we still need for each stage
Presented by	Rayhan
	There's insufficient information at this stage to discuss. We will discuss again after Kaushik sends us the documents he can.
Agenda item	Start looking at writing section A - case study

Presented by	Nikki
	We should start working on writing section A now. We'll begin with writing a summary of everything we know, then cut things out if they don't end up being relevant for section B and C Refer to Ben's document for an idea of the structure: GENG5505 - Case Study Overview - WIP Discussed the possibility of us divvying up all the documents we've found and each member read it, then make notes of relevant information to be used to write up section A These group members will be responsible for writing the following parts of section A: • Background and goals - Adarsh and Nikki • Timeline - Trieu • Stakeholders (investors, surrounding neighbourhood) - Rayhan Referencing to be done with Microsoft Word inbuilt referencing function Aim to complete section A by next Wednesday
Agenda item	Reminder of meeting decorum
Presented by	Nikki
	Please remember to let the group know beforehand if you are unable to attend scheduled meetings. If you are unable to make it, but have something contribute please distribute it to the group. If you are running late, please let us know as well.

Meeting 4

Agenda (list prior to meeting):

- Review of section A
- Discuss documents received from Kaushik
- Decide what part of NPR project we will focus on
- Discuss our plan for section B and C - what we will focus on in the coming weeks and how we will split up the work

Meeting date	22/3/23 10:00AM
Next meeting	29/3/23 10:00AM
Attendees	☑ Fatima ☑ Nikki ☑ Rayhan ☑ Trieu
Absent	☐ Adarsh ☐ Ben
	FA, NO, RS, TH
Chairperson	Fatima
Notetaker	Trieu
Agenda item	Review of section A
Presented by	Fatima
	Look at incorporating Adarsh's contribution to the background into Nikki's write up on the background. Maybe some of the numbers included will make the background more quantifiable. Trieu to write up budget section with the limited information that we have. If any more information comes to light, we can incorporate it. We are still waiting on Kaushik to get approval to share budget documents. To do ☑ Everyone to review each other's sections. Make changes and add comments, making sure to turn on Track Changes in Word. The person who wrote the section will decide what changes to finalise. To be done by the next meeting. In light of today's practical class, there are some things we need to add to section A ☑ All the project competencies ☑ What issues were found - to be analysed in section B
Agenda item	Discuss documents received from Kaushik
Presented by	Trieu
	Project Management Plan Stakeholder Engagement Plan Risk Register Inspection and Test Plan - Dryandra Road Drainage (roads)

	• What they will inspect prior to constructing the Dryandra Road • More part of planning We are missing documents on execution and finalisation ☑ Trieu to email Kaushik for these documents
Agenda item	Decide what part of NPR project we will focus on
Presented by	Nikki
	Dryandra Road Works Contract
Agenda item	Discuss our plan for section B and C - what we will focus on in the coming weeks and how we will split up the work
Presented by	Rayhan
	Divide the competencies up between each member. Randomly allocated by an online generator. *Stakeholder, scope, time, cost, quality, human resource, communications, risk, procurement, integration* • Stakeholder and communications - Nikki • Scope - Adarsh • Time - Ben • Cost and integration - Rayhan • Risk and quality - Fatima • Human resource and procurement - Trieu <u>Tasks:</u> If we don't have much information in our areas, then please ask other members who have larger sections if they need help with something. Review documents relating to our assigned competencies Identify and analyse any problems encountered If there aren't any problems identified, then see how what was done could be enhanced to match best practice. Bear in mind the stages of the project lifecycle when doing analysis so we can fit them into those sections later (i.e. Concept, planning, execution, finalisation) To do: ☑ Identify all the problems in your competency area and make notes on them by the next meeting so we can discuss it together as a group ☑ Check in with Nikki on Monday

Meeting 5

Agenda (list prior to meeting):

- Discuss the issues/problems identified in our assigned project competencies.
- Determine which of the issues discussed above are key issues to focus on in section B and C.
- Review section A in light of what we've decided to analyse. What additional information needs to be included (e.g. We haven't included all the project competencies yet, and what happened with the main issues that we're raising in section B and C)?
- Discuss expectations with regards to timeline for finalising drafts/reviews/final submission; include discussion of availabilities over study break

Meeting date	29/3/23 10:00AM
Next meeting	5/4/23 10:00AM
Attendees	☑ Adarsh ☑ Fatima ☑ Nikki ☑ Rayhan ☑ Ben
Absent	☐ Trieu
	AN, FA, NO, RS, BM
Chairperson	Rayhan
Notetaker	Nikki
Agenda item	Discuss the issues/problems identified in our assigned project competencies.
Presented by	Ben

	Ben: Timeline
	• Two sets of gantts and another timeline in another document
	  ○ Showing updates/how timeline matures
	• First was made prior to GFC- meant to be finished in 2015
	• Different revised gantts which reflect this challenge
	• Evidence of consistent revisions
	• Inaccurate initial timelines
	  ○ Potentially due to not engaging SMEs
	  ○ How project responded to GFC as major disruption
	  ○ Operation and readiness- when COVID hit, parts were sped up
	• Ben will send document with all details
	Nikki: Stakeholders and Communication
	• Gap between when stakeholder engagement activities were completed and when project was completed- should have repeated
	Rayhan: Cost & Integration
	• Risk matrix - 'applying common sense'- potential casual/flippant attitude/not being thorough
	Adarsh and Fatima will identify problems by Friday. Ben will assist with Scope issues.
	Trieu sent issues through yesterday.

	Difficulties finding problems related to just DRW, we may need to expand to the whole project • Particularly regarding documents provided by Kaushik
Agenda item	Determine which of the issues discussed above are key issues to focus on in section B and C.
Presented by	Adarsh
	• Only have limited problems identified, will run with all identified currently
Agenda item	Review section A in light of what we've decided to analyse. What additional information needs to be included (e.g. We haven't included all the project competencies yet, and what happened with the main issues that we're raising in section B and C)?
Presented by	Nikki
	• Individuals who identified issues to come up with information that needs to be put in section A and complete • Section A to stay as WIP while we identify competencies
Agenda item	Discuss expectations with regards to timeline for finalising drafts/reviews/final submission; include discussion of availabilities over study break
Presented by	Nikki
	• Submit report Kaushik on April 10th (1 week before due date) • Also when draft should be completed • Have report finalised by April 15th • Commence work on presentation during study break • Nikki away 14-16th and will not be available to work
Agenda item	To do
Presented by	Fatima

	• By next Wednesday:
	  • All group members to begin writing up problems within their own competencies identified
	  • Write section to insert in to Part A regarding competency
	  • Have notes/skeleton on Part B analysis- break down into life cycle
	  • Begin writing recommendations
	• Will regroup on Friday after Adarsh and Fatima have had a chance to identify issues

Meeting 6

Agenda (list prior to meeting):

- Debrief meeting with Kaushik this morning
- Discussion of Section A - propose changing it so there's less focus on the overall project and more focus on DRW
- Discussion of Section B - progress update, what issues have we identified
- Discussion of Section C - progress update
- List of what documents are required from Kaushik
- Additional meeting this week, possibly on Saturday

Meeting date	5/4/23 10:00AM
Next meeting	8/4/23 2:00PM
Attendees	☑ Adarsh ☑ Fatima ☑ Nikki ☑ Rayhan ☑ Trieu ☑ Ben
Absent	Nil
Signed	*AN, FA, NO, RS, TH, BM*
Chairperson	Adarsh
Notetaker	Trieu
Agenda item	Debrief meeting with Kaushik this morning
Presented by	Trieu
	A lot of insight provided regarding the DRW that wasn't found in the documents we've received so far. A major issue was managing contractors, subcontractors and quality. This should be where we direct our efforts in section B. Trieu's notes in this link: Meeting with Kaushik 4/4/23 7:00AM
Agenda item	Discussion of Section A - propose changing it so there's less focus on the overall project and more focus on DRW
Presented by	Nikki
	All group members agreed to changing Section A to focus less on the overall NPR project and more on DRW. ☑ Nikki has already rewritten a lot of it, but is just waiting on the timeline and stakeholder management plan from Kaushik. She will circulate it to the group by tomorrow night.
Agenda item	Discussion of Section B - progress update, what issues have we identified
Presented by	Fatima
	The structure of Section B going forward will be as follows: • Project lifecycle stage (Subheading 1) ○ Competency (Subheading 2)

	▪ Problems and analysis (Subheading 3) The focus of Section B will be on the following competencies, as there is limited information on issues arising in the other competencies: • Quality • Procurement • Human resource • Stakeholder • Communication • Time Allocation of work for section B is as follows. As there are less competencies and a lot of overlap between the competencies, we will work in pairs. • Ben and Fatima - Quality, time • Trieu and Rayhan - Procurement, HR • Nikki and Adarsh - Stakeholder, communication There are no important issues identified in cost, scope and integration, so we won't focus on this ☑ Ben will create a new live document for us to collaborate on.
Agenda item	Discussion of Section C - progress update
Presented by	Adarsh
	Section B still to be finalised, so we will discuss this at a later date.
Agenda item	List of what documents are required from Kaushik
Presented by	Rayhan
	Our last request to Kaushik for documents. We have decided that documents should be targeted and relevant to our respective sections, as our time is limited. These are the documents to be requested: • Stakeholder engagement plan for phase 2 • Gantt chart time plan for DRW ☑ Trieu to email Kaushik to request the documents above
Agenda item	Additional meeting this week
Presented by	Ben
	Teams meeting booked for Saturday 2PM. If we feel like it's needed, we can change it to an in person meeting. Aim to have Section B and C completed prior to the meeting so we can discuss our progress

Meeting 7

Agenda (list prior to meeting):

- Progress update on document
- Decide on deadline for submission to Kaushik

Meeting date	8/4/23 2:00PM
Next meeting	12/4/23 10:00AM
Attendees	☑ Adarsh ☑ Fatima ☑ Nikki ☑ Rayhan ☑ Trieu ☑ Ben
Absent	Nil
Signed	*AN, FA, NO, RS, TH, BM*
Chairperson	Rayhan
Notetaker	Trieu
Agenda item	Word limit
Presented by	Nikki
	All group members agreed on 6300 (6000 +/- 5%) words as a hard upper limit. We will try to keep to the suggested word counts in each section, as that gives us a guide as to where we should be focusing our efforts.
Agenda item	Deadline for submission to Kaushik
Presented by	Nikki
	All group members agreed to have the body of report ready to be sent to Kaushik by Monday night.
Agenda item	Section B and C
Presented by	Rayhan
	☑ Section B: Nikki to write introduction on project life cycle changes. Together as a group, we walked through section B and C of the document, giving each other feedback and making comments on actionable items. Section C will require much more collaboration between group members due to how highly related the recommendations will be to all the competencies. The structure of Section C has been discussed, and we will tentatively go forward by discussing each recommendation as a whole and relating it back to the issues it will resolve in Section B. We will review this approach if we feel this isn't working.

Agenda item	Missing elements
Presented by	Ben
	As part of the progress update, these elements are yet to be completed. • Executive summary • Section B introduction • Conclusion • Appendix - documents received from company and online • Referencing - making sure it is all uniform (Harvard), consistent with how we're referencing in-text • Agenda and meeting minutes (Trieu will sort these out) • Reflection

Meeting 8

Agenda (list prior to meeting):

- Discussion of Kaushik's feedback on our report

Meeting date	12/4/23 10:00AM
Next meeting	19/4/23 10:00AM
Attendees	☑ Adarsh ☑ Fatima ☑ Nikki ☑ Rayhan ☑ Trieu
Absent	☐ Ben
Signed	*AN, FA, NO, RS, TH*
Chairperson	Nikki
Notetaker	Trieu
Agenda item	Discussion of Kaushik's feedback
Presented by	Nikki
	Kaushik's main concern was the majority of the content of our report is based on the Lessons Learned document, which is based on opinions from some people involved in the project and does not represent the company's views as a whole. People were interviewed in 2018, when emotions were still running high from the project. The opinions also do not reflect the actual progress and outcome of the project. As a result from our reliance on the Lessons Learned document, the wording of our case study is viewed by BAC as highly emotive, which may open BAC up to legal action for defamation if the case study gets distributed to external entities (MCD is a big company after all). We need to adjust our report to make it more scientific and objective, speaking to the project itself rather than the emotions associated with it. ★ UPDATE 3:00PM - The Lessons Learned document is redacted and unable to be used for the project Kaushik has sent through a copy of our draft that he has added comments and annotations on. Anything crossed out must be removed, and comments regarding inaccurate content must be rectified. In response to Nikki and mine's suggestion of including a disclaimer, Kaushik mentioned we can include it but it doesn't remove the risk of legal action as we would have had to get our information from somewhere. TO DO: ☑ Remove BAC logo from report ☑ Trieu and Nikki to add some more information to Section A ☑ Everyone to make changes to their sections as per comments above and in document

	☑ Make a note of any issues where we need a source (Kaushik said he's happy to give us information so we can use him as a reference) or if there's any information we need clarification on. ☑ Everyone to let Trieu know of any questions or any information Kaushik by Friday afternoon, so he can send an email to Kaushik Friday evening to request the additional information needed
Agenda item	Extension
Presented by	Trieu
	Agreed as a group to request extension (1 week on both report and presentation) ☑ Trieu to email Cosi ★ Extension granted 12/4/23

Meeting 9

Agenda (list prior to meeting):

- Finalisation of the content in our written report
- Sign cover sheet
- Allocation of items still missing (Executive summary, Conclusion, Appendices, References, Meeting minutes, Reflection)

Meeting date	19/4/23 10:00AM
Next meeting	
Attendees	☑ Adarsh ☑ Fatima ☑ Nikki ☑ Rayhan ☑ Trieu ☑ Ben
Absent	Nil
Signed	*AN, FA, NO, RS, TH, BM*
Chairperson	Fatima
Notetaker	Trieu
Agenda item	Finalisation of the content in our written report
Presented by	Nikki
	• Discussed current draft and what needed to be added, removed and moved around in Section A, B and C • Make sure we add justifications to our recommendations in Section C • Agreed to have draft copy ready to be sent to Kaushik by COB today • Agreed to complete written report by Friday ☑ Trieu to send Kaushik a final draft at 5PM today ☑ Adarsh to complete executive summary ☑ Formatting to be consistent font and size ☑ Heading numbers to be fixed ☑ Allocation of work for presentation
Agenda item	Sign cover sheet
Presented by	Trieu
	Trieu, Nikki, Ben and Rayhan have signed the cover sheet. ☑ Adarsh and Fatima to add their signatures

7.8.1. Group Member Reflections

Nicole

As a person who falls primarily under the 'Dominance' category in the DISC personality assessment, and a cross-over between 'Type A' and 'Type B' personality types, I adopted a position of partial leadership within the group. We made decisions by group consensus, but I believe helped direct meetings and discussions so we remained on track and focussed on our end goal. My desire to get along with everyone was sometimes at odds with the need to keep the assignment progress on track and ensure agreed-upon deadlines were kept. This was a very good learning opportunity for me. I tried to use my outgoing personality to encourage team members and keep morale high. All group members collaborated throughout the report, but my primary contributions were to the background in Section A, and issues and recommendations under Stakeholder and Time management competencies.

Trieu

Initially my lack of engineering background was challenging and made me feel unconfident about this assignment, however my team members helped me understand the technical aspects, which I am grateful for. The course material also helped provide me with a better understanding of project management and the business aspects that I previously have not had much experience in. Although the IT industry employs more of an agile project management style, I can appreciate how the project management competencies are still relevant in this methodology.

In terms of teamwork, throughout the assignment I had the opportunity to take on some leadership responsibilities, which I have previously been hesitant to do. This experience enabled me to build confidence in my leadership skills and I intend to continue developing them in my professional career. A time when I felt our group was in the 'performing' stage of team development was when we faced a major setback and had to request an extension. During this stressful time we all diligently worked together to deliver a high quality assignment, and I believe the challenge improved our communication and made us closer as a team.

Adarsh

Since I am new to this educational system, working in a group like this was extremely beneficial. Collaborating with people from different backgrounds was my first time ever and each member of our group brought unique talents and abilities to the table that were valuable to the team. Meetings were happening every week. The report was broken up into several sections. However, there were clearly challenges and space for improvement. I, for one, occasionally struggled to prioritise tasks and manage my time well, which led to some delays in finishing many tasks.

Looking back on this project, I can see areas I might have done better, and I'll use those lessons in my future work. I'm grateful for the chance to work with such passionate and imaginative people, as well as for the knowledge and experience gained. Overall, I believe that this project provided excellent learning opportunities and demonstrated the value of teamwork.

Rayhan

Having group randomly with strangers really got me thinking into how I would fit in in a real engineering scenario. I had doubts on how we would tackle this assignment and how I would play a part in this. Fortunately, everyone was supportive to each other and we made a great team despite of our troubles.

I discovered that collaborating may be my preferred working style. It helped me discuss and develop my ideas further, which helped me get rid of mistakes and gave me a direction for my tasks, which are procurement and HR competencies. Another thing I learnt was the importance of asking for help. Sometimes, it felt as if I was the only clueless one looking at the technical documents and it discouraged me to ask important questions (out of fear of being bothersome). Regardless if the whole team is also in the same boat, I should set away my doubts and prioritise getting my tasks done first. I also learnt to be mindful with our words, as our report was deemed too emotive by the company we worked with. Proof reading maybe a seemingly trivial task, but in our case, it could have prevent so much debacles.

Overall, this was an insightful teamwork experience, and despite of the struggle, I really appreciate this opportunity, and everyone who made this teamwork enjoyable!

Benjamin

At first the idea of working with industry to complete this project concerned me, especially since their effort and level of collaboration entirely depended upon their willingness to help and that as a group of students we had no leverage over the company to aid in our project whatsoever. However, that being said, I was pleasantly surprised with how accomdating the team at BNE were throughout our project. The level of professionalism our group conveyed throughout our communications with BNE was certainly a contributing factor to why they were so helpful. This served as an important reminder to myself regarding how crucial professionalism in the communication process and how it garners a level of mutal respect between parties.

Furthermore, this group project took me outside of my confort zones by randomly allocating group members. This mix-up really highlighted areas of improvement for myself. When working with friends we often become accustomed to how each other work and what strong-suits we have, thus becoming complacent to our areas of weakness. However, when working with new team members you have to readdress your strengths and weaknesses and manage people accordingly. For instance, an area in which I can imporove is with respect to managing team member constraints, I'm currently working full-time FIFO whilst studying which means I have to be very attentive to my schedule and communicate my constraints far in advance.

Additionally, effective communication is critical to the success of any collaborative task and this project was the first time I've had experience with using one-note in a group setting for meeting minute notes. This proved to be a fantastic tool due to how easily accessible it was and the integration with Microsoft teams, so much so that going forward I will be implementing this in future group work settings.

Fatima

I and my team members worked on the Dryandra Road Works project. At first, I was a bit skeptical because we were all from different backgrounds and I wasn't sure how it would turn out. As the project began, I was privileged with the opportunity to learn cooperatively and establish group relationships with my team. My task on the project was to work on quality management analysis on the project. During the finalization of the project, we had difficulties which that necessitated

numerous adjustments, which was stressful. Despite the sadness, the team members' encouragement ultimately led to the project's successful completion.

I also learned how to work peacefully with other people and respect their opinions which I will be applying to other future group projects.