CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Forest Springs

24 Mar

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1 INTRODUCTION

The following Construction Environmental Management Plan (CEMP) has been prepared by Litoria Consulting on behalf of Kirkwood Road Community Centre Pty Ltd for the construction of a mixed-use development including residential and commercial footprints on land described as Kirkwood Road, Kirkwood (Lots 243 & 301 on SP174113 and Lot 913 on SP281138). The lots are the undeveloped land parcels of the 'Forest Springs' development in Gladstone, Queensland. Figure 1 shows a current aerial photograph of the site.

The objectives of the CEMP are to:

- Ensure the works avoid and protect environmental values of the site;
- Where impacts are unavoidable, mitigate and manage potential environmental impacts during the construction of the project;
- Develop a procedure for auditing compliance and environmental management performance;
- Ensure compliance with the proponent's statutory obligations;
- Ensure compliance with relevant approvals, including:
 - Development Permit for a Material Change of Use Impact Preliminary Approval - Material Change of Use (Change of Zone from Urban Expansion to Residential) and Development Permit - Reconfiguring a Lot [5 into 643 Lots (Stages 4-21)] (Modified decision notice - DA/10762/2008, approval decision date 1 July 2016).
 - Changed concurrence agency response (responsible entity) (Decision notice - SPD-0615-018665, approval decision date 23 July 2015)
 - Development Permit for a Material Change of Use Impact Preliminary Approval – Change in Zone (Urban Expansion to Commercial Zone) Showrooms (44,000m² in 6 Phases) and Development Permit – Reconfiguring a Lot (2 into 5 and Road Reserve in 4 Stages) (Negotiated decision notice – DA/1008/2014, approval decision date (7 December 2017).

The CEMP has been prepared in accordance with the relevant approvals and the Australian Government's Environmental Management Plan Guidelines (Commonwealth of Australia 2014). The CEMP is divided into the following sections:

- Conditions of approval;
- Project description;
- Objectives;
- Environmental management roles and responsibilities;
- Inspections, monitoring, auditing and reporting;
- Environmental training;
- Emergency contacts and procedures;
- Potential environmental impacts and risks;
- Environmental management measures;
- Audit and review; and,
- Glossary of terms.





FIGURE 1: AERIAL PHOTOGRAPH OF THE SITE (NEARMAP 2022).



2 CONDITIONS OF APPROVAL

Table 1 outlines the relevant conditions of the relevant approvals, along with the sections of this CEMP that address each of the conditions. Copies of the approvals are attached in Appendix 1.



TABLE 1: RELEVANT APPROVAL CONDITIONS.

Approval	Condition	Requirement	Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
Preliminary Approval (DA/10762/2008)	18	A minimum area of 10% of the overall site of fair and average land be dedicated to Council as parkland at the time of development of the relevant section. Proposed parkland areas are to be appropriately linked with the existing Open Space network and generally in accordance with the indicative Open Space corridors in the proposal plan and Landscape Intent for the site, with the incorporation of both active and passive elements on either side of the development i.e. contained on both the eastern and western sides of the development.	-	This condition has been included as a design consideration of the development and is therefore not relevant to this CEMP.
	19	Clearing of vegetation is to be undertaken on a staged basis only and only following operational works approval for an individual stage.	Section 10.1.1, Table 9	The Vegetation Management sub- plan addresses management practices to identify and manage staged vegetation clearing and ensures the correct approvals are obtained prior to vegetation clearing.
Reconfiguring a Lot Component (DA/10762/2008)	20	No clearing of the lots is permitted unless otherwise approved by Council as part of an Operational Works application.	Table 9	The Vegetation Management sub- plan addresses management practices to ensure the correct approvals are obtained prior to vegetation clearing.



Approval	Condition	Requirement	Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
	21	 A Stormwater Management Plan including an erosion and sediment control plan devised using the principles set out in the IEAust (Qld) publication "Erosion and Sediment Control Engineering Guidelines for Queensland Construction sites, June 1996" shall be submitted prior to construction or earthworks commencing. The plan is to comply with the following points: The Plan shall report on environmental sites constraints, including soil erosion hazard, and provide design details of measures to prevent soil erosion, mitigate flow rates, and capture mobilised sediments. It shall predict soil loss for the 1 in 2 year ARI storm event. It shall include a contour diagram(s) showing excavation and stockpile sites, roads, trenches, culverts, drains, service utility trenches, the siting of all pollution control measures, and showing site constraints including streams and drainage lines and soil/sub-soil type distribution. For the purpose of controlling sediment and soil nutrients, all contaminated runoff must be drained to a Temporary Sediment Retention Pond during both the land development/subdivision phase and the building phase until 80% of the subdivision is permanently occupied. All areas of the site not subject to erosion, contamination or disturbance must have provision for all runoff to be diverted away from the approved 	Section 10.1.4, Table 13	The Water Quality Management sub-plan addresses stormwater, erosion and sediment control requirements. This CEMP and any relevant sub-plans are to be updated as required to reflect any requirements of specialist reports.



Approval	Condition	Requirement	Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
		 pollution treatment measures and facilities, in a manner, which does not cause scouring, or erosion. Access to the site must be restricted to a 15 metre long 3 metre wide stabilised construction entrance. A corduroy or metal grid shall be provided to help shake mud from vehicle tyres. Discharge to waters from any sediment retention pond shall not contain greater than 50 milligrams per litre of non-filtrable residues. Vegetated areas not planned for clearing or construction activities shall be kept fenced or taped off to minimise vehicle ingress. All excavated or removed topsoil and other resources such as woodchips and mulches shall be retained and protected on site for later stabilisation projects. The sediment retention pond must be maintained on the site throughout the land development/subdivision phase and the building phase until a minimum of 80% of the subdivision is permanently occupied except where a water pollution control pond/wetland has been constructed to take over the role of the sediment retention pond. A suitably qualified site supervisor shall be appointed to supervise implementation of the Stormwater Management Plan and shall inspect the site on each day work is taking place and log observations of any deficiencies. Such log shall be made available for inspection to any authorised officer on demand. 		



Approval	Condition	Requirement	Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
	26	Appropriate erosion and sedimentation control measures are to be utilised during any Operational Works carried out in associated with the Reconfiguring a Lot.	Section 10.1.4, Table 13	The Water Quality Management sub-plan addresses erosion and sediment control requirements.
	31	A stormwater management plan covering issues of water quality, quantity and maintenance in accordance with Gladstone Stormwater Management Strategy - June 2000 is to be submitted with the application for operational works.	Section 10.1.4, Table 13	The Water Quality Management sub-plan addresses stormwater management requirements. This CEMP and any relevant sub-plans are to be updated as required to reflect any requirements of specialist reports.
	32	Water sensitive urban design solutions are to be implemented and the long-term effectiveness of the proposal be modelled by a suitably qualified environmental engineer. Use of the CRC's 'Music' program (or equivalent) is recommended.	-	This condition has been included as a design consideration of the development and is therefore not relevant to this CEMP.
Vegetation management (Changed concurrence agency response (responsible entity) –	9	Any native vegetation may only be cleared for urban purposes.	-	This condition has been included as a design consideration of the development and is therefore not relevant to this CEMP.
SPD-0615-018665)	10	No clearing of remnant vegetation containing endangered regional ecosystem is to occur within the application area as a result of this approval.	Section 10.1.1 Table 9	The development is located outside of areas containing remnant vegetation containing endangered regional ecosystems. The Vegetation Management sub-



Approval	Condition	Requirement	Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
				plan addresses management practices to identify and manage vegetation clearing limits.
	11	In the absence of an approval, clearing other than for infrastructure associated with the MCU and RaL, is to occur only where exempt by Schedule 8 of the Integrated Planning Act 1997.	Table 9	The Vegetation Management sub- plan addresses management practices to ensure the correct approvals are obtained prior to vegetation clearing.
	12	 No built infrastructure or allotment boundaries are to be located in or within 10 metres of: (a) an area shown on a certified PMAV map as a category A area; or (b) an area shown on a certified PMAV map as category B area and containing an endangered regional ecosystem. 	-	This condition has been included as a design consideration of the development and is therefore not relevant to this CEMP.
	13	Future Fire management associated with the application will be undertaken in accordance with the Bushfire Management Plan, Proposed Development of Kirkwood Road & Parsloe Street, Kirkwood QLD (Lots 1 – 3 on SP188635 and Lot 243 & 301 on SP174113), 26/06/2008, Orogen Pty Ltd, Report no. 408011_REO_002_v2.	-	This condition has been included as a design consideration of the development and is therefore not relevant to this CEMP.
Part B - Preliminary Approval (DA/1008/2014):	20	Erosion and sediment control measures are to be implemented generally in accordance with the principles / practices described in the publication	Section 10.1.4, Table 13	The Water Quality Management sub-plan addresses erosion and sediment control requirements.



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Approval	Condition	Requirement	Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
		IECA Best Practice Erosion & Sediment Control – November 2008. International Erosion Control Association (Australasia), Picton NSW.		
	21	A site specific Erosion and Sediment Control Plan (ESCP) must be submitted with the Development Application for Operational Works for each stage of the development. The ESCP must be prepared, certified and monitored by a RPEQ experienced in this type of work. A copy of the ESCP (current at the time of request) must be forwarded to Council (on request) at any time during the course of construction.	Section 10.1.4, Table 13	The Water Quality Management sub-plan addresses erosion and sediment control requirements. This CEMP and any relevant sub- plans are to be updated as required to reflect any requirements of specialist reports.
	29	As part of any earthworks and vegetation clearing, the removal of vegetation is only to occur following the approval of a Development Application for Operational Works. Measures will be taken to minimise the area of land impacted by earthworks and clearing for the development of each stage of the commercial centre.	Section 10.1.1, Table 9	The Vegetation Management sub- plan addresses management practices to identify and manage vegetation clearing limits and ensures the correct approvals are obtained prior to vegetation clearing.
	39	As part of Operational Works for the first Precinct, the design and construction of stormwater management works (quantity and quality) are to be carried out generally in accordance with the proposed Flooding and stormwater Management Report (version 1 prepared by Cardno dated 12	Section 10.1.4, Table 13	The Water Quality Management sub-plan addresses stormwater management requirements. This CEMP and any relevant sub-plans are to be updated as required to reflect any requirements of specialist reports.



Approval	Condition	Requirement	Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
		 March 2015), and the amendment/s in compliance with the following requirements: a) All adverse flooding impacts due to the development (including velocity depth and duration) at the 1% AEP design event are to be contained to within the Kirkwood Road Commercial Centre and the publicly held drainage network (drainage or road reserves, stormwater drainage easements). b) Provide WBNM results at CA9 and FA6 in addition to provided results. The amended Flooding and Stormwater Management Report shall be submitted for 		
		approval prior to the lodgement of the first Development Application for Operational Works.		
	40	The Applicant is to submit (for approval) a site Based Stormwater Management Plan for the total development as part of the first Operational Works Development application. The plan must address both quantity and quality aspects of stormwater management and be certified by a RPEQ experienced in this type of work. The plan is to be generally in accordance with the amended Flooding and Stormwater Management Report. Further details to be provided for stormwater quality and	Section 10.1.4, Table 13	The Water Quality Management sub-plan addresses stormwater management requirements. This CEMP and any relevant sub-plans are to be updated as required to reflect any requirements of specialist reports.



Approval	Condition	Requirement	Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
		quantity devices including sizing, location and types.		
	41	For the SBSMP and stormwater design the responsible RPEQ shall certify that: "I am aware that the Gladstone Regional Council may rely upon the content and findings of this report including the recommendations, conclusions, results, calculations, plans, graphs, tables, attachments etc., for the purposes of development assessment. In my opinion, the Council can rely upon the information contained within the report and there are no reservations or qualifications in respect to the information provided other than as set out below and previously agreed to in writing with Council's Director Engineering Services. I confirm that the development site is above the controlling 1% AEP flood level, that there will be no worsening of stormwater runoff from the site as a result of the proposed development of the site and that a "lawful point of discharge" as defined in Section 3.4 of the Queensland Urban Drainage Manual, 3rd edition 2013 has been achieved for all areas of the site."		This condition has been included as a design consideration of the development and is therefore not relevant to this CEMP.
	56	Where waste is a contaminant, waste must not be released to the environment where the release will	Section 10.1.8, Table 16	The Waste management sub-plan details all waste management requirements.



Approval	Condition	Requirement	Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
		or may cause environmental harm or environmental nuisance, unless such release is authorised.		
	57	The Applicant is required to obtain a trade waste permit to discharge trade waste to the Sewer in accordance with Councils Trade Waste Approval Process prior to Plumbing Final being issued.	Section 10.1.8, Table 16	The Waste management sub-plan details all waste management requirements.
	58	 A Waste Management Plan is to be submitted and approved by Council prior to the commencement of any operational or building works on site. Plans are to include but shall not be limited to specifications and reports containing the following information: a) Details of the proposed development; b) Plan showing street location and layout; c) Volume of waste to be generated and frequency; d) Number, type, size and service frequency of waste and recycle bins in compliance with the relevant use; e) Location of bin storage and wash facilities and lighting for after dark access; f) Screening of storage areas so they are not visible from the street; g) Washdown area that is imperviously paved, with a hose cock and hose fitted in close proximity to the enclosure and drained to sewer via a legal connection; h) Waste collection vehicle movements to, from, and throughout the site noting that should on-site collection be proposed, then the collection vehicle must enter and exit the site in forward gear; 	Section 10.1.8, Table 16	The Waste management sub-plan details all waste management requirements. This CEMP and any relevant sub-plans are to be updated as required to reflect any requirements of specialist reports.



Approval	Condition	Requirement		Plan reference	Demonstration of how the plan addresses requirements and commitments made in the plan to address condition requirements
		 i) Procedulimited loading, location j) Pavemento to hand site coll k) Waste Sconfirm arrange 	ire for waste removal, including, but not co, vehicle description (e.g. Front /side loading/rear loading) and collection ; int details on site to ensure it is adequate le the weight of the garbage truck if on- ection is proposed; Service Provider correspondence ing waste removal and collection ments are satisfactory.		
		It should be n	oted that the following requirements		
		must be met f	or waste collection areas:		
		a) Clearl	y separated from parking bays and other		
		b) Clear arm; a	of any hinderance to servicing by a lifter		
		c) Clear and	of a footpath and a pedestrian access;		
		d) Not ir	front of a building entrance; and		
		e) Not b	locking the vision of vehicles using the or entering and exiting the site; and		
		f) Capa the c upor	ble of being serviced on site while ollection vehicle travels forward entry and exit.		



3 PROJECT DESCRIPTION

The 'Forest Springs' development involves urban land development within the Gladstone Regional Council local government area, Queensland. The proposed land use plan for Forest Springs includes a masterplan of residential community, commercial and landscaped open space areas. Development of the site commenced in 2010. The status of the development stages is set out below:

Stage	Property	Land use	Yield / lots	Status
1-2	Multiple (SP246178)	residential	111	Constructed, sold & registered
3	Multiple (SP 250657)	residential	70	Constructed, sold & registered
4	Multiple	residential	22	Constructed, sold & registered
5	Lot 912 SP 281138	residential	62	Works commenced
6 - 7	Lot 913 SP 281138	residential	118	Works not commenced
8/9	Lot 901 SP 235957	shopping centre	5,700 m ²	Works commenced
10	Lot 301 SP 174113	commercial centre	44,000 m ²	Works not commenced
11 - 20	Lot 243 SP 174113	residential	257	Works not commenced
21	Lot 301 SP 174113	residential	32	Works not commenced

TABLE 2: FOREST SPRINGS DEVELOPMENT STAGES.

As per the table above, Stages 1 to 4 of 'Forest Springs' have been developed under approvals issued. Works have substantially commenced in Stages 5, 8 and 9.

The balance land yet to commence development comprises Lot 913 SP 281138, Lot 301 SP 174113 and Lot 243 SP 174113 (Stages 6, 7, 10 and 11 to 21). It is anticipated that the Stage 10 commercial centre will be developed within the next year or two (subject to receiving approvals and complying with permit conditions). The remaining stages that accommodate the residential lots, i.e. Stages 6, 7 and 11 to 21, have no timeline to be developed, due to a depressed residential market in Gladstone. Any development of these stages is likely to be in substages and subject to market demand.

The proposed development of Stage 10 (the commercial centre) and Stages 6, 7 and 11 to 21 comprises:

- 57.07 ha commercial and residential development;
- 14.48 ha of open space; and
- 2.42 ha of drainage reserve.

The plan of development can be seen in Appendix 1.



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To facilitate the project, clearing of native vegetation is required. The extent of approved clearing can be seen in Figure 2. Spatial analysis indicates that the proposed direct impacts of the development include up to 52.16 ha of clearing of observed native vegetation, with 13.51 ha of observed native vegetation to be retained within the approved open space areas.



FIGURE 2: CLEARING AREA AND RETAINED VEGETATION.



4 OBJECTIVE

The objective of the CEMP is to ensure that all works comply with the relevant legislation and conditions of approval.

In carrying out their activities on site, all contractors must ensure that all reasonable and practicable measures are taken to prevent or minimise the likelihood of environmental harm being caused.

The CEMP provides contractors with guidance for their relevant activities and ensures that all works are managed to prevent and to minimise any adverse effects on the environment, including threatened fauna and their habitat. This will be achieved by identifying and reducing environmental risks, providing appropriate training for all contractors, and promoting environmental awareness of the project.

The CEMP covers all environmental aspects associated with the works, providing control measures to minimise adverse effects on the environment. Monitoring and reporting requirements, corrective actions and key responsibilities are also outlined.

The CEMP covers key environmental themes that will be the focus of management, as follows:

- Vegetation and fauna, including pest management;
- Water quality, including erosion and sediment control and stormwater management;
- Noise;
- Air quality; and,
- Waste management.

This CEMP aims to ensure that the information contained within this management plan is consistent with all conditions as set out in Section 2. Where the CEMP imposes a higher standard of environmental performance than the standard required under the conditions of this approval, the contractor or registered operator must follow the requirements as set out in the CEMP.



5 ENVIRONMENTAL MANAGEMENT ROLES AND RESPONSIBILITIES

Positive environmental outcomes are dependent on the clear and unambiguous assignment of accountability and responsibilities of key positions within the organisational structure. The contractor will be ultimately responsible for compliance with the CEMP and will oversee the implementation of the CEMP with the Site Environmental Manager (SEM) and sub-contractors.

The CEMP is to be implemented by all site personnel and contractors prior to and during the process of construction and is to be administered by the SEM or their agent, the contractor(s) responsible for the removal / clearing of vegetation and relevant construction works, revegetation / landscape contractor and a licensed Wildlife Spotter Catcher.

A copy of the CEMP, including the Personnel Register (Appendix 2), is to be maintained on site during construction phases, and where relevant, operation of the facility postconstruction. The Personnel Register is to be kept updated with any new contact information.

Environmental management and compliance with the CEMP will be overseen by the SEM.

5.1 OVERALL RESPONSIBILITIES

All site personnel are responsible for complying with the CEMP. Employees, contractors, sub-contractors and suppliers are required to:

- Take all reasonable steps to seek information on the environmental requirements of the project;
- Undertake all activities in accordance with the CEMP and any associated documents;
- Ensure that they are aware of the relevant person in charge of overseeing compliance with the CEMP;
- Supervise the environmental performance of each task against the CEMP;
- Report any activity which has, will have, or has the potential to cause environmental harm;
- Notify the SEM of any non-compliance with the CEMP;
- Complete pre-start checks and inspections of all equipment prior to works and to report any equipment defects;
- Ensure that they undertake any environmental training provided and understand their obligations under the CEMP and relevant legislation; and,



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• Complete the Personnel Register (Appendix 2) to acknowledge they have read and understood all aspects of the CEMP and the Environmental Inspection Checklist (Appendix 4) to acknowledge they have read and understood all aspects of the CEMP.

The CEMP will be included in all site inductions to ensure that employees, contractors, sub-contractors and suppliers are aware of their responsibilities.

5.2 SITE ENVIRONMENTAL MANAGER

The SEM is responsible for compliance with the CEMP and any relevant legislation. The SEM is responsible for:

- Maintenance, review and implementation of the CEMP;
- Auditing and compliance in accordance with the CEMP requirements;
- Assisting project personnel to understand their roles and responsibilities under the CEMP;
- Ensuring that adequate training has been provided to all site personnel;
- Carrying out regular inspections of work areas in accordance with CEMP and legislative requirements;
- Identifying environmental incidents or issues and implementation of management measures to avoid and minimise environmental harm;
- Being present on site during high risk activities, such as during clearing of vegetation, and;
- Maintaining environmental records.

SEM contact details can be found in the contacts list (Appendix 3).

If separate contractors will be responsible for various stages of the works, the CEMP is to be updated as required with details of the relevant SEM.



6 INSPECTIONS, MONITORING, AUDITING AND REPORTING

This section outlines the environmental inspections, monitoring, auditing, and reporting requirements for this project. These activities ensure the project is compliant with all federal legislative requirements and will ensure identification of all non-compliance issues.

Construction phases throughout the life of the project have been identified as:

- 1. Pre-construction;
- 2. Construction; and,
- 3. Post-construction.

All environmental management procedures and sub-plans within this CEMP relate to activities performed during all three phases of construction. All site personnel must make themselves aware of all environmental management procedures and sub-plans. All site personnel will receive training and inductions regarding environmental management plans prior to accessing the site

A copy of the CEMP, including the Personnel Register (Appendix 2) and Environmental Inspection Checklist (EIC; Appendix 4), is to be maintained on site during the construction phase of the development.

6.1 ENVIRONMENTAL INSPECTIONS

The SEM or delegate will conduct weekly environmental inspections to monitor and evaluate the effectiveness of on-site environmental controls.

Environmental inspections will be recorded using the EIC (Appendix 4) and will be used to record any maintenance or equipment defects. Inspection frequencies are listed in Table 3.

TABLE 3: ENVIRONMENTAL INSPECTION REQUIREMENTS.

Type of Inspection	Inspection Frequency	Form used
Active work sites	Weekly	EIC
Incident or Complaint	Event	Incident form
Non-compliance	Event	Incident form

6.2 ENVIRONMENTAL MONITORING

To ensure compliance with all aspects of the CEMP, environmental monitoring will be performed through each phase of construction, as set out in Table 4. Details for



environmental monitoring procedures are outlined within each of the respective environmental management sub-plans.

Construction Phase	Monitoring Programs
Pre-construction	Vegetation Management;
	Fauna Management;
	Pest Management; and,
	Water Quality Management.
Construction	Vegetation Management;
	Fauna Management;
	Pest Management:
	Water Quality Management;
	Air Quality Management;
	Noise Management; and,
	Waste Management.
Post-construction	Vegetation Management;
	Pest Management; and,
	Water Quality Management.

TABLE 4: ENVIRONMENTAL MONITORING REQUIRED AT EACH PHASE OF CONSTRUCTION.

The implementation of the environmental monitoring will be the responsibility of the SEM, or delegate, and will include:

- Coordinating sample collection and documentation;
- Coordination of sample and monitoring equipment;
- Ensuring monitoring frequency is in accordance with all approvals, permits, ASs, and any other industry standards;
- Data management and representation of results;
- Reporting non-compliance or incidents related to monitoring;
- Responsible for the implementing any corrective actions related to noncompliance or monitoring incidences;
- Training of personnel in monitoring procedures; and,
- Arranging specialist consultants to conduct monitoring duties, as required.

All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this approval must be calibrated in the following way:

- If a statutory instrument or standard made under a law of the State prescribes standards for calibrating the equipment in accordance with that statutory instrument or standard; or,
- Otherwise according to any relevant AS applicable to the calibration of the equipment.

In addition to recording monitoring data, the following information will also be recorded:

- Name of recorder(s);
- Date and time of monitoring and/or sampling;



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- Location of sampling, including general information such as nearest road, property name, descriptive information, as well as GPS coordinates; and,
- Photographs of monitoring location, as well as surrounding area.

6.3 AUDITING

Auditing will be undertaken to verify compliance with all aspects of the CEMP. Audits will be conducted by the SEM, or delegate:

- Prior to any project or construction works for any stage of the project;
- At the completion of any project or construction works;
- During or after any major corrective actions or remediation works; and,
- Periodically throughout the life of the project.

Audits will include a review of compliance with the CEMP, compliance with each condition of approval and any prior corrective actions.

6.4 REPORTING

The SEM is responsible for the preparation of monthly reports on environmental compliance. The monthly reports will summarise compliance and non-compliance with all monitoring requirements within the CEMP. The monthly reports will also summarise any environmental incidents and environmental issues that occurred during the month. The monthly report will include relevant incident report numbers and summarise improvements that have been made to address environmental issues and incidents.

6.5 NON-CONFORMANCE PROCEDURE

Non-conformance with the CEMP will be immediately reported to the SEM for remedial action. Actions taken shall reflect the magnitude of environmental impact.

For minor non-conformance incidents, the SEM shall specify remedial actions in accordance with the CEMP. An example of a minor incident is the inadequate maintenance of temporary sediment and erosion control structures.

For major non-conformance:

- Construction works will immediately cease;
- Applicable authority will be notified of extent of non-conformance; and,
- Remedial actions to be carried out in consultation with relevant officers and SEM as necessary.

An example of major non-conformance is the removal of vegetation marked for retention or injury to wildlife.



6.6 INCIDENT REPORTING

Ongoing monitoring includes the assessment of incidents and hazards identified by site personnel. It is the responsibility of all personnel to report any incidents to the SEM. An environmental incident is any breach of the environmental management procedures detailed in the CEMP, or any other unplanned action detrimental to the environment.

All environmental incidents must be recorded using an Incident Reporting Form (Appendix 5) along with any corrective and preventative actions taken to address the environmental incident. The details of the incident are to be recorded by the SEM, or delegate, in the Corrective Actions Register (Appendix 6).

As reports are submitted, it is the SEM's role to ensure that the forms are completed and management measures are initiated or updated accordingly to reflect the information provided. The CEMP is to be updated to reflect any changes or additions to management measures.

If the incident results in a severe impact on Matters of National Environmental Significance (MNES), the SEM, or delegate, is to provide an incident investigation report to the Commonwealth Department of the Environment within one week of being notified of the incident. Examples of a severe incident include impacts to a species or community listed as a Matter of National Environmental Significance, for example a Koala injury or mortality, or unapproved clearing of potential fauna habitat.

6.7 COMPLAINT REPORTING

The SEM will maintain a register of complaints. Complaints relating to environmental aspects will be treated as environmental incidents in terms of investigation and will include a record of any action taken with respect to the complaint.

The person undertaking the activity to which this approval relates must record the following information for each complaint received about the activity:

- Time, date, name and contact details of the complainant;
- Reasons for the complaint;
- Any investigations undertaken by the person undertaking the activity to which this approval relates;
- Conclusions formed by the person undertaking the activity to which this approval relates following the investigation; and,
- Any actions taken by the person undertaking the activity to which this approval relates to resolve the complaint(s)



6.8 CORRECTIVE ACTIONS

All corrective actions identified for incidents, complaints and non-conformance audit results are to be recorded in a Corrective Actions Register, administered by the SEM. The register will be monitored weekly by the SEM to ensure that corrective actions listed in the register are completed.

The register is to include the following details:

- Date & location of incident / complaint / non-conformance;
- Details of incident / complaint / non-conformance;
- Actions taken to control the incident / complaint / non-conformance and prevent any future occurrence;
- Date by which the corrective action will be completed (unless ongoing); and,
- Appropriate sign-off, indicating that the incident/complaint/non-conformance was investigated and followed up appropriately.



7 ENVIRONMENTAL TRAINING

The SEM, or delegate, will provide site personnel and site visitors with suitable environmental training to ensure they are competent to perform their work in an environmentally acceptable manner. Environmental training will be given as part of the site induction procedure and will be performed prior to site access.

All forms and relevant associated material are to be stored in both a digital and hard copy format for a period of at least two (2) years.

The person undertaking the activity to which this approval relates must keep a record of the training provided to employees, including:

- Names of all persons who undertook the training;
- Date on which the training was provided; and,
- An outline of the training provided.

The environmental training will ensure the following:

- That all personnel and site visitors are aware of the CEMP and related documents;
- That all personnel are aware of their responsibilities;
- That all site personnel have familiarised themselves with the CEMP and its procedures;
- That all site personnel have signed a register noting that they have reviewed and will comply with the requirements of the CEMP; and,
- That all contractors shall review and carry out activities in accordance with measures outlined with in the CEMP and guide construction including civil works as necessary, in consultation with the SEM.



8 EMERGENCY CONTACTS AND PROCEDURES

In the event of an environmental incident, the priority is to ensure the safety of all site personnel and the neighbouring community. All practical steps shall then be taken to minimise further environmental damage through the implementation of the appropriate contingency and corrective actions, as outlined in the CEMP environmental management sub-plans in Section 10.1.

All environmental incidents must be immediately reported to the SEM. Emergency contact information can be found in the contacts listed in Appendix 3.



9 POTENTIAL ENVIRONMENTAL IMPACTS AND RISKS

The following section sets out the results of a qualitative risk assessment applied to the potential environmental impacts associated with project actions.

Each environmental risk has been given a rating in terms of likelihood (Table 5; qualitative measure of likelihood – how likely is it that this event / incident will occur after control strategies have been put in place) and consequence (Table 6; qualitative measure of consequences rating – what will be the consequences / results / outcome if this event / issue does occur), then combined using a risk rating matrix (Table 7) to generate a risk rating of low, medium, high or severe.

The qualitative risk assessment (Table 8) must be updated by the SEM at the following times:

- Prior to initial commencement of works;
- Prior to vegetation clearing operations;
- At the completion of vegetation clearing operations;
- As required following non-conformances or other changes to procedures; and,
- Annually, as part of the review and audit procedures.

TABLE 5: LIKELIHOOD RISK RATING DESCRIPTION.

Description
Is expected to occur in most circumstances
Will probably occur during the life of the project
Might occur during the life of the project
Could occur, but is considered unlikely or doubtful to occur
May occur, but only in exceptional circumstances

TABLE 6: CONSEQUENCES RISK RATING DESCRIPTION.

Descriptor	Description
Minor	Minor incident of environmental damage that can be reversed
Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts
High	Substantial instances of environmental damage that could be reversed with intensive efforts
Major	Major loss of environmental amenity and real danger of continuing
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage



TABLE 7: RISK RATING MATRIX.

		Consequence							
		Minor	Moderate	High	Major	Critical			
	Highly likely	Medium	High	High	Severe	Severe			
elihood	Likely	Low	Medium	High	High	Severe			
	Possible	Low	Medium	Medium	High	Severe			
Lik	Unlikely	Low	Low	Medium	High	High			
	Rare	Low	Low	Low	Medium	High			



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TABLE 8: ENVIRONMENTAL RISK ASSESSMENT.

Item	Construction Phase	Factor	Potential Environmental Impacts	Likelihood	Consequence	Inherent Risk	Planned Mitigation	Likelihood	Consequences	Residual Risk
1		Vegetation clearing and management	Clearing outside approved boundary or unapproved removal of trees	Likely	Major	High	Vegetation Management sub-plan	Unlikely	Major	High
2		Fauna (including	Injury or mortality	Possible	Major	High	Vegetation Management sub-plan; Fauna Management sub-plan	Unlikely	Major	High
3	Pre- construction	Threatened Fauna - Koala, Northern Quoll, Squatter Pigeon and Grey-headed Flying-fox)	Unapproved removal of potential fauna habitat	Likely	Major	High	Vegetation Management sub-plan; Fauna Management sub-plan	Unlikely	Major	High
6		Pest management	Spread of weeds and fire ants	Likely	Major	High	Pest Management sub-plan	Unlikely	Major	High
7		Water quality	Erosion and loss of topsoil	Likely	High	High	Water Quality Management sub-plan	Unlikely	High	Medium
8		Air Quality	Dust emissions during clearing impacting adjacent stakeholders	Possible	Moderate	Medium	Air Quality Management sub-plan	Unlikely	Moderate	Low
9		Vegetation clearing and management	Damage or accidental clearing of vegetation outside approved boundary or unapproved removal of trees	Likely	Major	High	Vegetation Management sub-plan	Unlikely	Major	High
10		Fauna (including	Injury or mortality	Possible	Major	High	Vegetation Management sub-plan; Fauna Management sub-plan	Unlikely	Major	High
11	Construction	Threatened Fauna - Koala, Northern Quoll, Squatter Pigeon and Grey-headed Flying-fox)	Unapproved removal of potential fauna habitat	Likely	Major	High	Vegetation Management sub-plan; Fauna Management sub-plan	Unlikely	Major	High
14		Pest management	Spread of weeds and fire ants	Likely	Major	High	Pest Management sub-plan	Unlikely	Major	High
15		Water quality	Erosion and loss of topsoil	Likely	High	High	Water Quality Management sub-plan	Unlikely	High	Medium
16		Air Quality	Dust emissions during clearing impacting adjacent stakeholders	Possible	Moderate	Medium	Air Quality Management sub-plan	Unlikely	Moderate	Low



Item	Construction Phase	Factor	Potential Environmental Impacts	Likelihood	Consequence	Inherent Risk	Planned Mitigation	Likelihood	Consequences	Residual Risk
17		Noise	Negative impact to the social environment through excess noise and vibration	Possible	Moderate	Medium	Noise Management sub-plan	Unlikely	Moderate	Low
18		Waste	Environmental harm caused by incorrect storage of waste	Possible	Moderate	Medium	Waste Management sub-plan	Unlikely	Moderate	Low
19		Vegetation clearing and management	Damage or accidental clearing of vegetation outside approved boundary or unapproved removal of trees	Possible	Major	High	Vegetation Management sub-plan	Rare	Major	Medium
20		Fauna (including	Injury or mortality	Possible	Major	High	Vegetation Management sub-plan; Fauna Management sub-plan	Rare	Major	Medium
21	Post- construction	Threatened Fauna - Koala, Northern Quoll and Squatter Pigeon)	Unapproved removal of potential fauna habitat	Possible	Major	High	Vegetation Management sub-plan; Fauna Management sub-plan	Rare	Major	Medium
24		Threatened Fauna - Grey-	Injury or mortality	Unlikely	Major	High	Vegetation Management sub-plan; Fauna Management sub-plan	Rare	Major	Medium
25		headed Flying-fox	Unapproved removal of potential fauna habitat	Possible	Major	High	Vegetation Management sub-plan; Fauna Management sub-plan	Rare	Major	Medium
26		Pest management	Spread of weeds and fire ants	Likely	Major	High	Pest Management sub-plan	Rare	Major	Medium
27		Water quality	Erosion and loss of topsoil	Likely	High	High	Water Quality Management sub-plan	Rare	High	Low



10 ENVIRONMENTAL MANAGEMENT MEASURES

The following sections summarise the activities, timing and management responses for the pre-construction, construction, and post-construction stages of works. Compliance with the environmental management procedures set out in this CEMP ensures all activities carried out on site comply with environmental obligations, including those listed in Section 2 of the CEMP.

A series of management sub-plans have been developed that cover work activities during all three stages of works on site. The various plans apply in the following stages.

The following environmental management sub-plans have been identified for preconstruction works

- Vegetation Management;
- Fauna Management;
- Pest Management; and,
- Water Quality Management.

The following environmental management sub-plans have been identified for construction works

- Vegetation Management;
- Fauna Management;
- Pest Management;
- Water Quality Management;
- Air Quality Management;
- Noise Management; and,
- Waste Management.

The following environmental management sub-plans have been identified for postconstruction works

- Vegetation Management;
- Pest Management; and,
- Water Quality Management.



10.1 ENVIRONMENTAL MANAGEMENT SUB-PLANS

10.1.1 VEGETATION MANAGEMENT

Vegetation clearing and management must only occur in accordance with the project approvals. Clearing may only occur within the approved areas marked as 'Clearing Area' in Figure 2.

Areas of retained vegetation are to be protected during works and maintained with weed control methods. Specifically, care is to be taken to preserve the areas of vegetation marked as 'retained'.

All vegetation clearing and ongoing vegetation management must meet all approval conditions. This includes all management actions outlined in the Vegetation Management sub-plan (Table 9). Additionally, all clearing of assessable native vegetation must be staged and only following an Operational Works approval for an individual stage.

Prior to, during and post clearing of assessable native vegetation, sediment and erosion controls must be implemented in accordance with the Water Quality Management subplan (Table 13) as outlined in Section 10.1.4.



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TABLE 9: VEGETATION CLEARING AND MANAGEMENT SUB-PLAN.

Vegetation Clearing and Management		
Objectives		
Clearing and management of vegetation in accordance with approvals.		
1. KPI's and Targets		
Details		
 No clearing or damage to native vegetation outside of the approved clearing areas. Disturbed areas are stabilised as soon as possible following disturbance. 		
2. Management Actions		
Description	Responsibility	Timing
An Operational Works approval for vegetation clearing (on a staged basis) is obtained and approved by Gladstone Regional Council.	РМ	Prior to clearing
Approved clearing areas are identified and demarcated using GPS coordinates and flagged star pickets.	PM	Prior to clearing
Vegetation conservation areas are identified, demarcated, and where applicable, tree protection fencing is erected.	РМ	Prior to clearing
Vegetation protection fencing is to be established at the interface between all works areas and vegetation to be retained.	РМ	Prior to clearing
Tree protection zones (TPZ) are to be established around all trees to be conserved which are near proposed working areas (i.e., adjacent to the confirmed working areas extents).	SEM	Prior to clearing
TPZs are to be established in accordance with <i>AS 4970 – Protection of trees on development sites</i> . TPZs include the assembly of mesh tree barriers / guards to protect 'at risk' retained trees from encroachment / accidental damage.	SEM	Prior to clearing
TPZs are to be established prior to the commencement of any clearing or site works.	SEM	Prior to clearing


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Vegetation Clearing and Management

Within the TPZ, the following activities are not permitted:

- Storage and mixing of materials;
- Vehicle parking;
- Liquid disposal;
- Machinery repairs and/or refuelling;
- Construction of site office or shed;
- Combustion of any material;
- Stockpiling of soil, rubble or debris;
- Any filling or excavation including trenching, topsoil skimming and/or surface excavation, unless otherwise approved by the Chief Executive Officer; and,
- Unauthorised application of pesticides, herbicides or chemicals.

A Wildlife Spotter Catcher is to inspect all areas to be cleared prior to vegetation clearing.	SEM	Prior to clearing
Restrict access to all areas outside of the approved clearing and construction areas.	SEM	At all times
Clearing of vegetation is to be undertaken on a staged basis, following an Operational Works approval for an individual stage.	SEM	During clearing
Ensure vegetation clearing, including tree felling, does not impact areas outside of approved clearing areas.	SEM	During clearing
Ensure all vehicle and personnel movement is limited to the approved clearing and construction areas.	SEM	At all times
Ensure that all fauna management measures are strictly followed prior to, and during vegetation clearing and management.	SEM	At all times
Vegetation removal is to be undertaken by suitably qualified contractors.	SEM	During clearing
All vegetation that is cleared on the site shall be mulched on site and used for on-site landscaping works.	SEM	During clearing
Vegetation cleared and not suitable for mulching shall be removed and disposed of in an approved disposal facility.	SEM	During clearing



Vegetation Clearing and Management		
Land clearing debris must not be pushed into gullies, watercourses, other drainage line or waterlogged areas, or any areas outside of the approved clearing extent.	SEM	During clearing
Vegetation clearing must not occur outside of the approved clearing areas.	SEM	During clearing
Any exposed or damaged tree roots are identified and treated in accordance with AS 4373—2007 – Pruning of amenity trees.	SEM	At all times
Arborist / contractor to treat any damaged trees. Works are to be undertaken by a qualified minimum Level 5 Arborist or suitably qualified person.	SEM	At all times
Site briefings for all staff must occur prior to any major works and before commencement of works daily to discuss approved clearing processes and provide clear understanding of areas to be protected from construction.	SEM	Prior to clearing and major works
3. Monitoring Description	Responsibility	Frequency
3. Monitoring Description Inspect clearing areas to ensure only vegetation marked for clearing are removed or damaged.	Responsibility SEM	Frequency Daily during clearing
3. Monitoring Description Inspect clearing areas to ensure only vegetation marked for clearing are removed or damaged. Inspect project boundaries to ensure flagging, fencing and TPZ fencing are intact and no boundary breach has occurred.	Responsibility SEM SEM	Frequency Daily during clearing Daily during clearing
3. Monitoring Description Inspect clearing areas to ensure only vegetation marked for clearing are removed or damaged. Inspect project boundaries to ensure flagging, fencing and TPZ fencing are intact and no boundary breach has occurred. Cleared vegetation has not been pushed into gullies, watercourses, other drainage line or waterlogged areas.	Responsibility SEM SEM SEM	FrequencyDaily during clearingDaily during clearingDaily during clearing
3. Monitoring Description Inspect clearing areas to ensure only vegetation marked for clearing are removed or damaged. Inspect project boundaries to ensure flagging, fencing and TPZ fencing are intact and no boundary breach has occurred. Cleared vegetation has not been pushed into gullies, watercourses, other drainage line or waterlogged areas. Ensure required fauna controls, including Wildlife Spotter Catcher, are in place for disturbance works.	Responsibility SEM SEM SEM SEM	Frequency Daily during clearing
3. Monitoring Description Inspect clearing areas to ensure only vegetation marked for clearing are removed or damaged. Inspect project boundaries to ensure flagging, fencing and TPZ fencing are intact and no boundary breach has occurred. Cleared vegetation has not been pushed into gullies, watercourses, other drainage line or waterlogged areas. Ensure required fauna controls, including Wildlife Spotter Catcher, are in place for disturbance works. Inspect cleared vegetation is stored correctly and / or mulched and used on site.	Responsibility SEM SEM SEM SEM SEM	Frequency Daily during clearing Daily during clearing
 3. Monitoring Description Inspect clearing areas to ensure only vegetation marked for clearing are removed or damaged. Inspect project boundaries to ensure flagging, fencing and TPZ fencing are intact and no boundary breach has occurred. Cleared vegetation has not been pushed into gullies, watercourses, other drainage line or waterlogged areas. Ensure required fauna controls, including Wildlife Spotter Catcher, are in place for disturbance works. Inspect cleared vegetation is stored correctly and / or mulched and used on site. Examples of Contingency and Corrective Actions 	Responsibility SEM SEM SEM SEM SEM SEM	Frequency Daily during clearing Daily during clearing



Vegetation Clearing and Management				
Boundary of approved clearing	Report and investigate as an incident.	SEM		
area is breached	Report immediately to SEM.	PM		
	Halt activities until impacted area is reviewed by SEM.	SEM		
	Re-demarcate boundary with temporary fencing.	SEM		
	Rehabilitate impacted areas.	SEM		
	Retrain relevant personnel in regard to CEMP procedures and controls.	SEM		
Incorrect placement /storage	Report and investigate as an incident.	SEM		
of cleared vegetation	Report immediately to SEM.	РМ		
	Halt activities until impacted area is reviewed by SEM.	SEM		
	Rehabilitate impacted areas.	SEM		
	Retrain relevant personnel in regard to CEMP procedures and controls.	SEM		
Clearing of vegetation outside	Report and investigate as an incident.	SEM		
of approved clearing areas	Report immediately to SEM.	PM		
	Halt activities until impacted area is reviewed by SEM.	SEM		
	Re-demarcate boundary with temporary fencing.	SEM		
	Rehabilitate impacted areas.	SEM		



Vegetation Clearing and Management

Retrain relevant personnel in regard to CEMP procedures and controls.

SEM



10.1.2 FAUNA MANAGEMENT

The approval holder must ensure a pre-clearing survey is undertaken by a suitably qualified person within 24 hours before any clearing of vegetation, to identify any fauna present. A suitably qualified Wildlife Spotter Catcher must also be present during all vegetation clearing works.

The approval holder must not clear any vegetation supporting any fauna until such time that the individual(s) vacates the vegetation or is relocated by a suitably qualified person.

Veterinary care, or assistance from a wildlife refuge, must be sought if any fauna are found injured within the project site while clearing and / or construction is occurring within the project site. To reduce risk of injury to fauna, all vehicles and plant machinery must stay on pre-determined routes and roads and must adhere to site speed limits at all times.

Further management and control actions are outlined in the Fauna Management sub-plan (Table 11).

Koala, Northern Quoll, Squatter Pigeon and Grey-headed Flying-fox Management

The Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) (*Phascolarctos cinereus*), Northern Quoll (*Dasyurus hallucatus*), Squatter Pigeon (southern subspecies) (*Geophaps scripta scripta*) and Grey-headed Flying-fox (*Pteropus poliocephalus*) are listed as threatened species under the EPBC Act and were determined by the Department of Climate Change, Energy, the Environment and Water to be potentially impacted by the proposed development. Whilst field assessment has confirmed that the aforementioned species are not present on site, management measures are outlined in this section to ensure their protection and well-being during any works on site in the event that they are observed during works (Threatened Species Scientific Committee 2015, Department of the Environment 2016, Department of Agriculture Water and the Environment 2021, Department of Agriculture Water and the Environment 2021, Department of Agriculture Water and the Environment 2021, Department of Agriculture Water and the Environment 2022).

The developer and / or their appointed contractor must complete proper inspection of all vegetation prior to clearing for the presence of fauna, particularly Koala, Northern Quoll, Squatter Pigeon and Grey-headed Flying-fox.

All workers must ensure their actions avoid or effectively mitigate direct and indirect impacts on the Koala, Northern Quoll, Squatter Pigeon and Grey-headed Flying-fox, and their habitat within the project footprint. The following management control measures (Table 10) have been identified in regard to the management of Koala, Northern Quoll, Squatter Pigeon and Grey-headed Flying-Fox. Further fauna management measures can be found in Table 11.



TABLE 10: KOALA, NORTHERN QUOLL, SQUATTER PIGEON AND GREY-HEADED FLYING-FOX MANAGEMENT CONTROLS.

Management Control / Activity	Responsibility	Effectiveness of Management Action	Environmental Outcomes	Measure, Monitor, Audit, Activity and Frequency
Environmental contract documentation to address specific erosion and sediment control and landscape and revegetation requirements to be managed during the construction and post-construction phase of the project.	Owner's engineer, Proponent	This will assist in minimising indirect impacts to habitat through a reduction in sediment loss and associated water quality impacts.	Minimisation of indirect impacts on the Koala, Northern Quoll, Squatter Pigeon and Grey-headed Flying-fox.	Audit prior to request for tender release. Auditing of contract documentation will be undertaken in accordance with the Construction Environment Management Plan (CEMP).
Vegetation clearing limits will be defined under the contract documentation, to minimise the extent of vegetation clearing whilst allowing construction to occur, taking into account erosion and sediment control devices.	Owner's engineer, Proponent	Vegetation clearing limits will ensure minimisation of clearing required for the project and reduce impacts on the Koala, Northern Quoll, Squatter Pigeon and Grey- headed Flying-fox potential habitat.	Avoid unnecessary removal of potential fauna habitat.	Audit prior to request for tender release. Auditing of contract documentation will be undertaken in accordance with the CEMP.
Additional workspace areas (laydown areas) are to be placed in previously cleared areas or on the project pad, where possible.	Construction contractor	This will minimise the vegetation clearing required for the project.	Avoid unnecessary removal of potential fauna habitat.	CEMP to be audited for completeness prior to mobilisation, as well as auditing for compliance during and post-construction.
Incorporation of no-go zones and vegetation clearing limits with specific vegetation clearing requirements and methodologies within the contract documentation. All vehicles and plant will stay on pre-determined routes and adhere	SEM	Implementation of no-go zones and restricted access routes will prevent inadvertent disturbance within potential habitat to be retained.	Avoid fauna collisions / mortality from construction equipment and enable the relocation of threatened fauna away	Audit prior to request for tender release. Auditing of contract documentation will be undertaken in accordance with the CEMP. A register of wildlife incidents (fauna strike and



Management Control / Activity to site construction and operation rules relating to speed limits. Speed limits would be clearly signposted to minimise the potential for fauna impact.	Responsibility	Effectiveness of Management Action	Environmental Outcomes from the working areas as appropriate.	Measure, Monitor, Audit, Activity and Frequency mortality) will be established and maintained as part of the CEMP.
Locations and design of koala exclusion fencing to be incorporated into contract documentation and construction schedule to ensure appropriate structures, placement, and timing. Koala exclusion fencing will be installed along main roads adjacent to the site (subject to development staging) in accordance with Department of Transport and Main Roads (QLD) Standard Drawings (Appendix 7).	SEM	Koala exclusion fencing is an effective management measure to reduce vehicle collisions with native fauna. This fencing is also dog- proof, therefore helping reduce predator movements onto the site.	Prevent increased fauna mortality from the project and guide and direct fauna movement between retained / rehabilitated potential habitat and away from the road.	Audit prior to request for tender release. Auditing of contract documentation will be undertaken in accordance with the CEMP. A register of wildlife incidents (fauna strike and mortality) will be established and maintained as part of the CEMP.
 Any clearing of native vegetation must be carried out in a way that ensures: Koala, Northern Quoll, Squatter Pigeon and GHFF individuals have enough time to move from the area being cleared without human intervention; and Links between habitats are maintained to allow individuals to move from the area being cleared; and, A tree or habitat feature is not cleared / removed if— Any of the aforementioned fauna are 	SEM	Management of vegetation clearing and habitat disturbance will reduce direct impacts on the Koala, Northern Quoll, Squatter Pigeon and GHFF and safe dispersal during the removal of potential habitat.	Prevent increased fauna mortality from the project and guide and direct fauna movement between retained / rehabilitated potential habitat.	Audit prior to request for tender release. Auditing of contract documentation will be undertaken in accordance with the CEMP. A register of wildlife incidents (fauna strike and mortality) will be established and maintained as part of the CEMP.



Management Control / Activity	Responsibility	Effectiveness of Management Action	Environmental Outcomes	Measure, Monitor, Audit, Activity and Frequency
 the crown of the habitat tree overlaps another tree in which an individual is present. 				
 A habitat tree or feature is only cleared / disturbed under the guidance of a Wildlife Spotter Catcher. 				
Vegetation or habitat features (e.g., dens) containing Koala(s), Northern Quoll(s), Squatter Pigeon(s) or Grey-headed Flying- foxes are to be demarcated with high visibility flagging tape and no further clearing is take place within 20m of the vegetation / habitat feature until such time as the individual(s) has completely vacated the site. Any interactions with the individuals or management measures are to be determined in consultation with the licensed Wildlife Spotter Catcher for advice.	SEM	Management of vegetation clearing and habitat disturbance will reduce direct impacts on the Koala, Northern Quoll, Squatter Pigeon and GHFF and allow safe dispersal during the removal of potential habitat.	Prevent increased fauna mortality from the project and guide and direct fauna movement between retained / rehabilitated potential habitat.	Audit prior to request for tender release. Auditing of contract documentation will be undertaken in accordance with the CEMP. A register of wildlife incidents (fauna strike and mortality) will be established and maintained as part of the CEMP.
All site personnel and contractors will report any evidence of Koalas, Northern Quolls, Squatter Pigeons or GHFF and suspected habitat features (i.e., dens, roosts and nests), regardless of whether or not the person suspects the habitat feature belongs to the aforementioned species, to the SEM and Wildlife Spotter Catcher. The Wildlife Spotter Catcher will inspect the reported area for evidence of the species and if	SEM	Identification of potential habitat features or species throughout the impact area by all site personnel will reduce potential impacts on the Koala, Northern Quoll, Squatter Pigeon and GHFF.	Prevent increased fauna mortality from the project and guide and direct fauna movement between retained / rehabilitated potential habitat.	Audit prior to request for tender release. Auditing of contract documentation will be undertaken in accordance with the CEMP. A register of wildlife incidents (fauna strike and mortality) will be established and maintained as part of the CEMP.



Management Control / Activity	Responsibility	Effectiveness of Management Action	Environmental Outcomes	Measure, Monitor, Audit, Activity and Frequency
species usage is confirmed, a 20m exclusion				
zone will be established around the fauna				
and/or habitat feature.				



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TABLE 11: FAUNA MANAGEMENT SUB-PLAN.

Fauna Management					
Objectives					
 Relocation, protection, and management of native fauna. No injury or death of fauna, including, the Koala, Northern Quoll, Squatter Pigeon and Grey-headed Flying-fox as a result of the project. 					
1. KPI's and Targets					
Details					
 No harm or injury to any native fauna including the Koala, Northern Quoll, Squatter Pigeon and Grey-head No unapproved disturbance of any native fauna habitat. Wildlife Spotter Catcher present during all clearing works. No possible predators are introduced to the site. 	ded Flying-fox.				
2. Management Actions					
Description	Responsibility	Timing			
A suitably qualified Wildlife Spotter Catcher must also be present on site during all vegetation clearing works.	SEM	At all times during clearing			
The approval holder must not clear any vegetation supporting any fauna until such time that any present fauna vacates the vegetation or are relocated by a suitably qualified person.	SEM	At all times			
Veterinary care, or assistance from a wildlife refuge, must be sought if any fauna are found injured within the project site while clearing and / or construction occurs within the project site.	SEM	At all times			
To reduce risk of injury to fauna, all vehicles and plant machinery must stay on pre-determined routes and roads and must adhere to site speed limits at all times.	SEM	At all times			
The approval holder must ensure a pre-clearing survey is undertaken by a suitably qualified person within 24 hours before any clearing of vegetation within the project site, to identify any fauna present.	SEM	Prior to clearing, within 24hr of proposed activities			



Fauna Management		
Immediately prior to the commencement of clearing and on each day that vegetation clearing is to take place, a licensed Wildlife Spotter Catcher should be on site in the event that fauna are observed which require protection, relocation or in case of fauna injury.	SEM	Prior to, and at all times during clearing
Licensed Wildlife Spotter Catcher to inspect trees to be trimmed / removed and identify hollows for retention / salvage, respectively.	SEM	Prior to clearing
Non-itinerant fauna (other than the Koala, Northern Quoll, Squatter Pigeon and Grey-headed Flying-fox) are, where practicable, relocated / ushered to nearby patches of vegetation or nearby bushland – refer to licensed Wildlife Spotter Catcher for advice.	SEM	Prior to, and at all times during clearing
Vegetation or habitat features (e.g., dens) containing Koala(s), Northern Quoll(s), Squatter Pigeon(s) or Grey- headed Flying-foxes are to be demarcated with high visibility flagging tape and no further clearing is take place within 20m of the vegetation / habitat feature until such time as the individual(s) has completely vacated the site. Any interactions with the individuals or management measures are to be determined in consultation with the licensed Wildlife Spotter Catcher for advice.	SEM	At all times
All site personnel and contractors will report any evidence of Koalas, Northern Quolls, Squatter Pigeons or GHFF and suspected habitat features (i.e., dens, roosts and nests), regardless of whether or not the person suspects the habitat feature belongs to the aforementioned species, to the SEM and Wildlife Spotter Catcher. The Wildlife Spotter Catcher will inspect the reported area for evidence of the species and if species usage is confirmed, a 20m exclusion zone will be established around the fauna and/or habitat feature.	SEM	At all times
Where identified, active hollows, nests or other breeding places are not to be interfered with. Tampering with an animal breeding place is in violation of the Nature Conservation Act 1999 under section 332 of the Nature Conservation (Wildlife Management) Regulation 2006 in the exception of removal or tampering that is part of an approved species management program, or the person holds a damage mitigation permit for the animal and the permit authorises the removal or tampering.	SEM	At all times



Fauna Management			
An approved koala exclusion fen staging) and the manual vehicle a	SEM	At all times	
All domesticated animals are pro	SEM	At all times	
Personnel are prohibited from int	eracting with and / or feeding native or non-native fauna on site.	SEM	At all times
All vehicles will stay on pre-deter signposted to minimise potential	mined routes and adhere to site speed limits. Speed limits to be clearly for fauna impact.	SEM	At all times
A register of wildlife incidents (fa CEMP.	una strike and mortality) will be established and maintained as part of the	SEM	At all times
3. Monitoring Description		Responsibility	Frequency
Visual inspection for presence of Catcher.	fauna within approved vegetation clearing areas by licensed Wildlife Spotter	SEM	Daily (prior to, and during clearing)
Visual inspection of protected (non-approved) vegetation within 20m of proposed clearing areas by licensed Wildlife Spotter Catcher.			Daily (prior to, and during clearing)
Inspect koala exclusion fencing to	o ensure they are in good condition.	SEM	Daily
Appropriate barriers, protection,	and signage in place for all protected areas.	SEM	Daily
Examples of Contingency and Corro	ective Actions Corrective Action		Responsibility
Koala, Northern Quoll, Squatter Pigeon or Grey-headed Flying-	Report and investigate as an incident.		SEM
	Report immediately to Wildlife Spotter Catcher.		SEM



Forest Springs

Fauna Management		
fox foraging on or in vegetation, within or adjacent to site during vegetation clearing or management	Halt activities until vegetation containing any of the listed species is demarcated with high visibility flagging tape. No further clearing to take place within 20m of the vegetation until such time as any of the listed species has completely vacated the vegetation and the site – refer to licensed Wildlife Spotter Catcher for advice.	SEM
Other native fauna present on	Report as an incident (no investigation required).	SEM
site	Report immediately to Wildlife Spotter Catcher.	SEM
	If the fauna is not at risk of being impacted (not in proximity to vegetation clearing or management activities) allow the fauna to move on in own time.	SEM
	If fauna is at risk of being impacts, halt vegetation clearing or management activities until fauna have moved on or are removed by a qualified Wildlife Spotter Catcher.	SEM
Injured fauna present on site	Report and investigate as an incident.	SEM
	Report immediately to the Wildlife Spotter Catcher.	SEM
	If animal is at further risk, contact RSPCA animal Emergency Hotline on the provided contacts list (Appendix 3).	SEM



10.1.3 PEST MANAGEMENT

Movement of equipment across the site, in addition to vegetation clearing activities has the potential to introduce and / or spread weeds and other pest species, such as fire ants (*Solenopsis invicta*). The impact of weed and other pest invasion and spread include:

- Loss of biodiversity;
- Loss of habitat;
- Increased fire risk and changes to fire regimes;
- Introduction of weeds and pests detrimental to nearby agricultural areas.

Weeds and other pests will be managed by the implementation of the Pest Management sub-plan, detailed in Table 12.



Forest Springs

TABLE 12: PEST MANAGEMENT SUB-PLAN (INCLUDING PEST PLANTS AND FIRE ANTS).

Pest Management Objectives To prevent the spread of weeds and pests within the site. • To prevent the spread of weeds and pests to neighbouring properties. • To prevent the introduction of new weeds and pests to the site. No possible predators are introduced to the site. • No new disease or pathogen is introduced. • To control existing weed infestations so as not to increase in habitat areas. 1. KPI's and Targets Details No introduction of new weed or pest species to the site or neighbouring properties. • No spread of weeds or pests within the site. • To effectively control or eradicate existing weed or pest species within the site. • • No new disease or pathogen is introduced to the site. 2. Management Actions Responsibility Description Timing Conduct weed control for target species on a seasonal basis as per optimal control for each target species. Seasonal as per optimal SEM control for each target species Ensure all vehicles, equipment and plant undergo a thorough inspection prior to access to site and are free of At all times SEM plant material and soil.

Ensure soil used on site adheres to the soil movement guidelines as outlined in the *Biosecurity Regulation 2016* SEM At all times (Qld) for fire ant movement controls.

SEM

At all times

Ensure soil and mulch used on site is uncontaminated, and free of weeds and pests.



Pest Management			
Conduct herbicide spraying of we seed.	SEM	Seasonal	
Control any infestation of weeds	As required		
Locate cleared vegetation and m	ulch stockpiles away from areas where runoff from rainfall may occur.	SEM	At all times
3. Monitoring Description		Responsibility	Frequency
Prior to excavating or disturbing ants.	any ground, conduct thorough visual inspection for fire ants or signs of fire	SEM	At all times
Visual inspection of cleared vege	At all times during and after clearing		
Visual inspection of landscaping a	areas within site and along boundaries for weeds and pests.	SEM	At all times
Appropriate records of weed spra	aying and / or removing are being recorded.	SEM	At all times
Examples of Contingency and Corre	ective Actions Corrective Action		Responsibility
New weed infestation occurring	Report and investigate as an incident.		SEM
on site, on mulch stockpiles, or within landscaping areas	Arrange for weed or pest control by a suitably trained contractor.	SEM	
	Increase monitoring frequency until weed or pest occurrence has been contro	SEM	
	SEM		
Fire ants identified on site	Report and investigate as an incident		SEM



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Pest Management		
	Notify personnel who are suitably trained ¹ in the identification of fire ants.	SEM
	If a suspected nest is observed, the suitably trained personnel can use a long rod or stick to gently prod the nest and inspect for any ants present.	SEM
	Advise Biosecurity Queensland if fire ants are confirmed or suspected.	SEM

¹ Free training available from Biosecurity Queensland.



10.1.4 WATER QUALITY MANAGEMENT

Erosion may be a factor through all phases of construction. Erosion within the site will most likely be caused by rainfall and surface runoff. Erosion may have the following impacts:

- Deposition of sediment on neighbouring properties;
- Nuisance impacts on neighbouring properties;
- Channelling and deposition within the site;
- Damage to the health of receiving waterways; and,
- Disturbance of acid sulphate soils.

All erosion and stormwater control devices set out in the Water Quality Management subplan (Table 13) shall be installed on the development site. Responsibility for maintenance shall rest with the relevant site manager. Details of required operation and maintenance procedures shall be supplied for future Council reference if required.



Forest Springs

TABLE 13: WATER QUALITY MANAGEMENT SUB-PLAN (INCLUDING EROSION AND STORMWATER CONTROL).

Water Quality Management (i	ncluding erosion and s	stormwater
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Objectives

- To minimise erosion during construction.
- Manage stormwater across site during construction phases.
- No adverse impacts on adjacent properties.

1. KPI's and Targets

Details

- No visible signs of erosion within or at the boundaries of the site.
- Address all complaints regarding erosion and stormwater runoff.
- No irreparable collapse or destabilisation of the site from erosion.
- No evidence of erosion or sedimentation of waterways as a result of the project.

2. Management Actions		
Description	Responsibility	Timing
 Erosion and sediment control measures installed in accordance with: Soil Erosion and Sediment Control Engineering Guidelines for Queensland Construction Sites (The Institution of Engineers, Australia Queensland Division June 1996); Best Practice Erosion and Sediment Control (International Erosion Control Association 2008); and, Any relevant permit conditions. 	SEM	Prior to and throughout construction phases
 Stormwater control measures installed in accordance with: Water by Design Bioretention Technical Design Guidelines Version 1.1, October 2014; Healthy Waterways Water Sensitive Urban Design Technical Design Guidelines for Southeast Queensland Version 1, June 2006; Water by Design Construction and Establishment Guidelines: Swales, Bioretention Systems and Wetlands Version 1.1, April 2010; Gladstone Stormwater Management Strategy, June 2000; and, Any relevant permit conditions 	SEM	Prior to and throughout construction phases
Stormwater drainage structures shall be designed so that there is 'no worsening' of runoff beyond that which occurs on the existing undeveloped site.	SEM	Prior to and throughout construction phases



Water Quality Management (ind	cluding erosion and stormwater)		
All complaints regarding erosion immediately.	and water stormwater runoff are to be recorded within a Complaints Register	SEM	At all times
All complaints regarding erosion within one week for minor compl	and stormwater runoff are to be addressed within 24 hours if severe, or aints.	SEM	At all times
There shall be no deposition of se	ediment from the project site on to neighbouring properties.	SEM	At all times
There shall be no nuisance impac neighbouring properties.	ts as a result of erosion, stormwater runoff, or sedimentation on to	SEM	At all times
There shall be no channelling and within the site.	d / or deposition as a result of erosion, stormwater runoff, or sedimentation	SEM	At all times
3. Monitoring Description		Responsibility	Frequency
3. Monitoring Description Visual inspection of earthwork bu bank slumping, or the formation	unds, drainage channels, gullies, and perimeter of site for signs of erosion, of rills and gullies.	Responsibility SEM	Frequency Daily throughout construction phase
3. Monitoring Description Visual inspection of earthwork bu bank slumping, or the formation Inspections after each storm eve	unds, drainage channels, gullies, and perimeter of site for signs of erosion, of rills and gullies. nt to assess the adequacy of the erosion control measures.	Responsibility SEM SEM	FrequencyDaily throughout construction phaseAs required
3. Monitoring Description Visual inspection of earthwork bu bank slumping, or the formation Inspections after each storm eve During construction phase of ope rectification where required.	unds, drainage channels, gullies, and perimeter of site for signs of erosion, of rills and gullies. Int to assess the adequacy of the erosion control measures. Perations, end of day inspection of erosion and sediment control devices and	Responsibility SEM SEM SEM	FrequencyDaily throughout construction phaseAs requiredDaily
 3. Monitoring Description Visual inspection of earthwork but bank slumping, or the formation Inspections after each storm even During construction phase of operectification where required. Daily following a rainfall event, in 	unds, drainage channels, gullies, and perimeter of site for signs of erosion, of rills and gullies. Int to assess the adequacy of the erosion control measures. Perations, end of day inspection of erosion and sediment control devices and aspection and sediment removal where required as soon as practicable.	Responsibility SEM SEM SEM SEM SEM	Frequency Daily throughout construction phase As required Daily As required
 3. Monitoring Description Visual inspection of earthwork bubank slumping, or the formation Inspections after each storm even During construction phase of operectification where required. Daily following a rainfall event, in Examples of Contingency and Correlation 	unds, drainage channels, gullies, and perimeter of site for signs of erosion, of rills and gullies. Int to assess the adequacy of the erosion control measures. erations, end of day inspection of erosion and sediment control devices and espection and sediment removal where required as soon as practicable. ective Actions Corrective Action	Responsibility SEM SEM SEM SEM SEM	FrequencyDaily throughout construction phaseAs requiredDailyAs requiredResponsibility



Water Quality Management (including erosion and stormwater)				
	Remediate erosion and stabilise.	SEM		
	'Make good' any damage or non-performing erosion control devices and clean up any sediment that has left the site or is on the roads within and external to the site.	SEM		
Complaint received	Report and investigate as an incident.	SEM		
	Complaint must be addressed within 24 hours if severe, or within one week for minor complaints.	SEM		
	Review procedures and adjust if required.	SEM		
	Notify the PM if the complaint escalates to a serious concern that cannot be addressed by the SEM.	SEM		
	Retrain relevant personnel regarding CEMP procedures and controls.	SEM		



10.1.5 AIR QUALITY MANAGEMENT

Construction works must occur so they do not cause unreasonable interference with the amenity of adjoining premises by reason of noise, vibration, electrical or electronic interference, smell, fumes, vapour, steam, soot, ash, dust, grit, oil or otherwise.

The Air Quality Management sub-plan (Table 14) will be implemented to achieve compliance with Workplace Exposure Standards for Airborne Contaminants (Safe Work Australia 2019) and applicable workplace health and safety regulations.



TABLE 14: AIR QUALITY MANAGEMENT SUB-PLAN.

Dust Management		
Objectives		
To minimise dust lift during construction.		
No adverse impacts on adjacent properties.		
1. KPI's and Targets		
Details		
 To ensure dust and particulate matter do not exceed allowable air quality concentrations. Address all complaints regarding dust management. 		
2. Management Actions		
Description	Responsibility	Timing
Where required, install wind fencing around the perimeter of the site, taking into consideration the use of natural wind fencing (remnant vegetation) as a natural wind barrier.	SEM	Prior to works
Water trucks are to water down unsealed roads and working surfaces during operation to reduce dust lift.	SEM	Prior to works
All complaints regarding dust are to be recorded within a Complaints Register immediately.	SEM	At all times
All complaints regarding dust are to be addressed within 24 hours if severe, or within one week for minor complaints.	SEM	At all times
All trucks removing materials from site will be loaded inside site perimeter.	SEM	At all times
All loads shall be securely covered prior to exiting site perimeter.	SEM	At all times
Minimise stockpiling of material.	SEM	At all times
Maintain stabilised access roads and driveways.	SEM	At all times
Maintain clean roadways wherever possible, particularly at entry / exit points.	SEM	At all times



Dust and particulate matter must not exceed the allowable following levels when measured at any nuisance sensitive place or downwind of the project site (see Monitoring section below for further details).	SEM	At all times
3. Monitoring Description	Responsibility	Frequency
Visual inspection of wind fences for signs of dust deposition.	SEM	Daily throughout construction phase
Monitoring of dust lift-off during works, or windy conditions.	SEM	As required
Dust and particulate matter with an aerodynamic diameter of \leq 2.5 micrometre (µm) (PM2.5) suspended in the atmosphere must not exceed 25 micrograms per cubic metre over a 24 hour averaging time, at a nuisance sensitive or commercial place downwind of the authorised place, when monitored in accordance with:	SEM	Daily
 Any relevant AS to the extent it is relevant to the measurement of PM2.5 particles; or, Any alternative method of monitoring PM2.5 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority. 		
Dust and particulate matter with an aerodynamic diameter of ≤ 10 micrometre (µm) (PM10) suspended in the atmosphere must not exceed 50 micrograms per cubic metre over a 24 hour averaging time, at a nuisance sensitive or commercial place downwind of the authorised place, when monitored in accordance with: • AS 3580.9.6 of 2003 (or more recent editions) 'Ambient air – Particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet – Gravimetric method': or	SEM	Daily
 Any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority 		
Dust deposition must not exceed 120 milligrams per square metre per day, when monitored in accordance with AS 3580.10.1 of 20 16 (or more recent editions).	SEM	Daily
Examples of Contingency and Corrective Actions Incident Corrective Action		Responsibility



Observation of excessive dust	Report and investigate as an incident.	SEM
lift-off during work operations	Halt work within proximity of the area until cause of dust is addressed.	SEM
	Apply water as an immediate dust suppressant measure.	SEM
	Increase dust mitigation measures (e.g., more water trucks) as required.	SEM
Complaint received	Report and investigate as an incident.	SEM
	Complaint must be addressed within 24 hours if severe, or within one week for minor complaints.	SEM
	Review procedures and adjust if required.	SEM
	Notify the PM if the complaint escalates to a serious concern that cannot be addressed by the SEM.	SEM
	Retrain relevant personnel in regard to CEMP procedures and controls.	SEM



10.1.6 NOISE MANAGEMENT

Noise associated with construction of the proposed development shall be in accordance with the *Environmental Protection Act 1994* (Qld) and subordinate *Environmental Protection (Noise) Policy 2019* (Qld) and associated noise management criteria (Table 15).

Noise from the activity to which this approval relates must not cause an environmental nuisance at any nuisance sensitive place or commercial place.

The method of measurement and reporting of noise levels must comply with the latest edition of the Noise Measurement Manual (Queensland Department of Environment and Science 2020) (Appendix 8) as published from time to time by the administering authority.

Where a construction noise complaint(s) is received, noise compliance monitoring must be undertaken as soon as practicable by the contractor.



Forest Springs

TABLE 15: NOISE MANAGEMENT SUB-PLAN.

Noise Management		
Objectives		
To minimise noise during construction.		
No adverse noise impacts on adjacent properties.		
1. KPI's and Targets		
Details		
 Address all complaints regarding noise management. No harm or injury to any native fauna including the Koala, Northern Quoll, Squatter Pigeon and Grey-he 	aded Flying-fox.	
2. Management Actions		
Description	Responsibility	Timing
Where required, install noise abatement barriers or fencing around the perimeter of the site.	SEM	Prior to and throughout construction phases
Make use of noise attenuating controls at the source, such as mufflers or acoustic screens, particularly near areas where fauna habitat features have been identified (i.e., retained vegetation, dens, nests or roosts).	SEM	Prior to works
All complaints regarding noise are to be recorded within the Corrective Actions Register.	SEM	At all times
All complaints regarding noise are to be addressed within 24 hours if severe, or within one week for minor complaints.	SEM	At all times
Locate static sources of noise such as the generators as remotely as possible from noise sensitive receivers and areas of retained vegetation / potential fauna habitat.	SEM	Prior to works
Modification of work activities where noise or vibration is found to cause unacceptable impact. Unavoidable significant / excessive disturbance must be undertaken during daytime hours to avoid impacts on nocturnal species.	SEM	At all times
Hours of construction must be in accordance with:	SEM	At all times



Noise Management			
 The provisions of any relevant In the absence of any relevant Monday to Saturday and not 	nt local law; or, nt local law or condition, the hours of construction must be limited to 0630–1830 at all on Sunday and public holidays.		
3. Monitoring			
Description		Responsibility	Frequency
Visual inspection of noise barrier	s and fences for signs of damage.	SEM	Daily throughout construction phase
Monitoring noise levels during we	orks to ensure they do not exceed permittable levels.	SEM	At all times
Noise compliance monitoring sha Department of Environment and <i>environmental noise</i> . Noise comp	all be undertaken in accordance Noise Measurement Manual (Queensland Science 2020) or <i>AS 1055:2018 Acoustics – Description and measurement of</i> Iliance monitoring results shall be provided to the regulator.	SEM	At all times
Examples of Contingency and Corr	ective Actions		
Incident	Corrective Action		Responsibility
Observation of excessive noise	Report and investigate as an incident.		SEM
	Halt work within proximity of the area until cause of excessive noise is addres	ssed.	SEM
Complaint received Report and investigate as an incident. Complaint must be addressed within 24 hours if severe, or within one week for minor complaints.		SEM	
		SEM	
	Review procedures and adjust if required.		SEM
	Notify the PM if the complaint escalates to a serious concern that cannot be a SEM.	addressed by the	SEM



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Noise Management

Retrain relevant personnel regarding CEMP procedures and controls.

SEM



10.1.7 WASTE MANAGEMENT

All refuse storage, removal and collection methods must be in accordance with any relevant local government policy or standard or, where no relevant local government policy or standard exists, are to be in accordance with the *Waste Reduction and Recycling Act 2011* (Qld) so as not to cause any unreasonable interference with the amenity to the surrounding area and to provide an acceptable level of amenity for future users of the site (Table 16).

Solid waste includes vegetation cleared as part of the proposed development. Cleared 'green waste' is to be managed by the contractor in accordance with the CEMP. Other solid waste is to be disposed of at landfill in accordance with Council's local laws and regulations.

Waste management follows the waste hierarchy:

- Avoid;
- Reduce;
- Reuse;
- Recycle;
- Treat; and,
- Dispose.

The following waste storage practices should also be implemented and adhered to at all times.

Asbestos or Asbestos Containing Material

Where asbestos or asbestos containing material (ACM) is found on site during construction works, asbestos shall be managed in accordance with the:

- Work Health and Safety Act 2011 (Qld) (WHS Act);
- Work Health and Safety Regulation 2011 (Qld) (WHS Regulation);
- Code of Practice: How to Safely Remove Asbestos (Qld); and,
- Code of Practice: How to Manage and Control Asbestos in the Workplace (Qld).

Where asbestos or ACM is found on the site, a site-specific Asbestos Management Plan should be put in place. The plan must be administered by the principal contractor and include:

- Identification and signage of the asbestos or ACM;
- Safe work procedures and control measures;
- Incidents or emergency procedures; and,
- Consultation, information and training responsibilities for staff and contractors.

Chemical Storage

All fuels and chemicals must be stored in an on-site containment system of a type suitable to prevent the spillage of the material and its discharge to the environment.



Forest Springs

In all instances, the storage and handling of chemicals and fuels done in accordance with the relevant AS (as amended or substituted by a later standard) shall be taken to be sufficient for compliance with relevant conditions in Section 2.

See the following ASs for requirements for storage and handling of chemicals and fuels:

- AS1940:2017 The storage and handling of flammable and combustible liquids;
- AS3780 2008 The storage and handling of corrosive substances; and
- AS/NZS 3833:2007 The storage and handling of mixed classes of dangerous goods, in packages and bulk intermediate containers.

Spill Kits

The person undertaking any waste management or activity that includes the use of chemicals must keep an appropriate spill kit, personal protective equipment, operator instructions and emergency procedure guides for the management of wastes and chemicals associated with the activity in a place accessible to all employees.

Employees undertaking any waste management activity or handing chemicals must have received appropriate training in the use of the spill kit and the handling of chemicals stored on site. Training must be repeated at intervals not greater than two years.



TABLE 16: WASTE MANAGEMENT SUB-PLAN.

Waste Management		
 Objectives To minimise and manage waste during construction. No adverse waste impacts on adjacent properties. 		
1. KPI's and Targets Details		
All waste is managed correctly.		
2. Management Actions		
Description	Responsibility	Timing
A trade waste permit to discharge waste into the sewer must be obtained.	PM	Prior to works
Waste management control measures are to be in accordance with any relevant permit conditions.	SEM	At all times
Waste that is a contaminant, must not be released into the environment where the release will cause environmental harm or nuisance, unless authorised.	SEM	At all times
All waste should be placed in appropriate disposal containers and areas during construction.	SEM	At all times
All waste should be removed from site and disposed of appropriately.	SEM	At all times
Where possible ensure that waste on site is appropriately covered.	SEM	At all times
Covered bins are provided to collect waste and prevent fauna being attracted to the work site.	SEM	At all times
An adequate number of an appropriate type of commercial and bulk waste containers shall be provided at a central location to accommodate all waste produced on the site.	SEM	At all times

All waste collected on the site to be removed not less than once per week. SEM At all times



Waste Management		
Appropriate spill kits, personal protective equipment, operator instructions and emergency procedure guides for the management of wastes and chemicals must be in a place accessible to all employees.	SEM	At all times
All fuels and chemicals must be stored in an on-site containment system of a type suitable to prevent the spillage of the material and its discharge to the environment.	SEM	At all times
All general and regulated waste records, including transfer station dockets and waste tracking certificates, are to be retained.	SEM	At all times
Waste must be stored, pending its lawful disposal to landfill or to a recycling facility, or another place with the written approval of the administering authority, in a location at the authorised place where it is not visible to a person outside the authorised place.	SEM	At all times
 Waste (other than wastewater or sludges in any evaporation pond) must be removed from the authorised place within the timeframe specified for the waste as follows: If the waste is surplus from the construction of the development – within three (3) months after construction works are complete; or, Otherwise – within three (3) months of the waste being generated. 	SEM	At all times
Waste storage areas are to be signed and located away from environmentally sensitive areas.	SEM	At all times
Burning of waste is prohibited.	SEM	At all times
Adequately sized refuse bins will be made available on site and will have suitable lids to prevent access by animals.	SEM	At all times
Construction site is to be kept in an orderly and hygienic standard, free of litter and waste.	SEM	At all times
3. Monitoring		
Description	Responsibility	Frequency



Waste Management			
Visual inspection of waste and chemical storage facilities. SEM		Weekly	
Monitoring waste movement and disposal during works. SEM		As required	
Visual inspection to ensure appropriate bunding is maintained and operated correctly. SEM		Weekly	
Examples of Contingency and Corrective Actions			
Incident	Corrective Action		Responsibility
Observation of incorrectly stored waste during work operations	Report and investigate as an incident.		SEM
	Halt work within proximity of the area until waste is stored correctly.		SEM
	Train relevant personnel in the correct waste management procedures.		SEM
Complaint received	Report and investigate as an incident.		SEM
	Complaint must be addressed within 24 hours if severe, or within one week for minor complaints.		SEM
	Review procedures and adjust if required.		SEM
	otify the PM if the complaint escalates to a serious concern that cannot be addressed by the M.		SEM
	Retrain relevant personnel regarding CEMP procedures and controls.		SEM



11 AUDIT AND REVIEW

11.1 ENVIRONMENTAL AUDITING

Compliance with the CEMP will be achieved through self-administered weekly monitoring and subsequent reporting to the relevant authority (if required).

Environmental auditing, monitoring and compliance will be overseen by the SEM; however, all personnel entering the site must familiarise themselves with the CEMP and acknowledge their responsibility to comply with the Plan's requirements.

In addition, an EIC has been prepared which provides a procedure for auditing compliance with the CEMP. The audit will be administered by the proponent's SEM.

11.2 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN REVIEW

As the project progresses, environmental impacts may change. As such, it is important that this CEMP is revised to address any environmental impacts arising from the changes in activities.

The CEMP will be reviewed by the project manager as required if any additional activities are to be carried out. Each review period will investigate:

- Potential gaps between the CEMP management measures and on-site construction activities;
- Assessment of any incidents or near misses that occurred since the previous review; and,
- Employee and workplace compliance.

The review should include consultation between employees and management to review and discuss concerns.

Ongoing monitoring and review of the CEMP ensures that risk identification and management measures are constantly assessed, ensuring the efficiency and effectiveness of the CEMP.

The Project Manager's details are located in the site contacts list (Appendix 3).



12 GLOSSARY

Acronym	Description	
CEMP	Construction Environment Management Plan	
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)	
SEM	Site Environmental Manager	
TPZ	Tree Protection Zone	
DATSIP	Department of Aboriginal and Torres Strait Islander Partnerships	
PM	Project Manager	
ACM	Asbestos containing material	
AS	Australian Standard	


REFERENCES

Commonwealth of Australia (2014). Environmental Management Plan Guidelines.

Department of Agriculture Water and the Environment (2021). National Recovery Plan for the Grey-headed Flying-fox 'Pteropus poliocephalus'

Department of Agriculture Water and the Environment (2022). Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory. W. a. t. E. Department of Agriculture. Canberra. , Australian Government. .

Department of the Environment (2016). EPBC Act referral guideline for the endangered northern quoll Dasyurus hallucatus: EPBC Act Policy Statement. Department of the Environment.

Nearmap. (2022). "Nearmap PhotoMaps." from https://www.nearmap.com/au/en.

Queensland Department of Environment and Science (2020). "Noise measurement manual."

Safe Work Australia (2019). Workplace exposure standards for airborne contaminants

Threatened Species Scientific Committee (2015). Conservation Advice Geophaps scripta scripta squatter pigeon (southern). D. E. a. Science. Canberra.



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APPENDIX 1: PERMIT CONDITIONS





Gladstone Regional Council PO Box 29, Gladstone Qid 4680 Phone (07) 4970 0700 Fax (07) 4975 8500 Email info@gladstonerc.qld.gov.au Website www.gladstone.qld.gov.au

Please address all correspondence to The Chief Executive Officer

Contact Officer: Matthew Kelly Contact Phone Number: (07) 4977 6503 Our Ref: DA/10762/2008

4 July 2016

Nicole Topple Walker Corporation Pty Ltd GPO Box 4073 SYDNEY NSW 2001

Dear Madam

CHANGE TO AN EXISTING APPROVAL Sustainable Planning Act 2009 S373, 388

DEVELOPMENT APPLICATION NO. DA/10762/2008 MATERIAL CHANGE OF USE - IMPACT - PRELIMINARY APPROVAL -MATERIAL CHANGE OF USE (CHANGE OF ZONE FROM URBAN EXPANSION TO RESIDENTIAL) AND DEVELOPMENT PERMIT -RECONFIGURING A LOT [5 INTO 643 LOTS (STAGES 4-21)] LOCATION: LOT 902 PARKSVILLE DRIVE, NEW AUCKLAND LOTS 912 & 913, DIXON DRIVE AND LOTS 243 & 301 KIRKWOOD ROAD, KIRKWOOD QLD 4680 DESCRIPTION: LOTS 902 SP 246177, LOTS 912 & 913 SP 281138, LOTS 243 & 301 SP 174113, AUCKLAND

Reference is made to the above development application, and to your request to change which was received by Council on 27 April 2016.

I wish to advise that the Request to Change application was assessed under Delegated Authority on 1 July 2016 where it was decided to approve the request to Change the Development Approval. To ensure that this change is consolidated into your approval, Council has issued the attached Modified Decision Notice with the changes included.

Reconfiguring a Lot Component

Condition 5 - Amended

Should you have any questions or require further clarification in relation to any matters raised in the Modified Decision Notice, please do not hesitate to contact Council's Acting Planning Services Coordinator, Matthew Kelly on (07) 4977 6503.

Yours faithfully,

TR MCCONALD ACTING MANAGER DEVELOPMENT SERVICES



MODIFIED DECISION NOTICE - DA/10762/2008 SUSTAINABLE PLANNING ACT 2009 S335

Application:	Material Change of Use - Impact - Preliminary Approval - Material Change of Use (Change of Zone from Urban Expansion to Residential) and Development Permit - Reconfiguring a Lot [5 into 643 Lots (Stages 4-21)]	
Applicant Name & Address:	Walker Gladstone Pty Ltd C/- Walker Corporation Pty Ltd GPO Box 4073 SYDNEY NSW 2001	
Owner:	Walker Gladstone Pty Ltd	
Subject Land:	Lots 902 Parksville Drive, NEW AUCKLAND, Lots 912 & 913, Dixon Drive, Lots 243 & 301 Kirkwood Road, KIRKWOOD QLD 4680	
Location:	Lot 902 SP 246177, Lots 912 & 913 SP 281138, Lots 243 and 301 SP 174113, AUCKLAND	
Zoning:	Residential, Commercial and Urban Expansion	
Site Area:		
Submissions Received:	27 'Properly Made'	
Request to Change Received:	27 April 2016	

You are advised that your Request to Change application was Approved Subject to Conditions. This Modified Decision Notice replaces the previously issued Modified Decision Notice dated 2 October 2015. These conditions are clearly identified to indicate whether the assessment manager or a concurrence agency imposed them.

1. DETAILS OF THE APPROVAL

		Development Permit	Preliminary Approval
	Reconfiguring a lot	×	x
•	Material Change of Use overriding the planning scheme	x	1

2. RELEVANT PERIOD FOR THE APPROVAL

The relevant periods stated in section 341 of the *Sustainable Planning Act 2009* (SPA) apply to each aspect of development, commencing on the date of the original approval, as outlined below:-

- material change of use 4 years
- reconfiguring a lot not requiring operational works 2 years
- reconfiguring a lot requiring operational works 4 years
- any other development not listed above 2 years

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the following relevant periods apply to the following aspects of development in this approval:-

If there is 1 or more subsequent related approvals for a development approval for a material change of use or a reconfiguration, the relevant period for the approval will be taken to have started on the day the latest related approval takes effect.

3. APPROVED PLANS

The approved plans and/or documents for this development approval are listed in the following table:

Plan/Document Number	Plan/Document Name	Date
WFS-LMP-001 Rev F	Layout Masterplan: Stages 4-21	05/06/15
WFS-CP-001 Rev F	Connectivity Plan: Stages 4-21	05/06/15
WFS-RHEP-001 Rev F	Road Hierarchy Eastern Precinct: Stages 4-7	05/06/15
WFS-RHWP-001 Rev F	Road Hierarchy Western Precinct: Stages 10-21	05/06/15
WFS-OSP-001 Rev F	Open Space Plan: Stages 4-21	05/06/15
G2696 Plan 50 Sheet 1 of 1 Rev B	Typical Building Envelope Plan	10/08/15
G2696 Plan 88 Sheet 1 of 1 Rev H	Forest Springs: Stage 4, Option 1	20/11/15
G2696 Plan 54 Sheet 1 of 3 Rev F	Forest Springs: Stage 5	09/01/15
G2696 Plan 55 Sheet 1 of 3 Rev D	Forest Springs: Stage 6	26/11/14
G2696 Plan 55 Sheet 2 of 3 Rev D	Forest Springs: Stage 6A	25/11/14
G2696 Plan 55 Sheet 3 of 3 Rev D	Forest Springs: Stage 6B	26/11/14
G2696 Plan 56 Sheet 1 of 1 Rev C	Forest Springs: Stage 7	20/10/14
WFS-SP-001 Rev H	Stage Plan: Stage 10	05/06/15
WFS-SP-002 Rev H	Stage Plan: Stage 11 & 17-20	05/06/15
WFS-SP-003 Rev H	Stage Plan: Stage 12-16	05/06/15
WFS-SP-004 Rev H	Stage Plan: Stage 21	05/06/15

4. OTHER NECESSARY DEVELOPMENT PERMITS

Listed below are other development permits that are necessary to allow the development to be carried out:-

Operational Works

5. PRELIMINARY APPROVAL OVERRIDING THE PLANNING SCHEME

A preliminary approval under section 242 of SPA has been granted and as such any development resulting from this approval will be as per the application and conditiona of the approval.

6. IDAS REFERRAL AGENCIES

The IDAS referral agencies applicable to this application are:-

 Department of Infrastructure, Local Government and Planning (Concurrence Agency) Referral Response dated 23 July 2015 (Ref: SPD-0615-018665)

7. SUBMISSIONS

There were 27 properly made submissions about the application. In accordance with S335(I) of the SPA, the name and address of the principal submitter for each properly made submission are as follows:-

Name of principal submitter	Address
Mr David Pirie	1 Carthurbie Court, Gladstone, QLD 4680
Ms Nerida Rigby	47 Parksville Drive, Gladstone, QLD 4680
Mrs Gayle Pendergast	24 Parksville Drive, Gladstone, QLD 4680
Mrs Bernice King	PO Box 1335, Gladstone, QLD 4680
Mrs Karina Perry	PO Box 510, Gladstone, QLD 4680
Mr Royce Devlin	7 Hodge Court, New Auckland Gladstone,
-	QLD 4680
Mrs Karen Graham	4 Carthurbie Court, Gladstone, QLD 4680
Mrs Melanie Carlyon	11 Parksville Drive, Gladstone, QLD 4680
Mrs Julie-Anne Kilmister	PO Box 827, Gladstone, QLD 4680
Mr Simon Whittingham	PO Box 1470, Gladstone, QLD 4680
Mr Adam Bush	22 Parksville Drive, Gladstone, QLD 4680
Mr Derek Scrivener	46 Parksville Drive, Gladstone, QLD 4680
Mrs Toni Young	PO Box 7268 Kin Kora, Gladstone, QLD
	4680
Mr Anthony Wiper	PO Box 1392 Gladstone, QLD 4680
Mr Craig Price	PO BOX 1279 Gladstone, QLD 4680
Mr Jeffery Thorburn	28 Parksville Drive, Gladstone, QLD 4680
Mr Allan Holland	12 Parksville Drive, Gladstone, QLD 4680
Mr Keith Quinlan	6 Carthurbie Court, Gladstone, QLD 4680
Mrs Margaret Smith	PO Box 1163 Gladstone, QLD 4680
Mr Anthony Curd	8 Parksville Drive, Gladstone, QLD 4680

Mr Bruce Janson	PO Box 7189 Gladstone, QLD 4680		
Mr Martin Elliot	PO Box 5221 Gladstone, OLD 4680		
Mr Debert Invin	O Box 3221 Claditorio, QED 1000 O Dok 3221 Claditorio, QED 1000		
	9 Parksville Drive, Gladstone, QLD 4000		
Mr Steven Llewellyn	30 Parksville Drive, Gladstone, QLD 4000		
Mrs Tracey Hall	23 Parksville Drive, Gladstone, QLD 4680		
Mr Raymond Robinson	14 Parksville Drive, New Auckland,		
· ·	Gladstone, QLD 4680		
Mrs Annette Kennedy	1 Sunrise Place, New Aucland, Gladstone,		
1	QLD 4680		

8. APPEAL RIGHTS

Attached is an extract from the SPA which details your appeal rights and the appeal rights of any submitters regarding this decision.

9. WHEN THE DEVELOPMENT APPROVAL TAKES EFFECT

This development approval takes effect:-

 From the time the decision notice is given, if there is no submitter and the applicant does not appeal the decision to the court.

OR

- If there is a submitter and the applicant does not appeal the decision, the earlier date of either:
 - o When the submitter's appeal ends; or
 - The day the last submitter gives the assessment manager written notice that the submitter will not be appealing the decision.

OR.

 Subject to the decision of the court, when the appeal is finally decided, if an appeal is made to the court.

This approval will lapse if:-

- for a material change of use, the first change of use under the approval does not start within the relevant period stated in section 2 of this decision notice;
- for a reconfiguration, a plan for the reconfiguration is not given to the local government within the relevant period stated in section 2 of this decision notice;
- for a development approval other than a material change of use or reconfiguration, the development does not substantially start within the relevant period stated in section 2 of this decision notice.

Note that in the case of a development approval for a material change of use or for reconfiguring a lot, if there is 1 or more subsequent related approvals the relevant period for the material change of use or reconfiguration will restart from the date of the related approval taking effect. Please refer to section 341 of SPA for further information.

Should you wish to discuss this matter further, please contact Council's Acting Planning Services Coordinator, Matthew Kelly on (07) 4977 6503.

Yours faithfully,

TR MCDONALD ACTING MANAGER DEVELOPMENT SERVICES

Attached: Conditions Appeal Rights Approved Plans Referral Agency Response



ASSESSMENT MANAGER CONDITIONS - DA/10762/2008 SUSTAINABLE PLANNING ACT 2009 \$335

Preliminary Approval

1. Development is to be carried out in accordance with the submitted application including the following plans:

Title	Drawing Number	Date	
Layout Masterplan: Stages 4-21	WFS-LMP-001 Rev F	05/06/15	

- 2. Pursuant to s6.1.34 of the *Integrated Planning Act 1997* the Planning Scheme for the City of Gladstone shall be amended to reflect the approval. At the applicant's expense the existing zone of Urban Expansion is to be replaced by the Residential zone with the exception of the areas marked 'Subject to Future Application'.
- 3. Development is to comply with Department of Infrastructure, Local Government and Planning Concurrence Agency Decision Notice dated 23 July 2015 (SPD-0615-018665).
- 4. Deleted.
- 5. Deleted.
- 6. Overall development yield for the site is to be generally consistent with the submitted application, although the layout may be amended within subsequent applications for operational works to reflect the conditions of this approval.
- 7. The road network through the site, and connectivity to adjoining sites is to be generally in accordance with Council's Sub Arterial and Major Collector Road Network and Kirkwood Road South Structure Plan, subject to changes dependent on topographical constraints and reasonable adjoining development layouts. As part of subsequent applications for a Development Permit for Operational Works, the following amendments are to be made to the proposed road network:
 - a) All verges to access streets and access places shall have a minimum width of 4.5m unless an alternative is approved as part of an Operational Works Permit;
 - b) The minimum road reserve width shall be 17m to allow for indented parking and sewers;
 - c) Applications for streets with carriageway widths less than 8m or with property frontages less than 15m must include a layout design for these streets including the location of indented parking bays, stormwater drainage structures, driveways, pathways, electrical light poles, street trees and other landscape features.
 - d) A connection shall be provided between the internal road located in Stage 7 and the unformed Bukkan Road reserve, in order to provide access through the estate to Lot 17 on SP209047.

- e) Deleted.
- f) Bus stops are to be provided at 800m maximum spacing. All bus stops are to incorporate a bus shelter, seat, electrical lighting etc prior to commencement of a designated bus route. If a designated bus route has not commenced the applicant/developer is to provide a bond to council for costs associated with bus shelter and associated infrastructure. This bond is to be returned to the developer at the completion of bus shelter and associated infrastructure. Indented bus bays (25m long x 3.0m wide with 1 in 7 taper in and 1 in 5 taper out) are to be provided at all bus stops where the design speed of the road/street exceeds 40 km/hr. The bonding period for any bus shelter shall not exceed 2 years unless otherwise agreed by Council.
- 8. No connection of the proposed road system to the existing Parksville Drive road reserve is permitted as part of this development. To this end dedicate to Council a strip of land between the proposed cul-de-sac in Stage 4 and the existing Parksville Drive road reserve.
- 9. Deleted.
- 10. Council has information relating to historic unmarked graves located within Lot 301 SP174113. These graves shall be protected with the location of the graves to be identified with appropriate signage and incorporated into the overall park network. Note that Council has coordinates of the grave locations and these are to be clearly marked on any application for Operational Works so as to avoid disturbance during construction.
- 11. Provision of services to comply with Council's desired level of service outlined in the Water & Wastewater Planning Studies 2030 and designed in accordance with Council's respective standards. Connections to Council's sewerage and water reticulation for the site are to be developed in accordance with Council's Water and Wastewater Planning Studies 2030 (dated 20 December 2004). The applicant is responsible for any bring forward costs associated with these works. This includes provision for developer funded pumped connections to the existing network and extension of water reticulation to service the development. The final route of the proposed rising main is to be approved by Council as part of the Operational Works application and any negotiations in respect of locating the rising main through private property are the applicants responsibility. Where a pumped sewer connection is provided the design is to allow for the ultimate development in addition to a lower flow capacity during the earlier stages of the development.

As part of future applications for operational works, the amended layout required by conditions of this approval is to be remodelled in order to ensure sufficient mains sizing for both water and sewerage systems.

- 12. The location of the sewer pump station is to be in accordance with Council's policies. A small overflow basin should be allowed for next to the sewer pump station in case of pump station failure or power outages. A 6 hour storage at ADWF should be allowed.
- 13. The developer is to provide a bikeway/footpath plan for the estate. Pedestrian and Cycle Networks are required to address the internal needs for the subject development and connectivity to the existing network, adjoining developments and Council's planned pedestrian and cycle networks. This plan is to include appropriate crossing of Kirkwood Road
- 14. Payment of an infrastructure charge for water headworks in accordance with Council's Transitional Planning Scheme Policy No 4 - Water Supply and Sewerage Infrastructure

Headworks. This contribution is to be paid prior to the issue of a Development Permit for Building Works for development within the Key Sites or prior to the signing and sealing of the plan of survey for each respective stage and at the rate applicable at the time of payment.

- 15. Payment of an infrastructure charge for sewerage in accordance with Council's Transitional Planning Scheme Policy No 4 - Water Supply and Sewerage Infrastructure Headworks. This contribution is to be paid prior to the issue of a Development Permit for Building Works for development within the Key Sites or prior to the signing and sealing of the plan of survey for each respective stage and at the rate applicable at the time of payment.
- 16. Payment of a parkland contribution in accordance with Council's Local Planning Policy Number 2. This contribution is to be paid prior to the issue of a Development Permit for Building Works for development within the Key Sites or prior to the signing and sealing of the plan of survey for each respective stage and at the rate applicable at the time of payment.
- 17. Payment of a Major Road Infrastructure Contribution in accordance with Council's Transport Infrastructure Policy. This contribution is to be paid prior to the issue of a Development Permit for Building Works for development within the Key Sites or prior to the signing and sealing of the plan of survey for each respective stage and at the rate applicable at the time of payment.
- 18. A minimum area of 10% of the overall site of fair and average land be dedicated to Council as parkland at the time of development of the relevant section. Proposed parkland areas are to be appropriately linked with the existing open space network and generally in accordance with the indicative open space corridors in the proposal plan and Landscape Intent for the site, with the incorporation of both active and passive elements on either side of the development ie. contained on both the eastern and western sides of the development.
- 19. Clearing of vegetation is to be undertaken on a staged basis only and only following operational works approval for an individual stage.
- 20. All alterations to services and municipal facilities necessitated by the proposal shall be the responsibility of the applicant.
- 21. In accordance with Council's Street Names Policy, the applicant is to submit to Council for approval, a list of proposed street names in accordance with an estate theme. Applicant is to note that Council has a current register of approved names.
- 22. Construct all roads and intersections within the development in accordance with the requirements of this approval. Credits will be applied against Councit's Transport Infrastructure Policy and Infrastructure Agreements entered into in respect of the site. Note that the proposed left in left out access from Kirkwood Road to Bukkan Road adjacent to Stage 16 is the sole responsibility of the applicant/developer.

Reconfiguring a Lot Component

1. Reconfiguring a Lot is to be carried out in accordance with the submitted application and plans including:

Title	Drawing Number	Date
Layout Masterplan: Stages 4-21	WFS-LMP-001 Rev F	05/06/15
Connectivity Plan: Stages 4-21	WFS-CP-001 Rev F	05/06/15

Title	Drawing Number	Date
Road Hierarchy Eastern Precinct:	WFS-RHEP-001 Rev F	05/06/15
Stages 4-7		
Road Hierarchy Western Precinct:	WFS-RHWP-001 Rev F	05/06/15
Stages 10-21		<u></u>
Open Space Plan: Stages 4-21	WFS-OSP-001 Rev F	05/0 <u>6/15</u>
Typical Building Envelope Plan	G2696 Plan 50 Sheet 1 of 1 Rev B	10/08/15
Forest Springs: Stage 4, Option 1	G2696 Plan 88 Sheet 1 of 1 Rev H	20/11/15
Forest Springs: Stage 5	G2696 Plan 54 Sheet 1 of 3 Rev F	9/1/15
Forest Springs: Stage 6	G2696 Plan 55 Sheet 1 of 3 Rev D	26/11/14
Forest Springs: Stage 6A	G2696 Plan 55 Sheet 2 of 3 Rev D	25/11/14
Forest Springs: Stage 6B	G2696 Plan 55 Sheet 3 of 3 Rev D	26/11/14
Forest Springs: Stage 7	G2696 Plan 56 Sheet 1 of 1 Rev C	20/10/14
Stage Plan: Stage 10	WFS-SP-001 Rev H	05/06/15
Stage Plan: Stage 11 & 17-20	WFS-SP-002 Rev H	05/06/15
Stage Plan: Stage 12-16	WFS-SP-003 Rev H	05/06/15
Stage Plan: Stage 21	WFS-SP-004 Rev H	<u>05/06/15</u>

- Payment of an infrastructure charge for the provision of water supply assessed in accordance with Council's Transitional Planning Scheme Policy No 4 - Water Supply and Sewerage Infrastructure Headworks. This contribution is to be paid prior to and at the rate applicable at the time of signing and sealing the plan of survey for each respective stage.
- 3. Payment of an infrastructure charge for the provision of sewerage supply assessed in accordance with Council's Transitional Planning Scheme Policy No 4 Water Supply and Sewerage Infrastructure Headworks. This contribution is to be paid prior to and at the rate applicable at the time of signing and sealing the plan of survey for each respective stage.
- 4. Payment of a contribution towards the provision of road infrastructure for the additional allotments in accordance with Council's Transport Infrastructure Policy. This contribution is to be paid prior to and at the rate applicable at the time of signing and sealing the plan of survey for each respective stage.
- 5. The Applicant is to construct the bikeway/footpath network generally in accordance with 'Connectivity Plan: Stages 4-21 (WFS-CP-001 Rev F) dated 05/06/15'. In Stage 21, a 6m wide road reserve along the southern boundary of lots 441 and 442 connecting the proposed local access road to Kirkwood Road is to be dedicated to Council.

Advisory Note: A footpath/bikeway is not required to be constructed within the 6m road reserve from Stage 21 to Kirkwood Road. The road reserve is to be located clear of mapped vegetation and all other vegetation to be removed from it.

5A. Pedestrian pathways (concrete pathways) must be provided on one side of all minor roads (neighbourhood collector streets, access streets and laneways) and on at least one side of all bus routes and major (sub-arterial) roads. Pathways are to be 2m in width on major roads; 1.5m on minor roads; and 2.4m in width for off-road pathways with mowed edges of approximately 2m to allow safe passage by all users (predominantly for park/ esplanade linkages). These dimensions may need to be increased where the pathways form part of the bicycle network. Pathways are not required around the curved radius of a cul-de-sac head except where a continuous pathway is needed to provide pedestrian/cyclist connectivity from the cul-de-sac head to other areas of the site. Off road pathways may need to be on

constructed on structure in environmentally sensitive areas.

- 6. All alterations to services and municipal facilities necessitated by the proposal shall be the responsibility of the applicant.
- 7. Separate connections are to be provided to the reticulated water supply for each lot.
- 8. Separate connections are to be provided to the reticulated sewerage for each lot.
- 9. Demonstrate that each individual allotment is capable of being drained of its potential roof water without affecting adjoining lots. Stormwater drainage from the site is to be designed to Q10 standard and is to be constructed so as not to cause a nuisance to adjacent properties with provision for surcharge flows of ARI 100 years and over to be catered for overland. Where stormwater from the proposed development cannot be drained into the kerb and channel via approved adaptors, a piped roofwater drainage collection system is to be provided in accordance with Council's Standard Drawings. Two kerb and adaptors are required per allotment draining to the street. The applicant is required to submit to Council details demonstrating how the roofwater will be discharged into the existing drainage system as part of the Operational Works application.
- 10. At the developers expense, all roads in accordance with the dimensions and materials in accordance with Council's Road and Transport Standard 2005.
- 11. All operational works (civil) are to be designed and constructed in accordance with the following:
 - a) GCC Road Transport Design Standard 2005;
 - b) GCC Stormwater Design Standard;
 - c) GCC Water Reticulation Standard 2003;
 - d) GCC Sewerage Design Standard 2005; and
 - e) Gladstone Storm Water Management Strategy 2000 Drainage Management Document.
- 12. Submission for approval of a Development Application for Operational Works must be completed for all required civil works, which indicates full detailed working plans and specifications of all civil engineering work to Council's Standards. Such plans and specifications shall be prepared by a Registered Professional Engineer in Queensland (RPEQ) and be accompanied by the relevant fee based on an approved estimate of cost.
- 13. The civil works being executed under the supervision of a RPEQ, on completion, give to Council "as constructed" details of the civil works including certification from the supervising RPEQ that all civil works have been completed in accordance with the approved plans and specifications. This includes provision of a CCTV report on all sewer mains installed as part of the development. Council reserves the right to utilise for its own purposes and the sale of information provided within the "as constructed" drawings provided by the applicant.
- 14. Completion of the civil works and lodgement of the relevant plan of survey for each respective stage within two (2) years of Council approving the engineering drawings referred to in Condition 12, above. This period may be extended as part of the relevant Operational Works Approval currency period.

- 15. Provision of registered easement documents, at no cost to Council over the subject land as may be deemed necessary by Council having considered the engineering drawings submitted including appropriate access easements to cover all relevant allotments.
- 16. An easement shall be created in the benefit of Gladstone Regional Council, for the purpose of Stormwater Drainage, over all roof water lines. The easement created shall be 3m wide from the rear or side boundary of the property.
- 17. An easement shall be created in the benefit of Gladstone Regional Council, for the purpose of Wastewater Drainage, over all new and existing sewer mains not in road reserves. The easement created is to extend a minimum of 1.5m clear of the external wall of the sewer asset and shall be a minimum width of 3m wide. Where the sewer is located within 2.5m of a property boundary, the easement shall extend to the property boundary.
- 18. The lodgement of a maintenance bond on completion of the civil works, the equal of five (5) per centum of the total estimate, to be held by the Council during the maintenance period being not less than twelve (12) months and the commencement of the 'on maintenance' period will not occur until all outstanding works, including the receipt of acceptable 'as constructed' information have been completed.
- 19. Any footpath areas disturbed by the development are to be top dressed and turfed following completion of construction activity.
- 20. No clearing of the lots is permitted unless otherwise approved by Council as part of an Operational Works application.
- 21. A Stormwater Management Plan including an erosion and sediment control plan devised using the principles set out in the IEAust (Qld) publication "Erosion and Sediment Control-Engineering Guidelines for Queensland Construction sites, June 1996" shall be submitted prior to construction or earthworks commencing. The plan is to comply with the following points:
 - a) The Plan shall report on environmental sites constraints, including soil erosion hazard, and provide design details of measures to prevent soil erosion, mitigate flow rates, and capture mobilised sediments. It shall predict soil loss for the 1 in 2 year ARI storm event. It shall include a contour diagram(s) showing excavation and stockpile sites, roads, trenches, culverts, drains, service utility trenches, the siting of all pollution control measures, and showing site constraints including streams and drainage lines and soil/sub-soil type distribution.
 - b) For the purpose of controlling sediment and soil nutrients, all contaminated run-off must be drained to a Temporary Sediment Retention Pond during both the land development/subdivision phase and the building phase until 80% of the subdivision is permanently occupied.
 - c) All areas of the site not subject to erosion, contamination or disturbance must have provision for all run-off to be diverted away from the approved pollution treatment measures and facilities, in a manner, which does not cause scouring, or erosion.
 - d) Access to the site must be restricted to a 15 metre long 3 metre wide stabilised construction entrance. A corduroy or metal grid shall be provided to help shake mud from vehicle tyres.
 - e) Discharge to waters from any sediment retention pond shall not contain greater than 50 milligrams per litre of non-filtrable residues.

- f) Vegetated areas not planned for clearing or construction activities shall be kept fenced or taped off to minimise vehicle ingress.
- g) All excavated or removed topsoil and other resources such as woodchips and mulches shall be retained and protected on site for later stabilisation projects.
- h) The sediment retention pond must be maintained on the site throughout the land development/subdivision phase and the building phase until a minimum of 80% of the subdivision is permanently occupied except where a water pollution control pond/wetland has been constructed to take over the role of the sediment retention pond.
- i) A suitably qualified site supervisor shall be appointed to supervise implementation of the Stormwater Management Plan and shall inspect the site on each day work is taking place and log observations of any deficiencies. Such log shall be made available for inspection to any authorised officer on demand.
- 22. Plant two street trees per allotment of a species in accordance with Council's preferred landscape plant list.
- 23. An agreement shall be entered into with Ergon Energy for the provision of underground power to each proposed allotment, and provide a system of street lighting that complies with AS1158. A certificate of Electricity Supply is to be obtained from Ergon Energy prior to the sealing of the Plan of survey, for the supply and reticulation of electricity to each allotment.
- 24. Provision is to be made for and opportunity given for Telstra and the Gas Corporation to install their reticulation at the time of construction.
- 25. Any filling carried out on site is to be in accordance with AS3798-1996 and shall be certified by a suitably qualified person as being carried out in accordance with the standards and specification. The certification shall indicate level of testing responsibility that has been used i.e. Level 1 or Level 2.
- 26. Appropriate erosion and sedimentation control measures are to be utilised during any Operational Works carried out in associated with the Reconfiguring a Lot.
- 27. No operational works are to commence until the name of the responsible contractor has been advised in writing to Council, and that the contractor has received from Council a notice of appointment of principal contractor, under the provisions of the Workplace Health and Safety Act (i.e. submission of Notification of Qleave Payment Form).
- 28. Notify Council of any change in the responsible contractor notified under Condition 27 above, and provide all details regarding same as may be required by Council from time to time.
- 29. The developer is to provide a 3 metre wide (minimum) concrete driveway constructed for the full length of the access handle to any proposed battle axe allotments. Invert crossing and driveways are to be in accordance with Council's Standard Drawings RT-0055. Service and utility conduits shall also be provided for the full length of this access handle. The applicant shall obtain an approval from Council under Local Law 12 Roads for the proposed driveways prior to construction.
- 30. It is the responsibility of the developer to locate all infrastructure on site and relevant mitigation measures to avoid damage to be demonstrated as part of the submission of the Operational Works application.

- 31. A stormwater management plan covering issues of water quality, quantity and maintenance in accordance with Gladstone Stormwater Management Strategy – June 2000 is to be submitted with the application for operational works.
- 32. Water sensitive urban design solutions are to be implemented and the long term effectiveness of the proposal be modelled by a suitably qualified environmental engineer. Use of the CRC's 'Music' program (or equivalent) is recommended.
- 33. The developer shall, at no cost to Council, dedicate and transfer to Council the areas to be developed and shown as Park. The developer shall carry out at its expense such cleaning, seeding and tree planting and other works as required by Council on such land to be dedicated for public uses as Council may consider necessary to make the land suitable for the intended purpose. Details of these works are to be included with any operational works application. Access for maintenance purposes shall be provided at suitable points throughout the estate and identified as part of Operational Works applications. NB: all areas indicated as screen planting shall not be dedicated as parkland.
- 34. Any proposed lot with a frontage higher than 60m AHD is required to be a part of a Community Title Scheme. A new Development Application for a Reconfiguring of a Lot for a Community Title Scheme is required for any proposed Community Title Scheme and is required to include:
 - A single road access point and water connection to Council's Reticulated Water Network;
 - b) All infrastructure internal to the Community Title Scheme is to be privately owned; and
 - Water connection point to Council's Reticulated Water Network is to be below 60m AHD.
 - d) Clear delineation between Council's road network and the road network in the Community Title Scheme.
- 35. As part of any future Development Application for a Material Change of Use or Reconfiguring a Lot, the following is required, for each bend either:
 - a) Eliminate small radius bends that are non-compliant with the design speed based on the speed limit. This design speed is 60km/hr for any streets (including access streets) without a posted speed and 70km/hr for any other streets (including collector streets) with 60km/h signage; or
 - b) Provide driveways to all allotments that are adjacent to small radius bends (those bends which are non-compliant with the design speed) in a location that achieves the required Safe Sight Distance (as per AUSTROADS) based on the "racing line speed". Note: The racing line speed is the speed at which a vehicle negotiates a corner with no lane discipline and therefore achieving the largest radius possible; or
 - c) Install a concrete median strip in the centre of the road for the length of the bend. Note the road reserve carriageway will be required to be widened to cater for this.

Key Sites Component - Deleted

END OF CONDITIONS

Advice to Applicant:

A Modified Adopted Infrastructure Charge Notice in relation to the infrastructure charges applicable to this development will be provided separately.

[s 461]

Division 8 Appeals to court relating to development applications and approvals

461 Appeals by applicants

- (1) An applicant for a development application may appeal to the court against any of the following—
 - (a) the refusal, or the refusal in part, of the development application;
 - (b) any condition of a development approval, another matter stated in a development approval and the identification or inclusion of a code under section 242;
 - (c) the decision to give a preliminary approval when a development permit was applied for;
 - (d) the length of a period mentioned in section 341;
 - (e) a deemed refusal of the development application.
- (2) An appeal under subsection (1)(a), (b), (c) or (d) must be started within 20 business days (the *applicant's appeal period*) after—
 - (a) if a decision notice or negotiated decision notice is given—the day the decision notice or negotiated decision notice is given to the applicant; or
 - (b) otherwise—the day a decision notice was required to be given to the applicant.
- (3) An appeal under subsection (1)(e) may be started at any time after the last day a decision on the matter should have been made.

462 Appeals by submitters—general

(1) A submitter for a development application may appeal to the court only against—

Authorised by the Parliamentary Counsel

[s 463]

- (a) the part of the approval relating to the assessment manager's decision about any part of the application requiring impact assessment under section 314; or
- (b) the part of the approval relating to the assessment manager's decision under section 327.
- (2) To the extent an appeal may be made under subsection (1), the appeal may be against 1 or more of the following---
 - (a) the giving of a development approval;
 - (b) any provision of the approval including-
 - (i) a condition of, or lack of condition for, the approval; or
 - (ii) the length of a period mentioned in section 341 for the approval,
- (3) However, a submitter may not appeal if the submitter-
 - (a) withdraws the submission before the application is decided; or
 - (b) has given the assessment manager a notice under section 339(1)(b)(ii).
- (4) The appeal must be started within 20 business days (the submitter's appeal period) after the decision notice or negotiated decision notice is given to the submitter.

463 Additional and extended appeal rights for submitters for particular development applications

- (1) This section applies to a development application to which chapter 9, part 7 applies.
- (2) A submitter of a properly made submission for the application may appeal to the court about a referral agency's response made by a concurrence agency for the application.
- (3) However, the submitter may only appeal against a referral agency's response to the extent it relates to—
 - (a) development for an aquacultural ERA; or

[s 464]

- (b) development that is—
 - (i) a material change of use of premises for aquaculture; or
 - (ii) operational work that is the removal, damage or destruction of a marine plant.
- (4) Despite section 462(1), the submitter may appeal against the following matters for the application even if the matters relate to code assessment—
 - (a) a decision about a matter mentioned in section 462(2) if it is a decision of the chief executive;
 - (b) a referral agency's response mentioned in subsection (2).

464 Appeals by advice agency submitters

- (1) Subsection (2) applies if an advice agency, in its response for an application, told the assessment manager to treat the response as a properly made submission.
- (2) The advice agency may, within the limits of its jurisdiction, appeal to the court about—
 - (a) any part of the approval relating to the assessment manager's decision about any part of the application requiring impact assessment under section 314; or
 - (b) any part of the approval relating to the assessment manager's decision under section 327.
- (3) The appeal must be started within 20 business days after the day the decision notice or negotiated decision notice is given to the advice agency as a submitter.
- (4) However, if the advice agency has given the assessment manager a notice under section 339(1)(b)(ii), the advice agency may not appeal the decision.

Current as at 20 November 2015

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Authorised by the Parliamentary Coursel

(s 465)

465 Appeals about decisions relating to extensions for approvals

- (1) For a development approval given for a development application, a person to whom a notice is given under section 389, other than a notice for a decision under section 386(2), may appeal to the court against the decision in the notice.
- (2) The appeal must be started within 20 business days after the day the notice of the decision is given to the person.
- (3) Also, a person who has made a request under section 383 may appeal to the court against a deemed refusal of the request.
- (4) An appeal under subsection (3) may be started at any time after the last day the decision on the matter should have been made.

466 Appeals about decisions relating to permissible changes

- (1) For a development approval given for a development application, the following persons may appeal to the court against a decision on a request to make a permissible change to the approval—
 - (a) if the responsible entity for making the change is the assessment manager for the application—
 - (i) the person who made the request; or
 - (ii) an entity that gave a notice under section 373 or a pre-request response notice about the request;
 - (b) if the responsible entity for making the change is a concurrence agency for the application—the person who made the request.
- (2) The appeal must be started within 20 business days after the day the person is given notice of the decision on the request under section 376.
- (3) Also, a person who has made a request under section 369 may appeal to the court against a deemed refusal of the request.

Authorised by the Parliamentary Counsel

[s 467]

(4) An appeal under subsection (3) may be started at any time after the last day the decision on the matter should have been made.

467 Appeals about changing or cancelling conditions imposed by assessment manager or concurrence agency

- (1) A person to whom a notice under section 378(9)(b) giving a decision to change or cancel a condition of a development approval has been given may appeal to the court against the decision in the notice.
- (2) The appeal must be started within 20 business days after the day the notice of the decision is given to the person.

Division 9 Appeals to court about compliance assessment

468 Appeals against decision on request for compliance assessment

- A person to whom an action notice has been given under section 405(5) about a request for compliance assessment of development, a document or work may appeal to the court against the decision in the notice.
- (2) The appeal must be started within 20 business days after the notice is given to the person.

469 Appeals against condition imposed on compliance permit or certificate

- (1) A person who is given a compliance permit or compliance certificate subject to any conditions may appeal to the court against the decision to impose the condition.
- (2) The appeal must be started within 20 business days after the day the compliance permit or compliance certificate is given to the person.

Current as al 20 November 2015


































Department of Infrastructure, Local Government and Planning

Our reference: SPD-0416-026926 Your reference: DA/10762/2008

24 May 2016

The Chief Executive Officer Gladstone Regional Council PO Box 29 Gladstone QLD 4680 info@gladstonerc.gld.gov.au

Dear Sir,

Notice about request for permissible change—relevant entity

Cnr Dixon Drive and Kirkwood Road, Kirkwood QLD 4680 (Lot 901 SP235857; Lot 902 SP281151; Lots 912 and 913 SP281138; Lots 243 and 301 SP174113). (Given under section 373(1) of the Sustainable Planning Act 2009)

The Department of Infrastructure, Local Government and Planning received a copy of the request for a permissible change under section 372(1) of the *Sustainable Planning Act 2009* on 27 April 2016 advising the department, as a relevant entity, of the request for a permissible change made to the responsible entity under section 369 of the *Sustainable Planning Act 2009*.

The department understands that the proposed changes are as follows:

 To amend reconfiguration condition 5 to clarify intentions for pedestrian connectivity within the estate.

The department has considered the proposed changes to the development approval and advises that it has no objection to the change being made.

If you require any further information, please contact Glenn Druery, A/Senior Planning Officer on 4924 2907 or via email <u>RockhamptonSARA@dilgp.qld.gov.au</u> who will be able to assist.

Yours sincerely

Will

Anthony Walsh A/Manager (Planning)

Fitzroy/Central Regional Office Level 2, 209 Bolsover Street PO Box 113 Rockhampton QLD 4700

Page 1



Department of infrastructure, Local Government and Planning

Our reference: SPD-0615-018865 Your reference: DA/10762/2008

23 July 2015

Walker Gladstone Pty Ltd GPO Box 4073 Sydney NSW 2001 nicole.topple@walkercorp.com.au

Dear Sir/Madam,

Changed concurrence agency response (responsible entity)

Kahler Street, New Auckland and Kirkwood Road, Kirkwood (Lots 301 on SP174113; 243 on SP174113; 911 on SP250657; 801 on SP260326; and 902 on SP246177) (Given under section 376 of the Sustainable Planning Act 2009)

The Department of Infrastructure, Local Government and Planning received representations under section 369 of the Sustainable Planning Act 2009 on 19 June 2015 for the original decision described below.

Applicant details	
Applicant name:	Walker Gladstone Pty Ltd
Applicant contact details:	GPO Box 4073
	Sydney NSW 2001
	nicole.topple@walkercorp.com.au
Site details	
Street address:	Kahler Street, New Auckland and Kirkwood Road, Kirkwood
Lot on plan:	Lots 301 on SP174113; 243 on SP174113; 911 on SP250657; 801 on SP260326; and 902 on SP246177
Local government area:	Central Highlands Regional
Page1 ¹	Fitzrov and Central Regional Office
	Level 2, 209 Bolsovar Street
	PO Box 113
	Rockhampton QLD 4700

Application details

Proposed development:	Request for a permissible change to a Development Permit for a Reconfiguration of a Lot (5 into 516 Lots - TO BE AMENDED TO 5 into 642 lots); and to a Preliminary Approval for Material Change of Use (Change of Zone from Urban Expansion to Residential).

Nature of the changes

The nature of the changes agreed to are:

- Amend Condition 1 proposed bus route
- 2. Amend Condition 2 pedestrian/cycle paths
- Amend Condition 3 Development plans
- 4. Amend Condition 13 Bushfire management plan

Original concurrence agency response

Date of original concurrence agency response:	20 August 2014
Original concurrence agency response details:	Approved subject to conditions
Changed concurrence agency response	
Date of changed concurrence agency response:	23 July 2015
Changed concurrence agency response details:	Approved subject to conditions

Conditions

This approval is subject to:

the changed concurrence agency conditions in Attachment 1

The department has, for particular conditions of this approval, nominated an entity to be the assessing authority for that condition under section 255D(3) of the *Sustainable Planning Act 2009*.

Rights of appeal

The rights of applicants to appeal to the Planning and Environment Court against decisions about a development application are set out in chapter 7, part 1, division 8 of the Sustainable Planning Act 2009. For particular applications, there may also be a right to appeal to the Building and Development Dispute Resolution Committee (see chapter 7, part 2 of the Act).

Copies of the relevant appeal provisions are attached.

Native title considerations

A native title assessment was completed for this application in accordance with the *Native Title Act 1993* (Cth). It was determined that there would be no effect on native title, and consequently procedural rights were not required. Further consideration of native title is not required, and a decision can therefore be issued under the *Sustainable Planning Act 2009.*

Amended approved plans and specifications

Copies of the following amended approved plans and specifications are attached:

Drawing/Report Title	Prepared by	Date	Reference no.	Version/Issue
Request for a permissible change to a Development Permit for a Reconfiguration of a Lot (5 into 518 Lots - TO BE AMENDED TO 5 into 642 lots); and to a Preliminary Approval for Material Change of Use (Change of Zone from Urban Expansion to Residential).				
Connectivity Plan Stages 4-21	Walker Corporation Pty Ltd	05/06/15	WFS-CP-001	Issue F
Layout Masterplan Stages 4 – 21	Walker Corporation Pty Ltd	05/06/15	WFS-LMP-001	Issue F

For further information please contact Carl Porter, Senior Planning Officer, on 07 4924 2917 or via email at <u>RockhamptonSARA@dsdip.gld.gov.au</u> who will be pleased to assist.

Yours sincerely,

Non look

Don Cook Manager (Planning) Fitzroy and Central

- enc: Attachment 1 Changed Concurrence agency conditions Attachment 2 - Further advice Attachment 3 - Amended plans and specifications SPA appeal provisions
- cc: The Chief Executive Officer, Gladstone Regional Council, info@cladstonerc.gld.gov.au

Our reference: SPD-0615-018665 Your reference: DA/10762/2008

Attachment 1 - Changed concurrence agency conditions

Aspect of development: Preliminary Approval for Material Change of Use (Change of Zone from Urban Expansion to Residential), Development Permit for a Reconfiguration of a Lot (5 into 642 lots 516 Lots) (Amended 23 July 2015)		
No. Conditions of development approval	Condition timing	
Public Passenger Transport		
Public Passenger Transport - Pursuant to section 255D of the Sustainable Planning Act 2009, the chief executive administering the Act nominates the Director-General of the Department of Transport and Main Roads to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
 The 'Proposed Bus Route' in Stage 10 and Stage 6A1 shown on Connectivity Plan Stages 4-21, prepared by Walker Corporation Pty Ltd, dated 05/06/15, drawing number WFS-CP-001 and Issue F Stage Plan, Stage 4 - 21, Drawing No. WFS-PBR-001, Issue B, prepared by Walker Corporation Pty Ltd and dated 22/07/14 must be designed and constructed to comply with the Transport Planning and Coordination Regulation 2005 Schedule (Code for IDAS). (Amended 23, July 2015) 	Prior to Council signing and dating the Plan of Survey for the relevant stage	
2. Shared Pedestrian/cycle paths must be designed and constructed in accordance with Connectivity Plan Stages 4-21, prepared by Walker Corporation Pty Ltd, dated 05/06/15, drawing number WFS-CP-001 and Issue F. Landscape Masterplan North (Drawing No. DA01, Revision C) and Landscape Masterplan South (Drawing No. DA02, Revision C), both prepared by JFP Consultants and dated 24/07/14. Pathways are to be constructed in accordance with Austroads Ch 14 and the relevant Council standards, in particular the structural and width requirements.	Prior to Council signing and dating the Plan of Survey for the relevant stage	
Amenueo zo buly zotoj	· · · · · · · · · · · · · · · · · · ·	
State-controlled road network		

State-controlled roads (prior to 25/03/2015) - Pursuant to section 255D of the Sustainable Planning Act 2009, the chief executive administering the Act nominates the Director-General of the

Act 2009, the chief executive administering the Act nominates the Director-General of the Department of Transport and Main Roads to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):

з.	Development shall be carried out generally in accordance with the following plans except as modified by the conditions:	Prior to Council signing and dating the
	Stage Plan, Stage 4 - 21, Drawing No. WFS-PBR-001, Issue B,	Plan of Survey for the
	prepared by Walker Corporation Pty Ltd and dated 22/07/14 Layout	relevant stage
	Masterplan Stages 4 – 21, Drawing number WFS-LMP-001 Issue	_

	F, prepared by Walker Corporation and dated 05.06.15.	
	(Amended 23 July 2015)	
4.	DAWSON HIGHWAY / DON YOUNG DRIVE INTERSECTION AND DAWSON HIGHWAY / HARVEY ROAD / CHAPMAN DRIVE INTERSECTION UPGRADE 4.1 Prior to Council signing and dating the Plan of tThe applicant / landowner shall on a stage by stage basis:	Prior to Council signing and dating the Plan of Survey for any stage of the development
	4.1.1 Contribute \$198.70 per Lot to the Department of Transport and Main Roads, Rockhampton Office towards the upgrade of the Dawson Highway / Don Young Drive Intersection and the Dawson Highway / Harvey Road / Chapman Drive Intersection to signalised Intersections.	
	4.1.2 The monetary contribution stated in conditions	
	4.4.3 4.1.1 above shall be subject to review in accordance with policies and cost indices current at the time of payment. Currently the CERI Index is 97.86 (Forecast for December 2013).	
	(Amended 23 July 2015)	
5.	Where services (required to serve this development) are proposed to be laid / placed within the boundaries of the State-controlled road reserve, they shall be laid / placed in accordance with Main Roads' requirements.	At all times
6.	(Deleted 20 August 2014)	
7.	WORKS WITHIN STATE-CONTROLLED ROAD RESERVE (WSCRR) Preparation of plans (in accordance with RFCD-0101) and submission of these plans to the Rockhampton office of the Department of Transport and Main Roads for approval. NO WORKS (INCLUDING INSTALLATION OF SERVICES) ARE TO COMMENCE WITHIN THE STATE-CONTROLLED ROAD RESERVE UNTIL APPROVAL OF THE PLAN/S SHOWING THE PROPOSED WORKS IS ISSUED BY THE DEPARTMENT. This approval may be subject to conditions related to the works construction process.	Prior to commencement of any works in the state- controlled road reserves
8.	GENERAL 8.1 All conditions stated above are required to be completed.	8.1 Prior to Council signing and dating the plan of survey for any stage of the development unless otherwise stated within the condition

Т

	8.2 Bonding of any of the conditions not completed prior to Council signing and dating the plan of survey for any stage of the development or other requisite date as stated in the particular condition will not be permitted unless the Department of Main Roads has given written agreement to the bonding of the condition.	8.2 At all times	
Veg	etation management		
Vege exec Resc appro	Vegetation Management - Pursuant to section 255D of the Sustainable Planning Act 2009, the chief executive administering the Act nominates the Director-General of the Department of Natural Resources and Mines to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
9.	Any native vegetation may only be cleared for urban purposes.	At all times	
10.	No clearing of remnant vegetation containing <i>endangered</i> regional ecosystem is to occur within the application area as a result of this approval.	At all times	
11.	In the absence of an approval, clearing other than for infrastructure associated with the MCU and Rat, is to occur only where exempt by Schedule 8 of the <i>Integrated Planning Act 1997</i> .	At all times	
12.	No built infrastructure or allotment boundaries are to be located in or within 10 metres of: (a) an area shown on a certified PMAV map as a Category A area; or (b) an area shown on a certified PMAV map as a Category B area and containing an endangered regional ecosystem.	At all times	
13.	Future Fire management associated with the application will be undertaken in accordance with the Bushfire Management Plan, Proposed Development of Kirkwood Road & Parsloe Street, Kirkwood QLD (Lots 1 – 3 on SP188635 and Lot 243 & 301 on SP174113), 26/06/2008, Orogen Pty Ltd, Report no. 408011_REO_002_v2 and Bushfire Hazard Assossment Management Plan Forest Springe Stages 10-21 Kirkwood Road, QLD 20/05/2014, Literia Consulting, Project no. 1417 version 2:0. Where there is a discrepancy between the two reports, the recommendations of the Literia Consulting report prevail to the extent of the inconsistency. (Amended 23 July 2015)	At all times	

Our reference: SPD-0615-018665 Your reference: DA/10762/2008

Attachment 2 - Further advice

Gene	oral advice
Ref.	Public Passenger Transport
1.	Due to road network changes in proximity to Stage 11, specifically the change from a roundabout to a left-in, left-out only arrangement as shown on the revised <i>Connectivity Plan Stages 4-21</i> (prepared by Walker Corporation Pty Ltd, dated 5 June 2015, Drawing No. WFS-CP-001, Issue F), it is unlikely that buses will be able to efficiently complete the potential future bus route proposed through Stages 13 and 11. Consequently, it is likely that the potential future bus route will remain within Stage 10, unless provision for a right hand turn is made available for buses in this location.
	The revised Connectivity Plan Stages 4-21 shows proposed bus stop locations. Bus stop locations should not be conditioned as part of this development. Any new or modified bus services have to be assessed against other priorities across the network and available funding, amongst other relevant considerations. Hence, detailed bus stop placement is a matter to be addressed at a later stage (post development) by relevant parties.

Our reference: SPD-0615-018665 Your reference: DA/10762/2008

Attachment 3 - Amended plans and specifications

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Sustainable Planning Act 2009—Representation and appeal provisions

The following relevant appeal provisions are provided in accordance with s336(a) of the Susteinable Planning Act 2009.

Chapter 6 Integrated development assessment system (IDAS)

Part 8 Dealing with decision notices and approvals

Division 1 Changing decision notices and approvals during applicant's appeal period

360 Application of div 1

This division applies only during the applicant's appeal period.

- 361 Applicant may make representations about decision
 - (1) The applicant may make written representations to the assessment manager about-
 - (a) a matter stated in the decision notice, other than a refusal or a matter about which a concurrence agency told the assessment manager under section 287(1) or (5); or
 - (b) the standard conditions applying to a deemed approval.
 - (2) However, the applicant can not make representations under subsection (1)(a) about a condition attached to an approval under the direction of the Minister.

362 Assessment manager to consider representations

The assessment manager must consider any representations made to the assessment manager under section 361.

363 Decision about representations

- (1) If the assessment manager agrees with any of the representations about a decision notice or a deemed approval, the assessment manager must give a new decision notice (the *negotilated decision notice*) to----
 - (a) the applicant; and
 - (b) each principal submitter; and
 - (c) each referral agency; and
 - (d) if the assessment manager is not the local government and the development is in a local government area—the local government.
- (2) Before the assessment manager agrees to a change under this section, the assessment manager must consider the matters the assessment manager was required to consider in assessing the application, to the extent the matters are relevant.
- (3) Only 1 negotiated decision notice may be given.
- (4) The negotiated decision notice-
 - must be given within 5 business days after the day the assessment manager agrees with the representations; and
 - (b) must comply with section 335; and
 - (c) must state the nature of the changes; and
 - (d) replaces-
 - (i) the decision notice previously given; or
 - (ii) if a decision notice was not previously given and the negotiated decision notice relates to a deemed approval—the standard conditions applying to the deemed approval.
- (5) If the assessment manager does not agree with any of the representations, the assessment manager must, within 5 business days after the day the assessment.

manager decides not to agree with any of the representations, give written notice to the applicant stating the decision about the representations.

364 Giving new notice about charges for infrastructure

- (1) This section applies if the development approved by the negotiated decision notice is different from the development approved in the decision notice or deemed approval in a way that affects the amount of an infrastructure charge, regulated infrastructure charge or adopted infrastructure charge.
- (2) The local government may give the applicant a new infrastructure charges notice under section 633, regulated infrastructure charges notice under section 643 or adopted infrastructure charges notice under section 648F to replace the original notice.

366 Applicant may suspend applicant's appeal period

- (1) If the applicant needs more time to make the representations, the applicant may, by written notice given to the assessment manager, suspend the applicant's appeal period.
- (2) The applicant may act under subsection (1) only once.
- (3) If the representations are not made within 20 business days after the day written notice was given to the assessment manager, the balance of the applicant's appeal period restarts.
- (4) If the representations are made within 20 business days after the day written notice was given to the assessment manager—
 - (a) if the applicant gives the assessment manager a notice withdrawing the notice under subsection (1)—the balance of the applicant's appeal period restarts the day after the assessment manager receives the notice of withdrawal; or
 - (b) if the assessment manager gives the applicant a notice under section 363(5) the balance of the applicant's appeal period restarts the day after the applicant receives the notice; or
 - (c) if the assessment manager gives the applicant a negotiated decision notice—the applicant's appeal.

Chapter 7 Appeals, offences and enforcement

Part 1 Planning and Environment Court

Division 8 Appeals to court relating to development applications and approvals

461 Appeals by applicants

- (1) An applicant for a development application may appeal to the court against any of the following—
 - (a) the refusal, or the refusal in part, of the development application;
 - (b) any condition of a development approval, another matter stated in a development approval and the identification or inclusion of a code under section 242;
 - (c) the decision to give a preliminary approval when a development permit was applied for;
 - (d) the length of a period mentioned in section 341;
 - (e) a deemed refusal of the development application.
- (2) An appeal under subsection (1)(a), (b), (c) or (d) must be started within 20 business days (the applicant's appeal period) after—
 - (a) if a decision notice or negotlated decision notice is given—the day the decision notice or negotiated decision notice is given to the applicant; or
 - (b) otherwise—the day a decision notice was required to be given to the applicant.
- (3) An appeal under subsection (1)(e) may be started at any time after the last day a decision on the matter should have been made.

462 Appeals by submitters—general

- (1) A submitter for a development application may appeal to the court only against-
 - (a) the part of the approval relating to the assessment manager's decision about any part of the application requiring impact assessment under section 314; or
 - (b) the part of the approval relating to the assessment manager's decision under section 327.
- (2) To the extent an appeal may be made under subsection (1), the appeal may be against 1 or more of the following—
 - (a) the giving of a development approval;
 - (b) any provision of the approval including-
 - (i) a condition of, or lack of condition for, the approval; or
 - (ii) the length of a period mentioned in section 341 for the approval.
- (3) However, a submitter may not appeal if the submitter-
 - (a) withdraws the submission before the application is decided; or
 - (b) has given the assessment manager a notice under section 339(1)(b)(ii).
- (4) The appeal must be started within 20 business days (the submitter's appeal period) after the decision notice or negotiated decision notice is given to the submitter.

463 Additional and extended appeal rights for submitters for particular development applications

- (1) This section applies to a development application to which chapter 9, part 7 applies.
- (2) A submitter of a property made submission for the application may appeal to the court about a referral agency's response made by a concurrence agency for the application.
- (3) However, the submitter may only appeal against a referral agency's response to the extent it relates to—
 - (a) development for an aquacultural ERA; or
 - (b) development that is---
 - (i) a material change of use of premises for aquaculture; or
 - (ii) operational work that is the removal, damage or destruction of a marine plant.
- (3) Despite section 462(1), the submitter may appeal against the following matters for the application even if the matters relate to code assessment—
 - (a) a decision about a matter mentioned in section 462(2) if it is a decision of the chief executive;
 - (b) a referral agency's response mentioned in subsection (2).

464 Appeals by advice agency submitters

- (1) Subsection (2) applies if an advice agency, in its response for an application, told the assessment manager to treat the response as a properly made submission.
- (2) The advice agency may, within the limits of its jurisdiction, appeal to the court about

 (a) any part of the approval relating to the assessment manager's decision about
 - any part of the application requiring impact assessment under section 314; or
 (b) any part of the approval relating to the assessment manager's decision under section 327.
- (3) The appeal must be started within 20 business days after the day the decision notice or negotiated decision notice is given to the advice agency as a submitter.
- (4) However, if the advice agency has given the assessment manager a notice under section 339(1)(b)(ii), the advice agency may not appeal the decision.

465 Appeals about decisions relating to extensions for approvals

- (1) For a development approval given for a development application, a person to whom a notice is given under section 389, other than a notice for a decision under section 386(2), may appeal to the court against the decision in the notice.
- (2) The appeal must be started within 20 business days after the day the notice of the decision is given to the person.

- (3) Also, a person who has made a request under section 383 may appeal to the court against a deemed refusal of the request.
- (4) An appeal under subsection (3) may be starled at any time after the last day the decision on the matter should have been made.

466 Appeals about decisions relating to permissible changes

- (1) For a development approval given for a development application, the following persons may appeal to the court against a decision on a request to make a permissible change to the approval—
 - (a) if the responsible entity for making the change is the assessment manager for the application—
 - (i) the person who made the request; or
 - (ii) an entity that gave a notice under section 373 or a pre-request response notice about the request;
 - (b) if the responsible entity for making the change is a concurrence agency for the application—the person who made the request.
- (2) The appeal must be started within 20 business days after the day the person is given notice of the decision on the request under section 376.
- (3) Also, a person who has made a request under section 369 may appeal to the court against a deemed refusal of the request.
- (4) An appeal under subsection (3) may be started at any time after the last day the decision on the matter should have been made.

467 Appeals about changing or cancelling conditions imposed by assessment manager or concurrance agency

- (1) A person to whom a notice under section 378(9)(b) giving a decision to change or cancel a condition of a development approval has been given may appeal to the court against the decision in the notice.
- (2) The appeal must be started within 20 business days after the day the notice of the decision is given to the person.

Division 11 Making and appeal to Court

- 481 How appeals to the court are started
 - (1) An appeal is started by lodging written notice of appeal with the registrar of the court.
 - (2) The notice of appeal must state the grounds of the appeal.
 - (3) The person starting the appeal must also comply with the rules of the court applying to the appeal.
 - (4) However, the court may hear and decide an appeal even if the person has not complied with subsection (3).

482 Notice of appeal to other parties-development applications and approvals

- (1) An appellant under division 8 must give written notice of the appeal to-
 - (a) if the appellant is an applicant-
 - (i) the chief executive; and
 - (iii) the assessment manager; and
 - (iii) any concurrence agency; and
 - (iv) any principal submitter whose submission has not been withdrawn; and
 - (v) any advice agency treated as a submitter whose submission has not been withdrawn; or
 - (b) if the appellant is a submitter or an advice agency whose response to the development application is treated as a submission for an appeal—
 - (i) the chief executive; and
 - (ii) the assessment manager; and
 - (iii) any referral agency; and
 - (iv) the applicant; or

- (c) if the appellant is a person to whom a notice mentioned in section 465(1) has been given—
 - (i) the chief executive; and
 - (ii) the assessment manager for the development application to which the notice relates; and
 - (iii) any entity that was a concurrence agency for the development application to which the notice relates; and
 - (iv) the person who made the request under section 383 to which the notice relates, if the person is not the appellant; or
- (d) if the appellant is a person mentioned in section 466(1)-
 - (i) the chief executive; and
 - the responsible entity for making the change to which the appeal relates; and
 - (iii) the person who made the request to which the appeal relates under section 369, if the person is not the appellant; and
 - (iv) if the responsible entity is the assessment manager---any entity that was a concurrence agency for the development application to which the notice of the decision on the request relates; or
- (e) if the appellant is a person to whom a notice mentioned in section 467 has been given—the entity that gave the notice.
- (2) The notice must be given within-
 - (a) if the appellant is a submitter or advice agency whose response to the development application is treated as a submission for an appeal—2 business days after the appeal is started; or
 - (b) otherwise-10 business days after the appeal is started.
- (3) The notice must state-
 - (a) the grounds of the appeal; and
 - (b) If the person given the notice is not the respondent or a co-respondent under section 485—that the person may, within 10 business days after the notice is given, elect to become a co-respondent to the appeal by filing in the court a notice of election in the approved form.

485 Respondent and co-respondents for appeals under div 8

- (1) Subsections (2) to (8) apply for appeals under sections 461 to 464.
- (2) The assessment manager is the respondent for the appeal.
- (3) If the appeal is started by a submitter, the applicant is a co-respondent for the appeal.
- (4) Any submitter may elect to become a co-respondent for the appeal.
- (5) If the appeal is about a concurrence agency's response, the concurrence agency is a co-respondent for the appeal.
- (6) If the appeal is only about a concurrence agency's response, the assessment manager may apply to the court to withdraw from the appeal.
- (7) The respondent and any co-respondents for an appeal are entitled to be heard in the appeal as a party to the appeal.
- (8) A person to whom a notice of appeal is required to be given under section 482 and who is not the respondent or a co-respondent for the appeal may elect to be a corespondent.
- (9) For an appeal under section 465-
 - (a) the assessment manager is the respondent; and
 - (b) If the appeal is started by a concurrence agency that gave the assessment manager a notice under section 385—the person asking for the extension the subject of the appeal is a co-respondent; and
 - (c) any other person given notice of the appeal may elect to become a corespondent.
- (10)
- For an appeal under section 466-
- (a) the responsible entity for making the change to which the appeal relates is the respondent; and

- (b) if the responsible entity is the assessment manager-
 - (i) if the appeal is started by a person who gave a notice under section 373 or a pre-request response notice—the person who made the request for the change is a co-respondent; and
 - (ii) any other person given notice of the appeal may elect to become a correspondent.
- (11) For an appeal under section 467, the respondent is the entity given notice of the appeal.

488 How an entity may elect to be a co-respondent

An entity that is entitled to elect to be a co-respondent to an appeal may do so, within 10 business days after notice of the appeal is given to the entity, by following the rules of court for the election.

490 Lodging appeal stops particular actions

- If an appeal, other than an appeal under section 465, 466 or 467, is started under division 8, the development must not be started until the appeal is decided or withdrawn.
- (2) If an appeal is about a condition imposed on a compliance permit, the development must not be started until the appeal is decided or withdrawn.
- (3) Despite subsections (1) and (2), if the court is satisfied the outcome of the appeal would not be affected if the development or part of the development is started before the appeal is decided, the court may allow the development or part of the development to start before the appeal is decided.



In the Planning and Environment Court Held at: BRISBANE

No 2977 of 2016

THE TRUST COMPANY LIMITED (ACN 004 027 749)

Appellant

GLADSTONE REGIONAL COUNCIL

Respondent

And:

WALKER GLADSTONE PTY LTD (ACN 151 756 820)

Co-Respondent

JUDGMENT

Before: Date of Hearing: Date of Order: His Honour Judge Jones 7 December 2017 7 December 2017

THE COURT IS SATISFIED THAT:

- The provisions of Chapter 6, Part 4 of the Sustainable Planning Act 2009 (Act) relating to the giving of public notice of the development application, have been substantially complied with.
- The changes to the development application substantially complied with the requirements of the Act relating to changes to development applications.
- The appeal can proceed notwithstanding any non-compliance which may have occurred with the provisions identified in paragraphs 1 and 2 above.

IT IS ADJUDGED THAT:

1. The appeal be allowed in part.

JUDGMENT Filed on behalf of the Co-Respondent Form PEC-7

Allens Lawyers Level 26, 480 Queen Street Brisbane QLD 4000 Phone no. 61 7 3334 3517 Fax no. 61 7 3334 3444 Email: Rosanne.Meurling@allens.com.au

nyjb A0140804008v4 120635258 Planning Act 2016

Version 1

July 2017

- 2. The development application for:
 - (a) a preliminary approval under section 242 of the Act for development in accordance with the Kirkwood Road Commercial Centre Code dated 18 December 2015;
 - (b) a preliminary approval under section 241 of the Act for a material change of use of premises for Showrooms; and
 - (c) a development permit for a staged reconfiguring a lot (2 lots into 5 lots and road),

be approved subject to the attached approval package in Annexure A which is comprised of:

- (d) the Respondent's conditions, which appear at pages 1 to 16;
- the Kirkwood Road Commercial Centre Code dated 18 December 2015, which appears at pages 17 to 35;
- (f) the approved plans, which appear at pages 36 to 41;
- (g) the following referral agency requirements:
 - Department of Infrastructure, Local Government and Planning dated 2 September 2015, which appears at pages 42 to 68; and
 - (ii) Ergon Energy dated 5 December 2014, which appears at pages 69 to 70.

3. Each party bears its own costs.

Filed on

7 December 2017

Filed by: Service address:

Phone: Fax: Email: Allens, Lawyers Level 26 480 Queen Street Brisbane QLD 4000 61 7 3334 3517 61 7 3334 3444 Rosanne.Meurling@allens.com.au

Registrar



NEGOTIATED DECISION NOTICE - DA/1008/2014 SUSTAINABLE PLANNING ACT 2009 S362 & 363

Application:	Material Change of Use - Impact Preliminary Approval - Change in Zon (Urban Expansion to Commercial Zone Showrooms (44,000m ² in 6 Phases) an Development Permit - Reconfiguring a Lo (2 into 5 and Road Reserve in 4 Stages)	
Applicant Name & Address:	Walker Gladstone Pty Ltd C/- Walker Corporation Pty Ltd GPO Box 4073 SYDNEY NSW 2001	
Owner:	Walker Gladstone Pty Ltd	
Subject Land:	Lots 243 & 301 Kirkwood Road, KIRKWOOD QLD 4680	
Location:	Lots 243 & 301 SP 174113, Auckland	
Zoning:	Urban Expansion	
Site Area:	57.65 Ha	
Submissions Received:	4 'Properly Made'	
Application Received:	10 November 2014	

You are advised that your application was Approved Negotiated. The conditions relevant to this approval are attached. These conditions are clearly identified to indicate whether the assessment manager or a concurrence agency imposed them.

1. NATURE OF THE CHANGES

The nature of the changes are:-

- Part A Conditions 1, 2 & 4 - Amended Condition 3 - Deleted
- Part B Conditions 7, 8, 12, 13, 17, 29, 30, 33, 36, 39, 40, 42, 43, 44, 47, 50, 52, 53 & 54 -Amended Conditions 9, 10, 11, 45 & 46 - Deleted
- Part C Condition 62 - Amended

2. DETAILS OF THE APPROVAL

		Development Permit	Preliminary Approval
•	Material Change of Use made assessable by the planning scheme S241	x	1
٠	Material Change of Use made assessable by the planning scheme S242	x	~
٠	Reconfiguring a lot	1	x

3. RELEVANT PERIOD FOR THE PRELIMINARY APPROVAL

Prescribed period, for a preliminary approval to which section 242 applies, as outlined below:-

 If a condition of the approval requires development, or an aspect of development, to which the approval relates to be completed within a stated period.

OR

 The period, if any, nominated by the applicant for that purpose and stated in the application to which the approval relates.

OR

5 years after the day the preliminary approval takes effect.

OR

 if there is 1 or more related approvals for the preliminary approval - 5 years after the day the last related approval takes effect.

Related approval, for a preliminary approval, means a related approval for the preliminary approval under section 341(7).

When approval lapses if development is started but not completed-preliminary approval to which section 242 of the SPA applies (s.343):-

Upon commencement of the first use, of the first Precinct, the development has 10 years to complete the development in accordance with this approval, prior to the Development Permit lapsing.

4. RELEVANT PERIOD FOR THE APPROVAL (DEVELOPMENT PERIOD)

The relevant periods stated in section 341 of the Sustainable Planning Act 1997 (SPA) apply to each aspect of development in this approval, as outlined below:-

reconfiguring a lot requiring operational works - 4 years

the following relevant periods apply to the following aspects of development in this approval:-

If there is 1 or more subsequent related approvals for a development approval for a material change of use or a reconfiguration, the relevant period for the approval will be taken to have started on the day the latest related approval takes effect.

5. APPROVED PLANS

The approved plans and/or documents for this development approval are listed in the following table:

Plan/Document Number	Plan/Document Name	Date
KRCC-WC-001 F	Kirkwood Road Commercial Centre - Masterplan	11-Mar-16
KRCC-WC-002 F	Kirkwood Road Commercial Centre - Phase Plan	11-Mar-16
KRCC-WC-003 F	Kirkwood Road Commercial Centre - Schematic Water Services	11-Mar-16
KRCC-WC-004 F	Kirkwood Road Commercial Centre - Schematic Sewer Services	11-Mar-16
KRCC-WC-005 F	Kirkwood Road Commercial Centre - Reconfiguration Plan	28-Jun-16
KRCC-WC-007 E	Kirkwood Road Commercial Centre - North South Road	15-Dec-15
N/A	Kirkwood Road Commercial Centre Code	18-Dec-15

6. OTHER NECESSARY DEVELOPMENT PERMITS

Listed below are other development permits that are necessary to allow the development to be carried out:-

- Development Permit Material Change of Use
- Operational Works Permit
- Building, Plumbing & Drainage Works Permit

7. PRELIMINARY APPROVAL OVERRIDING THE PLANNING SCHEME

A preliminary approval under section 242 of SPA has been granted and as such any development resulting from this approval will be in accordance with:

The Kirkwood Road Commercial Centre Code - Revision 18 December 2015.

8. IDAS REFERRAL AGENCIES

The IDAS referral agencies and responses applicable to this application are:-

 Department of Infrastructure, Local Government and Planning (Concurrence Agency)

OR

Referral response dated 2 September 2015 (Ref: SDA-0614-011191)

 Ergon Energy (Advice Agency) Referral response dated 5 December 2014 (Ref: EE14/054078)

9. SUBMISSIONS

There were 4 properly made submissions about the application. In accordance with S335(I) of the SPA, the name and address of the principal submitter for each properly made submission are as follows:-

Name of principal submitter	Address	
David Nathan	11 Lavender Boulevard, KIRKWOOD QLD 4680	
Samantha Parry	24 Forest Springs Drive, KIRKWOOD QLD 4680	
The Trust Company Limited C/- Brazier Motti Pty Ltd	595 Flinders Street, TOWNSVILLE QLD 4810	
Dr Peter Anderson	GPO Box 4259, DARWIN NT 0801	

10. APPEAL RIGHTS

Attached is an extract from the SPA which details your appeal rights and the appeal rights of any submitters regarding this decision.

11. WHEN THE DEVELOPMENT APPROVAL TAKES EFFECT

This development approval takes effect:-

 From the time the decision notice is given, if there is no submitter and the applicant does not appeal the decision to the court.

OR

- If there is a submitter and the applicant does not appeal the decision, the earlier date
 of either:
 - When the submitter's appeal ends; or
 - The day the last submitter gives the assessment manager written notice that the submitter will not be appealing the decision.

OR

 Subject to the decision of the court, when the appeal is finally decided, if an appeal is made to the court.

This approval will lapse if:-

- for a material change of use, the first change of use under the approval does not start within the relevant period stated in section 2 of this decision notice;
- for a reconfiguration, a plan for the reconfiguration is not given to the local government within the relevant period stated in section 2 of this decision notice;

 for a development approval other than a material change of use or reconfiguration, the development does not substantially start within the relevant period stated in section 2 of this decision notice.

Note that in the case of a development approval for a material change of use or for reconfiguring a lot, if there is 1 or more subsequent related approvals the relevant period for the material change of use or reconfiguration will restart from the date of the related approval taking effect. Please refer to section 341 of SPA for further information.

Should you wish to discuss this matter further, please contact Council's Acting Planning Services Coordinator, Matthew Kelly on (07) 4977 6503.

Yours faithfully,

T R SCHULER ACTING MANAGER DEVELOPMENT SERVICES

Attached: Conditions Appeal Rights Approved Plans Referral Agency Responses



ASSESSMENT MANAGER CONDITIONS - DA/1008/2014 SUSTAINABLE PLANNING ACT 2009 S362 & 363

1. Development is to be carried out generally in accordance with the submitted application including the following plans and supporting documentation except where amendments are required to satisfy the conditions of this approval.

Document Name	Reference	Drawn by	Date
Kirkwood Road Commercial Centre - Masterplan	KRCC-WC-001 F	Walker	11-Mar-16
Kirkwood Road Commercial Centre - Phase Plan	KRCC-WC-002 F	Walker	11-Mar-16
Kirkwood Road Commercial Centre - Schematic Water Services	KRCC-WC-003 F	Walker	11-Mar-16
Kirkwood Road Commercial Centre - Schematic Sewer Services	KRCC-WC-004 F	Walker	11-Mar-16
Kirkwood Road Commercial Centre - Reconfiguration Plan	KRCC-WC-005 F	Walker	28-Jun-16
Kirkwood Road Commercial Centre - North South Road	KRCC-WC-007 E	Walker	15-Dec-15
Kirkwood Road Commercial Centre Code	n/a	Walker	18-Dec-15

- Prior to the lodgement of the first Development Application for Operational Works a revised suite of Site/Precinct Plans are to be provided to Council for approval. The revised suite of plans are to address the following inclusions:
 - a) The required road reserve width for Kirkwood Road/Dixon Drive intersection, Kirkwood Road/Forest Springs Drive intersection, Weegool Road and Forest Springs Drive (west);
 - b) Deleted;
 - c) Deleted;
 - d) Deleted; and
 - e) No parking is to be provided on Weegool Road or Forest Springs Drive (West).
- 3. Deleted.
- Development is to comply with Department of Infrastructure, Local Government and Planning (Concurrence Agency) Conditions dated 2 September 2015 (Ref: SDA-0614-011191) (Attached).

PART B - PRELIMINARY APPROVAL S242 AND S241

Special Conditions

- Upon commencement of the first use, of the first Precinct, the development has 10 years to complete the development in accordance with this approval, prior to the Development Permit lapsing.
 - a)

A Shop use cannot commence until 2 January 2020

- Upon commencement of the first use, of the first Precinct, the Applicant is to advise Council in writing within 20 business days.
- 7. The Preliminary Approval change in zoning from Emerging Communities to Specialised Centre is to occur sequentially for each individual lot upon commencement of the first use, of the first Precinct within the lot. Upon commencement of the first use, of the first Precinct within each lot, the Applicant is to advise Council in writing within 20 business days so as to have the respective zoning amended.

Staging Conditions

8. Prior to the commencement of use within any Phase of the development, the roadworks within the Phase as shown on Kirkwood Road Commercial Centre – Phase Plan referenced in Condition 1 of this approval, are to be constructed and considered 'on maintenance'. Each Phase is to occur in sequential order.

<u>Advisory Note:</u> The Kirkwood Road / Dixon Drive / Weegool Road intersection is to be constructed as part of Phase 1 and the Kirkwood Road/Forest Springs Drive Intersection is to be constructed as part of any Phase adjacent to Forest Springs Drive (West).

- 9. Deleted.
- 10. Deleted.
- 11. Deleted.
- 12. The North/South Road is to provide a direct connection from an all movements intersection on Weegool Road to an all movements intersection on Forest Springs Drive (West). The North/South Road is to be constructed as a private road as per the typical cross section detailed on the plan Kirkwood Road Commercial Centre – North South Road Cross Section referenced in Condition 1 of this approval with a right of way easement over it.

<u>Advisory Note:</u> The location of the all movement intersections are in accordance with the Kirkwood Road Commercial Centre Masterplan referenced in Condition 1 of this approval.

13. Prior to the lodgement of a Development Application for Operational Works, the Applicant is to lodge for approval by Council a plan illustrating a defined entry statement/private art piece located along the Weegool Road and Forest Springs Drive frontages of the site which incorporates a range of colours, materials and landscaping treatments, creating a unique design outcome with a defined theme.

- 14. Any Advertising Devices are to be no taller than 15m or no higher than 59.5m AHD, whichever is greater.
- 15. The Applicant is to obtain approval from the Gladstone Airport Corporation with regard to the proposed construction techniques (i.e. the use of cranes during the construction and future maintenance of the development), ensuring appropriate measures are taken to limit any impact to aircraft operations and the Airport Operational Airspace.
- 16. Upon receipt of any Building Works Final, the Applicant is to lodge a Form 16 signed by a licensed land surveyor to declare all buildings and structures are below 59.5m AHD.

Operational Works

- 17. A Development Permit for Operational Works must be obtained from Council prior to the commencement of construction for each Phase. The Development Application for Operational Works must be for the entire works required for each precinct and is to include the following:
 - a) Earthworks (including retaining walls);
 - b) Road works (including driveway crossover and kerb and channelling);
 - c) Water Infrastructure;
 - d) Sewer Infrastructure;
 - e) Stormwater Management (including flood and drainage control);
 - f) Street lighting, electrical and telecommunications; and
 - g) Landscaping, environmental protection and associated works.
- Development Applications for Operational Works are to be accompanied by a copy of Council's Engineering Certification Report, completed and signed by an appropriately qualified RPEQ.
- 19. Development Applications for Operational Works shall be designed and constructed in accordance with Council and Australian Standards and good engineering practice. Council's current standards include:
 - a) Roads and Transport Standard 2005;
 - b) Water Supply Standard 2006; and
 - c) Queensland Urban Drainage Manual 2013, State Planning Policy July 2014 and Councils Stormwater Management Guideline, February 2014: Revision 2.

Erosion and Sediment Control

- Erosion and sediment control measures are to be implemented generally in accordance with the principles / practices described in the publication IECA Best Practice Erosion & Sediment Control – November 2008. International Erosion Control Association (Australasia), Picton NSW.
- 21. A site specific Erosion and Sediment Control Plan (ESCP) must be submitted with the Development Application for Operational Works for each stage of the development. The ESCP must be prepared, certified and monitored by a RPEQ experienced in this type of

work. A copy of the ESCP (current at the time of the request) must be forwarded to Council (on request) at any time during the course of construction.

Building Works

- 22. The Applicant is required to obtain a Development Permit for Building Works in accordance with the Sustainable Planning Act 2009. Construction is to comply with the Building Act 1975, the Building Code of Australia and the requirements of other relevant authorities.
- 23. The Applicant is required to obtain a Development Permit for Plumbing Works in accordance with the Sustainable Planning Act 2009. Construction is to comply with the Plumbing and Drainage Act 2002 and the requirements of other relevant authorities.
- 24. All plant and equipment (including air conditioners, exhaust fans and the like) are to be housed, screened and located so that these do not cause environmental nuisance or harm to residential uses in the surrounding area.
- 25. Environmentally responsible erosion and sediment control measures are to be implemented during any building works carried out in association with the development.
- 26. The development is to incorporate a variety of at least 2 different textures, colours and designs within the external façade of the building. Details of the proposed colour scheme, materials and finishes for all external areas of the building are to be submitted to Council for approval prior to the issue of a Development Permit for Building Works.
- 27. All lighting at ground level and associated with illuminating ground level areas must be focused downwards and be provided with hoods, shades or other permanent devices to direct illumination downwards and not allow upward lighting to adversely affect the residential uses on this site and the adjoining the sites.

Earthworks

- 28. All earthworks on the site must be carried out in accordance with AS3798 and good engineering practice. Geotechnical supervision shall be to Level 1. The geotechnical testing authority shall provide a report to Council, setting out the inspections, sampling and testing it has carried out, and the locations and results thereof. The geotechnical report must be certified by a RPEQ experienced in this type of work.
- 29. As part of any earthworks and vegetation clearing, the removal of vegetation is only to occur following the approval of a Development Application for Operational Works. Measures will be taken to minimise the area of land impacted by earthworks and clearing for the development of each stage of the commercial centre.
- 30. Should any works be proposed below RL 20 AHD, an Acid Sulfate Soil (ASS) Investigation Report is to be prepared in accordance with State Planning Policy (July 2014) by a RPEQ or a Soil/Environmental Scientist with a minimum of 5 years' experience in the field of ASS. An ASS Management Plan is also required if ASS is identified to be actually or potentially present through the Investigation Report. This report will be submitted with the application for those works.
- 31. When the proposed Operational Works involves an ASS Management Plan, a RPEQ shall review the management plan and prepare a report or design notes to address the following:

- a) Avoiding the potential for environmental harm resulting from the disturbance of ASS;
- b) Corrodible assets are to be protected from ASS; and
- c) Clear management direction is to be provided where ASS are likely to be disturbed by excavation or filling.

Water Infrastructure

- 32. Water Supply works are to be undertaken generally in accordance with the Forest Springs West Development - Water Supply and Sewerage Master Plan (version 2 prepared by Cardno dated 7 January 2015).
- 33. Prior to the commencement of use within any Phase of the development, the water services identified as part of the Phase as shown on Kirkwood Road Commercial Centre - Schematic Water Services Plan referenced in Condition 1 of this approval, are to be constructed and considered 'on maintenance'. Each Phase is to occur in sequential order. The design and construction of the works are to be undertaken generally in accordance with the Forest Springs West Development - Water Supply and Sewerage Master Plan (version 2 prepared by Cardno dated 7 January 2015).

Advisory Note: The following infrastructure is required to be constructed as part of the development:

- a) 450NB water main along Kirkwood Road from the end of the existing main (asset ID 26937) to Dixon Drive (and connected to the existing water network in Dixon Drive)
- b) 525NB water main along Kirkwood Road from Dixon Drive to Forest Springs Drive (west).
- 34. A water service connection is to be provided from Council's water supply infrastructure to the front property boundary. The location and size of the water service (and any associated fire service) is to be determined in consultation with Council's Water and Sewerage Department.
- 35. Connections to Council's live water reticulation network must be carried out by Council. The cost of these works is to be borne by the Applicant.

Sewerage Infrastructure

- 36. Prior to the commencement of use within any Phase of the development, the sewer services identified as part of the Phase as shown on Kirkwood Road Commercial Centre Schematic Sewer Services Plan referenced in Condition 1 of this approval, are to be constructed and considered 'on maintenance'. Each Phase is to occur in sequential order. The design and construction of the works are to be undertaken generally in accordance with the Forest Springs West Development Water Supply and Sewerage Master Plan (version 2 prepared by Cardno dated 7 January 2015, and the amendment/s in compliance with the following requirements:
 - a) Deleted.
 - b) There are to be no buildings over the sewer in accordance with Council's Building over or adjacent to Council's Services policy.
 - c) Review the sewer network downstream from the proposed lots to S01 pump station inclusive of pump station S06 and associated rising main. This review is

to identify any additional upgrades required to service the proposed lots considering the anticipated land use was residential. This review will consider any previously approved Operational Works and that infrastructure, required to serve other development both internal and external to the site, is to be constructed in its ultimate form.

- d) The amended Sewer report shall be submitted for approval prior to the lodgement of the first Development Application for Operational Works.
- 37. All sanitary drainage is to drain into new 1050mm diameter privately owned maintenance holes within the development site, before connection to Council's sewerage infrastructure. Separate sanitary drainage connections are to be provided for each allotment. The location and size of the sewer service is to be proposed by the developer's hydraulic engineer and confirmed by Council.
- 38. Connections to Council's live sewerage network must be carried out by Council's Water and Sewerage Department. The cost of these works is to be borne by the applicant

Stormwater

- 39. As part of Operational Works for the each Phase, the design and construction of stormwater management works (quantity and quality) are to be carried out generally in accordance with the proposed Flooding and Stormwater Management Report (version 1 prepared by Cardno dated 12 March 2015) and the amendment/s in compliance with the following requirements:
 - a) All adverse flooding impacts due to the development (including velocity depth and duration) at the 1% AEP design event are to be contained to within the Kirkwood Road Commercial Centre and the publicly held drainage network (drainage or road reserves, stormwater drainage easements).
 - b) Deleted.

The amended Flooding and Stormwater Management Report shall be submitted for approval prior to the lodgement of the first Development Application for Operational Works.

- 40. The Applicant is to submit (for approval) a Site Based Stormwater Management Plan as part of the Operational Works Development Application for each Phase, and is to address any impacted areas external to the Phase. The plan must address both quantity and quality aspects of stormwater management and be certified by a RPEQ experienced in this type of work. The plan is to be generally in accordance with the Flooding and Stormwater Management Report. Further details to be provided for stormwater quality and quantity devices including sizing, location and types.
- 41. For the SBSMP and stormwater design the responsible RPEQ shall certify that:

"I am aware that the Gladstone Regional Council may rely upon the content and findings of this report including the recommendations, conclusions, results, calculations, plans, graphs, tables, attachments etc., for the purposes of development assessment. In my opinion, the Council can rely upon the information contained within the report and there are no reservations or qualifications in respect to the information provided other than as set out below and previously agreed to in writing with Council's Director Engineering Services. I confirm that the development site is above the controlling 1% AEP flood level, that there will be no worsening of stormwater runoff from the site as a result of the proposed development of the site and that a "lawful point of discharge" as defined in Section 3.4 of the Queensland Urban Drainage Manual, 3rd edition 2013 has been achieved for all areas of the site."

Transportation Services

- 42. As part of the Operational Works for the first Phase, submit for approval the Traffic Impact Assessment (prepared by ARUP dated 10 March 2015) updated to address the following requirements:
 - a) The report is to be certified by an appropriately qualified RPEQ.
 - b) The intersections on Weegool Road and Forest Springs Drive (West) are located in accordance with the Kirkwood Road Commercial Centre Master Plan and it is to be demonstrated they are safe, efficient and do not compromise the function of any public road.
 - c) Design of Weegool Road and Forest Springs Drive (West) in accordance with Austroads.
 - d) Compound growth rate of 3% utilised to determine future background traffic volumes.
 - e) Deleted.
 - f) The assessment is to take into consideration all future approved development of the Forest Springs Estate both East and West.
 - g) The assessment is to consider development of 626 residential allotments west of forest springs (with a 50%/50% split between Weegool Road and Forest Springs Drive (West)).
 - All legs and movements are to achieve a level of service D or higher in the SIDRA intersection assessment.
 - i) Provide certification that the car park layout plan complies with AS2890.1.
- 43. Weegool Road is to be constructed to a 2 Lane Distributor Road Standard in accordance with Council's Road Hierarchy Policy. No parking is to be provided on this road. An uninterrupted raised median at least 2m wide is to be provided as shown on the Kirkwood Road Commercial Centre – Master Plan referenced in condition 1 of this approval. A bus stop is to be provided on either side of the road between Kirkwood Road and the proposed roundabout Weegool Road.

<u>Advisory Note:</u> The location of the all movement intersection on Weegool Road is in accordance with the Kirkwood Road Commercial Centre Master Plan referenced in condition 1 of this approval. Council does not support the right turn proposed from Weegool Road into the Travel Precinct.

44. Forest Springs Drive (West) is to be constructed to a 2 Lane Distributor Road Standard in Accordance with Council's Road Hierarchy Policy. No parking is to be provided on this road. An uninterrupted raised median at least 2m wide is to be provided as shown on the Kirkwood Road Commercial Centre – Master Plan referenced in condition 1 of this approval. A bus stop is to be provided on either side of the road between Kirkwood Road and the proposed roundabout on Forest Springs Drive (West). <u>Advisory Note:</u> The location of the all movement intersection on Forest Springs Drive (West) is in accordance with the Kirkwood Road Commercial Centre Master Plan referenced in Condition 1 of this approval.

- 45. Deleted.
- 46. Deleted.
- 47. Prior to the commencement of the use, a total of 2 pushbike parking spaces are to be provided in an upright position for every 500m² of Gross Floor Area within 30m walking distance of a pedestrian entry to the building. Details of which are to be provided as part of any Development Application for Building Works.
- 48. All driveways are to be clearly signposted and constructed in accordance with AS2890, Council's Roads and Transport Standard 2005 section 8, including Drawing Figure D -Standard Non Residential Vehicle Crossing, and the Engineering and Development Guidelines.
- 49. All grassed footpath areas disturbed by the development are to be top dressed and turfed following completion of construction activity.
- 50. Safe pedestrian access is to be maintained at all times to surrounding sites during the construction of the development when practicable.
- 51. Any manholes located on the proposed driveway are to be covered with Class D Covers to AS 3996, and are to be maintained at finished surface levels and remain accessible at all times.

Landscaping

- 52. As part of any Development Application for Operational Works, a Landscaping Plan (generally in accordance with those referred to in Condition 1) is to be lodged for assessment by Council.
- 53. All plantings referred to in Condition 52 that are required for stormwater quality treatment are to be maintained at a suitable standard at all times.
- 54. Street trees are to be provided along the frontages of all dedicated roads, except Kirkwood Road, at a rate of 1 tree/10m. Species and location are to be provided as part of a Development Application for Operational Works.
- 55. All street trees are to be certified to comply with Natspec Guide Specifying Trees; A Guide to Assessment of Tree Quality (2003). The certification shall be in the form of a written document provided and signed by an accredited arborist as part of any Development Application for Operational Works.

Waste Management

56. Where waste is a contaminant, waste must not be released to the environment where the release will or may cause environmental harm or environmental nuisance, unless such release is authorised.

- 57. The Applicant is required to obtain a trade waste permit to discharge trade waste to the Sewer in accordance with Councils Trade Waste Approval Process prior to Plumbing Final being issued.
- 58. A Waste Management Plan is to be submitted and approved by Council prior to the commencement of any operational or building works on site. Plans are to include but shall not be limited to specifications and reports containing the following information:
 - a) Details of the proposed development;
 - b) Plan showing street location and layout;
 - c) Volume of waste to be generated and frequency;
 - Number, type, size and service frequency of waste and recycle bins in compliance with the relevant use;
 - e) Location of bin storage and wash facilities and lighting for after dark access;
 - f) Screening of storage areas so they are not visible from the street;
 - g) Washdown area that is imperviously paved, with a hose cock and hose fitted in close proximity to the enclosure and drained to sewer via a legal connection;
 - Waste collection vehicle movements to, from, and throughout the site noting that should on-site collection be proposed, then the collection vehicle must enter and exit the site in forward gear;
 - Procedure for waste removal, including, but not limited to, vehicle description (eg. front loading/side loading/rear loading) and collection location;
 - j) Pavement details on site to ensure it is adequate to handle the weight of the garbage truck if on-site collection is proposed;
 - k) Waste Service Provider correspondence confirming waste removal and collection arrangements are satisfactory.

It should be noted that the following requirements must be met for waste collection areas:

- a) Clearly separated from parking bays and other similar areas; and
- b) Clear of any hindrance to servicing by a lifter arm; and
- c) Clear of a footpath and a pedestrian access; and
- d) Not in front of a building entrance; and
- e) Not blocking the vision of vehicles using the road or entering and exiting the site; and
- Capable of being serviced on site while the collection vehicle travels forward upon entry and exit.

Easements

59. The Applicant is to provide registered easement documents in favour of Council and at no cost to Council over infrastructure (access, water supply, sewerage, stormwater etc) within the development and over other parts of the development property as may be deemed necessary by Council having considered the engineering drawings submitted with the operational works application for a particular stage of the development.

Miscellaneous

- 60. Any proposed advertising signage is to comply with the Advertising Signs (Operational Works) Code.
- 61. The site is to be maintained in a clean and orderly state at all times.

PART C - RECONFIGURATION OF A LOT

Special Conditions

62. Prior to the lodgement of a Plan of Survey to create a lot in any stage of the development, the roads within the stages as shown on the Reconfiguration Plan referenced in Condition 1 of this approval, are to be constructed and dedicated as road reserve (widths in accordance with the Council's Road Hierarchy Policy). Each stage is to occur in sequential order. The Plan of Survey for any lot that contains part of the North/South Road will include an access easement over that part of the North/South Road.

Water Infrastructure

- 63. A water service connection is to be provided from Council's water supply infrastructure to the front property boundary of each lot.
- 64. Connections to Council's live water reticulation network must be carried out by Council. The cost of these works is to be borne by the Applicant.

Sewerage Infrastructure

- 65. Separate connections are to be provided to the reticulated sewerage network for each lot.
- 66. Connections to Council's live sewerage network must be carried out by Council's Water and Sewerage Department. The cost of these works is to be borne by the Applicant

Endorsement of the Plan of Reconfiguration

- 67. The Applicant is to provide registered easement documents in favour and at no cost to Council over infrastructure (access, water supply, sewerage, stormwater etc.) within proposed allotments and over other parts of the development property as may be deemed necessary by Council having considered the engineering drawings submitted with the Development Application for Operational Works for a particular stage of the development. The easement documents are to be registered in conjunction with the plan sealing/title registration process associated with the reconfiguration of the relevant stage of the development.
- 68. A Plan of Reconfiguration shall be submitted to Council in an acceptable form for endorsement by Council after fulfilling the conditions of the relevant development permits for the development within the stated currency period for the development.
- 69. The Applicant is responsible for ensuring that upon completion of the works, all survey marks are in their correct position in accordance with the relevant plan(s) of reconfiguration, and shall furnish to the Council a certificate from a licensed surveyor confirming same.
- 70. The pre-requisites for endorsement of the plan of reconfiguration by Council include (but may not be limited to):
 - a) Compliance with the relevant Decision Notice(s) relating to the plan of survey (Reconfiguring A Lot and Operational Works);
 - b) Payment of rates and charges (Schedule 19 Table 1- 2.1(a)(iii) of the Sustainable Planning Regulation 2009);
 - c) Three copies of the plan of reconfiguration and easement documents;
 - d) Endorsement of the plan of reconfiguration and other legal documents by the relevant land owner(s);
 - e) Easement, transfer or land surrender documents;
 - f) Pegging of allotment boundaries (including licensed surveyor's certificate);
 - g) Road names;
 - h) The plan(s) of reconfiguration covering the whole of the land contained in staged developments;
 - Evidence from service providers (electrical, telecommunication, gas etc.) confirming that satisfactory arrangements have been made for the provision of electrical and telecommunication, gas etc. services;
 - j) Payment of the adopted infrastructure charges (headwork's contributions); and
 - k) Acceptance of the Operational Works "on maintenance" (including but not limited to the successful completion of the construction phase works, lodgement of the applicable "as constructed" and quality control documentation and certificates, and payment of the maintenance / performance verification security bond).
- 71. Should the plan of reconfiguration not be lodged for registration within the period prescribed by Section 341 of the Sustainable Planning Act 2009, and the Council is requested to reendorse its consent on the plan of reconfiguration, the Council may, prior to re-endorsing its consent thereon, require the Applicant to increase the security lodged for the maintenance of the works within the reconfiguration. A fee is applicable for re-endorsement of the plan of reconfiguration.

END OF CONDITIONS

Advice to Applicant:

An Adopted Infrastructure Charge Notice in relation to the infrastructure charges applicable to this development will be provided separately.

GLADSTONE REGIONAL COUNCIL GLADSTONE OFFICE This Plan is approved subject to the attached Decision Notice No. DA 1008 2014 Per Date 107/2016 ASSESSMENT MANAGER

KIRKWOOD ROAD COMMERCIAL CENTRE CODE

Revision 18 December 2015

PART 1: INTRODUCTION

1.1 Kirkwood Road Commercial Centre Code

In accordance with Section 242 of the Sustainable Planning Act (SPA), the Kirkwood Road Commercial Centre Code is a framework to facilitate an integrated and coordinated approach to development of a commercial centre for bulky goods/large format retailing in the location shown on Plan No. 1. The Kirkwood Road Commercial Centre comprises part of Lot 301 SP174113 and part of Lot 243 SP174113. The Kirkwood Road Commercial Centre should be considered as a new Locality of the Gladstone Plan 2006.

The Kirkwood Road Commercial Centre is a specialised centre of regional scale focused on providing bulky goods and large format retailing opportunities and supporting retail, personal services, banking services, community services and service trades.

Unless otherwise stated or specifically varied by this document, the outcomes and vision sought by the *Gladstone Plan 2006* also apply as assessment criteria to the subject land.



Plan No.1 Kirkwood Road Commercial Centre Location



Plan Number 2 - Kirkwood Road Commercial Centre Master Plan.

Plan No.2 Kirkwood Road Commercial Centre Master Plan

Plan no. 2 Kirkwood Road Commercial Centre Master Plan has precedence over the Gladstone Planning Scheme where an inconsistency arises.

Kirkwood Road Commercial Centre Structural elements



The Commercial Zone applies to the Kirkwood Road Commercial Centre.

Plan No.3 Kirkwood Road Commercial Centre zoning

1.2 Determining the Level of Assessment

The assessment tables for the Kirkwood Road Commercial Centre identify the level of assessment for development within the centre.

1.3 Types and Names of Codes

There are codes for -

- (a) Kirkwood Road Commercial Centre as a whole; and
- (b) development of a stated purpose or development of a stated type.

The codes are as follows:

- (a) Kirkwood Road Commercial Centre Code;
- (b) Gladstone Plan 2006 Codes (refer to Gladstone Planning Scheme) for development of a stated purpose or development of a stated type (Part 11); and
- (c) Gladstone Plan 2006 Development Overlay Code (Part 10).

1.4 Codes Applicable to on-going Use

A code that is applicable to a material change of use is also applicable to the ongoing use that results from that change.

1.5 Application of Code Provisions

In all cases, the provisions of the Kirkwood Road Commercial Centre Code always take precedence over the provisions of any other code. In addition, the provisions of any relevant Overlay Code always takes precedence over the provisions of any codes for development for general matters.

The Suburban Locality Code of the Gladstone Plan 2006 does not apply to development within the Kirkwood Road Commercial Centre.

1.6 Probable Solutions for Code Assessable Development

A probable solution for a specific outcome provides a guide for achieving that outcome in whole or in part, and does not limit the assessment manager's discretion under the *Sustainable Planning Act 2009* to impose conditions on a development approval.

1.7 Terms defined in the Sustainable Planning Act 2009

Terms defined in the Sustainable Planning Act 2009 which are used in the plan of development have the meaning given in the Sustainable Planning Act 2009.

1.8 Terms defined in the Gladstone Planning Scheme 2006

Terms defined in the *Gladstone Plan 2006* do not apply to development within the Kirkwood Road Commercial Centre.

1.9 Terms Defined within the Queensland Planning Provisions version 3.1

Terms defined within the *Queensland Planning Provisions version 3.1* (QPP 3.1) which are used in the Kirkwood Road Commercial Centre have the meaning given in the QPP 3.1, subject to the following:

Supermarket:

A retail store offering a relatively broad and complete stock of dry goods, fresh meat, perishable produce and dairy products, supplemented by a variety of convenience, non-food merchandise and operating primarily on a self-serve basis. Checkout and point-of sale registers are aligned at the front of the store near the entrance, rather than spread throughout the store

PART 2: ASSESSMENT CATEGORIES AND RELEVANT ASSESSMENT CRITERIA FOR THE KIRKWOOD ROAD COMMERCIAL CENTRE

2.1 The Relevant Assessment Category for the Kirkwood Road Commercial Centre

The assessment categories and relevant assessment criteria for making a Material Change of Use on land within the Kirkwood Road Commercial Centre are outlined in table 2.1.1 below.

Table 2.1.1 Assessment	categories	and	relevant	assessment	criteria	for	making	al	Material
Change of Use		_							

Defined Use	Assessment Category ¹	Relevant assessment criteria ² – applicable code if development is self-assessable or requires code assessment
Commercial Zone	e	
Office	Code Assessable where: • The sum of the existing GFA of this use and the GFA proposed is less than 500sqm Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Car Wash	Self Assessable where: • Located in the Travel Precinct Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Food and Drink Outlet	 Self Assessable where: The sum of the existing GFA and the GFA proposed is less than 1,500sqm GFA Impact assessable otherwise. 	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Garden Centre	Self Assessable if: • Located within the North West Precinct of the Kirkwood Road Commercial Centre Code assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Hardware and Trade Supplies	 Self Assessable where: Located within the North East precinct of the Kirkwood Road Commercial Centre Code assessable otherwise. 	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Health Care Services	Self Assessable where: • The sum of the existing GFA and the GFA proposed is less than 1,000sqm Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code

Defined Use	Assessment Category'	Relevant assessment criteria ² – applicable code if development is self-assessable or requires code assessment
Indoor Sport and Recreation	Code Assessable where: • The sum of the existing GFA and the GFA proposed is less than 3,000sqm Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Open Space and Recreation Code Environment & Infrastructure Code
Service Station	Code Assessable where: • Located within the Kirkwood Road Commercial Centre Travel Precinct; Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Shop	Code Assessable where: • The sum of the existing GFA of this use and the GFA proposed is less than 6,000sqm. Impact assessable (inconsistent use) otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Showroom	Self Assessable	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Veterinary Services	Code Assessable where: • The sum of existing GFA of this use and the GFA proposed is less than 500sqm. Impact assessable otherwise	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Other - Advertising	Signs	
Advertising Signs (MCU)	Code	Kirkwood Road Commercial Centre Code Advertising Devices Code Operational Works (Earthworks) Code Environment & Infrastructure Code

¹ Assessment categories may also be affected by overlays. Refer to the Overlay code (Part 10) ² For impact assessable development, the relevant assessment criteria include the provisions of the whole of the planning scheme. ³ for the purpose of this code, all uses listed in table 2.1 are considered to be Business uses

2.2 Assessment criteria for the Kirkwood Road Commercial Centre - Other Development

Type of Development	Assessment Category ¹	Relevant assessment criteria ² – applicable code if development is self-assessable or requires code assessment
Carrying out drainage and plumbing work	Exempt	n/a
Carrying out building work not associated with a material change of use	Exempt	n/a
Erection of an advertising device (operational works) on premises not associated with a material change of use	Self Assessable	Kirkwood Road Commercial Centre Code Advertising Devices Code Operational Works (Earthworks) Code Environment & Infrastructure Code
Carrying out operational work not associated with a material change of use and not associated with reconfiguring a lot and involving earthworks including filling or excavation of land	Code Assessable except where: • The excavation or filling of land on floodplains involves 50m ³ or less or involves 100m ³ or less on land not subject to flooding which is exempt	Kirkwood Road Commercial Centre Code Operational Works (Earthworks) Code Environment & Infrastructure Code
Reconfiguring a lot	 Code Assessable except where: Abutting the major Industry and Infrastructure Zone which is Impact Assessable; Where creating allotments with an area less than 600m² which is impact assessable 	Kirkwood Road Commercial Centre Code Reconfiguring a Lot Code Operational Works (Earthworks) Code Environment & Infrastructure Code
Carrying out operational work for reconfiguring a lot	Code Assessable	Kirkwood Road Commercial Centre Code Reconfiguring a Lot Code Operational Works (Earthworks) Code Environment & Infrastructure Code
Other	Exempt	

Table 2.1.2 Assessment categories and relevant assessment criteria for Other Development

¹ Assessment categories may also be affected by overlays. Refer to the Overlay code (Part 10) the Gladstone Plan 2006

2.3 Inconsistent uses

The following uses are considered inconsistent with the overall outcomes for the Kirkwood Road Commercial Centre:

- (1) Agricultural Supplies Store
- (2) Animal Husbandry
- (3) Aquaculture
- (4) Brothel
- (5) Cemetery
- (6) Community Care Residence
- (7) Contractor's Depot
- (8) Crematorium
- (9) Dual Occupancy
- (10) Dwelling House
- (11) Dwelling Unit
- (12) Extractive Industry
- (13) High Impact Industry
- (14) Hospital
- (15) Intensive Animal Industry
- (16) Intensive Horticulture
- (17) Low Impact Industry
- (18) Marine Industry
- (19) Medium Impact Industry
- (20) Multiple Dwelling
- (21) Non-Resident Workforce Accommodation

- (22) Office where more than 500sqm GFA
- (23) Place Of Worship
- (24) Port Services
- (25) Relocatable Home Park
- (26) Residential Care Facility
- (27) Resort Complex
- (28) Retirement Facility
- (29) Rooming Accommodation
- (30) Rural Industry
- (31) Rural Worker's Accommodation
- (32) Sales Office
- (33) Shop Where more than 6,000sqm GFA Within the KRCC
- (34) Special Industry
- (35) Supermarket
- (36) Tourist Park
- (37) Transport Depot
- (38) Winery

A land use not listed above in section 2.1 or 2.3 are considered a "potentially consistent use" and requires impact assessment. An application for a potentially consistent use will require impact assessment and may only occur where assessment has determined that the use is appropriate for the centre having regards to such matters as its location, nature, scale and intensity.

PART 3: KIRKWOOD ROAD COMMERCIAL CENTRE CODE

This code applies to development within the Kirkwood Road Commercial Centre.

3.1 Overall outcomes for the Kirkwood Road Commercial Centre

The overall outcomes for the Kirkwood Road Commercial Centre are:

- Development contributes to a bulky goods and large format retailing centre in an integrated and co-located manner to maximise site multi-functionality and efficiency of land use;
- (b) Development results in no more than 30% of the centres ultimate building footprint being used for land uses other than Showrooms, Hardware and Trade Supplies and Garden Centres;
- (c) Ancillary and complementary uses to support the operation of the centre are incorporated into the development however to an extent which does not undermine or jeopardise the existing and future commercial centre hierarchy across the region;
- (d) Development is appropriately located according to the activities envisaged in the centre, and building and landscape design are of a scale, height, bulk and nature that provide a high level of amenity, are generally consistent with the character of the area, transition sensitively to the surrounding uses, and reinforce the subtropical nature of the city;
- (e) Development provides appropriate vehicular access, manoeuvring and parking and does not adversely affecting the efficiency of the transport network;
- (f) The Kirkwood Road is protected as an arterial road and major road transport corridor for the City and the region;
- (g) The Centre is provided with infrastructure, servicing and utilities commensurate with the level of service demands for the centre;
- (h) An open space buffer is provided along the Cathurbie Creek corridor;
- The local significance of the Cathurbie Creek historical grave site is acknowledged; and
- Development minimises adverse impacts on health, safety and amenity of adjoining residential areas.

SPE	SPECIFIC OUTCOME		CEPTABLE & PROBABLE SOLUTIONS
Self	Assessable and Assessable Development		
P1	Provides for an integrated development of bulky goods and large format retail focussed activities where the range of goods are predominantly of a non- convenience nature including hardware, housing service trades, service industries, showrooms and warehousing bulky goods, storage and distribution and chandlery to the City.	S1	 A minimum of 70% of the centre's ultimate building footprint is to be for the following land uses: Showroom Hardware and trade Supplies Garden Centre
P2	 Development provides complementary uses which: (a) Support and enhance the purpose of the precinct; and (b) Do not limit or compromise the purpose of the precinct; and (c) To an extent which does not undermine or jeopardise the existing and future commercial centre hierarchy across the region Note: The purpose of the centre is outlined in section 3.1 Overall Outcomes for the Kirkwood Road Commercial Centre. 	S2	No solution specified.
P3	Commercial activity occurs in step with the community's needs for additional facilities and services, convenience and accessibility.	S3	No solution specified.
P4	Development not typically anticipated for the Kirkwood Road Commercial Centre, does not hinder or constrain the ongoing operation and future economic opportunities of uses expected within he centre.	S4	No solution specified.
P5	The local significance of the Cathurbie Creek historical unmarked grave site is acknowledged.	S5	No solution specified.

3.2 Specific outcomes for the Kirkwood Road Commercial Centre

3.3 Specific outcomes for the Kirkwood Road Commercial Centre Precincts

3.3.1 North, North East, North West and Central Precincts

SPE	SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Self Assessable and Assessable Development					
P1	Development in the North, North West and Central precincts incorporate land uses predominantly in the form of Showrooms.	S1	No solution specified.			
P2	Development in the North East precinct incorporates land uses generally for Hardware and Trade Supplies or Showroom purposes.	S2	No solution specified.			
P3	Development within North, North West, North East and Central precincts are supported by complementary uses of an appropriate scale and purpose to serve the region, employees and customers of the centre.	S3	Additional land uses (e.g. shops, food and drink outlets, indoor sport and recreation) are accommodated within the precincts to support the centre's primary uses.			
P4	Where buildings address Weegool Road they consider options for activating the road frontage.	S4	No solution specified.			

3.3.2 South Precinct

SPE	SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Self Assessable and Assessable Development					
P1	Development in the South Precinct, adjacent or opposite to residential uses ensures that site layout and use are compatible with the adjoining future residential development.	S1	 (a) Development for health care services, showrooms, limited shops and food and drink outlet are encouraged in this precinct as long as they do not detract from the intended role and function of the Kirkwood Road Commercial Centre. (b) The loading/unloading and refuse storage/collection facilities are not located adjacent to the frontage of the Forest Springs Drive (West). (c) Provides landscape screening along Forest Springs Drive (West) road frontage. 			
P2	Development within the South Precinct is supported by complementary uses of an appropriate scale and purpose to serve the region, employees and customers of the centre.	S2	Additional land uses (e.g. shops, food and drink outlets, indoor sport and recreation) are accommodated within the precinct to support the centre's primary uses.			

3.3.3 Travel Precinct

SPECIFIC OUTCOME			ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Assessable and Assessable Development					
P1	Development in the Travel Precinct provides convenience services and retail options for the residents west of Kirkwood Road.	S1	Convenience services and retail options include the following uses: • Service station • Food and drink outlet			

SPE	SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Assessable and Assessable Development		And a state of the			
Buil	ding Scale and Appearance					
P1	Development is of a size and scale that meets the needs of the region and is of a physical form which does not constrain the establishment of a convenient and cohesive commercial centre.	S1	The ultimate building footprint on the Kirkwood Road Commercial Centre will be in the vicinity of 44,000sqm.			
P2	 Buildings are designed to: (a) respect and complement the existing character of the area, including presenting to the principal road frontage an "active" shop front of open displays or landscaped buffer screen; (b) maintain an appropriate human scale which is open and readily accessible from the street, providing easy and convenient pedestrian access including access for disabled persons, and safe and conveniently located areas and facilities for public seating and shelter; 	S2	No solution specified.			
	(c) buildings are not constructed of highly reflective materials such as high- performance glass and untreated galvanised metal sheeting, and do not present large flush surfaces on external walls to adjoining properties or a road frontage, and generally complement the streetscape and other development in the street in its design; and					
	(d) be appropriate for the aspect and climatic conditions in the City through a built form and architectural style that includes covered walkways, eaves and awnings.					
P3	Building setbacks are appropriate to the setting so as to enhance the streetscape and to establish an efficient functional relationship between the development and the street.	S3	No solution specified.			
P4	Site coverage of buildings allows for appropriate setbacks and landscaping.	S4	Site coverage does not exceed 75% of the site area.			
P4	and to establish an efficient functional relationship between the development and the street. Site coverage of buildings allows for appropriate setbacks and landscaping.	S4	Site coverage does not exceed 75 site area.			

3.4 Development Code – for making a material change of use

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SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Assessable and Assessable Development				
Com	munity Safety				
P5	 All premises are designed to achieve safety for property, staff and customers by ensuring that: (i) buildings are sited, orientated and designed to maximise casual surveillance of public spaces and designed to avoid opportunities for personal concealment; (ii) entries to buildings are exposed to the main street frontage and are clearly delineated; (iii) general public parking areas are clearly designated, well-lit and have clearly-defined access points; (iv) premises are well-lit to encourage informal surveillance with well-placed, low wattage lighting to minimise 'blind spots'; and (v) Building identification and numbering is prominent, clearly identifiable at night and large enough to be read by vehicles from the street. 	S5	No solution specified.		
P6	 Car parks in within the centre are designed with: (i) good clear signage so that users can locate their cars quickly; (ii) separate well defined areas; (iii) emergency telephones; (iv) mechanical and / or organised surveillance; (v) a network of designated, well-lit and sign-posted pedestrian routes linking users to the main entrances of the development; and (vi) bus stops located as shown on the Master Plan. 	S6	Where car parking is provided at ground level, such area is shaded and landscaped at the rate of at least one mature shade tree for every eight car parking spaces.		
Infre	structure Provision				
P7	Footpaths are provided adjacent to the premises are paved in durable, stable and non-skid surface materials matching or complementing to any adjacent development for the full width and length of all road frontages.	S7	No solution specified.		

B) Town Pleaning/Local Government Areal/Statemet/05 Development Applicatione/05 Kitwood Road Commercial Centre/DA-1008-2014111 NENCE Sameteing_18:15 15KRCC Cade - nr_18:13 16 alcos

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SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Assessable and Assessable Development				
Com	mercial Development Abutting Non-Comm	ercial	Uses		
P8	Appropriate setbacks and buffering are provided between commercial development and sites adjoining residential development and land included within the Residential Zone, Open Space Zone and Conservation Zone in a manner which maintains the amenity of adjoining residential properties in terms of: (i) visual and acoustic privacy; and (ii) access to sunlight.	S8	No solution specified.		
P9	 Commercial development abutting the Residential Zone or Residential (Higher Density) Zone will provide the following: (i) Buildings are setback the same distance as the residential buildings (as a minimum, buildings are setback 3 metres from the side and rear boundaries) except where the premises is situated within the Commercial Zone. (ii) A landscaped buffer strip 2.0 metres in width is provided and maintained within the site on any boundary adjoining a residential land use area. 	S9	No solution specified.		
Servi	ice Station				
P10	Each site has sufficient area and dimensions to accommodate: (i) the building or buildings and associated storage areas; (ii) associated car parking areas; (iii) delivery and service vehicles; (iv) safe vehicle access; and (v) safe on site vehicle movement.	S10	 Premises used for the purposes of a service station provide the following: (i) a minimum of 1,500m² site area; (ii) a minimum of 40 metre frontage on mid-block lots and minimum of 30 metre frontages on corner lots; (iii) a maximum width of any vehicle crossover across a footpath of 9 metre; (iv) a separation of at least 12 metres between any vehicle crossover and a road intersection; (v) a separation between vehicle crossovers of at least 14 metres; (vi) Deceleration lanes, kerbing and channelling and stormwater drainage in accordance with the Engineering and Infrastructure Standards Policy. 		

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SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Assessable and Assessable Development				
P11	Building setbacks are appropriate to the setting so as to enhance the streetscape and to establish an efficient functional relationship between the development and the street.	S11	 Buildings are setback a minimum of: (i) 3 metres from the side and rear boundaries of the site; and (ii) 6 metres from all road frontages or compatible with adjoining development, whichever is the greater setback. 		
P12	All setbacks include 3 m of landscaping.	S12	No solution specified.		
Outo	oor Dining				
P13	 Outdoor dining areas located within the road reserve or other public land are appropriately designed and located such that: (i) pedestrian movement at all times is safe, free of congestion and offering the most direct route with adequate protection from weather; (ii) the comfort, safety and free movement of patrons is provided; (iii) appropriate public amenities are available where 20 or more patrons are accommodated; (iv) free access to adjoining premises is provided such that the operations of adjoining premises are not adversely affected; and (v) the extent of seating is appropriate to the character and amenity levels of the location. 	S13	No solution specified.		
Shad	le Structure				
P14	 Any shade structure or device located within the road reserve or other public space is to be: (i) compatible with the streetscape character; and (ii) constructed to ensure the safety of pedestrians. 	S14	The shade structure provides a minimum clearance height of 2 metres for all pedestrian and patron circulation areas.		

3.4.1 Vehicle Parking and Access

SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Sel	Self Assessable and Assessable Development				
P1	 Premises are provided with: (a) adequate vehicle parking spaces to satisfy the anticipated requirements of the activity; (b) Safe and efficient access and manoeuvring areas to meet the anticipated volume and type of traffic; (c) Large vehicles are able to enter and leave the site without prejudicing the safety and efficiency of the road; (d) Access driveways are located and 	S1.1	Car parking for all uses within the Kirkwood Road Commercial Centre is provided in accordance with the following rate: • 1 space per 35m ² GFA Note: this rate applies to all uses within the centre. Excess car parking within one precinct can be shared with another precinct. Disabled car parking to be provided in accordance with the Building Code of Australia and AS2890.6. The required access and servicing		
	 (e) Vehicle crossings from the carriageway to the frontage of the site are constructed and finished to appropriate standards for the expected volume and type of traffic generated by activities on the site. (f) Bus stops located near the entrance or on a main thoroughfare within the centre. 		 requirements are as follows: 2% of the number of vehicle parking spaces within the centre are to be provided as marked and signed areas for motorcycles, with a minimum of 1 space, each measuring 2.5m by 1.35m Provide and maintain dedicated facilities for the parking of push bikes suitable for securing a bike in an upright position at a rate of two push bikes be 1,000m² GFA Provide a minimum of 1 taxi bay/precinct Provide bus set down shelters with seats at the bus stops 		
		S1.3	The design of car parking, access and manoeuvring areas are to be in accordance with the standards at Schedule 2, division 4 of the <i>Gladstone Planning Scheme 2006</i> .		
P2	A network of well-lit and sign-posted pedestrian routes linking users to the main entry points within the centre and provide linkages between the commercial activities and adjoining residential neighbourhoods.	S2	Provide a pedestrian connectivity plan detailing connectivity within the centre and to adjoining residential neighbourhoods. Note: plan can be prepared on a precinct basis but must clearly demonstrate connections to balance precincts. There is to be no pedestrian connection from the KRCC to Stage 21 of the Forest Springs Estate		
P3	 Access driveways, manoeuvring, loading and unloading areas, and parking areas are designed to ensure: (i) a gradient appropriate for the type of vehicles; (ii) effective drainage and sealed surface; (iii) clearly marked and signed spaces (iv) convenience and safety for drivers and pedestrians; and (v) adequate dimensions to meet user requirements. 	P3	No solution specified.		

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KIRKWOOD ROAD COMMERCIAL CENTRE - SCHEMATIC SEWER SERVICES





KIRKWOOD ROAD COMMERCIAL CENTRE - RECONFIGURATION PLAN

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Department of Infrastructure. Local Government and Planning

Our reference: SDA-0614-011191 Your reference: DA/1008/2014

2 September 2015

The Chief Executive Officer Gladstone Regional Council info@gladstonerc.qld.gov.au

Attention: Matthew Kelly

Dear Sir,

Amended concurrence agency response (with conditions)

Lot 301 Kirkwood Road, Kirkwood QLD 4680 (Lot 301 on SP174113) (Given under section 285 of the Sustainable Planning Act 2009)

The referral agency material for the development application described below was received by the Department of Infrastructure, Local Government and Planning under section 272 of the *Sustainable Planning Act 2009* on 17 November 2014.

Applicant details

Applicant name:	Walker Gladstone Pty Ltd
Applicant contact details:	GPO Box 4073
	Sydney NSW 2114
Site details	

Street address:	Lot 301 Kirkwood Road, Kirkwood	
Lot on plan:	Lot 301 on SP174113	
Local government area:	Gladstone Regional Council	

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Fitzroy/Central Regional Office Level 2, 209 Bolsover Street PO Box 113 Rockhampton QLD 4700

Application details

Proposed development:	Preliminary Approval for a Material Change of Use for a change in density (urban expansion to commercial zone) and a showroom and a Development Permit for
	Reconfiguring a Lot (two lots into five lots)

Referral triggers

The development application was referred to the department under the following provisions of the Sustainable Planning Regulation 2009:

Referral trigger	Reconfiguring a Lot
	Schedule 7, Table 3, Item 2 - State-transport infrastructure
	Schedule 7, Table 2, Item 4 – Clearing vegetation (Trigger determined to be not applicable)
	Material Change of Use
	Schedule 7, Table 3, Item 2 – State-transport infrastructure
	Schedule 7, Table 3, Item 10 – Clearing vegetation (Trigger determined to be not applicable)

Conditions

Under section 287(1)(a) of the Sustainable Planning Act 2009, the conditions set out in Attachment 1 must be attached to any development approval.

Reasons for decision to impose conditions

Under section 289(1) of the Sustainable Planning Act 2009, the department must set out the reasons for the decision to impose conditions. These reasons are set out in Attachment 2.

Further advice

Under section 287(6) of the Sustainable Planning Act 2009, the department offers advice about the application to the assessment manager - see Attachment 3.

Approved plans and specifications

The department requires that the following plans and specifications set out below and in Attachment 4 must be attached to any development approval.

Drawing/Report Title	Prepared by	Date	Reference no.	Version/Issue
Aspects of development: density (urban expansion Reconfiguring a Lot (two	Preliminary approval to commercial zone) a lots into five lots)	for a Material C and a showroor	hange of Use for a m and Developme	a change in nt Permit for
Reconfiguration Plan,	Walker Corporation	7 November	BG-FS-RC-	N/A

Page 2

Kirkwood Road Commercial Centre Code	Walker Corporation Pty Ltd	7-November 2014	N/A	N/A	
		5 August 2015			

A copy of this response has been sent to the applicant for their information.

For further information please contact Rebecca Curtis, Planning Officer on (07) 4924 2915 or via email at <u>RockhamptonSARA@dsdip.gld.gov.au</u> who will be pleased to assist.

Yours sincerely,

Non look

Don Cook Manager (Planning) Fitzroy/Central Region

cc: nicole.topple@walkercorp.com.au

enc: Attachment 1 - Conditions to be imposed Attachment 2 - Reasons for decision to impose conditions Attachment 3 - Further advice Attachment 4 - Approved plans and specifications

Attachment 1 - Conditions to be imposed

No.	Conditions	Condition timing
Aspec densit Recor	ets of development: Preliminary approval for a Material Change of ty (urban expansion to commercial zone) and a showroom and De afiguring a Lot (two lots into five lots)	Use for a change in velopment permit for
State- chief e Trans develo followi	transport infrastructure - Pursuant to section 255D of the Sustainable F executive administering the Act nominates the Director-General of The bort and Main Roads to be the assessing authority for the development opment approval relates for the administration and enforcement of any ing condition(s):	Planning Act 2009, the Department of to which this matter relating to the
1.	 The development must be carried out generally in accordance with the following plans, documents and specifications: Reconfiguration Plan, Kirkwood Road Commercial Centre, Drawing Number BG-FS-RC 001, prepared by Walker Corporation Pty Ltd and dated 7-Nov-14; Kirkwood Road Commercial Code, dated 7 November 2014 Reconfiguration Plan, Kirkwood Road Commercial Centre, Drawing Number BG-FS-RC-001C, prepared by Walker Corporation Pty Ltd and dated 17 August 2015; Kirkwood Road Commercial Code, dated 5 August 2015. 	At all times.
2.	All new roads shown on <i>Reconfiguration Plan, Kirkwood Road</i> <i>Commercial Centre</i> , Drawing Number BG-FS-RC-001, prepared by Walker Corporation Pty Ltd and dated 7-Nov-14 must be designed and constructed by the applicant to be in accordance with the Schedule – Code for IDAS, Part 2 – Development Standards of the <i>Transport Planning and Coordination Regulation</i> 2005, to accommodate a single unit rigid bus of 12.5m in length, and Chapter 6, Appendix C - Bus Route Infrastructure of the <i>TransLink Transit Authority Public Transport Infrastructure</i> <i>Manual</i> , May 2012.	Prior to submitting the plan of survey to the local government for approval for the relevant stage or prior to obtaining a final inspection certificate or certificate of classification, whichever is applicable, or prior to the commencement of use, whichever occurs first.

Attachment 2 - Reasons for decision to impose conditions

The reasons for this decision are:

- To ensure the development is carried out generally in accordance with the plans of development submitted with the application.
- To ensure that during construction bus-stops continue to function and pedestrian access to the bus stop is maintained at all times.

Attachment 3 - Further advice

Gen	eral advice
1.	The provision of urban bus services to the development will be assessed against other priorities across the network, available funding, and the ability of the road network through the new urban area to allow for the efficient routing of a service, amongst other relevant considerations. Therefore, this concurrence agency response does not imply that a bus service will be provided to the development.
	The proposed private roads, namely, the east/west Dixon Drive Extension Boulevard Road and the north/south spine road linking Dixon Drive and Forest Springs Drive, which may form part of a potential future bus route, should be designed in consultation with the Department of Transport and Main Roads' TransLink Division.
	The design and construction of these private roads should accord with any relevant provisions of the Schedule – Code for IDAS, Part 2 – Development Standards of the Transport Planning and Coordination Regulation 2005 and Chapter 6, Appendix C - Bus Route Infrastructure of the TransLink Transit Authority Public Transport Infrastructure Manual, May 2012.
	In particular, should the applicant wish to make provision for bus parking bays in the design of these private roads to facilitate future bus stops, the location and design of the bus parking bays should be undertaken in consultation with the Department of Transport and Main Roads' TransLink Division and should accord with the Public Transport Infrastructure Manual May 2012.
	The department's TransLink Division can be contacted on telephone number 3338 4260.
	TransLink's Public Transport Infrastructure Manual May 2012 is available at: http://translink.com.au/about-translink/what-we-do/public-transport-planning-
2.	Taxis provide essential door to door transport, particularly for those who are unable to access other forms of public transport or drive independently. Any future development application for a development permit for a material change of use impacting on the state transport infrastructure thresholds set out in Schedule 9 of the Sustainable Planning Regulation 2009, should assess the proposal's impact on taxis in accordance with Module 17 – Public and Active Transport of the State Development Assessment Provisions, for uses which are likely to generate taxi demand such as shop and hotel (tavern).

Attachment 4 - Approved plans and specifications

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KIRKWOOD ROAD COMMERCIAL CENTRE CODE

Revision 5 August 2015

PART 1: INTRODUCTION

1.1 Kirkwood Road Commercial Centre Code

In accordance with Section 242 of the Sustainable Planning Act (SPA), the Kirkwood Road Commercial Centre Code is a framework to facilitate an integrated and coordinated approach to development of a commercial centre for bulky goods/large format retailing in the location shown on Plan No. 1. The Kirkwood Road Commercial Centre comprises part of Lot 301 SP174113 and part of Lot 243 SP174113. The Kirkwood Road Commercial Centre should be considered as an additional precinct of the Suburban Locality of the Gladstone Plan 2006.

The Kirkwood Road Commercial Centre is a specialised centre of regional scale focused on providing bulky goods and large format retailing opportunities and supporting retail, personal services, banking services, community services and service trades.

Unless otherwise stated or specifically varied by this document, the outcomes and vision sought by the *Gladstone Plan 2006* also apply as assessment criteria to the subject land.



Plan No.1 Kirkwood Road Commercial Centre Location


Plan Number 2 - Kirkwood Road Commercial Centre Layout.

Plan No.2 Kirkwood Road Commercial Centre Layout

Plan no. 2 Kirkwood Road Commercial Centre Layout has precedence over the Gladstone Planning Scheme where an inconsistency arises.

Kirkwood Road Commercial Centre Structural elements

The Suburban Locality Commercial Zone applies to the Kirkwood Road Commercial Centre.



Plan No.3 Kirkwood Road Commercial Centre zoning

6 1Town Planning Local Town month Area (Division and Division and Agenual Control & Alberto Road Control A-1009-2014). Account of Control Code - 101, 28 16 docs

1.2 Determining the Level of Assessment

The assessment tables for the Kirkwood Road Commercial Centre identify the level of assessment for development within the centre.

1.3 Types and Names of Codes

There are codes for -

- (a) Kirkwood Road Commercial Centre as a whole; and
- (b) development of a stated purpose or development of a stated type.

The codes are as follows:

- (a) Kirkwood Road Commercial Centre Code;
- (b) Gladstone Plan 2006 Codes (refer to Gladstone Planning Scheme) for development of a stated purpose or development of a stated type (Part 11); and
- (c) Gladstone Plan 2006 Development Overlay Code (Part 10).

1.4 Codes Applicable to on-going Use

A code that is applicable to a material change of use is also applicable to the ongoing use that results from that change.

1.5 Application of Code Provisions

In all cases, the provisions of the Kirkwood Road Commercial Centre Code always take precedence over the provisions of any other code. In addition, the provisions of any relevant Overlay Code always takes precedence over the provisions of any codes for development for general matters.

1.6 Probable Solutions for Code Assessable Development

A probable solution for a specific outcome provides a guide for achieving that outcome in whole or in part, and does not limit the assessment manager's discretion under the *Sustainable Planning Act 2009* to impose conditions on a development approval.

1.7 Terms defined in the Sustainable Planning Act 2009

Terms defined in the Sustainable Planning Act 2009 which are used in the plan of development have the meaning given in the Sustainable Planning Act 2009.

1.8 Terms defined in the Gladstone Planning Scheme 2006

Terms defined in the *Gladstone Plan 2006* do not apply to development within the Kirkwood Road Commercial Centre.

1.9 Terms Defined within the Queensland Planning Provisions version 3.1

Terms defined within the *Queensland Planning Provisions version 3.1* (QPP 3.1) which are used in the Kirkwood Road Commercial Centre have the meaning given in the QPP 3.1, subject to the following:

Supermarket:

A retail store offering a relatively broad and complete stock of dry goods, fresh meat, perishable produce and dairy products, supplemented by a variety of convenience, non-food merchandise and operating primarily on a self-serve basis. Checkout and point-of sale registers are aligned at the front of the store near the entrance, rather than spread throughout the store

PART 2: ASSESSMENT CATEGORIES AND RELEVANT ASSESSMENT CRITERIA FOR THE KIRKWOOD ROAD COMMERCIAL CENTRE

2.1 The Relevant Assessment Category for the Kirkwood Road Commercial Centre

The assessment categories and relevant assessment criteria for making a Material Change of Use on land within the Kirkwood Road Commercial Centre are outlined in table 2.1.1 below.

Table 2.1.1 Assessment	categories	and	relevant	assessment	criteria	for	making	a	Material
Change of Use		_					1		

Defined Use	Assessment Category ¹	Relevant assessment criteria ² - applicable code if development is self-assessable or requires code assessment
Commercial Zone	e	
Office	Code Assessable where: • The sum of the existing GFA of this use and the GFA proposed is less than 500sqm Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Car Wash	Self Assessable where: • Located in the Travel Precinct Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Food and Drink Outlet	 Self Assessable where: The sum of the existing GFA and the GFA proposed is less than 1,500sqm GFA Impact assessable otherwise. 	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Garden Centre	Self Assessable if: • Located within the Central Precinct of the Kirkwood Road Commercial Centre Code assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Hardware and Trade Supplies	Self Assessable where: • Located within the North West precinct of the Kirkwood Road Commercial Centre Code assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Health Care Services	Self Assessable where: • The sum of the existing GFA and the GFA proposed is less than 1,000sqm Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code

0.1Town Planning/Local Government AreahGladstone/03 Develo

Defined Use	Assessment Category ¹	Relevant assessment criteria ² – applicable code if development is self-assessable or requires code assessment
Indoor Sport and Recreation	Code Assessable where: • The sum of the existing GFA and the GFA proposed is less than 3,000sqm Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Open Space and Recreation Code Environment & Infrastructure Code
Service Station	Code Assessable where: • Located within the Kirkwood Road Commercial Centre Travel Precinct; Impact assessable otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Shop	Code Assessable where: a) The sum of the existing GFA of this use and the GFA proposed is less than 6,000sqm. Impact assessable (inconsistent use) otherwise.	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Showroom	Self Assessable	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Veterinary Services	Code Assessable where: • No more than 500sqm GFA within the Kirkwood Road Commercial Centre. Impact assessable otherwise	Kirkwood Road Commercial Centre Code Commercial Code Environment & Infrastructure Code
Other - Advertising	g Signs	
Advertising Signs (MCU)	Code	Kirkwood Road Commercial Centre Code Advertising Devices Code Operational Works (Earthworks) Code Environment & Infrastructure Code

Assessment categories may also be affected by overlays. Refer to the Overlay code (Part 10) For impact assessable development, the relevant assessment criteria include the provisions of the whole of the 2 planning scheme.

for the purpose of this code, all uses listed in table 2.1 are considered to be Business uses

2.2 Assessment criteria for the Kirkwood Road Commercial Centre – Other Development

Type of Development	Assessment Category ¹	Relevant assessment criteria ² – applicable code if development is self-assessable or requires code assessment
Carrying out drainage and plumbing work	Exempt	n/a
Carrying out building work not associated with a material change of use	Exempt	n/a
Erection of an advertising device (operational works) on premises not associated with a material change of use	Self Assessable	Kirkwood Road Commercial Centre Code Advertising Devices Code Operational Works (Earthworks) Code Environment & Infrastructure Code
Carrying out operational work not associated with a material change of use and not associated with reconfiguring a lot and involving earthworks including filling or excavation of land	Code Assessable except where: • The excavation or filling of land on floodplains involves 50m ³ or less or involves 100m ³ or less on land not subject to flooding which is exempt	Kirkwood Road Commercial Centre Code Operational Works (Earthworks) Code Environment & Infrastructure Code
Reconfiguring a lot	 Code Assessable except where: Abutting the major Industry and Infrastructure Zone which is Impact Assessable; Where creating allotments with an area less than 600m² which is impact assessable 	Kirkwood Road Commercial Centre Code Reconfiguring a Lot Code Operational Works (Earthworks) Code Environment & Infrastructure Code
Carrying out operational work for reconfiguring a lot	Code Assessable	Kirkwood Road Commercial Centre Code Reconfiguring a Lot Code Operational Works (Earthworks) Code Environment & Infrastructure Code
Other	Exempt	

Table 2.1.2 Assessment categories and relevant assessment criteria for Other Development

¹ Assessment categories may also be affected by overlays. Refer to the Overlay code (Part 10)

2.3 Inconsistent uses

The following uses are considered inconsistent with the overall outcomes for the Kirkwood Road Commercial Centre:

- (1) Agricultural Supplies Store
- (2) Animal Husbandry
- (3) Aquaculture
- (4) Brothel
- (5) Cemetery
- (6) Community Care Residence
- (7) Contractor's Depot
- (8) Crematorium
- (9) Dual Occupancy
- (10) Dwelling House
- (11) Dwelling Unit
- (12) Extractive Industry
- (13) High Impact Industry
- (14) Hospital
- (15) Intensive Animal Industry
- (16) Intensive Horticulture
- (17) Low Impact Industry
- (18) Marine Industry
- (19) Medium Impact Industry
- (20) Multiple Dwelling
- (21) Non-Resident Workforce Accommodation

- (22) Office where more than 500sqm GFA
- (23) Place Of Worship
- (24) Port Services
- (25) Relocatable Home Park
- (26) Residential Care Facility
- (27) Resort Complex
- (28) Retirement Facility
- (29) Rooming Accommodation
- (30) Rural Industry
- (31) Rural Worker's Accommodation
- (32) Sales Office
- (33) Shop Where more than 6,000sqm GFA Within the KRCC
- (34) Special Industry
- (35) Supermarket
- (36) Tourist Park
- (37) Transport Depot
- (38) Winery

A land use not listed above in section 2.1 or 2.3 are considered a "potentially consistent use" and requires impact assessment. An application for a *potentially consistent use* will require impact assessment and may only occur where assessment has determined that the use is appropriate for the centre having regards to such matters as its location, nature, scale and intensity.

PART 3: KIRKWOOD ROAD COMMERCIAL CENTRE CODE

This code applies to development within the Kirkwood Road Commercial Centre.

3.1 Overall outcomes for the Kirkwood Road Commercial Centre

The overall outcomes for the Kirkwood Road Commercial Centre are:

- (a) Development contributes to a bulky goods and large format retailing centre in an integrated and co-located manner to maximise site multi-functionality and efficiency of land use;
- (b) Development results in no more than 30% of the centres ultimate building footprint being used for land uses other than Showrooms, Hardware and Trade Supplies and Garden Centres;
- (c) Ancillary and complementary uses to support the operation of the centre are incorporated into the development however to an extent which does not undermine or jeopardise the existing and future commercial centre hierarchy across the region;
- (d) Development is appropriately located according to the activities envisaged in the centre, and building and landscape design are of a scale, height, bulk and nature that provide a high level of amenity, are generally consistent with the character of the area, transition sensitively to the surrounding uses, and reinforce the subtropical nature of the city;
- Development provides appropriate vehicular access, manoeuvring and parking and does not adversely affecting the efficiency of the transport network;
- (f) The Kirkwood Road is protected as an arterial road and major road transport corridor for the City and the region;
- (g) The Centre is provided with infrastructure, servicing and utilities commensurate with the level of service demands for the centre;
- (h) An open space buffer is provided along the Cathurbie Creek corridor;
- The local significance of the Cathurbie Creek historical grave site is acknowledged; and
- Development minimises adverse impacts on health, safety and amenity of adjoining residential areas.

SPE	SPECIFIC OUTCOME		CEPTABLE & PROBABLE SOLUTIONS
Sell	Assessable and Assessable Development		
P1	Provides for an integrated development of bulky goods and large format retail focussed activities where the range of goods are predominantly of a non- convenience nature including hardware, housing service trades, service industries, showrooms and warehousing bulky goods, storage and distribution and chandlery to the City.	S1	 A minimum of 70% of the centre's ultimate building footprint is to be for the following land uses: Showroom Hardware and trade Supplies Garden Centre
P2	 Development provides complementary uses which: (a) Support and enhance the purpose of the precinct; and (b) Do not limit or compromise the purpose of the precinct; and (c) To an extent which does not undermine or jeopardise the existing and future commercial centre hierarchy across the region Note: The purpose of the centre is outlined in section 3.1 Overall Outcomes for the Kirkwood Road Commercial Centre. Development for the purpose of a supermarket or grocery store is not considered a complementary use. 	S2	No solution specified.
P3	Commercial activity occurs in step with the community's needs for additional facilities and services, convenience and accessibility.	S3	No solution specified.
P4	Development not typically anticipated in Kirkwood Road Commercial Centre does not hinder or constrain the ongoing operation and future economic opportunities of uses expected within he centre.	S4	No solution specified.
P5	The local significance of the Cathurbie Creek historical unmarked grave site is acknowledged.	S5	No solution specified.

3.2 Specific outcomes for the Kirkwood Road Commercial Centre

3.3 Specific outcomes for the Kirkwood Road Commercial Centre Precincts

3.3.1 North, North East and North West Precincts

SPE	SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS				
Sell	Assessable and Assessable Development						
P1	Development in the North and North East precinct incorporates land uses predominantly in the form of Showrooms.	S1	No solution specified.				
P2	Development in the North West precinct incorporates land uses generally for Hardware and Trade Supplies or Showroom purposes.	S2	No solution specified.				
P3	Developments within the precincts are supported by complementary uses of an appropriate scale and purpose to serve the region, employees and customers of the centre.	S3	 (a) Additional land uses (e.g. shops, food and drink outlets, indoor sport and recreation) are accommodated within the precinct to support the primary centre uses and to activate the Dixon Drive extension road frontage. (b) The development presents an attractive street front address to the Dixon Drive extension road. 				

3.3.2 South Precinct

SPE	SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS				
Self	Assessable and Assessable Development						
P1	Development in the South Precinct, adjacent or opposite to residential uses ensures that site layout and use are compatible with the adjoining future residential development.	S1	 (a) Development for health care services, showrooms, limited shops and food and drink outlet are encouraged in this precinct as long as they do not detract from the intended role and function of the Kirkwood Road Commercial Centre. (b) The loading/unloading and refuse storage/collection facilities are not located adjacent to the frontage of the Forest Springs Drive Extension. (c) Provides an attractive streetscape to Forest Springs Drive Extension 				
P2	Development within the precinct is supported by complementary uses of an appropriate scale and purpose to serve the region, employees and customers of the centre.	S2	Additional land uses (e.g. indoor sport and recreation) are accommodated within the precinct to support the primary centre uses and to activate the Forest Springs Drive extension frontage.				

3.3.3 Travel Precinct

SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self Assessable and Assessable Development					
P1	Development in the Travel Precinct provides convenience services and c options for the residents west of Kirkwood Road.	S1	Convenience services and retail options include the following uses: • Service station • Food and drink outlet		

SPE	SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Assessable and Assessable Development					
Buil	ding Scale and Appearance					
P1	Development is of a size and scale that meets the needs of the region and is of a physical form which does not constrain the establishment of a convenient and cohesive commercial centre.	S1	The ultimate building footprint on the Kirkwood Road Commercial Centre will be in the vicinity of 44,000sqm.			
P2	 Buildings are designed to: (k) respect and complement the existing character of the area, including presenting to the principal road frontage an "active" shop front of open displays; (i) maintain an appropriate human scale which is open and readily accessible from the street, providing easy and convenient pedestrian access including access for disabled persons, and safe and conveniently located areas and facilities for public seating and shelter; (ii) buildings are not constructed of highly reflective materials such as high-performance glass and untreated galvanised metal sheeting, and do not present large flush surfaces on external walls to adjoining properties or a road frontage, and generally complement the streetscape and other development in the street in its design; and (iii) be appropriate for the aspect and climatic conditions in the City through a built form and architectural style that includes covered walkways, eaves and awnings over the footpath for its full width and frontage except for any 	S2	No solution specified.			
P3	Building setbacks are appropriate to the setting so as to enhance the streetscape and to establish an efficient functional relationship between the development and the street.	S 3	No solution specified.			
P4	Site coverage of buildings allows for appropriate setbacks and landscaping.	S4	Site coverage does not exceed 75% of the site area.			

3.4 Development Code – for making a material change of use

SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Assessable and Assessable Development				
Com	munity Safety				
P5	 All premises are designed to achieve safety for property, staff and customers by ensuring that: (i) buildings are sited, orientated and designed to maximise casual surveillance of public spaces and designed to avoid opportunities for personal concealment; (ii) entries to buildings are exposed to the main street frontage and are clearly delineated; (iii) general public parking are well-lit to encourage informal surveillance with areas are clearly designated, well-lit and have clearly-defined access points; (iv) premises well-placed, low wattage lighting to minimise 'blind spots'; and (v) Building identification and numbering is prominent, clearly identifiable at night and large enough to be read by vehicles from the street. 	S5	No solution specified.		
P6	 Car parks in within the centre are designed with: (i) good clear signage so that users can locate their cars quickly; (ii) separate well defined areas; (iii) emergency telephones; (iv) mechanical and / or organised surveillance; (v) a network of designated, well-lit and sign-posted pedestrian routes linking users to the main entrances of the development; and (vi) bus stops located near the entrance of retail centres rather than on the edge of car parks. 	S6	Where car parking is provided at ground level, such area is shaded and landscaped at the rate of at least one mature shade tree for every eight car parking spaces.		
Infra	structure Provision				
P7	Footpaths are provided adjacent to the premises are paved in durable, stable and non-skid surface materials matching or complementing to any adjacent development for the full width and length of all road frontages.	S7	No solution specified.		

SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS				
Self	Assessable and Assessable Development					
Commercial Development Abutting Non-Commercial Uses						
P8	Appropriate setbacks and buffering are provided between commercial development and sites adjoining residential development and land included within the Residential Zone, Open Space Zone and Conservation Zone in a manner which maintains the amenity of adjoining residential properties in terms of: (i) visual and acoustic privacy; and (ii) access to sunlight.	S8	No solution specified.			
P9	 Commercial development abutting the Residential Zone or Residential (Higher Density) Zone will provide the following: (i) Buildings are setback the same distance as the residential buildings (as a minimum, buildings are setback 3 metres from the side and rear boundaries) except where the premises is situated within the Commercial Zone. (ii) A landscaped buffer strip 2.0 metres in width is provided and maintained within the site on any boundary adjoining a residential land use area. 	S9	No solution specified.			
Serv	ice Station					
P10	Each site has sufficient area and dimensions to accommodate: (i) the building or buildings and associated storage areas; (ii) associated car parking areas; (iii) delivery and service vehicles; (iv) safe vehicle access; and (v) safe on site vehicle movement.	S10	 Premises used for the purposes of a service station provide the following: (i) a minimum of 1,500m² site area; (ii) a minimum of 40 metre frontage on mid-block lots and minimum of 30 metre frontages on corner lots; (iii) a maximum width of any vehicle crossover across a footpath of 9 metre; (iv) a separation of at least 12 metres between any vehicle crossover and a road intersection; (v) a separation between vehicle crossovers of at least 14 metres; (vi) separate entrances to, and exits from the site; and (vii) Deceleration lanes, kerbing and channelling and stormwater drainage in accordance with the Engineering 			

SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS			
Self	Assessable and Assessable Development				
P11	Building setbacks are appropriate to the setting so as to enhance the streetscape and to establish an efficient functional relationship between the development and the street.	S11	 Buildings are setback a minimum of: (i) 3 metres from the side and rear boundaries of the site; and (ii) 6 metres from all road frontages or compatible with adjoining development, whichever is the greater setback. 		
P12	All setbacks include 3 m of landscaping.	S12	No solution specified.		
Outo	oor Dining				
P13	 Outdoor dining areas located within the road reserve or other public land are appropriately designed and located such that: (i) pedestrian movement at all times is safe, free of congestion and offering the most direct route with adequate protection from weather; (ii) the comfort, safety and free movement of patrons is provided; (iii) appropriate public amenities are available where 20 or more patrons are accommodated; (iv) free access to adjoining premises is provided such that the operations of adjoining premises are not adversely affected; and (v) the extent of seating is appropriate to the character and amenity levels of the location. 	S13	No solution specified.		
Shad	le Structure				
P14	 Any shade structure or device located within the road reserve or other public space is to be: (i) compatible with the streetscape character; and (ii) constructed to ensure the safety of pedestrians. 	S14	The shade structure provides a minimum clearance height of 2 metres for all pedestrian and patron circulation areas.		

3.4.1 Vehicle Parking and Access

SPI	SPECIFIC OUTCOME		ACCEPTABLE & PROBABLE SOLUTIONS		
Sel	Assessable and Assessable Developmen	ŧ.			
P1	 Premises are provided with: (a) adequate vehicle parking spaces to satisfy the anticipated requirements of the activity; (b) Safe and efficient access and manoeuvring areas to meet the anticipated volume and type of traffic; (c) Large vehicles are able to enter and leave the site without prejudicing the safety and efficiency of the road; (d) Access driveways are located and 	S1.1	Car parking for all uses within the Kirkwood Road Commercial Centre is provided in accordance with the following rate: • 1 space per 35m ² GFA Note: this rate applies to all uses within the centre. Excess car parking within one precinct can be shared with another precinct. Disabled car parking to be provided in accordance with the Building Code of Australia and AS2890.6.		
	 (d) notes a unversely are located and designed to minimise conflicts with traffic and pedestrians; and (e) Vehicle crossings from the carriageway to the frontage of the site are constructed and finished to appropriate standards for the expected volume and type of traffic generated by activities on the site. (f) Bus stops located near the entrance or on a main thoroughfare within the centre. 	S1.2	 The required access and servicing requirements are as follows: 2% of the number of vehicle parking spaces within the centre are to be provided as marked and signed areas for motorcycles, with a minimum of 1 space, each measuring 2.5m by 1.35m Provide and maintain dedicated facilities for the parking of push bikes suitable for securing a bike in an upright position at a rate of two push bikes be 1,000m² GFA Provide a minimum of 1 taxi bay/precinct Provide bus set down shelters with seats at the bus stops 		
		S1.3	The design of car parking, access and manoeuvring areas are to be in accordance with the standards at Schedule 2, division 4 of the <i>Gladstone Planning Scheme 2006</i> .		
P2	A network of well-lit and sign-posted pedestrian routes linking users to the main entry points within the centre and provide linkages between the commercial activities and adjoining residential neighbourhoods.	S2	Provide a pedestrian connectivity plan detailing connectivity within the centre and to adjoining residential neighbourhoods. Note: plan can be prepared on a precinct basis but must clearly demonstrate connections to balance precincts.		
P3	 Access driveways, manoeuvring, loading and unloading areas, and parking areas are designed to ensure: (i) a gradient appropriate for the type of vehicles; (ii) effective drainage and sealed surface; (iii) clearly marked and signed spaces (iv) convenience and safety for drivers and pedestrians; and (v) adequate dimensions to meet user requirements. 	Р3	No solution specified.		



825 Ann Street Fortitude Valley 4006 PO Box 264 Fortitude Valley 4006

ergon.com.au

5 December 2014

Chief Executive Officer Gladstone Regional Council

via email: info@gladstonerc.qld.gov.au

Attention: Matthew Kelly, Development Assessment

cc

Walker Gladstone Pty Ltd via email: nicole.topple@walkercorp.com.au

Attention: Nicole Topple

Dear Matthew,

ADVICE AGENCY RESPONSE

MATERIAL CHANGE OF USE – IMPACT – PRELIMINARY APPROVAL – CHANGE IN DENSITY (URBAN EXPANSION TO COMMERCIAL ZONE) & SHOWROOMS DEVELOPMENT PERMIT – RECONFIGURATING A LOT (1 INTO 5 LOTS)

LOTS 243 & 301 KIRKWOOD ROAD KIRKWOOD

243 & 301 SP174113

COUNCIL REFERENCE: DA/1008/2014 OUR REFERENCE: EE14/054078

This submission is made on behalf of Ergon Energy Corporation Limited ACN 087 646 062 (*Ergon Energy*) pursuant to section 292 (advice agency response) of the *Sustainable Planning Act 2009*. In accordance with section 292 (3), we request that the assessment manager treats this response as a properly made submission.

Ergon Energy has an 11kV overhead feeder which follows the alignment of easement A on SP118590, then exits the site (as an underground cable) within easement B on SP246153. The

Ergon Energy Corporation Limited ABN 50 087 646 062 Ergon Energy Queensland Pty Ltd ABN 17 121 177 802 planning report notes that relocation (and undergrounding) of this infrastructure will need to occur to facilitate the development as proposed.

Ergon Energy acting as an advice agency has no objection to the proposed material change of use and reconfiguration of a lot, subject to the following conditions being applied to any approval:

- Development is carried out generally in accordance with the plans and reports provided as part of the application.
- Changes (ie. realignment / undergrounding) to Ergon Energy infrastructure proposed or required as part of the development are made with Ergon Energy's consent and at the developer/owner's expense (unless otherwise agreed to by Ergon Energy).
- Ergon Energy's existing easement (and its conditions) remains relevant and applicable to the burdened parcel until Ergon Energy approves the release of the easement.

The developer will be required to negotiate electricity supply arrangements by applying in writing to Ergon Energy, or by contacting Ergon Energy on 13 10 46. Early contact is recommended. Should the development require onsite electrical infrastructure (ie. additional or upgraded pad mounted transformer), early contact with Ergon Energy (ie. prior to detailed design) can ensure any easement requirements are accounted for in a timely and efficient manner.

We respectfully request that a copy of the decision be provided in accordance with section 334 (1) (b) of the *Sustainable Planning Act 2009.*

Please contact me on 3851 6530 or via email address: <u>ian.turton@ergon.com.au</u> for any further information.

Yours sincerely,

lan Turton Principal Town Planner Ergon Energy



Gladstone Regional Council PO Box 29, Gladstone Qld 4680 Phone (07) 4970 0700 Fax (07) 4975 8500 Email info@gladstone.qld.gov.au Website www.gladstone.qld.gov.au

Please address all correspondence to The Chief Executive Officer

Contact Officer: Candace Canniffe Our Ref: DA/1008/2014

29 March 2023

Walker Gladstone Pty Ltd C/- Zone Planning Group PO Box 5332 GLADSTONE QLD 4680

Dear Sir/Madam

PRE-REQUEST RESPONSE NOTICE PLANNING ACT 2016 S83

DA/1008/2014 - MATERIAL CHANGE OF USE - IMPACT PRELIMINARY APPROVAL - CHANGE IN ZONE (URBAN EXPANSION TO COMMERCIAL ZONE) AND SHOWROOMS (44,000SQM IN 6 PHASES) AND DEVELOPMENT PERMIT - RECONFIGURING A LOT (2 INTO 5 AND ROAD RESERVE IN 4 STAGES) LOT 243 & 301 KIRKWOOD ROAD, KIRKWOOD QLD 4680 LOT 243 SP 174113, LOT 301 SP 174113

Reference is made to the above development application and the Court Order dated 7 December 2017 and your request for a pre-request notice dated 6 March 2023.

I wish to advise that the pre-request was assessed under Delegated Authority on 29 March 2023 where it was decided there was no objection to the change to the approved plans and conditions, as follows:

- Approved Documentation, Condition 1 be amended to deleted superseded staging plan and include two new staging plans for the reconfiguring a lot development:
 - Kirkwood Road Commercial Centre Reconfiguring a Plan Stage 1, prepared by Walker, reference KRCC-WC-005 F ST-1, dated 21-Feb-2023; and
 - Kirkwood Road Commercial Centre Reconfiguring a Plan Stage 2-5, prepared by Walker, reference KRCC-WC-005 F ST-2-5, dated 21-Feb-2023.
- Condition 4, relating to the State Assessment and Referral Agency conditions, to be deleted.
- Part C Reconfiguration of a Lot conditions to be amended to reflect new staging plan. Changes include:
 - Introduction of three new conditions to support proposed new Stage 1 for three management lots; and
 - Rewording of existing special condition 62 to improve clarity around the delivery of the proposed new road and access easement subject to Stages 2 to 5.

Council will provide a full conditions package to the responsibly entity (Planning and Environment Court) once the minor change application is formally lodged.

Should you have any questions or require further clarification in relation to any matters raised, please do not hesitate to contact Council's Planning Officer Candace Canniffe on (07) 4970 0700.

Yours faithfully

T R MCDONALD A/MANAGER DEVELOPMENT SERVICES

Attachment 1—Plans referenced in pre-request response application





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Do Conference Station Pty Ltd. Version: 1, Version Date: 02/03/2023

APPENDIX 2: PERSONNEL REGISTER



PERSONNEL REGISTER

To be signed by all personnel entering or active on the site.

Signature confirms that the person (named) has reviewed and will comply with the requirements of the Construction Environment Management Plan.

Name	Organisation and Address	Signature	

APPENDIX 3: CONTACTS LIST

	Name / Company	Phone Number
Wildlife Spotter Catcher	Litoria Consulting	07 3852 4855
Site Environmental Manager	Litoria Consulting	07 3852 4855
Project Manager	ТВА	ТВА
	Name / Company	Phone Number
Ambulance/Police/Fire Brigade	N/A	000
RSPCA Animal Emergency Hotline	N/A	1300 264 625



APPENDIX 4: ENVIRONMENTAL INSPECTION CHECKLIST



ENVIRONMENTAL INSPECTION CHECKLIST

Name of recorder:	Date:
Location:	

1.0 Documents and Records

Required documents, permits and/or approvals in place?	
Relevant inductions completed?	
Comments:	
Photo record numbers:	

2.0 - Site Office and Amenities

Are offices and amenities correctly located?	
Appropriate pedestrian/road access and signage?	
Comments:	
Photo record numbers:	

3.0 Vegetation Management

An Operational Works approval for vegetation clearing (on a staged basis) is	
obtained and approved by Gladstone Regional Council.	
Approved clearing areas are identified and demarcated using GPS coordinates and	
flagged star pickets.	

Vegetation conservation areas are identified, demarcated, and where applicable, tree protection fencing is erected.	
Vegetation protection fencing is to be established at the interface between all works areas and vegetation to be retained.	
Tree protection zones (TPZ) are to be established around all trees to be conserved which are near proposed working areas (i.e., adjacent to the confirmed working areas extents).	
TPZs are to be established in accordance with <i>AS 4970 – Protection of trees on development sites</i> . TPZs include the assembly of mesh tree barriers / guards to protect 'at risk' retained trees from encroachment / accidental damage.	
 TPZs are to be established prior to the commencement of any clearing or site works. Within the TPZ, the following activities are not permitted: Storage and mixing of materials; Vehicle parking; Liquid disposal; Machinery repairs and/or refuelling; Construction of site office or shed; Combustion of any material; Stockpiling of soil, rubble or debris; Any filling or excavation including trenching, topsoil skimming and/or surface excavation, unless otherwise approved by the Chief Executive Officer; and, Unauthorised application of pesticides, herbicides or chemicals. 	
A Wildlife Spotter Catcher is to inspect all areas to be cleared prior to vegetation clearing.	
Restrict access to all areas outside of the approved clearing and construction areas.	
Clearing of vegetation is to be undertaken on a staged basis, following an Operational Works approval for an individual stage.	
Ensure vegetation clearing, including tree felling, does not impact areas outside of approved clearing areas.	
Ensure all vehicle and personnel movement is limited to the approved clearing and construction areas.	
Ensure that all fauna management measures are strictly followed prior to, and during vegetation clearing and management.	
Vegetation removal is to be undertaken by suitably qualified contractors.	

All vegetation that is cleared on the site shall be mulched on site and used for on-site	
landscaping works.	
Vegetation cleared and not suitable for mulching shall be removed and disposed of in	
an approved disposal facility.	
Land clearing debris must not be pushed into gullies, watercourses, other drainage	
line or waterlogged areas, or any areas outside of the approved clearing extent.	
Vegetation clearing must not occur outside of the approved clearing areas.	
Any exposed or damaged tree roots are identified and treated in accordance with AS	
4373—2007 - Pruning of amenity trees.	
Arborist / contractor to treat any damaged trees. Works are to be undertaken by a	
qualified minimum Level 5 Arborist or suitably qualified person.	
Site briefings for all staff must occur prior to any major works and before	
commencement of works daily to discuss approved clearing processes and provide	
clear understanding of areas to be protected from construction.	

4.0 – Fauna Management

A suitably qualified Wildlife Spotter Catcher must also be present on site during all vegetation clearing works.	
The approval holder must not clear any vegetation supporting any fauna until such time that any present fauna vacates the vegetation or are relocated by a suitably qualified person.	
Veterinary care, or assistance from a wildlife refuge, must be sought if any fauna are found injured within the project site while clearing and / or construction occurs within the project site.	
To reduce risk of injury to fauna, all vehicles and plant machinery must stay on pre- determined routes and roads and must adhere to site speed limits at all times.	
The approval holder must ensure a pre-clearing survey is undertaken by a suitably qualified person within 24 hours before any clearing of vegetation within the project site, to identify any fauna present.	
Immediately prior to the commencement of clearing and on each day that vegetation clearing is to take place, a licensed Wildlife Spotter Catcher should be on site in the event that fauna are observed which require protection, relocation or in case of fauna injury.	

Licensed Wildlife Spotter Catcher to inspect trees to be trimmed / removed and	
identify hollows for retention / salvage, respectively.	
Non-itinerant fauna (other than the Koala, Northern Quoll, Squatter Pigeon and Grey-	
headed Flying-fox) are, where practicable, relocated / ushered to nearby patches of	
vegetation or nearby bushland - refer to licensed Wildlife Spotter Catcher for advice.	
Vegetation containing Koala(s), Northern Quoll(s), Squatter Pigeon(s) or Grey-	
headed Flying-foxes are to be demarcated with high visibility flagging tape and no	
further clearing is take place within 20m of the vegetation. Any interactions with the	
individuals or management measures are to be determined in consultation with the	
licensed Wildlife Spotter Catcher for advice.	
Where identified, active hollows, nests or other breeding places are not to be	
interfered with. Tampering with an animal breeding place is in violation of the Nature	
Conservation Act 1999 under section 332 of the Nature Conservation (Wildlife	
Management) Regulation 2006 in the exception of removal or tampering that is part	
of an approved species management program, or the person holds a damage	
mitigation permit for the animal and the permit authorises the removal or tampering.	
An approved koala exclusion fence is in place along main roads adjacent to the site	
(subject to development staging) and the manual vehicle access gate is closed.	
All domesticated animals are prohibited from site.	
Personnel are prohibited from interacting with and / or feeding native or non-native	
fauna on site.	
All vehicles will stay on pre-determined routes and adhere to site speed limits. Speed	
limits to be clearly signposted to minimise potential for fauna impact.	
A register of wildlife incidents (fauna strike and mortality) will be established and	
maintained as part of the CEMP.	

5.0 – Pest Management

Conduct weed control for target species on a seasonal basis as per optimal control	
for each target species.	
Ensure all vehicles, equipment and plant undergo a thorough inspection prior to	
access to site and are free of plant material and soil.	
Ensure soil used on site adheres to the soil movement guidelines as outlined in the	
Biosecurity Regulation 2016 (Qld) for fire ant movement controls.	
Ensure soil and mulch used on site is uncontaminated, and free of weeds and pests.	

Conduct herbicide spraying of weeds along the clearing line and the site boundary	
prior to weeds setting seed.	
Control any infestation of weeds or pests on site.	
Locate cleared vegetation and mulch stockpiles away from areas where runoff from rainfall may occur.	

6.0 – Water Quality Management

Erosion and sediment control measures installed in accordance with:	
 Soil Erosion and Sediment Control Engineering Guidelines for Queensland 	
Construction Sites (The Institution of Engineers, Australia Queensland Division	
June 1996);	
 Best Practice Erosion and Sediment Control (International Erosion Control 	
Association 2008); and,	
 Any relevant permit conditions. 	
Stormwater control measures installed in accordance with:	
 Water by Design Bioretention Technical Design Guidelines Version 1.1, October 	
2014;	
 Healthy Waterways Water Sensitive Urban Design Technical Design Guidelines 	
for Southeast Queensland Version 1, June 2006;	
 Water by Design Construction and Establishment Guidelines: Swales, Bioretention 	
Systems and Wetlands Version 1.1, April 2010;	
 Gladstone Stormwater Management Strategy, June 2000; and, 	
Any relevant permit conditions	
Stormwater drainage structures shall be designed so that there is 'no worsening' of	
runoff beyond that which occurs on the existing undeveloped site.	
All complaints regarding erosion and water stormwater runoff are to be recorded	
within a Complaints Register immediately.	
All complaints regarding erosion and stormwater runoff are to be addressed within	
24 nours if severe, or within one week for minor complaints.	
i nere shall be no deposition of sediment from the project site on to heighbouring	
properties. There shall be no puisance impacts as a result of erosion, stormwater runoff, or	
sedimentation on to neighbouring properties	
seamentation on to heighbouring properties.	

There shall be no channeling and / or deposition as a result of erosion, stormwater	
runoff, or sedimentation within the site.	

7.0 – Air Quality Management

Where required, install wind fencing around the perimeter of the site, taking into	
consideration the use of natural wind fencing (remnant vegetation) as a natural wind	
barrier.	
Water trucks are to water down unsealed roads and working surfaces during	
operation to reduce dust lift.	
All complaints regarding dust are to be recorded within a Complaints Register	
immediately.	
All complaints regarding dust are to be addressed within 24 hours if severe, or within	
one week for minor complaints.	
All trucks removing materials from site will be loaded inside site perimeter.	
All loads shall be securely covered prior to exiting site perimeter.	
Minimise stockpiling of material.	
Maintain stabilised access roads and driveways.	
Maintain clean roadways wherever possible, particularly at entry / exit points.	
Dust and particulate matter must not exceed the allowable following levels when	
measured at any nuisance sensitive place or downwind of the project site (see	
Monitoring section below for further details).	

9.0 – Noise Quality Management

Where required, install noise abatement barriers or fencing around the perimeter of	
the site.	
Make use of noise attenuating controls at the source, such as mufflers or acoustic	
screens.	
All complaints regarding noise are to be recorded within the Corrective Actions	
Register.	
All complaints regarding noise are to be addressed within 24 hours if severe, or	
within one week for minor complaints.	

Locate static sources of noise such as the generators as remotely as possible from	
noise sensitive receivers.	
Modification of work activities where noise or vibration is found to cause	
unacceptable impact.	
Hours of construction must be in accordance with:	
 The provisions of any relevant local law; or, 	
• In the absence of any relevant local law or condition, the hours of construction	
must be limited to 0630-1830 Monday to Saturday and not at all on Sunday	
and public holidays.	

10.0 – Waste Management

A trade waste permit to discharge waste into the sewer must be obtained.	
Waste management control measures are to be in accordance with any relevant	
release will cause environmental harm or nuisance, unless authorised.	
All waste should be placed in appropriate disposal containers and areas during construction.	
All waste should be removed from site and disposed of appropriately.	
Where possible ensure that waste on site is appropriately covered.	
Covered bins are provided to collect waste and prevent fauna being attracted to the	
work site.	
An adequate number of an appropriate type of commercial and bulk waste	
containers shall be provided at a central location to accommodate all waste	
produced on the site.	
All waste collected on the site to be removed not less than once per week.	
Appropriate spill kits, personal protective equipment, operator instructions and	
emergency procedure guides for the management of wastes and chemicals must be	
in a place accessible to all employees.	
All fuels and chemicals must be stored in an on-site containment system of a type	
suitable to prevent the spillage of the material and its discharge to the environment.	
All general and regulated waste records, including transfer station dockets and waste	
tracking certificates, are to be retained.	

Waste must be stored, pending its lawful disposal to landfill or to a recycling facility, or another place with the written approval of the administering authority, in a location at the authorised place where it is not visible to a person outside the authorised place.	
Waste (other than wastewater or sludges in any evaporation pond) must be removed from the authorised place within the timeframe specified for the waste as follows: If the waste is surplus from the construction of the development — within three (3) months after construction works are complete; or, Otherwise — within three (3) months of the waste being generated.	
Waste storage areas are to be signed and located away from environmentally sensitive areas.	
Burning of waste is prohibited.	
Adequately sized refuse bins will be made available on site and will have suitable lids to prevent access by animals.	
Construction site is to be kept in an orderly and hygienic standard, free of litter and waste.	

APPENDIX 5: INCIDENT REPORT FORM


INCIDENT REPORT FORM

Name of person(s) completing this form:

Signature of person(s) completing this form:

Date:

INCIDENT DETAILS

Date and time of incident:

Name of person(s) involved:

Description of incident:

Witness(es) of incident (include contact details):

INCIDENT REPORT FORM

INJURY DETAILS (if applicable)

Description of injury (include parts of body affected):

REPORTING OF THE INCIDENT

Incident reported to:

Date:

Reporting method (in person, email, phone etc.):

FOLLOW UP ACTION

Description of action(s) to be taken:

APPENDIX 6: CORRECTIVE ACTIONS REGISTER



CORRECTIVE ACTIONS REGISTER

Reference number	Date & location of incident, complaint, or non-conformance	Details of incident, complaint, or non- conformance	Actions taken to control the incident, complaint, or non- conformance	Date by which the corrective action will be completed (unless ongoing)	Appropriate sign-off indicating that the incident / complaint / non-conformance was investigated

APPENDIX 7: KOALA EXCLUSION FENCING





APPENDIX 8: NOISE MEASUREMENT MANUAL



Noise Measurement Manual



Prepared by: Department of Environment and Science

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2	1 March 1995	Major revision
3	1 March 2000	Major revision
4	22 August 2013	Major revision
4.01	10 March 2020	Minor revision

March 2020

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Department of Environment and Science

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Purpose

This document prescribes the processes required to measure noise in accordance with the Environmental Protection Regulation 2019 (EP Reg) under section 59 and 60.

Noise measurements taken using these procedures can be used by Authorised Persons to make assessments under the *Environmental Protection Act 1994* (EP Act) and subordinate polices and guidelines. These laws are enforced by the Queensland Government, local governments and other administering authorities.

Information included in this document is applied by administering authorities to assist in the decision making process for applying enforcement provisions under the EP Act.

Guidance material in the appendices should be used in conjunction with other relevant legislation and standards referenced within this document.

Scope

This manual explains how to:

- Plan a noise measurement
- Take on-site source and background noise measurements.
- Determine component levels by removing ambient noise
- Make adjustments to account for tonal and impulsive characteristics
- Report noise measurements.

Activities listed in schedule 1 of the EP Act (and as cross-referenced in Section 7, subsection (6)(a) and (b) of the Environmental Protection Policy, EPP (Noise)) are not within the scope of this manual. Exclusions in the scope also cover any licensed or unlicensed activities and operations of facilities considered to be ancillary to those listed in Schedule 1 of the EP Act (e.g. maintenance depots that support transport infrastructure).

Limitations

This document does not include guidance for all situations. Noise measurement methodologies outside the scope of this manual may be required. In those circumstances, detailed assessment notes should be taken which specify why the measurements were taken in a different manner. This manual is intended for use by Authorised Persons and those with a basic understanding of acoustics.

Legislation

Relevant legislation and subordinate policies include, but are not limited to, the following:

- Environmental Protection Act 1994
- Environmental Protection Regulation 2019
- Environmental Protection (Noise) Policy 2019 (EPP Noise)

Responsibilities of "Authorised Persons"

All 'authorised persons' as defined under the EP Act who conduct noise measurements are responsible for performing their work in accordance with the procedures described in this manual. Authorised persons must prove that no deviation from the procedures has occurred during noise measurement, except in special circumstances. Where deviation has occurred, the authorised person must provide details including a statement of reasons.

Acronyms and terms

Some frequently used acronyms and terms are detailed in Table 1.

Table 1. Acronyms and Terms

Acronym/term	Meaning			
AS	Australian Standard			
CASA	Civil Aviation Safety Authority			
DA	Development Approval			
dB	Decibel			
DES	Department of Environment and Science			
DTMR	Department of Transport and Main Roads			
EA	Environmental Authority			
EP Act	Environmental Protection Act 1994			
EP Reg	Environmental Protection Regulation 2019			
EPP Noise	Environmental Protection (Noise) Policy 2019			
EPO	Environmental Protection Order			
ERA Environmentally Relevant Activity				
Hz	Hertz			
Lp	Sound pressure level			
NATA	National Australian Testing Authority			
OLGR Office of Liquor and Gaming Regulation				
Pa	Pascal			
Registered OperatorA person or company who is currently on the Register to operate ERA under an Authority				
SLM	Sound level meter			
TEP	Transitional Environmental Program			

Purpose of measurement

Authorised Persons assess noise levels to establish a level of compliance with the EP Act. The noise measurements collected during site inspections may be used as evidence for enforcement.

Confirm jurisdiction

The officer investigating the noise nuisance must confirm what jurisdiction the complaint falls within. Table 2 indicates the distribution of responsibility between government bodies for controlling common noisy activities at the time of publishing this document.

Table 2. Responsible authorities

Activity	Local Government	OLGR	DES	DTMR	Police	Water Police	Airservices Australia	Commonwealth
Residential noise, ie air-conditioning units, pool pumps, animals.								
Devolved activities as listed in section 133 of the EP Reg 2019 *1								
Premises with liquor licence								
Activities described in Schedule 2 and not devolved to Local Government as listed in section 133 of the EP Reg 2019								
State owned or operated activities								
On road noisy vehicles and trail bikes								
Off road noisy vehicles and trail bikes								
Music, loud stereos, parties and rowdy behaviour and burglar alarms								
Boat noise, canals, rivers and creeks								
Aircraft in flight								
Helicopters								
Noise from Defence Force								

Exceptions to devolution

An activity is not devolved to the relevant local government if:

- a) the activity includes an environmentally relevant activity administered by the State at the same place (see r. 142 of the EP Reg)
- b) the activity is carried out by a local government or the State (see r. 140 of the EP Reg)
- c) the activity is carried out as a mobile and temporary activity in more than one local government area (see r. 141 of the EP Reg).

Complaint details and noise emission diary sheets

Prior to commencing a noise investigation it is suggested that the investigating officer request the complainant to complete noise emission diary sheets.

Refer Example Template - Noise Emission Diary Sheet (Appendix 1).

Investigation details and emission criteria

A noise assessment involves the examination of the nature and characteristic of a noise. The investigating officer must gather basic information relating to the complaint and noise source including, but not limited to:

- the type of noise
- the time the noise happens (noise may be a nuisance at any time of day or night)
- a subjective assessment of the source noise i.e. is the noise audible within the complainant's backyard and/or house; is the noise at a level that would preclude sleep or prevent the complainant from enjoying the confines of their own home; or impact upon the complainant's ability to watch television etc.
- the duration of the noise
- the frequency of the noise (both the tone/pitch and how often it occurs)
- notes of any other noise that can be heard, i.e. extraneous noises and any observation as to their relations in sound level (e.g. traffic noise is much louder than the noise under investigation, or the noise under investigation can be heard clearly over other noises etc.)

Before an Authorised Person can decide to issue a direction notice in relation to a contravention of section 440 of the EP Act involving an emission of noise, the Authorised Person must consider the general emission criteria as stated within section 363 of the EP Act.

Refer Appendix 5—Officer Checklist 1—Investigation Details/Emission Criteria.

Weather

A noise measurement should be taken on a day with a calm to gentle breeze and without rain. Some conditions to avoid are high wind (generally, do not conduct the assessment if the wind is higher than 5 meters/second (m/s)), or rain.

If it is necessary to measure in a wind-affected position, check the manufacturer's specification for the microphone and confirm that the windshield can be used in these conditions.

It may assist to check the Bureau of Meteorology website: http://www.bom.gov.au/ prior to conducting a site visit for the local weather forecast and wind conditions for the area.

The investigating officer must note the approximate wind speed using the Beaufort Scale as shown in Table 3.

Wind force number	Explanatory notes	Specification of Beaufort scale for use on land	Mean wind speed m/s
0	Calm	Calm, smoke rises vertically	Less than 0.5
1	Light Air	Direction of wind indicated by smoke drift, but not by wind vanes	0.5-1.5
2	Slight Breeze	Wind felt on face, leaves rustle, ordinary vane moved by wind	1.5 - 3
3	Gentle Breeze	Leaves and small twigs in constant motion; wind extends light flag	3 to 5
4	Moderate Breeze	Raises dust and loose paper; small branches moved	5 to 8
5	Fresh Breeze	Small trees in leaf begin to sway; wavelets from the inland waters	8 to 11
6	Strong Breeze	Large branches in motion; whistling heard in telegraph wires; umbrellas used with difficulty	11 to 14

Safety

If there are hazards in the general location of where the ideal measurement position is, find an alternative location or time with similar conditions, but without the hazard.

Refer Appendix 2—Personal Safety / Risk Reduction Measures.

Noise descriptors

A noise assessment may be completed for the following reasons:

- to determine if an environmental nuisance has been caused
- to verify if a noise standard has been contravened by emission of noise.

It is important to ensure the correct noise descriptor is assessed:

Time varying noise: $_{LAeq,T}$ is used to quantify the noise where the L_P varies over time. In most situations, the $_{LAeq,T}$ is the most appropriate descriptor used to investigate environmental noise complaints.

Steady noise: In cases where constant noise is present e.g. constant machine noise, the LA90,T can be used as an equivalent to LAeq,T. This generally has the advantage of removing extraneous ambient effects from the measurement. For example, noise from occasional traffic and birds won't be captured by the LA90,T. The LA90,T descriptor is commonly used to assess noise emissions from sources including fan noise, domestic airconditioners and pool pumps.

Short duration/non-steady noise: Impact, impulse and transient noise is measured with _{LAmax.} This noise descriptor is also used to assess sleep disturbance and awakening criteria as per WHO, 1999 and 2009

Frequency weighting

The frequency weighting, A, C and Z will be specified by the noise standard, guideline or licence condition. A-weighting is most common and should be used unless specified otherwise.

Time weighting

The Time Weighting (Fast, Slow or Impulse) will be specified by the noise standard, guideline or licence condition. Fast is the default unless otherwise specified.

Measurement time

The noise under investigation should be measured for sufficient time to establish that the measured value adequately represents the subject source noise. The source noise is measured over a time interval of at least 15 minutes or, if the noise continues for less than 15 minutes, the duration of the source noise.

Refer Appendix 3—Basic Acoustic Principles.

Measurement location

When an investigating officer is undertaking a noise assessment it is essential to make note of the following on a site map:

- location of noise source
- background noise measurement location
- source noise measurement location
- topography between noise source and sensitive receivers.

When assessing environmental nuisance or noise standards under the EP Act:

When assessing under the EP Act, select the location that is considered to best represent the most affected location. These measurements are typically conducted in or near buildings and are not required to be in a free field.

When assessing a licence condition under the EP Act:

The appropriate measurement location and descriptor should be referenced in the DA, licence conditions or notice/order i.e. at the nearest sensitive receiver, nearest commercial premises, nearest nuisance sensitive premises or boundary. These measurements are not required to be in a free field unless specified.

Measurement method

Handheld Quick Assessment

The handheld assessment method is useful to get an idea of noise levels, however a tripod should be used for a compliance inspection or to take enforcement action.

To obtain the most accurate data using this method, hold out the SLM at arm's length and hold it out to your side with the microphone pointed towards the source of the noise, to minimise sound reflecting off your body.



Figure 1. SLM handheld assessment method

Source Bruel & Kjaer

SLM (including microphone) mounted on tripod

SLM mounted on a tripod is the method used most commonly and is the standard methodology for most noise measurements where compliance/enforcement action may be taken as a result of the investigation.

Care should be taken not to make noises whilst observing the meter in this method and ensuring the least amount of reflective surface from your body is exposed to the meter.

Figure 2. SLM mounted on

tripod Source Bruel & Kjaer



Affected height of the receptor

A noise reading should always be taken at the height of the receptor. If the receptor is at the ground level, take a measurement at the ground level (1.2–1.5m off the ground).



Figure 3. SLM measurement

Source Bruel & Kjaer

Microphone mounted on a tripod remotely from SLM

Sometimes situations and locations require setting up a microphone away from the location of the SLM mounted separately on a tripod. If the receptor is higher off the ground, raise the microphone to the level that is approximately at the middle of the window (or other opening to the dwelling) using an extendable tripod or position the meter in the plane of the window using an extension pole. The distance of the microphone from the façade of the building should be 3.5m.

Outside premises - free field measurements

Free field measurements are generally used to assess noise conditions set at property boundary or to assess a noise model calibration/validation point. Free field measurements are not required for measurements under the EP Act unless specified on the licence or approval conditions.



Any hard surface will reflect sound. If the microphone/SLM is placed too close to a reflective surface, the noise level will show up higher than the actual noise level. To avoid the reflection, take a reading more than 3.5m away from a reflective surface.

Figure 4. Minimum distance to nearest reflective surface outside premises

Source Bruel & Kjaer

Inside a room

Measurements inside buildings shall be carried out in those locations at which the noise of interest dominates. When investigating a sleep disturbance issue a noise assessment will be necessary in a bedroom, reference WHO 1999 & 2009. The preferred positions are at least 1m from walls or other major reflecting surfaces, 1.2m to 1.5m above the floor, and 1.5m from windows. The presence of furnishings or other reflective surfaces, which may result in shielding or scattering of the noise, should also be considered.

Figure 5. Minimum distance from nearest reflective surface inside room Source Bruel & Kjaer



An outdoor location that is part of a building

(For example: under a veranda, porch, on a deck, balcony)

As per Inside a room. The same distances and considerations should be applied

Inside, at the façade of the building, in the plane or open window or open doorway

In many cases the intrusive noise will be most noticeable at the building opening most exposed to the source noise. In these cases, the part of the building of interest will be the open window or doorway.

The window or door should be open as wide as possible, with the microphone being located in the middle of that opening. For example see Figure 6 below:



Microphone in plane of open window and in the centre of the flyscreen

Window opened across as far as possible

Figure 6. Measurement location with an open window

Where it is not possible to sufficiently open the window (e.g. awning window with limited opening as shown in Figure 7 below) then the measurement may be taken inside the room as discussed above.



Measuring source noise and extrapolating back to the complainant's property.

An alternative method for measuring the noise under investigation is to move the sound level meter closer to the noise source to a point where the source clearly dominates, note this new position, and take a new reading. Measured levels may then need to be extrapolated back to the position of the affected resident.

Refer Appendix 4—Distance Attenuation.

Multiple noise sources

Many noise measurement situations require calculating the combined sound pressure level of multiple noise sources.

Refer Appendix 4—Multiple noise sources.

Long-term logging (unattended)

Noise logging can be useful in the following situations:

- When measuring irregular and infrequent noises, it is not always practical to measure the noise with an attended measurement.
- When it is difficult to determine the background noise during the attended period (e.g. the source doesn't stop during the attended period, or the background is known to be variable), noise logging can determine the background noise over a longer period of unattended measurement.

In these cases, the investigating officer may be able to conduct a 'logging', which allows monitoring of the noise for a longer period of time. In order to conduct outdoor logging of various durations, the SLM should be housed in an all-weather case and an outdoor all-weather microphone kit used to ensure damage to the meter/microphone does not occur. It is also important to ensure the security of the SLM, as the equipment is often very sensitive and expensive. The logger should be located using the same instructions indicated in the Measurement method section. Where an officer does perform unattended logging, it is suggested that attended measurements are also completed to calibrate the results of the unattended logging.

Calibration

There are two types of calibration necessary for noise monitoring equipment–laboratory calibration and field calibration.

Laboratory calibration

It is essential to ensure that the SLM and calibrator have been calibrated in a National Australian Testing Authority (NATA) certified calibration laboratory. The calibrators are required to be calibrated every year and the SLM must be calibrated as per the manufacturer's specifications. A sticker on the SLM and calibrator indicates the last recorded date of laboratory calibration

Field calibration

Calibration of the SLM is to be carried out before and after each set of noise measurements in accordance with AS IEC 61672.1-2004 (Standards Australia 2004a). The investigator should also recalibrate each time the SLM is moved to different locations.

The L_p shown on the meter should match the stated L_p for the calibrator being used. Standard calibration is generally 94 dB(A) but can vary slightly due to the microphone sensitivity e.g. 93.8 dB(A). The calibration level should be confirmed with the SLM manufacturer's specifications. The variation before and after the calibrations should be no more or less than 1 dB(A). If the deviation of the calibration is greater than 1 dB(A) then the results obtained during the assessment are invalid.

The background noise assessment

The background Lp is commonly referred to as the background noise level or LA90 in the absence of the source noise. Accurate measurement of the background level is important, as it is often one of the criteria used when assessing the impact or potential impact of intrusive noise.

Short term background measurements

For noise assessment purposes the short-term background noise level is generally taken as the LA90 level measured by the SLM, excluding all distinct extraneous noises. A minimum measurement time of 10 minutes is required to determine the background noise level under AS 1055.1. One of the most common extraneous noises encountered in Queensland whilst conducting a noise assessment is constant cicada noise. Cicadas only occur during certain periods of the day and it is advisable to postpone measurements until the insect noise stops, or return at another time. Extraneous noises which may contaminate a background noise measurement include insects, machinery and other long-duration noise sources that are not typical of the area and which can be easily distinguished and clearly identified during the measurement period. Most short-term extraneous noises will not be captured by the LA90, however where this cannot be circumvented these must be reported. Ensure the background is representative of the worst-case scenario and the background noise level should be ideally measured immediately before or after the assessment of the source noise at the same location. If more than one background noise assessment is completed it is advisable to use the lowest result.

Long term background measurements

For more complex situations it may be necessary to complete long-term background monitoring. This involves measuring the LA90 for 8 hours or more using a SLM and is generally used for complex noise investigations.

The following time periods are generally used for background noise measurements:

- Day: 7am to 6 pm
- Evening: 6pm to 10pm
- Night: 10pm to 7am.

Comprehensive long term background noise methodology is described in the DES Planning for Noise Control Guideline.

Remote background assessment

When the noise source cannot reasonably be turned off, a background noise level can be measured at a location which has the same background noise characteristics, but away from the impact of the source noise (i.e. in a remote location).

When selecting a site to conduct remote background noise measurement, care should be taken to note the noise characteristics of the affected premises, then ensure similar distances are maintained from the major sound sources such as main roads, railway lines, forest and industrial zones (other than the one under investigation), to ensure the site has the same background noise characteristics as the affected premises.

Taking a remote background noise assessment is a less preferred method, however, in the event that this method is the only option, Record detailed notes and complete a site sketch showing the location of assessment in relation to the sensitive receiver and location of source noise.

Calculation of component noise levels

The influence of ambient noise must always be removed from the source noise level measurements for the purposes of comparison with noise limits. The source noise level with ambient noise removed is referred to as the component level. The simplest method to ensure the ambient noise is removed from the source noise is to measure at a time when the ambient noise is sufficiently low [more than 10dB(A) below the source noise level] The noise assessment

may require a measurement during periods of low ambient noise, even if that does not correspond to the time of complaint, to get a definitive result. In this case the measured noise level and component level are effectively equal.

It is also possible to mathematically remove the influence of the ambient noise from the source noise by logarithmic subtraction. Care should be exercised using mathematical adjustment, which is generally only applicable where the ambient noise environment is reasonably steady.

Table 4 provides a method for mathematical subtraction, where:

- A = the measured result on site of the noise source plus ambient noise (continuous)
- B = the result of the ambient noise level (continuous) only measurement
- C = the noise source component level (continuous) only with the influence of the ambient noise level (continuous) removed

Table 4. Calculation of component noise levels

NOTES: * Such a result indicates that it is unlikely that noise from the noise source is an issue due to the masking effect of the ambient noise.

*,† Care should be exercised with such results as it indicates a difficult measurement. The measurement should be repeated over a number of periods to give confidence in the result. It may require measurement during periods of low ambient, even if that does not correspond to the time of complaint, to get a definitive result.

A minus B	с	Where both the ambient noise and the source noise are reasonably steady			
0	At least A minus 10*	the LA90 descriptor can be used for the A minus B calculation above. This will often be the case for mechanical plant noise, such as air conditioning, refrigeration equipment and pump noise. In situations where the source noise varies with time, the Leq descriptor should be used for the A minus B calculation.			
1	At least A minus 5*				
2	A minus 4†				
3	A minus 3†	Alternatively, the A-B calculation can be performed directly with the following formula:			
4	A minus 2				
5	A minus 2	Component Level =10 x LOG(10A/10 - 10B/10)			
6	A minus 1	This can be done in a spreadsheet, e.g. In MS Excel ®: (to subtract cell A1-			
7	A minus 1				
8	A minus 1	=10 LOG(10 ⁴ (A1/10)-10 ⁴ (B1/10))			
9	A minus 1	annoyance generally associated with a noise which is dominated by tona			
10 or more	A	impulsive characteristics. This is discussed in later sections.			

Adjustments made to noise levels with annoying characteristics

If a noise has tonal characteristics (especially at high frequencies) or impulsive characteristics, it is generally perceived more annoying than a noise heard without these characteristics. Examples of tonal noise include, reversing beepers, alarms, bells, buzzers, the screeching of mechanical plant, grinding metal. Examples of impulse noises include, a metal press and hammering.

Tonality adjustments

Tonal noise can be defined as having a prominent frequency and characterised by a defined pitch. A tonal characteristic can be identified objectively in accordance with the method in Australian Standard AS1055.2018

Acoustics - Description and measurement of environmental noise. The method involves comparing noise levels in adjacent one-third octave bands.

The standard states:

If tonal components are clearly audible and they can be detected by a one third octave analysis the adjustment may be 5dB. If the components are only just detectable by the observer and demonstrated by narrow band analysis, an adjustment of 2-3dB may be appropriate.

If the A-weighted 1/3rd octave analysis confirms that the tonal band exceeds both neighbouring bands by 5dB the user is permitted to subjectively adjust the level. The adjustment can be 0 to 5dB to the *component level* depending on the audibility of the tone.

Alternatively, this analysis and correction can be performed quantitatively by performing the following check.

- Confirm the A-weighted 1/3rd octave band exceeds the neighbouring bands by 5dB
- Add 5dB to the tonal 1/3rd octave band
- Logarithmically sum all A-weighted 1/3rd octave bands, including the adjusted band
- The arithmetic difference between the log sum determined in (3) and the original overall A-weighted level becomes the tonal correction

Example: An officer measures noise from a machine and notices an audible low frequency tone at 50Hz. The total level of the measurement was 58dB(A). In this case the ambient level was more than 10dB below the measured level, so the component level is 58dB(A). Subjectively the tone was just audible as it was masked somewhat by the overall machine noise. The 1/3rd octave band component level data was entered into a spreadsheet as shown below. A 5dB correction was added to the 50 Hz 1/3rd octave band level.



Figure 8. one-third octave band analysis

Logarithmically summing the one-third octave bands, including the corrected band gives a new total of 61dB(A). This is 3dB higher than the component level. The new corrected component level becomes 61dB(A), (i.e. a 3dB tonal correction).

Impulsive adjustments

Impulse noise can be defined as having a high peak of short duration or a sequence of such peaks (bangs, clicks, clatters, or thumps). To determine if an adjustment is necessary the investigating officer must measure the source noise using both A-weighted Fast response and Impulse response. If the difference in A-weighted maximum noise levels between Fast response and Impulse response is greater than 2dB then apply difference in measured levels as the correction up to a maximum of 5dB. The impulse adjustment should then be added to the component level (LAeq or LAmax) and should not exceed 5dB. Combined adjustments for tonality and impulsive noise in total should not exceed 10dB.

Low frequency noise

Low frequency noise can be defined as noise that has a dominant content less than 200Hz. Noises below 20Hz are known as infrasound and are usually not audible but rather felt as a vibration, pulsating sensation or pressure on the ears or chest. Types or activities that may produce low frequency noise include pumps, fans, boilers, ventilation plant, electrical installations and wind turbines.

Refer Appendix 3—Basic Acoustic Principles.

Saving information and record keeping

To ensure data collected conforms to rules of evidence, detailed records of the investigation and methodology must be kept. The noise assessment must be completed in accordance with this manual however where special circumstances have lead to deviations, detailed notes and records must be provided explaining the reasons for deviation.

- Refer Appendix 5—Officer Checklists:
- Investigation Details / Emission Criteria
- Noise Assessment Equipment Checklist
- Noise Assessment Procedure
- Noise Assessment Field Notes.

Controls

First review to be made in 12 months and then every 3 years thereafter by Operational Support Branch.

References

AS IEC 61260.1:2019 Acoustics – Octave-band and fractional-octave-band-filters.

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NSW 2010 *Noise Guide for Local Government*, Department of Environment, Climate Change and Water NSW, Sydney.

Rumble, R., (2011) "*Coal seam gas industry procedural guide control of noise from gasfield activities*", prepared for the Department of Resource and Environmental Management, Queensland.

South Australian EPA (2009), Guidelines use of the Environment Protection (Noise) Policy 2007, Adelaide.

Standards Australia AS 1055:2018 Acoustics – Description and measurement of environmental noise.

Part 1: General procedures

Part 2: Application to specific situation

Part 3: Acquisition of data pertinent to land use

Standards Australia AS/NZS IEC61672.1:2019 Electroacoustics - Sound Level Meters - Specifications.

Standards Australia AS IEC 61672.2:2019 Electroacoustics - Sound level meters - Pattern evaluation tests.

Standards Australia AS 1633-1985 Acoustics - Glossary of terms and related symbols.

Standards Australia AS 2659 – Guide to the use of sound measuring equipment.

Part 1: Portable sound level meters

Tasmanian Department of Environment, Parks, Heritage and Arts 2008, Noise Measurement Procedures Manual, 2nd Edition.

WHO 1999 - Guidelines for community noise, World Health Organisation 1999

WHO 2009 - Night noise guidelines for Europe. World Health Organisation 2009

Noise emission diary sheets template

Day and time	Time started	Time finished	Description of noise	How did the noise affect you?

Personal safety

Before embarking on any site inspection it is essential that officers are aware of their legislative responsibilities for *WorkPlace Health and Safety Act 2011.*

Some of the common risks encountered whilst conducting a noise assessment include

- vehicles on the road
- machinery on site
- people (especially when conducting noise assessment at night)
- overhead wires (especially if you are raising a microphone using an extendable tripod)
- animals (dogs, stinging insects and snakes are common in some places); and
- weather including cold, heat, humidity and the sun.

Officers should be aware of their surroundings and assess any potential dangers associated with conducting a site visit and noise assessment. Hearing protection may be required when conducting environmental noise assessments.

The primary criterion for selecting a hearing protector is that the level of noise entering ears must be reduced to below the legal limits of the Workplace Health and Safety Regulation 2008, which are:

- a) an 8-hour equivalent continuous A-weighted sound pressure level of 85 dB(A), referenced to 20 µPa; or
- b) a C-weighted peak sound pressure level of 140 dB(C), referenced to 20 µPa.

Risk reduction measures

Once the risks are identified, the officer should consider how to reduce the risks. In most cases, the risks to personal safety while conducting noise assessment can be eliminated altogether or reduced significantly by moving to an alternative location or wearing personal protective equipment (PPE).

Personal safety comes first. No task is so important that safety can be compromised.

Basis acoustic principles

Sound and noise

Sound is the mechanical vibration of a gaseous, liquid or elastic medium through which energy is transferred away from the source by progressive sound waves. Hearing is simply fluctuations in air pressure detected by the ear. **Noise** has a subjective quality and is often defined as unwanted sound.

Measuring sound

Air or sound pressure is measured in Pascals (Pa) but is expressed as a sound pressure level (L_p) in decibels (dB), which is a logarithmic scale used to compress the range of audible sound pressure. The relationship between sound pressure and L_p is as follows:

 $Lp(dB) = 10 \log(p^2 / p_{ref^2}) = 10 \log(p / p_{ref})^2 = 20 \log(p / p_{ref})^2$

Where

Lp = sound pressure level (dB) p = sound pressure (Pa)

 $p_{ref} = 2 \times 10^5$ - reference sound pressure (Pa)

Some useful rules of thumb:

- Some typical sound pressure levels of common noise sources are detailed in Figure 8.
- Table 5 shows the subjective effect of changes in noise levels.

Noise descriptors used in impact assessment

The parameters frequently used for measuring noise include L_{Amin} , L_{Amax} , and L_{Aeq} and L_{A90} . Most contemporary SLMs record multiple noise parameters at the same time.

Lamin and Lamax refer to the equivalent minimum and maximum values recorded by the SLM during an assessment, see Graph 2. Lmax is often compared to the LA90 (background) to describe the likely impact of non-steady noise such as fluctuating or impulsive noise.

LAmaxT is the A-weighted L_P obtained by using 'fast' time response and arithmetically averaging the visual maximum levels of the noise under investigation, unaffected by extraneous noise, during the measurement period. This parameter is usually used for impact and/or intermittent noises, as this parameter does not account for a more constant noise.

LAmaxT is generally only used where noise assessment is carried out using a non-integrating (analogue or digital) SLM and where the SLM does not have the capacity to calculate the statistical (i.e. L% sound pressure levels).



Graph 1. LAmin and LAmax

 L_{AeqT} is the A-weighted equivalent continuous L_P of the sample time T. The $_{LAeq,T}$ is also known as the 'time average sound pressure level' or the 'level of noise equivalent to the energy average of noise levels occurring over a measurement period'. This is the current default descriptor for environmental noise measurement. It is used widely throughout the world for measuring noise sources and it is an extremely versatile parameter.

L_{peak} is not the same as the Maximum Sound Level. The Peak, referred to as the _{Lpeak} or sometimes _{Lpk}, is the maximum value reached by the sound pressure. There is no time-constant applied. This is the true peak of the sound pressure wave. This parameter is commonly seen within the development conditions of mines and used to regulate blasting operations.

Percentile levels are commonly used when measuring environmental noise. This is represented by L_n , where n may be a value from 1 to 99. L_n represents that noise level exceeded for n% of the measurement time. Common percentiles used are shown in Graph 2.



Graph 2. Common percentiles

LA30 is the sound pressure level that has been exceeded for 90% of the time. This level is taken to be the background sound pressure level.

 $L_{Abg,T}$ is also known as the 'background sound pressure level', (also known as the average minimum sound pressure level) and is the A-weighted L_P obtained using 'fast' time response and arithmetically averaging the visual minimum levels of the noise under investigation, unaffected by extraneous noise, during the measurement period.

In cases where $_{LAbg,T}$ has been referenced in development approvals or legislation, it is to be taken as $L_{A90,T}$. ($L_{Abg,T} = L_{A90,T}$ (unaffected by extraneous noise)).

LA10 is the sound pressure level exceeded for 10 % of the time of the measurement duration.

Setting up of SLM and frequency weightings

A- weighting

The most common weighting used in environmental noise measurement is A-weighting. The A-weighting represents the way the human ear is more sensitive to mid-range frequencies and less sensitive to high and low frequencies. Defined in the sound level meter standards (IEC 60651, IEC 60804, IEC 61672, ANSI S1.4), a graph of the frequency response can be seen to the right. A-weighted measurements are expressed as **dB(A)**, see Graph 3.





C-Weighting

C-weighted Frequency Response

The response of the human ear varies with the sound level. At higher sound pressure levels, the ear's response is flatter, as shown in the C-Weighted Response to the right. Although the A-Weighted response is used for most applications, C-weighting is also available on many SLMs. C-weighting can be used for Peak measurements and low frequency noise. It is often used in entertainment noise measurement, where high pressure low frequency noise is common. The C-weighting is also commonly used for sounds with impulsive characteristics such as fire-arms; shooting ranges; pile driving. C-weighted measurements are expressed as dB(C), see Graph 4.



Graph 4. C-weighted Frequency Response

Z-Weighting

Z-weighting is a flat frequency response of 0.5Hz to 20kHz ± 1.5 dB. This response replaces the older "Linear" or "Unweighted" responses. Z-weighted measurements are expressed as **dB(Z)**. Z-weighting has recently been used to measure explosive sounds and in the assessment of low frequency noise.

For most environmental assessments A-weighting will be used.

Time weighting

Sound level measurements using any grade of SLM can be **Fast**, **Slow**, or **Impulse** time weighted. The **Impulse** time weighting is about four times faster than **Fast**, with a short rising time constant but a slow falling one. **Fast** corresponds to a 125 ms time constant. **Slow** corresponds to a 1 second time constant. **Impulse** has a time constant of 35ms.

Ambient noise level

The ambient noise level is defined as the totally encompassing sound in a given situation at a given time, composed of sound from all sources near and far, measured using the equivalent continuous sound pressure level (LAeq) noise descriptor.

Rating level

The rating level can be defined as a specific noise level plus any adjustment for the character of the noise (tonal and/or impulsive) determined over the reference time interval.



Figure 9. Common sound pressure levels dB(A)

The following tables are useful references when providing a qualitative description to related changes in sound pressure levels dB (A).

Change in level of dB	Subjective effect
3	just perceptible
5	clearly perceptible
10	twice as loud

Table 5. Subjective effect of changes in noise levels

Source Bruel & Kjaer

Table 6. Estimated community response

Amount in dB(A) by which the rating level exceeds the noise criterion	Estimated community response	
	Category	Description
0	None	No observed reaction
5	Little	Sporadic complaints
10	Medium	Widespread complaints
15	Strong	Threats of community action
20	Very strong	Vigorous community action

Source Bruel & Kjaer

Distance attenuation

If the source noise is affected by extraneous noises another method to address this is to conduct a measurement where the SLM is moved closer to the source and measured levels need to be extrapolated back to the sensitive receiver/boundary. The new location must be selected where the source noise clearly dominates the area and clear notes must be taken regarding the new monitoring location. Once noise levels have been determined at this location it is possible to predict the noise level at the affected premises by extrapolating to the desired measuring location using the formulas relevant to distance attenuation.

Do not to measure too close to the source in the 'near field'. As a general rule, being at least one-third the length of the longest dimension of the source away will be outside the near field.

This method is only appropriate when terrain between source and receiver is flat and unobstructed, because effects of topography on attenuation are much reduced.

Distance attenuation is the reduction of L_p as a function of distance. As a general rule the L_p will decrease by 6 dB with a doubling of distance from a point source in the free field.

The following relationships can be used to quantify distance attenuation, reference Figure 9:

- SPLx = SPLy 20log(Dx/Dy) for a point source (e.g mechanical fan)
- SPLx = SPLy 10log(Dx/Dy) for a line source (e.g heavy traffic along a road)

Where

- > SPLx = L_P at distance x from the source in metres (predicted)
- > SPLy = L_P at distance y from the source in metres (measured)
- > Dx = distance in metres to location x from the source
- > Dy = distance in metres to location y from the source



Figure 10. Pictorial representation of equation used for calculating distance attenuation

Note that the geometric distance attenuation method described above does not include several factors. Noise attenuation can often be affected by barriers, buildings, ground absorption, reflection from hard surfaces, air absorption and other atmospheric effects. These are beyond the scope of this document.

Further information is available in:

- ISO 9613:1996 Acoustics -- Attenuation of sound during propagation outdoors
- Engineering noise control : theory and practice / David A. Bies and Colin H. Hansen

Multiple noise sources

Many noise measurement situations require calculating the combined sound pressure level of multiple noise sources. As previously discussed sound pressure levels are expressed in a logarithmic scale and can therefore not be arithmetically added. For example, 40dB plus 40dB does not equal 80dB,

To add two or more noise levels reference Table 7.

Hence, 40 dB + 40 dB = 43 dB.

Sound power level difference between two Sound Sources (dB)	Added decibel to the highest sound power level (dB)
0	3
1	3
2	2
3	2
4	1
5	1
6	1
7	1
8	1
9	1
10 or more	0

Table 7. Multiple noise sources - addition of dB

Alternatively, an A+B calculation can be performed directly with the following formula:

Total Level =10 x LOG(10A/10 + 10B/10)

This can be done is a spread sheet, e.g. In MS Excel ®: (to add cell A1+B1)

=10*LOG(10^(A1/10)+10^(B1/10))

Officer Checklist 1 – Investigation details / Emission criteria

Before conducting a noise assessment, contact the complainant to gather basic information required to start an investigation.

The information should include:

- a) the emission's characteristics or qualities
- b) the emission's amount or rate
- c) the duration and time of the emission
- d) whether the emission is continuous or fluctuating
- e) the characteristics and qualities of the receiving environment, including the types of emissions that could reasonably be expected in the receiving environment
- f) the emission's impact on the receiving environment
- g) in relation to each affected person for the emission:
 - (i) any views of the affected person about the emission of which the authorised person is aware, including views about the degree of interference caused, or likely to be caused, by the emission to lawful activities at the place occupied by the affected person
 - (ii) the order of occupancy between the person causing the emission and the affected person
 - (iii) for the period during which the person causing the emission has occupied the place from which the emission is generated and the affected person has occupied the place affected by the emission—
 - any structural or other changes to either of those places
 - any change to the activities conducted at either of those places by the person causing the emission or affected person
- h) any mitigating measures that have been taken or could reasonably have been taken by the person causing the emission.

The noise emission criteria are as follows—

- a. if the authorised person has measured a sound pressure level for the noise-that level
- b. the audibility of the noise
- c. whether the noise is continuous at a steady level or whether it has a fluctuating, intermittent, tonal or impulsive nature
- d. whether the noise has vibration components.
Officer Checklist 2–Noise assessment equipment checklist

Table 1 Equipment checklist

Equipment	Checked
SLM and Calibrator - Calibrated	
Protective case for SLM	
SLM Battery Life / Charged	
Wind Shield	
Tripod	
Outdoor Weather Equipment	
Outdoor battery pack charged	
Memory Cards for SLM	
Camera	
Paper / Record Sheet / Pen	
Personal Protective Equipment	

Officer Checklist 3–Noise assessment procedure

- 1. Select time when source noise is representative of the maximum level of noise from the activity.
- 2. Check settings of SLM:
 - i. 'Fast' time weighting
 - ii. 'A' frequency weighting
 - iii. Audio recording on SLM this can provide additional evidence.
 - iv. Frontal incidence for microphone
- Note the approximate wind speed using the Beaufort scale as shown in Table 3 of the NMM. Do not take measurements if raining or wind speed greater than 5 meters/second – (Leaves and small twigs in constant motion; wind extends light flag)
- 4. Calibrate the noise monitoring equipment before and after each set of noise measurements.
- 5. Set up the SLM up on the tripod.
- 6. Complete a background noise assessment
 - i. This is the LA90, T
 - ii. Ensure measurement taken in the absence of source noise
 - iii. Measure continuously for a minimum time of 10 minutes
 - iv. Ensure all extraneous noises are excluded investigating officer to make detailed notes during the assessment.
- 7. Complete an assessment of the source noise
 - i. For time varying noise use the descriptor $L_{Aeq,T}$
 - ii. The LA90,T descriptor is commonly used to assess noise emissions from sources including fan noise, domestic air-conditioners and pool pumps
 - iii. Where source noise is affected by extraneous noises, move SLM closer to the source where it clearly dominates the area, note the new monitoring position and then these readings can be extrapolated back to the position of the complainant – see Appendix 3 'Distance Attenuation' for further information.
- 8. Make notes of any audible tonal and impulsive characteristics of the noise and ensure use of appropriate correction factors.
- 9. Take photos of both background and source noise measurement locations.
- 10. Save data.
- 11. Re-calibrate the SLM. In the event that the deviation from the first calibration is greater than 1 dB(A) then the results obtained will not be valid and the assessment will have to be repeated.

Officer Checklist 4–Noise assessment field notes

Investigating officer: _____ Address:

Noise source: _____ Date: _

Site Sketch:

- Location of nearest sensitive receiver
- Location of noise source
- Background noise measurement location
- Source noise measurement location
- Note of topography between source and sensitive receivers.

<u>Notes</u>

Weather, wind speed, audibility of noise, characteristic of noise, continuous or fluctuating, tonal, impulsive, extraneous noises in area, detail methodology of noise assessment and state where any deviations from procedures have occurred and why:



Noise Measurement Manual

Investigating officer:

Address:

Noise source:

Date:

Measurement: background / source	Calibration start	Calibration end	Time started	Time finished	Notes: subjective assessment, extraneous noises, noise characteristics i.e high pitched / droning, impulsive, tonal.

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