Gladstone Ports Corporation
Growth, Prosperity, Community.

Document No. 1211184
GPC Ref: DA2015/14

DECISION NOTICE – DA 2015/14

Application:	**Port Application (Operational Works) for Vehicle and Cargo Consolidation Facility**
Applicant Name and address:	**Fiona Marks** **QGC Pty Limited** **GPO Box 3107** **BRISBANE QLD 4001**
Owner:	**Gladstone Ports Corporation Limited**
Subject Land:	**Part of Lot 211 on SP174655**
Location:	**Alf O'Rourke Drive, Gladstone**
Present Zoning	**Strategic Port Land**
Proposed Use:	**Vehicle and cargo consolidation facility**
Application Received:	**17 November 2015**

This development application was assessed on: **30 November 2015**

1. Details Of The Approval

Development Permit:

Vehicle and cargo consolidation facility.

2. Assessment Manager's Conditions

In general the facilities are in compliance with the requirements of Gladstone Ports Corporation. It is to be noted that the following conditions will be complied with in the granting of this Development Application.

GENERAL

1. The proposed development must be carried out generally in accordance with the drawings, plans and documents as lodged with the application except where modified by conditions of this permit.
2. Where additional "approval" is required under these conditions by the Gladstone Ports Corporation for drawings or documentation, the proponent must submit for review, amend to the satisfaction of, and obtain written acceptance from the Gladstone Ports Corporation. Only in this manner can compliance with the condition be achieved.

3. The proponent must at its cost and expense, keep and maintain the subject area, including existing services, in a state that is satisfactory to the Port.

ENGINEERING

4. All gates along Alf O'Rourke Drive are to be clearly signed.
5. All site entries and exists onto Alf O'Rourke Drive are to be line marked, signed and sealed.
6. The proponent is to notify GPC of damage caused to any port roads as a result of this activity. Depending upon the nature and location of the damage, GPC may undertake the repairs at the expense of the proponent or direct the proponent to undertake the repairs immediately at their expense.
7. No loose materials, sediment or mud are to be tracked onto Alf O'Rourke Drive.
8. Where possible, landscaping of three (3) metres in width is to be provided and maintained along the property road frontage to Alf O'Rourke Drive.

ENVIRONMENT

9. Gladstone Ports Corporations Environmental Hotline (4976 1255) is to be notified as soon as practicable after becoming aware of any non-compliance with conditions of this approval.
10. Where there is any conflict between Gladstone Ports Corporation's conditions of development and the Site Environmental Management Plan, conditions imposed by Gladstone Ports Corporation shall prevail.
11. Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable. Such spillage must not be cleaned up by hosing, sweeping or otherwise releasing such wastes, contaminants or material to any external storm water drainage system, roadside gutter or waters. To remove any doubt this condition does not apply to hosing, sweeping, etc. of areas and oily materials that drain to an oily-water management system.
12. Spill kits are to be located where any loading/unloading of fuel/chemicals/sewage and greywater occurs. All personnel involved with this activity are to be trained and competent in the proper use of these spill kit.

3. The Approved Plans –

The approved plans and/or documents forming part of this decision notice are listed in the following table:

Document Reference	Plan / Document Name	Date
Email 24/11/2015	AOR Site Environmental Management Plan	11/2015

4. When the Development Approval Takes Effect –

If the application is approved, or approved subject to conditions, the decision notice, or if a negotiated decision notice is given, the negotiated decision notice, is taken to be the development approval and has effect on the date that the notice is signed by an authorised delegate of the Gladstone Ports Corporation.

5. When Approval Lapses if Development Not Started

The relevant periods stated below apply to each aspect of development in this approval, as outlined below:-

- 4 years

6. Other Necessary Development Approvals

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

- Nil

7. Appeal Rights

No legislated appeal rights are afforded with this decision notice as the application was not made under the provisions of The Sustainable Planning Act 2009.

If you have concerns or queries regarding the conditions, please contact GPC's Planning Officer.

8. Assessment Manager Certification

Sarah Hunter
Senior Planning Officer
30 November 2015

ATTACHMENT 2 SITE ENVIRONMENTAL PLAN

APPROVED

1. Introduction

1.1. Site details

The Alf O'Rourke Consolidating Facility (AOCF) is located approximately 250 metres north of the Hanson Road turnaround and 5.8 kilometres west from Auckland Point Area 1 – Port Central and Logistics Centre. AOCF was approved and built under a State Development MCU approval (DGBN10/111) prior to the construction phase of the QCLNG Facility on Curtis Island. The site is bounded by Intake Canal to the south, RG Tanna railway line to the west (although located within the subject lot and plan), and Alf O'Rourke Drive to the east. An existing electricity easement borders the site to the west. RG Tanna Coal Terminal land lies to the north of the site

The site is located on reclaimed land and was originally an ash pond settling area for the NRG Power Station in the early 1970s. The original earthworks were carried out by GPC to achieve a site that drains freely and was suitable to handle the vehicles travelling on it.

The total area of Lot 211 on SP174655 is approximately 45.6 hectares. The footprint of the AOCF is approximately 11.38 hectares and development of the site is as per Exhibit 2. The nearest sensitive receivers to AOCF are commercial buildings located approximately 400 metres from the site. There are no residential receivers located near the site.

Land surrounding the site is designated as either State Development Area (Yarwun) (to the west), Major Industry / Infrastructure (further west), Strategic Port Land (to the north) or Mixed Industry (eastwards across Auckland Creek). There is a distinct lack of development in the area with land to the north and west lying vacant as is land directly across Auckland Inlet to the south. Directly to the east of the site and Alf O'Rourke Drive is undeveloped marine industry precinct land.

1.2. Address and real property description

AOCF is located towards the southern section of Alf O'Rourke Drive, Gladstone. The property description is part of Lot 211 on SP174655 and is owned by the Gladstone Ports Corporation Limited (GPC).

1.3. Processes being undertaken and any emissions associated with the activities

The main activity on the site will be the loading and unloading of vehicles to take plant and equipment to and from Curtis Island. Direct emissions associated with operating the vehicle and cargo consolidation facility are assessed in Section 3. There are no other direct emissions from the operation of AOCF.

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Approximately 30,200 m² of the facility is a car park located on the northern portion of AOCF. The car park is fenced with access through three gates off of Alf O'Rourke Drive: one near the northeast corner for exit only; one in the middle for emergency exit only; and the third one in the southeast corner for entry and exit. There is also a gate for internal access into the vehicle and cargo consolidation facility and a gate leading to the haul road on the northern boundary of the facility.

The freight marshalling area occupies approximately 70,500 m² and will be used for the temporary marshalling, storage of new plant and equipment going to, or surplus plant and equipment coming from the Curtis Island LNG Facility. An area of approximately 3,400 m² is located outside of the fenced area near the south east corner of the site for truck parking when the facility is closed.

The marshalling area is fenced with access via one gate and security hut in the middle (entry and exit) and one gate and security hut on the north side (exit only). All of the on-site buildings are temporary and portable and are shown on the site plan.

1.4. Site Management

1.4.1. Hours of work

The hours of operation of the cargo consolidation area will be weekdays (Monday to Friday) from 6:30am to 6:30pm. The site operating hours on the weekends (Saturday and Sunday) will be from 8:30am to 4:30pm. The site will not be open on public holidays.

QGC may use the vehicle parking area 24 hours per day 7 days per week during shutdown periods of the QCLNG Facility to accommodate a periodic increase in site maintenance personnel, contractors and shift changes. It is unlikely that the AOCF will be used for this purpose while the current facility at QC1 is in operation.

1.4.1. Access to the site

Access to the site will be controlled by QGLNG operations through the site Laydown Coordinator. The Laydown Coordinator will log all incoming and outgoing vehicle movements. The Laydown Coordinator will be responsible for recording any required vehicle inspection certificates (Fire Ants) and any waste tracking certificates for the transport off site of any regulated wastes (sewage transport, hazardous wastes).

1.4.2. Access and egress locations for vehicles and cargo

There is one entry point to the consolidation area off of Alf O'Rourke Drive through the automated security gate (Gate 1). There are two exit points from the consolidation area on to Alf O'Rourke Drive, the southern exit through the automated security gate (Gate 1) and the northern exit through the manual security gate (Gate 2). The car parking area has one entry/exit gate (Gate 3) and one exit only gate (Gate 5). The car parking area has two emergency use only gates (Gate 4 and Gate 6). Entry and exit points are shown in Figure 2.

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1.4.3. Cargo and vehicles to be handled or stored on the site

QGC's continued use of AOCF will be primarily for mobilisation and demobilisation of plant and equipment from Curtis Island QCLNG Facility. QGC's primary use of the site for demobilisation will be during the decommission and sale of surplus plant and equipment including a temporary workers accommodation facility (TWAF) along with other infrastructure such as a temporary sewage treatment plant, temporary sea water desalination plant, temporary warehouses, sporting facilities and office buildings.

The paved vehicle parking area will primarily be used to accommodate an increase in personnel during periodic maintenance shutdown periods at the QCLNG Facility. The parking facility has an approximate parking capacity of 600 cars along with bus parking for personnel transfer.

1.4.4. Traffic impact

An increase in traffic in and around AOCF from the QCLNG Project has the potential to impact on the local community, workforce safety and traffic flow. Traffic impact and risk assessments were undertaken for the Project and upgrades to intersections were undertaken to minimise potential hazards and minimise the magnitude of any impacts.

1.5. Environmental aspects relevant to the operation of the activities being undertaken

QGC operates an environmental management system certified to ISO14001. QGC's environmental commitments are stated in the Health, Safety Security and Environment Policy as shown in Appendix 1.

The environmental aspects addressed in QGC's EMS and applicable to the AOCF's SEP includes:

- General Operations;
- Noise and Vibration;
- Waste Management;
- Hazardous Substances Management;
- Air Quality;
- Sediment Control and Stormwater Management;
- Weed and Pest Management; and
- Lighting.

Management measures for Acid Sulphate Soils (ASS) have been identified; however ASS is not anticipated to be encountered at this location. The site has been previously inspected and tested and documented to be clean and free from ASS contamination. Furthermore, current and proposed activities to be undertaken at the AOCF site will not disturb or impact on any ASS.

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The following aspects have not been further addressed in this SEP as these have been previously addressed in the design, construction and operation of the facility are considered not applicable to the continued use of operational activities at the AOCF:

- Indigenous and Non-indigenous Cultural Heritage;
- Terrestrial Ecology; and
- Groundwater Quality Management.

2. Site Plan

2.1. Buildings, structures and other site facilities

Table 1 outlines the buildings, structures and facilities of the site. The structures are shown on the general site layout and specific drawings as shown in APPENDIX 1. A summary of the buildings, structures and other site facilities are provided Table 1.

Table 1 Alf O'Rourke buildings, structure and other site features

Facility	Description (Approximate dimensions)	Reference diagram
Security huts	3m x 3m	Alf O'Rourke Plan – Security hut – QD13077- 4/AOR/A
Entry shelter	3m x 3m	-
Bus stop hut	3m x 3m	-
Site offices	12m x 3m	Alf O'Rourke Plan – Management Office - QD13077- 2/AOR/A
Lunch cribs	12m x 3m	Alf O'Rourke Plan – Crib Rooms - QD13077- 7/AOR/A
Toilet units	M&F 6m x 3m, 4m x 3m, pump out	Alf O'Rourke Plan – Washroom - QD13077- 1/AOR/A
Lighting	Standard and high mast	Area Lighting – G1004-2-AOR-17A and G1004-2-AOR-18A
Car park area exit/entry gates	QNT 4	-
Cargo/laydown area exit/entry gates	QNT 3	-
Security fence	Perimeter fence, internal fence, gen set fence	-
Bus shelters	12m x 3m	-
Gross pollutant traps	Stormwater 360	-
Power generator – back up power	QNT 1 (Fuel cell, diesel generator, transformer, switch board)	-
Crib covered area	12m x 4m	-
Water tank	1 x 20KL	-
Smoking huts	QNT 2	-

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3. Environmental Issues

The SEP addresses environmental issues associated with the operation of the AOCF in relation to potential emissions to land, water and air. The SEP also addresses operational impacts associated with waste and environmental nuisance such as dust, noise and light emissions.

3.1. Assessment of environmental risks and control measures

The associated risk management processes for AOCF shall be in accordance with the relevant standards including but not limited to: Workplace Health and Safety Advisory Standards and Codes of Practice; and Australian Standards, except where the risk management processes demonstrate that higher standards of risk control are required to adequately manage those hazards inherent to the activities, in which case these should be incorporated into the operation of the facility.

A risk based management process has been used to develop appropriate environmental control measures that address the operation of the facility based on the "Hierarchy of Controls" principles:

- Elimination of the hazard;
- Substitution with a less hazardous material, process or equipment;
- Designing the equipment / process to mitigate the risk;
- Separation/isolation of the hazard to reduce the requirement; and
- Administrative/personal protective equipment controls.

Additional risks will be assessed and control measures implemented as they are identified during the operation of the site.

3.2. Water management

Surface water runoff has been identified as the primary mode for contaminant transport from the site. Contaminants released from the site have a potential to impact water quality in the receiving environment.

Operational areas of AOCF have been paved to minimise any impact from sedimentation due to erosion and onsite vehicle movements. The volume of surface water runoff from the site will be greater than runoff from natural soil as a result the impervious nature of the paved area and this has the potential to carry gross pollutants off of the site. To minimise this impact the site is divided into four (4) surface water catchments. Surface water runoff from the site is predominantly sheet flow from each catchment into open swale drains that run in a north and south direction along the east and west sides of the site. Surface water in the swale drains reports to gross pollutant traps prior to release into riprap lined swale drains. There are three (3) surface water release points from the swale drains into the receiving environment. The release point on the north east side of the site releases through a culvert under Alf O'Rourke

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Drive and into a swale drain that flows into Auckland Creek. Two release points located on the south east and south west side of the site release into Intake Canal at approximately 130m and 490m AMTD. The Gladstone Power Station sea water intake is located approximately 1km AMTD along Intake Canal. Site maintenance will include: good housekeeping practices; periodic inspection and cleaning of the gross pollutant traps, as required; inspection of bins; correct storage and handling of wastes; dust control and the removal of litter and any other prescribed water contaminants.

The general arrangements and design specifications for stormwater management on the site including: catchments; gross pollutant traps; and discharge points are shown in Appendix 2 and include:

- Stormwater Managements General Arrangements;
- Stormwater Treatment Devices; and
- Stormwater Treatment Devices Details.

Monitoring of the site and the condition of stormwater treatment devices will be undertaken to ensure that there are no water quality impacts as a result of operational activities. Stormwater runoff will be visually monitored for turbidity, discolouration, sediment, oil sheen, waste materials, litter and other contaminants. Corrective action will be undertake should any contamination be found and the relevant authority notified if there is breach of any approval conditions or where there is a potential environmental harm. Given the facility will be utilised predominantly as a staging area for demobilisation activities, water contamination has not been identified as a significant risk.

3.3. Air quality management

The AOCF is located in an industrial area which is expected to have an ambient air quality that complies with the relevant State, federal and international air quality objectives.

No impacts on environmental values of the local air environment are expected as a result of the operation of the AOCF as there are no processes undertaken that result in air emissions. The only contributions to air emissions will be from vehicle exhausts and the exhaust from the infrequent use of the backup power generator.

Operations on the site that include car and truck movements, loading and unloading will not generate dust as all operational areas of the site have been surface finished with bitumen, including routes into and out of the facility.

In the event of a dust complaint being made about the activity notification will be undertaken in accordance with QGC's notification procedures.

3.4. Noise management

The operational activities will be carried out within Strategic Port land where there are existing noise sources. Noise emissions from the site will be predominantly from truck movements,

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loading and unloading using mobile cranes. The site is not located near any identified noise sensitive receptors. The potential exists for noise to impact project personnel (occupational noise) and the surrounding environment. The closest noise sensitive receptors are located across Auckland Inlet to the south-east, approximately 1.4km away.

Activities on site are not to generate noise in such a manner as is likely to have an impact or cause nuisance to neighbouring activities or residents. In the event of a noise complaint being made about the activity notification will be undertaken in accordance with QGC's notification procedures.

3.5. Land Management

The AOCF land area was established through reclamation to accommodate the RG Tanna Coal Terminal. The reclamation incorporated the disposal of fly ash from the Gladstone Power Station. The majority of the AOCF site is now bitumen hardstand area with a small vegetated area on the north east side of the site. The site has been graded into four (4) stormwater catchment areas. Stormwater runoff from the site drains into two major stormwater drains along the east and west side of the site that drain into Auckland Inlet.

3.5.1. Flora and fauna

Flora and fauna will be mostly excluded from the site due to the bitumen hardstand and the perimeter security fence.

3.5.2. Acid sulphate soil management

This risk of Acid sulphate soil (ASS) was assessed and addressed during earthworks activities. No disturbance to soils is anticipated at AOCF. ASS is therefore not considered to be an applicable risk given the proposed use of the site.

3.6. Waste management

There will be no waste disposal at the AOCF. All wastes generated carrying out the activity will be disposed of to a facility that can lawfully accept the waste. Waste generated in carrying out the activity may be surplus plant and equipment that has been damaged in transit or deemed unusable or unsalable due to its condition. QGC will manage wastes in accordance with the waste management hierarchy.

Wastes generated from the operation of the facility will include sewage and grey water. These wastes will be transported to Gladstone Regional Council's Wastewater treatment plants for treatment and reuse or disposal through a licenced regulated waste contractor.

Waste material will be collected at the site in skip bins and wheelie bins and disposed of through QGC's waste contractor. Any liquid wastes generated from breakdown maintenance and repair of plant, equipment and vehicles will be collected, stored and transported in accordance with the relevant legislative requirements and standards, in appropriate

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containment vessels and disposed of lawfully. Servicing of vehicles will not be undertaken at the AOCF.

The site will be maintained in a clean and tidy condition. Any gross litter on the site will be cleaned up periodically. Litter will be prevented from moving off the site by the perimeter security fence. Any littler that enters the stormwater will be collected in one of the four gross pollutant traps. The gross pollutant traps will be cleaned out and maintained, as required.

All records associated with the transport and disposal of waste including hazardous and regulated wastes will be undertaken and kept in accordance with the applicable regulations and in accordance with QGC's record keeping and document control procedures.

3.7. Weed and Pest Management

The movement of plant and equipment into and out of AOCF has the potential to transport weed and pest species. Weed issues at the site are considered to be minimal as the majority of the operational area is bitumen hardstand. Regular visual inspection and maintenance of weeds on the site will be undertaken. The presence of any declared weeds will be reported to the relevant authorities and the appropriate control measures will be implemented. QCLNG is within the Gladstone Fire Ant Restricted Area where any forms of soil, pot plants, potting mix, mulch, bark hay, straw and manure or anything associated with these are prescribed restricted items. Vehicles must also be inspected and certified fire ant free before leaving the Island. Any vehicles originating from a restricted area and prescribed restricted items must be certified fire and free prior to entry to AOCF and a movement certificate must be produced as evidence of compliance.

4. Site Management responsibilities and contacts

Position	Management Responsibilities
QGC Central Compliance Team	▸ Undertake audits against the QGC Environmental Management System (EMS). ▸ Manage third party auditing of the site conditions. ▸ Coordinate preparation and submission of reporting required under the approval. ▸ Communicate non-compliance with approval conditions with GPC and any other relevant regulators. ▸ Maintain correspondence, monitoring results and documentation of all environmental audits, inspections, complaints and compliance actions.
Midstream Contracts	▸ Manage the lease with Gladstone Ports Corporation. ▸ Payment of annual lease and approval fees. ▸ Manage the contracts with service providers: o Waste management; o Electricity;

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Position	Management Responsibilities
	○ Water; ○ Sewage.
Midstream HSSE Manager	▸ Ensure this management plan is implemented, reviewed and updated.
Midstream Environmental Superintendent	▸ Oversee the evaluation of compliance with environmental legislation and regulations, permits, licences and approvals. ▸ Provide input into the Environmental Site Induction provided to all site staff and visitors. ▸ Manage and coordinate monitoring in response to a complaint. ▸ Act as primary point of contact for site personnel for water quality matters and any associated environmental incidents. ▸ Provide environmental technical and regulatory compliance support. ▸ Coordinate the provision of erosion and sediment controls and management. ▸ Undertake any required reporting associated with monitoring programs and provide the results to the QGC Central Environment Team/QGC Central Compliance Team. ▸ Initiate, participate in and oversee any environmental incident and complaint investigations in conjunction with and as directed by the LNG Operations HSSE Manager. ▸ Implementation of corrective actions; ▸ Communicate incidences, non-compliance and corrective actions to the QGC Central Environment Team, QGC Central Compliance Team and LNG Operations HSSE Manager. ▸ Collate environmental incident reports and associated regulatory notifications for submission to the QGC Central Environment Team/QGC Central Compliance Team for review and transmission to the GPC or other regulators. ▸ Undertake periodic inspections and monitoring of site environmental controls. ▸ Interact with Regulators as directed by the QGC Central Environment Team/ QGC Central Compliance Team. ▸ Participate in and facilitate site aspects of third party audits against the QGC EMS. ▸ Undertake periodic review of this site environmental plan and amend the plan as required.

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Position	Management Responsibilities
Midstream Contracts	▸ Manage contract processes including incorporation of HSSE requirements into contracts. ▸ Support the HSSE Manager in implementation of this management plan. ▸ Maintain the facility to prevent contamination of water discharged off site. ▸ Maintain the Stormwater Management System including gross pollutant traps and swale drains. ▸ Implement erosion and sediment controls as per technical advice provided by the Environmental Superintendent. ▸ Maintain site security measures, perimeter fence, gates and lighting. ▸ Maintaining backup power generator and fuel supply. ▸ Implement weed and pest control measures. ▸ Provision of spill kits. ▸ Site housekeeping: o Cleaning of onsite facilities: Crib rooms, toilets, bins, security huts, bus shelters, smoking areas; o Street sweeping of paved areas; o Maintenance of vegetated areas. ▸ Waste management: o Provision of general rubbish bins and recycling bins, wheelie bins and skip bins; o General site waste disposal; o Pump out of sewage tanks.
QGC Central Environment Team	▸ Obtain and amend site approval conditions as required. ▸ Liaise with regulators about site approval issues.

4.1. Site and environmental incident contacts

QGC	Phone number
Site Access Coordinator	(07) 3024 8341
Environmental Superintendent	(07) 3024 8164 / 0417706510
QGC Duty Manager	1300 765 033 (Select Option 2)
Site maintenance	(07) 3024 8341
Waste collection	
Housekeeping	
Site cleaning	
Sewage tank pump out	
Weed control	

Environmental incident contacts:	
GPC Environmental Superintendent	(07) 4976 1258
Marine Unit Coordinator for GPC	(07) 4973 1208
Regional Harbour Master (Gladstone)	(07) 4973 1208

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First Strike Oil Spill Response Team Leader	0409 629 413
EHP Pollution Hotline	1300 130 372
EHP Gladstone Office	(07) 4971 6500

4.2. Site environmental induction

Site environmental awareness training is required for onsite personnel and will be delivered by HSSE Manager or a training coordinator. In addition to HSSE performance and site rules, the following environmental topics will be covered to make employees and contractors aware of QGC's EMS and their general environmental duty:

- General site maintenance (e.g. good housekeeping, environmental controls maintenance);
- Waste management rules, waste tracking and waste handling requirements (e.g. waste transfer, segregation, storage area management, labelling, and disposal);
- Hazardous material/waste handling (e.g. hazard identification, Safety Data Sheets (SDS), incompatible segregation, container management, labelling);
- Erosion and sediment control (e.g. assessing site conditions and erosion control requirements, installing and maintaining stormwater improvement devices, reporting erosion control issues);
- Dust control measures;
- Pest control (e.g. red imported fire ants, biting midges, feral animals).
- Unanticipated discoveries;
- Spill prevention and response (e.g. proper storage of hazardous materials, secondary containment, spill kits, spill response, and notifications).

Environmental awareness training will be included in the general site induction. New starters will be required to undertake site orientation before working on the site and records will be kept of personnel who attend. Site visitors will be required to undertake a visitor environmental induction prior to site access that will be included as part of the HSSE visitor induction for site access.

5. Management and reporting of environmental incidents

QGC will require its sub-contractors to establish formal reporting requirements as per the HSSE Incident Recording, Reporting and Investigation Procedure. QGC will notify GPC of environmental incidents when they occur and shall provide a corresponding incident and investigation report, upon completion of investigation. QGC will make formal notification to the relevant agency (e.g. EHP, GRC, MSQ) as required by law.

6. Monitoring and Reporting

As part of implementing this plan it is recognised that processes for inspection, monitoring and auditing are essential in determining the effectiveness of environmental management in terms of addressing key environmental risks; achieving policy and regulatory objectives; responding to identified incidents, non-compliances or non-conformance issues; and keeping up to date with legislative and industry standards. General monitoring measures for the following

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environmental aspects, during operations, have been discussed in the management actions presented for each aspect in the previous section:

- Water;
- Noise;
- Waste;
- Air Quality; and
- Weed and Pest Management;

All monitoring shall be undertaken by suitably qualified personnel. All instruments, equipment and measuring devices used for measuring or monitoring must be calibrated, and appropriately operated and maintained. Results of monitoring will be maintained on record, compiled and reported.

7. Environmental Complaints

Complaints received will be recorded, including details of complainant, reasons for the complaint, investigations undertaken, conclusions formed and actions taken. Except in cases where the complaint is considered to be a matter for which the holder is in compliance, is frivolous, vexatious, or based on a mistaken belief, corrective action will be taken as soon as practicable to investigate the cause and resolve the complaint. Corrective actions, recommendations and procedures, including modifications to practices where applicable, are managed by QGC Central Compliance Team.

The QGC procedure for complaints shall include:

- A procedure for receiving and responding to complaints that is acceptable to the relevant agency;
- A process for registering and handling complaints received in terms of:
  - Time and date of complaint;
  - The identity of the complainant and the recorder of the complaint;
  - The specific action or activity causing the complaint;
  - Whether environmental compliance requirements are being met; and
  - The action taken to address the complaint if necessary.
- Feedback to the complainant and the relevant agency as required within a specified time period;
- Any subsequent remedial action required to avoid cause for future complaints if relevant;
- Regular reporting to the relevant agency of complaints and corrective actions; and
- Monitoring and auditing of the complaint handling system.

8. Environmental Incidents

An environmental emergency or incident will be regarded as any action that harms or has the potential to cause serious or material harm to the environment. In the event that an environmental emergency or incident occurs, the following steps will be followed immediately:

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- Where safe to do so, prevent further pollution/environmental harm (including impacts on air, water quality, and noise environment);
- Clean-up and/or control polluting substance(s);
- Implement mitigation measures to prevent recurrence of a similar incident; and
- Document the incident and instigate an incident investigation as appropriate.

Any emergency or incident which results in the release of contaminants or mismanagement of waste not in accordance, or reasonably expected to be not in accordance with approval conditions will be verbally reported by the Environmental Superintendent as soon as practicable after becoming aware of the incident in accordance with approval requirements. QGC will make formal notification to GPC. The notification of emergencies or incidents will include the following:

- The holder of the development approval;
- The location of the emergency or incident;
- The number of the development approval;
- The name and telephone number of the HSSE Manager;
- The time of the release/mismanagement incident;
- The time the holder became aware of the release/mismanagement incident;
- The suspected cause of the release/mismanagement incident;
- The environmental harm caused, threatened, or suspected to be caused by the release/mismanagement incident; and
- Actions taken to prevent further release and mitigate any environmental harm caused by the release/mismanagement incident.

9. Auditing

QGC operates under an EMS in accordance with the international standard AS/NZS ISO 14001. The EMS must be regularly audited to ensure its continuing suitability, adequacy and effectiveness and meet QGC's commitment to continual improvement.

Regular internal audits of the EMS are conducted, covering all activities within the scope of the QGC Asset EMS.

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Appendix 1. Health Safety Security and Environmental Policy

HSSE Policy

We work together as OneTeam -- employees, contractors and suppliers – towards zero injuries.

Each of us is held accountable for our individual and team's health, safety, security and for keeping the environment free from harm. We deliver our commitments by living the 14 elements of our HSSE management system:

1. **Leadership:** We actively [illegible] at all levels and demonstrate a genuine commitment to HSSE
2. **Risk Management:** We keep our team safe and prevent pollution of the environment by identifying, assessing and controlling risks. The Life Savers rules are adhered to at all times
3. **Planning:** We set clear HSSE goals, objectives, expectations and targets to deliver our business plans safely
4. **People & Capability:** We carefully select and train our teams so that they are able to perform their work safely
5. **Communication, Consultation & Documentation:** We keep people informed and ensure team members are consulted on any HSSE matters that might affect them
6. **Facility Design & Construction:** We design and construct our facilities to perform safely, reliably and without harm to the environment
7. **Operation & Maintenance:** We operate and maintain our facilities safely, the way they were designed
8. **Working with Contractors & Suppliers:** We work together with our contractors and suppliers to manage workplace risks
9. **Emergency & Security Management:** We plan ahead and develop capabilities to deal with emergencies, should they occur.
10. **Management of Change:** We recognise and control business changes that could impact HSSE
11. **Performance Measurement & Monitoring:** We monitor our HSSE performance and always seek improvements.
12. **Incident Management & Learning:** We learn from incidents and take the necessary actions so that they don't happen again.
13. **Governance:** We regularly check to ensure all of our HSSE expectations and obligations are met.
14. **Management Review:** We regularly review our HSSE performance and make adjustments in support of our goal of zero injuries.

OurWay to Zero Injuries

When executing the 14 elements our actions are consistent with our OICC duties:

O **Observation:** We are visible and active observers, constantly looking for at-risk behaviours and unsafe conditions, but also praising good performers.

I **Intervention:** When we observe something that could cause harm, we intervene immediately and keep intervening until it is made safe. We are open to constructive interventions and respond positively.

C **Compliance:** We have confidence in our Life Savers and always comply - they are there to keep us and the environment safe. We make sure we understand which rules apply to us and the work we are doing.

C **Collaboration:** We are accountable for the safety and wellbeing of those who work with us and constantly seek ways to help one another achieve safe business delivery.

The QGC Management Team cares about all our OneTeam members and is committed to providing a safe workplace and managing our environmental risks. QGC will not compromise on HSSE.

Mitch Ingram
Managing Director QGC

QGC
A BG Group business

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Appendix 2. General site layout and drawings

1) Figure 1 Site aerial photograph, January 2015
2) Figure 2 General site layout
3) Figure 3 Finished pavement levels Sheet 1 of 3
4) Figure 4 Finished pavement levels Sheet 2 of 3
5) Figure 5 Finished pavement levels Sheet 3 of 3
6) Figure 6 Site services Sheet 1
7) Figure 7 Area lighting Sheet 1 of 2
8) Figure 8 Area lighting Sheet 2 of 2

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Figure 1 Site aerial photograph, January 2015

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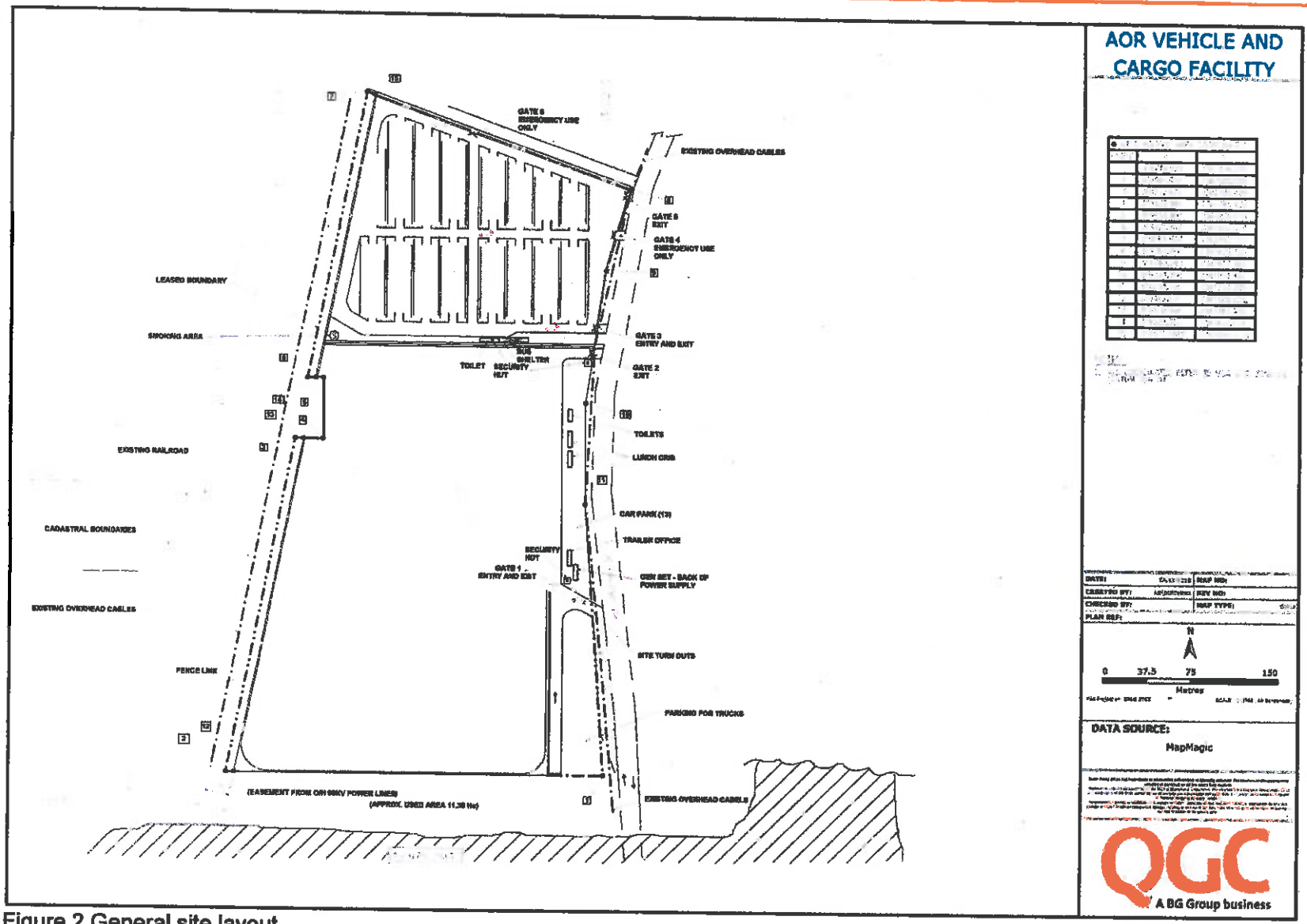

Figure 2 General site layout

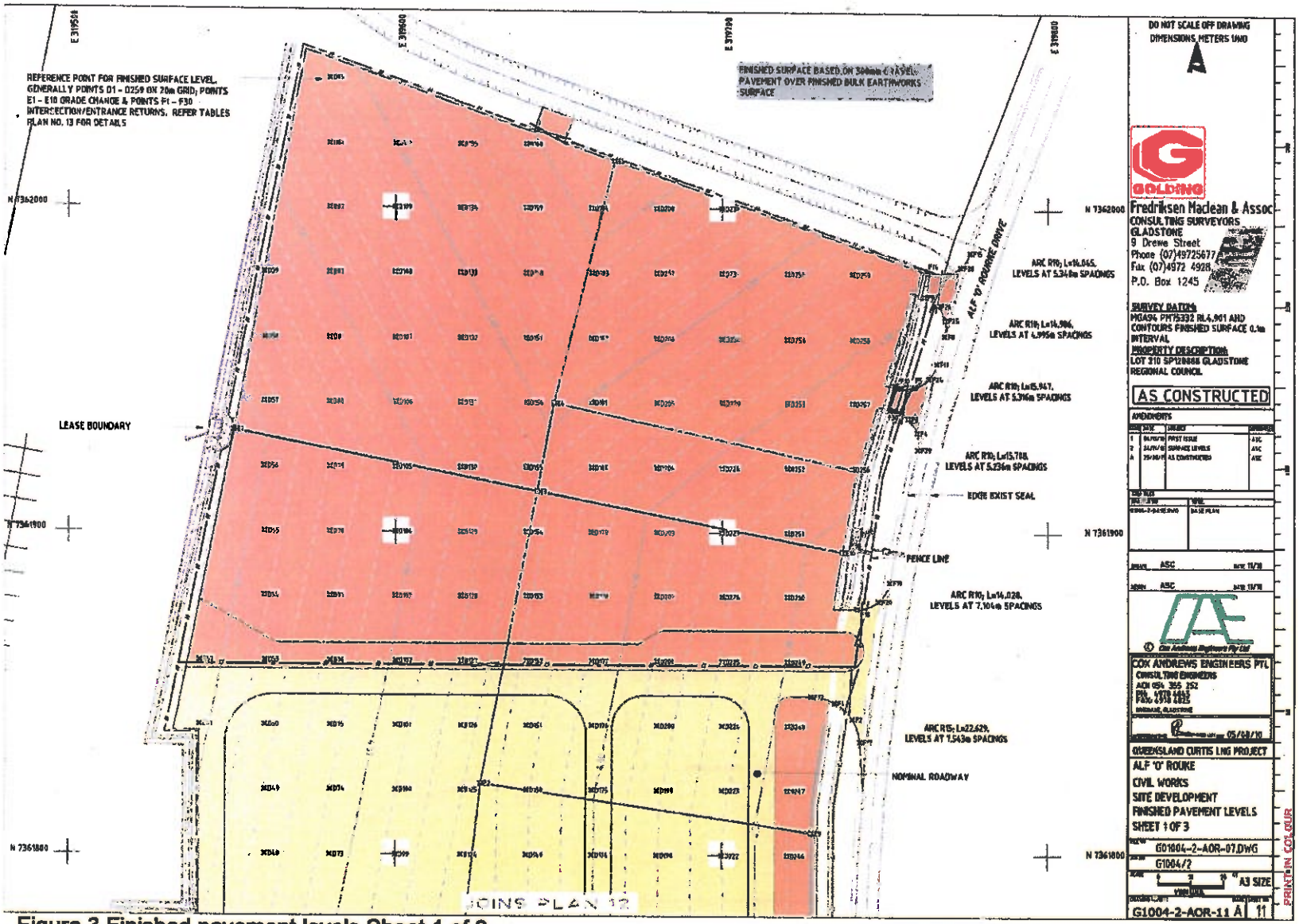

Figure 3 Finished pavement levels Sheet 1 of 3

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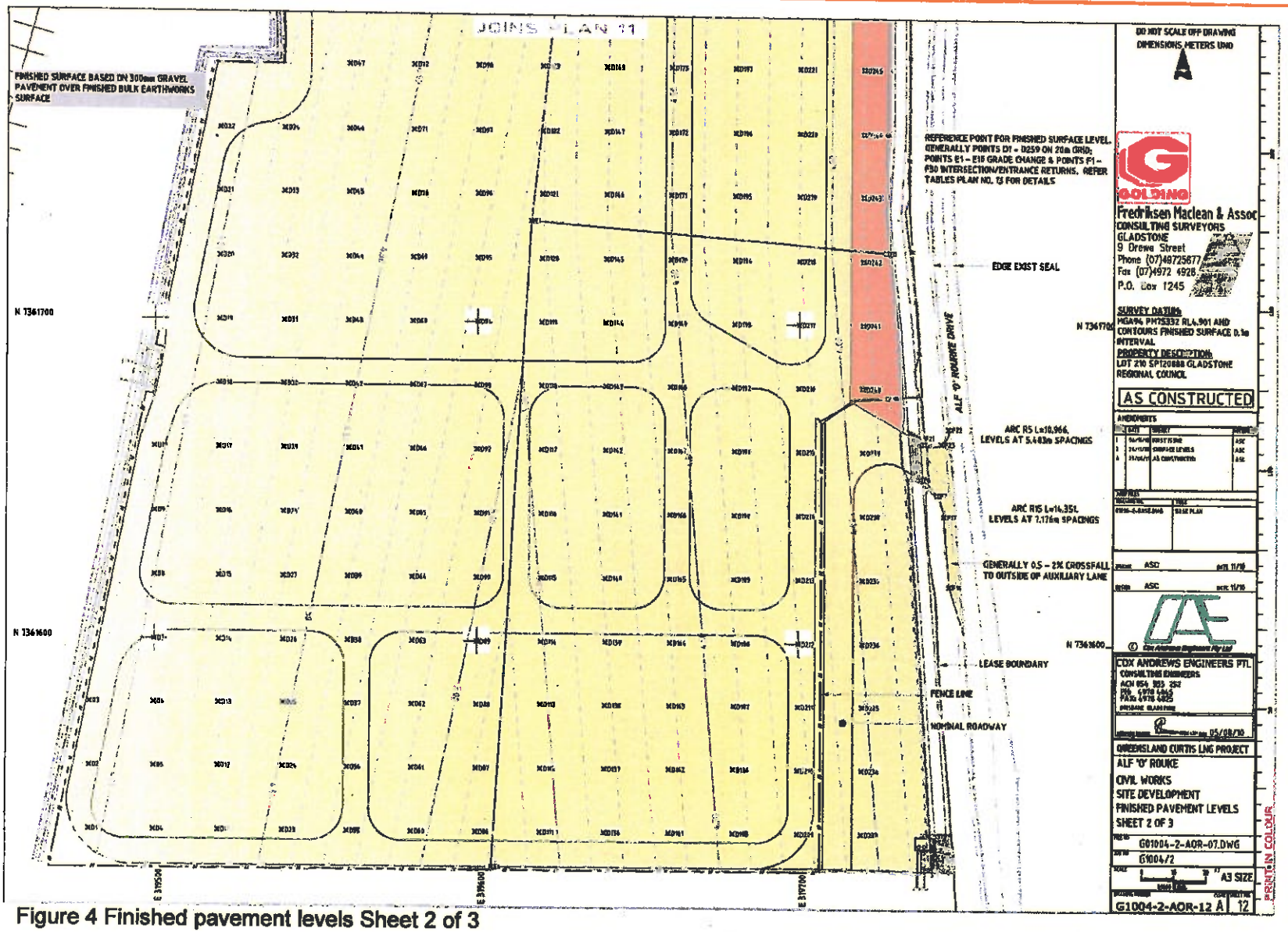

Figure 4 Finished pavement levels Sheet 2 of 3

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POINT	EASTING	NORTHING	RL
D1	319480.000	7361540.000	3.957
D2	319480.000	7361560.000	3.918
D3	319480.000	7361580.000	3.880
D4	319500.000	7361540.000	4.155
D5	319500.000	7361560.000	4.116
D6	319500.000	7361580.000	4.078
D7	319500.000	7361600.000	4.039
D8	319500.000	7361620.000	4.000
D9	319500.000	7361640.000	3.961
D10	319500.000	7361660.000	3.922
D11	319520.000	7361540.000	4.353
D12	319520.000	7361560.000	4.315
D13	319520.000	7361580.000	4.276
D14	319520.000	7361600.000	4.237
D15	319520.000	7361620.000	4.198
D16	319520.000	7361640.000	4.159
D17	319520.000	7361660.000	4.120
D18	319520.000	7361680.000	4.081
D19	319520.000	7361700.000	4.042
D20	319520.000	7361720.000	4.004
D21	319520.000	7361740.000	3.965
D22	319520.000	7361760.000	3.924
D23	319540.000	7361540.000	4.551
D24	319540.000	7361560.000	4.513
D25	319540.000	7361580.000	4.474
D26	319540.000	7361600.000	4.435
D27	319540.000	7361620.000	4.396
D28	319540.000	7361640.000	4.357
D29	319540.000	7361660.000	4.318
D30	319540.000	7361680.000	4.278
D31	319540.000	7361700.000	4.240
D32	319540.000	7361720.000	4.201
D33	319540.000	7361740.000	4.162
D34	319540.000	7361760.000	4.123
D35	319560.000	7361540.000	4.749
D36	319560.000	7361560.000	4.711
D37	319560.000	7361580.000	4.672
D38	319560.000	7361600.000	4.633
D39	319560.000	7361620.000	4.593
D40	319560.000	7361640.000	4.554
D41	319560.000	7361660.000	4.515
D42	319560.000	7361680.000	4.476
D43	319560.000	7361700.000	4.437
D44	319560.000	7361720.000	4.398
D45	319560.000	7361740.000	4.360
D46	319560.000	7361760.000	4.321
D47	319560.000	7361780.000	4.282
D48	319560.000	7361800.000	4.243
D49	319560.000	7361820.000	4.205
D50	319560.000	7361840.000	4.167
D51	319540.000	7361840.000	3.971
D52	319540.000	7361860.000	3.931
D53	319560.000	7361860.000	4.128
D54	319560.000	7361880.000	4.089
D55	319560.000	7361900.000	4.049
D56	319560.000	7361920.000	4.010
D57	319560.000	7361940.000	4.057
D58	319560.000	7361960.000	4.178
D59	319560.000	7361980.000	4.298
D60	319580.000	7361540.000	4.947
D61	319580.000	7361560.000	4.908
D62	319580.000	7361580.000	4.869
D63	319580.000	7361600.000	4.830
D64	319580.000	7361620.000	4.791
D65	319580.000	7361640.000	4.752
D66	319580.000	7361660.000	4.713
D67	319580.000	7361680.000	4.674
D68	319580.000	7361700.000	4.635
D69	319580.000	7361720.000	4.596
D70	319580.000	7361740.000	4.557
D71	319580.000	7361760.000	4.518
D72	319580.000	7361780.000	4.479
D73	319580.000	7361800.000	4.440
D74	319580.000	7361820.000	4.402
D75	319580.000	7361840.000	4.363
D76	319580.000	7361860.000	4.324
D77	319580.000	7361880.000	4.285
D78	319580.000	7361900.000	4.246
D79	319580.000	7361920.000	4.206
D80	319580.000	7361940.000	4.285
D81	319580.000	7361960.000	4.406
D82	319580.000	7361980.000	4.526
D83	319580.000	7362000.000	4.647
D84	319580.000	7362020.000	4.768
D85	319580.000	7362040.000	4.889
D86	319600.000	7361540.000	5.145
D87	319600.000	7361560.000	5.106
D88	319600.000	7361580.000	5.067
D89	319600.000	7361600.000	5.028
D90	319600.000	7361620.000	4.989
D91	319600.000	7361640.000	4.950
D92	319600.000	7361660.000	4.911
D93	319600.000	7361680.000	4.871
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D95	319600.000	7361720.000	4.793
D96	319600.000	7361740.000	4.754
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D101	319600.000	7361840.000	4.560
D102	319600.000	7361860.000	4.520
D103	319600.000	7361880.000	4.481
D104	319600.000	7361900.000	4.442
D105	319600.000	7361920.000	4.403
D106	319600.000	7361940.000	4.593
D107	319600.000	7361960.000	4.634
D108	319600.000	7361980.000	4.754
D109	319600.000	7362000.000	4.875
D110	319600.000	7362020.000	4.996
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D163	319660.000	7361580.000	4.619
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D180	319660.000	7361920.000	4.777
D181	319660.000	7361940.000	4.977
D182	319660.000	7361960.000	5.193
D183	319660.000	7361980.000	5.409
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D192	319680.000	7361680.000	4.337
D193	319680.000	7361700.000	4.321
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D214	319700.000	7361640.000	4.168
D215	319700.000	7361660.000	4.152
D216	319700.000	7361680.000	4.135
D217	319700.000	7361700.000	4.119
D218	319700.000	7361720.000	4.102
D219	319700.000	7361740.000	4.099
D220	319700.000	7361760.000	4.099
D221	319700.000	7361780.000	4.101
D222	319700.000	7361800.000	4.102
D223	319700.000	7361820.000	4.118
D224	319700.000	7361840.000	4.134
D225	319700.000	7361860.000	4.150
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D231	319700.000	7361980.000	5.101
D232	319700.000	7362000.000	5.316
D233	319720.000	7361540.000	4.048
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D235	319720.000	7361580.000	4.015
D236	319720.000	7361600.000	3.999
D237	319720.000	7361620.000	3.982
D238	319720.000	7361640.000	3.966
D239	319720.000	7361660.000	3.950
D240	319720.000	7361680.000	3.933
D241	319720.000	7361700.000	3.917
D242	319720.000	7361720.000	3.900
D243	319720.000	7361740.000	3.898
D244	319720.000	7361760.000	3.899
D245	319720.000	7361780.000	3.900
D246	319720.000	7361800.000	3.900
D247	319720.000	7361820.000	3.922
D248	319720.000	7361840.000	3.957
D249	319720.000	7361860.000	3.993
D250	319720.000	7361880.000	4.029
D251	319720.000	7361900.000	4.087
D252	319720.000	7361920.000	4.291
D253	319720.000	7361940.000	4.508
D254	319720.000	7361960.000	4.726
D255	319720.000	7361980.000	4.945
D256	319740.000	7361920.000	4.131
D257	319740.000	7361940.000	4.352
D258	319740.000	7361960.000	4.562
D259	319740.000	7361980.000	4.782
E1	319618.619	7361731.607	4.935
E2	319625.982	7361821.956	4.850
E3	319663.301	7361912.677	4.842
E4	319668.442	7361939.710	5.064
E6	319667.000	7362014.819	5.729
E6	319604.917	7361529.020	5.215
E7	319550.644	7361931.128	3.897
E8	319727.026	7361722.702	3.827
E9	319727.481	7361807.036	3.825
E10	319736.919	7361896.034	3.887
F1	319734.492	7361867.448	3.871
F2	319739.931	7361862.337	3.905
F3	319757.145	7361935.573	4.055
F4	319759.876	7361931.178	3.943
F5	319759.049	7361965.097	4.206
F6	319737.953	7361651.837	3.814
F7	319743.926	7361646.857	3.797
F8	319768.322	7361961.199	4.166
F9	319762.068	7361972.301	4.416
F10	319753.633	7361944.912	4.283
F11	319765.890	7361952.563	4.057
F12	319742.233	7361835.238	3.936
F13	319727.262	7361849.305	3.903
F14	319763.138	7361980.354	4.603
F15	319776.036	7361986.708	4.357
F16	319766.921	7361618.166	3.730
F17	319745.243	7361660.101	3.781
F18	319741.506	7361876.358	3.878
F19	319751.365	7361884.686	3.867
F20	319747.958	7361878.719	3.872
F21	319739.187	7361662.779	3.927
F22	319746.642	7361667.602	4.058
F23	319744.398	7361662.908	3.991
F24	319763.493	7361947.905	4.121
F25	319760.434	7361966.141	4.246
F26	319766.186	7361970.533	4.332
F27	319768.487	7361979.967	4.515
F28	319773.147	7361982.283	4.633
F29	319760.043	7361926.002	3.866
F30	319752.581	7361938.016	4.159

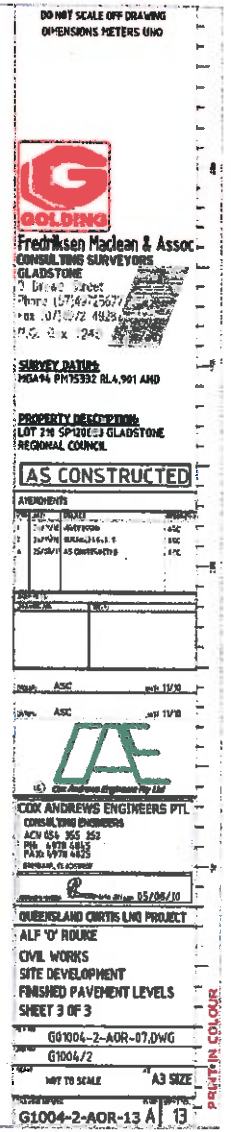

Figure 5 Finished pavement levels Sheet 3 of 3

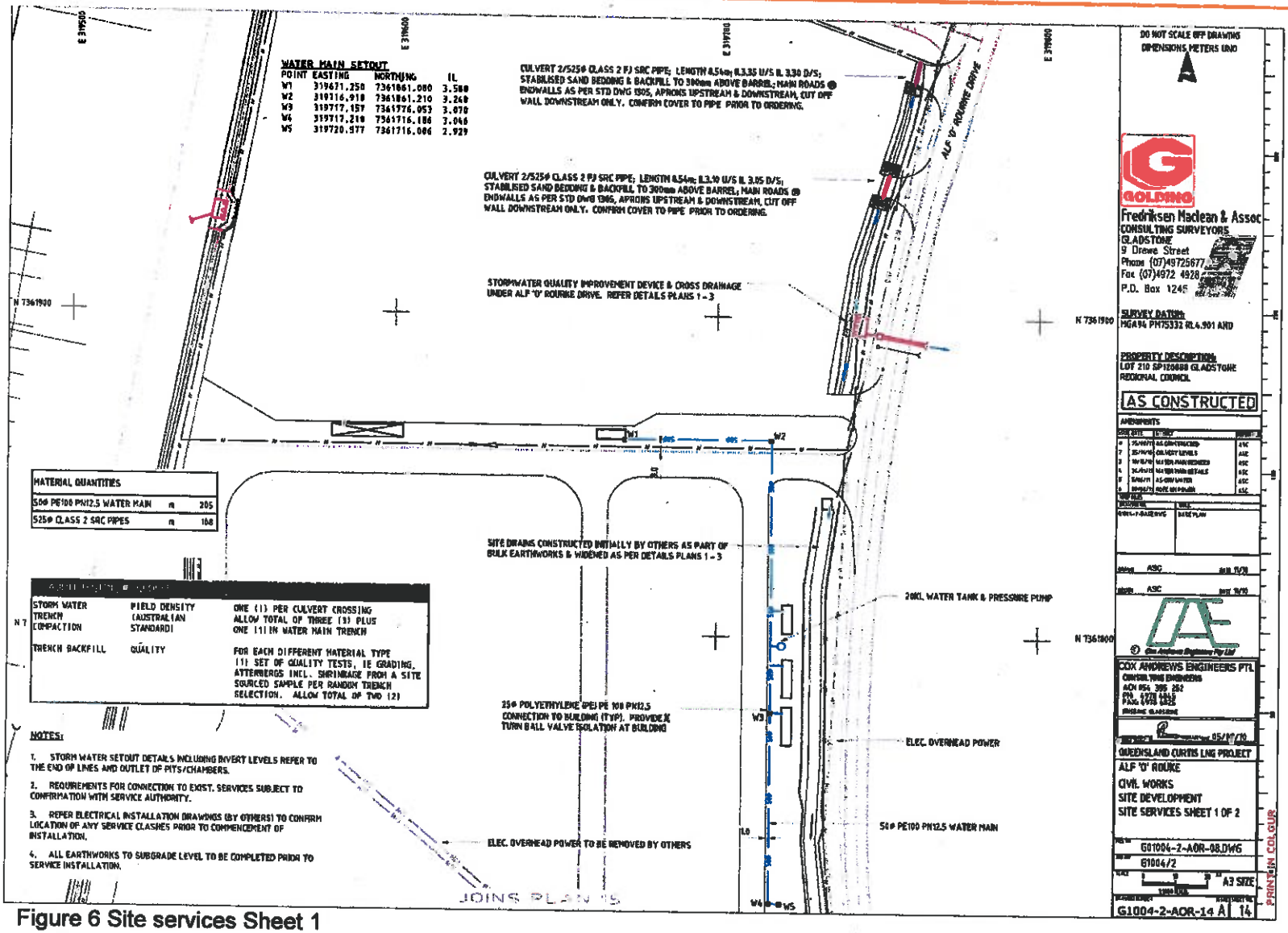

Figure 6 Site services Sheet 1

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Figure 7 Area lighting Sheet 1 of 2

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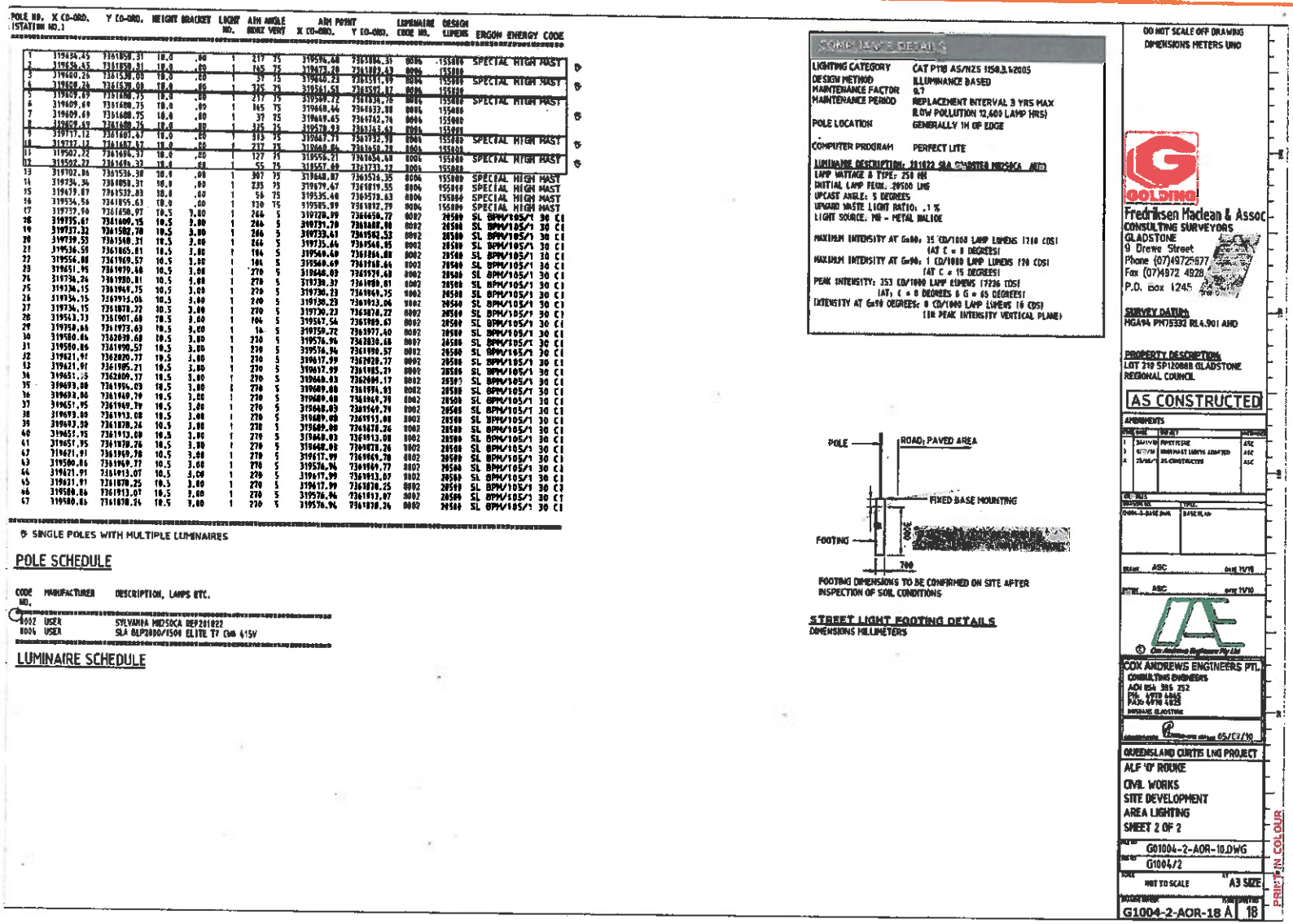


POLE NO. (STATION NO.)	X CO-ORD.	Y CO-ORD.	HEIGHT	BRACKET	LIGHT NO.	AIM ANGLE HORIZ	AIM ANGLE VERT	AIM POINT X CO-ORD.	AIM POINT Y CO-ORD.	LUMINAIRE CODE NO.	DESIGN LUMENS	ERGON ENERGY CODE
1	319436.45	7361858.31	18.0	.00	1	217	75	319596.68	7361884.35	0004	155000	SPECIAL HIGH MAST
2	319536.45	7361858.31	18.0	.00	1	145	75	319473.28	7361822.43	0004	155000	
3	319680.26	7361538.08	18.0	.00	1	37	75	319640.23	7361511.99	0004	155000	SPECIAL HIGH MAST
4	319550.26	7361538.08	18.0	.00	1	325	75	319561.51	7361557.12	0004	155000	
5	319409.69	7361688.75	18.0	.00	1	217	75	319599.72	7361830.76	0004	155000	SPECIAL HIGH MAST
6	319409.69	7361688.75	18.0	.00	1	145	75	319648.66	7361832.88	0004	155000	
7	319609.69	7361688.75	18.0	.00	1	37	75	319649.65	7361762.76	0004	155000	
8	319509.69	7361688.75	18.0	.00	1	325	75	319578.93	7361763.62	0004	155000	
9	319737.12	7361687.57	18.0	.00	1	213	75	319687.73	7361732.98	0004	155000	SPECIAL HIGH MAST
10	319737.12	7361687.57	18.0	.00	1	237	75	319648.84	7361658.78	0004	155000	
11	319507.22	7361696.93	18.0	.00	1	127	75	319556.21	7361654.68	0004	155000	SPECIAL HIGH MAST
12	319502.27	7361696.33	18.0	.00	1	55	75	319557.68	7361733.12	0004	155000	
13	319702.84	7361536.38	18.0	.00	1	307	75	319648.87	7361536.35	0004	155000	SPECIAL HIGH MAST
14	319736.34	7361858.31	18.0	.00	1	235	75	319679.67	7361819.55	0004	155000	SPECIAL HIGH MAST
15	319619.87	7361539.83	18.0	.00	1	56	75	319535.48	7361539.63	0004	155000	SPECIAL HIGH MAST
16	319534.56	7361855.63	18.0	.00	1	120	75	319585.99	7361802.29	0004	155000	SPECIAL HIGH MAST
17	319737.98	7361858.97	18.5	3.00	1	266	5	319728.99	7361858.72	0002	28500	SL BPM/105/1 30 C1
18	319735.67	7361600.15	18.5	3.00	1	286	5	319731.78	7361602.98	0002	28500	SL BPM/105/1 30 C1
19	319737.32	7361582.78	18.5	3.00	1	286	5	319733.61	7361582.53	0002	28500	SL BPM/105/1 30 C1
20	319739.53	7361560.31	18.5	3.00	1	266	5	319735.66	7361560.05	0002	28500	SL BPM/105/1 30 C1
21	319536.59	7361865.81	18.5	3.00	1	104	5	319569.69	7361864.88	0002	28500	SL BPM/105/1 30 C1
22	319556.88	7361969.57	18.5	3.00	1	104	5	319569.69	7361968.66	0002	28500	SL BPM/105/1 30 C1
23	319651.95	7361979.48	18.5	3.00	1	270	5	319668.03	7361979.48	0002	28500	SL BPM/105/1 30 C1
24	319736.26	7361930.81	18.5	3.00	1	270	5	319738.37	7361880.81	0002	28500	SL BPM/105/1 30 C1
25	319736.15	7361969.75	18.5	3.00	1	270	5	319730.23	7361969.75	0002	28500	SL BPM/105/1 30 C1
26	319736.15	7361913.06	18.5	3.00	1	270	5	319730.23	7361913.06	0002	28500	SL BPM/105/1 30 C1
27	319736.15	7361878.22	18.5	3.00	1	270	5	319730.23	7361878.22	0002	28500	SL BPM/105/1 30 C1
28	319543.33	7361901.68	18.5	3.00	1	104	5	319567.54	7361900.67	0002	28500	SL BPM/105/1 30 C1
29	319750.66	7361973.63	18.5	3.00	1	14	5	319750.72	7361977.40	0002	28500	SL BPM/105/1 30 C1
30	319580.66	7362038.68	18.5	3.00	1	210	5	319576.96	7362036.68	0002	28500	SL BPM/105/1 30 C1
31	319580.86	7361990.57	18.5	3.00	1	270	5	319576.96	7361990.57	0002	28500	SL BPM/105/1 30 C1
32	319621.91	7362020.77	18.5	3.00	1	270	5	319617.99	7361920.77	0002	28500	SL BPM/105/1 30 C1
33	319621.91	7361985.21	18.5	3.00	1	270	5	319617.99	7361985.21	0002	28500	SL BPM/105/1 30 C1
34	319651.15	7362009.17	18.5	3.00	1	270	5	319668.03	7362008.17	0002	28500	SL BPM/105/1 30 C1
35	319693.88	7361994.29	18.5	3.00	1	270	5	319689.88	7361994.03	0002	28500	SL BPM/105/1 30 C1
36	319693.88	7361969.29	18.5	3.00	1	270	5	319689.88	7361969.29	0002	28500	SL BPM/105/1 30 C1
37	319651.95	7361969.29	18.5	3.00	1	270	5	319668.03	7361969.29	0002	28500	SL BPM/105/1 30 C1
38	319693.88	7361913.08	18.5	3.00	1	270	5	319689.88	7361913.08	0002	28500	SL BPM/105/1 30 C1
39	319693.88	7361878.26	18.5	3.00	1	270	5	319689.88	7361878.26	0002	28500	SL BPM/105/1 30 C1
40	319651.95	7361913.08	18.5	3.00	1	270	5	319668.03	7361913.08	0002	28500	SL BPM/105/1 30 C1
41	319651.95	7361878.26	18.5	3.00	1	270	5	319668.03	7361878.26	0002	28500	SL BPM/105/1 30 C1
42	319621.91	7361969.78	18.5	3.00	1	270	5	319617.99	7361969.78	0002	28500	SL BPM/105/1 30 C1
43	319580.86	7361969.77	18.5	3.00	1	270	5	319576.96	7361969.77	0002	28500	SL BPM/105/1 30 C1
44	319621.91	7361913.07	18.5	3.00	1	270	5	319617.99	7361913.07	0002	28500	SL BPM/105/1 30 C1
45	319621.91	7361878.25	18.5	3.00	1	270	5	319617.99	7361878.25	0002	28500	SL BPM/105/1 30 C1
46	319580.86	7361913.07	18.5	3.00	1	270	5	319576.96	7361913.07	0002	28500	SL BPM/105/1 30 C1
47	319580.86	7361878.24	18.5	3.00	1	270	5	319576.96	7361878.24	0002	28500	SL BPM/105/1 30 C1

⊕ SINGLE POLES WITH MULTIPLE LUMINAIRES

POLE SCHEDULE

CODE NO.	MANUFACTURER	DESCRIPTION, LAMPS ETC.
0002	USER	SYLVANIA MIDSOCA REF281022
0004	USER	SLA OLP2000/1500 ELITE T7 CMH 415W

LUMINAIRE SCHEDULE

COMPLIANCE DETAILS

LIGHTING CATEGORY	CAT P1B AS/NZS 1158.3.1:2005
DESIGN METHOD	ILLUMINANCE BASED
MAINTENANCE FACTOR	0.7
MAINTENANCE PERIOD	REPLACEMENT INTERVAL 3 YRS MAX LOW POLLUTION 12,600 LAMP HRS)
POLE LOCATION	GENERALLY IN OR EDGE
COMPUTER PROGRAM	PERFECT LITE

LUMINAIRE DESCRIPTION: 281022 SLA SYLVANIA MIDSOCA ARC1

LAMP WATTAGE & TYPE: 250 HM
INITIAL LAMP FLUX: 20500 LMS
UPCAST ANGLE: 5 DEGREES
UPWARD WASTE LIGHT RATIO: .1 %
LIGHT SOURCE: MH - METAL HALIDE

MAXIMUM INTENSITY AT Gα0: 35 CD/1000 LAMP LUMENS (710 COS)
(AT C = 0 DEGREES)
MAXIMUM INTENSITY AT Gα90: 1 CD/1000 LAMP LUMENS (70 COS)
(AT C = 15 DEGREES)
PEAK INTENSITY: 353 CD/1000 LAMP LUMENS (7226 COS)
(AT; C = 0 DEGREES & G = 65 DEGREES)
INTENSITY AT Gα90 DEGREES: 0 CD/1000 LAMP LUMENS (0 COS)
(IN PEAK INTENSITY VERTICAL PLANE)

FOOTING DIMENSIONS TO BE CONFIRMED ON SITE AFTER INSPECTION OF SOIL CONDITIONS

STREET LIGHT FOOTING DETAILS
DIMENSIONS MILLIMETERS

DO NOT SCALE OFF DRAWING
DIMENSIONS METERS UNO

GOLDING

Fredriksen Maclean & Assoc
CONSULTING SURVEYORS
GLADSTONE
9 Drews Street
Phone (07)49725677
Fax (07)4972 4928
P.O. box 1245

SURVEY DATUM
MGA94 PM75332 RL4.901 AHD

PROPERTY DESCRIPTION
LOT 219 SP120888 GLADSTONE
REGIONAL COUNCIL

AS CONSTRUCTED

AMENDMENTS

NO.	DATE	AMENDMENT	INITIALS
1	26/11/10	PRINT ISSUE	ASC
2	07/12/10	MINIMUM LIGHTS ADDED	ASC
A	21/12/10	AS CONSTRUCTED	ASC

DRAWN ASC DATE 21/10
DESIGN ASC DATE 21/10

COX ANDREWS ENGINEERS PTY. LTD.
CONSULTING ENGINEERS
ACN 054 386 252
PH. 4778 4845
FAX. 4778 4825
MITCHAM GLADSTONE

05/12/10

QUEENSLAND CURTIS LNG PROJECT
ALF 'O' ROURKE
CIVIL WORKS
SITE DEVELOPMENT
AREA LIGHTING
SHEET 2 OF 2

DRG NO. G01004-2-AOR-10.DWG
JOB NO. G1004/2
SCALE NOT TO SCALE AT A3 SIZE
DOCUMENT NO. G1004-2-AOR-18 A
REVISION NO. 18

PRINT IN COLOUR

Figure 8 Area lighting Sheet 2 of 2

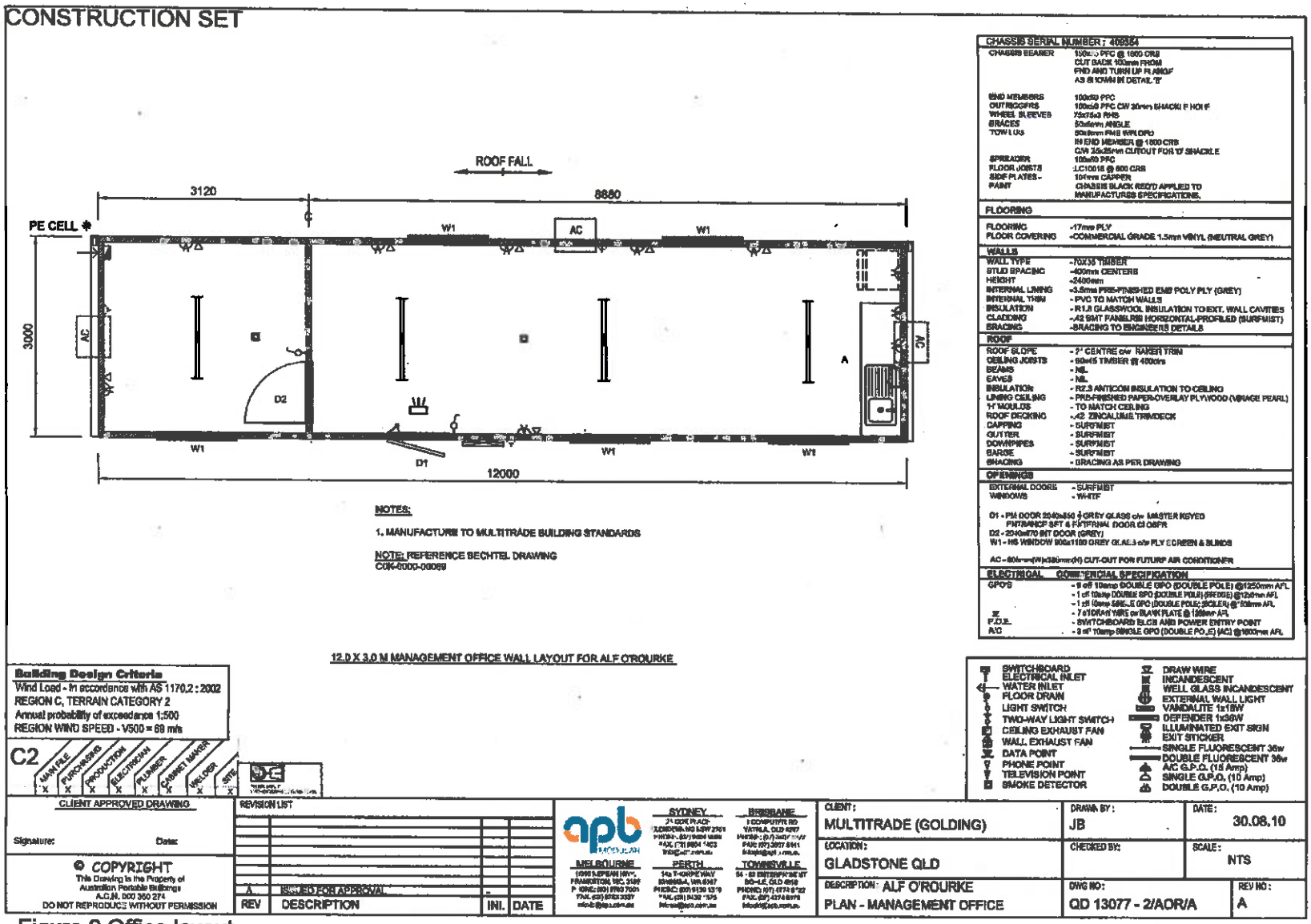
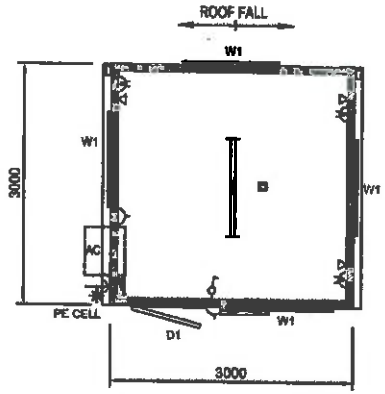


Figure 9 Office layout

CONSTRUCTION SET



NOTES:

1. MANUFACTURE TO MULTITRADE BUILDING STANDARDS

NOTE: REFERENCE BECHTEL DRAWING COK-0000-00084

3.0 x 3.0m SECURITY HUT FLOOR PLAN FOR ALF O'ROURKE

CHASSIS SERIAL NUMBER : 40-318/465317	
CHASSIS BEARER	150x75 PFC @ 1800 CRS CUT BACK 100mm FROM END AND TURN UP FLANGE AS SHOWN IN DETAIL 'B'
END MEMBERS	100x50 PFC
OUTRIGGERS	100x50 PFC CW 20mm SHACKLE HOLE
WHEEL SLEEVES	75x75x3 RHS
BRACER	50x5mm ANGLE
TOW LUG	80x5mm FMS WELDED IN END MEMBER @ 1800 CRS CAW 25x25mm CUTOUT FOR 'D' SHACKLE
SPREADER	100x50 PFC
FLOOR JOISTS	LC10015 @ 600 CRS
SIDE PLATES -	1.04mm CAPPER
PAINT	CHASSIS BLACK RECD APPLIED TO MANUFACTURERS SPECIFICATIONS.
FLOORING	
FLOORING	-17mm PLY
FLOOR COVERING	-1.5mm VINYL GREY SHP
INSULATION	-UNDER FLOOR (FOIL TYPE)
WALLS	
WALL TYPE	-70 x 35mm TIMBER
STUD SPACING	-400mm CENTERS
HEIGHT	-2400mm
INTERNAL LINING	-3.5mm EMB POLY PLY (GREY)
INTERNAL TRIM	- PVC TO MATCH WALLS
INSULATION	-R1.8 GLASSWOOL TO EXT WALL CAVITIES
CLADDING	-.42 BMT PANELRIB C'BOND (SURFMIST)
BRACING	-BRACING TO ENGINEERS DETAILS
ROOF	
ROOF SLOPE	- 2° CENTER PITCH c/w RAKER TRIM
CEILING JOISTS	- 90 x 45 TIMBER @ 600crs
BEAMS	- NIL
EAVES	- NIL
INSULATION	- 90mm R2.3 ANTICON
LINING CEILING	- MIRAGE PEARL PLY
'H' MOULDS	- TO MATCH CEILING
ROOF DECKING	-.42 ZINCALUME TRIMDEK
CAPPING	- SURFMIST
GUTTER	- SURFMIST
DOWNPIPES	- SURFMIST
BARGE	- SURFMIST
BRACING	- BRACING AS PER DRAWING
OPENINGS	
DOORS	- SURFMIST
WINDOWS	- WHITE

D1 - PM DOOR 2040x880 ½GREY GLASS w MASTERKEYED ENTRANCE SET & EXTERNAL DOOR CLOSER

W1 - HB WINDOW 1200x1200 GREY GLASS c/wFLYSCREEN

AC - 805(w)x385(h) CUT OUT FOR FUTURE AIR CONDITIONER

ELECTRICAL	
GPO'S	- 3 off 10amp DOUBLE (DUAL POLE)
DATA	- 3 off ATA PRE-WIRE POINT w BLANK PLATE
P.O.E.	- SWITCHBOARD ELCB & POWER ENTRY POINT
A/C	- 1 off 10amp SINGLE (DUAL POLE) @1800mm

SWITCHBOARD
ELECTRICAL PIR ST
WATER INLET
FLOOR DRAIN
LIGHT SWITCH
TWO-WAY LIGHT SWITCH
CEILING EXHAUST FAN
WALL EXHAUST FAN
DATA POINT
PHONE POINT
TELEVISION POINT
SMOKE DETECTOR
DRAW WIRE
INCANDESCENT
WELL GLASS INCANDESCENT
EXTERNAL WALL LIGHT
VANDALITE 1x18W
DEFENDER 1x36W
ILLUMINATED EXIT SIGN
EXIT STICKER
SINGLE FLUORESCENT 36w
DOUBLE FLUORESCENT 36w
A/C G.P.O. (15 Amp)
SINGLE G.P.O. (10 Amp)
DOUBLE G.P.O. (10 Amp)

Building Design Criteria
Wind Load - In accordance with AS 1170.2 : 2002
REGION C, TERRAIN CATEGORY 2
Annual probability of exceedance 1:500
REGION WIND SPEED - V500 = 69 m/s

C2

MAIN FILE | PURCHASING | PRODUCTION | ELECTRICIAN | PLUMBER | CABINET MAKER | WELDER | SITE

CLIENT APPROVED DRAWING

Signature: Date:

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REVISION LIST

REV	DESCRIPTION	INIT	DATE
2	CHANGED WINDOW SIZE	JB	02.11.10
1	ISSUED FOR CONSTRUCTION	JB	17.10.10
A	ISSUED FOR ENGINEERING	---	--/--/--

apb MODULAR
MELBOURNE | SYDNEY | BRISBANE | PERTH | TOWNSVILLE

CLIENT: MULTITRADE (GOLDING)	DRAWN BY: BECK	DATE: 02.11.10	
LOCATION: GLADSTONE, QLD	CHECKED BY:	SCALE: NTS	
DESCRIPTION: ALF O'ROURKE FLOORPLAN - SECURITY HUT	DWG NO: QD13077-4/AOR/A	REV NO: 2	

Figure 10 Security hut layout

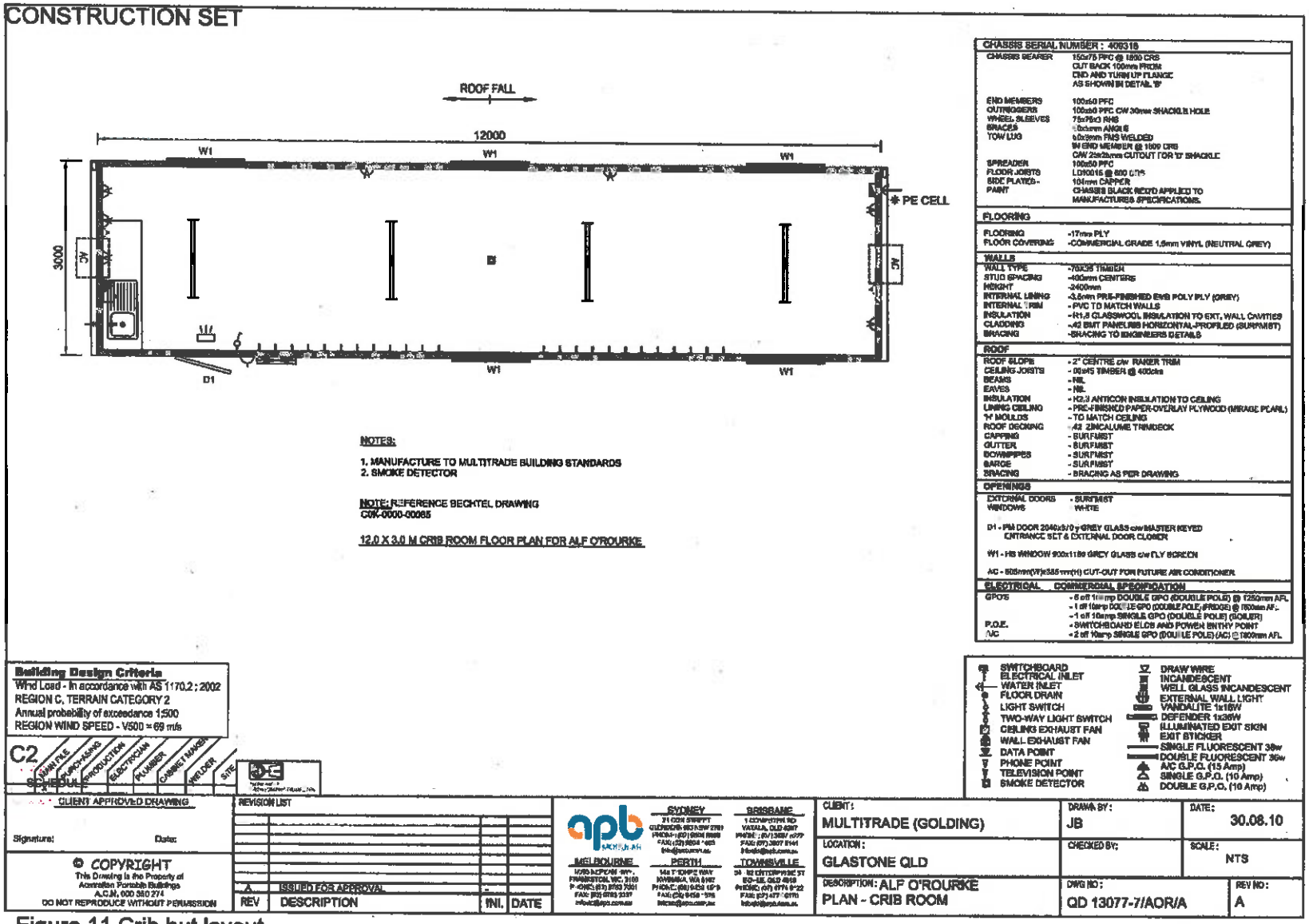
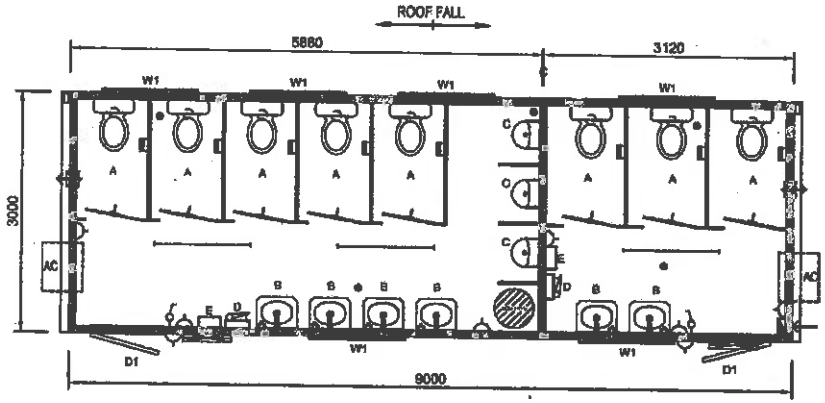


Figure 11 Crib hut layout

CONSTRUCTION SET



NOTES:

1. MANUFACTURE TO MULTITRADE BUILDING STANDARDS

NOTE: REFERENCE BECHTEL DRAWING C0K-0000-00003

9.0 X 3.0 M MALE & FEMALE TOILET FLOOR PLAN FOR ALF O'ROURKE

CHASSIS SERIAL NUMBER : 408342 408363	
CHASSIS BEARER	310UB32 @ 1800 CRS CUT BACK 100mm FROM END AND TURN UP FLANGE AS SHOWN IN DETAIL 'B'
END MEMBERS	100x50 PFC
OUTRIGGERS	150x50 PFC C/W 30mm SHACKLE HOLE
WHEEL SLEEVES	75x75x5 HHS
BRACES	50x5mm ANGLE
TOW LUG	50x8mm PNS WELDED W PNS MEMBER @ 1800 CRS C/W 20x25mm CUTOUT FOR 'D' SHACKLE
SPREADER	100x50 PFC
FLOOR JOISTS	LC10015 @ 600 CRS
ROOF PLATES	104mm CAPPER
PAINT	CHASSIS BLACK REOD APPLIED TO MANUFACTURERS SPECIFICATIONS.

FLOORING	
FLOORING	-17mm PLY
FLOOR COVERING	-R10 SLIP-RESISTANT COMMERCIAL GRADE VINYL TO WET AREAS (RHS BLUE)
COVING	- APPROX. 75mm IN WET AREAS (RHS BLUE)

WALLS	
WALL TYPE	-TIMBER FRAMED
STUD SPACING	-400mm CENTERS
HEIGHT	-2400mm
INTERNAL LINING	-3.5mm PRE-FINISHED EMB POLY PLY (GREY)
INTERNAL TRIM	- PVC TO MATCH WALLS
INSULATION	- R1.8 GLASSWOOL INSULATION TO EXT. WALL CAVITIES
CLADDING	-.42 BMT PANELRIB HORIZONTAL/PROFILED (SURFMIST)
BRACING	-BRACING TO ENGINEERS DETAILS

ROOF	
ROOF SLOPE	- 2° CENTRE c/w RAISER TRIM
CEILING JOISTS	- 90x45 TIMBER @ 450ctrs
BEARS	- NIL
EAVES	- NIL
INSULATION	- R2.5 ANTICON INSULATION TO CEILING
LINING CEILING	- PRE-FINISHED PAPER-OVERLAY PLYWOOD (MIRAGE PEARL)
'H' MOULDS	- TO MATCH CEILING
ROOF DECKING	-.42 ZINCALUME TRIMDECK
CAPPING	- SURFMIST
GUTTER	- SURFMIST
DOWNPIPES	- SURFMIST
BARGE	- SURFMIST
BRACING	- BRACING AS PER DRAWING

OPENINGS	
EXTERNAL DOORS	- SURFMIST
WINDOWS	- WHITE

D1 - FM DOOR 2,040x850 COLORBOND c/w ENTRANCE SET, MASTER KEYED EXTERNAL DOOR CLOSER & GRINGER SIGNS

W1 - FIXED WINDOW 840x1160 PERMANENT VENTED OBSCURED GLASS c/w WINDOW HOOD

A/C - 670mm (W) x 380mm (H) CUT OUT FOR FUTURE AIRCONDITIONER

ELECTRICAL COMMERCIAL SPECIFICATION	
GPO'S	- 4 off 10amp SINGLE GPO (DOUBLE POLE) @ 1250mm AFL
P.O.E.	- SWITCHBOARD ELCB AND POWER ENTRY POINT

Building Design Criteria
Wind Load - In accordance with AS 1170.2 : 2002
REGION C, TERRAIN CATEGORY 2
Annual probability of exceedence 1:500
REGION WIND SPEED - V500 = 69 m/s

C2

M I on file	PURCHASING	PRODUCTION	ELECTRICIAN	PLUMBER	CABINET MAKER	INC. DOOR	SITE
X	X	X	X	X	X	X	X

- SWITCHBOARD
- ELECTRICAL INLET
- WATER INLET
- FLOOR DRAIN
- LIGHT SWITCH
- TWO-WAY LIGHT SWITCH
- CEILING EXHAUST FAN
- WALL EXHAUST FAN
- DATA POINT
- PHONE POINT
- TELEVISION POINT
- SMOKE DETECTOR
- DRAW WIRE
- INCANDESCENT
- WELL GLASS INCANDESCENT
- EXTERNAL WALL LIGHT
- VANDALITE 1x18W
- DEFENDER 1x36W
- ILLUMINATED EXIT SIGN
- EXIT STICKER
- SINGLE FLUORESCENT 36w
- DOUBLE FLUORESCENT 36w
- A/C G.P.O. (15 Amp)
- SINGLE G.P.O. (10 Amp)
- DOUBLE G.P.O. (10 Amp)

CLIENT APPROVED DRAWING

Signature: Date:

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REVISION LIST

REV	DESCRIPTION	INI.	DATE
A	ISSUED FOR APPROVAL		

MELBOURNE
SYDNEY
PERTH
BRISBANE
TOWNSVILLE

CLIENT: MULTITRADE (GOLDING)	DRAWN BY: JB	DATE: 30.08.10
LOCATION: GLADSTONE QLD	CHECKED BY:	SCALE: NTS
DESCRIPTION: ALF O'ROURKE PLAN - WASHROOM	DWG NO: QD 13077-1/AOR/A	REV NO: A

Figure 12 Toilets

Appendix 3. Stormwater Management

1) Figure 12 Stormwater plan
2) Figure 13 Stormwater treatment devices
3) Figure 14 Stormwater treatment device details

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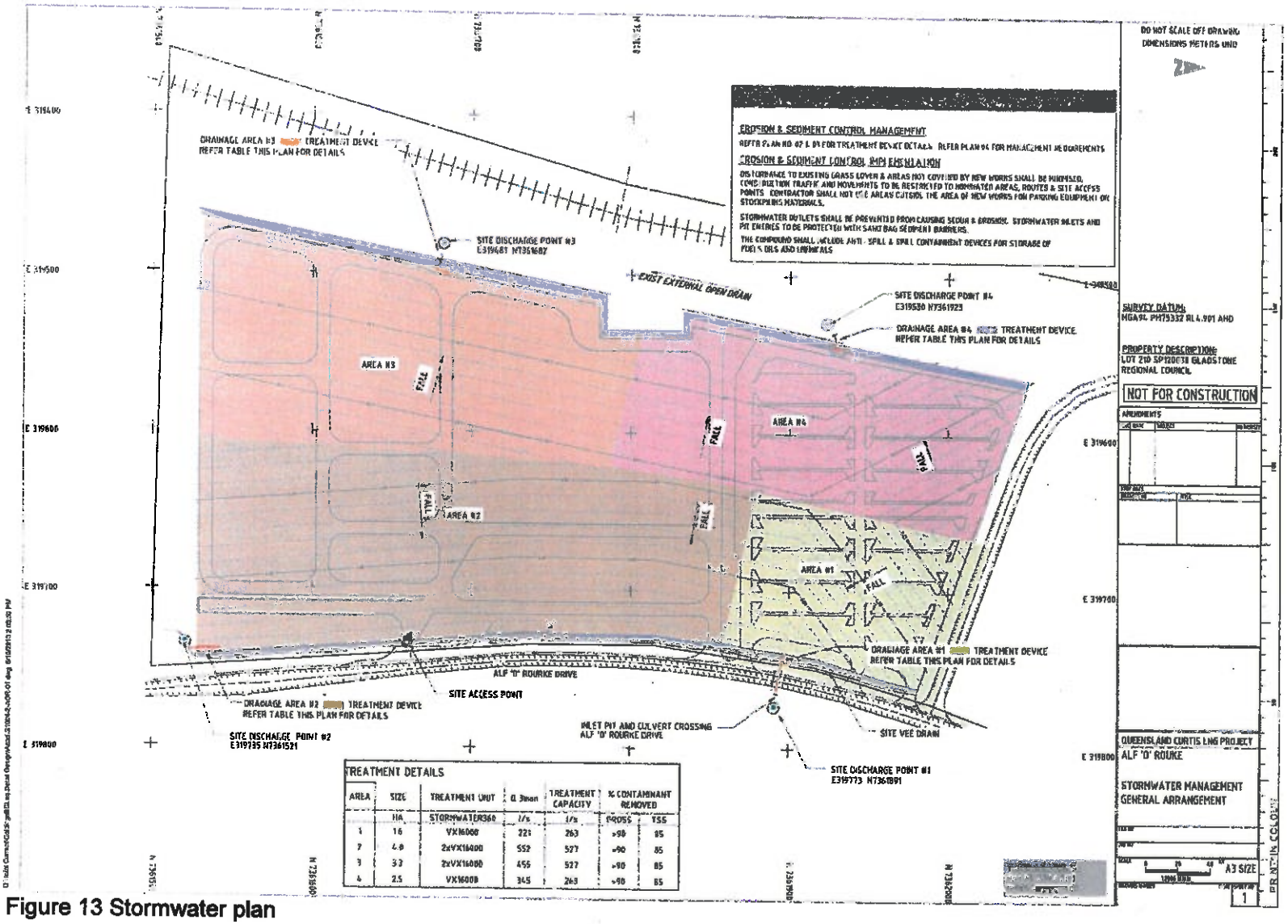

TREATMENT DETAILS

AREA	SIZE	TREATMENT UNIT	Q 3mon	TREATMENT CAPACITY	% CONTAMINANT REMOVED	
	HA	STORMWATER360	l/s	l/s	GROSS	TSS
1	1.6	VX16000	221	263	>98	85
2	4.0	2xVX16000	552	527	>90	85
3	3.3	2xVX16000	455	527	>90	85
4	2.5	VX16000	345	263	>98	85

Figure 13 Stormwater plan

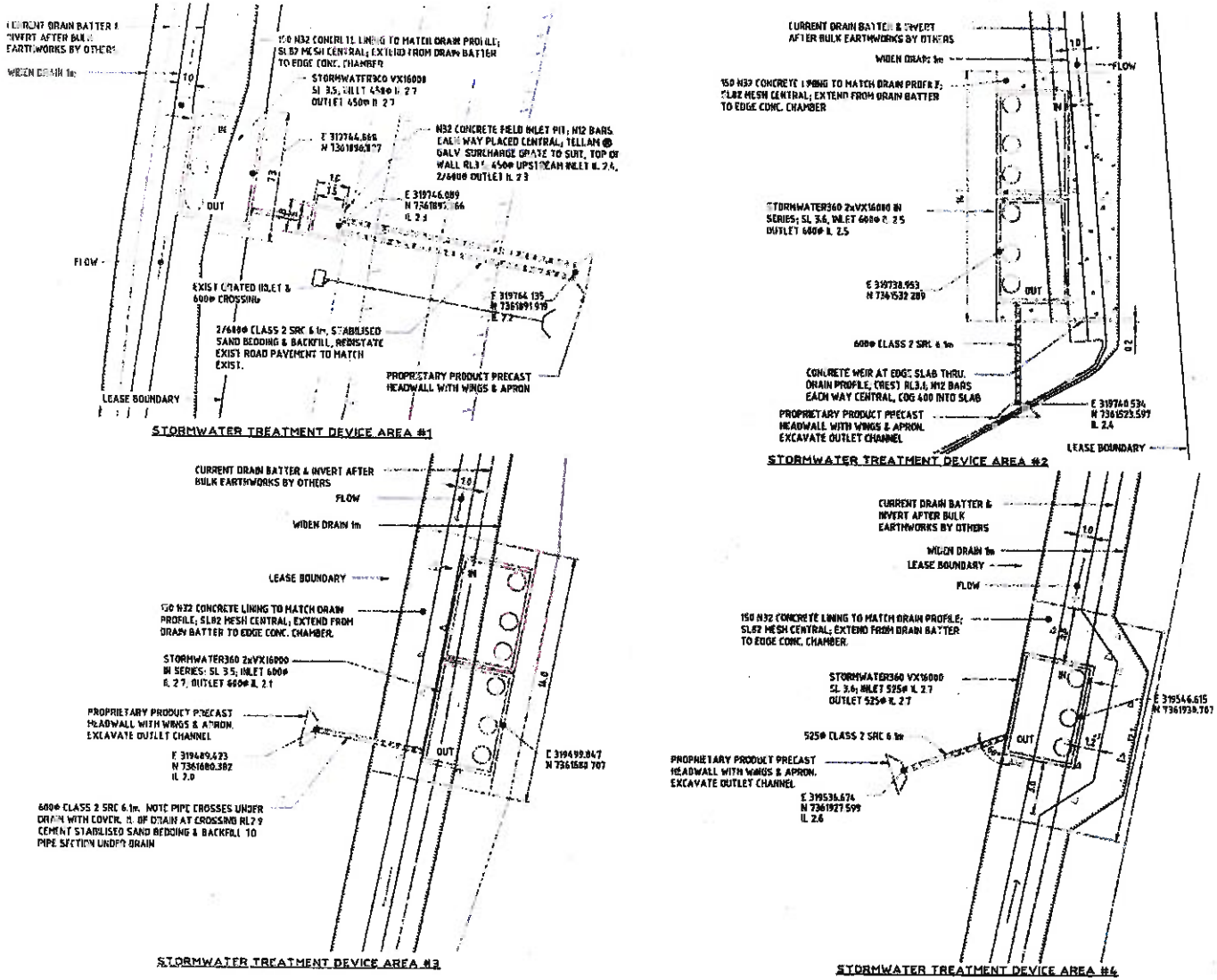

Figure 14 Stormwater treatment devices

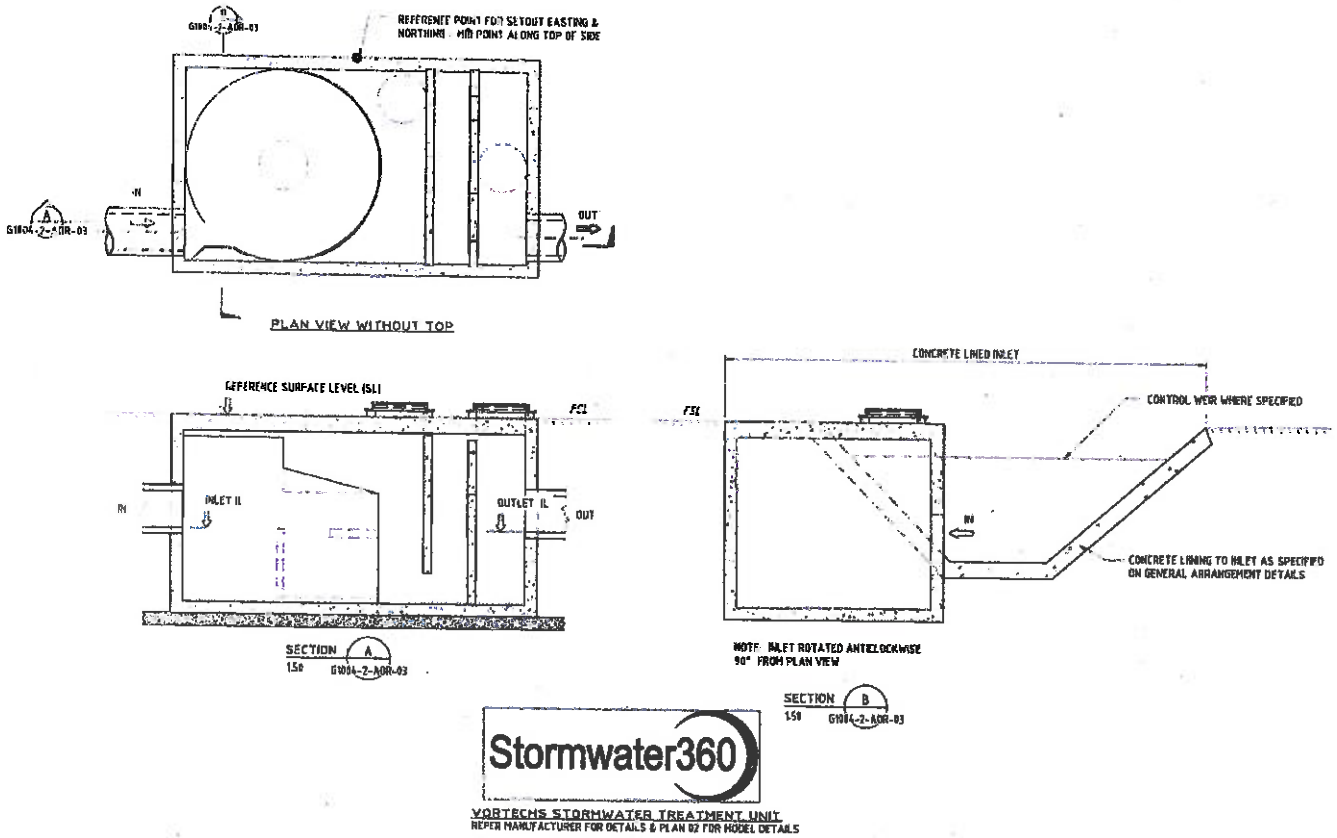

Figure 15 Stormwater treatment device details

Appendix 1. Environmental Inspection Checklist

Alf O'Rourke Vehicle and Cargo Consolidation Facility Environmental Inspection Checklist					
Item	**Compliant**	**Not Compliant**	**Not applicable**	**Action required**	**Comments or actions required**
General					
Is the site clean and free of rubbish and litter?					
Are work areas clean?					
Is the site free of weeds?					
Are there any signs of red imported fire ants?					
Is there any ponded water?					
Is equipment free of oil leaks?					
Is the ground free of contamination (oil stains)?					
Are the activities being undertaken at the site in accordance with the GPC approval?					
Is the site security fence effective?					
Have site induction forms been filled out and are new ones available?					
Is there a register of waste tracking certificates?					
Is there a register of and copies of movement certificates?					
Have there been any complaints about the site or the operation of the site relating to: noise; dust; odour; lighting; traffic; water quality; waste or other?					
Noise and vibration					
Are noise levels acceptable?					
Is the site being used after hours (after 6:30 pm and before 6:30am)?					
Are any noise generating equipment close to offices, work areas and crib rooms?					
Is all operating equipment fitted with effective mufflers or silences?					
Erosion and sediment control					
Are any erosion and sediment control devices effective and maintained?					

Are sediment traps free flowing?					
Do the gross pollutant traps have sufficient available capacity?					
Are swale drains free of rubbish and debris?					
Surface water quality					
Are there any visible sediment plumes in waters near the release points?					
Are there any visible oil sheens in and around the release points?					
Has monitoring of surface water quality been undertaken?					
Has there been any release of water not in accordance with the approval conditions?					
Waste					
Are there sufficient bins, skips and recycling bins on the site?					
Is there sufficient remaining capacity in the bins and skips?					
Is there any waste oil on the site?					
Material storage					
Are fuels, oils or degreasers stored on site?					
If any, are fuels, oils or degreasers stored within a bunded area that complies with AS1940?					
Are all chemical/fuel storage tanks less than $10m^3$ in capacity?					
Are there any hazardous or corrosive substances stored on the site?					
Is there a register of hazardous or corrosive substances stored on site?					
Are SDS available for any hazardous materials/chemicals that are stored on site?					
Are there any spill kits on site?					
Are there any emergency wash facilities on site and are they in working order?					
Air Quality					
Are there any visible signs of dust emissions from the site?					
Are there any visible emissions from vehicle and equipment?					
Is there any odour at the site?					
Other issues					

Inspection completed by:	**Name:**
	Signature
	Date:
Corrective actions logged in the appropriate register.	**Yes / No** **Comments:**
HSSE Manager:	**Name:**
	Signature:
	Date: