



Light Horse Business Centre ThaQuarry Pty Ltd & ACN 114 843 453

Construction Environment Management Plan

Stage 2(A): Early Construction Works

LOCATION

Lot 1 and Lot 4 DP 1145808 Architectural drawings A101/E and A103/A by Axis Architectural.

Reference: CEMP 011010

Complete Urban Pty Ltd Suite 3/10 Regent Street Chippendale NSW 2008

Version 2 October 2010



COMPLETE

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1 INTRODUCTION

In item 3 of the Statement of Commitments, which form part of the project approval (refer Condition 2b of Schedule 2), the proponents have committed to the following:

A Construction Environmental Management Plan (CEMP) and an Operational Environmental Management Plan (OEMP) will be developed and approved by the Director-General and will respectively:

- describe all activities to be undertaken on the site during construction
- describe the work program outlining relevant timeframes that must be met during construction and operation;
- detail statutory and other obligations that must be met during construction and operation, including all approval and agreements required from authorities and other stakeholders;
- describe the roles and responsibilities for all relevant personnel involved in construction and operation;
- detail the environmental management procedures, monitoring and reporting to be implemented during the construction and operation phases and timing and triggers for their implementation;
- detail what incident management procedures will be in place during construction and operation;
- detail procedures for community consultation and complaints handling during construction and operation; and
- be made available for public viewing after approval from the Director-General.

2 CONSTRUCTION SITE ENVIRONMENT MANAGEMENT PLAN (CEMP)

This Stage 2(A) Construction Environmental Management Plan (CEMP) is designed to be a self contained document which provide a works specific overview of the Environmental matters related to the Site Works at Light Horse Business Centre Eastern Creek NSW.

The key purpose of this CEMP is to provide the overall strategic framework for the environmental management for **Stage 2A** of the approved project (being Construction and Infrastructure works).

This Stage 2A CEMP:

- Identifies the relevant statutory approvals that apply to the project
- Describes the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project
- Describes how:
 - Environmental performance is monitored and managed
 - The local community and relevant agencies will be kept informed of relevant works and the environmental performance of the project
 - o Complaints will be received, handled, responded to and recorded
 - o Disputes will be resolved
 - o Non-compliance issues will be responded to
 - o Emergencies will be responded to
- Is supported by various strategies, plans and programs required by Development Consent MP 06 0239.



3 CONSTRUCTION PHASES IDENTIFIED IN THE ENVIRONMENTAL ASSESSMENT FOR THE PROJECT

As modified following discussion between the Proponent and DECCW and DoP, these are as follows:

Stage 1 - Pre-construction Bulk Earthworks (Site Preparation Works)

Stage 2(A) - Construction, Buildings, Roads, Pavements, Services and

Infrastructure

Stage 2(B) - Construction -Leachate collection, conveyance treatment and

Disposal System and construction of landfill liner.

Stage 3 - Commissioning

4 STATUTORY REQUIREMENTS AND PLANNING APPROVALS

The relevant planning approval in this matter is Development Consent MP 06_0139 dated 22 November 2009 and includes the Modification 06_0139 Mod 1 as approved on 30 September 2010.

This approval, inclusive of the condition in which this CEMP seeks to satisfy, is available to be viewed at http://www.dialadump.com.au/land/main/lhbc.shtml

Local Environmental Plan

Compliance with key legislation- Environmental Planning and Assessment Act & Protection of the Environment Operations Act.

Stage 1 Principal Contractor

Haines Bros Earthmoving & Drainage.

Stage 2(A) Principal Contractor

GMW Urban Pty Ltd



5 SITE MANAGEMENT- ROLES RESPONSIBILITY AND ACCOUNTABILITIES

Site Superintendent (Construction Works) is Martin Carey Global Projects Pty Ltd.

Construction Works Project Manager is Jason French GMW Urban Pty Ltd

Proponent's Site Project Manager (SPM) Andrew Steventon B.Build.

Proponent's Environmental Officer (EO) is Lucas Dobrolot

Accredited Works Certifier - Vic Lilli

Contact Details are:

Position	Name	Phone	Email	
Site Project Manager	Andrew Steventon	9519 9999	andrewsteventon@dadi.com.au	
Bulk Earthmoving Contractor	Mark Haines	0419 687 880	mark@hainesbros.com.au	
Builder GMW Urban Pty Ltd	Jason French	9212 0022	jason french@gmwurban.com.au	
Building Project Manager	Martin Carey	9714 5992	mcarey@globalprojects.nsw.com.au	
Managing Director	Ian Malouf	9519 9999	ianmalouf@dadi.com.au	
General Counsel	Christopher Biggs	9519 9999	chrisbiggs@dadi.com.au	
Accredited Certifier	Vic Lilli	9715 2555	vlilli@viclilli.com.au	



5.1 DIRECTORS AND EXECUTIVE MANAGEMENT

The Directors and executive management of Light Horse Business Centre and ThaQuarry Pty Ltd (being 'the Landowner') shall:

- Comply with the requirements of all applicable environmental laws, regulations, legislations, licences, development consents and adopt practices that reflect commitment to the protection of environment.
- Adhere to the principles of sustainable development and life cycle management.
- Avoid areas of environmental significance where possible and practical rehabilitate those areas disturbed by the company's activities on an ongoing basis.
- Implement measurable objectives and targets that will trigger the impact on environment from conduct of company's operations.
- Conduct regular audits of the operations and apply results of audits and reviews to continually improve processes and implement control and measures that will mitigate environmental threats.
- Achieve savings on usage of resources energy, fuel and minimise waste generation by utilising the principles of reduce, recover, recycle and reuse in all aspects of the business operations.
- Provide employees with training, induction, information, resources and responsibilities necessary to achieve environmental objectives and targets.
- Evaluate environmental technology and processes for best practices and continually improve on the Landowner's commitment to environmental management through a process of innovation, review and revision.

5.2 SITE PROJECT MANAGER

The Site Project Manager (SPM) or equivalent will be appointed to perform the role of the Environmental Representative for the site. The SPM will be responsible:

- To ensure projects are delivered in compliance with the supplier performance monitoring.
- To ensure that the required records/documents are signed off.
- To ensure that the works are carried out in accordance with the Environmental Management Strategy and Safe Work Plan.
- To ensure appropriate corrective action is taken when required.
- Where multiple Contractors are involved, to ensure the interface issues are identified and any necessary changes are made to the Safe Work Plans for the affected Sub-Contractors.



To (along with the Landowners) be directly involved with staff and contractor induction.

5.3 SUB-CONTRACTOR'S RESPONSIBLE MANAGER (FOREMAN)

This person is responsible for the preparation of the Sub-Contractor's work that is executed in accordance with this CEMP.

5.4 SUB-CONTRACTOR

The Sub-Contractor is the person/company engaged by the Landowner and managed by the Foreman to undertake the project works. The Sub-contractor will be responsible for carrying out their brief as established by the Landowner in order to meet the responsibilities of the Landowner and obligations pursuant to this CEMP.

5.5 STAGE 2A PRINCIPAL SUB-CONTRACTOR

GMW Urban Pty Ltd shall be responsible for the management and execution of all Site Preparatory works as per the scope of works contained in the contract documents.

Haines Bros Earthmoving & Drainage will be required before commencing work to sign acknowledging receipt and understanding of their obligations pursuant to this CEMP.

Daily visual checks will be made by the Site Manager or by on-site personnel delegated by him. Any non-conformances would be reported immediately to Senior Management.

5.6 PUBLIC / VISITORS

The public/visitors do not strictly have a role and responsibility however, due to site proximity or public actions and activities, may potentially be impacted by site works. For this reason, various community consultation measures are included within this CEMP allowing for public involvement.

5.7 COMMUNITY CONSULTATION MEASURES

In order to provide clear and transparent opportunities for consultation with the Community and other stakeholders, to provide the opportunity to receive feedback; and to refine or improve relevant environmental practices, various Community Consultation measures associated with this CEMP have been developed. These include:

- The establishment of the Minchinbury Resident's Committee (comprising of not less than 3 local residents) and the ongoing liaison with Committee (refer further details below)
- The establishment of a website with relevant information (refer further details below).
- The establishment of a complaints hotline (refer further details below).



 The establishment of other measures generally as outlined in the Landfill Environmental Management Plan (LEMP) and Environmental Waste Management Plan (EWMP).

5.8 MINCHINBURY RESIDENT'S COMMITTEE

One or more of the Resident's Committee will be invited to consult in relation to each complaint received and in relation to the relevant investigation and attenuation measures which are implemented as a result of that complaint. The purpose of this is to ensure the presence of and involvement by one or more impartial persons in the process so that verification is available, if required.

A six monthly review of work procedures and/or noise control procedures shall be undertaken in response to complaints or to issues raised by the Residents Committee.

5.9 ACCESS TO WEB-SITE INFORMATION

Information that will be publically available on the Landowner's website (http://www.dialadump.com.au/land/main/lhbc.shtml) includes:

- The complaints hotline number (9832 3333).
- A copy of all current statutory approvals.
- A copy of the current environmental management strategy and associated plans and programs.
- A summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval.
- A complaints register, which is to be updated on a monthly basis.
- A copy of any Annual Reviews (over the last 5 years).
- A copy of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit.
- · Any other matter required by the Director-General.

New developments, new (or refined) work practices, complaints or other issues raised by the Residents Committee will be notified to the broader Community by display on the Company website.

COMPLAINTS HOTLINE

The Complaints Hotline Number is 9832 3333

The number is accessible 24 Hours per day.



5.10 MONITORING & COMPLIANCE REPORTING

The various Community consultation measures identified above will ensure that:

- · Any complaints are logged and appropriately recorded.
- All relevant initial data is obtained in order to determine whether a prima facie case exists to support the view that the complaint relates to the site and that an exceedance has or may have occurred.
- The Site Project Manager will ensure that an effective complaint investigation is immediately carried out in order to determine the likely cause of the exceedance.
- If as a result of investigation an exceedance of site environmental parameters is found to exist then appropriate measures will be immediately implemented (if required) by the issue of Work Directions or changes to operational procedures depending upon the nature or extent of the measures taken.

5.11 RESPONSE/ DISPUTES AND MEDIATION

The Site Project Manager (SPM) (or his delegate) will respond to the complainant in each case outlining the measures taken (if any). The Complaints Register will contain all written records of the complaints logs together with all relevant work directions and correspondence and file notes.

In the event that the Complainant is dissatisfied with the actions taken by Site Management the SPM will convene a mediation meeting to which the Complainant, a Community Representative and an External Consultant with expertise in the area of the complaint will be invited for the purposes of exploring the issues and of mediation and reaching resolution with the Complainant.

The Complaint Records Form (and related correspondence) must be maintained for a minimum of 3 years after receipt.

Unresolved complaints may be referred to the NSW Department of Planning.

5.12 EMERGENCY MANAGEMENT PROCEDURE

Emergency Management Procedures are to be conducted as per instructions from the Site Project Manager or relevant authority, as appropriate. Any incidents are to be recorded on the Incident Management Register and forwarded to any relevant Contractor for inclusion in the OH&S Management Programme.

This document is to be progressed to the SPM for record and appropriate action and reporting. The responsible Manager is to isolate problem, contact emergency services (if required) and notify Work Safety Committee (WSC)/SPM.

Sydney Water	132 090	Integral Energy	131 008	Poison Information Centre	131 126
Ambulance	000	Telstra Cable Damage	132 203	Public Health Emergencies	9391 9000
Energy Australia	131 388	Gas	131 606	DECCW	131 555

The specific details of what has been approved as part of Stage 2(A) are included in the development consent, however for the purposes of establishing the context and detail contained within this CEMP (and the various strategies and plans that support it), the key details of Stage 2(A) are summarised in this CEMP.

5.13 BUILDERS ROLES AND RESPONSIBILITIES

During Stage 2(A) the Principal Contractor on site is GMW Urban Pty Ltd.

Ref: Reference is made to the Project Management Plan GMW Project No: GMW 1296 (incorporating the Project Quality Plan, the Project Occupational Health and Safety Plan and the Project Environmental Plan) prepared by Matthew Gapps on behalf of GMW Pty Ltd and submitted by the Proponent to the Department of Planning on 15th June 2010 together with Attachments 1-20.

5.14 SITE ENVIRONMENTAL RESPONSIBILITY

Site Operational Management of Environmental matters rests with the Principal Contractor during each phase of development works on site.

The Principal Contractor provides the following Stage 2A related Plans

Attachment 1	Project Site Plan
Attachment 2	Integrated Management System Manual
Attachment 3	Integrated Management System Tools
Attachment 5	Project Documents and Drawings
Attachment 6	Records Management Plan
Attachment 7	Project O H & S reference documents Head Contract
Attachment 8	Project Environmental reference Documents Head Contract

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Attachment 9	Project Organisation Structure
Attachment 10	Project Training Needs Analysis
Attachment 11	Site Specific Induction and Site Induction Pack
Attachment 12	Project Site Establishment Plan
Attachment 13	Project Program
Attachment 14	Project Site Risk Assessment
Attachment 15	Work methods Statement GMW Urban
Attachment 16	Site Specific Environmental Management Plan
Attachment 17	Project Traffic Management Plan
Attachment 18	Project Emergency Plan
Attachment 19	Project Meetings and General reporting Requirements
Attachment 20	Project Design Plan

Overall supervision of all Site Environmental matters rests with the Proponents during all phases of Development and including when the Site becomes operational.

The Proponents remain responsible throughout all stages of development for compliance with the Strategy and for ensuring the carrying out of all environmental monitoring as set out in the Strategy and the constituent Management Plans.



6 STAGE 1 - PRE-CONSTRUCTION SITE PREPARATION & BULK EARTHWORKS

Commenced : On or about 5 March 2010

Status : Continuing

Expected conclusion: 31ST October 2010

Bulk Earthworks at the Site are still currently underway in accordance with the outline indicated by the <u>Site Construction Environmental Management Plan for Stage 1 Early</u> Works [previously submitted to and accepted by the Department].

The purpose of those Stage 1 works has been to,

- (a) establish ground levels for a building pad principally for the MPC building (and other buildings within the Project),
- (b) to outline and prepare roads for paving and for drainage corridors and
- (c) generally to rearrange ground levels within the Project area.



7 PROJECT STAGE 2(A) – GENERAL BUILDING AND INFRASTRUCTURE CONSTRUCTION

Commencement date: Upon Approval by the Department of Planning of this CEMP.

Status : TBA

Expected conclusion: 28 weeks following commencement

STAGE 2 (A) WORKS DESCRIPTION

GMW Urban Pty Ltd will shortly take formal possession of the building area of the site and will initially commence final excavation and preparation of ground levels throughout preparatory to undertaking the following aspects of the main build of the project:

Haines Bros Pty Ltd will remain on site and continue carrying out bulk earthworks where required.

GMW Urban Pty Ltd upon receipt of approval to proceed by the Department of Planning has been contracted to undertake the following:

- Construction of the Materials Processing Centre (MPC)
- Construction of the Greenwaste area
- Construction of the Workshop and Canteen building
- Constriction and paving of access roads in and around the site
- Stormwater pipe and pit construction
- Potable water and electricity reticulation
- Streetlight installation
- General Landscaping and fencing

This will involve the following,

- (a) Site establishment including pedestrian and traffic control
- (b) Excavation to subgrade levels
- (c) Foundations and footings for the MPC and other buildings
- (d) Pavements and roadways
- (e) The creation of grades to facilitate the laying in of services and future stormwater drainage.
- (f) Installations of new conduits, power supply potable water supply and sewer lines
- (g) Installation of misting systems
- (h) Placement of tanks and drains and gross pollution traps
- (i) Installation of mechanical ventilation
- (j) Concrete walls and foundation construction
- (k) Concrete road pavement and building slab construction

7.1 PROJECT CONSTRUCTION CONTRACTOR

GMW Urban will undertake and be responsible for site management during this stage of works although the Proponent will also continue to maintain an onsite presence to ensure that all the requirements of its CEMP are met.

Reference is made to:

(1), Project Management Plan GMW Project No: GMW 1296 (incorporating the Project Quality Plan, the Project Occupational Health and Safety Plan and the Project Environmental Plan) prepared by Matthew Gapps on behalf of GMW Pty Ltd and submitted by the Proponent to the Department of Planning on 15th June 2010, together with Attachments 1-20.

7.2 CONSTRUCTION AND DESIGN DETAILS

These are as generally specified in the following:

- (i) set of Civil and Architectural Drawings and Plans entitled <u>Dial A Dump- Light Horse Business</u>
 Centre Bulk Earthworks Drwg 7328-001 to 7328-026 and
- (ii) updated elevations plans <u>7328-702 to 7328-707 by Complete Urban/GMW Urban Pty Ltd.</u>
 <u>Earlier Versions Submitted</u> under cover of letter dated 15th June 2010.

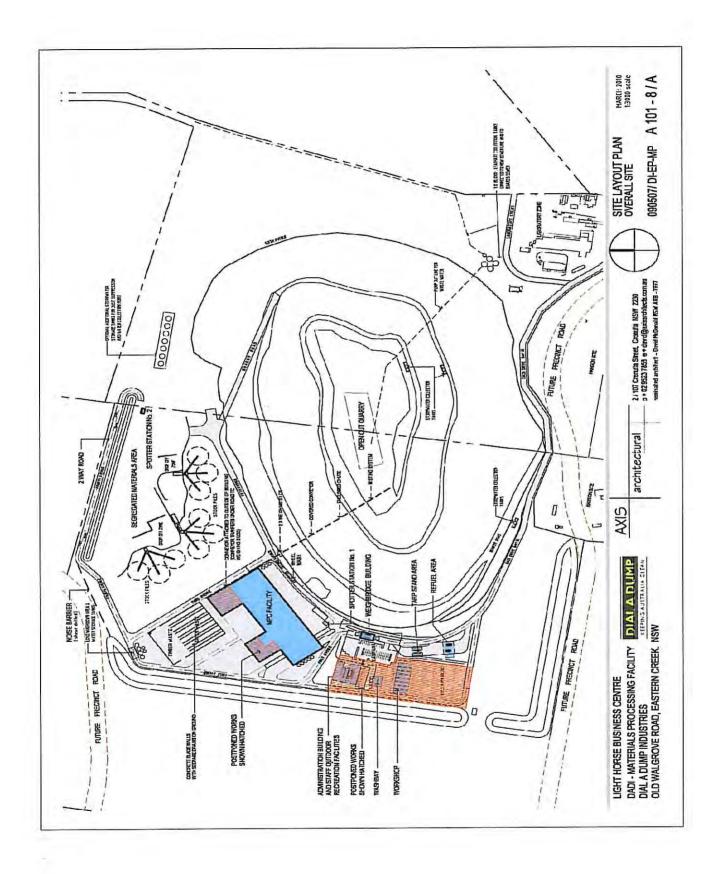
The Proponent seeks to rely on these Plans in concert with the plans earlier submitted Stage 1 Bulk Earthworks Construction Site Environmental Management Plan.

The general order of works to be undertaken is as follows:

(a) Site establishment including pedestrian and traffic control

This principally involves the introduction of temporary site offices and facilities to that area of the site shaded on the following plan together with appropriate controls for site access, OH&S induction and training as specified in the GMW Project Management Plan, the matters set out in the Stage 1 Construction Environment Management Plan and also this Stage 2(A) CEMP.

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- (b) Excavation to subgrade levels
- (c) The creation of grades to facilitate the laying in of services and future stormwater drainage
- (d) Foundations and footings preparations for the MPC green waste area and other buildings

 Refer: GMW Urban (Complete Urban) Dial A Dump Light Horse Business Centre- Bulk
 Earthworks DRG B7328-001 to B7328-035
- (e) Pavements and roadways preparation
- (f) Concrete Walls and foundation construction
- (g) Concrete road pavement and building slab construction structural steel building fabrication supply and erection
 - Refer: Jones Nicholson Consulting Engineers Drawings and Plans 090669 S101 to S119
- (h) Building cladding/roofing manufacture supply and installation
- (i) Building fit out
 - Refer: GMW Urban (Complete Urban) Dial A Dump Light Horse Business centre- Civil Works Drawings DRG 7328-001 to 7328-026
 - Refer: GMW Urban (Complete Urban) Architectural Elevations MPC Facility 7328-701-, Fuelling Building 7328-704 705 Workshop 7328-706 707
- (j) Installations of new conduits, power supply, potable water supply and sewer lines
- (k) Streetlight installation
- (I) Placement of tanks and drains and gross pollution traps

 Refer: Light Horse Business Centre Pavement Ste out and Drainage Plans Storm Consulting 27.10.09 Drawing No 0940-C10 Sheets 01 22 (included in Stage 1 Construction Environment Management Plan)
- (m) Installation of mechanical ventilation and Installation of misting systems
- (n) Landscaping and fencing

More detailed plans relating to Items (I) to (n) will be submitted shortly and may form part of Stage 2(B) works.



7.4 ENVIRONMENTAL MONITORING

Environmental Monitoring will take place in accordance with the Environmental MonitoringProgram (EMP) applicable to Stage 2A works (summary of which is in Table 1 below).

Annexed to this document and marked with the letters shown are the following reference plans:

Annexure "A" - Piezometer location plan

Annexure "B" - Onsite Detention Basin location plan

Annexure "C" - Dust & Noise Monitoring Device location plan

Annexure "D" - Conservation Management plan Monitoring points.

7.5 SITE CONSTRAINTS AND ENVIRONMENTAL MATTERS DURING STAGE 2 (A) WORKS

Site environmental matters identified in connection with Stage 1 early bulk earthworks continue to be relevant for Stage 2(A) works and these are shown summarised in Table 1.



8 SOIL, WATER AND LEACHATE MANAGEMENT STAGE 2A DRAINAGE, EROSION AND SEDIMENT CONTROL

The early stage bulk earthworks are so as to ensure that surface water flows will occur in the directions principally outlined in the <u>Surface Water Management Plan</u> by Storm Consulting which formed part of the EAR.

This was supplemented by the <u>Light Horse Business Centre Pavement Set Out and Drainage</u>
<u>Plans</u> also by Storm Consulting and previously submitted to the Department.

A detention basin for sediment control has been constructed in the northern part of the site as described in the Stage 1 CEMP.

On site detention basins OSD1 and OSD2 as described in the <u>Surface Water Management Plan</u> by Storm Consulting are currently under construction and will be completed before the completion of early works bulk excavations which have the effect of altering the direction of storm water flows.

Principally the material excavated from the overburden stockpiles in order to form the future building area is wholly located in the area designated for the construction of the MPC building (ie between the western berm and the western Quarry edge).

Excavated material has been relocated to those areas shown on the <u>Eastern Creek</u>

<u>Business Park Bulk Earthworks Plan</u> by Hyder Consulting Pty Ltd and is being placed and compacted under the supervision of a Class1 Geotechnical Advisor.

8.1 STAGE 2A CRITERIA

The relevant criteria are set out in conditions 21-25 and 27-28 of Development Consent MP 06_0239 dated 22 November 2009 and the relevant provisions of the Protection of the Environment and Operations Act.

8.2 MANAGEMENT AND MITIGATION MEASURES

- Stage 2A Construction works are only to be commenced upon the successful establishment of erosion and sediment controls and On-site Detention Basins (OSDs) as set out and described in the Storm Pavement Design and Set Out Report.
- Surface Water drainage Flow Paths are shown on the Blacktown Council diagram indicating pre-development flows. Surface Water drainage paths, OSDs are to be constructed as outlined in this CEMP consistent with the diagram.

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- The ground levels achieved by cut and fill operations within Precincts A, B, C, D, E, F, G, H and I are shown in detail in the Light Horse Business Centre Pavement Set out and Drainage plans (available to be viewed at http://www.dialadump.com.au/land/main/lhbc.shtml).
- Fill operations have taken place outside of the Project area to redistribute the
 material excavated from other parts of the site in order to achieve overland water
 flows consistent with pre-development flows and OSDs. The Report entitled <u>Eastern
 Creek Business Park Bulk Earthworks</u> Drawings DA001-DA002-DA003-DA004-DA005DA006 -DA016- DAA017 DA021 Hyder Consulting Pty Ltd identifies the location and
 quantity of fill materials on site. Volumes of cut and fill by precinct are shown in this
 Report (available to be viewed at http://www.dialadump.com.au/land/main/lhbc.shtml).

The Contractors shall:

- Undertake regular waste clearing and wetting down of exposed construction areas to limit sediment erosion and waste contamination of construction areas. Construction areas include but are not limited to embankment and excavation areas, stockpile areas, site facility and storage areas and temporary work areas.
- Rehabilitate or revegetate construction areas on completion or where prompt revegetation cannot be completed, implement erosion control measures including siltation fencing until revegetation is completed.
- Install silt fences and hay bales where required downstream of disturbed areas, base of
 embankments, existing drainage lines, earthworks stockpiles otherwise implement
 measures in accordance with best practice generally as described in the Light Horse
 Business Centre Pavement Set out and Drainage Plans and the Eastern Creek Business
 Park Bulk Earthworks Report.
- Limit flow velocities in drainage system by implementing sediment and waste collection barriers in order to minimise possible scouring and to encourage precipitation of particulates in run off.
- Maintain vegetation in and adjacent to drainage lines.
- Remove silt build-up following large storm events.
- Provide an access track where practicable, along the toe of embankments to allow access for maintenance.
- Protect ongoing earthworks by temporary berms and drains to prevent the scouring of unconsolidated earthworks. Typically, diversion drains are constructed at the end of each day.
- Prior to major surface disturbance install drainage structures for waterways, catch
 drains which intercept flow, and sediment traps and basins to allow existing water
 flows to pass through the disturbed areas without mixing with unfiltered run-off from
 the disturbed areas.



- Construct graded contour drains or diversion channels around disturbed areas to ensure that all stormwater is directed away from disturbed areas.
- Keep sedimentation basin in a drawn-down state by preferential use of the water by tankers for dust suppression.
- Collect water generated from concrete batching plants in sedimentation basins and recycle for dust suppression.
- Wash out concrete delivery vehicles and wash down plant item a minimum of 20m from stormwater drainage system and natural water courses.
- Fuel and service all plant / equipment on a safe area away from any water course.

The small amount of 'inert' and general waste generated at the facility by employees, agents, invitees or contractors (not as part of the waste receival for the site) will be stored temporarily and disposed of off-site as necessary.

8.3 MONITORING AND COMPLIANCE REPORTING

Responsibility - The Proponents

- The surface water monitoring program must be able to demonstrate that surface water is not polluted by the Site.
- Surface Water Monitoring points will be established at each of the OSD discharge points.
- Water at these locations will be monitored quarterly by an Independent appropriately qualified expert to test compliance with Blacktown City Council's Stormwater Quality Control Policy (2005) and the Pollutant Retention Criteria.
- Riparian vegetation and aquatic habitat (where relevant) will be monitored weekly to Protect and maintain these areas (i.e. no demonstrated adverse impact on) natural drainage features.
- The Site Project Manager will be responsible for the following:
 - The maintenance of the proposed stormwater controls including regular visual inspection of the stormwater treatment measures on a monthly basis and after major rain events.
 - O Will ensure an OSD Basin cleaning program more frequently during earthworks and until revegetation takes place, and then based on results of regular visual inspections. Cleaning generally to consist of sediment and weed removal from the OSD basin and its associated sediment control/stilling basins.
 - Conduct regular inspections of all water management safeguards and complete checklist.



- o Monitor and test water quality, as required.
- The quality of any water released (if any) should be in accordance with any site Environment Protection Licence.
- Otherwise, the water quality criteria in the following Table are based on ANZECC (2000) criteria.

Stormwater Quality Criteria for Discharge

Analyte	Unit	Proposed Criterion	
рН	pH Units	6.5 to 8.52	
Dissolved Oxygen	% Saturation	80-110%2	
Ammonia	mg/L	0.91	
Oil & Grease	mg/L	103	
Suspended Solids	mg/L	503	
Total Organic Carbon	mg/L	103	
Lead	mg/L	0.00341	
Phenol	mg/L	0.321	

Notes: 1: ANZECC (2000) Default Trigger Values, Toxicants;

2: ANZECC (2000) Criteria for Environmental Stressors;

3: Typical DEC discharge water quality criteria applied for industrial and/or landfill sites in Sydney.

- In respect to Sediment and Soil Erosion, the Site Project Manager will be responsible for the following:
 - o Inspection of silt fences regularly to confirm that they are not partially buried and still in good condition.
 - Conduct a detailed inspection after any significant rain event to check status of safeguards and confirm that siltation barriers are functional and that the sedimentation basins are working effectively and are not compromised.

8.4 CONTINGENCY MEASURES

- If the surface water monitoring program detects water pollution, the Site Project Manager will investigate surface water pollution and institute additional sediment control measures as outlined in the management and mitigation measures above.
- As a result of regular inspections of the site by the Site Project Manager, and immediately following major rain events, a 'site knowledge' will be established in respect to the potential for particular water quality impacts, including the likely location of control measures failing, This knowledge will allow a proactive approach to maintenance and implementation of additional measures before impacts are likely to occur- hence reducing impacts on water quality.
- Spare Hay bales will be kept on site for immediate use.
- In the event of unexpectedly large overland water flows the Site Project Manager shall take steps to implement additional sediment protection barriers and ensure water flows so far as practicable are diverted to grassed overland areas where siltation cannot enter into streams or watercourses.
- The SPM shall monitor the site daily and report weekly to the Landowner on the following:
 - o The impacts and environmental performance of the Earthworks and Construction Activities.
 - Effectiveness of the management measures in relation to Soil erosion and sediment Control.
 - Any recommendations of ways to improve the environmental performance of the works over time.

9 NOISE MANAGEMENT

9.1 CRITERIA

The relevant criteria is set out in condition 38 of Development Consent MP 06_0239 dated 22 November 2009.

9.2 MANAGEMENT AND MITIGATION MEASURES

Results from attended Monitoring carried out during Stage 1 Bulk Earthworks have been compiled and assessed and reported upon to the Department of Planning. No breach of the Noise limits set out in the Consent Conditions has been detected and No complaints received.

During Stage 2A works the Landowner will continue to rely upon feedback through the Community Consultation measures established in this CEMP.

This includes establishing and maintaining contact and liaison with a Resident Committee comprising a minimum of 3 householders in sensitive receiver areas and acting upon reports provided to the Site Project Manager.

Compliance with the hours of operation identified within Condition 39 of the consent (refer below) and conducting site preparation works in the manner set out in accordance with the approved documentation provides the ability to meet the required noise criteria and reduce the scope for Community complaints.

HOURS OF OPERATION

- Monday Friday 7.00am to 6.00pm
- Saturday 8.00am to 4.00pm
- No construction on Sundays or public holidays.

9.3 MONITORING AND COMPLIANCE REPORTING

Responsibility - The Proponents

- he Landowner has commenced a Noise monitoring program which commenced and was carried out during Stage 1 works in line with DECCW procedures.
- This was carried out by an appropriately qualified Environmental Consultant, PAE Holmes.
- Unattended Loggers have been established to the north of the site.

- The complaints handing procedure will ensure that any complaints regarding noise are logged and appropriately recorded and all relevant initial data is obtained in order to determine whether prima facie case exists to support the view that the complaint relates to the site and that an exceedance has or may have occurred.
- Complaints will be handled in the manner set out in this CEMP.

9.4 CONTINGENCY MEASURES

- Noise Management measures will be implemented immediately (if required) by the issue of work directions or changes to operational procedures depending upon the nature or extent of the measures taken.
- Non-compliance with the noise goals set out in Table 4 of Condition 38 of the Consent will be reported promptly and corrective action taken to mitigate any impacts.
- All on-site, fixed and mobile diesel powered plant equipment, excluding road vehicles, are to be correctly fitted and maintained in accordance with the manufacturer's specifications. Particular attention is to be given to engine exhaust system and the care and maintenance of mufflers.
- If fixed machinery is identified as being a source that exceeds noise trigger values the use of the machinery will cease until noise attenuation measures are implemented.
- If the noise source is a point source such as an engine or motor then the engine or motor will be housed in a suitably noise insulated cowling hood or structure.
- If the noise source is reversing beepers or alarms on moveable plant or trucks then for those vehicles and plant on site then measures will be taken to adjust the tone and where appropriate reduce the volume of those appropriately so as to remove the potential for noise disturbance.
- Temporary cessation of work until wind conditions are favourable.
- A six monthly review of work procedures and/or noise control procedures shall be undertaken in response to complaints or to issues raised by the Residents Committee.
- In the event of complaints of noise impacts, the Site Project Manager shall implement the measures above and institute the complaints and mediation process outlined in Section 4.
- The SPM shall monitor the site daily and report weekly to the Landowner on the following:
 - o The impacts and environmental performance of the Construction works.
 - o Effectiveness of the management measures in relation to Noise Management.
 - Any recommendations of ways to improve the environmental performance of the works over time.

10 DUST AND AIR QUALITY MANAGEMENT

10.1 CRITERIA

The relevant criteria is set out in condition 37 of Development Consent MP 06_0239 dated 22 November 2009.

Trigger Levels for Activity Control

There are two PM10 concentration trigger levels required for the site, as follows:

- Trigger Level 1 elevated 1-hour average PM10 concentrations indicate that additional dust control measures are required; and
- Trigger Level 2 sustained elevated 1-hour and 24-hour average PM10 concentrations indicate that site activities should cease.

Trigger values are presented for two averaging periods and explained as follows.

- Trigger Level 1: Remedial action is required under Trigger Level 1 when peak 1-hour concentrations are above 100 μ g/m3 for three (3) consecutive hours and the wind is blowing from the site to the monitoring location.
- Trigger Level 2: Under extreme cases, works would need to cease.
- This applies when the rolling 24-hour concentration is above 50 μg/m3 for 24 consecutive hours and the peak 1-hour concentrations above 100 μg/m3 are also sustained. The additional conditions for when this applies that the wind is blowing from the site to the monitoring location and that the elevated PM10 concentrations are not caused by an external regional pollution event such as a bushfire or dust storm. This is tested by examining the 24-hour PM10 concentrations at the DECCW's monitoring sites at Prospect and St Marys.

10.2 MANAGEMENT AND MITIGATION MEASURES

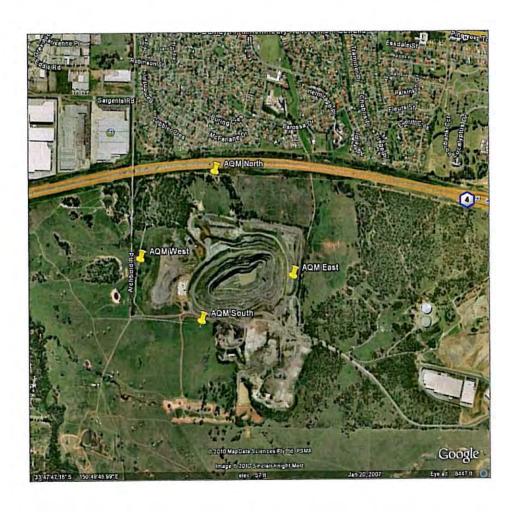
The additional dust control measures to be implemented under Trigger 1 will depend on the activities occurring on-site at the time but may involve:

- Increasing the frequency of watering for exposed areas and stockpiles (if any).
- Increasing the frequency of watering on paved and unpaved roads.
- Modifying site activities such as ceasing any excavations or earthworks..

Specific and regular tasks undertaken by the Site Project Manager will also seek to address the relevant criteria relating to dust and air quality. These are outlined in the 'Contingency Measures' below.

10.3 MONITORING AND COMPLIANCE REPORTING

- A meteorological monitoring station has been established with sensors to measure wind speed and wind direction.
- The real- time dust monitoring has been conducted in accordance with the NSW DECCW "Approved methods for the sampling and analysis of air pollutants in NSW" (DECC 2005a).
- Real time PM10 monitoring to assess the potential for off-site air quality impacts commenced in May/ June and was operated for a representative period during Bulk earthworks.
- Dust deposition monitoring at four locations around the site as shown on the plan below, or as specified by DECCW.
- No exceedance has been demonstrated during Stage 1 works Monitoring of Dust Deposition Rates will continue during Stage 2A works.
- Monitoring of dust deposition rates will continue during Stage 2A works.



10.4 CONTINGENCY MEASURES

Specific responsibilities of the Site Project Manager that seek to address any unpredicted impacts and to improve the environmental performance in terms of dust/air quality issues include:

- Logging of weather conditions on a daily basis, including wind speed and direction and also by reference to the nearest BOM monitoring site.
- Direct the use of a water tanker to suppress dust on site during bulk earthworks and construction periods, and at other times (as necessary) on public roads where these have been disturbed during construction works.
- Implementation of the following measures:
 - Restrict concrete dust generation by the use of water sprays.
 - Remove mud from wheels and bodies of haulage equipment before they enter public roads and ensure loads are fully covered.
 - Remove mud spilt on public roads by construction equipment.
 - Service and maintain all plant and equipment powered by internal combustion engines to ensure exhaust emissions comply with regulations.
 - Visually monitor and record dust emissions to ensure emission comply with regulatory requirements.
 - o Define of trafficked areas.
 - o Impose of site vehicle speed limits.
 - Stabilise exposed areas as quickly as possible.
 - Install perimeter dust fences around the main area of operations to provide a barrier for dust emissions.
 - o Immediately clean spills of potentially dusty materials.
- In the event there is an exceedance of the trigger values at sensitive receivers then
 the control measures outlined in this section must be enhanced with greater use of
 water on site for dust suppression. If enhanced measures are unsuccessful, then all on
 site earthmoving and dust generating works outside of the perimeter berms works
 must cease until there is a variation in climatic conditions.

COMPLETE

- The Site Project Manager shall monitor the site daily and report weekly to the Landowner on the following:
 - O The impacts and environmental performance of the Earthworks and Construction Activities.
 - o Effectiveness of the management measures in relation to Stage 2A works.
 - o Any recommendations of ways to improve the environmental performance of the works over time.

11 VEGETATION MANAGEMENT

11.1 CRITERIA

Condition 14 of Development Consent MP 06_0239 dated 22 November 2009 provides relevant criteria in respect to Pest, Vermin, Feral Animals and Noxious Weed Management.

Condition 58 of Development Consent MP 06_0239 dated 22 November 2009 provides relevant criteria in respect to the protection of the various Conservation Areas in the Precinct Plan identified and mapped in the EA.

Condition 59 of Development Consent MP 06_0239 dated 22 November 2009 provides relevant criteria in respect to creek rehabilitation and reinstatement work within Lot 3 DP 1145808.

Condition 60 of Development Consent MP 06_0239 dated 22 November 2009 provides relevant criteria in respect to Landscape and Vegetation Management.

A Vegetation Management Plan (VMP) has been prepared by Abel Ecology and can be viewed at http://www.dialadump.com.au/land/main/lhbc.shtml. This VMP sets out aims and objectives as well as specific targets that are sought to be achieved.

11.2 MANAGEMENT AND MITIGATION MEASURES

Responsibility - The Proponents

- Weed Control and Vegetation Management will be carried out in accordance with the Schedule of works in the Vegetation Management Plan (VMP) with immediate commencement.
- Controlled access to be provided to the Conservation Area. The Conservation Area is shown in blue on Figures 13 and 14 below.
- That existing fencing is to be maintained on the western and northern boundaries and dry stone walls (with Security gates at intervals to be constructed along the southern and eastern boundaries to prevent vehicular access while allowing native animal access).
- Existing unmade roads in the Conservation Area are to be left untouched as fire and access trails.
- Cyclone mesh chainlink fencing with dust screen to 2 metres high has been installed to the southern boundary of the Conservation Area. Locked gates have been installed at the southern perimeter of the Conservation Area to prevent public access.
- Trail bike tracks are to be closed, covered with loose earth and leaf litter.
- Riparian habitat at the south of the site is to be maintained in accordance with the Riparian Management Plan prepared by Site Image and previously lodged with an approved by DECCW.



- A specific work direction be issued by the Site Project Manager to all relevant Sub-Contractors (including relevant plans) prescribing that NO ACCESS be permitted at any time to the Conservation Area, except for those activities specifically permitted and supervised by the SPM.
- Work practices implemented in respect to the Conservation Area include:
 - Vegetation outside of the designated Conservation Area may be removed for the purposes of cut and fill bulk earthworks and compaction thereof and the establishment of OSDs as permitted in the CEMP.
 - O No Vegetation or Trees are to be damaged or removed from the Conservation Area except for the removal of African Boxthorn and other Noxious weeds identified in the VMP or the Noxious weeds Act NSW as specifically permitted and supervised by the Site Project Manager.

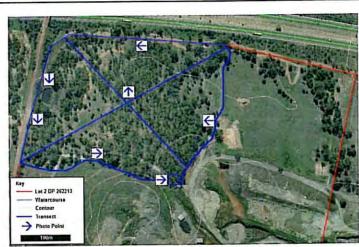


Figure 13. Conservation Area - Monitoring Points

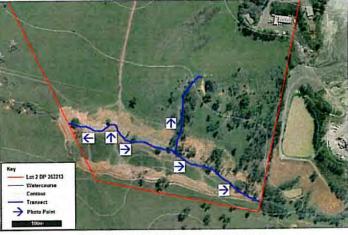


Figure 14. Riparian Habitat - Monitoring Points

Weed control techniques - weed control is to be carried out in a manner that minimises negative environmental impacts. Different techniques are required in varying situations, especially along watercourses, which are very sensitive to pollution impacts. See Appendix 4 General Guidelines for Weed Control.

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11.3 MONITORING AND COMPLIANCE REPORTING

- The Site Project Manager shall monitor the site daily and ensuring all Conservation Areas are secured provide a weekly report to the Landowner.
- Weed Monitoring and reporting is to be carried out in accordance with the VMP in the areas and at the points specified using the forms and checklists in "Guidelines for Monitoring a Bushcare Project"
- Monitoring shall take place at the places shown by the arrow markings on the Figures
 13 and 14 below and within the VMP.

11.4 CONTINGENCY MEASURES

- In the event that the perimeter of the Conservation Area is breached then the Site Project Manager will take immediate steps to reprimand the contractor and to require the contractor to make good so far as may be feasible any damage caused.
- The Site Project Manager shall monitor the site daily and provide a weekly report to the Landowner on the following:
 - o The impacts and environmental performance of the Cut and Fill Bulk Earthworks.
 - Effectiveness of the management measures in relation to cut and fill works and compaction.
 - Any breaches in work directions or relevant activities (and performance) conducted within the Conservation Area.
 - Any recommendations of ways to improve the environmental performance of the works over time.
- The VMP prepared by Abel Ecology is to be reviewed within 5 years from November 2009.

12 FAUNA PROTECTION

12.1 CRITERIA

The relevant criteria is set out in condition 59 of Development Consent MP 06_0239 dated 22 November 2009.

12.2 MANAGEMENT AND MITIGATION MEASURES

- Controlled access to be provided to the Conservation Area.
- A specific work direction be issued by the Site Project Manager to all relevant Sub-Contractors (including relevant plans) prescribing that NO ACCESS be permitted at any time to the Conservation Area, except for those activities specifically permitted and supervised by the SPM.
- The Site Project Manager will be responsible for the vacation of the site of the few goats and domestic sheep currently located on the site. It is expected the few eastern grey kangaroos observed on the site will vacate the construction area upon commencement of works.

12.3 MONITORING AND COMPLIANCE REPORTING

• The Conservation Area will be inspected on a daily basis during bulk earthwork and construction works to ensure that security of each area is maintained and that habitats are left undisturbed and provide a weekly report to the Landowner.

12.4 CONTINGENCY MEASURES

- The likelihood of encountering endangered species on the works site is LOW as this is disturbed quarry land.
- Movement of personnel, plant and machinery will be sufficient to cause animals to move on. Nevertheless, caution should always be exercised and will be encouraged by the Site Project Manager with all relevant site contractors.



13 ABORIGINAL HERITAGE

13.1 CRITERIA

The relevant criteria is set out in conditions 61 and 62 of Development Consent MP 06 0239 dated 22 November 2009.

13.2 MANAGEMENT AND MITIGATION MEASURES

Jo McDonald Cultural Heritage Management Pty Ltd has prepared an Aboriginal Heritage Management Plan in consultation with DECCW.

In the event that previously unrecorded relics (non-Indigenous heritage itCEMP) are encountered during bulk earthworks or construction, works will cease immediately at that location and the NSW Heritage Office will be notified and advice sought as to the appropriate course of action.

The relevant areas of sensitivity are as follows (refer Figure 5 below):

- Zone 3 is the Pit and the MPC Development area- highly disturbed with no aboriginal heritage concerns.
- Zone 2 is the area where Cut and fill operations are to take place where no further archaeological investigation are warranted (McDonald AHMP Nov 2009).
- Zone 1 represents the Conservation Areas shown on the Plan are of 'high sensitivity'.
 They must not be entered.

In respect to Zone 1, the following measures are proposed:

- The area is to be clearly identified on maps and plans and also on site by boundary flags, tapes or other markers.
- Induction of all contractors, workers and employees on site as to their legal responsibilities as to site damage and or destruction.
- Arrange a briefing by a qualified archaeologist or suitably experienced aboriginal person regarding the nature of aboriginal heritage material which may be uncovered.
- Briefing all contractors on legal requirements regarding uncovered skeletal material.

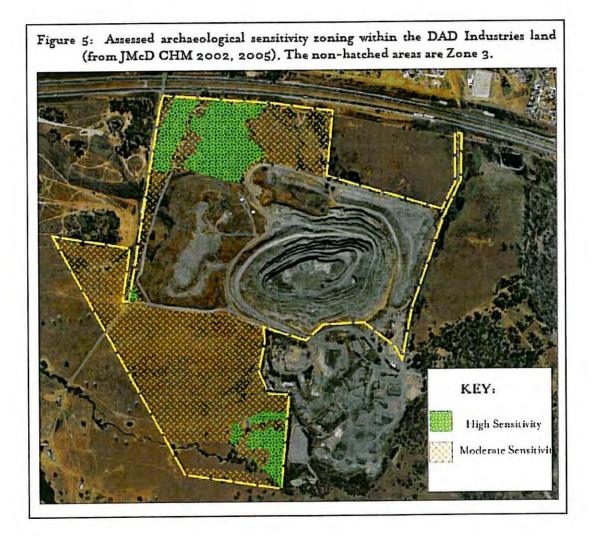
COMPLETE

In the event that during Stage 2A works any item or relic of aboriginal cultural significance or any human remains are uncovered all work in the area is to cease. The area will then be fenced and flagged to prevent further access until the matter has been appropriately assessed.

The NSW Heritage Office will be informed as will the Archaeologist and all relevant Aboriginal Liaison Group representatives.

Any management decisions in relation to the areas of high sensitivity are to be carried out in consultation with the Local Aboriginal Community.

As part of the project induction process a specific work direction be issued by the Site Project Manager to all relevant Sub-Contractors (including relevant plans) prescribing that NO ACCESS be permitted at any time to the areas of high sensitivity, except for those activities specifically permitted and supervised by the SPM.



13.3 MONITORING AND COMPLIANCE REPORTING

• The Site Project Manager shall monitor the site daily ensuring all areas of high sensitivity are secured and provide a weekly report to the Landowner.

13.4 CONTINGENCY MEASURES

- In the event that the perimeter of the High Sensitivity Area is breached then the Site Project Manager will take immediate steps to reprimand the contractor.
- The SPM shall monitor the site daily and provide a weekly report to the Landowner on the following,
 - o any breaches in work directions or relevant activities (and performance) conducted within the areas of high sensitivity
 - o any recommendations of ways to improve the environmental performance of the works over time.

Any contingency measures developed by the landowner would be done in consultation with the Local Aboriginal Community.

14 BUSHFIRE HAZARD ASSESSMENT

14.1 CRITERIA

The relevant criteria is set out in condition 16 of Development Consent MP 06_0239 dated 22 November 2009.

14.2 MANAGEMENT AND MITIGATION MEASURES

The risk of bushfire occurring on premises during the Site Preparation works is considered to be LOW due to the absence of combustible materials.

There is a small risk of bushfire occurring in the Conservation Area located at the Northwestern Corner of the site.

There is a small risk of fire in or around earthmoving plant and machines or other vehicles especially when they are being refuelled.

Considering these issues, the following is proposed:

- Except as detailed in this CEMP, access to or works within the Conservation Area are PROHIBITED.
- All plant must be refuelled in an open area away from drainage lines sediment controls
 or OSDs and not within 100 metres of any trees or grassed areas. Appropriate refuelling points will be established by the Site Project Manger.



 During refuelling care must be taken to avoid spills. The Site Project Manager will advise all contractors to take the necessary precautions when refuelling plant or machinery.

14.3 MONITORING AND COMPLIANCE REPORTING

• The Site Project Manager shall monitor the site daily ensuring all refuelling activities are undertaken in accordance with the above management and mitigation measures. Any breach will be included in a weekly report to the Landowner.

14.4 CONTINGENCY MEASURES

In the event that refuelling is not conducted in accordance with the management and mitigation measures identified above, or another potential fire source issue is identified in the daily inspections conducted by the Site Project Manager, the SPM will take immediate steps to reprimand the relevant contractor and/or appropriately reduce any bushfire risk.

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COMPLETE

Table 1- Environmental Monitoring

Parameter	Determinants	Monitoring Points & Frequency	Proposed Environmental Trigger Levels	Environmental Management Plan - Immediate Action	Remediation Plan/Comments
Noise	dBA as per Consent Conditions All Affected Receivers LAeq(15minute) dB(A) 36	I nominated location in each of Minchinbury and Erskine Park. Attended logging for 14 days data during construction phase. Thereafter Quarterly logging and monitoring During Year I Operations or when Noise complaints are received and are unresolved by investigation and mitigation measures. Monitoring locations shown on Fig 2.1 extract p 3 Report by	Exceedance of levels as specified in license-Complaints by neighbours or residents. All Affected Receivers LAeq(15minute) dB(A) 36	Identify source of noise impact at sensitive receiver and reduce emission. Re-monitor to check exceedances	No residual effects – respond to complainant

COMPLETE URBAN

Stage 2(A) CEMP- September 2010

Parameter	Determinants	Monitoring Points & Frequency	Proposed Environmental Trigger Levels	Environmental Management Plan - Immediate Action	Remediation Plan/Comments
Dust	Dust Deposition	Dust Deposition Monitoring Points	Maximum Total Deposited Dust Level : 4g/m2/month (Annual Average)	Routine dust monitoring will	Increase frequency of sprays, further reduce vehicle speeds, ban
	Rates,	DDG1-4 and Dust Trak Monitoring	Maximum Increase in Deposited Dust Level	continue on a monthly basis	dusty wastes
		At locations where		conducted in	Cease outdoor crushing and screening
	Airborne	the level of	Dust Concentration Criteria (µg/m3)	accordance with the	works when trigger level 2 is exceeded
	Particulates	particulate matter	50 µg/m3 (annual average) 24 hr period	NSW DECCW	
		being sampled is	Dust Concentration Criteria (µg/m3)	"Approved methods	Limited Applicability during
		representative of	30 µg/m3 particulate matter PM 5 (annual average) 24 hr period	for the sampling and	Construction
		emissions from the		analysis of air	
		proposed future	24 hour period every 6 days Trigger Level 1: Remedial action is	pollutants in NSW"	
		operation of the	required under Trigger Level 1 when peak 1-hour concentrations are	(DECC 2005a).	
		waste facility taking	above 100 µg/m3 for three (3) consecutive hours and the wind is	Real time PM10	
		into account	blowing from the site to the monitoring location.	monitoring will be to	
		prevailing wind	Trigger Level 2: Under extreme cases, open air crushing or screening	assess the potential	
		direction and the	site operations would be required to cease under Trigger Level 2.	for off-site air quality	
		location of residential	This applies when the rolling 24-hour concentration is above 50	impacts and will	
		properties or other	µg/m3 for 24 consecutive hours and the peak 1-hour concentrations	commence by 15th	
		sensitive receivers.	above 100 µg/m3 are also sustained.	April and for a	
			The additional conditions for when this applies that the wind is	representative period	
			blowing from the site to the monitoring location and that the	during Bulk	
			elevated PM10 concentrations are not caused by an external regional	earthworks.	
			pollution event such as a bushfire or dust storm.	Dust deposition	
			This is tested by examining the 24-hour PM10 concentrations at the	monitoring at four	
			DECCW's monitoring sites at Prospect and St Marys.	locations around the	
				site as shown on the	
				plan below, or as	
				specified by	
				DECCW.	
				Reduce dust	
				emissions by	
				increasing water	
				spray and supervision	
				of traffic and waste	
				disposal	

Parameter	Determinants	Monitoring Points & Frequency	Proposed Environmental Trigger Levels	Environmental Management Plan - Immediate Action	Remediation Plan/Comments
Transport Code of Conduct Schedule 3 Condition 52		Traffic Management Plan Throughout the site	Traffic Management Uninterrupted operation of traffic flows. Plan Throughout the site No Unnecessary waiting. Minimal noise generation.	Complaints from neighbours or other Road users.	Contact person firm or company breaching the Code and counsel followed by exclusion from the site if necessary.
Lighting Schedule 3 Condition 53	All external lighting in accordance with Australian Standard AS4282 (INT) 1995 – Control and Obtrusive Effects of Outdoor inhiting	All external lighting in accordance with Australian Standard AS4282 (INT) 1995 – Control and Obtrusive Effects of Outdoor Lighting. Thoughout the Site Detailed plan to be provided. As stage 2/h) works.	All external lighting in accordance with Australian Standard AS4282 (INT) 1995 — Control and Obtrusive Effects of Outdoor Lighting.		No residual effects

Traffic & Transport	It is expected that traffic will include light vehicle movements for 15 workers on-site at one time and an average of 8 deliveries per day with heavy rigid vehicles and concrete trucks (maximum of 15 per day). Some oversize and curfew based movements are likely for the delivery of major plant, equipment and temporary amenities; the existing private access road more than adequately accommodated the former movements of vehicles accessing the site (including a significant percentage of heavy vehicles). It is apparent that the access movements during the construction phase can be suitably accommodated on this existing roadway particularly with the advantage provided by the traffic signal control at the Wallgrove Road intersections.
Public Infrastructure Impacts	Movement of traffic onto and from the site may have impacts on public infrastructure such as roads causeways and verges. Refer Infrastructure Dilapidation report Access is restricted via Old Wallgrove Road and the Right of Carriageway pending construction of an extension of Wonderland Drive.
	No access is permitted via Archbold Road. Therefore it is taken that there will be no effect upon public intrastructure during site Construction Works.
Access	The existing site access via the two lane registered Right Of Carriageway (ROW) (No. D227638) off Old Wallgrove Road will be used throughout
	construction. It is noted that the existing access intersections on Old Wallgrove Road comprise the traffic signal controlled Wallgrove Road intersection.

COMPLETE URBAN

Visual Amenity/ Visual Ćatchment	There are no receivers with elevated views of the site. Following Bulk Earthworks the subsequent construction works will be temporary, taking place over an estimated period of six months. During
	this time adoltronal equipment such as challes and excavators will be present on the suce. The majority of construction activities will take place behind the berms or overburden stockpiles, which will shield inward views. As construction activities will be concentrated in areas where operations will be focussed, potential visual impacts associated with construction and operations will be limited.
	mir ; e ake
	eastern amerial surrounding the pit and adjacent to the proposed area of operations will be restrated to form the notifi, west and south eastern amenity berms. This will include raising the overburden stockpiles to the north of the pit by up to five metres in some sections and reducing it by up to two metres in other sections, and potentially reducing the height of the stockpiles to the west by up to 11 m in some places.
	on the small area of woodland vegetation within the Site. Reshaping of Amenity Berms are stage 2(b) works and shall not be carried out unless Plans have been first approved by the Director General.
Bushfire Hazard Assessment	The Hazard Assessment recommended that Asset Protection Zones (APZs) be constructed and maintained around the areas of operation to limit potential fire hazards. Management/Mitigation Measures The provision of fire fighting equipment within the huildings and separate storage of notable water for fire fighting oursoses.
	Emergency Fire Response Plan Appendix 7
Waste Disposal during Construction	All putrescible waste generated during the construction and operation phases of the Project will be collected separately and disposed of off-site to a suitable landfill.
	Plant chemical containers and routine maintenance consumables such as oil and grease required for plant operations at the project site will be stored in a bunded area and collected by a licensed waste contractor as required. The small amount of 'inert' and general waste generated at the facility by employees, agents, invitees or contractors (not as part of the waste received for the cite) will be stored and later disposed of as peressary at annountably licensed facilities.
Amenity Berms, Landscaping and Fencing	Future Lodgement of Plans The shaping of the amenity berms, the landscaping of them and the installation of fences and gates and visual barriers will be one of the last things to take place on Site. Appropriate plans and reports will be submitted for consideration well before that stage of works.

15 PROJECT STAGE 2(B)- LEACHATE COLLECTION, CONVEYANCE, TREATMENT AND DISPOSAL SYSTEM AND CONSTRUCTION OF LANDFILL LINER.

Commencement Date- TBA following granting of an Environment Protection Licence by DECCW.

Status Establishment Sewer Connection underway.

Completion Estimation 12 weeks following commencement.

- Trade Waste Agreement with Sydney Water.
- Installation of basal landfill liner in accordance with quality control program and manufacturer's instructions.
- Construction of basal leachate sump and feeders in accordance with specifications set out in NSW Landfill Guidelines EPA 1996 and as modified by recommendations by Douglas Partners in Soil Erosion and Leachate Management Plan.
- Establishment of leachate receival, storage and treatment tanks.
- Installation and commissioning of pumping infrastructure, aeration equipment and filters into Sequence Batch reactor SBR.
- Connecting SBR discharge line to sewer connection.
- Commissioning and operation.

16 PROJECT STAGE 3 - COMMISSIONING

To be advised.

17 APPENDICES

- (1) Project Management Plan GMW Project No: GMW 1296 (incorporating the Project Quality Plan, the Project Occupational Health and Safety Plan and the Project Environmental Plan) prepared by Matthew Gapps on behalf of GMW Pty Ltd and submitted by the Proponent to the Department of Planning on 15th June 2010, together with Attachments 1-20.
- (2) GMW Urban (Complete Urban) Dial A Dump Light Horse Business Centre- Bulk Earthworks DRG B7328-001 to B7328-35
- (3) Ref. Jones Nicholson Consulting Engineers Drawings and Plans 090669 S101 to S119
- (4) GMW Urban (Complete Urban) Dial A Dump Light Horse Business Centre Civil Works Drawings DRG 7328-001 to 7328-026
- (5) GMW Urban (Complete Urban) Architectural Elevations MPC Facility 7328-701 Fuelling Building 7328-704 -05 Workshop 7328-706-07
- (6) Traffic and Transport Code of Conduct
- (7) Fire and Emergency Management Plan



APPENDIX 1



PROJECT MANAGEMENT PLAN

Client: Alexandria Landfill Pty Ltd

<u>Project Name</u>: LIGHT HORSE BUSINESS CENTRE PROJECT – Dial a Dump Industries

Project No.: GMW 1296

Incorporating:

Project Quality PLAN Project Occupational Health & Safety PLAN Project Environmental PLAN

Prepared by:	Matthew Gapps	Signature	Date
Checked by:	Jason French	Signature	Date
Authorised by:	Brett Beauchamp	Signature	Date

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SCHEDULE OF AMENDMENTS

Rev #	Revision Date	DOCUMENT & NATURE OF CHANGE
Α	27/04/10	Original
-		

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1. Scope

1.1 General

This Project Management Plan (PMP) details the practices and controls required to address all areas of the Dial A Dump Industries (DADI) – Light Horse Business Centre Project. The PMP has a specific focus on Project level processes and calls upon the GMW Urban Integrated Management System to fulfil all Quality, Safety and Environmental requirements for the project.

The PMP incorporates the following Plans as per the contract requirements:

	Contract Requirements	Specific Management Plans incorporated into this PMP
•	AS/NZS ISO 9001:2008 Quality Management Systems	Project Quality Plan (PQP) including the following; Records Management Plan (RMP)
	AS/NZS 4801:2001 Occupational Health and Safety Management Systems AS/NZS 4360:2004 Risk Management NSW Government - Occupational Health & Safety Management Systems (4 th Edition, June 2004) Applicable OH&S Legislation	Project OH&S Plan (POH&SP) including the following; Risk Assessment and Control Plan (RACP) Emergency Management Plan (EGMP)
	AS/NZS ISO 14001:2004 NSW Government Environmental Management Systems (Nov 1998) Applicable Environmental Legislation	Project Environmental Plan (PEMP) including the following; • Erosion & Sedimentation Control Plan (ESCP) • Soil & Water Management Plan (SWP) • Noise Management Plan • Waste Management Plan • Vegetation Management Plan

Further site specific compliance requirements included within the PMP include:

 Overriding Client Initiated requirements set out in the Site Specific Environment Management Plan (LHBC).

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Scope – Light Horse Business Centre Project

GMW Urban is contracted to undertake the Light Horse Business Centre Project for DADI.

The scope of the work consists of all works associated with the design and construction of site infrastructure buildings including Materials Processing Centre (MPC), Green Waste Area, Workshop and Canteen Building and Access Roads.

The major activities involved in this work are:

- Site Establishment including pedestrian and traffic control;
- · Excavation to subgrade levels;
- · Installation of new conduits and power supply;
- · Installation of Misting System;
- · Installation of mechanical ventilation;
- · Concrete walls and foundation construction;
- · Concrete road pavement and building slab construction;
- Structural steel building fabrication, supply and erection;
- · Building cladding/roofing manufacture, supply and installation;
- · Building fit out;
- · Stormwater pipe and pit construction;
- · Streetlight installation;
- · General Landscaping;

A copy of a Project Site Plan identifying the physical extent of works is attached to this PMP (refer Attachment 1).

1.2 GMW Urban

GMW Urban is a privately owned Australian company that provides project management and construction services associated with the development of urban domains. The company head office is located in Chippendale, Sydney.

2. Normative References

There are no normative references relating to this document.

3. Definitions

There are no definitions relating to this document.

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4. Project Management System

4.1 General

The purpose of the plan is to link the PMP to the GMW Urban Integrated Management System and the Light Horse Business Centre Project, with the end result being a system delivering a successful project to the satisfaction of DADI. The PMP reviews the Integrated Management System Manual and Integrated Management System Procedures and outlines processes, objectives and targets specific to the project. The PMP is a controlled and live document, structured to assure DADI that GMW Urban is meeting its own and legislative requirements, whilst being flexible enough to embrace continual improvement.

This PMP developed following the Project Planning procedure, ensures that:

- Processes applicable to the project are identified and applied for appropriate use
- The relationship of procedures is set
- Criteria and methods are established for successful operation and control of processes
- Resources are allocated and monitored
- Process is monitored, and their effectiveness reviewed
- All system aspects (including Quality, Safety and Environmental practices) are implemented, targets are achieved, and the system is continuously improved

4.2 Documentation

4.2.1 General

The Project Manager is responsible for the development of this Project Management Plan together with the inclusion and maintenance of any changes during the Project evolution. Any changes to the content and distribution of PMP Attachments shall also be the responsibility of the Project Manager. A summary record of significant changes shall be made in the Schedule of Amendments at the front of this PMP.

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The GMW Urban Integrated Management System (Figure 1) consists of a Management System Manual & Procedures which addresses system requirements at a corporate level, a Project Management Plan which documents project specific system requirements, and process related documentation (including Work Method Statements and corporate forms) to detail particular customer service related activities.

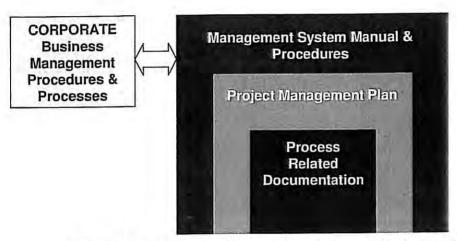


Figure 1. The Integrated Management System (IMS) for GMW Urban

4.2.2 Management System Manual

The intention of the Management System Manual (refer Attachment 2) is to convey the routine practices embraced by the GMW Urban team to comply with Australian Standards, Legislation, and NSW Government OHS&R and Environmental Guidelines.

The GMW Urban Management System Manual addresses Quality, Safety, and Environment aspects at a corporate level. The Manual has appended various procedures, most of which having relevance at a Project level as well. The procedures are often interdependent and the referencing of other procedures within these process descriptions demonstrates their interactivity.

The Management System Procedures (refer **Attachment 3**) outline the specific procedures, processes and methods that GMW Urban follow to ensure the Integrated Management System is implemented and effectively operating. A 'Controlled Copy' of the relevant procedures will be available for reference use at the GMW Urban Project Site Office.

The Management System Tools (refer **Attachment 4**) are the specific forms, reports documents etc. used by GMW Urban to operate the Integrated Management system. A 'Controlled Copy' of the relevant TOOLS will be available for reference use at the GMW Urban Project Site Office.

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4.2.3 Control of Documents

The requirements for the documentation of all Management System components are detailed within the *Document and Data Control* procedure. The Distribution List identifying Internal and External 'Controlled Copy' holders of this PMP and the referenced Attachments is identified on the cover page of this PMP.

A master list of the current Project Documents (Drawings and Specifications) that apply to this Project is maintained by the Project Manager (refer **Attachment 5**).

4.2.4 Control of Records

The requirements for the control of management system records are detailed within the - Filing and Records Management procedure.

A Records Management Plan in the form of an updated Project Filing and Records INDEX is included in this PMP (refer **Attachment 6**). This index shall be used by all GMW Urban personnel to ensure all project records, quality records and identified records are stored and maintained so they are readily retrievable in facilities that provide a suitable environment to minimise deterioration, damage and prevent loss.

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5. Management Responsibility

5.1 Management Commitment

The GMW Urban Management System is integrated into the day to day operations of all employees at every level of activity. Management demonstrate commitment to the Integrated Management System via the implementation of the following processes:

Meeting with all employees to discuss GMW Urban, Customer (Project) and Regulatory requirements (refer Communication and Consultation procedure).

 Establishing policy to address Quality, Safety and Environmental requirements (refer Section 5.3 below)

 Establishing Management System Objectives and Targets at a corporate level (refer Management System Manual Section 5.4.1) and at a Project level (refer Section 5,4 below)

Undertaking Management Reviews (refer Review and Improvement procedure)

Provision of appropriate Resources (refer Resource Management procedure)

5.2 Customer Focus

GMW Urban is a client orientated and focused business. Our focus is on meeting a clients established objectives, and clearly the key tool for ensuring this is the development of and compliance with this Project Management Plan (refer *Project Planning* procedure).

5.3 Policies

GMW Urban have developed and implemented the Integrated Management System Policies contained within the Management System MANUAL (refer Management System Manual Section 5.3). Copies of the Policies are provided to all persons Inducted to the Project Site as part of the Induction Pack.

5.4 Planning

5.4.1 Management System Objectives and Targets

GMW Urban have developed a number of Management System objectives, aspects, impacts, performance indicators and targets which it aims to achieve in all business operations. These CORPORATE objectives and Targets are contained within the Management System MANUAL (refer Management System Manual Section 5.4.1).

Further to the CORPORATE requirements GMW Urban have developed a number of PROJECT specific Objectives including;

To ensure that the project works are completed in accordance with the contract requirements

 To ensure this PMP is planned, implemented, measured and reviewed in a manner that ensures legislative compliance and strives to ensure that best practice standards are achieved

 Effective and continuous management and supervision of all Subcontractors, Suppliers and Sub-consultants engaged by GMW Urban

Consideration and implementation where possible of innovative construction solutions

 To participate co-operatively in design solutions for problems encountered during the Project which affect GMW Urban scope of work

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 Ensure continuous improvement of all GMW Operations by the effective implementation and continuous improvement of the Project Management Systems

In keeping with the PROJECT objectives, GMW Urban have set in addition to the CORPORATE requirements a number of PROJECT specific Targets including;

- Achieve a project completion date ahead of the Contract requirement
- 100% Reporting and Investigation of all Project Incidents
- Zero OH&S and/or Environmental infringement notices from Local/State Government Authorities
- 100% compliance with the contract
- 100% compliance with the PMP
- 100% compliance with the Inspection and Audit program for all in-house and subcontracted activities
- 100% attendance and active participation in Internal, Client and Stakeholder group meetings
- Where required, engagement of Subcontractors, Suppliers and Sub-consultants with current 3rd Party Management System Certification and/or Pre-qualification Status
- Zero Industrial Relations disputes affecting project outcomes
- 100% compliance with the Indigenous employment opportunities of the Contract

5.4.2 Management System Planning

The *Project Planning* procedure ensures the Project Management Plan is developed and the overall integrity of the Integrated Management System is preserved. The *Review and Improvement* procedure ensures the Project Management Plan and processes within remains current and fit for purpose.

Specific Head Contract OH&S Management Systems or processes to be implemented on this Project have been included in the PMP development process (refer **Attachment 7**).

Specific Head Contract ENVIRONMENTAL Management Systems or processes to be implemented on this Project have been included in the PMP development process (refer **Attachment 8**).

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and authority

The general Corporate Organisation Structure for the GMW Urban is outlined below (Figure 2).

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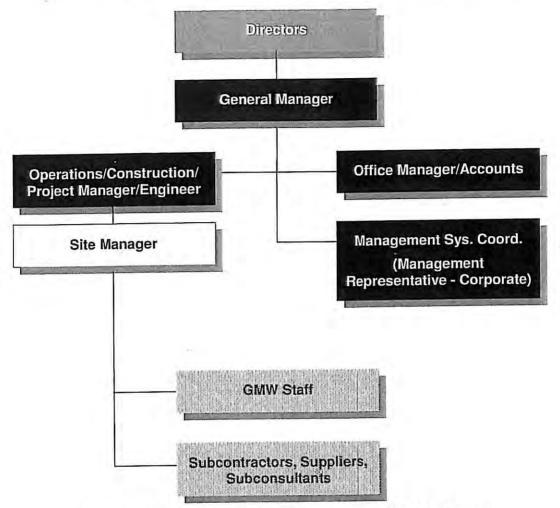


Figure 2. The Corporate Organisation Structure of GMW Urban

The specific Project Organisation Structure and roles of key personnel have been planned, identified and allocated for the project (refer **Attachment 9**).

With respect to the Integrated Management System, company employees must ensure the following are undertaken as part of their assigned responsibilities;

5.5.1.1 Directors

The Directors shall ensure that the stated corporate policy objectives are being met by employees. This is achieved at a Project level through;

- appointing appropriate staff and resources to implement and maintain the Management System (refer Resource Management procedure).
- conducting management reviews in order to gauge the effectiveness of implementation and operation of the Integrated Management System (refer Review and Improvement Procedure),

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5.5.1.2 General Manager

The General Manager is responsible for coordination of the Management System. This is achieved at a Project level through;

 Ensuring responsibilities of the Management System Coordinator and OH&S Coordinator are being undertaken,

Continuous review, assessment, and direction of management system reporting.

5.5.1.3 Operations / Construction Managers

The Operations / Construction Managers are responsible for ensuring that the Integrated Management System is defined and scoped for application at a Project level. To implement the Management System at a Project level, the Operations / Construction Managers must;

Establishment and Monitoring of Internal, Subcontractor and Supplier Resources

 Participate in the development, review and implementation of project level documentation to ensure compliance with the requirements of the Management System (refer Project Planning and Process Control procedures)

5.5.1.4 Project Managers / Engineers

The Project Managers / Engineers are responsible for ensuring that the Integrated Management System is implemented and operational at a Project level. To implement the Management System at a Project level, the Project Managers / Engineers must;

 Monitor and report on the performance of the Management System to effect continuous improvement. This includes the process of ensuring that verification of

solutions is taking place (refer Continuous Improvement procedure),

 Develop, review and implement project level documentation to ensure compliance with the requirements of the Management System (refer *Project Planning* and *Process Control* procedures),

For this Project the GMW Urban Project Manager (refer also **Attachment 9**) shall be the primary focal point and communication link between GMW Urban and the Client. The Project Manager shall undertake the following specific project responsibilities;

Initiate and recommend solutions through designated channels,

Ensure corrective actions are implemented and effective

The nominated Project Quality Representative (PQR) for this Project is the GMW Urban Project Engineer (refer also **Attachment 9**) and shall have a minimum Civil Engineering or Construction/Project Management qualification and 2 years experience. The Project Quality Representative shall consult with and report any Management System issues to the Management Representative (see below) which cannot be resolved at a Project level. The PQR shall undertake the following specific project responsibilities;

Undertake receiving, in-process and final (or acceptance) inspection and testing,

· Identify and record quality problems.

 Control further processing/delivery/installation of nonconforming product until deficiencies or unsatisfactory conditions have been corrected

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5.5.1.5 Site Managers

The Site Managers are responsible for ensuring the daily operation of company business on site is in accordance with the relevant Management System procedure or Project Management Plan requirements at a Project level. In carrying out these tasks, it will involve;

 Undertaking the key construction activities as the key GMW Urban site based employee,

Controlling monitoring and measuring devices used on site,

- Acting in the capacity of the Training Facilitator for the Site and conducting all Site Inductions,
- · Identifying & recording problems,

· Developing & implementing solutions,

· Raising Improvement Request Reports and Site Instructions,

- Ensuring Subcontractors also operate to GMW Urban Management System requirements,
- Completing site based documentation and records

5.5.1.6 All Staff

All GMW Urban staff are responsible for contributing to the objectives outlined in the Management System Policies, Management System Manual and this PMP. In particular, employees must report any potential or actual non-conformance identified in the workplace and provide assistance in developing solutions to problems.

Nominated employees may be appointed to carry out a task, but final responsibility rests with management as outlined. All personnel shall be responsible for the day-to-day training of employees reporting to them.

5.5.1.7 Responsibility of subcontractors and suppliers

Subcontractors and people supplying goods and services are required to comply with GMW Urban Management System Policies and procedures.

5.5.2 Management Representative

The nominated Management Representative (MR) with corporate responsibility for the GMW Urban Integrated Management System is the Management System Coordinator.

The Project Organisation Structure (refer also **Attachment 9**) demonstrates a Management System Coordinator and a OH&S Coordinator have been specifically appointed for this project. Responsibilities nominated in corporate procedures relating to the General Manager may from time to time be delegated to these coordinators where appropriate.

The Management System is to be established, implemented and maintained in accordance with the requirements established in the *Review and Improvement* procedure. The implementation of the Project Management System will be reported to Management in accordance with the *Project Reporting* procedure which will highlight areas for improvement where required.

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5.5.3 Internal Communication

Communication regarding the effectiveness of the Integrated Management System at a Project level is undertaken as part of the Communication and Consultation procedure.

At the end of 2008, GMW employees elected representatives to establish a formal OH&S Committee. The elected representatives are Stacy Baty, Sam Elarab and Steve Menagh. The GMW employer representatives are Lee Bourke, Ben Pringle, Andreas Zagas. All committee members have completed their OHS Consultation training and meetings have commenced.

The OHS Meetings are undertaken in accordance with the *Communication and Consultation* procedure with meetings are held every quarter. The minutes and outcomes of the meetings are distributed to all GMW Urban employees and contractors primarily through Toolbox Talks and Notice Boards.

Members of the committee are available at all times to receive input from employees on any OH&S matters across GMW Urban activities. Where the various methods of GMW Urban internal communication or other formal mechanisms are unable to resolve employee generated issues, conflicts, disputes they may be resolved with escalated involvement of senior management or external parties such as specialist consultants, facilitators or 3rd parties such as Workcover.

5.6 Management Review

The Project Management Plan and other Project level Management System documentation are the subject of review by top Management in accordance with the Review and Improvement procedure.

A specific Project level review of the appropriateness for the nominated testing frequencies to verify conformance across the range of Project activities should be undertaken.

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Resource Management 6.

Provision of resources 6.1

The provision of appropriate resources for this Project has been addressed by Senior Management in accordance with the Resource Management procedure.

Human Resources 6.2

6.2.1 General

Appropriate personnel with relevant education, training, skills and experience have been allocated for the Project roles in accordance with the Resource Management procedure (refer also Attachment 9).

The Performance Management procedure details the methods of reviewing employee and external company performance during the Project.

6.2.2 Competence, awareness and training

Training is an integrated part of any management system. There are three main areas in which training needs to be undertaken at the workplace.

- Legal this includes statutory and common-law obligations.
- Management System this covers the Integrated Management System including organisational policy, objectives, strategies, company processes, risk assessment and evaluation, injury reporting and investigation.
- Hazard specific- safe work processes, hazard control relative to specific tasks/jobs.

Project implementation of the requirements in the Induction, Training and Competence procedure ensures suitable personnel are appointed and trained for the roles required.

In addition to the corporate Training Needs Analysis (TNA) managed by the HR Manager for all GMW Urban Employees a Project level Training Needs Analysis (PTNA) has been undertaken (refer Attachment 10). This training needs analysis does not evaluate the current skills or performance of individuals, however it does highlight the training requirements for each position within GMW Urban relating to the project.

GMW Urban's commitment to the Management System ensures that all persons carrying out work on the Project Site (including employees, contractors, consultants, suppliers and visitors) are provided with induction information, instruction and training as a means of relaying pertinent site specific requirements (ie. emergency procedures, safe work practices, company policies and hazards and risk control measures).

The GMW Urban Site Manager has been nominated as the Training Facilitator for the Project to conduct all Category 3 "Technical Inductions" in accordance with the Induction, Training and Competence procedure before commencement of any work on the Site. These Inductions for the GMW Project/Site shall be undertaken using the SITE SPECIFIC Induction - Session Plan (ie. Site Specific Safety Management Plan) and SITE INDUCTION PACK (refer Attachment 11).

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6.3 Infrastructure

Infrastructure and Work Environment required to undertake the Project have been arranged in accordance with the *Site Management* procedure. The Project Site Establishment Plan (refer **Attachment 12**) incorporates the;

- Site Establishment Elements
- GENERAL Site Rules (apply to all GMW Urban Sites)
- SPECIAL Site Rules (apply <u>specifically</u> to this GMW Urban Site)
- Permits
- Project Signage
- · Physical Site Infrastructure

6.4 Work Environment

The Work Environment required to undertake the Project is considered during the implementation of the Site Management procedure. (refer previous section above)

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7. Product Realization

7.1 Planning of product realization

7.1.1 Planning

The *Project Planning* procedure details the approach adopted for planning this Project and development of this PMP.

7.2 Customer related processes

7.2.1 Determination of requirements related to the product

Prior to entering into the Contract for this Project, GMW Urban have undertaken a Contract Review in accordance with the *Tendering and Contract Review* procedure.

7.2.2 Review of requirements related to the product

The *Process Control* procedure has been followed to develop the GMW Urban Project level systems and processes to monitor Quality, OH&S and Environmental outcomes for all client related processes.

In accordance with the *Budgeting and Programming* procedure, a project Financial Control SYSTEM, Budget and Program (refer **Attachment 13**) have been prepared by the General Manager.

As part of the Site Establishment process, numerous OH&S related procedures not otherwise mentioned in this PMP are invoked. They include:

- Electrical Safety
- Emergency Procedures
- First Aid
- Hazardous Substances and Dangerous Goods
- Incident Management
- Manual Handling
- · Permit to Work
- Personal Protective Equipment
- Process Control (ie. Safe Work Method Statements)
- Rehabilitation Management
- Risk Management
- Vehicle Safety
- Work at Heights

As part of the Site Establishment process, numerous ENVIRONMENTAL related procedures are invoked. They include:

- Dust Mitigation and Airborne Emissions
- Fauna and Flora Management
- Heritage and Archaeology
- Land Clearing and Contaminated Sites
- Noise and Vibration
- Potential Acid Sulphate Soils

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- Waste Management and Minimisation
- Water Management

From the requirements of a number of the above procedures, the following Project Specific OH&S and ENVIRONMENTAL requirements are addressed as Attachments to this PMP;

o Project Site Risk Assessment (refer Attachment 14)

o Work Method Statements (GMW Urban) (refer Attachment 15)

o Site Specific Environmental Management Plan (refer Attachment 16)

o Project Traffic Management Plan (refer Attachment 17)

o Project Emergency Plan (refer Attachment 18)

7.2.3 Customer Communication

In accordance with the Communication and Consultation and Project Reporting procedures the various project meetings and general reporting requirements have been established (refer Attachment 19).

7.3 Design and development

The *Design Management* procedure shall be used for all design related activities carried out by GMW Urban relating to the Project, whether undertaken internally or externally (refer **Attachment 20**).

Where required, GMW Urban shall ensure processes are implemented for control and verification of design activities by Subcontractors who do not have a quality management system.

7.4 Purchasing

7.4.1 Purchasing Process

The processes for purchasing defined under the following GMW Urban procedures have been adopted for this project;

- Subcontractor Management procedure
- · Supplier Management procedure

For Subcontractor work processes which require capability evaluation and process validation the above procedures identify specific requirements to consider during the purchasing process.

The preparation of Subcontract documents for this Project has considered specific Head Contract and Specification requirements which required subsequent inclusion.

7.4.2 Purchasing Information

A Project Procurement Plan detailing Subcontractors, Suppliers and Sub-Consultants has been developed for the Project (refer **Attachment 21**).

Relevant Subcontractor Management System and process control documentation (eg. Work Method Statements and Inspection and Test Plans) are attached to this Project Management Plan (refer **Attachment 22**).

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7.4.3 Verification of Purchased Product

Verification of Purchased Product shall be completed in accordance with the *Process Control* procedure and the subsequent requirements specified in the relevant Inspection & Test Plans. Inspection and Test Plans will be provided to the relevant suppliers as confirmation of product release arrangements.

Day-to-day Site surveillance of GMW Urban Subcontractors will be undertaken by the GMW Urban Site Manager.

The GMW Urban Project Engineer shall ensure the following processes are coordinated to verify purchased product provided by GMW Urban and any of its Subcontractors, Suppliers, Sub-consultants;

Management of information and records

- Surveillance and review of submitted documents to ensure all specification process control and inspection/testing requirements have been addressed
- Surveillance processes for release of Hold Points including submission of relevant information/results

7.5 Production and service provision

7.5.1 Control of production and service provision

The *Process Control* procedure has been applied to this project and the primary mechanisms of controlling production and service provision have been prepared including;

- Work Method Statements
- Inspection and Test Plans
- Hold Points
- Lot Conformance Summary

The Project Manager shall be responsible for the implementation and monitoring of the above process controls for the Project and the rectification of any deficiencies.

In particular, Qualified Surveyors shall be used for all Survey Control in accordance with Specification requirements.

7.5.2 Validation of processes for production and service provision

Validation of a product or service requirements will be undertaken in accordance with the *Process Control* procedure, with specific validation requirements detailed in the Work Method Statements and Inspection and Test Plans (ITP's).

There are no specific work processes identified for this Project (including Subcontracted work) other than those in ITP's, where the resulting output cannot be fully verified by subsequent monitoring and measurement.

7.5.3 Identification & traceability

The *Identification and Traceability* procedure has been applied to this Project to identify product throughout realization. A Lot Identification REGISTER has been prepared for the Project and will be maintained to break up different types of work into discrete "lots" and is used for allocating lot numbers.

There are no particular specification requirements identified for the traceability of specific

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products. No statistical techniques or calculations are required for the determination of the number of samples / tests and the associated conformity of lots.

7.5.4 Customer Property

The Customer Supplied Product procedure will be implemented to manage any property to be supplied by the customer for use.

The following Customer Property has been identified for this Project;

Concrete Hardstand, Existing weighbridge & associated building

7.5.5 Preservation of product

The transport, handling, storage, and packaging requirements to preserve product are addressed at various stages in the Project lifecycle by various GMW Urban procedures, including:

Customer Supplied Product procedure (eg. particular requirements)

• Hazardous Substances and Dangerous Goods procedure (eg. particular requirements)

Identification and Traceability procedure (eg. Special Product Traceability)

 Process Control procedure (eg. Work Method Statements and Inspection and Test Plans)

Subcontractor Management procedure (eg. Contracts)

Supplier Management procedure (eg. Supply Agreements, Purchase Orders)

7.6 Control of monitoring and measuring devices

The *Inspection, Measuring and Test Equipment* procedure has been applied to control the monitoring and measuring devices to be used on this Project. An Inspection and Test Equipment REGISTER has been prepared, equipment has been identified accordingly and will be safeguarded from adjustment, damage and deterioration during handling maintenance and storage. The GMW Urban Site Manager shall arrange for the testing of devices in accordance with the register and obtain appropriate records. Where a device is found to be non-conforming and it has a direct impact on the quality of any goods and services provided, the GMW Urban Project Manager shall be notified immediately to ensure validation of previous results.

Monitoring and surveillance of critical Subcontractor monitoring and measuring devices will also be undertaken by GMW Urban (eg. sighting a current calibration status register or calibration certificate for surveying equipment).

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Measurement, analysis and improvement 8.

8.1 General

The processes needed to measure, analyse and improve at various stages in the Project lifecycle are identified by various GMW Urban procedures, including;

- Auditing procedure
- · Continuous Improvement procedure
- Identification and Traceability procedure
- Performance Management procedure
- · Process Control procedure
- · Public Liaison procedure
- Review and Improvement procedure
- Surveillance and Inspections procedure

The receiving, in-process and final inspection and testing criteria to demonstrate conformity of the various products to specified requirements have been summarised on the Inspection and Test Plans (ITP's) for the main activities of the Project (refer Attachment 23). These Inspection and Test Plans have been prepared in accordance with the specific requirements of the Process Control procedure upon review of the Project Specifications.

Throughout the Project, a senior management and client review of the appropriateness of the testing frequency nominated in the Inspection and Test Plans should be undertaken taking into account the actual frequency of any nonconformity detected.

8.2 Monitoring and measurement

8.2.1 Customer Satisfaction

In accordance with the Communication and Consultation and Project Reporting procedures regular communication and continuous measurement of Customer satisfaction and feedback will occur (refer also Attachment 19).

Regular public and community consultation will also occur throughout the Project in accordance with the Public Liaison procedure.

At the completion of the Project a Client Survey may be undertaken by the GMW Urban General Manager to formally measure Customer Satisfaction in accordance with the Continuous Improvement procedure.

8.2.2 Internal Audit

The Auditing procedure has been applied to develop a Project Inspection and Audit Program to be followed on this Project (refer Attachment 24).

8.2.3 Monitoring and measurement of processes

The Process Control and Surveillance and Inspections procedures have been applied and a summary of methods for monitoring and measurement of processes are also included in the Project Inspection and Audit Program to be followed on this Project (refer also Attachment 24).

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8.2.4 Monitoring and measurement of product

The *Process Control* and *Identification and Traceability* procedures will be applied throughout the Project to ensure the effective monitoring and measurement of product in accordance with the Inspection and Test Plans.

NATA accredited personnel and laboratories shall be used for specific tests as required and identified in the Inspection and Test Plans.

The GMW Urban Project Engineer shall also arrange any release requirements for Hold Points/Witness Points and identify the inspection and test status of works under the Contract by referencing the Lot Identification REGISTER. The inspection and test status identification should also include work incorporated into the works prior to conformance verification. All attempts will be made not to cover up any work lots or product until their conformity has been fully verified, accept with client approval.

Completion of the Lot Conformance SUMMARY together with the use of a Site Inspection CHECKLIST shall be undertaken by the GMW Urban Project Engineer. This process will include the collation and review of the associated supporting documents and records demonstrating conformance with acceptance criteria and ensure each product or work lot has received the frequency of testing required by the Specifications.

The process for release of products and close-out of work lots using the Lot Conformance SUMMARY and associated comprehensive lot records should be progressively maintained, clearly reference the 'actual' results obtained and indicate that control of nonconformity is addressed. Lot Records shall be filed in accordance with the Project Filing and Records INDEX applicable to this Project.

8.3 Control of nonconforming product

The Control of Non-Conforming Product procedure details the process to be adopted for the identification, documentation, review and disposition where non-conforming product is identified.

Generally, where any Improvement Request Report requires client acceptance and approval this should be submitted to the client within 2 days of detection of the nonconformity.

8.4 Analysis of data

The *Project Reporting* procedure addresses the need for providing data to demonstrate the suitability and effectiveness of the quality management system including customer satisfaction, conformity of product/service requirements, characteristics and trends of processes and products, suppliers (refer also **Attachment 19**).

8.5 Improvement

8.5.1 Continual Improvement

The Continuous Improvement and Review and Improvement procedures establish the approach to be implemented for embracing the continual improvement of the GMW Urban Integrated Management System on an ongoing basis.

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8.5.2 Corrective Action

The Corrective and Preventative Action procedure defines the process required to undertake corrective action once a non-conformity is identified. An Improvement Request REGISTER has been established for this Project and will be maintained by the Project Engineer/Manager to track corrective actions.

8.5.3 Preventative Action

Preventative Action or actions to prevent reoccurrence is addressed in the *Corrective and Preventative Action* procedure. The Improvement Request REGISTER established for this Project and maintained by the Project Engineer/Manager will also be used to track preventative actions.

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PMP ATTACHMENTS LIST

ATTACHMENT 1. PROJECT SITE PLAN

ATTACHMENT 2. INTEGRATED MANAGEMENT SYSTEM MANUAL

ATTACHMENT 3. INTEGRATED MANAGEMENT SYSTEM PROCEDURES REFERENCED BY THIS PMP

ATTACHMENT 4. INTEGRATED MANAGEMENT SYSTEM TOOLS REFERENCED BY THIS PMP

ATTACHMENT 5. PROJECT DOCUMENTS AND DRAWINGS

ATTACHMENT 6. RECORDS MANAGEMENT PLAN

ATTACHMENT 7. PROJECT OH&S REFERENCE DOCUMENTS - HEAD CONTRACT

ATTACHMENT 8. PROJECT ENVIRONMENTAL REFERENCE DOCUMENTS – HEAD CONTRACT

ATTACHMENT 9. PROJECT ORGANISATION STRUCTURE

ATTACHMENT 10. PROJECT TRAINING NEEDS ANALYSIS

ATTACHMENT 11. SITE SPECIFIC INDUCTION – SESSION PLAN AND SITE INDUCTION PACK

ATTACHMENT 12. PROJECT SITE ESTABLISHMENT PLAN

ATTACHMENT 13. PROJECT PROGRAM

ATTACHMENT 14. PROJECT SITE RISK ASSESSMENT

ATTACHMENT 15. WORK METHOD STATEMENTS (GMW URBAN)

ATTACHMENT 16. SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN

ATTACHMENT 17. PROJECT TRAFFIC MANAGEMENT PLAN

ATTACHMENT 18. PROJECT EMERGENCY PLAN

ATTACHMENT 19. PROJECT MEETINGS AND GENERAL REPORTING REQUIREMENTS

ATTACHMENT 20. PROJECT DESIGN PLAN

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PMP ATTACHMENTS – Light Horse Business Centre

ATTACHMENT 21. PROJECT PROCUREMENT PLAN

ATTACHMENT 22. SUBCONTRACTOR / SUPPLIER MANAGEMENT SYSTEM DOCUMENTATION

ATTACHMENT 23. INSPECTION AND TEST PLANS (ITP'S)

ATTACHMENT 24. PROJECT INSPECTION AND AUDIT PROGRAM

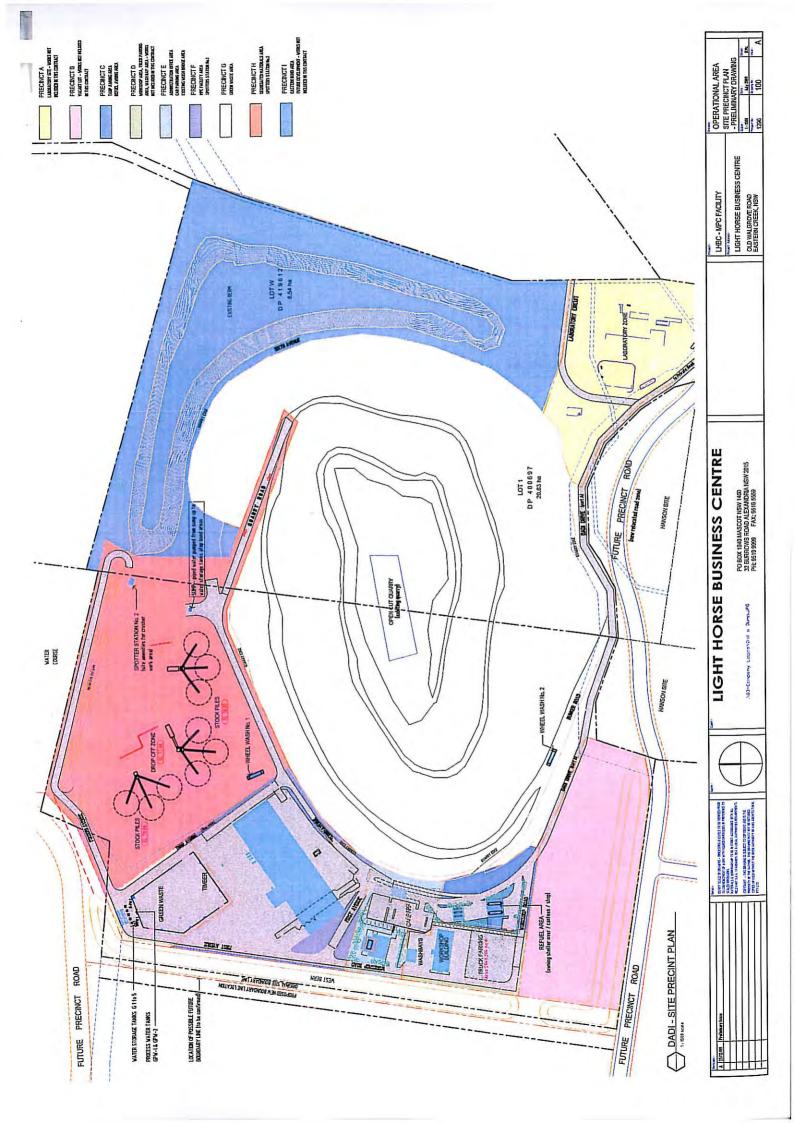
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Attachment 1. Project Site Plan

Find attached a copy of the Project Site Plan identifying the physical extent of works.

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Attachment 2. Integrated Management System MANUAL

Find attached a copy of the current GMW Urban Integrated Management System MANUAL applicable to this Project.

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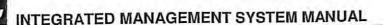
Quality Management SYSTEM
Occupational Health & Safety Management SYSTEM
Environmental Management SYSTEM

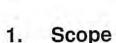


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The GMW Urban Management System documents the practices and controls required to address all operational areas of the companies business. A number of Corporate procedures and processes which are required for Business Management functions are referenced by the Management System where appropriate although remain excluded from the scope of this Management System Manual.

2. Normative Reference

The intention of this Management System Manual is to convey the practices embraced by the GMW Urban team that comply with the following documents:

- AS/NZS ISO 9001:2008 Quality Management Systems
- AS/NZS 4801:2001 Occupational Health and Safety Management Systems
- AS/NZS ISO 14001:2004 Environmental Management Systems
- AS/NZS 4360:2004 Risk Management
- New South Wales Government Environmental Management Systems (Nov 1998)
- New South Wales Government Occupational Health & Safety Management Systems (4th Edition, June 2004)

3. Terms and Definitions

For the purposes of this Management System Manual, the following definitions apply.

Project - Any individual project for which GMW Urban undertake. This may include a specific location, or a group of sites that have similar works requirements.

Tender - An offer to undertake a project.

Request For Tender – Documentation specifying the customer's requirements for a project.

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4. Management System Overview

4.1 General Requirements

The system encompasses all activities within the organisation, and by standardising these activities, GMW Urban provides its team with a tool by which they are able to perform their responsibilities confidently, consistently and efficiently, at the same time providing its customers with confidence that they are receiving high quality products and services.

The Management System incorporates all quality, OH&S and environmental practices implemented by the company. The Management System identifies each activity completed and details the interaction of these activities. It details how the performance of each activity is monitored, how it is resourced, and what controls are implemented where an outcome does not meet expectation.

4.2 Documentation requirements

4.2.1 General

The GMW Integrated Management System (IMS) shall comprise of the following documents:

- · Management System Manual (MSM);
- · Policy Statements incorporated into the MSM;
- · Management System Procedures;
- Project Management Plan
- Other processes and procedures for effective planning, operation and control; and
- · Records generated by the IMS.

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4.2.2 Management System Manual

The Management System (figure 1) consists of a Management System Manual & Procedures which addresses system requirements at a corporate level, a Project Management Plan which documents project specific system requirements, and process related documentation to detail particular customer service related activities.

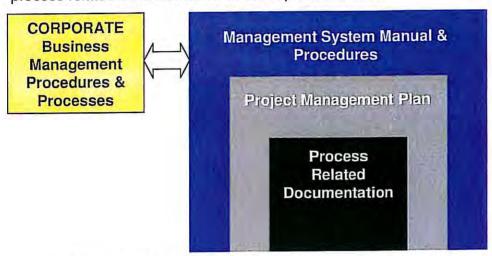


Figure 1. The Integrated Management System (IMS) for GMW Urban

The Management System Manual & Procedures incorporates the

- Corporate Policies and Objectives,
- Quality Manual
- OH&S Manual
- Environment Manual
- Management System Procedures (which include Quality, OH&S and Environmental considerations where appropriate)

This manual reflects how the company at a corporate level functions, its ideology, and ties in closely with project specific documentation requirements. The Management System Manual is the key document that links the individual Management System Procedures. The Management System Procedures outline the methods that GMW Urban operate with at a corporate level. Many of the procedures are important elements of the Project Management Plan and where relevant, are referred to within this document. These procedures, along with the process related documentation are all inter-dependant.

The Project Management Plan provides a means of ensuring effective planning, operation, and control of processes for the success of a particular project. The Project Management Plan is a pivotal element for the implementation of the Management System at a project level, as it defines the relationship of Management System Procedures to the works being undertaken for a client.

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4.2.3 Control of Documents

Documents required by the Integrated Management System are to be controlled in accordance with *Document and Data Control* procedure (Doc. Ref. P/4.2.3/001).

4.2.4 Control of Records

Records shall be established and maintained in accordance with *Filing and Records Management* procedure (Doc. Ref. P/4.2.4/001).

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5. Management Responsibility

5.1 Management Commitment

GMW Urban Management is totally committed to the development and implementation of the Integrated Management System. Management is also committed to the continuous improvement of the system.

Quality, safety, and environment objectives have been established by the Senior Management Team (Section 5.4.1) and shall be reviewed in accordance with the Review and Improvement procedure.

Employee reviews are to be conducted as per the *Performance Management* procedure.

The availability of resources shall be assessed by the Senior Management Team in accordance with the *Resource Management* procedure.

5.2 Customer Focus

Customer requirements shall be determined by the Senior Management Team by implementing the following procedures:

- Tendering and Contract Review;
- Project Planning
- Continuous Improvement

Once the customer requirements are defined, the Senior Management Team shall monitor customer satisfaction by reviewing all communication with the Client as referred to in Section 8.2.1.

5.3 Policies

GMW Urban Senior Management Team have established Policy Statements as evidence of the commitment to Quality, Occupational Health and Safety, and the Environment.

These Policy Statements shall be communicated to all relevant personnel via the *Induction, Training and Competence* procedure).

Understanding of the Policy Statements is verified by completion of the Induction Training Records where inductees will be required to acknowledge their understanding and commitment to the Policy Statements.

Policy Statements are to be reviewed in accordance with *Review and Improvement* procedure.

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5.3.1 Quality Policy

Quality Policy

GMW Urban Pty Ltd (GMW) provides design, project management and construction services associated with the development of urban domains. It is the objective of GMW to provide customers with a service that consistently meets their requirements. To aid in this service, GMW has implemented a Management System that is an integral part of the Company, and binds together all manuals and procedures used by the Company in its business. The Management System meets the requirements of AS/NZS ISO 9001:2008 Quality Management Systems.

All personnel employed by GMW are required to understand and conform to the Management System. The system reflects the self-regulatory management of all corporate activity.

GMW has a commitment to achieve high quality standards through:

- Liaison with customers and authorities to better understand their needs.
- Continuous improvement of the system.
- System objectives which remain appropriate.
- The use of sound management practice and operational procedures which ensure safety, environmental due diligence, efficiency and consistency of quality.
- The training and motivation of personnel resources.
- Regular system review and enhancement.

Andrew Gifford Director

26th August 2009

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5.3.2 Environmental Policy

Environment Policy

GMW is involved in the construction of public domain infrastructure. We recognise environmental management as one of our corporate responsibilities and priorities.

GMW is committed to the continued monitoring of its environmental management system. This commitment relates to compliance with relevant environmental standards for the construction industry and maintenance of system documentation to control and verify the system's activities.

We are further committed to a process of continual improvement of our environmental activities together with their alignment to process management, product quality and workplace health and safety activities.

Our environmental policy also considers factors involving pollution prevention, resources and waste management and impacts of the project work on the environment.

The management of this company is actively involved in ensuring that company personnel, sub-contractors and suppliers are pursuing similar policies and are complying with the environmental policy requirements of this company.

Implementation and operational control of GMW Safe Working Methods containing environmental impacts and controls is undertaken on a project specific basis. Upon entering a contract, GMW will where relevant produce the following documents:

- Project Environmental Plan
- Standard Report Forms
- Monitoring procedures
- Reporting and Records

Andrew Gifford Director

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5.3.3 Safety Policy

Safety Policy

It is the policy of GMW Urban to conduct its activities in such a way as to provide an environment which protects the health and safety of all persons at the workplace and actively encourage safe working practices.

To aid in the implementation of this policy, the Company will:

 Comply with all relevant statutory obligations, advisory and industry standards, making adequate provision of resources to meet these requirements;

 Provide information, instruction and training for employees to increase personal understanding of workplace hazards and to ensure proper supervision;

 Involve employees and sub-contractors on health and safety matters, and consult with them in ways to reduce workplace hazards and improve control systems;

Set short and long-term objectives in health and safety management as part
of an ongoing action plan and regularly review its performance and that of its
managers and supervising personnel, against the objectives of this policy.

Occupational health and safety is both an individual and shared responsibility of all employees, sub-contractors and other persons involved with the operation of the company. GMW Urban emphasise the need to follow and adhere to safe work practices at all times and to employ the necessary safety equipment to ensure that no person is exposed to a Health and Safety risk for themselves or any other person, and to develop a spirit of safety consciousness.

Should any employee, sub-contractor or member of the public perceive any hazard and/or problem regarding Occupational Health and Safety, they are asked to report this immediately to the GMW Urban Supervisor or Management so that the necessary steps may be taken to rectify the problem.

There is no task that is so important or so urgent that it releases the Company, its Managers, employee's or sub-contractors from the responsibility to ensure a healthy and safe work environment.

Andrew Gifford Director

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5.3.4 Rehabilitation Policy

Rehabilitation Policy

GMW Urban recognises the need and the benefits of a Rehabilitation program for the employees and employers, which promotes an employee's early return to work after an injury. Experience shows that work assists in the healing process and that assists the employee return to normal functions sooner.

The rehabilitation approach taken by GMW Urban is a managed process of necessary services, including suitable duties programs when possible, to ensure the employees early return to work and/or to maximise independent functioning. This approach is fundamentally structured around the following principles:

- Rehabilitation will be a normal practice within GMW Urban,
- Rehabilitation commences as soon as possible after the injury has occurred with approval from the employees treating medical practitioner,
- Rehabilitation is aimed at returning the employee to work and to their normal duties as soon as possible,
- Rehabilitation is a team approach with cooperation, consultation, and confidentiality,
- The Rehabilitation program will respect the rights, welfare and confidentially of the employee at all times.

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5.3.5 Public Liaison Policy

Public Liaison Policy

GMW Urban recognises the importance that the client holds in the satisfaction of the stakeholders of any public domain project. It is also recognised that the stakeholder group that is most affected by the implementation phase of a project are the local businesses within the streets or domain that are being constructed, and those in adjacent areas.

With this potential risk to project success identified, it has been determined to enlist the services of a dedicated public relations representative, to provide a specialist component to the GMW Urban project management team.

GMW Urban intend to provide a service that surpasses the requirements of the Contract, by ensuring that all stakeholders to the project, and specifically local businesses are kept well informed of construction activities and progress, and that works are performed in a manner that accommodates the daily needs of such businesses where possible. GMW Urban are committed to the continual improvement in all that we do. Opportunities for improvement shall be identified throughout the project and implemented at the earliest opportunity.

Success will be measured throughout the project by limiting the number of stakeholder complaint referrals generated by the Client, and through eliminating repeat referrals.

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5.4 Planning

5.4.1 Management System Objectives & Targets

The following list describes corporate **objectives**, **aspects**, **impacts** and **performance indicators** (both positive and negative) that GMW Urban aims to achieve in relation to the companies operations:

A working environment free of occupational injury and illness

 Operations free of environmental breaches and infringements, with impacts to the environment minimised

 Identify current and past (relevant) environmental aspects of goods and services used and provided by the organisation's activities including aspects & impacts at;

o corporate level (Head Office and business wide processes)

o construction project level (where greatest GMW impacts are generated)

 Consider the control and influence over environmental aspects of its activities, products & services including but not limited to design & development, environmental performance and practices of contractors and suppliers, waste management, wildlife and biodiversity including goals to;

o minimise environmental impact of construction related activities on

project sites and surrounding environment

o promote ESD (Ecological Sustainable Development) and minimise environmental impacts during GMW controlled design processes

monitor subcontractor environmental performance on projects
 prioritise and implement recycling and 'green workplace' initiatives

 develop new and review current processes and procedures to address new and existing aspects

 Review and plan activities with consideration of environmental impacts including but not limited to; emissions to air, releases to water, releases to land, use of raw materials and natural resources, use of energy, energy emitted (eg. heat, radiation, vibration), waste and by-products including goals to;

o minimise the carbon footprint of activities (corporate and project)

 as a public domain focused organisation encourage public transport usage (eg. to and from work, to and from construction site visits)

o promote energy and waste reduction activities (eg. transport pooling/consolidation, alternative fuels, reduction in wasteful electricity usage activities)

 A management system that is planned, implemented, measured and reviewed in a manner that ensures legislative compliance and strives to ensure that best practice standards are achieved

 The promotion and maintenance of a working environment that is adapted to personnel needs through effective consultation and cooperation

 Excellence in risk management, where the working environment shall be established and maintained and risks are managed as part of everyday business

All personnel are trained and competent to discharge their management system responsibilities

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The Management System Objectives are to be measured against the following targets:

 Zero (0) GMW Urban personnel shall sustain a lost time injuries throughout the vear

 Zero (0) injuries to members of the public through GMW Urban related activities throughout the year

Zero (0) environmental incidents throughout the year

- Implementation of a Quality Management System in compliance with AS/NZS ISO 9001
- Implementation of an OH&S Management system in compliance with AS/NZS 4801
- Implementation of an Environmental Management System in compliance with AS/NZS ISO 14001
- 100% of contractors engaged by GMW Urban will be pre-qualified (where required) and project-related OH&S performance will be reviewed
- 100% of significant incidents involving GMW Urban personnel or arising from GMW Urban operations (i.e. the actions of contractors or where members of the public were potentially exposed) shall be reported
- 100% of significant incidents involving GMW Urban personnel or arising from GMW Urban operations (i.e. the actions of contractors or where members of the public were potentially exposed) shall be investigated, and controls implemented to prevent a reoccurrence in a reasonable timeframe
- develop specific Quality, OH&S and Environmental procedures as required by the business activities

Environmental Aspect targets including;

- o implement and promote a positive culture amongst employees of environmental awareness and initiatives and measure through annual surveys
- at annual corporate training conference canvas environmental improvement ideas and suggestions from all employees (the coal face)
- promote positive GMW Environmental experiences on past projects to future clients and tender submissions
- 100% compliance with GMW Urban environment aspects and impacts by contractors on Projects

Environmental Impact targets including;

- establish office based recycling processes and purchases by implementing waste paper recycling bin, recycle toner/ink cartridges, domestic type recycle bin facilities for plastic bottles and general
- minimise use of air-conditioners by utilising buildings natural ventilation systems (eg. windows and doors)
- o install or utilise half flush/full flush toilets to minimise water use
- o turning off lights, computers and other electrical items when not in use
- phase out older, inefficient equipment and vehicles in future capital acquisitions
- o all fleet acquisitions to be reviewed with consideration of energy

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efficiency (eg. 10% of future annual acquisitions to be powered by LPG/dual fuel or hybrid or 4 cylinder energy sources)

o provide bicycles, helmets and secure storage facilities available for use

on close proximity site visits

o for interstate/intrastate travel pay carbon offsets on airline travel

o 100% compliance with all necessary approvals and permits for waste disposal (eq. Asbestos, contaminated fill)

o ensure disposal facilities for waste construction materials are

accredited with the relevant authorities before use

o project sites dispose of all clean concrete, asphalt and other recyclable materials to licensed recycling facilities for re-use

o implement 'metal recycling' bins for collection of this waste stream on

appropriate project sites

o where construction specifications permit, use recycled or part recycled materials (eg. RAP % in asphalt, recycled water, recycled timber, recycled pavement materials) and plan for reuse from the same site if possible

100% of company Management System documentation shall be appropriately reviewed

100% of Workplace Inspections shall be conducted in accordance with the requirements of the Management System

100% of Internal Audits of the Management System shall be conducted and all actions from audits will be managed in a reasonable timeframe

100% of Responsibility Statements will be issued to relevant GMW Urban personnel and will be periodically reviewed

Objectives/Indicators and Targets established in relation to specific project works shall be consistent with the above list.

5.4.2 Management System Planning

Management System Objectives, Aspects, Impacts and Targets are to be reviewed by top management in accordance with Review and Improvement procedure.

Top Management shall also ensure the integrated Management System is planned and the integrity of the system is maintained when changes are proposed and implemented.

Prior to commencing a project, the responsible Project Manager shall prepare a Project Management Plan (PMP) in accordance with the Project Planning procedure. The PMP shall be reviewed by the General Manager prior to commencement of works.

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5.5 Responsibility, Authority, and Communication

5.5.1 Responsibility and Authority

The Management System is integrated into the day to day operations of all employees at every level of activity.

As part of their assigned responsibilities, company employees must ensure the following with regard to the Management System:

Directors

The Directors shall ensure that the stated corporate policy objectives are being met by employees. This is achieved through a Plan-Do-Check-Act approach whereby;

• Plan - establishment of policies, corporate objectives & procedures

 Do - appointing appropriate staff and resources to implement and maintain the Management System (Resource Management procedure)

• Check - conducting management reviews in order to gauge the effectiveness of implementation and operation of the Management System (Review & Improvement procedure)

 Act - participation in the continuous improvement of the management system by ensuring policies, objectives and procedures are enhanced as a consequence of management reviews

General Manager

The General Manager is responsible for coordination of the Management System. This is achieved through;

• Ensuring responsibilities of the Management System Coordinator are being undertaken

Continuous review, assessment, and direction of management system reporting

Operations/Construction/Project/Office Managers

The Operations/Construction/Project/Office Managers are responsible for ensuring that the Management System is maintained for areas of the business under their responsibility. To maintain the Management System, the Operations/Construction/Project/Office Managers must;

 report on the performance of the Management System to effect continuous improvement. This includes the process of ensuring that verification of solutions is taking place (Continuous Improvement procedure)

 review corporate documentation, including manuals and procedures, to ensure compliance with the requirements of the Management System (Review and Improvement procedure)

manage risk of operations (Risk Management procedure)

· coordinate the management all injuries and rehabilitation (Rehabilitation

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Management procedure)

maintaining project related Management System records (Filing and Records

Management procedure)

 develop and administer Project Management Plans and Work Method Statements to address operating requirements and the outcomes of risk assessments (*Project Planning* procedure)

Site Managers

The site managers are responsible for ensuring the daily operation of company business is in accordance with the relevant procedure or Project Management Plan. In carrying out these tasks, it will involve

recording all hazards, illness, injury, incidents and problems

developing & implementing solutions

managing Improvement Request Reports and Site Instructions

ensuring subcontractors also operate to GMW Urban Management System requirements

ensuring GMW employees & subcontractors operate in safe work methods

All Staff

All staff members are responsible for contributing to the objectives outlined in the Management System Policies. In particular, employees must report any hazard or potential non-conformance identified in the workplace and provide assistance in developing solutions to problems.

Nominees may be appointed to carry out a task performed, but final responsibility rests with management as outlined. All personnel shall be responsible for the training of employees reporting to them.

Responsibility of subcontractors and suppliers

Subcontractors and people supplying goods and services are required to comply with GMW Urban Management System Policies and Procedures.

5.5.2 Management Representative

GMW Urban has appointed GMW Urban General Manager as the Management System Coordinator to manage the IMS. The Management System Coordinator is responsible for maintenance of the Management System and reporting requirements. In carrying out these tasks, it will involve;

Monitoring the Management Systems performance through reviews of compliance

and records

 Checking for compliance of the Management System and business activities with relevant National/State/Local legislation, regulations, standards and codes as referenced in procedures

Control of Management System documentation and providing guidance and

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advice on the appropriate implementation of it (Document and Data Control procedure)

Maintaining corporate related records (Filing and Records Management

procedure)

· Maintaining records of inspections, testing, and servicing

 Reporting the Management Systems overall performance (including compliance with objectives system statistics), and making recommendations for improvement

Assistance in the continual improvement of the Management System

5.5.3 Internal Communication

Internal communication and consultation of Quality, OH&S, and Environmental information between each employment level shall be in accordance with the *Communication and Consultation* procedure (Doc. Ref. P/5.5.3/001).

5.6 Management Review

The Integrated Management System is to be reviewed in accordance with *Review and Improvement* procedure (Doc. Ref. P/5.6/001).

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6. Resource Management

6.1 Provision of Resources

Provision of resources shall be in accordance with the Resource Management procedure (Doc. Ref. P/6.1/001).

Management of plant and assets shall be in accordance with the *Plant and Asset Management* procedure (Doc. Ref. P/6.1/002).

6.2 Human Resources

The competence, awareness, and training of human resources will be conducted as per the *Induction*, *Training and Competence* procedure (Doc. Ref. P/6.2/001).

The performance of all personnel shall be assessed and managed in accordance with the *Performance Management* procedure (Doc. Ref. P/6.2/002).

6.3 Infrastructure

Due the varying scope of works that GMW Urban undertakes, the infrastructure requirements will be identified on a project-to-project basis and will be incorporated into Project Management Plans.

6.4 Work Environment

Due the varying scope of works that GMW Urban undertakes, the work environment requirements will be identified on a project-to-project basis and will be incorporated into Project Management Plans.

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7. Product Realisation

7.1 Planning of Product Realisation

Planning of product realisation shall be conducted in accordance with the *Project Planning* procedure (Doc. Ref. P/7.1/001). This procedure shall cover the following:

 Quality, OH&S, and Environmental objectives and requirements of the project works;

Processes and documents specific to the project;

Reference should also be made to the *Process Control* procedure below for Work Method Statements and Inspection and Test Plans.

7.2 Customer Related Processes

7.2.1 Determination of requirements related to the product

Prior to GMW Urban committing to a Tender, a full review of the Request for Tender (RFT) will be undertaken in accordance with the *Tendering and Contract Review* procedure (Doc. Ref. P/7.2.1/001).

7.2.2 Review of requirements related to the product

Once a project has been awarded and before work commences, the project requirements are to be determined in accordance with the *Project Planning* procedure.

The budget and construction programme for each project shall be determined in accordance with the *Budgeting and Programming* procedure (Doc. Ref. P/7.2.2/001) prior to works commencing.

Prior to mobilisation to site, the project delivery is to be planned and implemented in accordance with the *Site Management* procedure (Doc. Ref. P/7.2.2/002).

The following procedures shall be followed to ensure the project is carried out in accordance with OH&S and Environmental procedure requirements:

Dust Mitigation and Airborne Emissions (P/7.2.2/003)

Electrical Safety (P/7.2.2/004)

• Emergency Procedures (P/7.2.2/005)

Fauna and Flora Management (P/7.2.2/006)

First Aid (P/7.2.2/007)

- Hazardous Substances and Dangerous Goods (P/7.2.2/008)
- Heritage and Archaeology (P/7.2.2/009)
- Incident Management (P/7.2.2/010)
- Land Clearing and Contaminated Sites (P/7.2.2/011)
- Manual Handling (P/7.2.2/012)

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- Noise and Vibration (P/7.2.2/013)
- Permit to Work (P/7.2.2/014)
- Personal Protective Equipment (P/7.2.2/015)
- Potential Acid Sulphate Soils (P/7.2.2/016)
- Rehabilitation Management (P/7.2.2/017)
- Vehicle Safety (P/7.2.2/018)
- Waste Management and Minimisation (P/7.2.2/019)
- Water Management (P/7.2.2/020)
- Work at Heights (P/7.2.2/021)

Occupational Health and Safety, and Environmental requirements not covered by the above procedures shall be reviewed in accordance with the *Risk Management* procedure (Doc. Ref. P/7.2.2/022).

7.2.3 Customer communication

As part of the Project Planning process, a framework for regular communication with the Client will be established. This communication will normally be in the form of project meetings where the Client will be invited to raise any issues with regards to quality, safety, and environment.

7.3 Design and Development

Design and Development will be undertaken in accordance with the *Design Management* procedure (Doc. Ref. P/7.3/001).

7.4 Purchasing

The following procedures shall be used for management of the purchasing process with regard to quality, occupational health and safety, and environment:

- Subcontractor Management procedure (Doc. Ref. P/7.4/001)
- Supplier Management procedure (Doc. Ref. P/7.4/002)

These procedures cover the following:

- · Purchasing process
- Purchasing information
- · Verification of purchased product

7.5 Product and Service Provision

7.5.1 Control of Production and Service Provision

Production and service provision shall be planned and implemented in accordance with *Process Control* procedure (Doc. Ref. P/7.5.1/001)

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7.5.2 Validation of Processes for Production and Service Provision

Process validation shall be conducted in accordance with the procedure for *Process Control*.

7.5.3 Identification and Traceability

All project works will be separated into lots for ease of identification and traceability. The creation and management of lots shall be in accordance with *Identification and Traceability* procedure (Doc. Ref. P/7.5.3/001).

7.5.4 Customer Property

Products and/or property supplied by the customer shall be managed in accordance with the *Customer Supplied Product* procedure (Doc. Ref. P/7.5.4/001).

7.5.5 Preservation of Product

Due to the varying scope of works of projects undertaken by GMW and the variety of products and services provided, the identification, handling, packaging, storage and protection of materials and products will be incorporated in greater detail within the Project Management Plan and Work Method Statements.

7.6 Control of monitoring and measuring devices

Control of monitoring and measuring devices shall be in accordance with *Inspection*, *Measuring and Test Equipment* procedure (Doc. Ref. P/7.6/001)

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8. Measuring, Analysis, and Improvement

8.1 General

Conformity of product shall be achieved by the procedure described in Section 8.3.

Conformity of the Integrated Management System shall be assessed and handled by a schedule of internal audits as detailed in Section 8.2.2. The IMS shall be continuously reviewed and improved as per Section 8.5.

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

The key stakeholders in projects undertaken by GMW Urban are:

- Client, and
- Public users

As part of the Project Planning process, a framework for regular communication with the Client will be established. This communication will normally be in the form of project meetings where the Client will be invited to raise any issues with regards to quality, safety, and environment.

Customer feedback and satisfaction is measured and addressed continuously although formal Client – Contractor Surveys may also be undertaken in accordance with the *Continuous Improvement* procedure.

Liaison with the public users will play an important role in the success of each project. Dealing with inquiries and complaints from the public will be performed in accordance with the *Public Liaison* procedure (Dec. Ref. P/8.2.1/001).

8.2.2 Internal Audits

Internal auditing of the GMW Integrated Management System shall be undertaken in accordance with the *Auditing* procedure (Doc. Ref. P/8.2.2/001).

Workplace Inspections covering OH&S and Environment management requirements shall be conducted in accordance with the *Surveillance and Inspections* procedure (Doc. Ref. P/8.2.2/002).

Scheduling of internal audits and workplace inspections will be defined during the project planning process.

8.2.3 Monitoring and Measurement of Processes

Monitoring and measurement of processes shall be conducted in accordance with the procedures for *Process Control*, *Auditing* and *Surveillance and Inspections*.

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8.2.4 Monitoring and Measurement of Product

Monitoring and measurement of product shall be conducted in accordance with the procedures for *Process Control, Auditing* and *Surveillance and Inspections*.

8.3 Control of Nonconforming Product

Any works or service which does not conform to quality, OH&S, or environmental requirements shall be controlled in accordance with *Control of Non-Conforming Product* procedure (Doc. Ref. P/8.3/001).

Major OH&S and environmental non-conformances may result in an emergency situation. Such non-conformances shall be managed in accordance with the *Emergency Procedures* procedure.

OH&S and environmental incidents that result in non-conformances shall be managed in accordance with the *Incident Management* procedure.

Rehabilitation of injured workers shall be in accordance with the *Rehabilitation Management* procedure.

8.4 Analysis of Data

Reporting and analysis of data related to quality, safety, and environment management of any GMW Urban project shall be performed in accordance with the *Project Reporting* procedure (Doc. Ref. P/8.4/001). Separate Corporate Reporting may also be required to analyse and demonstrate the suitability and effectiveness of the Integrated Management System.

8.5 Improvement

8.5.1 Continual Improvement

Continual improvement of the Integrated Management System shall be managed in accordance with *Continuous Improvement* procedure (Doc. Ref. P/8.5.1/001).

8.5.2 Corrective Action

Corrective action to prevent the cause of non-conformances from reoccurring shall be performed in accordance with *Corrective and Preventative Action* procedure (Doc. Ref. P/8.5.2/001).

8.5.3 Preventative Action

Preventative action to prevent the causes of non-conformances from occurring shall be performed in accordance with *Corrective and Preventative Action* procedure.

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Attachment 3. Integrated Management System PROCEDURES Referenced By This PMP

Find attached a copy of the current GMW Urban Document REGISTER - Integrated Management System PROCEDURES applicable to this Project.

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Document Deference			GMW General Manager
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NTEGRATED MANAGEMENT SYSTEM - PROCED		DIO O DIODI IAA	1/01/2008
Auditing (Q/S/E)	Management System Manual - Clause 8.2.2	P/8.2.2/001/4A	1/01/2008
Budgeting and Programming (Q)	Management System Manual - Clause 7.2.2	P/7.2.2/001/4A	
Communication and Consultation (Q/S/E)	Management System Manual - Clause 5.5.3	P/5.5.3/001/4C	26/08/2009
Continuous Improvement (Q/S/E)	Management System Manual - Clause 8.5.1	P/8.5.1/001/4A	1/01/2008
Control of Non-Conforming Product (Q/S/E)	Management System Manual - Clause 8.3	P/8.3/001/4A	1/01/2008
Corrective and Preventative Action (Q/S/E)	Management System Manual - Clause 8.5.2	P/8.5.2/001/4A	1/01/2008
Customer Supplied Product (Q/S/E)	Management System Manual - Clause 7.5.4	P/7.5.4/001/4A	1/01/2008
Design Management (Q)	Management System Manual - Clause 7.3	P/7.3/001/4A	1/01/2008
Document and Data Control (Q/S/E)	Management System Manual - Clause 4.2.3	P/4.2.3/001/4A	1/01/2008
Oust Mitigation and Airborne Emissions (S/E)	Management System Manual - Clause 7.2.2	P/7.2.2/003/4A	1/01/2008
lectrical Safety (S)	Management System Manual - Clause 7.2.2	P/7.2.2/004/4A	1/01/2008
Emergency Procedures (S/E)	Management System Manual - Clause 7.2.2	P/7.2.2/005/4A	1/01/2008
auna and Flora Management (E)	Management System Manual - Clause 7.2.2	P/7.2.2/006/4A	1/01/2008
Filing and Records Management (Q/S/E)	Management System Manual - Clause 4.2.4	P/4.2.4/001/4B	21/10/2008
First Aid (S)	Management System Manual - Clause 7.2.2	P/7.2.2/007/4A	1/01/2008
lazardous Substances and Dangerous Goods (S/E)	Management System Manual - Clause 7.2.2	P/7.2.2/008/4A	1/01/2008
Heritage and Archaeology (E)	Management System Manual - Clause 7.2.2	P/7.2.2/009/4A	1/01/2008
ncident Management (S/E)	Management System Manual - Clause 7.2.2	P/7.2.2/010/4C	26/08/2009
dentification and Traceability (Q)	Management System Manual - Clause 7.5.3	P/7.5.3/001/4A	1/01/2008
nduction, Training and Competence (Q/S/E)	Management System Manual - Clause 6.2	P/6.2/001/4C	26/08/2009
nspection, Measuring and Test Equipment (Q)	Management System Manual - Clause 7.6	P/7.6/001/4A	1/01/2008
and Clearing and& Contaminated Sites (E)	Management System Manual - Clause 7.2.2	P/7.2.2/011/4A	1/01/2008
Manual Handling (S)	Management System Manual - Clause 7.2.2	P/7.2.2/012/4C	26/08/2009
Noise and Vibration (S/E)	Management System Manual - Clause 7.2.2	P/7.2.2/013/4A	1/01/2008
Performance Management (Q/S/E)	Management System Manual - Clause 6.2	P/6.2/002/4A	1/01/2008
	Management System Manual - Clause 7.2.2	P/7.2.2/014/4A	1/01/2008
Permit to Work (S) Personal Protective Equipment (S/E)	Management System Manual - Clause 7.2.2	P/7.2.2/015/4A	1/01/2008
The second secon	Management System Manual - Clause 6.1	P/6.1/002/4A	1/01/2008
Plant and Asset Management (Q/S/E)	Management System Manual - Clause 7.2.2	P/7.2.2/016/4A	1/01/2008
Potential Acid Sulphate Soils (E)	Management System Manual - Clause 7.5.1	P/7.5.1/001/4C	26/08/2009
Process Control (Q/S/E)	Management System Manual - Clause 7.1	P/7.1/001/4C	26/08/2009
Project Planning (Q/S/E)	Management System Manual - Clause 1.1 Management System Manual - Clause 8.4	P/8.4/001/4A	1/01/2008
Project Reporting (Q/S/E)		P/8.2.1/001/4A	1/01/2008
Public Liaison (Q/S/E)	Management System Manual - Clause 8.2.1	P/7.2.2/017/4A	1/01/2008
Rehabilitation Management (S)	Management System Manual - Clause 7.2.2	P/6.1/001/4C	26/08/2009
Resource Management (Q/S/E)	Management System Manual - Clause 6.1	P/5.6/001/4C	26/08/2009
Review and Improvement (Q/S/E)	Management System Manual - Clause 5.6		1/01/2008
Risk Management (Q/S/E)	Management System Manual - Clause 7.2.2	P/7.2.2/022/4A	1/01/2008
Site Management (Q/S/E)	Management System Manual - Clause 7.2.2	P/7.2.2/002/4A	1/01/2008
Subcontractor Management (Q/S/E)	Management System Manual - Clause 7.4	P/7.4/001/4A	
Supplier Management (Q/S/E)	Management System Manual - Clause 7.4	P/7.4/002/4A	1/01/2008
Surveillance and Inspections (Q/S/E)	Management System Manual - Clause 8.2.2	P/8.2.2/002/4A	1/01/2008
Tendering and Contract Review (Q/S/E)	Management System Manual - Clause 7.2.1	P/7.2.1/001/4C	26/08/2009
Vehicle Safety (S)	Management System Manual - Clause 7.2.2	P/7.2.2/018/4A	1/01/2008
Waste Management and Minimisation (E)	Management System Manual - Clause 7.2.2	P/7.2.2/019/4A	1/01/2008
Water Management (E)	Management System Manual - Clause 7.2.2	P/7.2.2/020/4A	1/01/2008
	Management System Manual - Clause 7.2.2	P/7.2.2/021/4A	1/01/2008

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Attachment 4. Integrated Management System TOOLS Referenced By This PMP

Find attached a copy of the current GMW Urban **Document REGISTER – Integrated Management System TOOLS** applicable to this Project.

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Document Issue Date	Revision A 27/04/10	Approved By:	GMW General Manager



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udit SCHEDULE	Auditing procedure	F/8.2.2/001.1/4A	1/01/2008
lient-Contractor SURVEY	Continuous Improvement procedure	F/8.5.1/001.3/4A	1/01/2008
onfined Space Entry PERMIT	Permit To Work procedure	F/7.2.2/014.3/4A	1/01/2008
onsultation REGISTER	Public Liaison procedure	F/8.2.1/001.1/4C	26/08/2009
aily Plant CHECKLIST	Plant and Asset Management procedure	F/6.1/002.1/4A	1/01/2008
aily Site RECORD	Site Management procedure	F/7.2.2/002.3/4A	1/01/2008
ilapidation REPORT	Site Management procedure	F/7.2.2/002.1/4A	1/01/2008
istribution LIST	Document and Data Control procedure	F/4.2.3/001.2/4A	1/01/2008
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mergency Contact LIST	Emergency Procedures procedure	F/7.2.2/005.1/4A	1/01/2008
mployee Review FORM	Performance Management procedure	F/6.2/002.1/4A	1/01/2008
mployee Skills Registration FORM	Induction, Training and Competence procedure	F/6.2/001.1/4A	1/01/2008
vacuation Drill REGISTER	Emergency Procedures procedure	F/7.2.2/005.2/4A	1/01/2008
xtension Of Time REGISTER	Subcontractor Management procedure	F/7.4/001.5/4A	1/01/2008
	First Aid procedure	F/7.2.2/007.1/4A	1/01/2008
irst Aid Contents CHECKLIST	First Aid procedure	F/7.2.2/007.2/4A	1/01/2008
irst Ald Qualification REGISTER	Filing and Records Management procedure	F/4,2,4/002,3/4A	1/01/2008
older Spine LABELS	Continuous Improvement procedure	F/8.5.1/001.1/4A	1/01/2008
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lold Point Notification FORM	Permit To Work procedure	F/7.2.2/014.2/4A	1/01/2008
lot Work PERMIT	Incident Management procedure	F/7.2.2/010.2/4A	1/01/2008
ncident REGISTER	Incident Management procedure	F/7,2.2/010.1/4A	1/01/2008
noident REPORT	Inspection, Measuring, and Test Equipment procedure		1/01/2008
nspection & Test Equipment REGISTER		F/7,5.1/001.4/4A	1/01/2008
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nternal Audit CHECKLIST	Auditing procedure	F/8.2.2/001.3/4A	1/01/2008
nternal Audit REPORT	Auditing procedure	F/8.5.2/001.1/4A	1/01/2008
mprovement Request REGISTER	Corrective and Preventative Action procedure		1/01/2008
mprovement Request REPORT	Corrective and Preventative Action procedure	F/8.5.2/001.2/4A	1/01/2008
etterbox Drop TEMPLATE	Public Liaison procedure	F/8.2.1/001.2/4A	1/01/2008
ot Conformance SUMMARY	Process Control procedure	F/7.5.1/001.6/4A	1/01/2008
ot Identification REGISTER	Identification and Traceability procedure	F/7.5.3/001.1/4A	4
Maintenance REGISTER	Plant and Asset Management procedure	F/6.1/002.2/4A	1/01/2008
Meeting Agenda TEMPLATE	Communication and Consultation procedure	F/5.5.3/001.1/4A	1/01/2008
Meeting Minutes PROJECT TEMPLATE	Communication and Consultation procedure	F/5.5.3/001.3/4A	1/01/2008
Neeting Minutes TEMPLATE	Communication and Consultation procedure	F/5.5.3/001.2/4A	1/01/2008
Office Inspection CHECKLIST	Surveillance and Inspections procedure	F/8.2.2/002.1/4A	1/01/2008
DH&S Meeting Minutes TEMPLATE	Communication and Consultation procedure	F/5.5.3/001.6/4A	1/01/2008
OH&S Representatives REGISTER	Communication and Consultation procedure	F/5.5.3/001.5/4A	1/01/2008
On-Site Inspection CHECKLIST	Surveillance and Inspections procedure	F/8.2.2/002.2/4A	1/01/2008
Opportunity Evaluation FORM	Tendering and Contract Review procedure	F/7.2.1/001.3/4C	26/08/2009
PERMIT to Excavate	Permit To Work procedure	F/7.2.2/014.1/4A	1/01/2008
PPE Issue FORM	Personal Protective Equipment procedure	F/7.2.2/015.1/4A	1/01/2008

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NTEGRATED MANAGEMENT SYSTEM - TOOL	S (Continued)		
Project Filing and Records INDEX Brief	Filing and Records Management procedure	F/4.2.4/002.1/4A	1/01/2008
Project Filing and Records INDEX Detailed	Filing and Records Management procedure	F/4.2.4/002.2/4A	1/01/2008
Project Handover CHECKLIST	Tendering and Contract Review procedure	F/7.2.1/001.4/4C	26/08/2009
Project Management Plan BLANK	Project Planning procedure	F/7.1/001.1/4C	26/08/2009
Project Monthly Report TEMPLATE	Project Reporting procedure	F/8.4/001.1/4A	1/01/2008
Request For Information FORM	Design Management procedure	F/7.3/001.1/4A	1/01/2008
Request For Information REGISTER	Design Management procedure	F/7.3/001.2/4A	1/01/2008
Request for Quotation LETTER	Subcontractor Management procedure	F/7.4/001.6/4A	1/01/2008
Return to Work PLAN	Rehabilitation Management procedure	F/7.2.2/017.1/4A	1/01/2008
Site Equipment INVENTORY	Plant and Asset Management procedure	F/6.1/002.3/4A	1/01/2008
Site Establishment CHECKLIST	Site Management procedure	F/7.2.2/002.2/4A	1/01/2008
Site Induction RECORD	Induction, Training and Competence procedure	F/6.2/001.3/4A	1/01/2008
Site Induction REGISTER	Induction, Training and Competence procedure	F/6.2/001.4/4A	1/01/2008
Site Inspection CHECKLIST	Process Control procedure	F/7.5.1/001.7/4C	26/08/2009
Site Instruction REGISTER	Subcontractor Management procedure	F/7.4/001.2/4A	1/01/2008
Site Instruction REGISTER	Subcontractor Management procedure	F/7.4/001.1/4A	1/01/2008
Site Instruction SHEET Site Risk Assessment RECORD	Risk Management procedure	F/7.2.2/022.1/4A	1/01/2008
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Subcontract Order and Agreement AS4901	Tendering and Contract Review procedure	F/7.2.1/001.1/4A	1/01/2008
Fender Information SHEET	Tendering and Contract Review procedure	F/7.2.1/001.2/4A	1/01/2008
Tender Working SHEET	Communication and Consultation procedure	F/5.5.3/001.4/4A	1/01/2008
Foolbox Talk RECORD	Induction, Training and Competence procedure	F/6.2/001.2/4A	1/01/2008
Training RECORD		F/7.4/001.3/4A	1/01/2008
Variation FORM	Subcontractor Management procedure	F/7.4/001.4/4A	1/01/2008
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Vehicle REGISTER	Vehicle Safety procedure	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	1/01/2008
Visitor REGISTER	Induction, Training and Competence procedure	F/6.2/001.5/4A F/7.5.1/001.1/4C	26/08/2009
Work Method Statement BLANK	Process Control procedure		1/01/2008
Work Method Statement Monitoring FORM	Process Control procedure	F/7.5.1/001.3/4A	1/01/2008
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SECTION 2: AUTHORISATION		To be completed by DOCUMENT CONTROLLER
Comments:		
Name:	Signature:	Date:

Document Reference: F/4.2.3/001.1/4A Document Issue Date: 01/01/08



Attachment 5. Project Documents and Drawings

Find attached a copy of the master GMW Urban;

Document Issue Register and TRANSMITTAL

Drawing Issue Register and TRANSMITTAL

Which identify the Specifications and Drawings that apply to this Project at commencement.

Document Reference	F/7 1/001 1/4C	Page	7 of 50
	1111110011111	Annual Day	GMW General Manager
Document Issue Date	Revision A 27/04/10	Approved By:	GIVIVY General Manager



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MPC Facility- Elevations	7328-702		_		_	_	_	_		_	_	-	_	-	-	_				-
MPC Facility- Sections	7328-703		-	H	+	-	-	-	-	-	-	-	+	-	-	-	-		-0-1	-
Structural																				-
Notes Sheet	S01		_				_	_			-	-	_	-		-				1
Footing Plan MPC	S101						-	_		_		-	_	-	-	_	_			-
Footing Plan Green Waste	S102	1,000		_		1	_	_	_		-	-	-	_	-	-				ļ.
TBA	S103							_	_		_	_	-	_	_	_	_		_	-
TBA	S104						1		1		_	-		_	-		_			
Push Walls 1 & 2 Details	S105			1	1															١



DRAWING ISSUE REGISTER AND TRANSMITTAL

This form is used to record technical DRAWINGS in transmittal Use this form with the DOCUMENT AND DATA CONTROL Procedure Light Horse Business Centre DAY Matthew Gapps MONTH ISSUED BY: YEAR NO. OF COPIES (PAPER) and/or P - Acrobat PDF file D - Autocad DWG file ATTENTION DISTRIBUTION Ian Malouf Dial A Dump Industries 32 Burrows Rd, Alexandria NSW 1460 Martin Carey Global Projects Unit 16, 8 Avenue of the Americas, Newington NSW 2127 Evan Heugh COMPLETE Urban 10 Regent St, Chippendale NSW 2008 Jones Nicholson Cameron Lee Suite45, 40-45 Belmont st, Sutherland NSW 2232 Brian Thornton TURMEC Engineering Rathcairn, Athboy, Co. Meath, Ireland CURRENT DRG NO. REVISION NO. **DRAWING TITLE** 5106 Push Walls 3 & 4 Details S107 Push Walls 5 & 6 Details S108 Push Walls 7 & 8 Details Electrical TBA Mechanical TBA REASON FOR ISSUE A - APPROVAL C - CONSTRUCTION R - REVIEW P - PRELIMINARY RR SENT VIA S - SHOP DETAILING I - INFORMATION RI - RETURN ISSUE E-EMAIL M-MAIL H-HAND D-DISK F-FAX EE Please check that the drawings you have received are in agreement with those listed. COMMENTS / INSTRUCTIONS

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Document Issue Date: 01/01/08

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Approved By: GMW General Manager



Attachment 6. Records Management Plan

Find attached a copy of the current GMW Urban Project Filing and Records INDEX applicable to this Project.

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PROJECT FILING AND RECORDS INDEX

This Index is used when new hardcopy Folders for Project Files & Records are required
Use this form with the FILIING AND RECORDS MANAGEMENT Procedure

	To be completed by PROJECT MANAGER
Section 1: PROJECT DETAILS	
Client Code:	Project COMMENCEMENT Date:
Project No:	Project PRACTICAL COMPLETION Date:
Project Name:	Project CLOSED OUT Date:
Project RECORDS Owner:	Project RECORDS sent to long-term storage:

San Danie	0. 000	JECT / OU	ALITY / IDENTIFIED RECORDS INDEX	To be completed by PROJECT	MANAGE
Section No.	Folder No.	Folder Location (Office/Site)	Section/Activity Name	Record Names	Identified Record (Y/I Spec.)
1			CLIENT Correspondence - In & Out	Letters, Emails, Faxes, Meeting Agendas, Meeting Minutes PROJECT etc., Client Purchase Orders, Customer Satisfaction/Surveys	
2	-		INTERNAL Correspondence - In & Out	Letters, Emails, Faxes, Meeting Minutes etc.	
3			PROJECT MANAGEMENT PLAN	Quality Manual, Project Quality Plan, Project OHS&R Plan, Project Environment Plan, IMS Procedures, Inspection & Test Plans, Safe Work Method Statements	. Y
4			Contract, Specifications, Drawings	Contract Documents, Document REGISTER, Distribution LIST, Document Issue-Variation FORM, Document Issue Register and TRANSMITTAL, Drawing Issue Register and TRANSMITTAL	14
5			Construction Program	Budget, Construction Program	
6			Design Issues	Request For Information FORM, Request For Information REGISTER, Design Briefs, Design Plans, Design Inputs/Outputs/Changes/Verification/Review/Validation	
7			Variations	Extension Of Time REGISTER, Variation FORM, Variation REGISTER	
8			Instruction Sheets & Hold Points	Site Instruction SHEET, Site Instruction REGISTER, Hold Point Notification FORM, Client Submissions	
9			Corrective and Preventative Actions	Client Corrective/Preventative Action Requests, Improvement Request REGISTER, Improvement Request REPORTS	Υ
10			Project Reports	Project Management Reviews, Project Weekly Report, Project Monthly Report, Project Completion Report, Analysis of Project Data	
11			Induction, Training and Competence	Visitor REGISTER, First Aid Qualification REGISTER, Site Induction RECORD, Site Induction REGISTER, Training RECORD	Υ
12			Public Liaison	Consultation REGISTER, Progress Newsletters, Letterbox Drops, Complaints, Public Correspondence	Υ
13			SUBCONTRACTORS Correspondence - In & Out	Letters, Emails, Faxes, Meeting Minutes etc., Work Method Statement Review CHECKLIST, Evaluation/Surveillance/Audit, Verification Records/Reports, Test Certificates	
14			SUPPLIERS Correspondence - In & Out	Letters, Emails, Faxes, Meeting Minutes etc., Work Method Statement Review CHECKLIST, Evaluation/Surveillance/Audit, Verification Records/Reports, Test Certificates	
15			CONSULTANTS Correspondence - In & Out	Letters, Emails, Faxes, Meeting Minutes etc., Work Method Statement Review CHECKLIST, Evaluation/Surveillance/Audit, Test Certificates	
16			CUSTOMER SUPPLIED PRODUCT Correspondence - In & Out	Letters, Emails, Faxes, Meeting Minutes etc., Evaluation/Surveillance/Audit, Test Certificates, Inspection Records	
17			Site Management	Site Establishment CHECKLIST, Daily Site RECORD, Site Risk Assessment RECORD, Toolbox Talk RECORD, Vehicle REGISTER	



PROJECT FILING AND RECORDS INDEX

This Index is used when new hardcopy Folders for Project Files & Records are required
Use this form with the FILIING AND RECORDS MANAGEMENT Procedure

ction 2: PROJECT / Q	UALITY / IDENTIFIED RECORDS INDEX	To be completed by PROJECT MA	all fale
18	Photos, Site Conditions	Dilapidation REPORT, Building/Pavement Condition Reports	Y
19	Plant & Equipment	Inspection & Test Equipment REGISTER, Daily Plant CHECKLIST, Maintenance REGISTER, Site Equipment INVENTORY	
20	Traffic Control	Traffic Management Plans, Traffic Control Plans/Permits/Approvals, Vehicle Movement Plans	Y
21	Permits	PERMIT to Excavate, Hot Work PERMIT, Confined Space Entry PERMIT	
22	Lot Records	Lot Identification REGISTER, Lot Conformance SUMMARY, Site Inspection CHECKLIST, Technical Specification specific Lot Records, Product Batch/Traceability Records, Conformance/Material Test Reports, Quantity Agreements	Y
		(Specific IDENTIFIED RECORDS processes for Stormwater Drainage, Precast Reinforced Concrete Box Culverts, Earthworks, In-situ Pavement Recycling by Deep-Lift Cementitious Stabilisation, Asphalt (Dense Graded and Open Graded), Concrete Works for Bridges)	Y
		(Specific TRACEABILITY processes for CONCRETE BATCHES in bridge components, cast-in-place box culverts and retaining walls, CONCRETE BATCHES used in road pavement sub-base and base, STABILISED MATERIAL used in road pavement, ASPHALT used in wearing courses, intermediate courses and drainage layers, STEEL PLATE used in bridge girders and bridge columns)	Υ
23	Survey	Survey Controls, Survey Reports and Records	Y
24	OHS&R & Env - General	First Aid Contents CHECKLIST, Emergency Contact LIST, Evacuation Drill REGISTER, Management System BRIEFS	
25	OHS&R & Env - Documents & Records	Hazardous Substances REGISTER & MSDS's, PPE Issue FORM, Work Method Statement Monitoring FORM, Waste Disposal Records, Pesticide Application Records	
26	OHS&R & Env - Incidents, Hazards	Hazard Report FORM, Hazard Report REGISTER, Incident REPORT, Incident REGISTER, Rehabilitation Records, Return to Work PLAN, Workcover/DEC Reports, Environmental complaints	Υ
27	OHS&R & Env - Meetings	OH&S Representatives REGISTER, OH&S Meeting Minutes	
28	Audits, Inspections and Surveillance	Office Inspection CHECKLIST, On-Site Inspection CHECKLIST, Audit Reports (1st/2nd/3rd Party)	
29	Tender	Tender Information SHEET, Tender Working SHEET, Tender and Contract Review Documents, Preparation, Tender Submission	
30	Administration	Subcontracts/Agreements, Delivery Dockets, Purchase Orders, Invoices	
31			



Attachment 7. Project OH&S Reference Documents – Head Contract

Find attached the additional or specific Head Contract OH&S Management Systems or processes including;

· NIL

GMW General Manager
Approved By:



Attachment 8. Project ENVIRONMENTAL Reference Documents – Head Contract

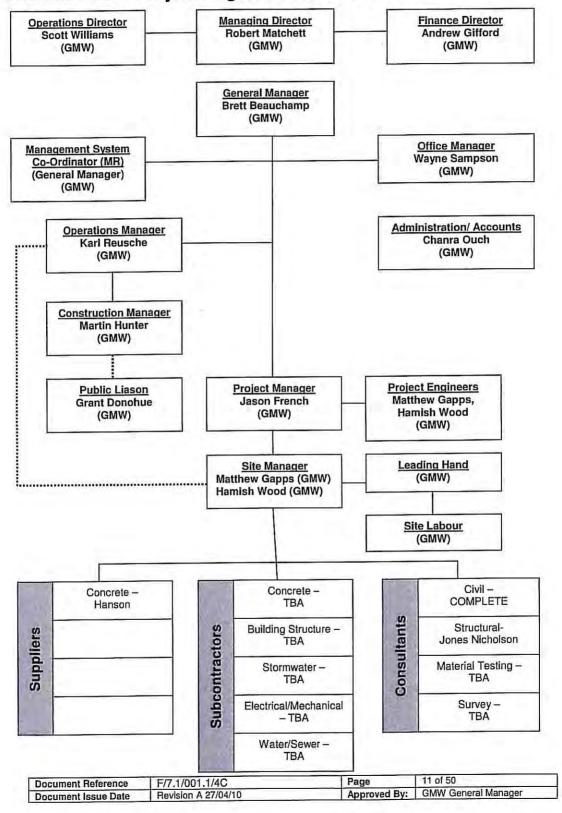
Referenced below are additional or specific Head Contract ENVIRONMENTAL Management Systems or processes applicable to the works;

- Site Environmental Management plan (LHBC)
- Detailed Hydrogeological Investigation and Assessment (IGGC Pty Ltd)
- Noise Monitoring Plan PAE Holmes Australia
- Eastern Creek Business Park Engineering Services Report Hyder Consulting
- Aboriginal Heritage Management Plan Jo MacDonald Cultural Heritage Management Pty Ltd
- Vegetation Management Plan Abel Ecology
- Soil, Erosion , Surface water and Leachate Management Plan Douglas Partners
- Air Quality PAE Holmes Australia
- Landscape Plan Amenity Berms Site Management Pty Ltd
- Transport Code of Conduct and Traffic Plan

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Attachment 9. Project Organisation Structure





Attachment 10. Project Training Needs Analysis

10.1 Training Needs Analysis Matrix

Find below the results of a Project level Training Needs Analysis. There are 2 (two) main categories outlined in this matrix;

- Dark blue is essential training required by that position on the Project
- Grey is recommended training, not compulsory, for that position on the Project Where a role is undertaken by a subcontractor, the relevant training requirements for the project must be identified in the subcontractor Project Management Plan.

<u>Project Role /</u> <u>Training Need</u>	Directors	General/ Operations/ Construction Manager	Project Managers / Engineers	Site Manager	Management System Coord.3	<u>Riager</u>	Construction Worker	Plant Operator	Visitor*
Client Project Induction	NA	NA	NA	NA	NA	NA	NA	NA	NA
(GENERAL OH&S Induction) NSW Workcover (Green Card) Construction Certificate									
(WORK ACTIVITY Induction)	Polici			HE		All		H	1
Induction – GMW Corporate						53.76			- 13
(SITE SPECIFIC Induction)	66-06	500.00	25	081	100	94E	15.0		1
Induction – GMW Project/Site	00.00	Star	S.	1					The State of the S
Drivers Licence (Class C)			or daligns		Harry C.			4 (1)	
Drivers Licence (Class MR)						181,00	1	ACCIO	
First Aid		dr.	201	25.72	1			-	
Sediment & Erosion Control				Marc	de la constitución de la constit		1-	CONTRACTOR OF THE PARTY OF THE	
Excavator Operator							-		
Skid Steer Operator			**********	-			E-1270		
Traffic Control (L1 – Blue)				1001					
Traffic Control (L2 – Red)		5-7-00-Y/5	20 600						
Traffic Control (L3 – Orange)					Marie Land	0.00	THE SHARE	res de	
OH&S Awareness			h			-	2		
Working At Heights				2		-	- 4		
Rigging Certificate		18335				Y Hds	-		-
Internal Auditor		1.50				_			
Microsoft Word/Excel/Project 1. Where Induction training is		I PIC	1 11	VIOLE	00 -	-//	oin co	compo	niod o

- 1 Where Induction training is not completed, the VISITOR shall remain accompanied at all times by a person who has completed the GMW Induction/s
- 2 All personnel working at heights must have the training
- 3 For the purpose of assigning roles as defined within GMW Urban Management System Procedures, the Management System Coordinator encompasses the role of the OH&S Coordinator, Public Liaison Officer, Training Facilitator & Environmental focal point

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10.2 Learning Outcomes

Find below the specific learning outcomes for each need/course in the TNA above identifying the knowledge and/or key skills required by a position/role relating to the Project.

10.2.1.1 Client Project Induction

Specialized Client initiated Site Induction requirements as Set out in the Stage 1 Site Environmental management Plan

10.2.1.2 (GENERAL OH&S Induction) NSW Workcover (Green Card) Construction Certificate

Trained to NSW Workplace legislative requirements relating to OH&S and Environment, and how these apply to construction sites.

10.2.1.3 (WORK ACTIVITY Induction) Induction – GMW Corporate

(Refer to the Induction – Session Plan within the Induction, Training and Competence procedure).

Familiarisation with the Corporate GMW Urban Management System and how it is implemented to address Quality, Safety and Environmental requirements.

10.2.1.4 (SITE SPECIFIC Induction) Induction – GMW Project/Site

(Refer to the Induction – Session Plan within the Induction, Training and Competence procedure).

Familiarisation with the Project Level GMW Urban Management System and how it is implemented to address Quality, Safety and Environmental requirements.

10.2.1.5 Drivers Licence (Class C)

Licensed and ability to operate a 1A class vehicle at or to the Project site.

10.2.1.6 Drivers Licence (Class MR)

Licensed and ability to operate a Medium Rigid class vehicle at or to the Project site.

10.2.1.7 First Aid

Trained to administer First Aid treatment to an injury prior to professional medical help becoming available.

10.2.1.8 Sediment & Erosion Control

Ability to plan and implement controls in accordance with the NSW Government Guidelines 'Managing Urban Stormwater: Soils & Construction' (Blue Book).

10.2.1.9 Excavator Operator

Competent in the operation of an Excavator (Certificate of Competency OR Logbook under Supervision of Operator with Certificate of Competency)

10.2.1.10 Skid Steer Operator

Competent in the operation of an Skid Steer Loader (Certificate of Competency OR Logbook under Supervision of Operator with Certificate of Competency)

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10.2.1.11 Traffic Control (L1 - Blue)

Trained to RTA Level 1 - Traffic Controller (Blue Ticket) for performing Traffic Control duties and the coordination of pedestrian and vehicle traffic in locations accessible to the public.

10.2.1.12 Traffic Control (L2 - Red)

Trained to RTA Level 2 - Select/Modify Traffic Control Plans (Red Ticket) for the selection, modification and implementation of a Traffic Control Plan in locations accessible to the public.

10.2.1.13 Traffic Control (L3 - Orange)

Trained to RTA Level 3 - Design Audit Traffic Plans (Orange Ticket) for the design and audit of Traffic Control Plans.

10.2.1.14 OH&S Awareness

Familiarisation with the relevant OH&S legislation and approaches to apply accordingly.

10.2.1.15 Working at Heights

Knowledge of requirements for working in close proximity to areas with unprotected edges.

10.2.1.16 Rigging Certificate

Riggers Certificate of Competency to the appropriate level relative to the work to be performed. All rigging services are intended to be subcontracted, except those relating to the operation of Hiab cranes, for which a Level 1 certificate is required.

10.2.1.17 Internal Auditor

Trained to evaluate Integrated Management System requirements applicable, and to review and report their compliance.

10.2.1.18 Microsoft Word/Excel/Project

A Basic competence level in the operation of Microsoft Word, Excel, and Project Software. Competent employees must be able to:

- · Create and edit reports
- Undertake data entry into GMW project spreadsheets
- Input into GMW project programs

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Attachment 11. SITE SPECIFIC Induction – Session Plan and SITE INDUCTION PACK

11.1 SITE SPECIFIC Induction - Session Plan

Find below the SITE SPECIFIC Induction – Session Plan updated to reflect the Project specific requirements of this Site.

MODULE	. <u>DETAILS</u>	REFERENCE
1. Introduction	-State importance of SITE SPECIFIC induction; • Familiarity with site • Knowledge of site specific OHS&E Hazards -Provide overview of GMW Urban (relevant to person) -Provide overview of the GMW Project for Light Horse Business Centre Project; • Works to include new concrete roads/building slabs/walls/hardstand areas, construction of MPC Building/Workshop/Canteen and Green Waste structures, dust suppression systems, tanks, stormwater pits/pipes/GPT's, electrical and landscaping -Provide overview of Client: • Alexandria Landfill Pty Ltd -Explain that following Occupational Health, Safety and Environmental procedures and participation in activities such as Induction are part of everyone's job at the workplace.	Project Site Plan
2. Policy Statement	-Introduce GMW Urban's Management System policy statements and briefly describe the elements -Emphasise the importance of meeting Client requirements and relevant statutory and regulatory requirements	Policy Statements (Management System Manual)
3. Site Specific Hazards Identification and Control Measures	-Identify main hazards at the project site and control measures implemented; • Wild Animals, ie Goats & Snakes • Construction vehicle traffic • Cranes • Quarry Pit -Provide and explain the GENERAL and SPECIAL Site Rules applicable to this Project Site	GENERAL Site Rules, SPECIAL Site Rules
4. Safe Work Method Statements	-Explain the requirement for a Safe Work Method Statement or Job Safety Analysis for every work activity (including specific OH&S and/or ENVIRONMENTAL processes, hazards and control measures) -Each subcontractor to provide their own SWMS -Explain development of SWMS and the process of consultation -Where applicable, review specific contents with personnel -Where SWMS are kept and sign-off on those reviewed	
5. Non-Compliance Procedure	-Inform of GMW Urban's Non compliance procedure to be taken if found not to be meeting GMW Urban's OHSR&E regulrements	REPORT
6. Workplace Contacts	-Identify names and position of person(s) as Primary Site Contact for Project matters:	Structure, OHS Representatives

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MODULE	<u>DETAILS</u>	REFERENCE
	 GMW Project Engineer-Matthew Gapps, Hamish Wood 	
7. First Aid	-Identify names of First Aid Officers -Inform of location of First Aid kits	First Aid Qualification REGISTER
8. Emergency Procedure	-Identify types of emergencies -Inform what the alarm sounds like -Explain the emergency procedure -Identify the fire fighting media from emergency plan Other special procedures	Emergency Contact LIST
9. Evacuation Procedure	-Identify types of emergencies requiring evacuation -Inform what the alarm sounds like -Explain the emergency evacuation process -Identify the Emergency Assembly Point -Stress must not leave assembly point until told so by Warden (Site Manager)	
10. Incident/ Accident/ Hazard Notification and Recording	-Identify the types of Incidents/Occurrences that need reporting • all accidents • near misses -Show the Incident REPORT that is used -Identify where these forms must be sent to -Discuss hazard notification/reporting -Discuss Workers Compensation requirement to report all injuries immediately to Supervisor	Incident REPORT, Hazard Report FORM
11. Hazardous Substances and Dangerous Goods	-Provide examples of hazardous substances and dangerous goods	Substances REGISTER, Example MSDS
12. Personal Protective Equipment	-List mandatory PPE requirements for this site Hard Hat High visibility clothing or vest Steel capped footwear Explain that issue of PPE is the responsibility of the employer Explain that care and maintenance of PPE is the responsibility of the employee	
13. Sun Protection	-Explain the hazard of ultraviolet radiation (UV) to outdoor workers and skin cancer -Explain how the use of certain PPE reduces the exposure to UV: Sunscreen Hat brims Long Sleeves UV protective eyewear	
14. Smoking, Drugs & Alcohol	buildings -Coming to work under the effects of drugs and or alcohol is a disciplinary offence	A .
15. Amenities and Housekeeping	-Hygiene and general cleanliness -Identify buildings within compound (Office, Toilets, Lunchroom) -Identify authorised and restricted parking areas -Rubbish / Waste not to be present within site. Only at compound.	
16. Manual Handling & Occupational Overuse	-Provide definition (see MS Brief) -Give example -Identify mechanical handling equipment available at the workplace for use	

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MODULE	DETAILS	REFERENCE
Syndrome		
Plant, Equipment and Electrical Safety	-Explain the 10m demarcation rule: • DO NOT approach or pass within 10m of a operational item of plant without obtaining the operator's permission -Use seat belts -Inspection of plant prior to use -Completion of Maintenance Daily Plant Checklist -Notify Supervisor if equipment is damaged/needs repair -Tracking Inventory of small tools and equipment -DO NOT use without training -DO NOT touch dismantled equipment -Explain that power tools and leads must be tagged and tested ELCB requirements	Specific reference to plant, tools and equipment used by participants
	-Discuss the fatigue, security and environmental issues - Advise of approved hours of work; Monday to Friday 7.00am to 5.30pm and 7.30am to 3.30pm Saturday.	
Hours 19. Check-in Procedure	Visitors must report to the Site Office and make themselves known to the Site Manager & sign Visitors Register Visitors must be accompanied at all times by a fully inducted person	Visitor REGISTER
20. General Employee & Public Safety	-Discuss signage and barricading requirements -Discuss interactions with members of the public, house owners etc. on site (Public Liaison)	
21. Social Issues	-Highlight that sexual, racial, or any other type of harassment or discrimination will not be tolerated -Discuss conflict resolution procedures	
22. Work at Heights	-Only competent persons permitted Discuss issues such as:	
23. Permits	-Identify some processes may require Internal (eg. PERMIT to Excavate, Hot Work PERMIT, Confined Space PERMIT) or External (eg. Road Occupancy Licence) permits and approvals	Example PERMITS
24. Vehicle Safety	-Identify the need to follow road rules and comply with Vehicle Safety procedure -State Vehicle Movement Plan rules for the Site Traffic Control Plan requirements -Temporary use of company vehicles to be recorded in Vehicle REGISTER	Vehicle REGISTER
25. Environmental Issues	-Discuss environmental issues and controls for the Site including: Dust & Air Emissions Fauna and Flora (Tree protection) Heritage & Archaeology Land Clearing & Contaminated Soils Noise and Vibration Erosion and sediment control Waste Management Water, Erosion & Sediment	SITE SPECIFIC Environmental Management Plan
Finish	-Complete the Site Induction RECORD (Copy certificates of competency and evidence of General OHS Induction)	Site Induction Record Form

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11.2 SITE INDUCTION PACK

The following SITE INDUCTION PACK of support information should be prepared in uncontrolled hardcopy and provided to each person (internal or external) who undertakes the SITE SPECIFIC Induction.

SITE INDUCTION PACK (minimum Contents)

- 1) Project Site Plan
- 2) GMW Urban Integrated Management System Policies
 - a. Quality
 - b. Environment
 - c. Safety
 - d. Rehabilitation
 - e. Public Liaison
- 3) GENERAL Site Rules
- 4) SPECIAL Site Rules
- 5) Emergency Contact LIST
- 6) Project Emergency PLAN (Site Evacuation Plan, Medical Centres & Hospitals)
- 7) PPE Issue FORM (as completed for Employee personal issue)

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Attachment 12. Project Site Establishment Plan

Find below the Project Site Establishment Plan outlining the elements that are required to be initiated at pre-construction.

12.1 Site Establishment Elements

Each of the following items will be checked prior to commencement of work by using the Site Establishment CHECKLIST.

Element to be instigated at pre-	<u>Location of Item</u>
Construction	LONG THE PARTY OF
Conduct a Site Risk Assessment and	The Project Site Risk Assessment is an
orepare/obtain any Work Method	Attachment to this PMP
Statements	 GMW Urban Work Method Statements are included as an Attachment to this PMF
Confirm hours of work permissible	 Refer to SPECIAL Site Rules Section in this PMP Attachment
Check all approvals, permits and licenses to work have been obtained	 Refer to Permits Section in this PMP Attachment
Confirm material testing resources in place	 Material testing resources are outlined in the Inspection & Test Plans Attachment to this PMP
Verify surveyor meets contract requirements	 The survey requirements are outlined in the Project Procurement Plan Attachment to this PMP
Establish temporary fencing & site shed including amenities & storage facilities	Physical erection of facilities on-site
Establish erosion and sedimentation controls	 Refer to Site Specific Environmental Management Plan Attachment to this PMP
Prepare any stockpiling locations and arrange appropriate drainage controls	 Physical erection of facilities on-site
Develop community contacts	 Public Liaison Officer to collect tenant information details
Erect all project signage	 Refer to Project Signage Section in this PMP Attachment
Ensure traffic management plans are	 Refer to Project Traffic Management
established and suitable	Plans Attachment to this PMP
Establish any traffic control devices	 Physical erection of control measures on-
and control measures in accordance with plans	site
Establish any project temporary	 Refer to Project Traffic Management
speed zones	Plans Attachment to this PMP

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PMP	ATTA	ACHMENTS - Light Horse Business Centre
Element to be instigated at pre- Construction		<u>Location of Item</u>
Create GENERAL and/or SPECIAL Site Rules	•	Refer to GENERAL Site Rules Section in this PMP Attachment Refer to SPECIAL Site Rules Section in this PMP Attachment
Complete induction and training needs analysis	•	Refer to Project Training Needs Analysis (PTNA) Attachment to this PMP
Develop site induction package including site specific control measures	•	Refer to SITE SPECIFIC Induction – Session Plan and SITE INDUCTION PACK Attachment to this PMP
Implement inductions	•	Implement the Induction Package requirements outlined in the SITE SPECIFIC Induction – Session Plan and SITE INDUCTION PACK Attachment to this PMP
Document Emergency contacts & First Aiders	•	Refer to Project Emergency Plan Attachment to this PMP
Develop any site specific emergency procedures including evacuation gathering locations	•	Implement any requirements of the Project Emergency Plan Attachment to this PMP
Establish site office communication devices (phone, fax, internet)	•	Refer to Site Access Infrastructure Section in this PMP Attachment
Check mobile network coverage suitable	•	Refer to Site Access Infrastructure Section in this PMP Attachment
Create project contacts list including out of hours contact details	•	Refer to Project Emergency Plan Attachment to this PMP
Stipulate and implement an appropriate working environment for personnel (including working times, shifts, noise, temperature)		Implement the GENERAL Site Rules Section in this PMP Attachment Implement the SPECIAL Site Rules Section in this PMP Attachment
Check vehicle parking and security facilities	•	Refer to Site Access Infrastructure Section in this PMP Attachment
Water availability for construction, hygiene and emergency use	•	Physical connection of facilities on-site
Dial Before You Dig & Service Search (Any other internal Permit to Work requirements)	•	Refer to Permits Section in this PMP Attachment

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Element to be instigated at pre- Construction	<u>Location of Item</u>
Establish REGISTERS/INDEXES and Files (Evacuation Drill, First Aid Qualifications, Hazard Report, Incident, Inspection & Test Equipment, Lot Identification, Maintenance, Hazardous Substances, Improvement Request, OH&S Representatives, Project Filing & Records, Site Equipment, Site Induction, Site Instruction, Vehicle, Visitor)	 Refer to CONTROLLED copies of the Integrated Management System TOOLS

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12.2 GENERAL Site Rules

GMW Urban will ensure that they adhere to the following **GENERAL** Site Rules and that their employees and all subcontractors are advised during the Induction of these rules prior to commencing work.

The rules outlined below have been written for and apply to all GMW Urban Sites. These are the *minimum* requirements whilst at this site.

- ✓ When within the Site, personnel must comply with the requirements of the GMW Urban Site Induction.
- ✓ All GMW personal and any contractor working on site must always have available a copy of the SITE SPECIFIC Induction Material, together with their own company Site Specific Work Method Statements.
- ✓ Safety vests, hard hats (where Risk Assessment requires) and steel cap boots are required to be worn as a minimum at all times on site. Other PPE is to be worn as per this Project Management Plan, Work Method Statements and MSDSs during specific work activities.
- ✓ No person is to work alone on site.
- ✓ All personal must comply with any property security directives.
- ✓ The site must be left in a secure safe state at all times, regardless of any level of security precautions, which have been implemented.
- ✓ Access through site gates is only permitted once registered with the GMW Urban Site Manager.
- ✓ All storage of materials and equipment must be within the designated areas or as agreed with the Client.
- ✓ GMW personal and all Subcontractors are responsible for cleaning of all their own mess on a daily basis. No materials or equipment is to be left which is hazardous to other contractors and/or public.
- ✓ Temporary toilets are available for use in the Project Site Office. These must be kept in their usual clean state.
- ✓ Access to all private property areas apart from the works area and entrance route is restricted.
- ✓ No alcohol or illegal drugs permitted on site. Any person affected by these will be required to leave site and will not be permitted back until an investigation is satisfactorily completed.
- ✓ No person without specific approval from GMW Urban, is to alter or remove any common plant, equipment or safety device on site. This includes but is not limited to scaffolds, temporary fencing, handrails, barricades, signage etc.
- ✓ All personnel are to be trained in the plant and equipment being used. This includes holding Certificates of Competency and Licences as required.
- ✓ A spotter will guide vehicles or equipment reversing onto or off the site so that workers aren't driving blindly into areas where there may be pedestrians or other workers.
- ✓ Electrical equipment including leads are to be maintained in locations where they are not likely to be damaged or create a trip hazard and they should be tagged in

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accordance with legislation).

- ✓ All persons working at heights using fall prevention devices eg. above 1.8m must be 'rigger' qualified or have completed a working at heights competency course (only applicable for minor works) where fall prevention barriers are not in place.
- ✓ Before using or storing any hazardous substances, a copy of the respective MSDS is to be given to the site supervisor (or included in the Site Safety Plan).
- ✓ All GMW personal and any contractor working on site must have immediate access to a CO2 or dry chemical extinguisher on site (to suit the task being undertaken).
- ✓ All GMW personal and any contractor working on site must always have available the appropriate first aid kit, and a nominated and trained first aider.
- ✓ GMW and all their subcontractors will ensure that all rock breaking, rock hammering, sheet pilling, pile driving and any similar activity is scheduled to be only undertaken between the hours of 7.00am and 5.30pm Monday to Friday. At all other times GMW and subcontractors are to make all attempts to minimise noise (especially before 8:30am each morning).
- ✓ No work shall continue where the threat of a lightning strike is high.
- ✓ No information relating to the site may be issued to the media. Persons asking questions regarding the site are to be directed to the GMW Urban Public Liaison Representative and/or Client representative.

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12.3 SPECIAL Site Rules

GMW Urban will ensure that they adhere to the following **SPECIAL** Site Rules and that their employees and all subcontractors are advised during the Induction of these rules prior to commencing work.

The rules outlined below have been written for and apply <u>specifically</u> to this GMW Urban Site. These are the <u>additional</u> requirements whilst at this site.

- Correct lines of communication should be used, follow your direct Supervisor's/Manager's instruction and consult them if this has to change.
- > Hours of work are Monday to Friday 7.00am to 5.30pm and Saturday 7.30am to 3.30pm. No work on Sundays or Public Holidays.
- > If unable to come to work (sick/family problems etc.) ring Site Manager (sub contractors ring their boss).
- > Attend weekly toolbox meeting and relevant site meetings.
- > Wear correct PPE at all times (minimum Hi-vis and steel cap boots).
- > Respect all members of the public and refer any problems to Project Engineer, Matthew Gapps and/or, Hamish Wood.
- Respect fellow workers at all levels and adhere to the Employee Collective Agreement (ECA).
- Swearing is not tolerated onsite.
- > Bullying is not tolerated.
- > Site signage to be kept in place and maintained at all times.
- > Site keys to be returned to the allocated staff member immediately after use.
- > Site lunchroom to be kept clean and all rubbish removed by each staff member after each meal. It is a common area so respect the other people using it. Rubbish to be put in skip out of lunchroom each day to prevent vermin.
- > Storage Container to be kept in a tidy manner with all tools stacked neatly to prevent trips or falls.
- > When driving vehicles adhere to all traffic road rules.
- > Parking available at the Site.
- > Plan all movements on *Site* prior to commencement i.e. Deliveries, reversing trucks into Site, Loading tools, crane movements etc.
- > Site Barriers and fences to be secure and closed off to the public at all times and kept in a neat, tidy and safe manner.
- > All traffic control is to be done by ticketed persons and always with stop/slow bat in accordance with appropriate traffic management plans.
- Minimize mobile phone use, make sure you are in a safe position (not traffic controlling, operating machinery etc) personal calls should be made in designated breaks
- > Keep worksite clean and tidy, this makes a safe worksite. All rubbish to be removed
- > All tools to be used in accordance with manufacturers design.
- > Environmental control measures to be in place at all times (silt traps/fences) and

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maintained throughout the project.

- > Tree Protection Do not excavate within root zones of existing trees with a machine, do not lean materials / tools against trees, do not heap spoil around trees. If you encounter tree roots stop work and contact Site Manager. The root zone is generally defined as the area underneath the canopy.
- > Archaeological if you encounter any artefacts (bone, buried brickwork or stonework, cups, plates, bottles etc) stop work and contact the Site Manager.
- Council/Department of Planning Officers if asked to stop work by any Blacktown Council Officer or Department of Planning Officers – do so and contact the Site Manager, remain polite.
- > Do not approach any animals on site. Refer GMW's Flora and Fauna Management Procedure.

Thank you,	
GMW Urban Site Manager:	
I acknowledge the receipt of the above rules SPECIAL Site Rules	issued to me and agree to abide by these
Employee Name:	
Employer:	
Signature:	Date:

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12.4 Permits

Operations that require work permits for Light Horse Business Centre Project include;

INTERNAL GMW URBAN PERMITS

PERMIT To Excavate (GMW Urban Internal) to be managed by GMW Urban

- ➤ PERMIT To Excavate are to be completed for every activity which requires excavation into the ground. The PERMIT To Excavate is to be completed and issued by the GMW Urban Project Engineer as the nominated responsible person. All the applicable service plans should accompany the PERMIT To Excavate and remain stapled (or readily accessible) to it at all times. No excavation work will be allowed to commence until the PERMIT To Excavate is completed and signed off by the GMW Urban Project Engineer. The completed excavation permit shall remain on site at the location of the work at all times. Plant operators and all other workers involved in the excavation task shall be guided through the excavation permit prior to commencing.
- Hot Work PERMIT (GMW Urban Internal) to be managed by GMW Urban
 - Hot Work PERMIT shall be completed by the responsible person of the company directly supervising any Hot Works (usually Site Manager). The completed permit shall remain on the site alongside the work for the duration of the hot work activity.

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12.5 Project Signage

Signage will be erected throughout the site. The signs and their location are shown in the table below:

Sign No.	Sign	Application Use	No. of Signs
STANDA	ARD Signs		
1	Prohibition Sign, no smoking, food, alcohol beyond this point (Area Safe Products - P050J-Poly)	At Compound Gates and Work Area Gates	1
2	Site Safety Info Board - Type B, Protective Equipment must be worn on this site. Decals being Vests, Hard hat and Safety Boots	At Compound Gates and Work Area Gates	3
3	First Aid (EF-001)	At First Aid Kit locations	2
4	Emergency Assembly Point (EF-006)	At Evauation Gathering Points	Ì
5	Site Office (NF –010)	On Site Office Door	1
6	Lunch Room (NF-011)	On Lunch Room Door	1
7	Danger Crane Working Overhead (DF-020)	Where the crane is working (portable)	2
8	Hard Hat Decals: - First Aid Officer - Visitor	All hard hats for first aiders and visitors	As Req'd
	M Signs	Site Entry Gates	2
9	Site Notice	Site Entry Gates	-
10	Administration Compound Sign will have the GMW Urban Logo and be titled "Light Horse Business Centre Project" (See Sign Format below)	At Compound Gate	1
Comple	ted GMW Urban REFERENCE TOOLS:		
11	Emergency Contacts LIST	Site Office/Lunch Area Wall	2
12	First Aid Qualifications REGISTER	Site Office/Lunch Area Wall	2
	Management System Briefs	Site Office/Lunch Area Wall	2
13			
13	Project Emergency PLAN (Site and Evacuation Plan and Route to Hospital / Medical Centre Plan) GENERAL Site Rules / SPECIAL Site Rules	Site Office/Lunch Area Wall Site Office/Lunch Area	2

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12.5.1 Site Notice Sign

Project specific signage to be erected at entry to site.

12.5.2 Custom Signs

GMW Urban Construction Site signage to be erected at entry to site.

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12.6 Physical Site Infrastructure

12.6.1 Site Office Communication Devices

The following site office communication devices will be set up to allow efficient communication while on site:

> Mobile Telephone

> Email available at Site Office

> Internet remote access

12.6.2 Mobile Network Coverage

Mobile network coverage has been assessed and is regarded as satisfactory for the work site and compund areas.

12.6.3 Compound

The Site Compound shall be fenced and contain storage container, portable toilets and lunchroom and Site Office.

12.6.4 Site Access Protocol

Access to the Site (as bounded by the perimeter fence) is strictly controlled and restricted.

During construction, access to the entire site will be controlled by GMW Urban. Access will only be provided for personnel involved directly with the Light Horse Business Centre Project.

To Enter site, all attendees must;

> Report to Site Office

- ➢ Site Manager (SM) will record all GMW personnel, subcontractors and visitors on site. All attendees to site shall be checked to verify the have undertaken the GMW Urban SITE SPECIFIC Induction. Where this Induction has not been completed, access will only be possible if accompanied at all times by another person who has completed the aforementioned induction (and this person is only undertaking observation activities).
- > Number of vehicles within the site is to be minimized.

Exit Protocols;

> All Vehicles exiting the works/compound area are to do so under instruction and control of a spotter, where necessary.

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Attachment 13. Project Program

Find attached a copy of the initial GMW Urban Project Program applicable to this Project.

During the project this Project Program may be reviewed, updated and circulated to relevant parties as required.

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Attachment 14. Project Site Risk Assessment

14.1 Identify Hazards

To help identify and control all potential hazards, the Light Horse Business Centre Project has been broken down into the major work ACTIVITIES that follow the sequence of construction.

These work activities and associated job steps identified were then included in the Work Method Statements produced by GMW Urban.

To assist this process of Hazard Identification, the following resources have been used:

- · GMW Urban Process Control procedure
- GMW Urban Risk Management procedure
- WorkCover / Industry Codes of Practice and other publications, (eg. Safety Alerts)
- · Hazard Profiles for specific trade groups;
- · Workplace experience; and
- Consultation (e.g. Tool Box Talks) with workers experienced in the task

14.2 Assess Risks

The hazards for each ACTIVITY to be undertaken have been identified and a Risk Class determined by referring to the categories below (Reference: NSW Subby Pack – OH&S Contractor Management Tool 2001). The Project Site Risk Assessment (below) has been used to determine the requirement for subsequent management of the risks identified for each Activity.

Class 1: (High Risk): Does the hazard have the potential to kill or permanently disable

Class 2: (Medium Risk): Does the hazard have the potential to cause a serious injury, or illness, which will temporarily disable you?

Class 3: (Low Risk): Does the hazard have the potential to cause a minor injury which would not disable you?

14.3 Selection and Use

Where identified, all Class 1 and Class 2 risks have been recorded on a detailed Safe Work Method Statement (SWMS).

Class 3 risks will be minimised as far as possible but will not be recorded on a SWMS.

The Risk Level has been determined for each of the POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS forming part of each Construction Activity (refer *Risk Management* procedure). This Risk Level has been used to determine the level of Controls (ie. Management Method) required to eliminate or minimise a potential hazard. The higher the Risk Level the more extensive the controls to be provided.

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14.4 Project Site Risk Assessment

Risk Assessment Date: 13/04/2010

by: GMW Urban Project Engineer

Major Work	Potential Hazards	Activity	SWMS	SWMS No.
<u>Activity</u>		Risk Score	Required Yes	(if required SWMS No. 1
Site Establishment	Manual handling Pedestrian and vehicular traffic	Class 1	res	
Setup and implementation of Traffic Management	Persons struck by traffic Manual Handling	Class 1	Yes	SWMS No. 1
Excavations	Live Services Strikes Struck by mobile plant	Class 1	Yes	SWMS No. 5
Trenching	Live services strikes Struck by mobile plant	Class 1	Yes	SWMS No.7
Minor Concrete works	Manual handling Small tools operation	Class 2	Yes	SWMS No.10
Kerb and Gutter	Live services Struck by mobile plant	Class 1	Yes	SWMS No.12
Conduit Installation	Live services strikes	Class 1	Yes	SWMS No.15
Pit/Service Adjustment	Fall into pit Live services strikes	Class 2	Yes	SWMS No. 20
Road pavement concrete	Manual handling Small tools operation Struck by traffic	Class 1	Yes	SWMS No. 24
Footpath Paving	Pedestrian falls Manual handling Saw operation	Class 2	Yes	SWMS No. 26
Footpath Concrete Works	Manual handling Small tools operation	Class 2	Yes	SWMS No. 27
General Landscaping	Manual handling injuries	Class 2	Yes	SWMS No. 35
Skid Steer Loader Operation	Service strikes Drive into persons or property	Class 1	Yes	SWMS No. 40
Hiab Truck Operation	Materials fall from height	Class 1	Yes	SWMS No. 41
Use of Power Tools	Injury from small tools	Class 2	Yes	SWMS No. 44
Oxyacetylene Equipment	Injury from equipment	Class 2	Yes	SWMS No. 45

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Attachment 15. Work Method Statements (GMW Urban)

Find attached a copy of the current GMW Urban Document REGISTER – GMW Urban Safe Work Method Statements applicable to this Project.

Prior to commencement of work on site, these GENERIC Safe Work Method Statements will be reviewed and converted into a SITE SPECIFIC SWMS and signed off by the employees. Where job steps or site conditions change from those planned, the SWMS will be updated or created (if necessary) to reflect the way the job is actually be done on the specific site and how hazards will be controlled.

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DOCUMENT REGISTER

A Document REGISTER shall be raised wherever "CONTROLLED" documents are maintained
Use this form with the DOCUMENT AND DATA CONTROL Procedure

SECTION 1: DOCUMENTS REGISTERED / 1	MASTER LIST	be completed by DOCUME	The second secon
Document Title:	Description/Referencing Document:	Reference/Revision:	Revision Date:
NTEGRATED MANAGEMENT SYSTEM - GENER	RIC SAFE WORK METHOD STATEMENTS (SWMS) -	Light Horse Business Centre	
WMS - Site Setup (Establishment)	Process Control procedure - GENERIC SWMS	SWMS-01 Revision 1	1/01/2008
WMS - Footpath Pavement Excavation	Process Control procedure - GENERIC SWMS	SWMS-03 Revision 1	1/01/2008
WMS - Road Pavement Excavation	Process Control procedure - GENERIC SWMS	SWMS-05 Revision 1	1/01/2008
SWMS - Trenching	Process Control procedure - GENERIC SWMS	SWMS-07 Revision 1	1/01/2008
WMS - Minor Concrete Works-Foundations	Process Control procedure - GENERIC SWMS	SWMS-10 Revision 1	1/01/2008
WMS - Kerb and Gutter	Process Control procedure - GENERIC SWMS	SWMS-12 Revision 1	1/01/2008
WMS - Conduit Installation	Process Control procedure - GENERIC SWMS	SWMS-15 Revision 1	1/01/2008
WMS - Reinstatement of Footpath Sub-base	Process Control procedure - GENERIC SWMS	SWMS-18 Revision 1	1/01/2008
SWMS - Pit Adjustment	Process Control procedure - GENERIC SWMS	SWMS-20 Revision 1	1/01/2008
WMS - Road Pavement Concrete	Process Control procedure - GENERIC SWMS	SWMS-24 Revision 1	1/01/2008
WMS - Footpath Paving	Process Control procedure - GENERIC SWMS	SWMS-26 Revision 1	1/01/2008
WMS - Footpath Concrete Works	Process Control procedure - GENERIC SWMS	SWMS-27 Revision 1	1/01/2008
AND COMPANY OF THE PARTY OF THE	Process Control procedure - GENERIC SWMS	SWMS-30 Revision 1	1/01/2008
SWMS - Linemarking	Process Control procedure - GENERIC SWMS	SWMS-35 Revision 1	1/01/2008
SWMS - General Landscaping	Process Control procedure - GENERIC SWMS	SWMS-36 Revision 1	1/01/2008
SWMS - Street Furniture Installation	Process Control procedure - GENERIC SWMS	SWMS-40 Revision 1	1/01/2008
SWMS - Skid Steer Loader Operation	Process Control procedure - GENERIC SWMS	SWMS-41 Revision 1	1/01/2008
SWMS - Hiab Truck Operation	Process Control procedure - GENERIC SWMS	SWMS-44 Revision 1	1/01/2008
SWMS - Use Of Power Tools	Process Control procedure - GENERIC SWMS	SWMS-45 Revision 1	1/01/2008
SWMS - Oxyacetylene Equipment	Process Control procedure - GENERIC SWMS	SWMS-50 Revision 1	1/01/2008
SWMS - Steelwork At Heights			
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	To be completed by DOCUMENT CONTROLLER
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	Signature:



Attachment 16. SITE SPECIFIC ENVIRONMENTAL Management Plan

16.1 Scope

This document describes the site specific Environmental controls that will be implemented throughout the construction of the Light Horse Business Centre Project.

During the SITE SPECIFIC Induction personnel shall be provided with information and instruction on environmental issues and company policies regarding aspects of this Project Management Plan.

This document addresses the environmental hazards and corresponding control measures with regard to the activities that will be undertaken within the *Site*. The following elements of environmental management have been included in this document:

- · Dust Control;
- Culture/Heritage Management;
- · Noise and Vibration Control;
- Waste Management;
- Water Management (Soil and Erosion Control);
- Other Construction Environmental Site Management Tasks

16.2 Dust Control Management

Dust control shall be completed in accordance with the *Dust Mitigation and Airborne Emissions* procedure, as well as the *Land Clearing and Contaminated Sites* procedure. The following site specific considerations must be adhered to:

- > Dust levels in the atmosphere are to comply with Workplace Health and Safety requirements.
- > Access roads and earthworks, including spoil heaps, are to be watered as required to minimise dust emissions.
- > Vehicles and plant are to comply with Australian Design Rules and/or current good practice for emissions and maintained and operated to meet emission standards.
- > Transports of soil, sand and gravel loads to the site are to be covered.
- > Where practical, a stable surface is to be provided for main haul routes in the construction area and maintained to minimise dust.
- Appropriate speed limits over unsurfaced roads are to be established and enforced.
- Burning of any waste arising from construction activities is to be prohibited.

16.3 Culture / Heritage Management

Culture / Heritage Management shall be completed in accordance with the *Heritage and Archaeology* procedure. The following site specific considerations must be adhered to:

- Where aboriginal sites, artefacts or areas of high conservation and heritage value are an issue due to the location of the site, no work is to start until relevant approvals are obtained.
- Ensure that if any fossils, Aboriginal or historical cultural heritage items are uncovered during construction, the discovery is reported to the Authorised Person and Client

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Representative.

Excavation will cease until a decision regarding action is made by the Authorised Person and Client Representative.

16.4 Noise and Vibration Management

Noise and Vibration control shall be completed in accordance with the *Noise and Vibration* procedure. The following site specific considerations must be adhered to:

> Where possible, limit noisy activity to 7.30 am to 5.30 pm Monday to Friday.

> Schedule services so that there is no congestion or waiting queues.

16.5 Waste Management

Waste Management shall be completed in accordance with the *Waste Management and Minimisation* procedure. The following site specific considerations must be adhered to:

> Surplus materials are to be collected and where recycling facilities or collection depots are available, delivered to the depot.

> Ensure that all wastes, other than natural earth, soil or rock are collected and stored in full compliance with the Environmental Protection (Waste) legislation.

> Ensure that bins or skips are provided on site for collection and storage of all wastes, other than natural earth, soil or rocks.

> Bins and skips are to be separated into the various recycling categories such as glass, steel, timber, etc where practicable.

> Where possible, waste is to be reused on site.

Ensure that there is no contamination of the site in compliance with the Contaminated Land legislation.

> Ensure that waste, surplus dangerous goods and regulated wastes are minimal and are transported by approved waste transporters to sites designated for their disposal.

Designate specific areas on site for the temporary management of various waste streams where relevant (ie. general refuse, construction waste (wood and metal scrap), cleared vegetation and contaminated waste). Location of such areas should seek to minimise the potential for impact on the surrounding environment.

Any disposal is to be in accordance with local government requirements.

> Documentation detailing the quantity, nature and fate of any regulated waste is to be maintained.

Waste is not to be buried on site.

16.6 Soil & Water Management

Soil and Water Management shall be completed in accordance with the Water Management procedure. The following site specific considerations apply:

1. Location and content of onsite stockpiles to be approved.

2. No untreated wastes are to be discharged directly or indirectly to waters except as permitted by legislation.

3. Material stockpiles should be routinely inspected to confirm that their location is not resulting in the generation and uncontrolled transport of sediment.

 Any erosion that occurs is controlled as soon as possible and restoration is carried out without delay.

Identify areas of the site most likely to contribute to sediment generation prior to commencement of construction activities.

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16.7 Other Construction Environmental Site Management Tasks

16.7.1 Definition of Works

Works within the Site shall be limited to those strictly required for the completion of the project. No activities or actions that are not directly related to this objective shall be permitted.

16.7.2 Definition of Works Area

All works, and activities, including vehicle and pedestrian traffic associated with this project, shall be confined to the construction area.

GMW Urban and its Subcontractors shall take all reasonable steps to ensure that no activities are undertaken outside of these areas.

16.7.3 The Number of Staff and Vehicles Permitted

The number of vehicles and staff in the Site must be kept to a minimum.

16.7.4 Gates

All gates (security fencing) must be kept shut and locked outside working hours. Gates must not be dummy locked at any time and the key must not be hidden anywhere to enable access. The gate must be kept locked at all times to prevent access by unauthorised persons.

GMW Urban shall control and record the number of keys that they issue to contractor staff (if required) and regularly check who has possession of keys.

16.7.5 Storage

No equipment/vehicles/machinery or building material is to be stored in the Site without prior approval, and then only when absolutely necessary. A site compound is incorporated into the Site, and this area may be used for overnight storage of approved articles.

16.7.6 Deliveries

All equipment/machinery and building materials must be delivered to a site compound outside the confines of the Site, where they are to be stored until required. Deliveries directly into the Site are not to be permitted unless required for construction on the same day of delivery.

All delivery plans should be made known to the Project Manager so that this officer can coordinate planned arrivals. Before allowing entry into the Site, the Project Manager must make sure that the vehicle driver is inducted or is accompanied by a person inducted into the Site.

16.7.7 Fuelling and Spill Kits

Refuelling inside the Site should be kept to a minimum to mitigate against the impact of fuel spillage.

16.7.8 Chemicals and paint

Only quantities of paint of other hazardous chemicals (fuel, solvents, compressed gasses and oils) that are considered necessary to the works, should be stored on the Site. It is proposed to minimise the quantities of these materials and store them in accordance with the regulatory requirements and manufactures instructions. Appropriate safety and spill

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control are proposed to be provided for all stored hazardous materials.

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Attachment 17. Project Traffic Management Plan

17.1 Pedestrian Traffic Management

The project is not expected to close any existing pedestrian traffic routes. The surrounding businesses will remain open for the duration of this project and access must be maintained as well as pedestrian thoroughfare.

17.2 Vehicle Traffic Management

Appropriate signage will be erected to control the flow of traffic within the site boundaries. Appropriate traffic control plans will be created and implemented as required. The works will not have any effect on public roads.

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Attachment 18. Project Emergency PLAN

This Project Emergency Plan shall form part of the SITE SPECIFIC Induction and also be displayed in the following prominent positions:

- Site Office wall
- Lunch Room wall

18.1 Items Provided to Personnel

GMW will ensure that the following items and training will be provided to personal prior to work commencing on site and that the items will be readily available while work is being completed to enable personal to cope with emergency situations should they arise:

Equipment

- Fire Suppression Equipment

(The Fire Warden is nominated in the Emergency Contact

LIST)

First Aid Provisions

A Type 'A' First Aid Kit will be located at the Site Office
 Type 'C' First Aid Kits will be located in all GMW vehicles.
 (Where personnel are working over 200m from a vehicle, a type 'C' kit shall also be kept at the work location)

18.2 Bomb Threat Procedure

The bomb threat is a serious public nuisance of modern times. Each one could be a cruel prank or a warning of an impending bomb attack. Usually, they are committed by individuals, seeking to inflict alarm and confusion, on an otherwise peaceful organisation.

- In any bomb threat situation, treat the threat as REAL.
- DO NOT attempt to control the situation or disturb an item considered dangerous.
- Make all possible attempts to EVACUATE the area of all occupants.
- NOTIFY POLICE and relevant authorities as soon as possible after learning about the threat.

18.3 Field Emergency Procedures

Emergency situations arising from field activities may include a variety of scenarios, including snake or spider bite, falls from heights, exposure to the elements, being struck by falling objects, vehicle accidents etc. In the situations listed above, first aid requirements will vary. However, the following minimum standards, for emergency procedures should be applied:

- Notify relevant emergency services as soon as possible, or as soon as the situation is safe to do so.
- Notify GMW Urban Site and Project Manager as soon as practicable.
- Only attempt to control a situation if you are competent and know what measures that must be taken.
- Only attempt to provide the level of first aid that you have been trained to provide.

18.4 Specific Emergency Procedures - Alexandria Landfill Pty Ltd

There are no specific client Emergency procedures that affect this site.

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18.5 Incident Reporting

Incidents and dangerous occurrences will be reported to the GMW Urban Project Manager through the Site Manager.

Incidents that result in the loss of time or a likely workers compensation claim will be immediately reported to Employer Mutual as the workers compensation provider of GMW Urban.

Incidents resulting in serious injury or death will be immediately referred to Workcover NSW on phone 13 10 50 by the GMW Urban Human Resources Manager. Any incident resulting in a serious illness or injury will also be reported to the Clients Contracts Administrator, Martin Carey.

All Incident Reports will be recorded and kept internally within GMW Urban and will be provided to the Client upon request.

18.6 Site and Evacuation Plan

When notified that evacuation is required, all people within the site are to immediately leave and follow the primary path shown below to the Emergency Assembly Point A. Should access to Emergency Assembly Point A be blocked, personnel must attend Emergency Assembly Point B. The Fire Warden will account for all personnel at the Emergency Assembly Point.

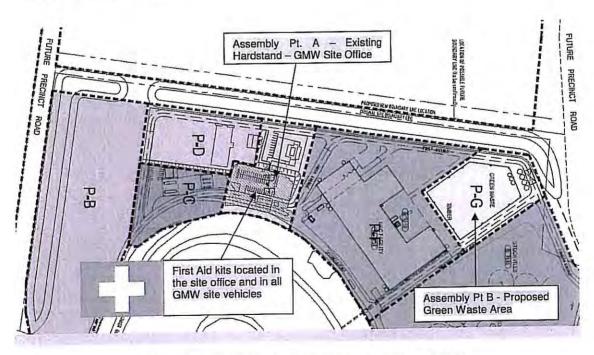


Figure A. - GMW Urban Emergency Assembly Points

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18.7 Route to Medical Centre and Hospital

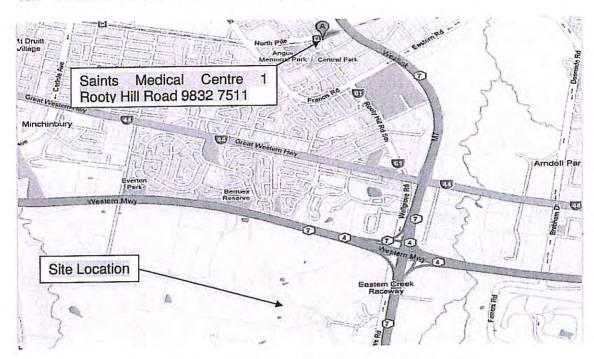


Figure B. - GMW Urban Route to nearest Medical Centre

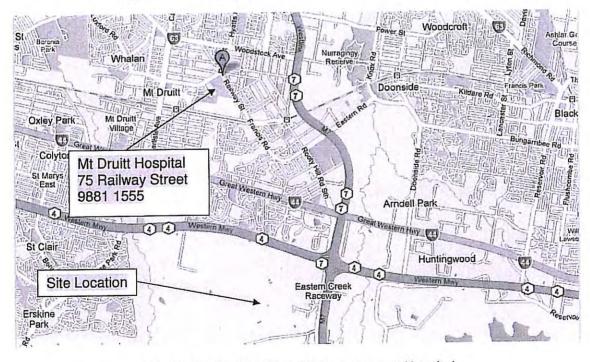


Figure C. - GMW Urban Route to nearest Hospital

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Document Issue Date	Revision A 27/04/10	Approved By:	GIVIVV General Manager	



Attachment 19. Project Meetings and General Reporting Requirements

Find below a summary of the various **Project Meetings and General Reporting requirements** applicable to this Project;

Meeting/Report Type	Frequency	Report / Minutes	Responsibility
INTERNAL - GMW Urban			
GMW Urban PROJECT TEAM Meeting	Weekly	Minutes	GMW Urban – Project Manager
GMW Urban MONTHLY REPORT (Financial Control SYSTEM Report, GM Project Synopsis)	Monthly	Report	GMW Urban – Project Manager and General Manager
EXTERNAL – including Client and/or	other externa	al parties	
PROJECT COORDINATION GROUP Meeting	Weekly (on-site)	Minutes (by GMW)	Clients Contract Administrator
MONTHLY REPORT	MONTHLY	RÉPORT	GMW Urban – Project Manager

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Attachment 20. Project DESIGN PLAN

The following processes have been considered and reviewed for Design Management activities to be managed and controlled by GMW Urban;

Applicable to this Project	<u>Design</u> <u>Plan</u> <u>Required</u>	Responsibility
Design		
YES	NO	GMW Urban – Project Engineer
ake Design		
Yes	Yes	Sub contractors / Consultants
Yes	Yes	Sub contractors / Consultants
NO	NO	N/A
Yes	Yes	Sub Contractor
YES	NO	Readymix Supplier
NO	NO	N/A
	to this Project Design YES take Design Yes NO Yes Yes YES	to this Plan Required Design YES NO take Design Yes Yes NO NO Yes Yes Yes Yes Yes Yes NO NO Yes Yes Yes Yes

Find attached a copy of the current GMW Urban detailed **DESIGN PLAN** applicable to this Project;

· NIL

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Attachment 21. Project PROCUREMENT PLAN

The following external processes have been considered part of the Project PROCUREMENT PLAN to be managed and controlled by GMW Urban;

21.1 Subcontractors

All Subcontractors are to be engaged under a Contract that, where appropriate, mirrors the requirements of the GMW Urban contract with Alexandria Landfill Pty Ltd. The following Subcontractors are required:

Scope of Product / Service	Pre-qual / Req Cat Reg'd	Subcontractor	Assessment / Engagement	Responsibility (*)	Public Liability Insurance required
Electrical Installation	Nil	TBA	Quote / Contract	Operations & Project Manager	\$10M
Concreting	Nil	TBA	Quote / Contract	Operations & Project Manager	\$5M
Steel Building Installation / supply	Nil	ТВА	Quote / Contract	Operations & Project Manager	\$10M
Stormwater Installation	Nil	TBA	Quote / Contract	Operations & Project Manager	\$10M
Mechanical services installation	nil	TBA	Quote / Contract	Operations & Project Manager	\$10M
Tree Planting / landscaping	Nil	TBA	Quote / Contract	Operations & Project Manager	\$10M
Ground improvement	Nil	ТВА	Quote / Contract	Operations & Project Manager	\$10M
Water / waste water installaition	Nil	ТВА	Quote / Contract	Operations & Project Manager	\$10M

(*) Develop responsibilities and requirements, assess capability and experience, review Quality/Safety/Environment Management System requirements, confirm suitable financial capacity, consider value of service, implement contracts and assess any safety/environment risks in accordance with the Subcontractor Management procedure.

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21.2 Suppliers

The following Suppliers are required:

Scope of Product / Service	Pre-qual / Req Cat Reg'd	<u>Supplier</u>	Assessment / Engagement	Responsibility
Reinforcing Steel	Nil	TBA	Quote / Supply Agreement	Operations & Project Manager
Concrete	Nil	Hanson	Quote / Supply Agreement	Operations & Project Manager
Stormwater pits / pipes	Nil	TBA	Quote / Supply Agreement	Operations & Project Manager

^(*) Develop responsibilities and requirements, assess capability and experience, review Quality/Safety/Environment Management System requirements, confirm suitable financial capacity, consider value of service, implement contracts/Purchase Orders and assess any safety/environment risks (hazardous substances, manual handling) in accordance with the Supplier Management procedure.

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21.3 Sub-Consultants

All Sub-Consultants are to be engaged under a Contract that, where appropriate, mirrors the requirements of GMW's contract with Alexandria Landfill Pty Ltd. The following Sub-Consultants are required:

Scope of Product / Service	Pre-qual / Req Cat Reg'd	Sub- Consultants	Assessment / Engagement	Responsibility (*)	Prof. Indemnity Insurance required
Survey	Nil	TBA	Quote / Consultancy Agreement	Operations & Project Manager	\$5M
Geotech	NATA	Geoffrey and Katauskas	Quote / Consultancy Agreement	Operations & Project Manager	\$5M
Civil and Architectural	Nil	Complete Urban	Quote / Consultancy Agreement	Operations & Project Manager	\$5M
Structural Engineers	CPEng	Jones Nicholson	Quote / Consultancy Agreement	Operations & Project Manager	\$5M
Mechanical Engineers	CPEng	Jones Nicholson	Quote / Consultancy Agreement	Operations & Project Manager	\$5M
Electrical Engineers	CPEng	TBA	Quote / Consultancy Agreement	Operations & Project Manager	\$5M

^(*) Develop responsibilities and requirements, assess resources and experience, review Quality/Safety/Environment Management System requirements, value of service and implement contracts/agreement in accordance with the Supplier Management procedure.

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21.4 Purchasing Plan

Find attached a copy of the current GMW Urban detailed PURCHASING PLAN applicable to this Project;

• NIL

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Attachment 22. Subcontractor / Supplier Management System Documentation

Find attached the relevant Subcontractor/Supplier Management System and process control documentation for this Contract;

SUBCONTRACTORS

	Electrical	TBA
	Mechanical	TBA
6	Ground Improvement	TBA
	Concreting	TBA
•	Steel Building	TBA
	Stormwater	TBA
	Wastewater	TBA
•	Water	TBA

SUPPLIERS

Nil

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Attachment 23. Inspection and Test Plans (ITP's)

Find attached a copy of the current GMW Urban Document REGISTER - Inspection and Test Plans (ITP's) applicable to this Project.

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DOCUMENT REGISTER

A Document REGISTER shall be raised wherever "CONTROLLED" documents are maintained
Use this form with the DOCUMENT AND DATA CONTROL Procedure

SECTION 1: DOCUMENTS REGISTERED / MA	STER LIST T	o be completed by DOCUME	NT CONTROLLE
Document Title:	Description/Referencing Document:	Reference/Revision:	Revision Date:
INTEGRATED MANAGEMENT SYSTEM - GENERIC			
	Process Control procedure - GENERIC ITP	ITP-001 Issue 1	14/04/2010
ITP - Site Establishment	Process Control procedure - GENERIC ITP	ITP-002 Issue 1	14/04/2010
ITP - Drainage ITP - Pavements and Slabs	Process Control procedure - GENERIC ITP	ITP-003 Issue 1	14/04/2010
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ITP - Tilt Panels	Process Control procedure - GENERIC ITP	ITP-005 Issue 1	14/04/2010
ITP - Signage and Linemarking	Process Control procedure - GENERIC ITP	ITP-006 Issue 1	14/04/2010
ITP - Electrical Services	Process Control procedure - GENERIC ITP	ITP-007 Issue 1	14/04/2010
ITP - Services	Process Control procedure - GENERIC ITP	ITP-008 Issue 1	14/04/2010
ITP - Groundworks	Process Contact procedure - GENETIIO 111	7 7 7 1 1 1 1 1 1 1 1	
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Attachment 24. Project Inspection and Audit Program

The following Inspections and Audits are planned for the project; (Note: this does not include the items as listed on the Inspection & Test Plans)

Audit / Inspection Type	Scope	<u>Dates /</u> Frequency	Responsibility	Location
Workplace Inspections	Workplace Inspection CHECKLIST (Quality / OH&S / Environment) for GMW Urban and Subcontractor activities on Site	Weekly	GMW Project Engineer or Project Manager	Site
Work Method Statement Implementation	Work Method Statement Monitoring FORM specifically monitoring the implementation of Quality, OH&S and Environmental Controls for GMW Urban and Subcontractor activities on Site	As required (based on performance)	GMW Project Engineer or Project Manager	Site
Unplanned Audit	Major Subcontract / Supplier package compliance with Contract and Contractor / Supplier supplied/operating Quality, OH&S & Environment Project Management Systems	As required (based on performance)	Project Manager	Sub- Contractor , Supplier /Site
Planned Audit	Internal GMW Audit for PMP on Quality, OH&S & Environment Management System compliance for all project works	First 4 Weeks then 6 monthly intervals	Management System Coordinator	GMW Office and Site

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APPENDIX 2

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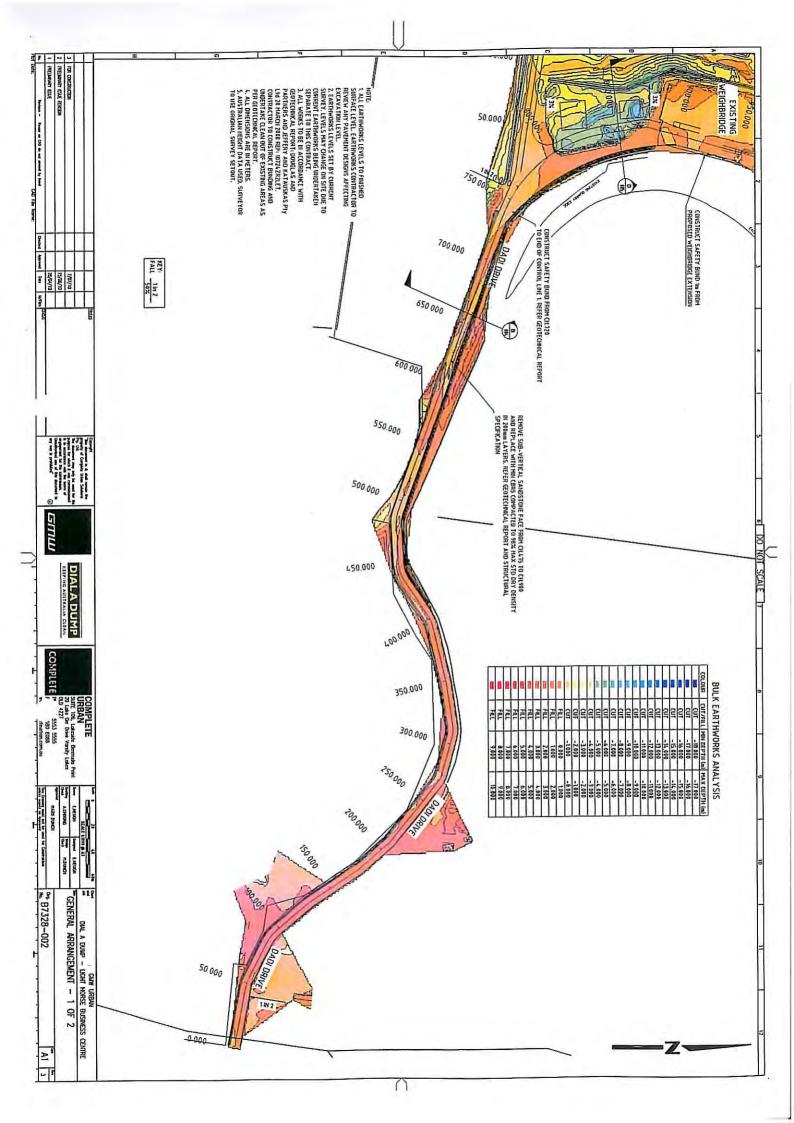
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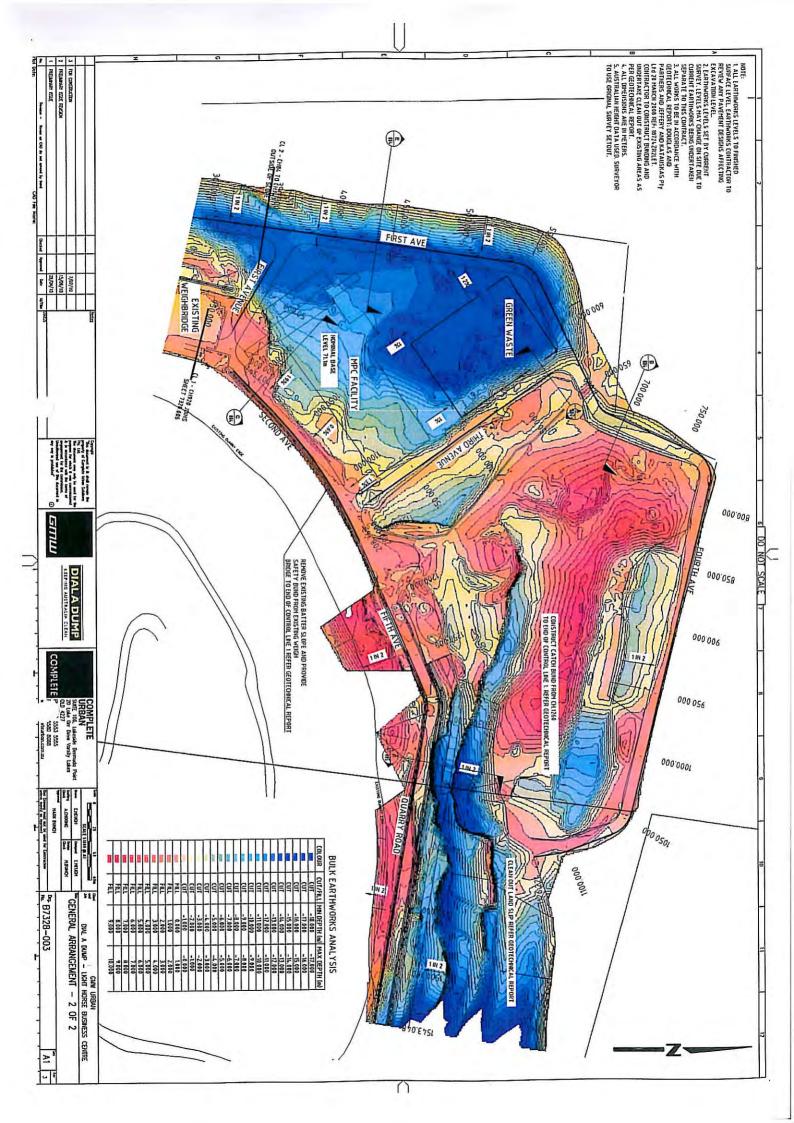


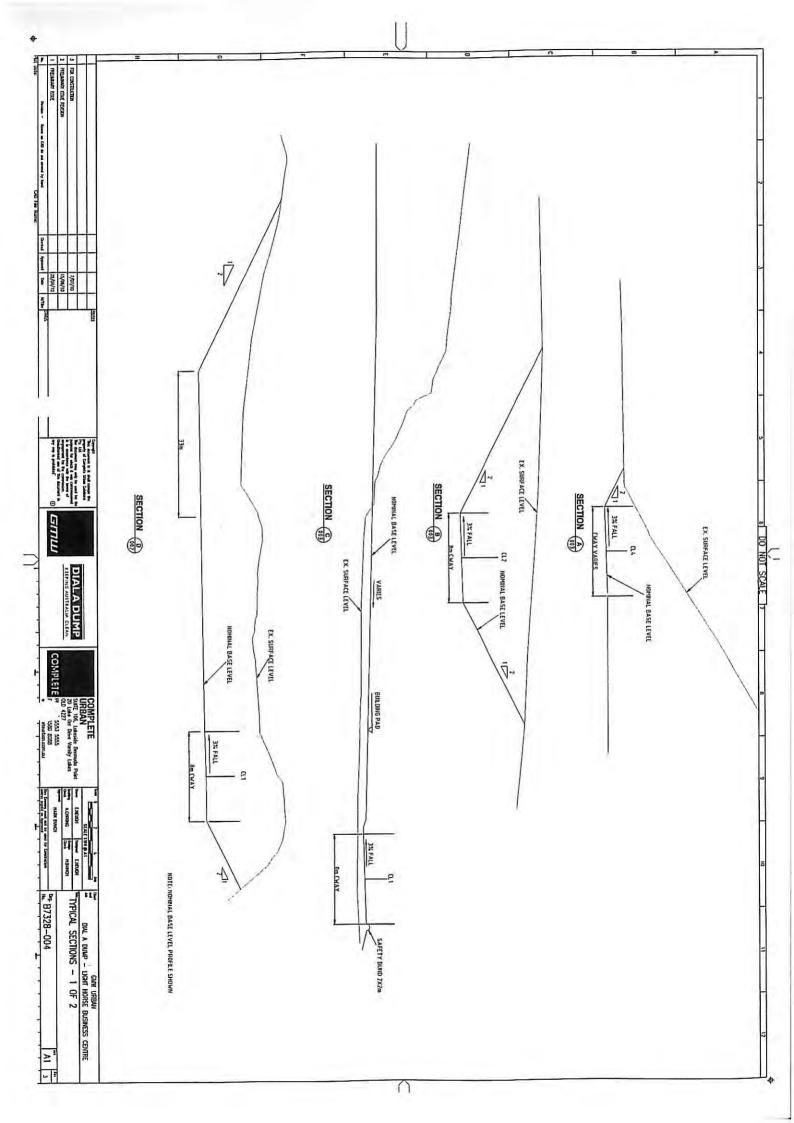
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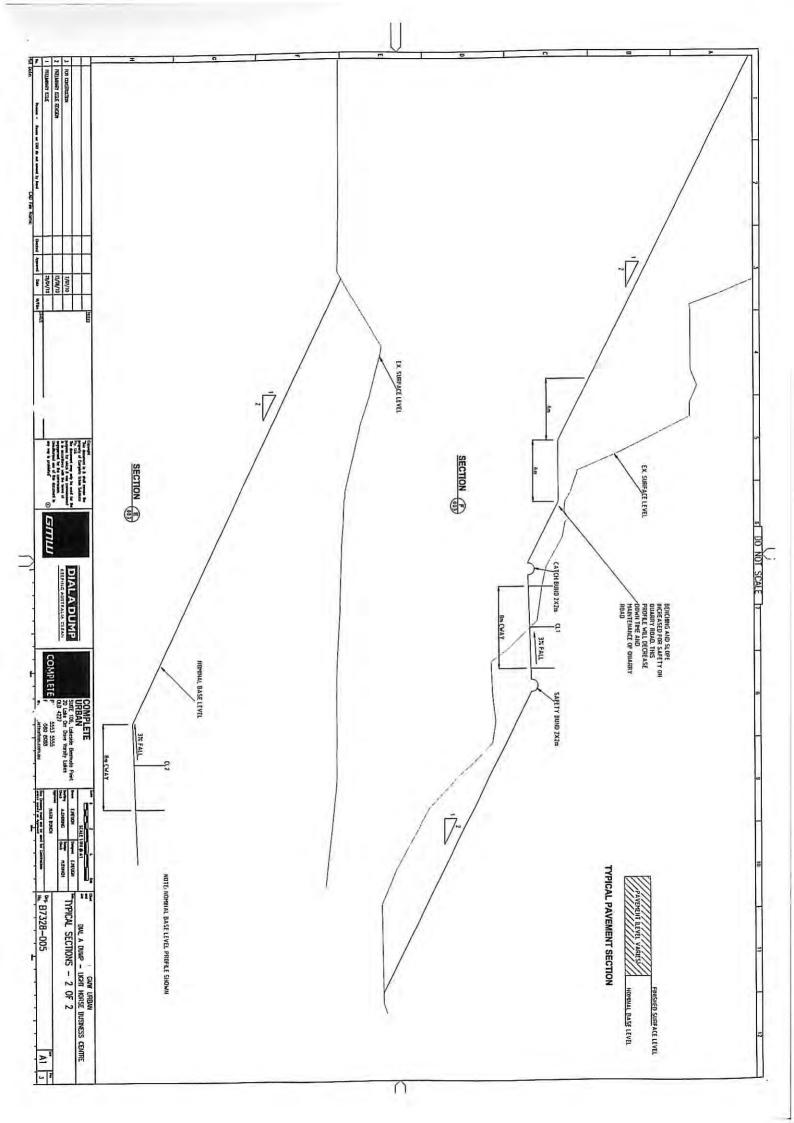
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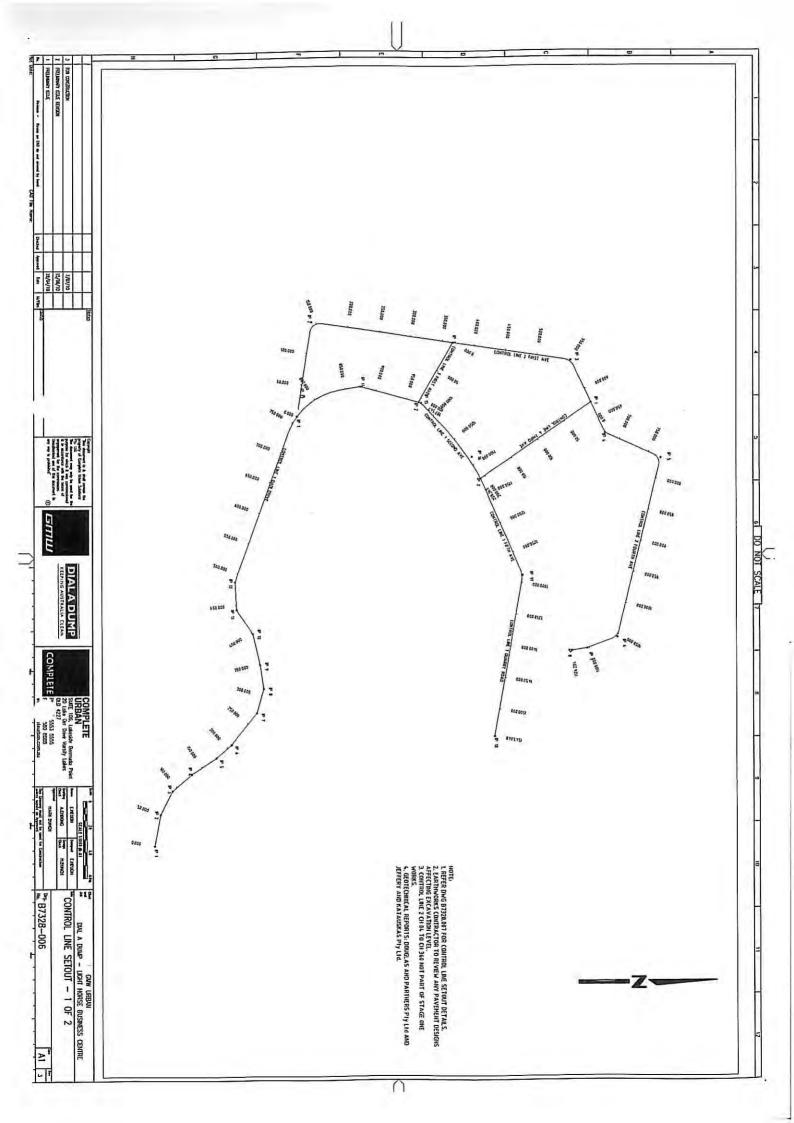
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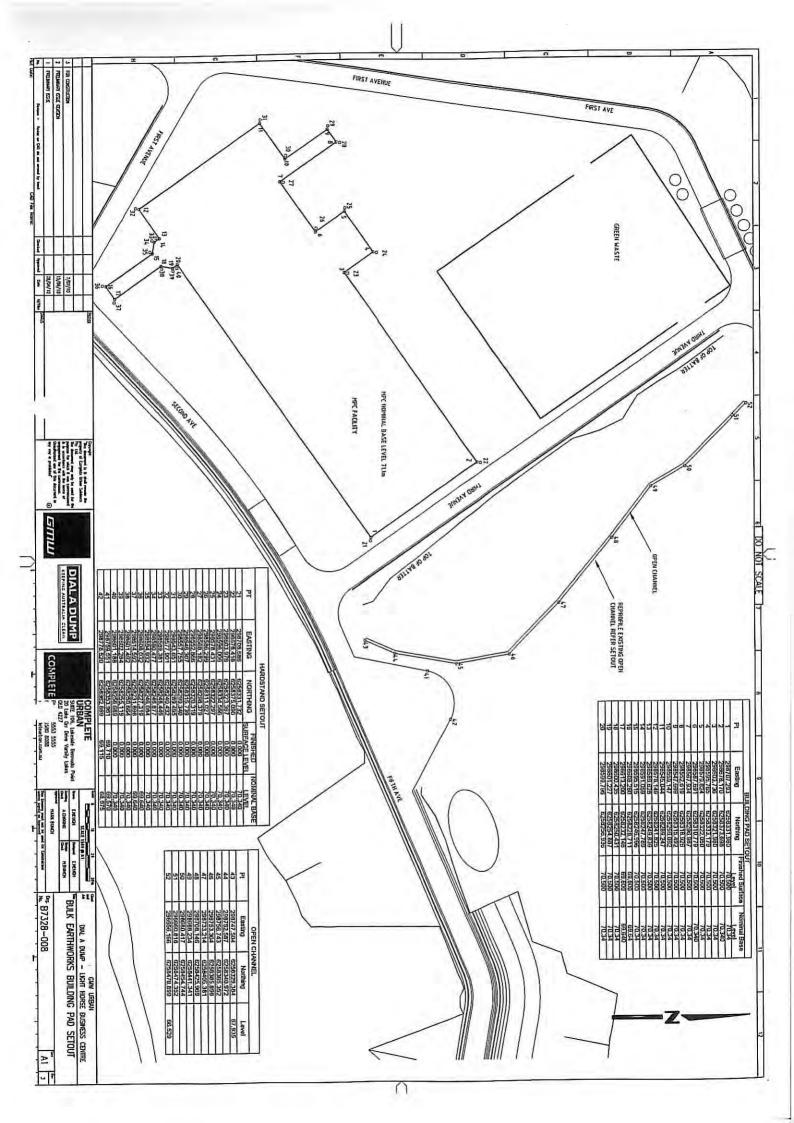


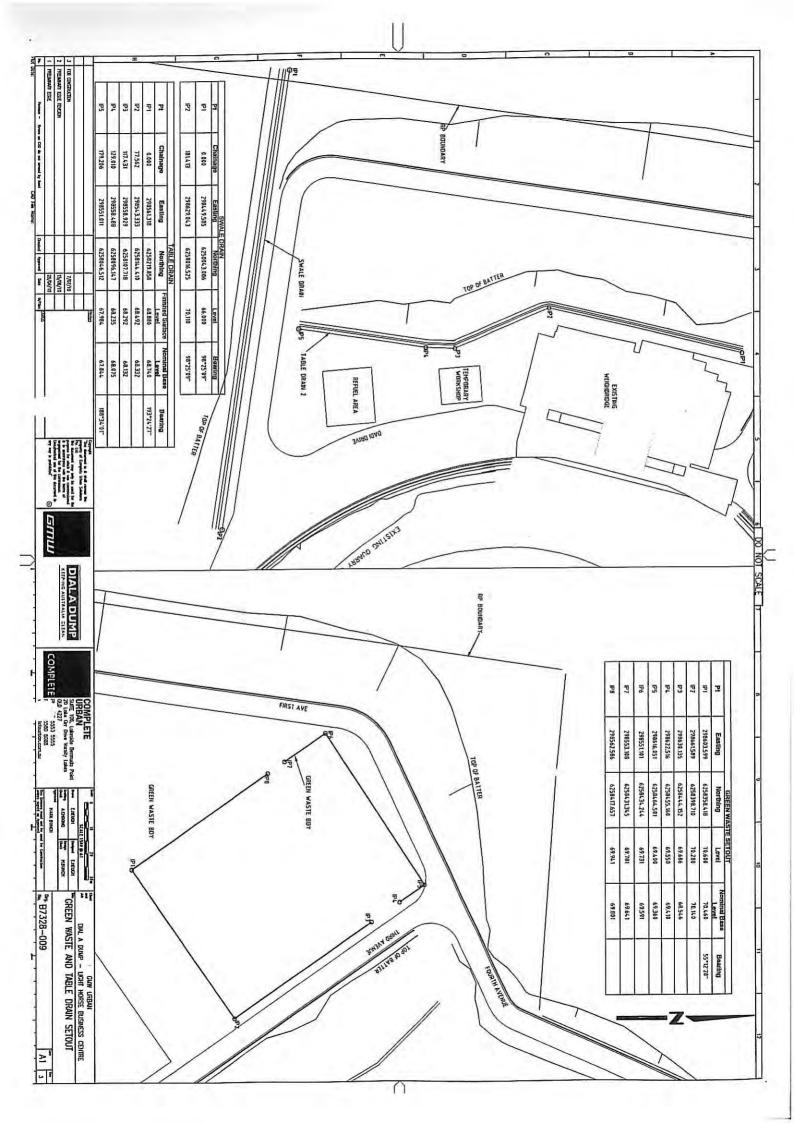


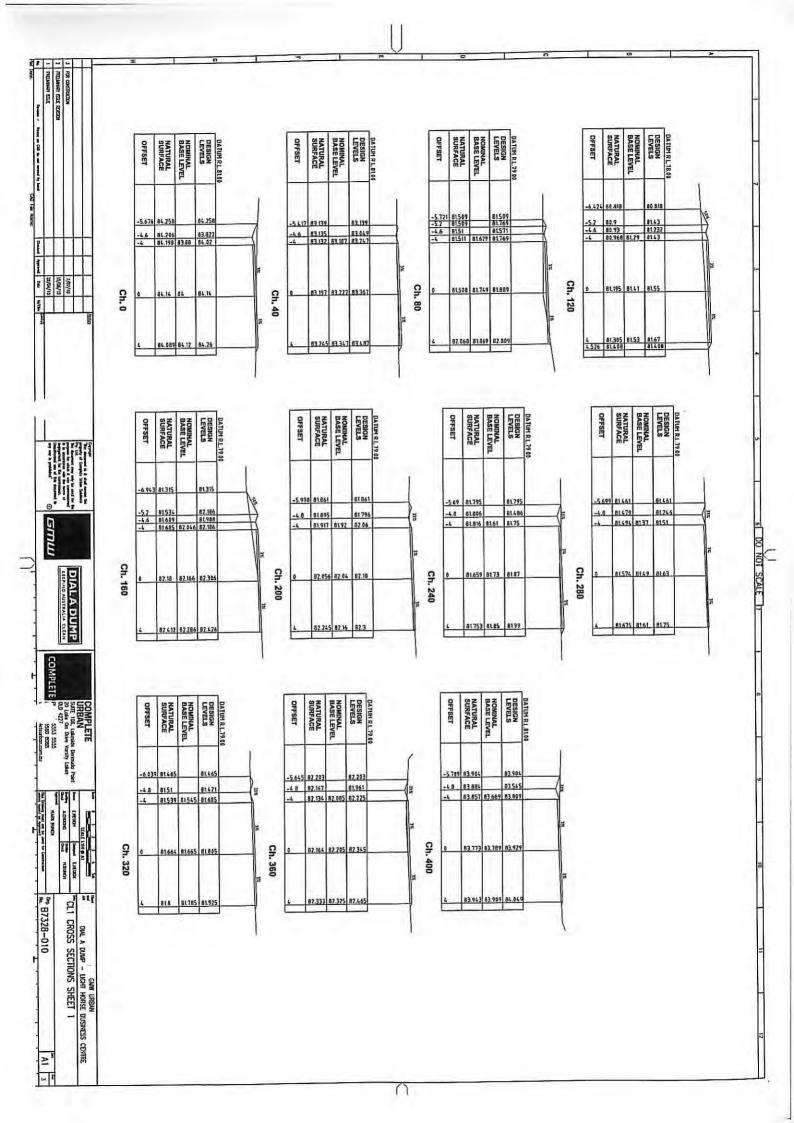


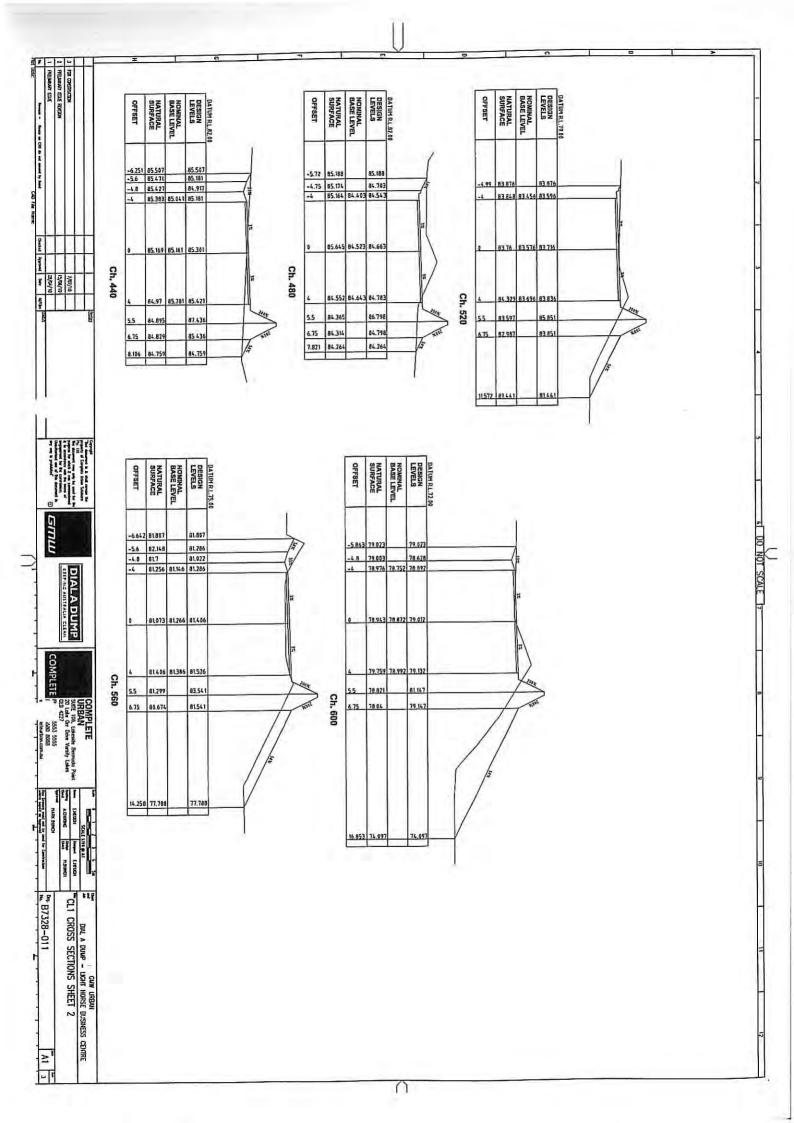


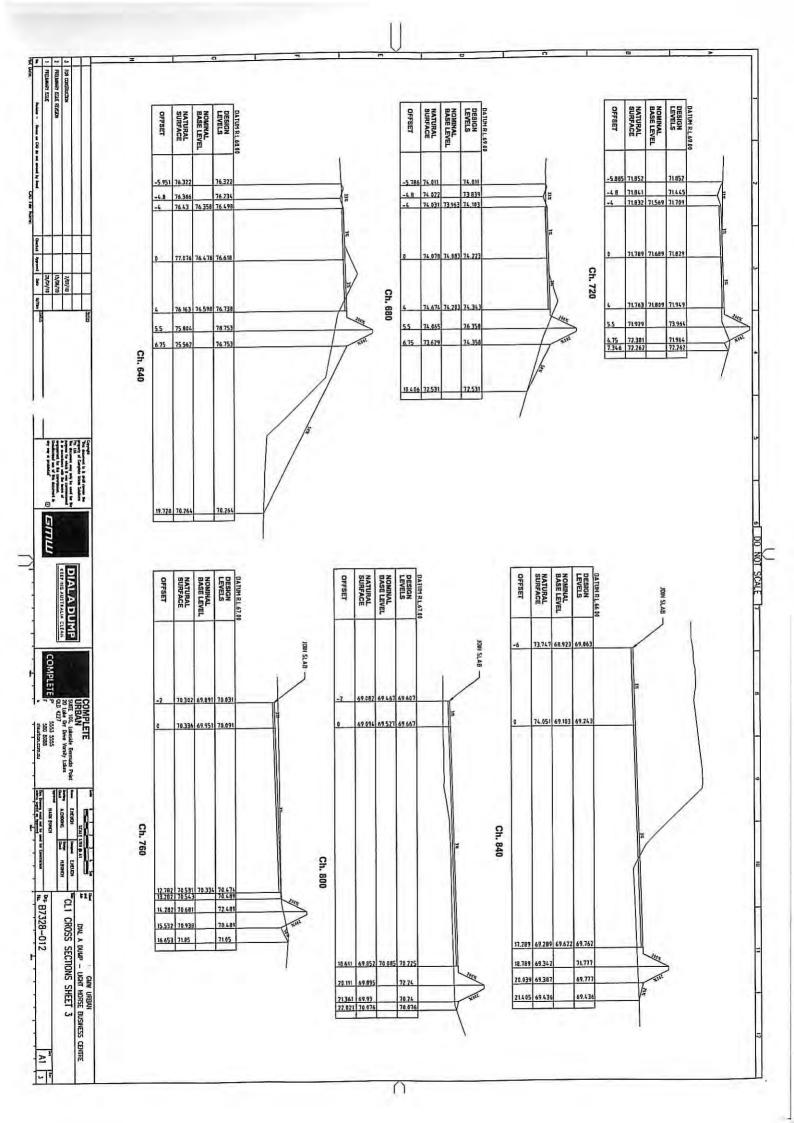
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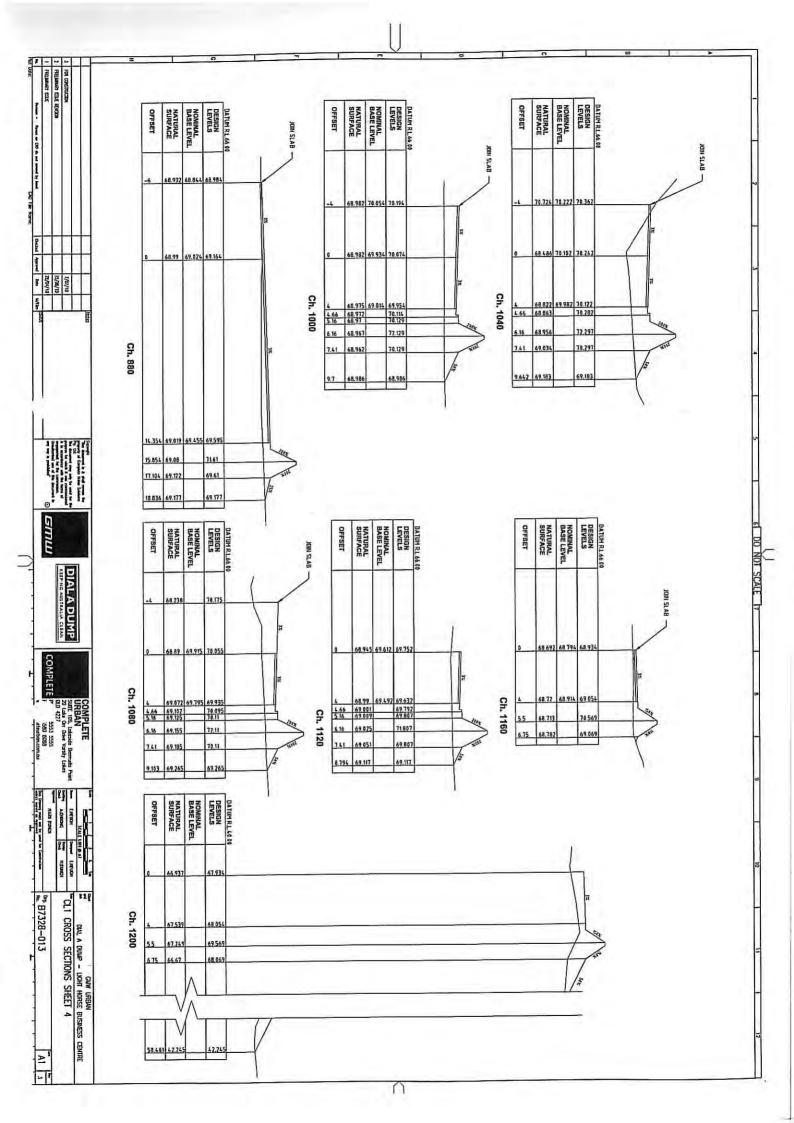


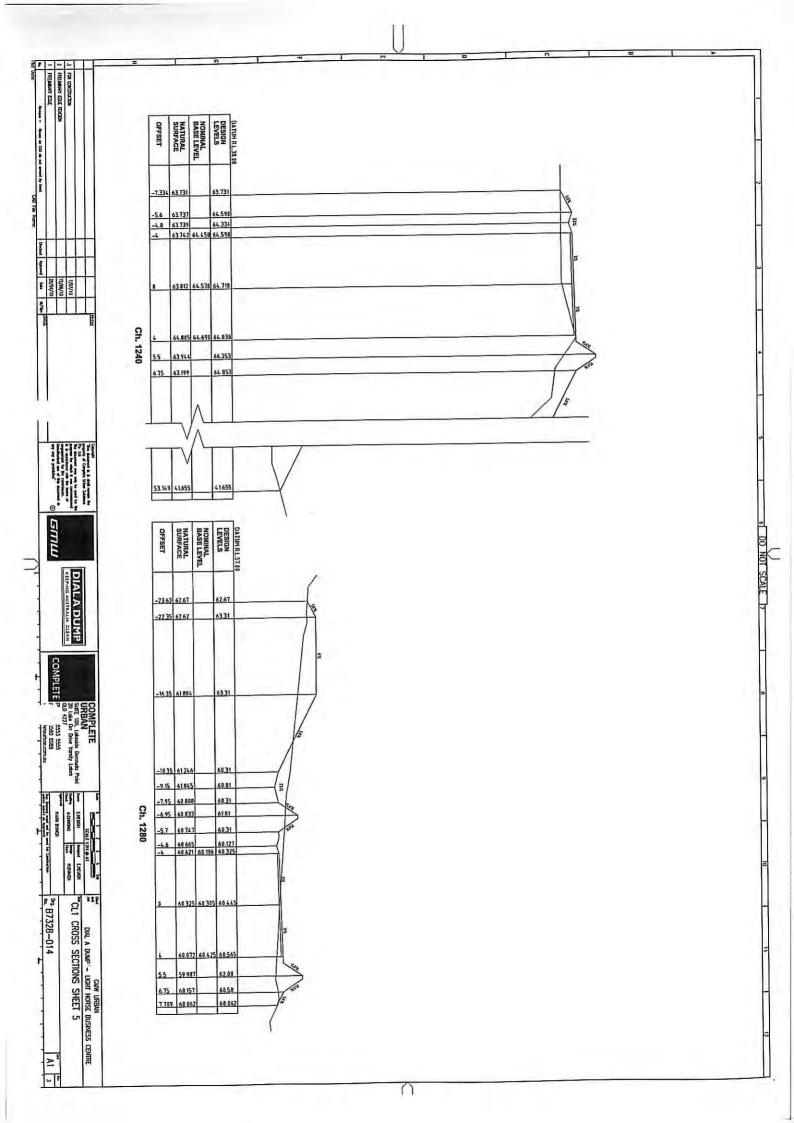


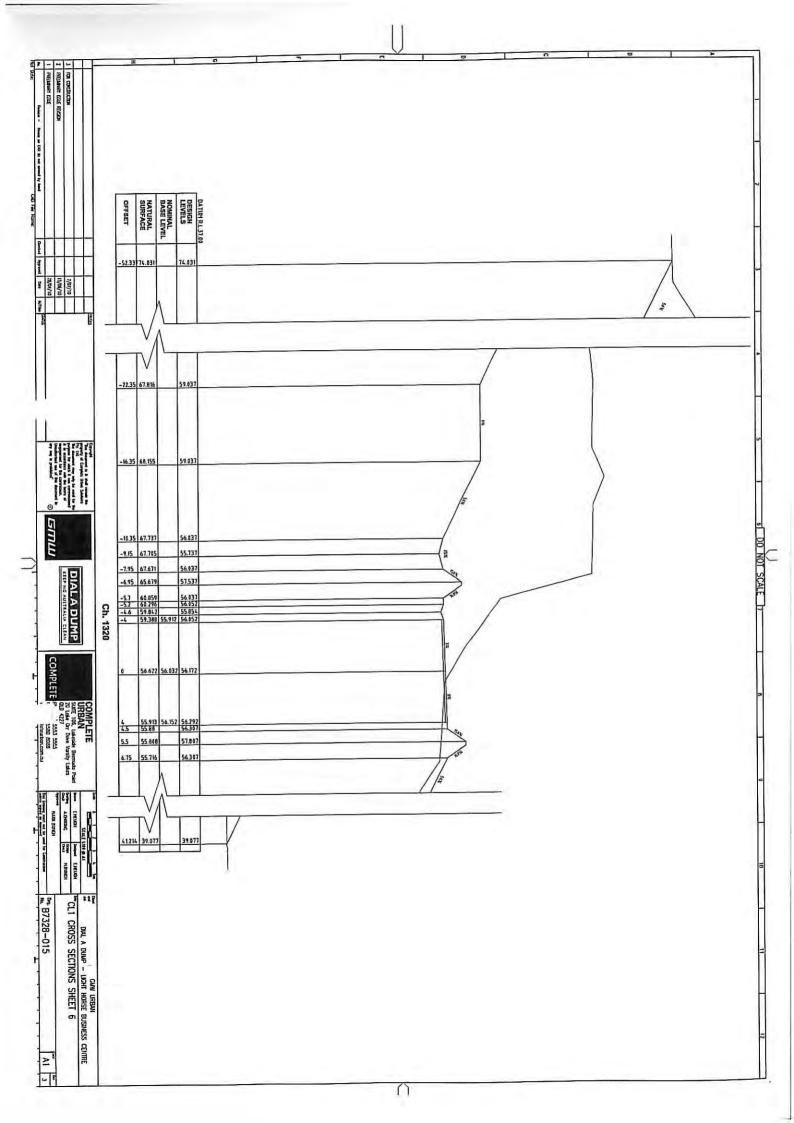


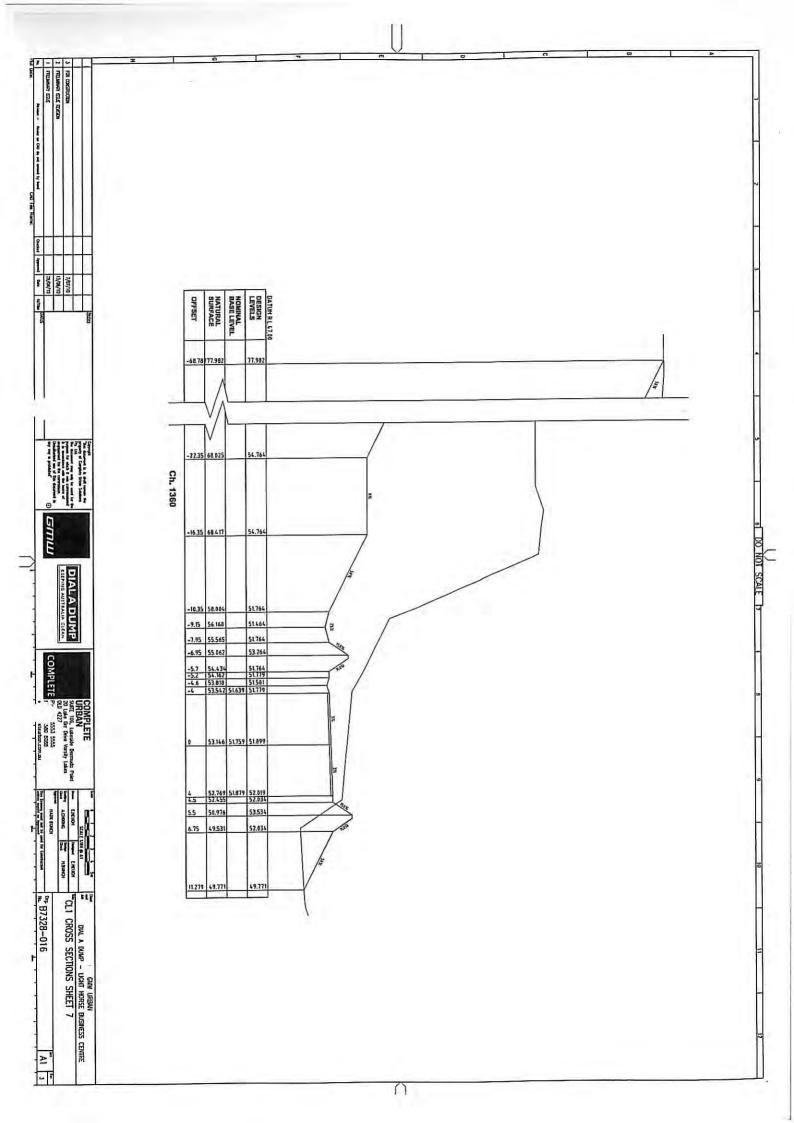


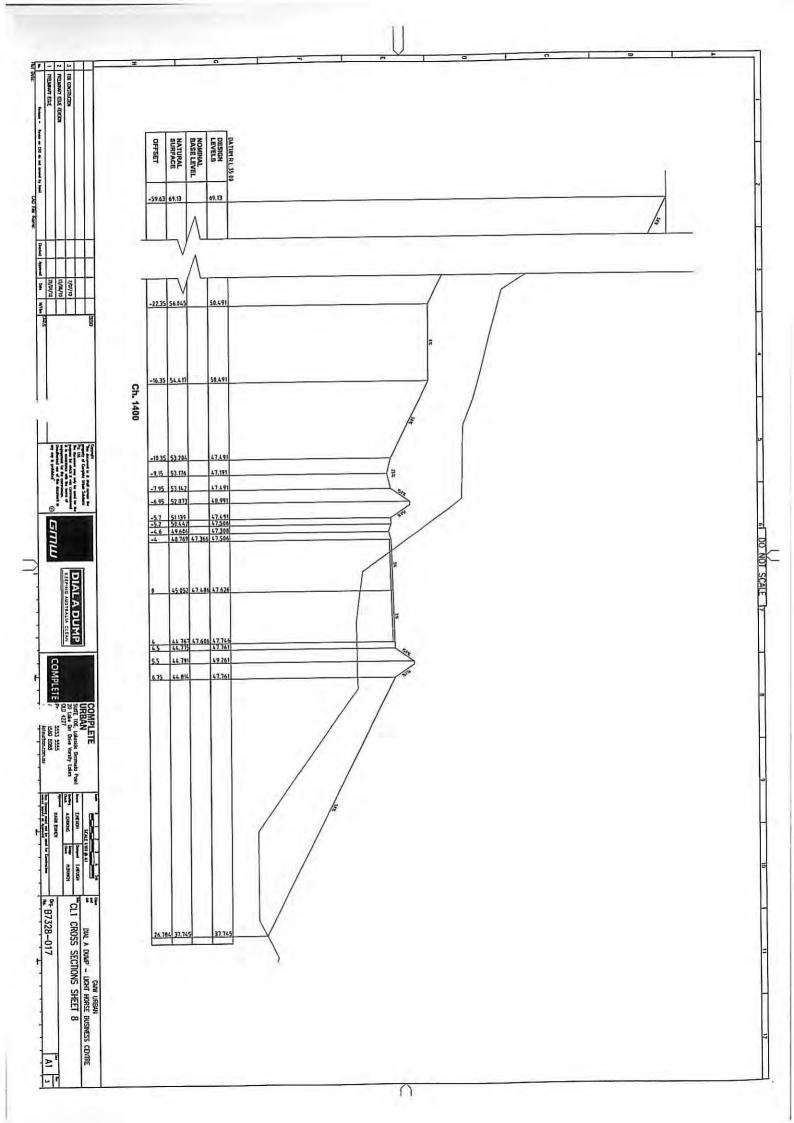


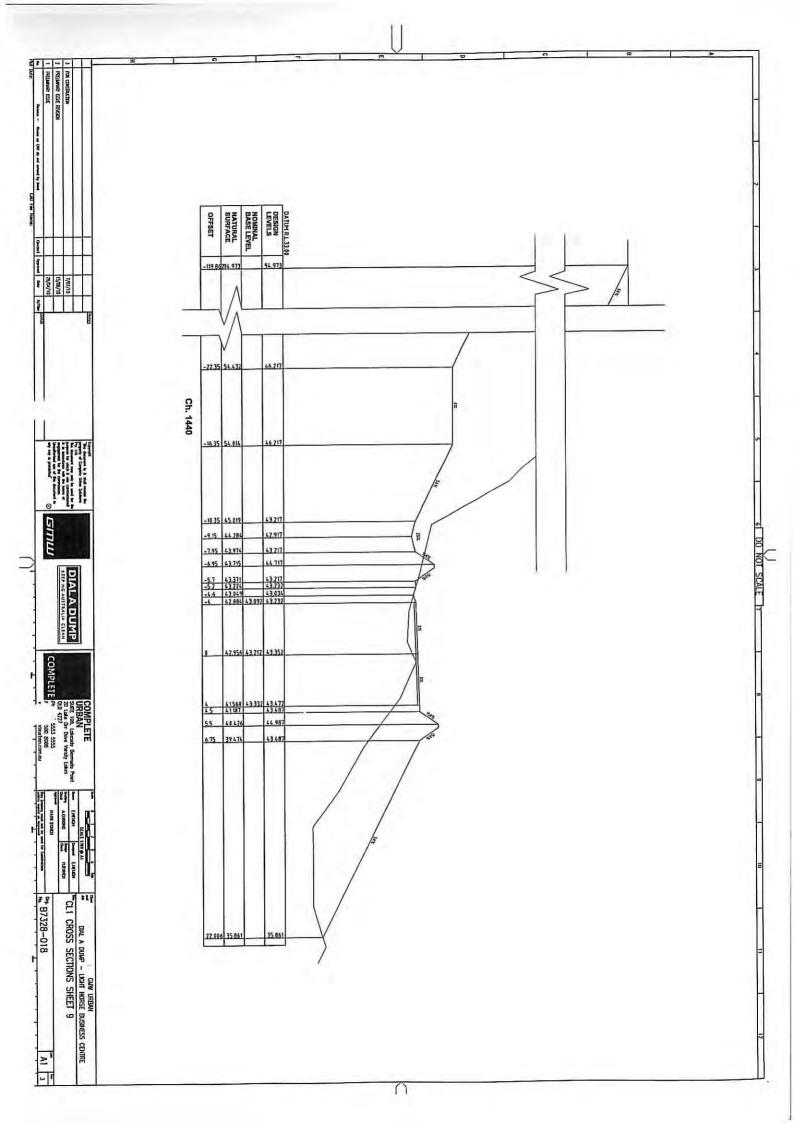


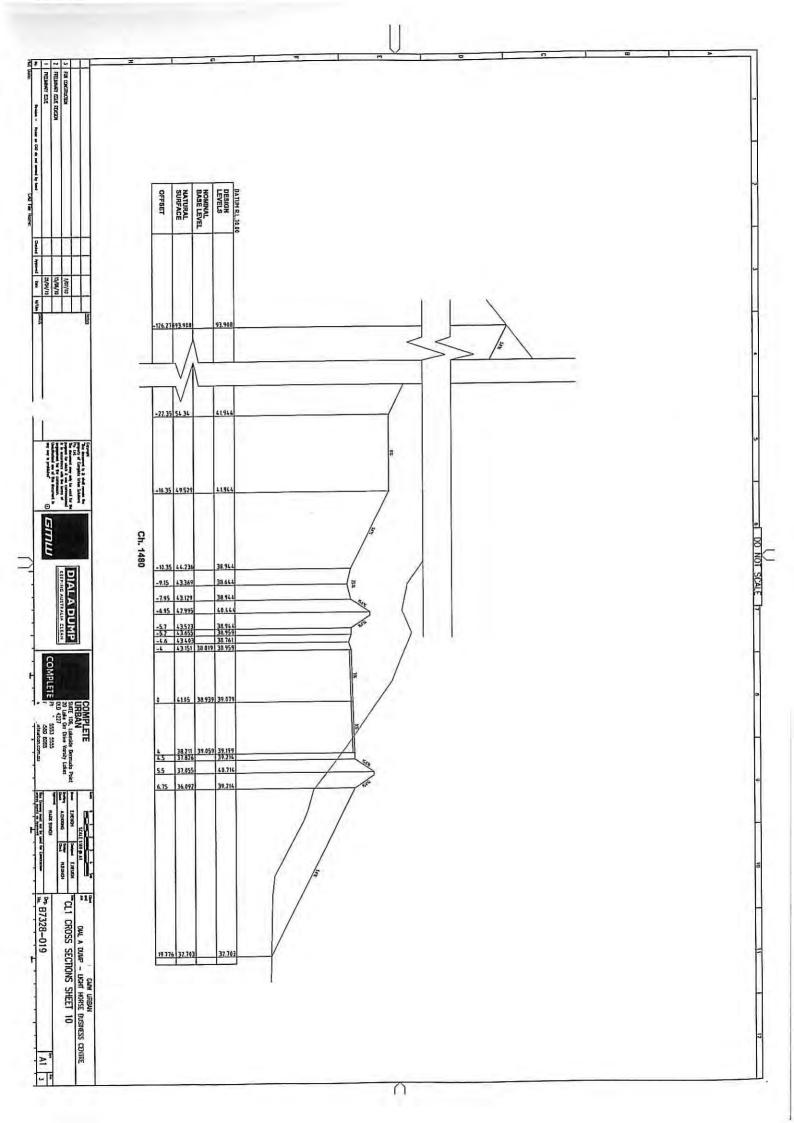


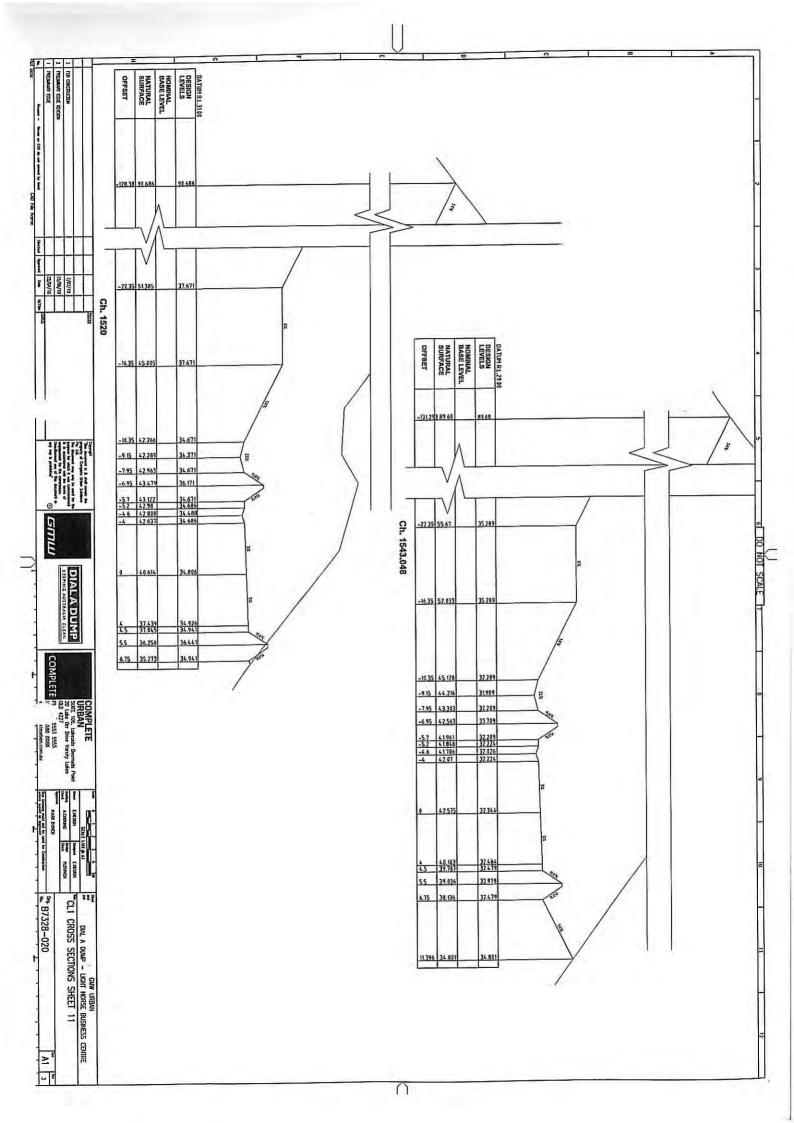


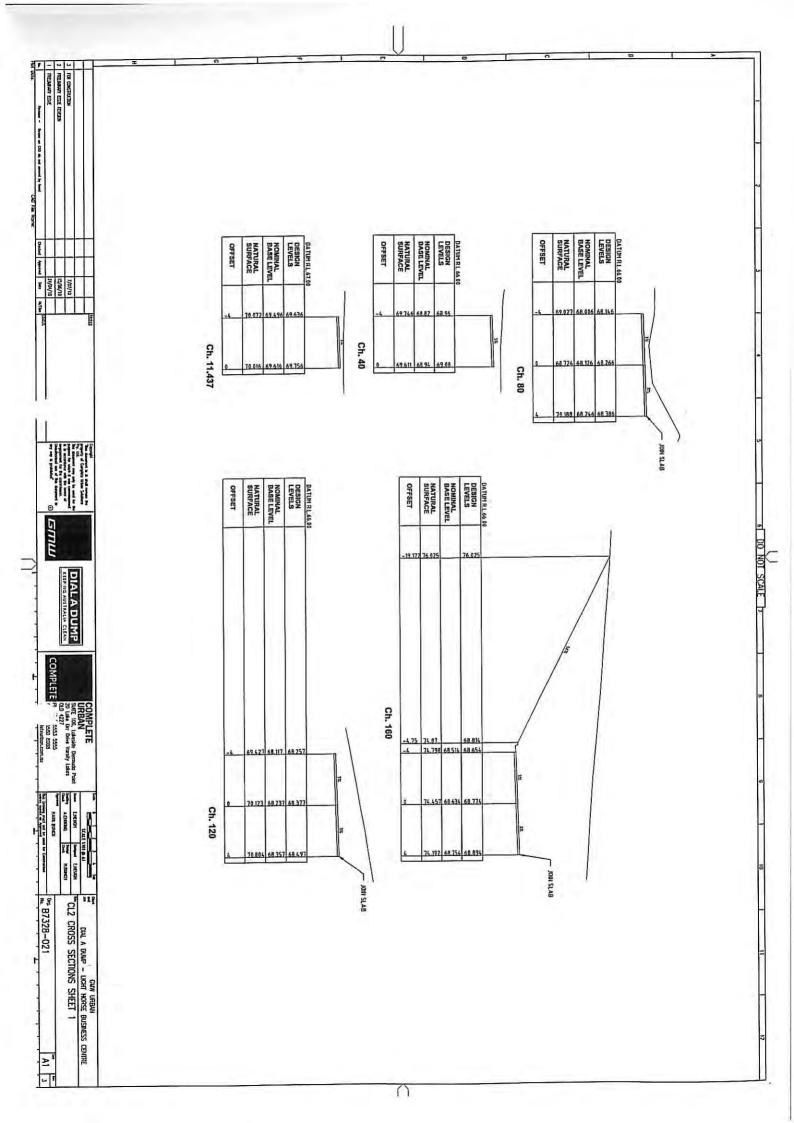


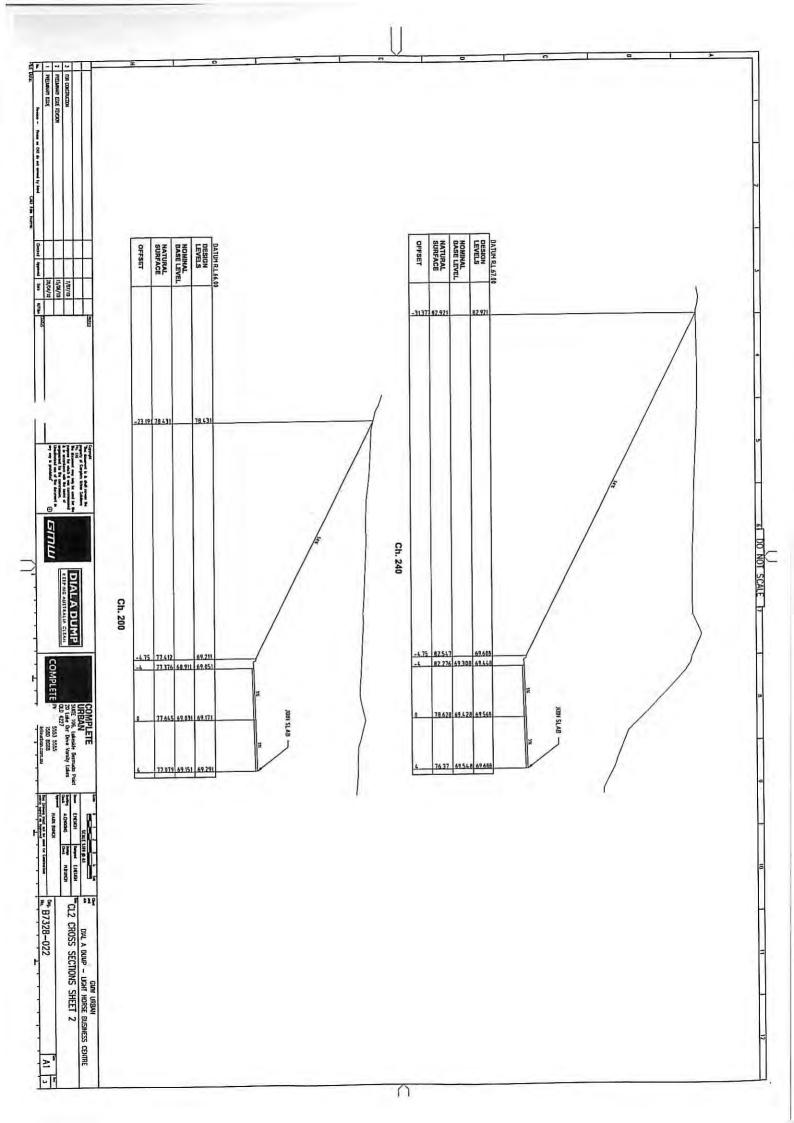


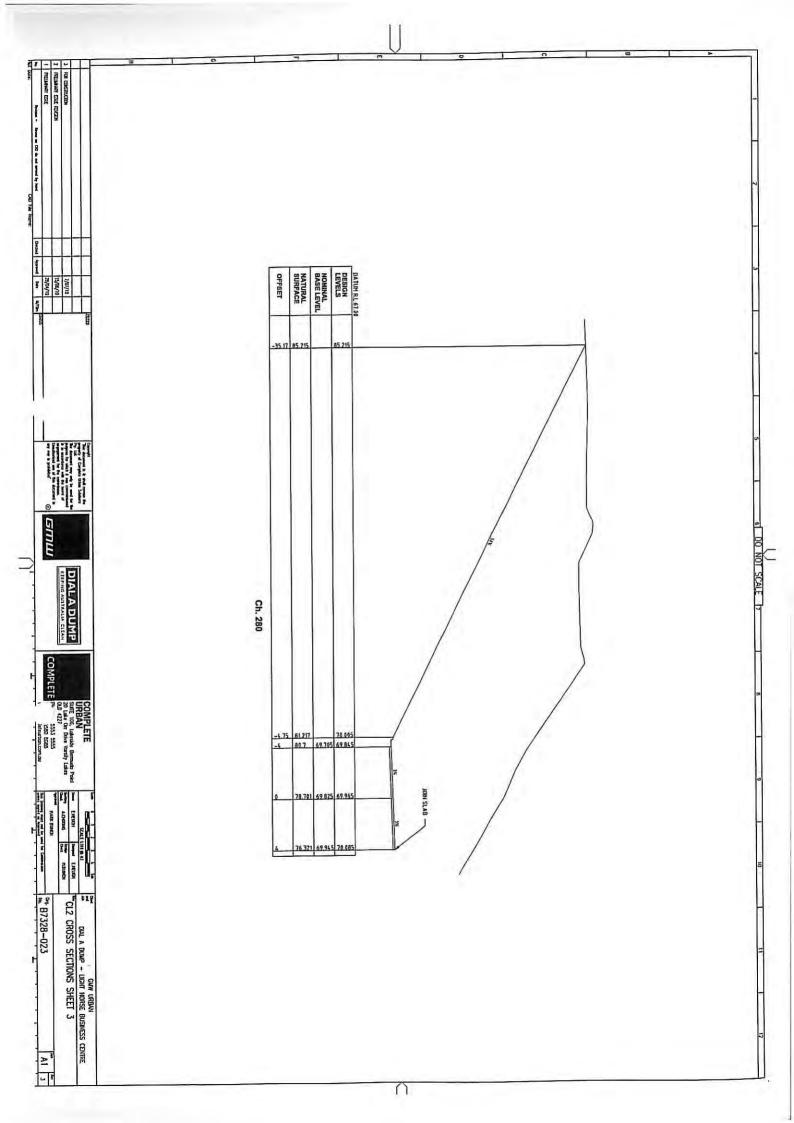


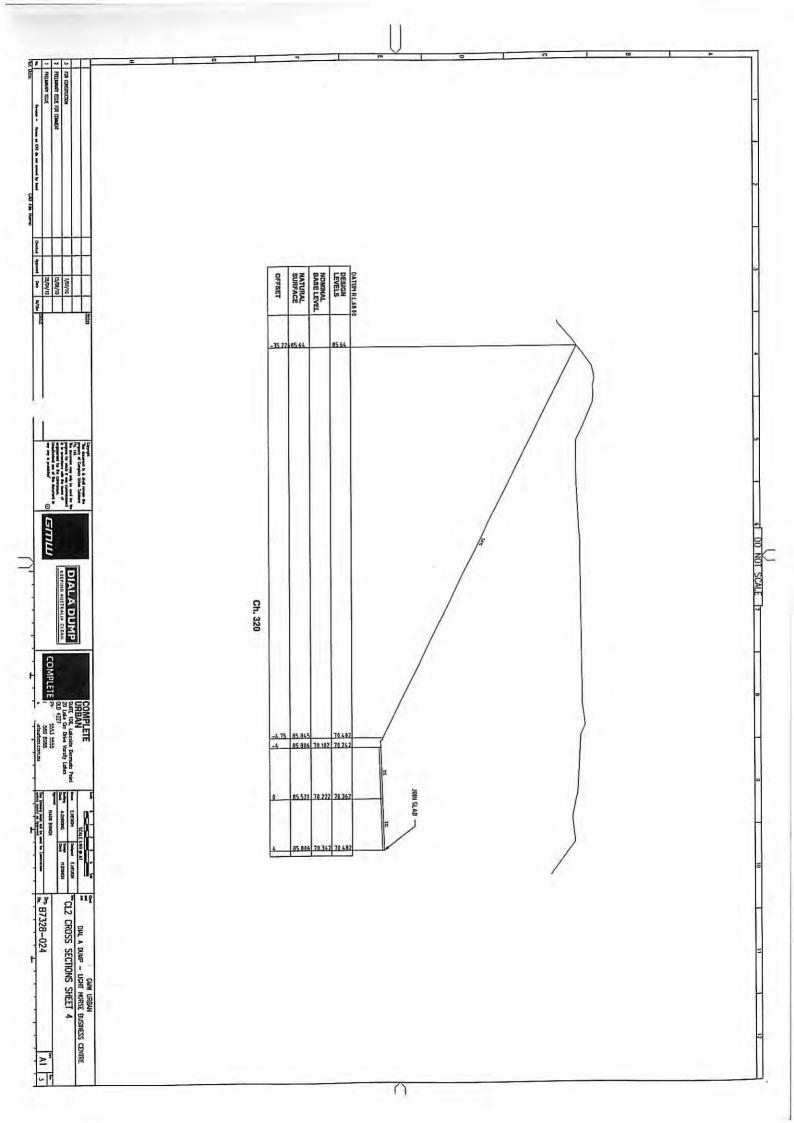


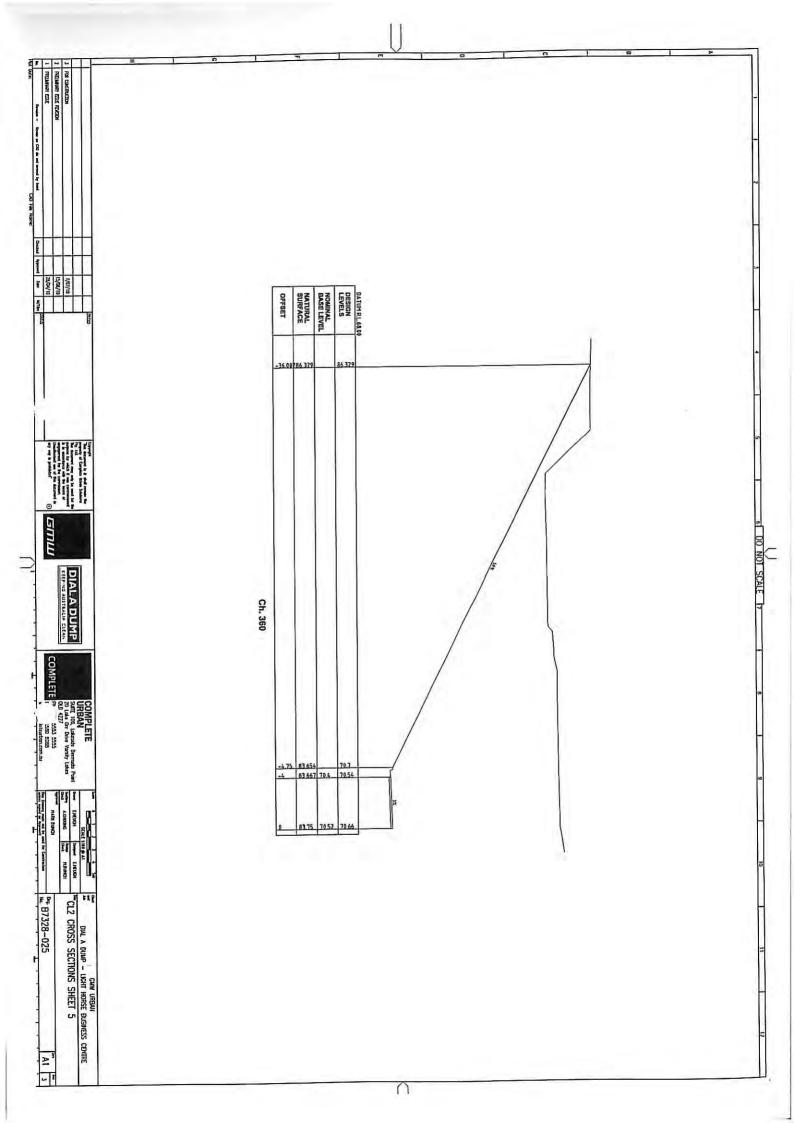


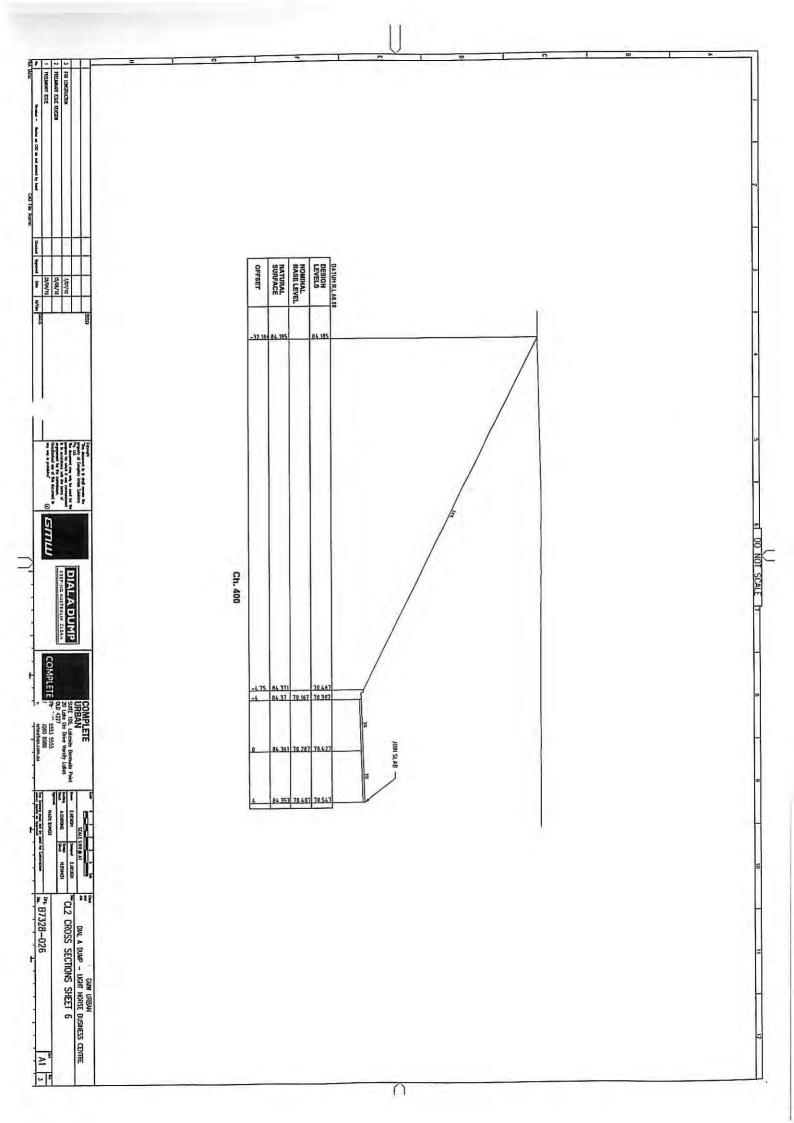


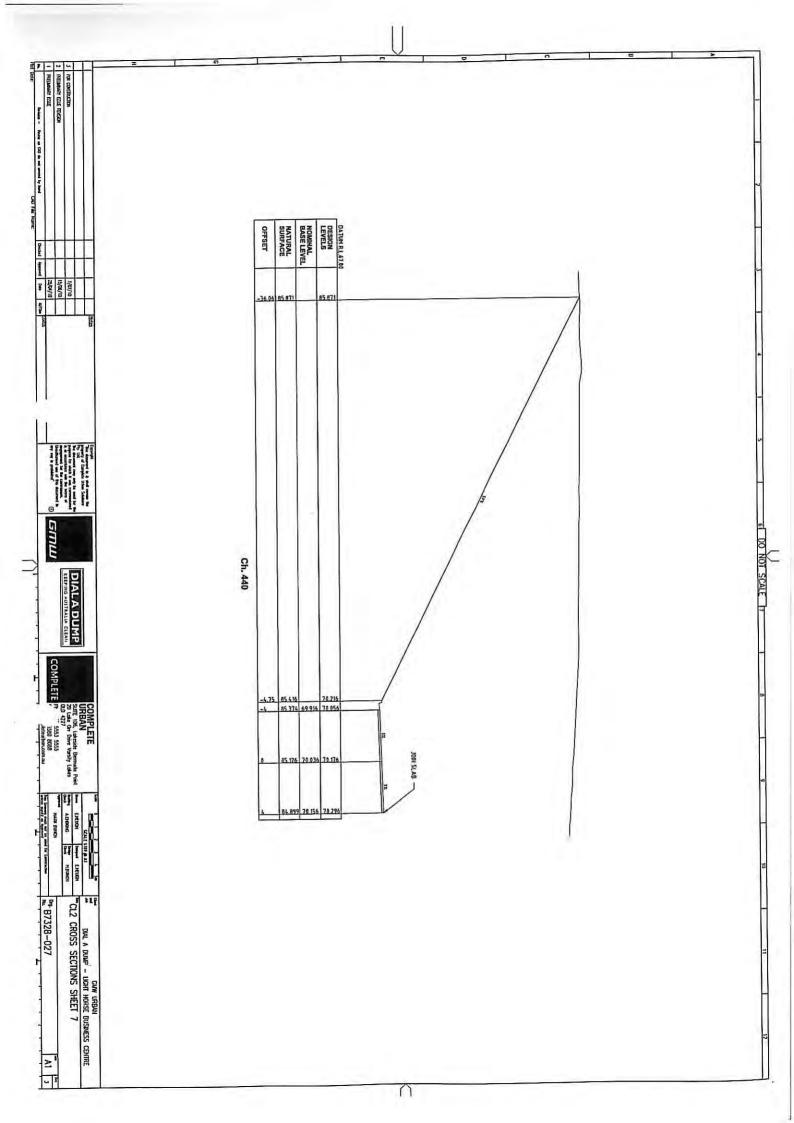


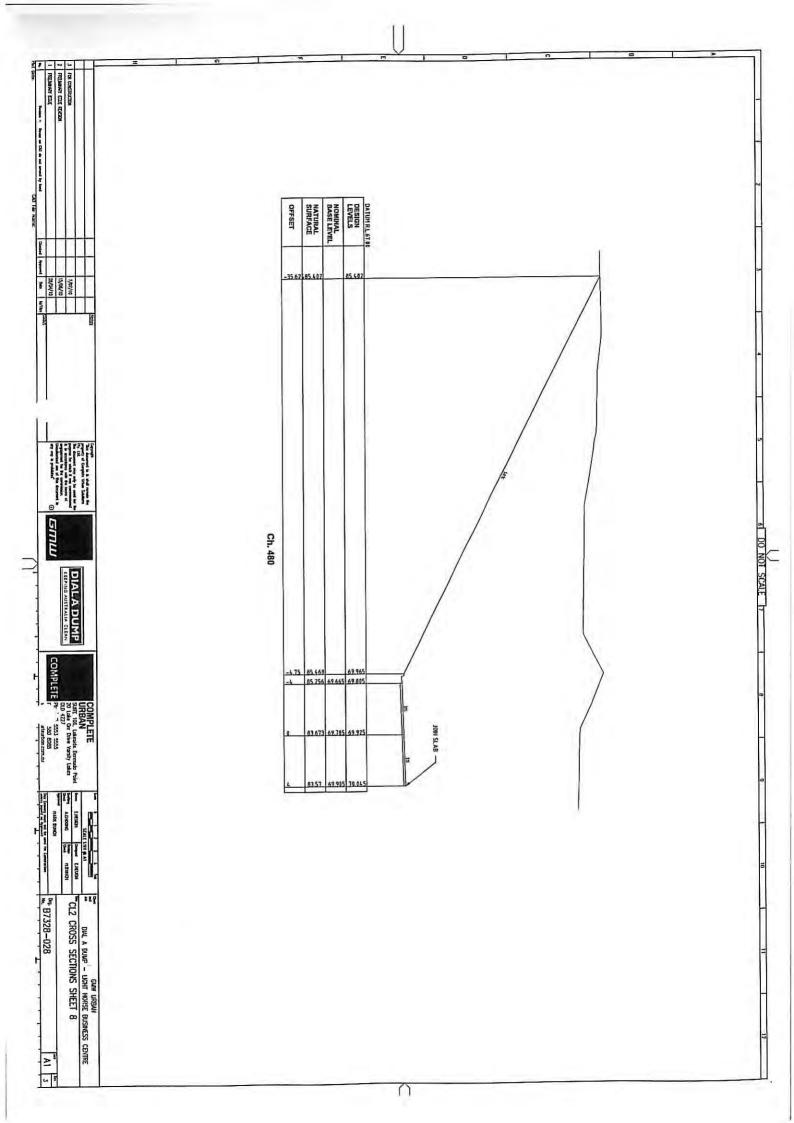


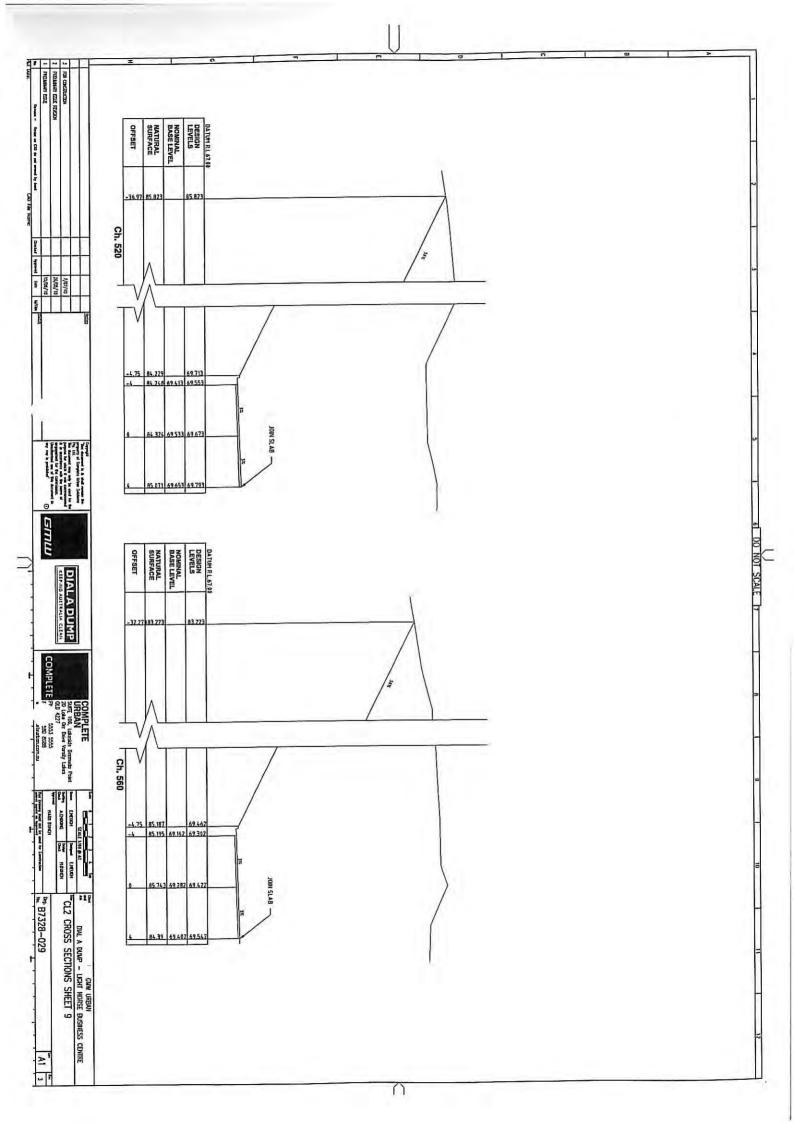


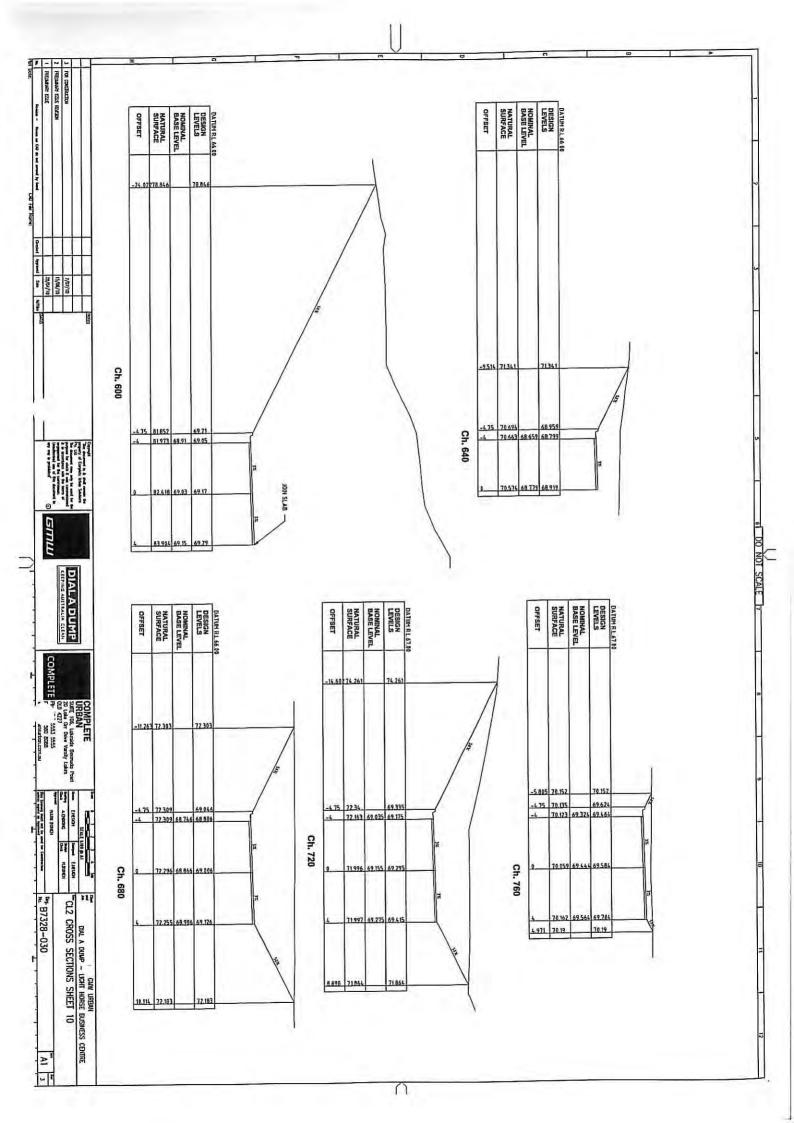


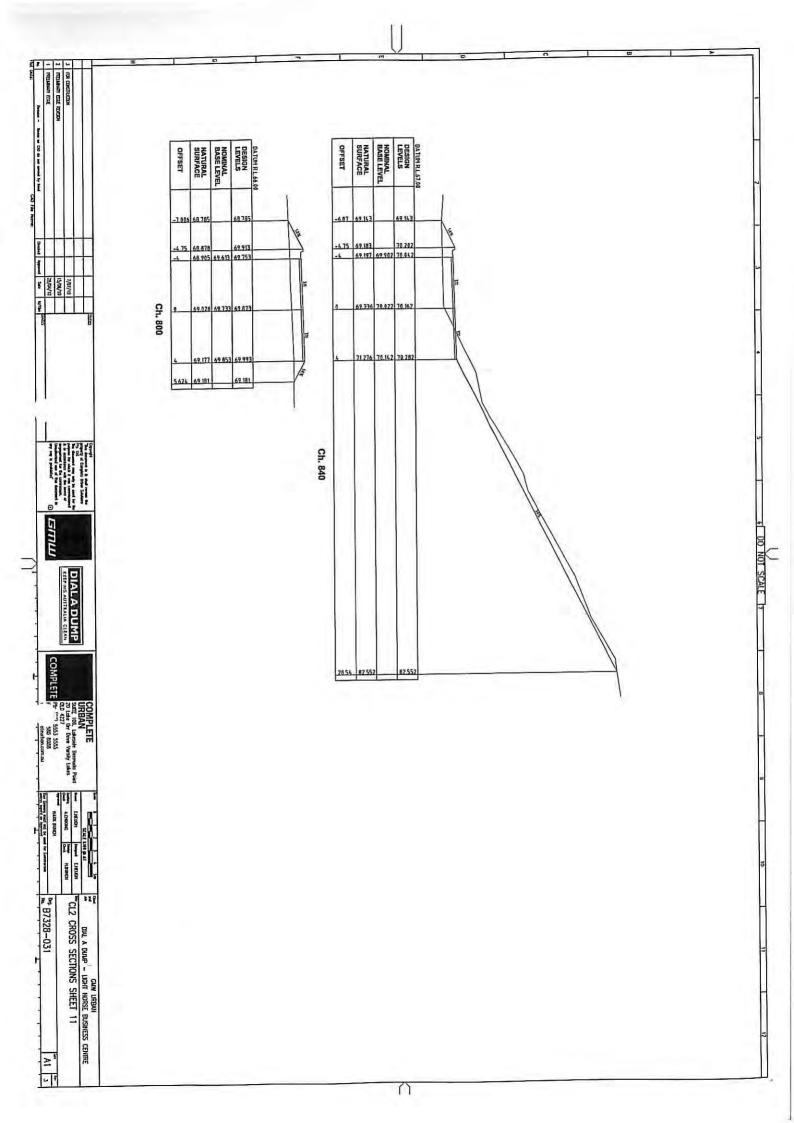


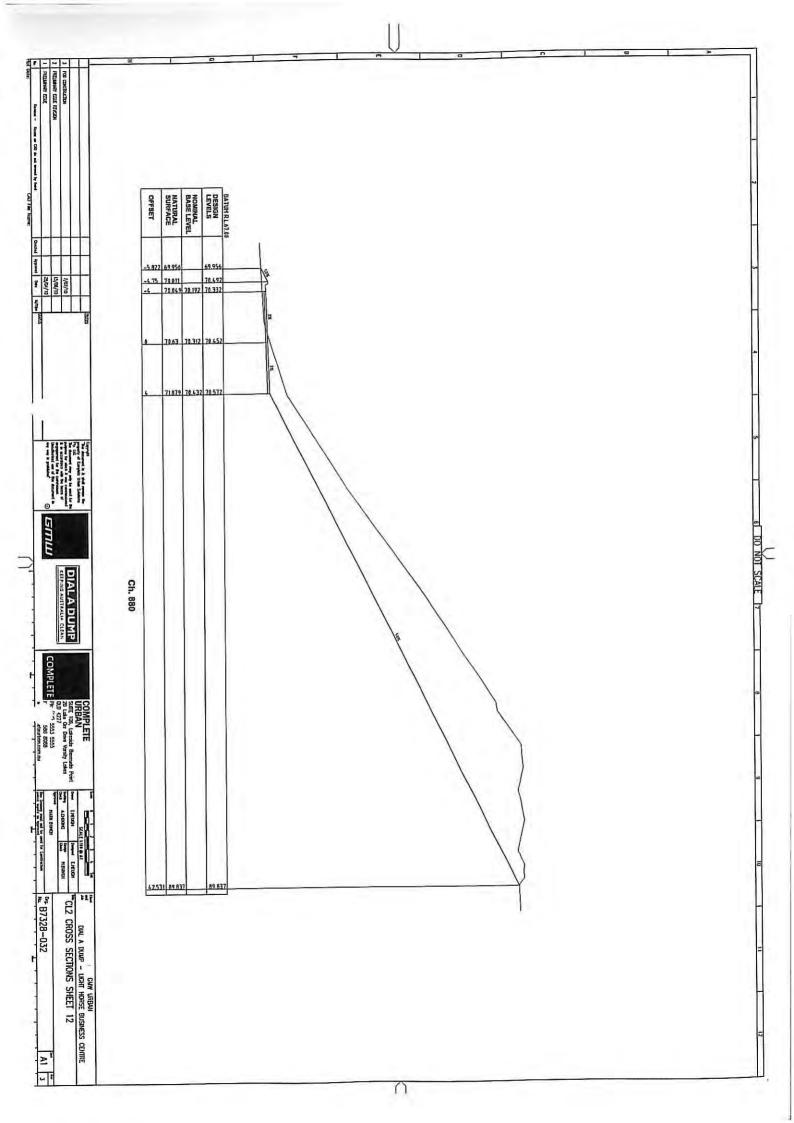


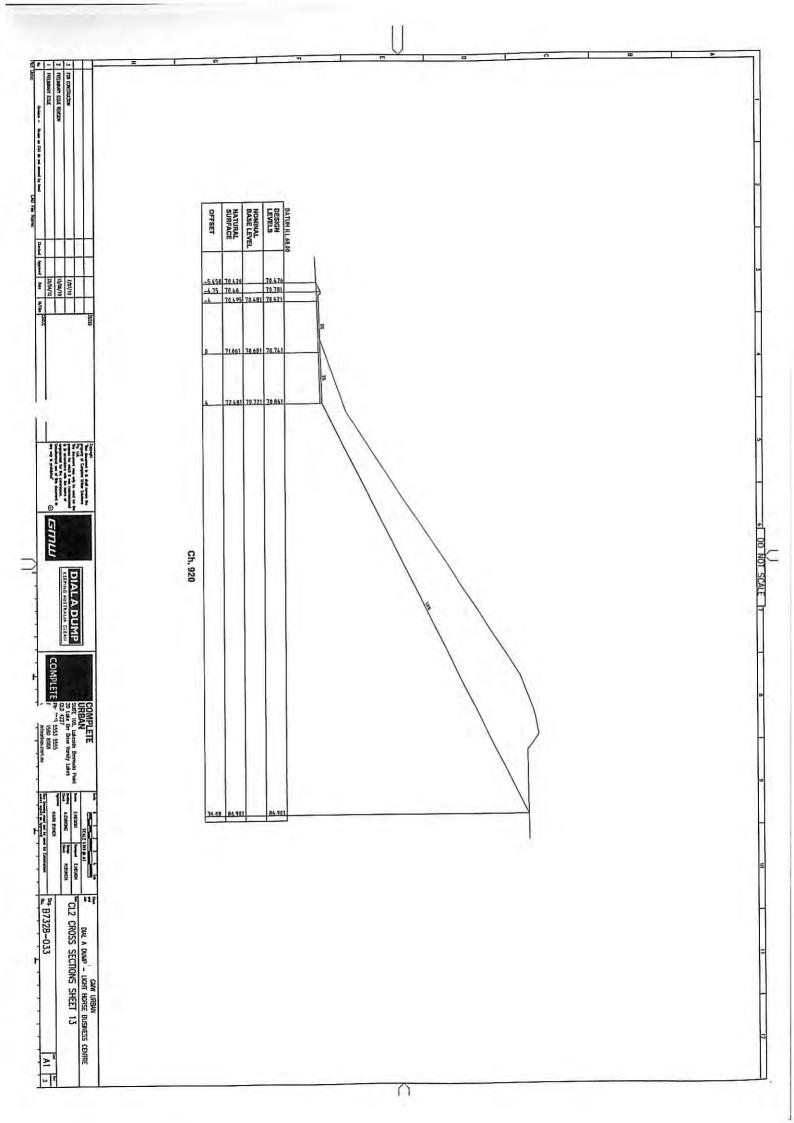


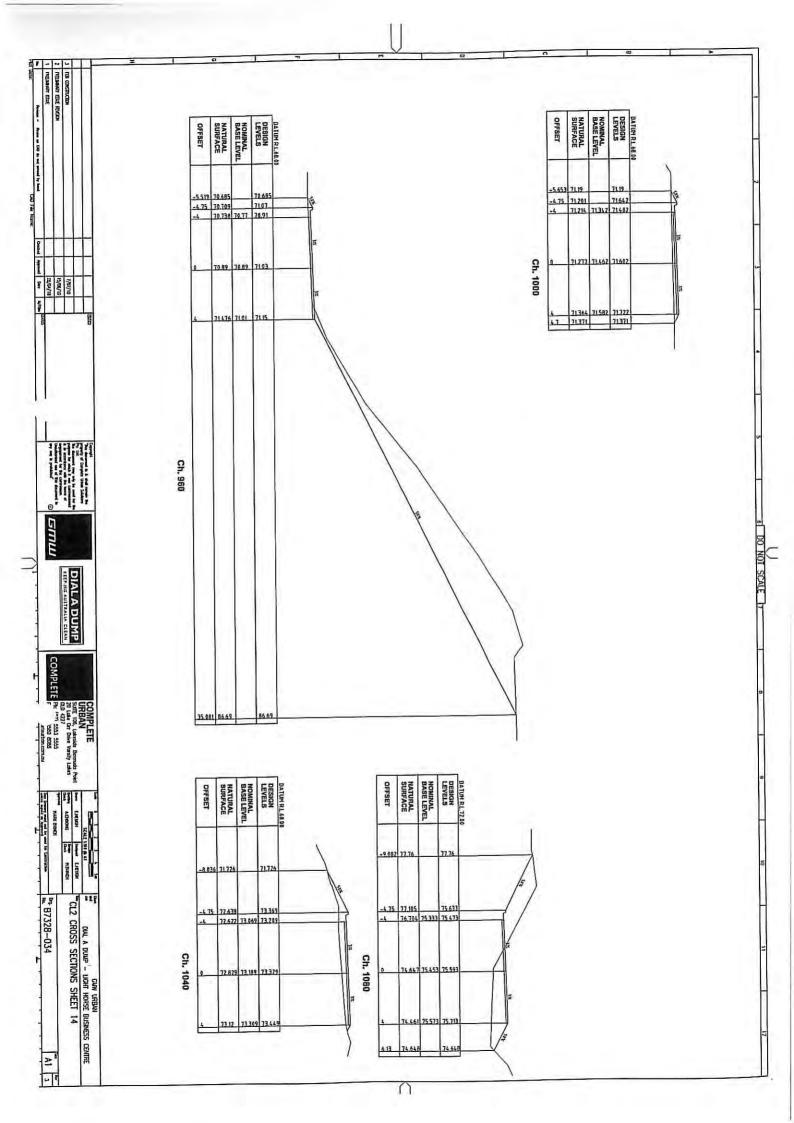


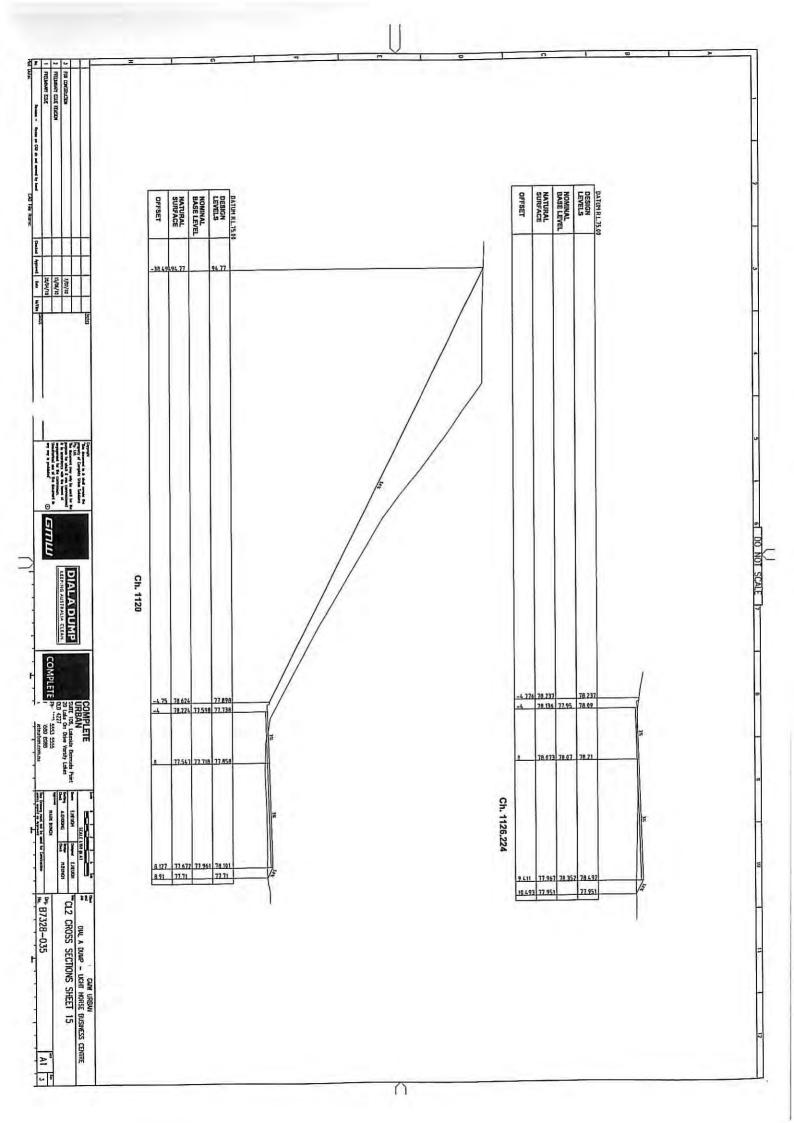














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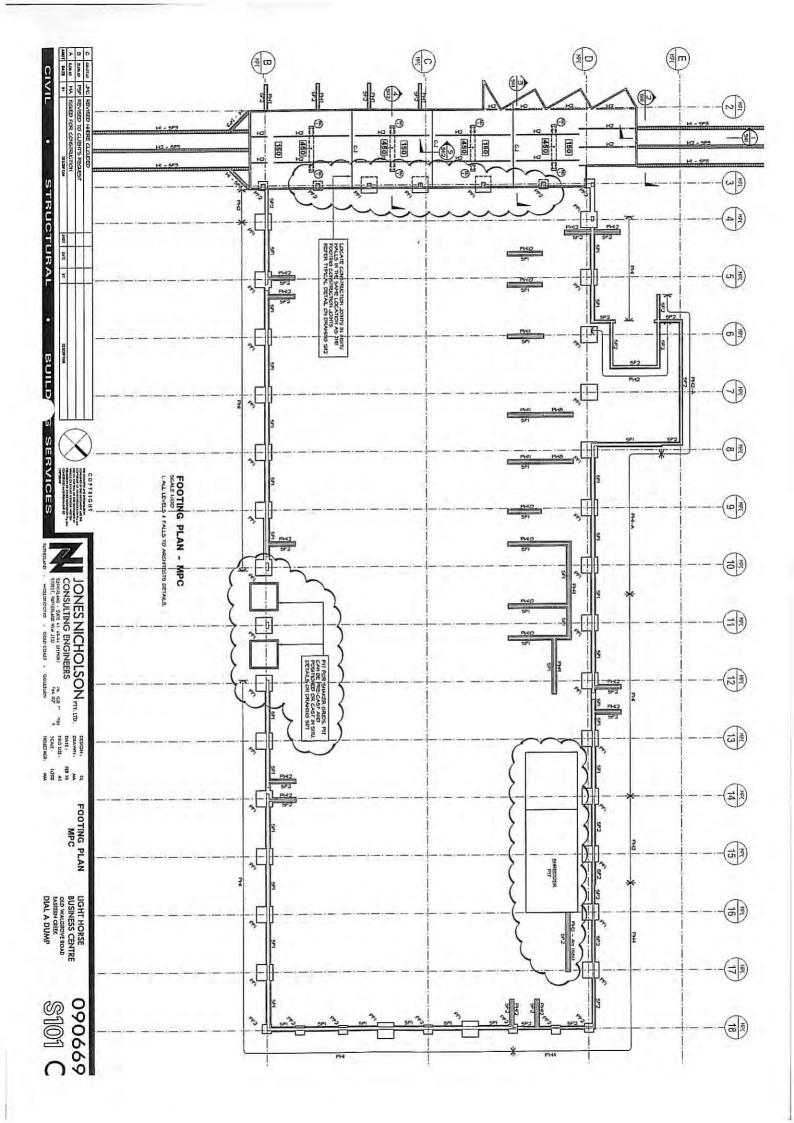
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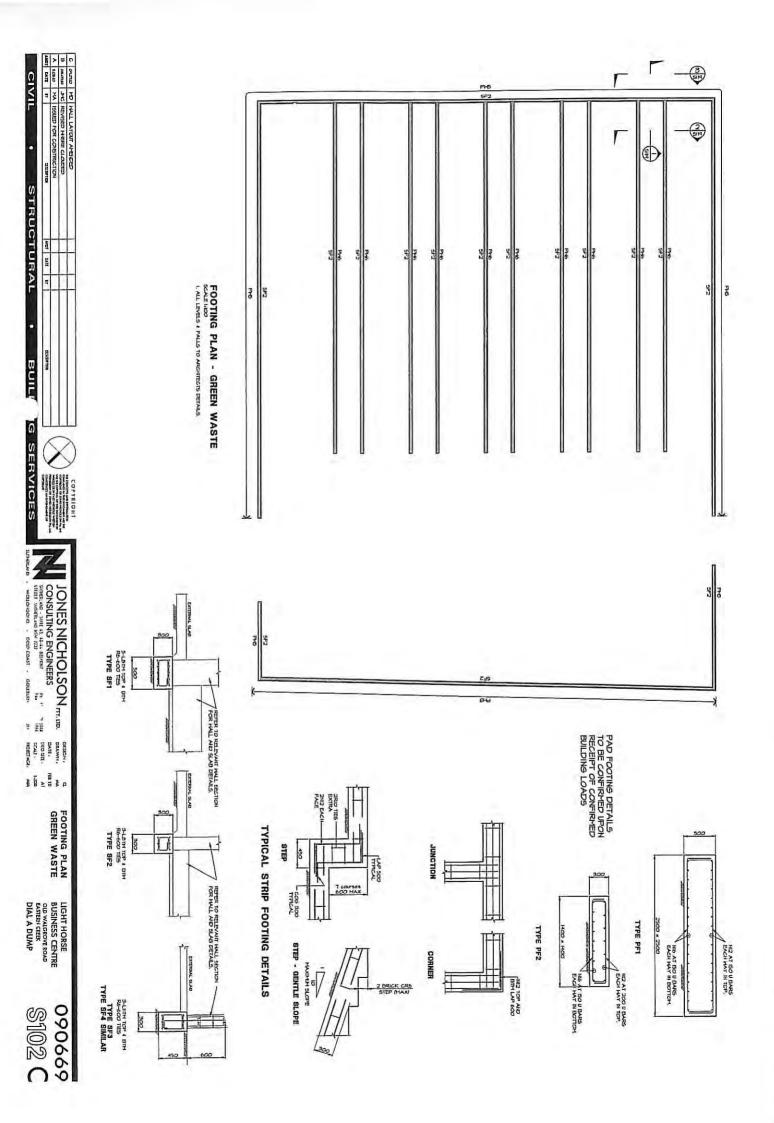
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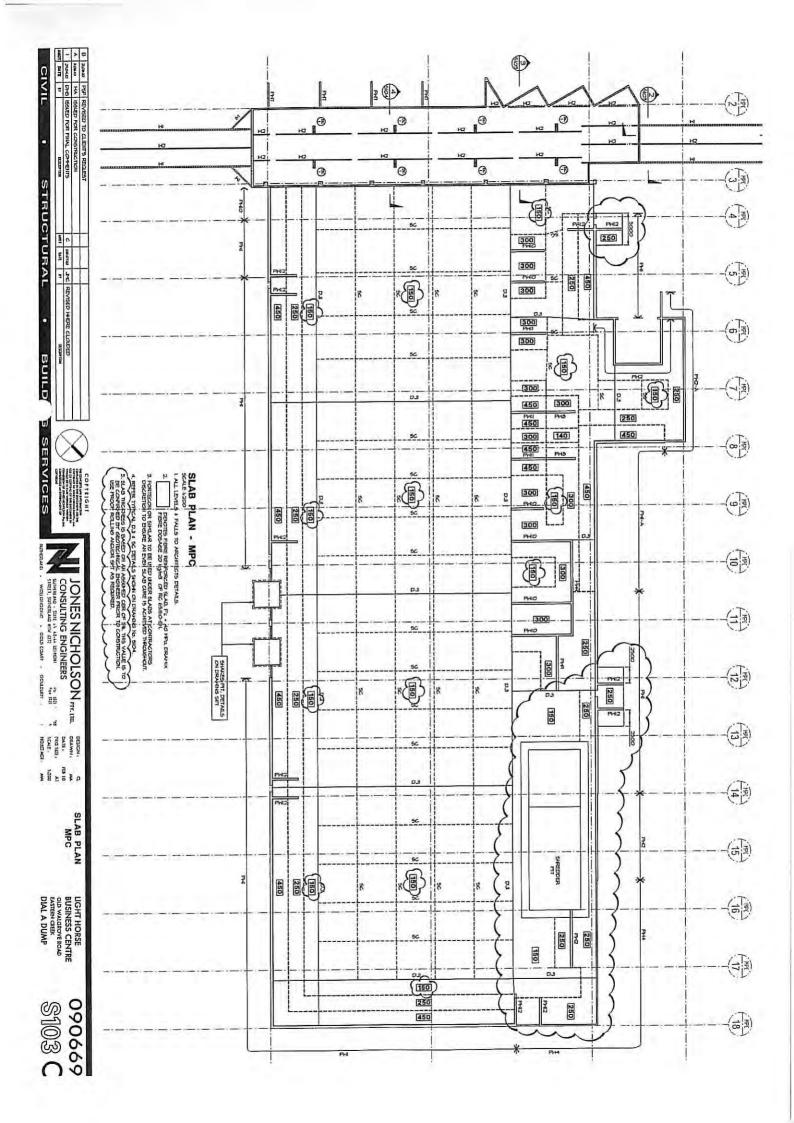
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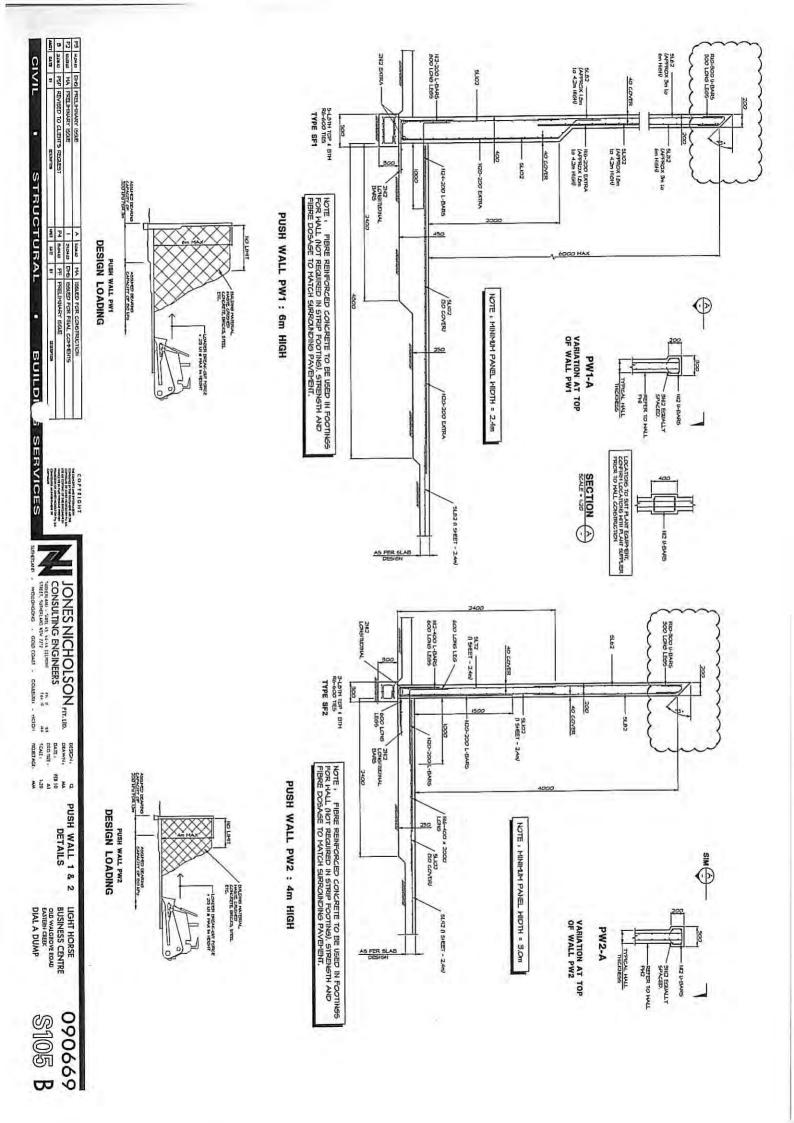
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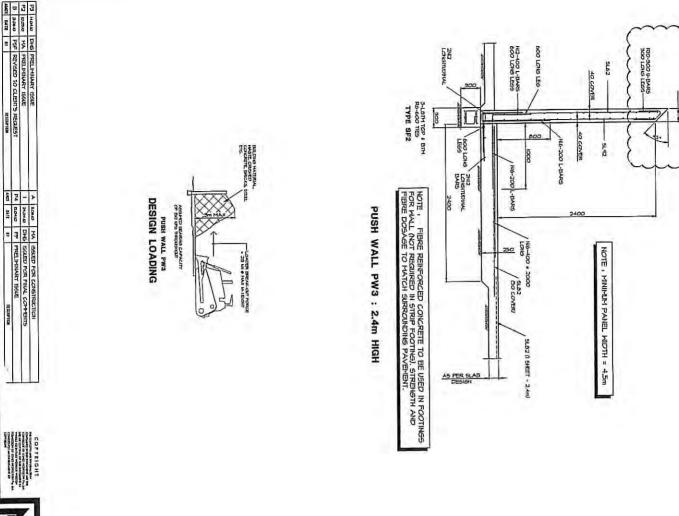
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NOTE: FIBRE REINFORCED CONCRETE TO BE USED IN FOOTINGS FOR WALL (NOT REQUIRED IN STRIP FOOTING), STRENGTH AND FIBRE DOSAGE TO MATCH SIRROUNDING PAVENERT.

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51.62 40 COVER

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SLD2 () SHEET - 2,4m)

SLD2

BOO LONG LEGS

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NOTE : MINIMUM PANEL MIDTH = 4.5m



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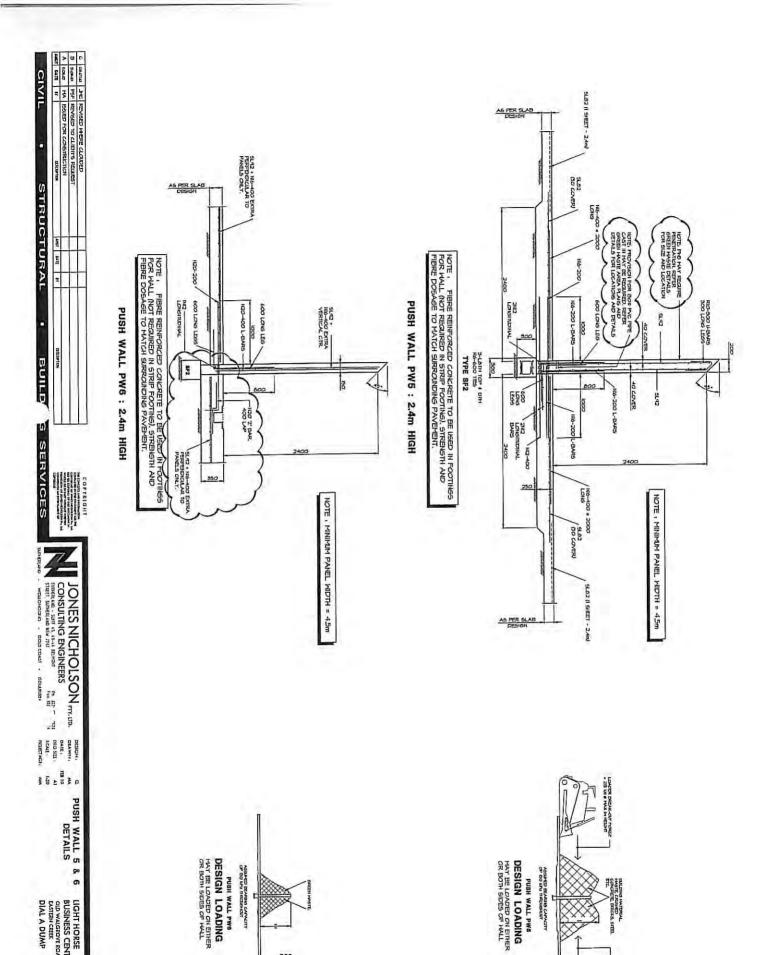
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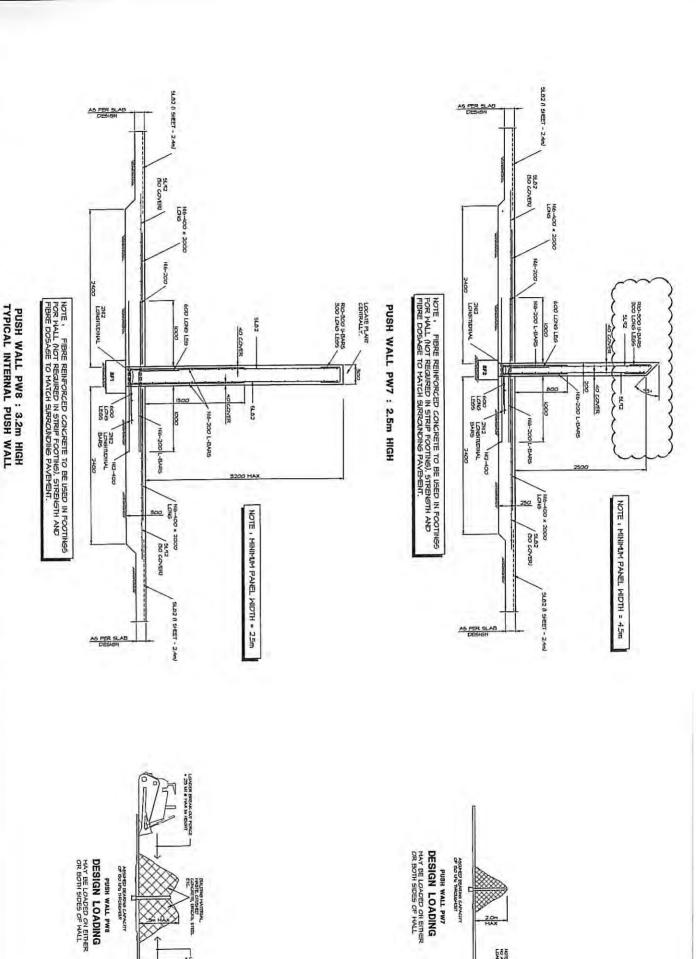


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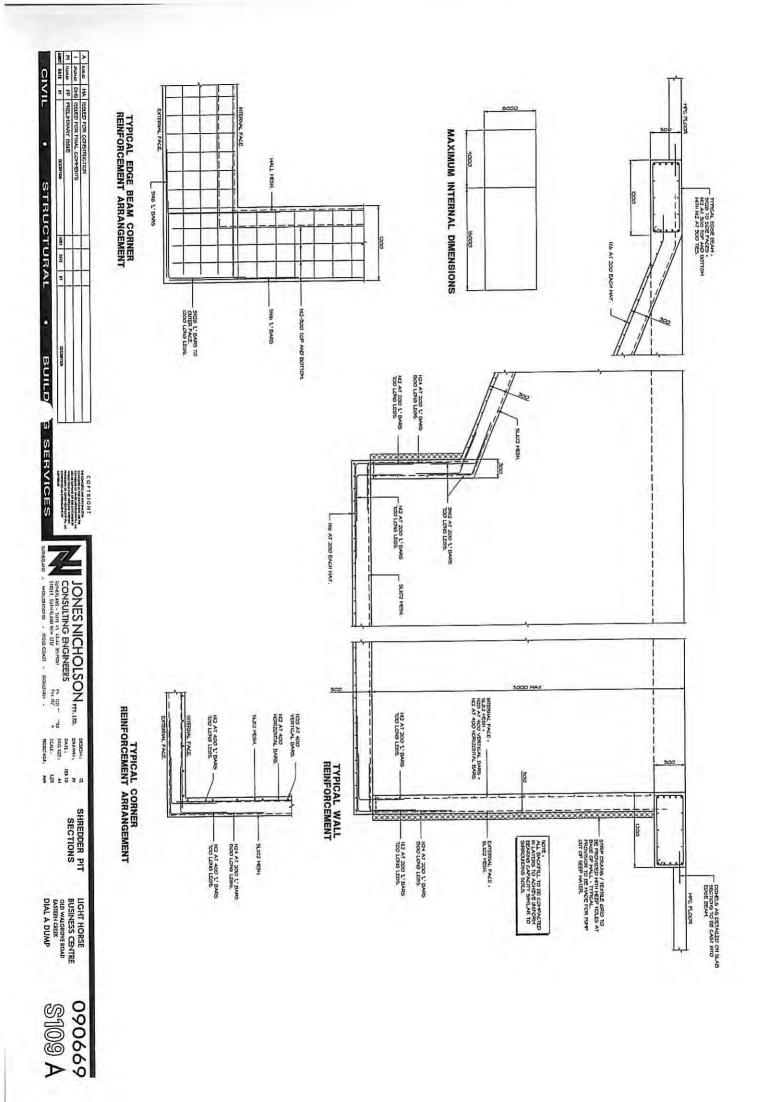
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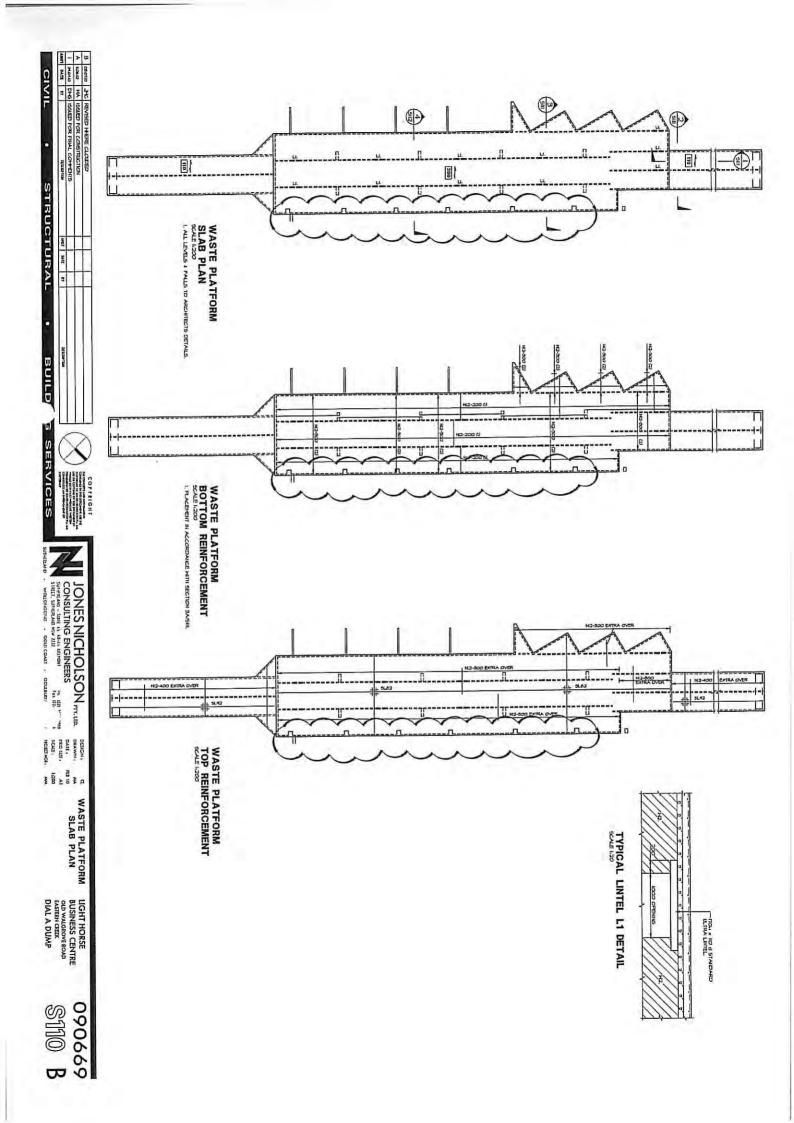
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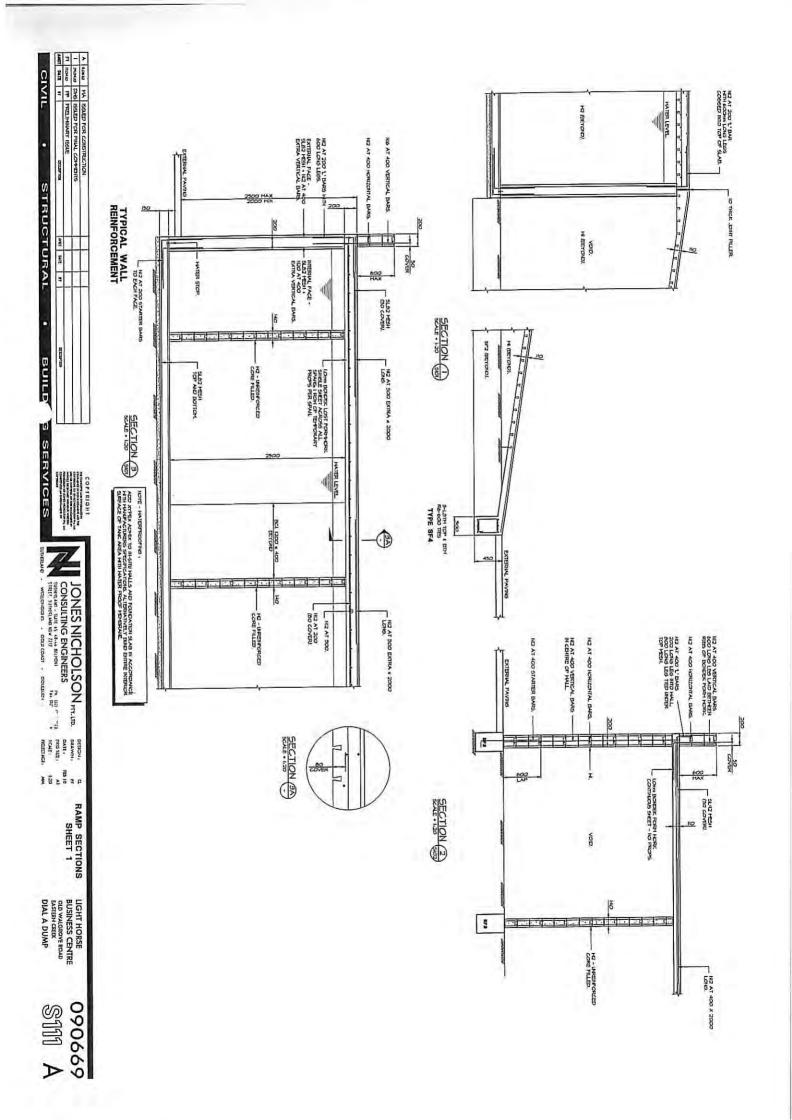
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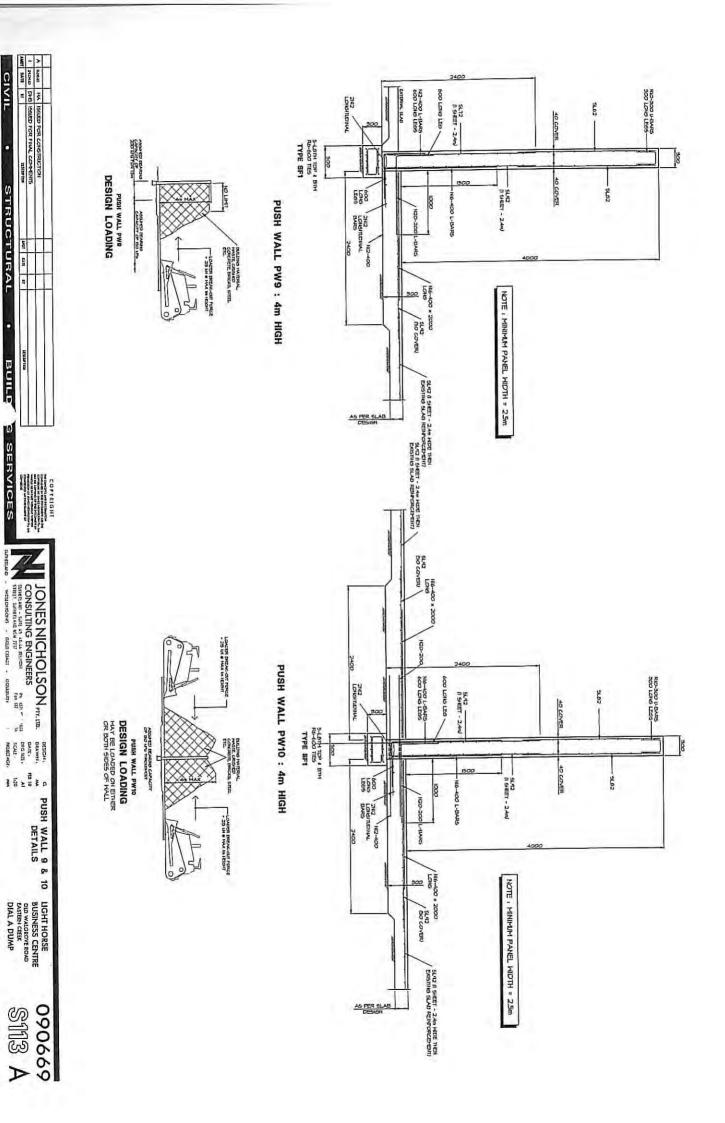
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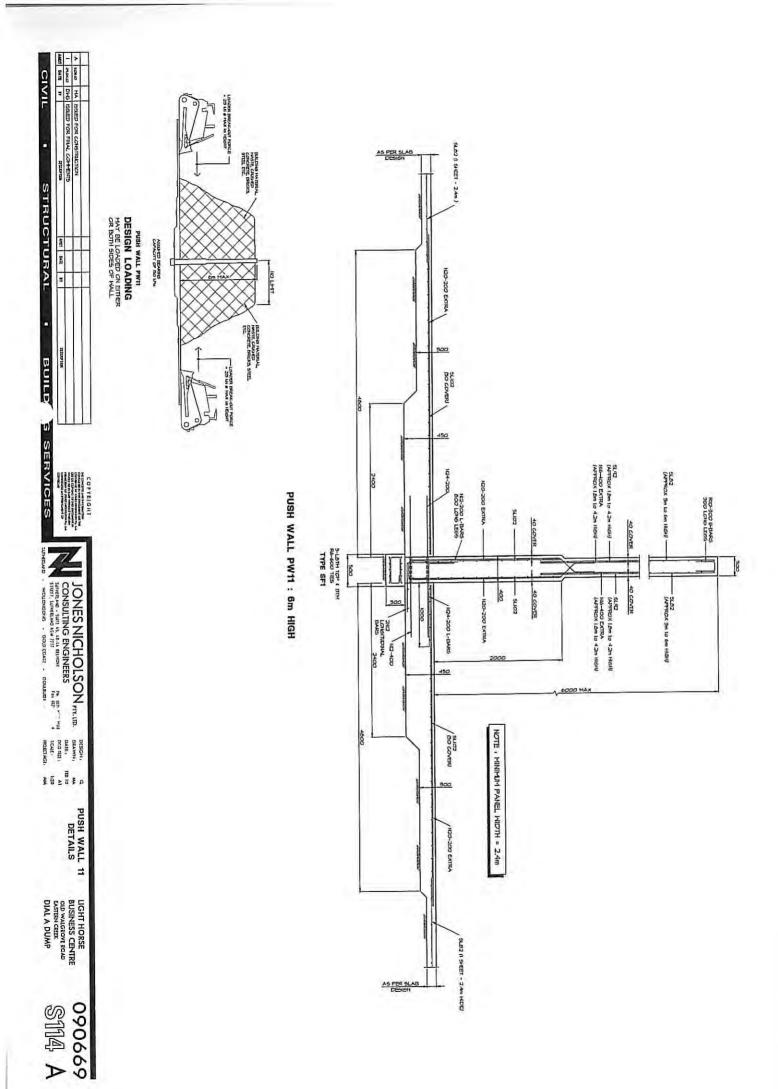
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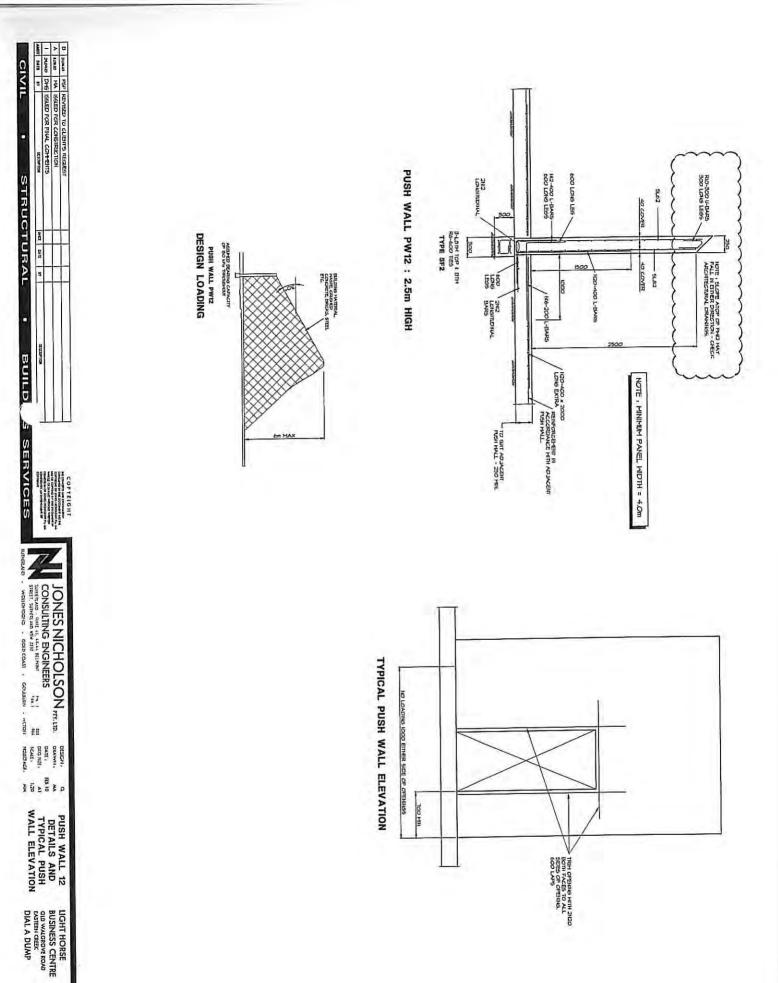
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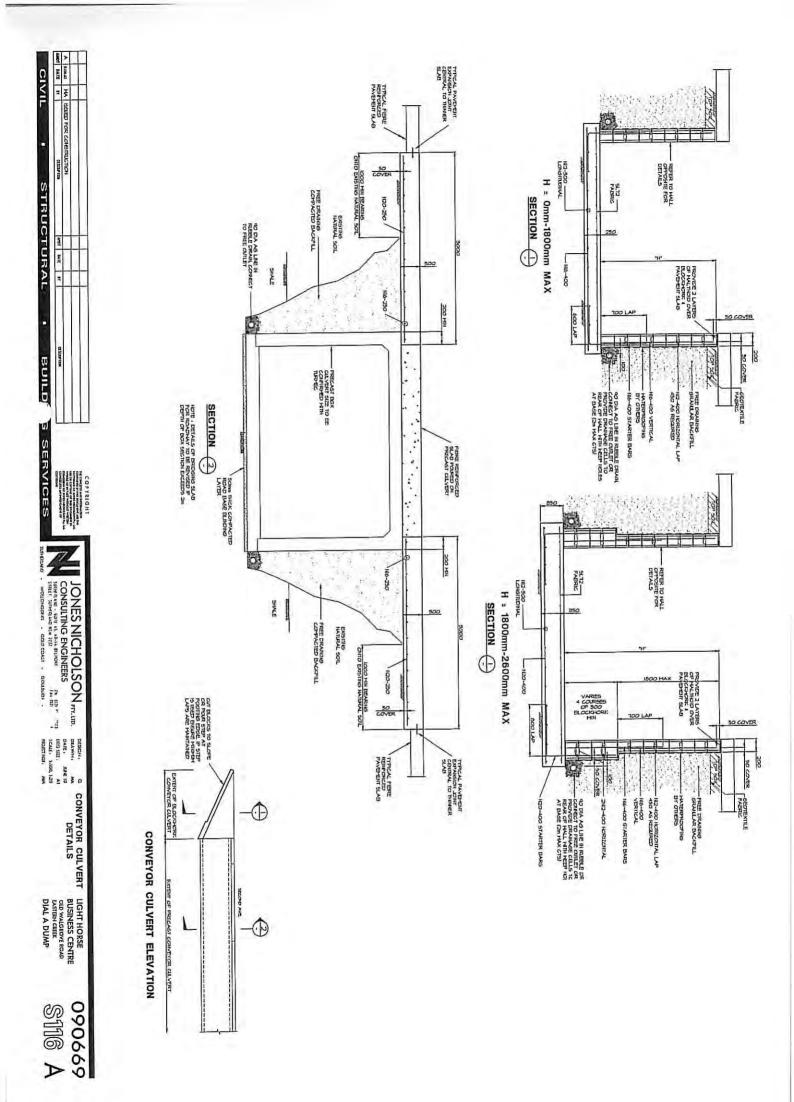


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3, REFER TYPICAL SC DETAILS SHOWN ON DRAWING No. 5104.



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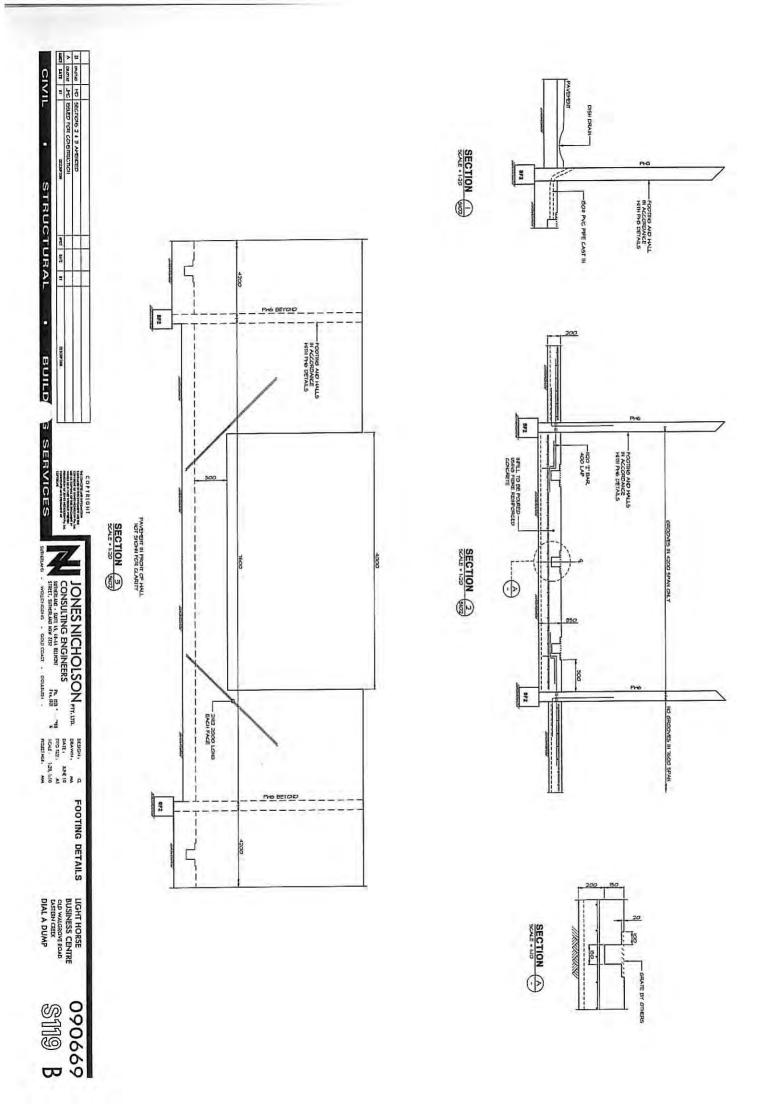
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SLAB PLAN & DETAILS WORKSHOP

LIGHT HORSE
BUSINESS CENTRE
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APPENDIX 4

DIAL A DUMP - LIGHT HORSE BUSINESS CENTRE

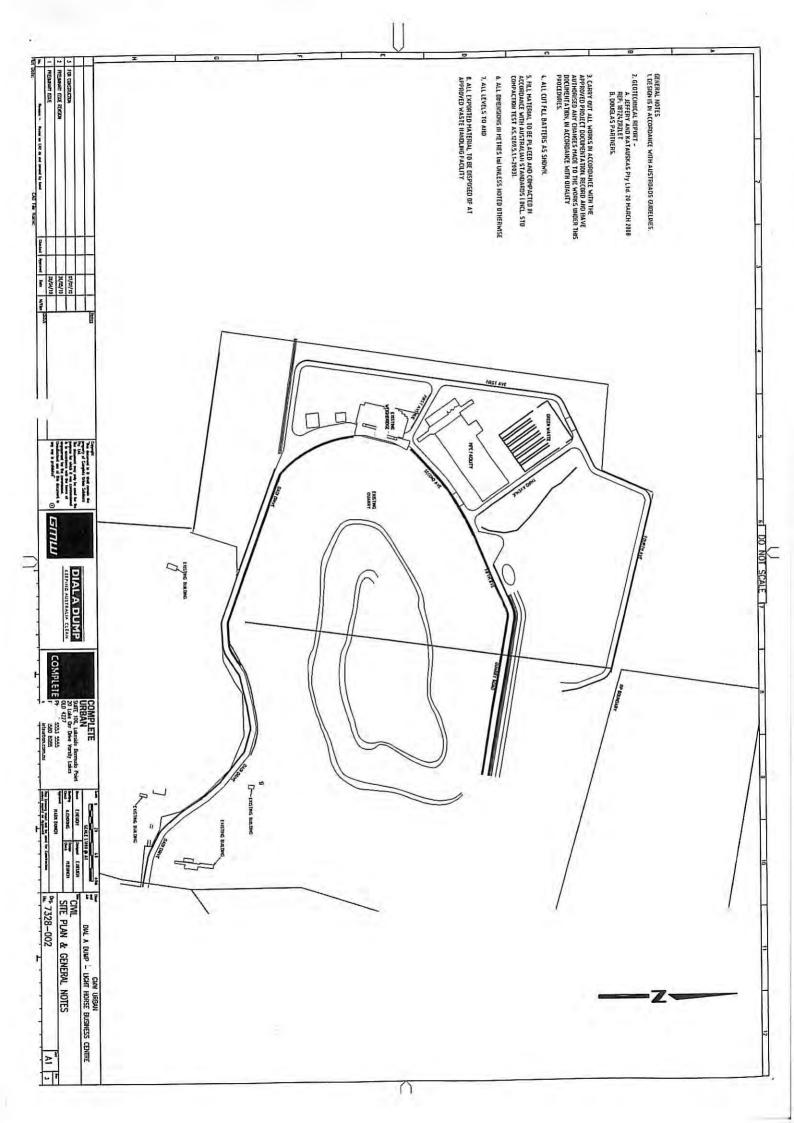
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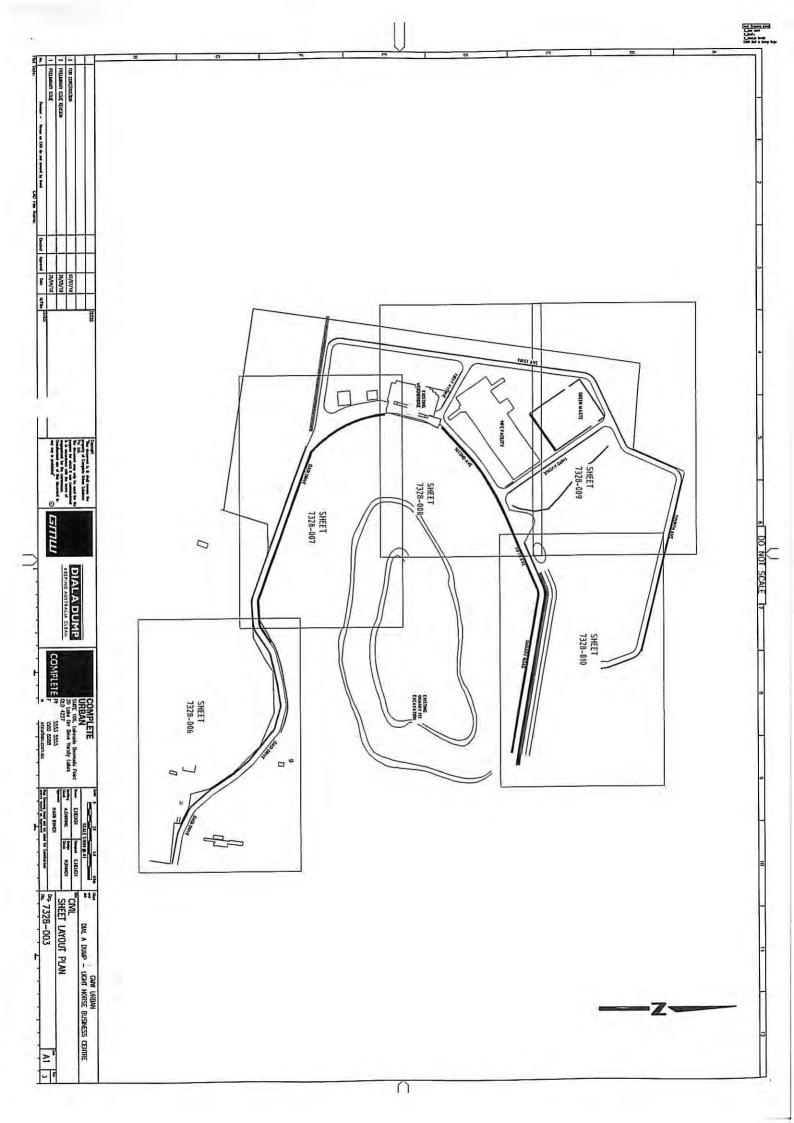
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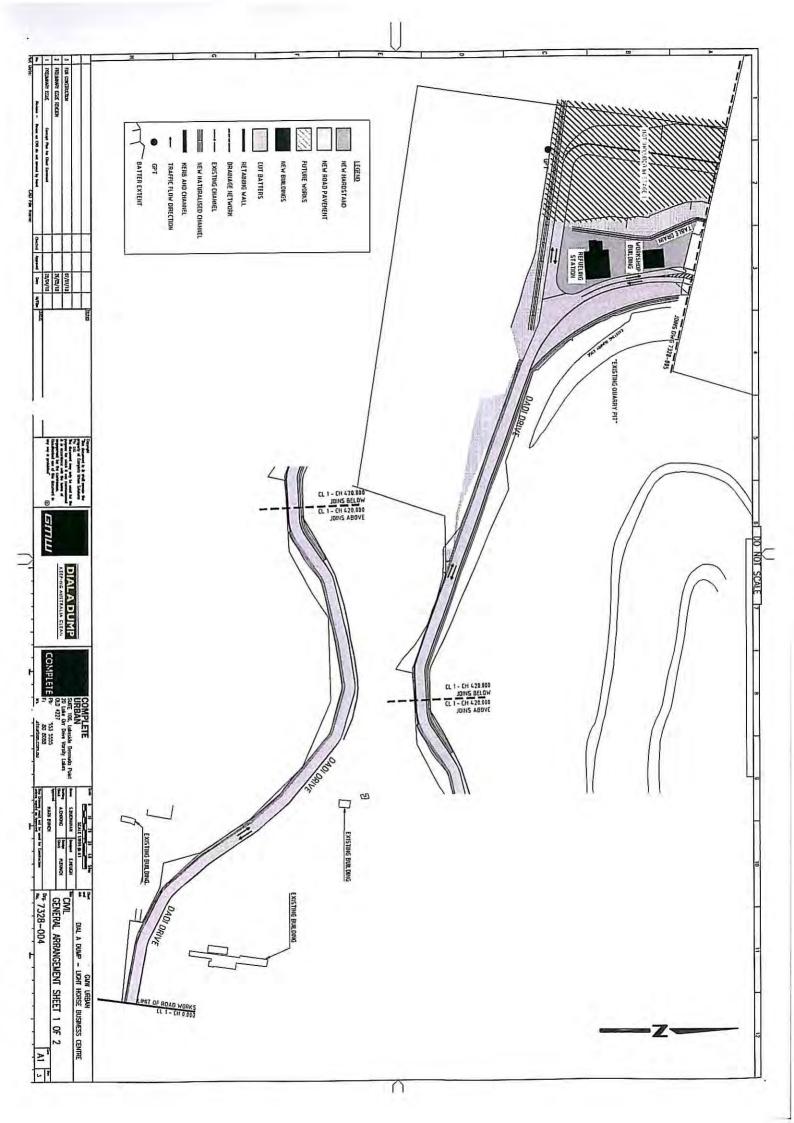


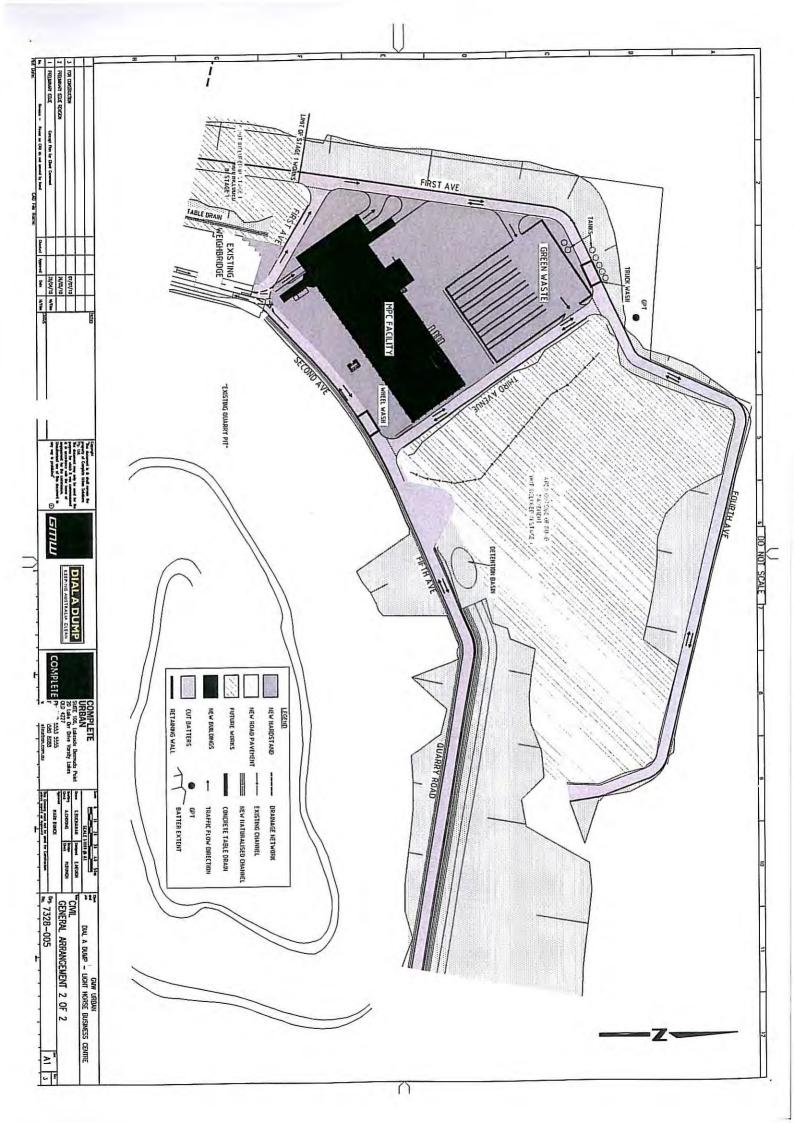
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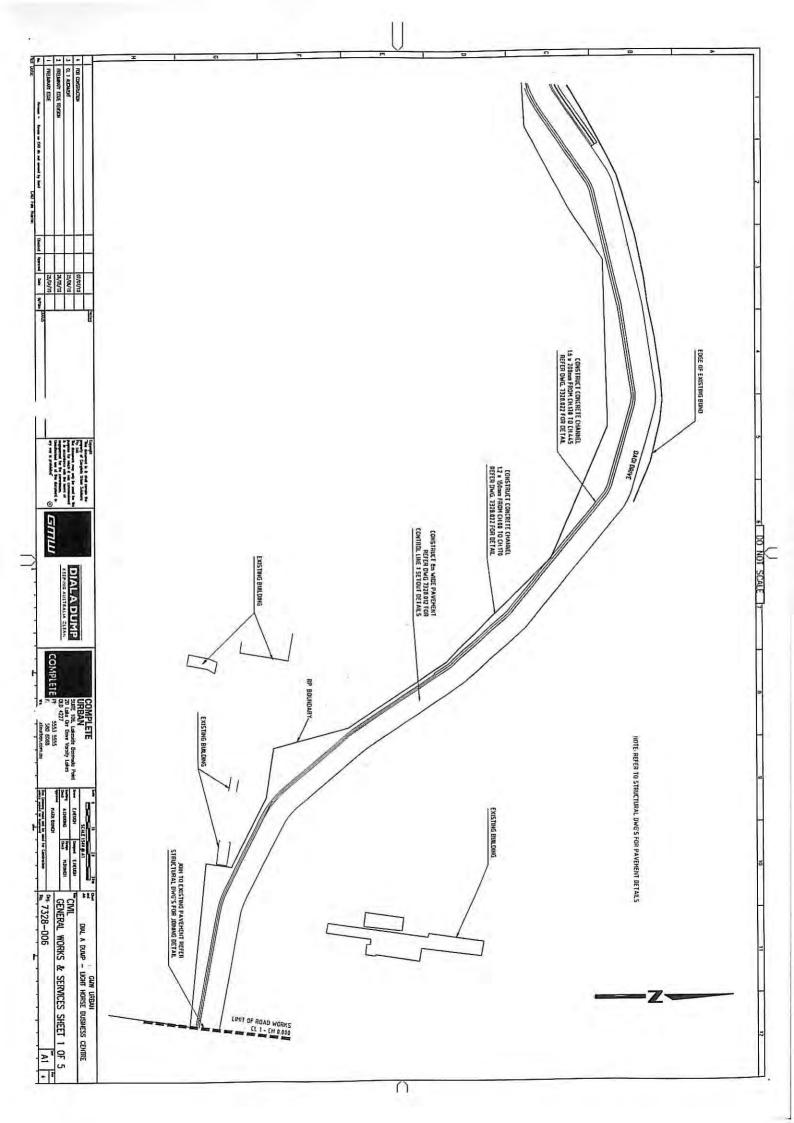
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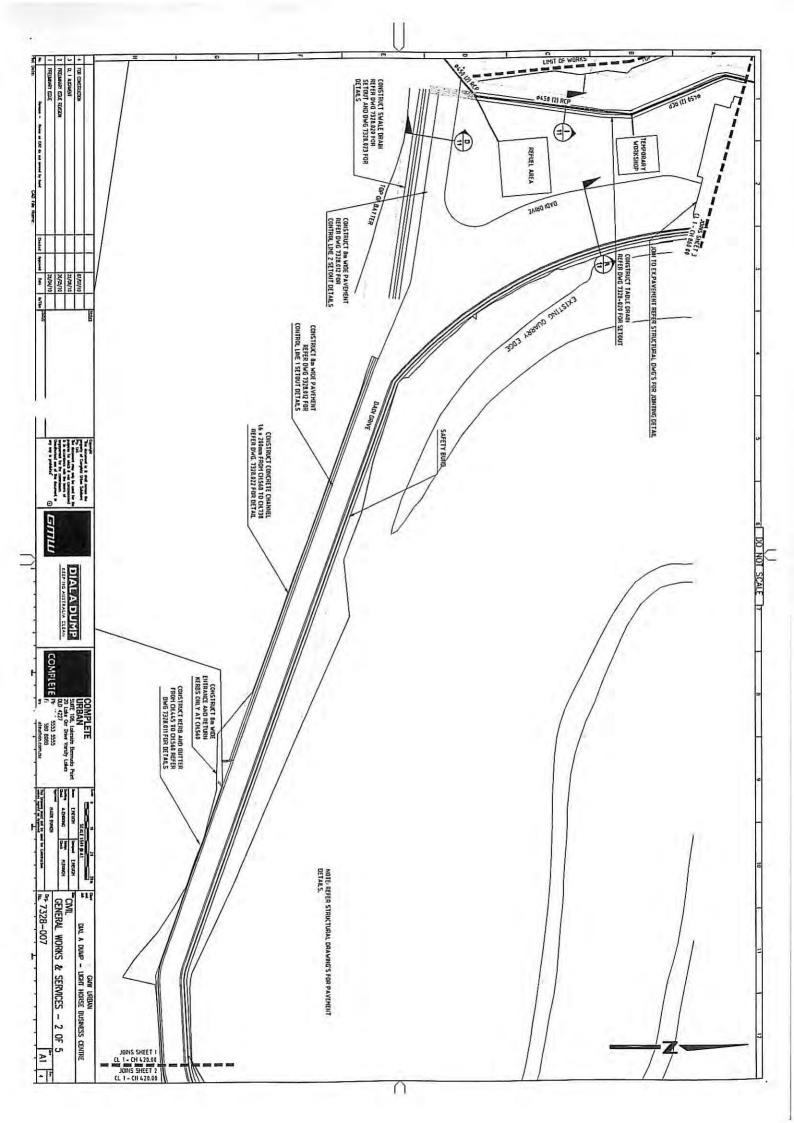


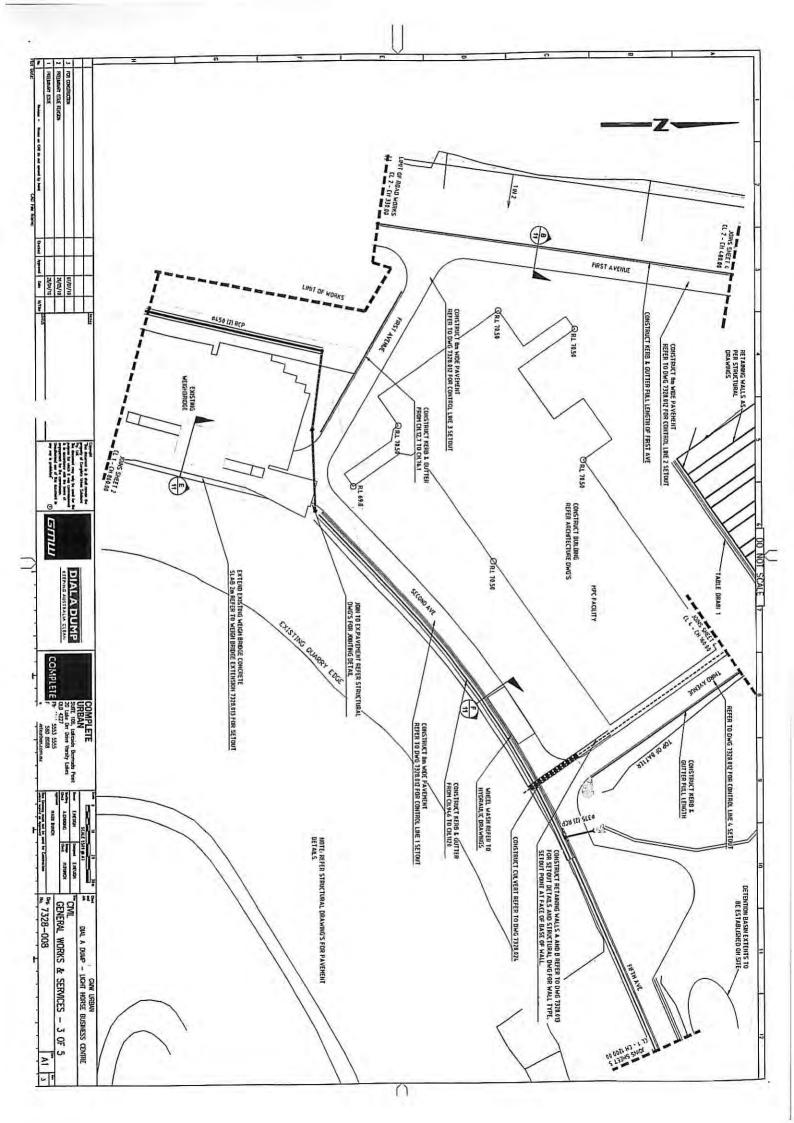


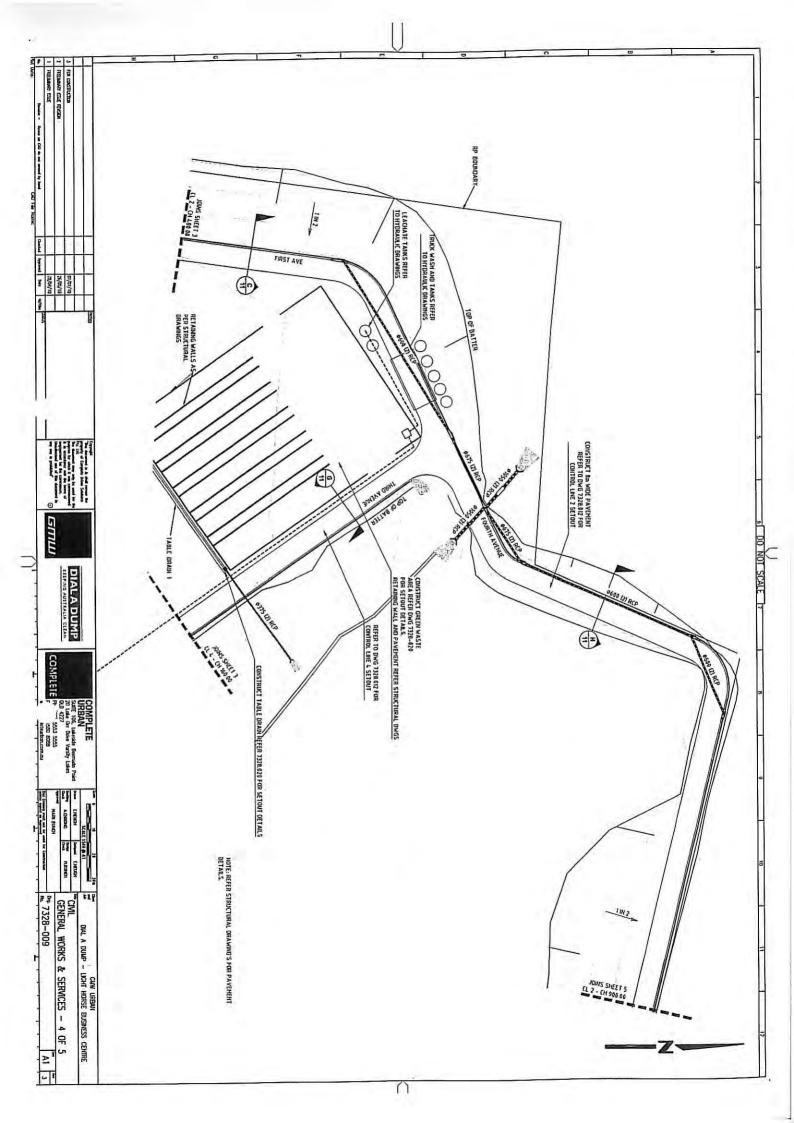


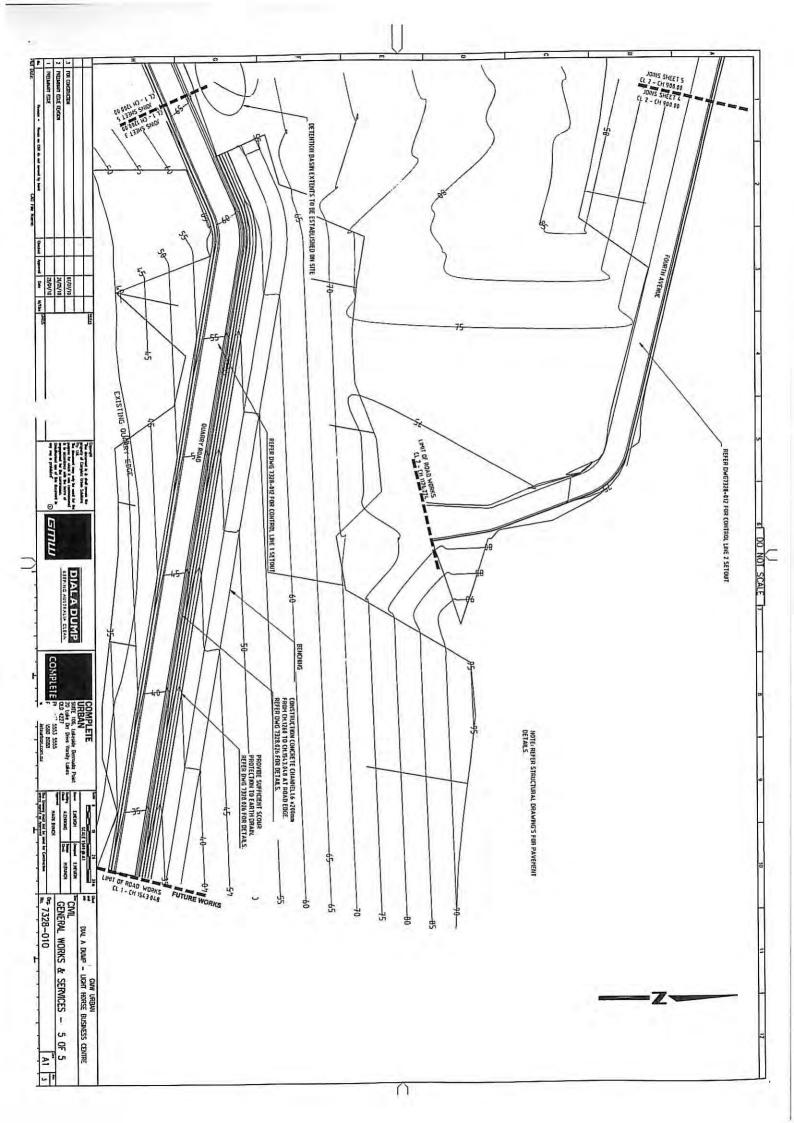


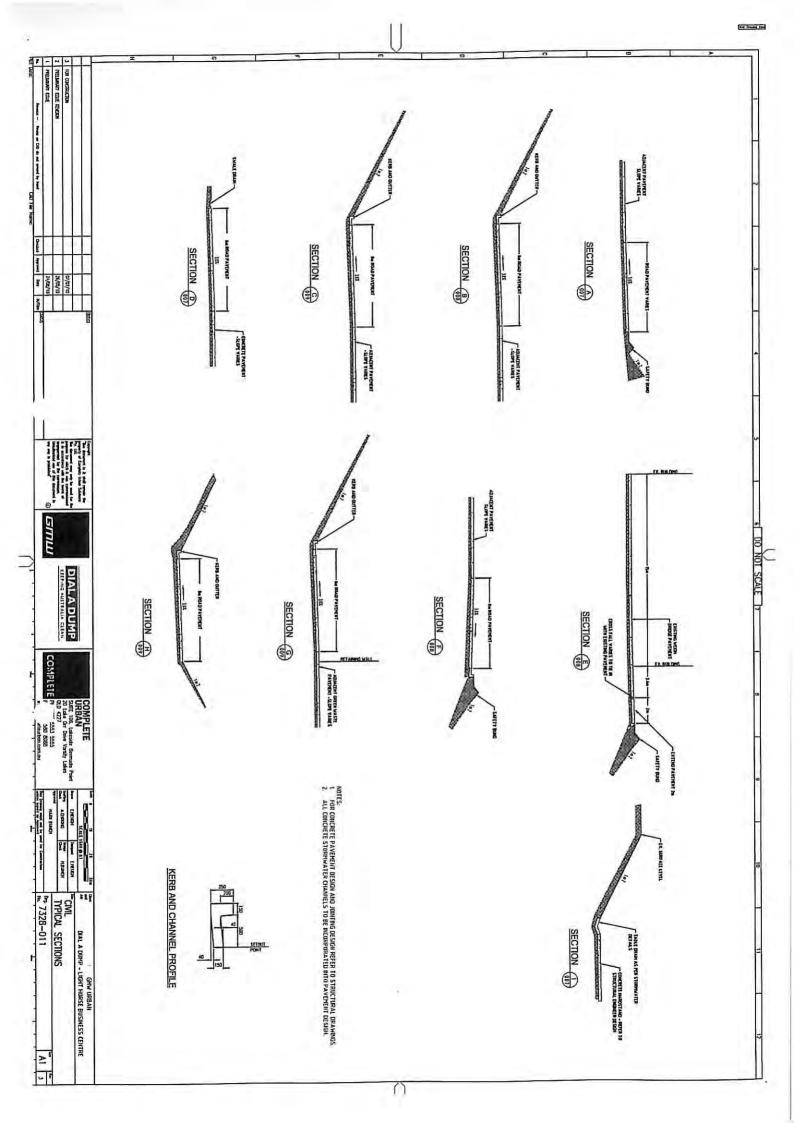


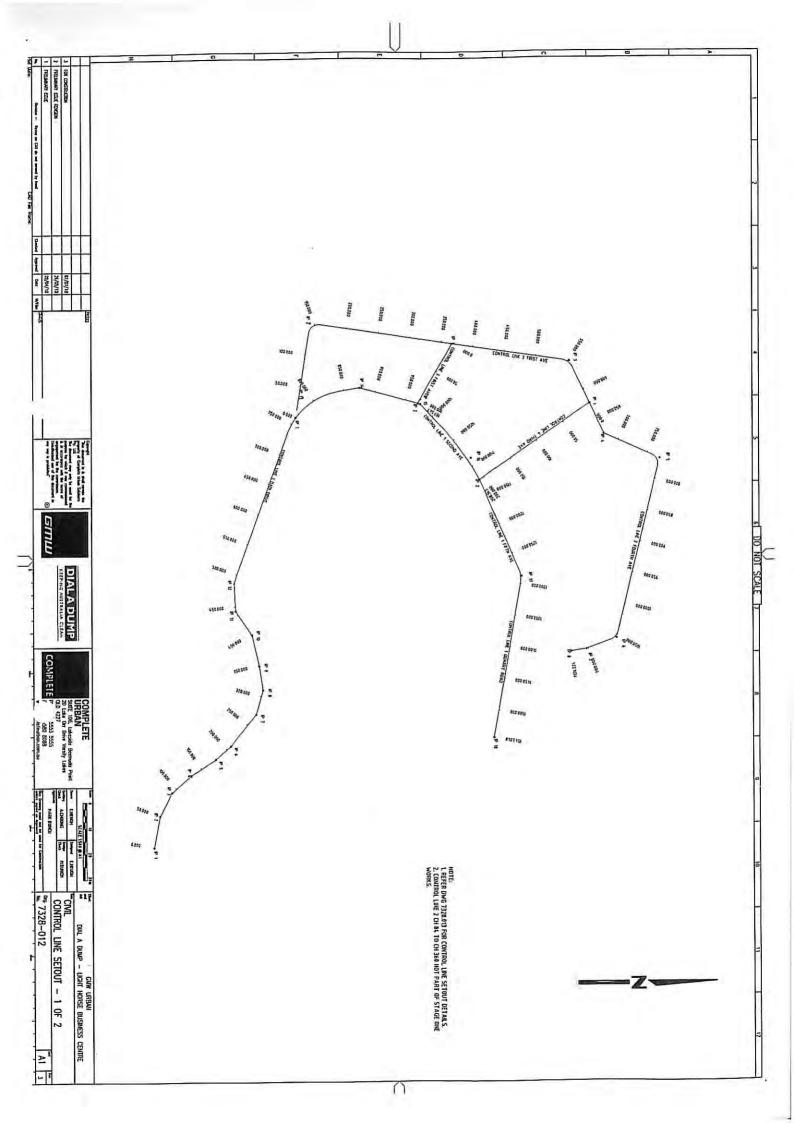




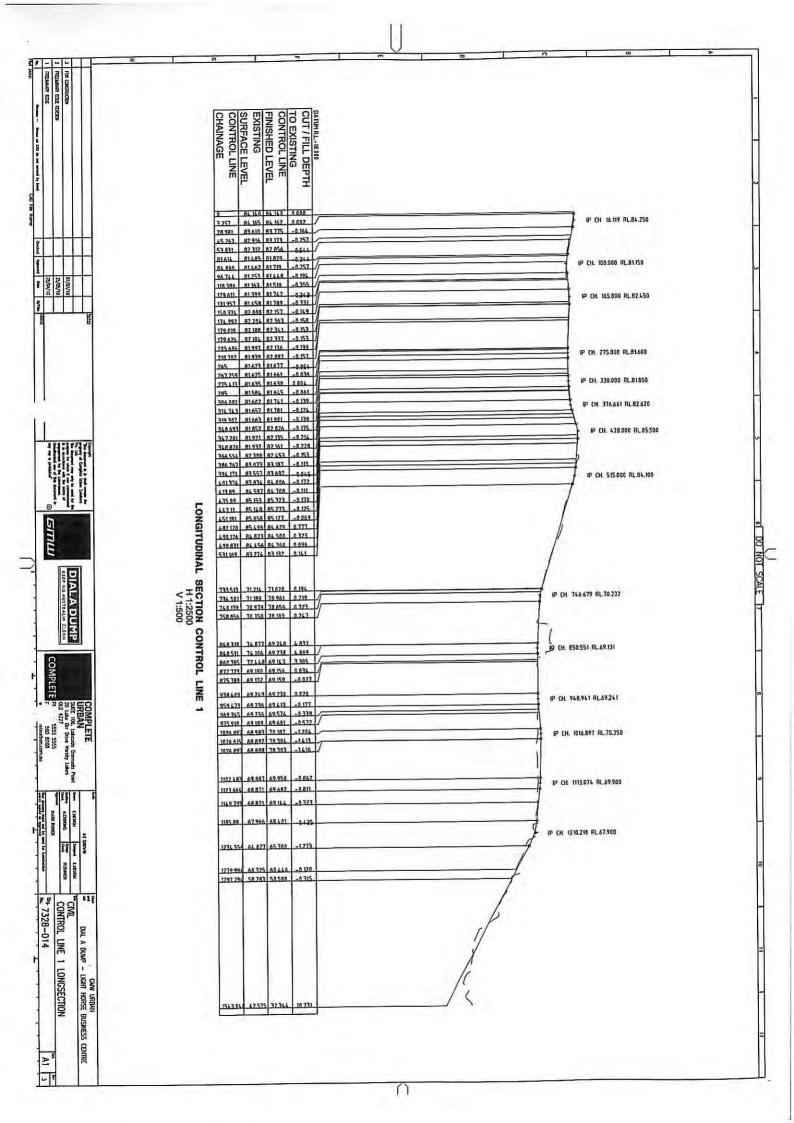


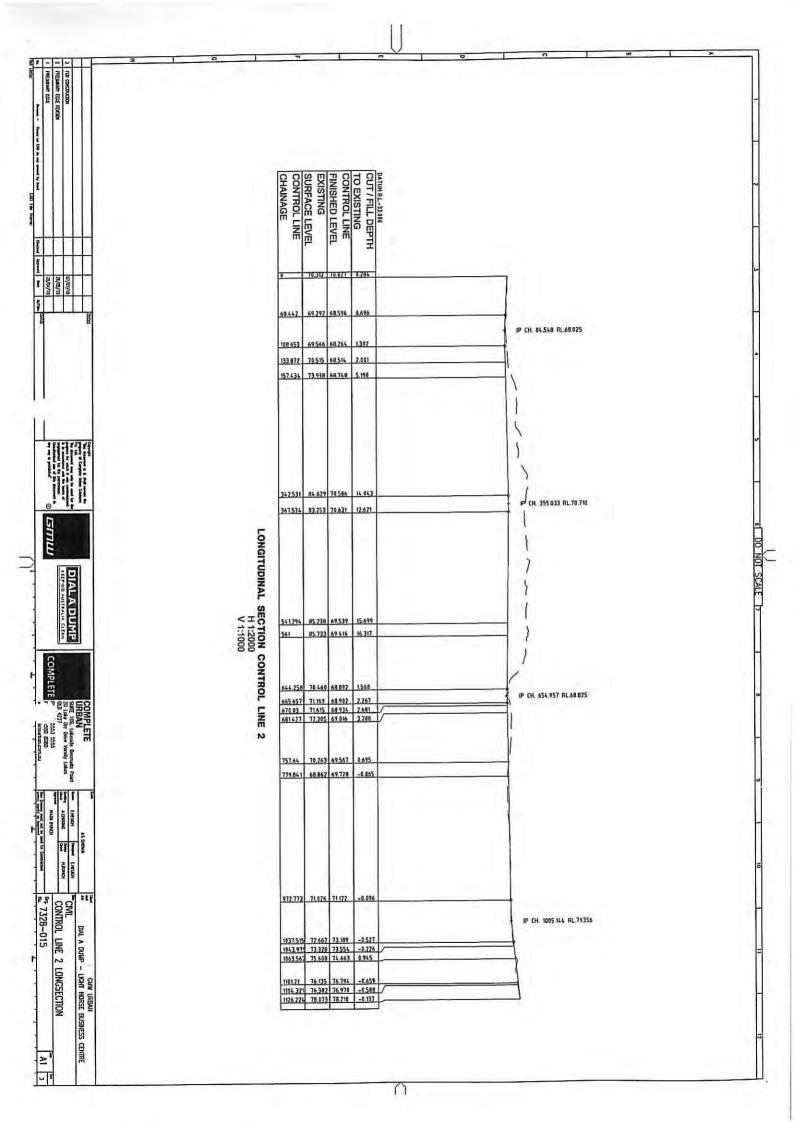


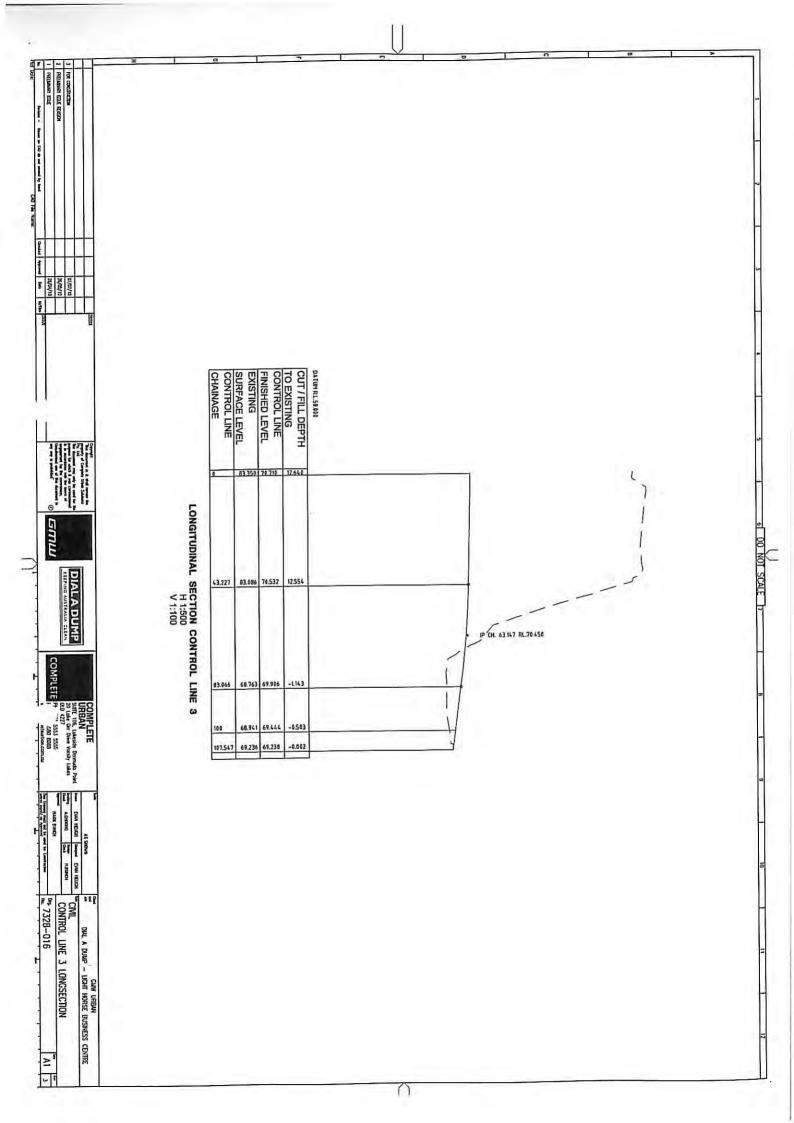


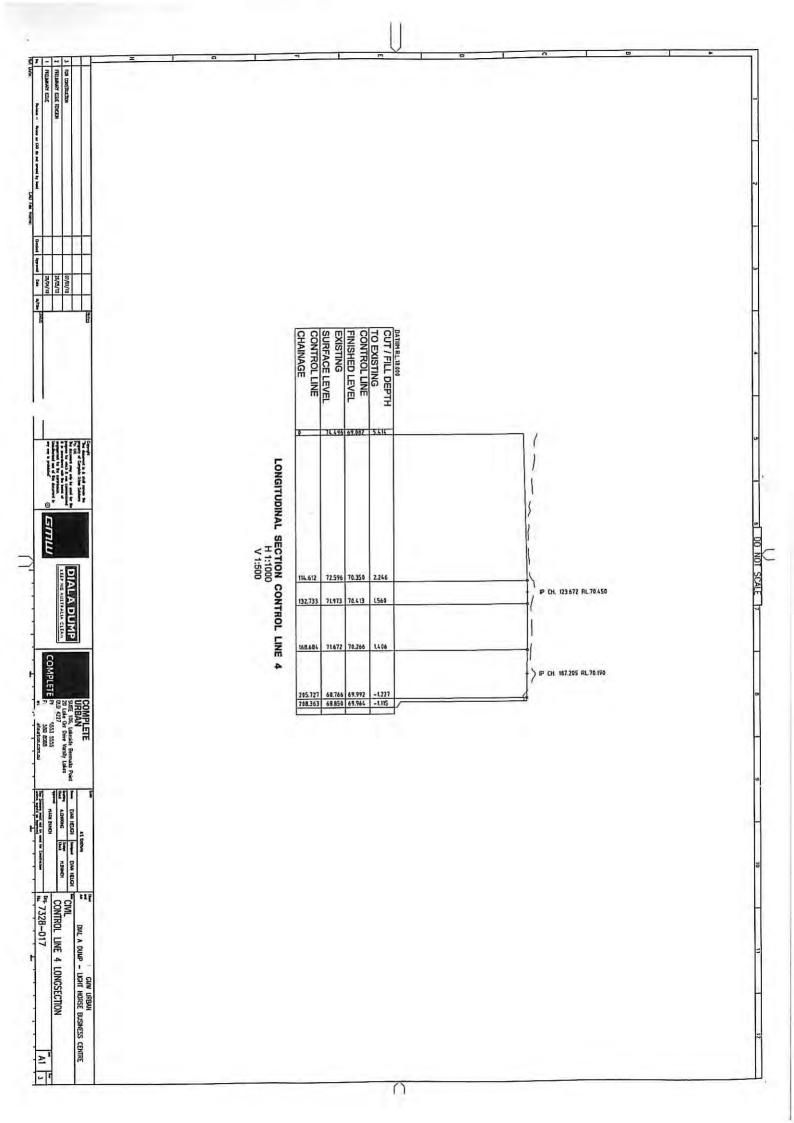


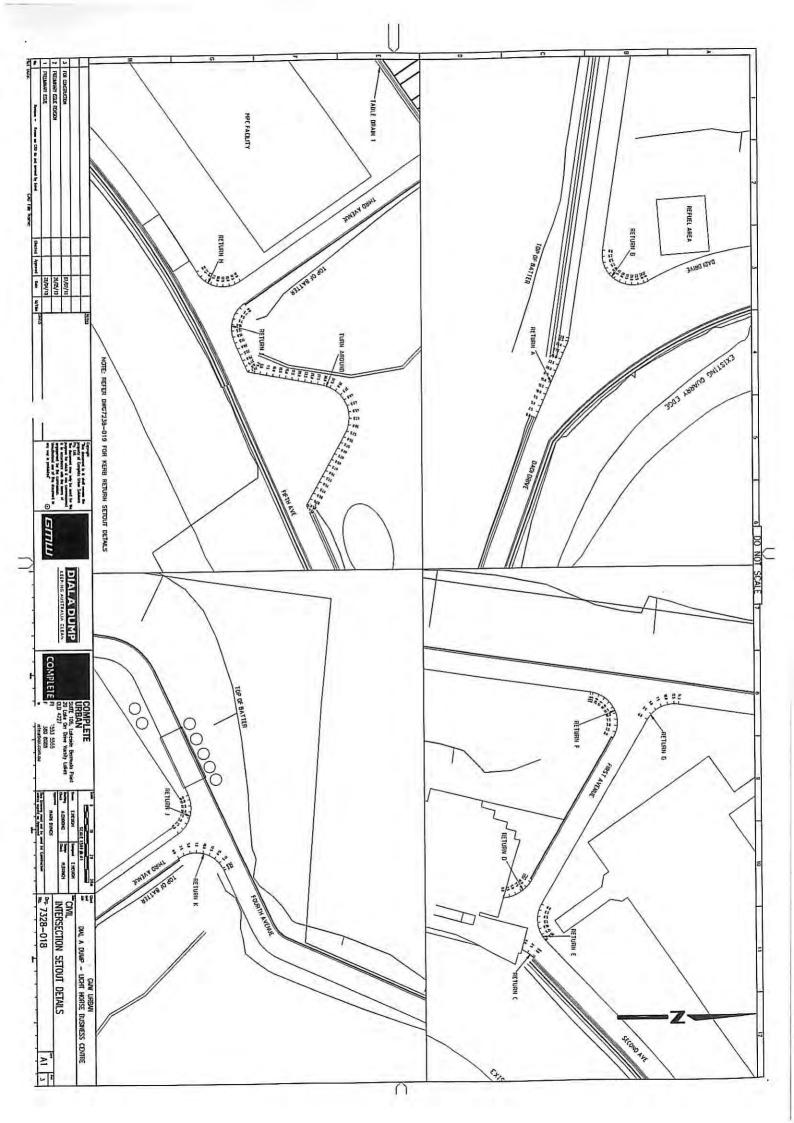
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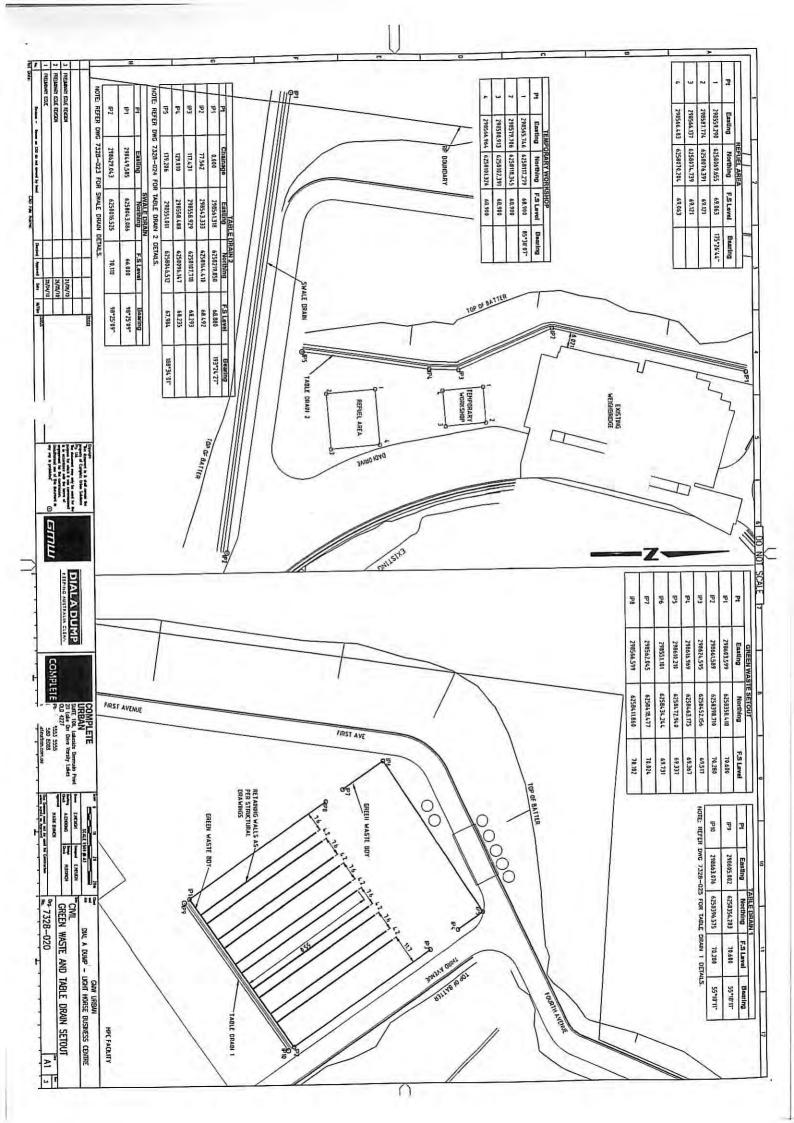


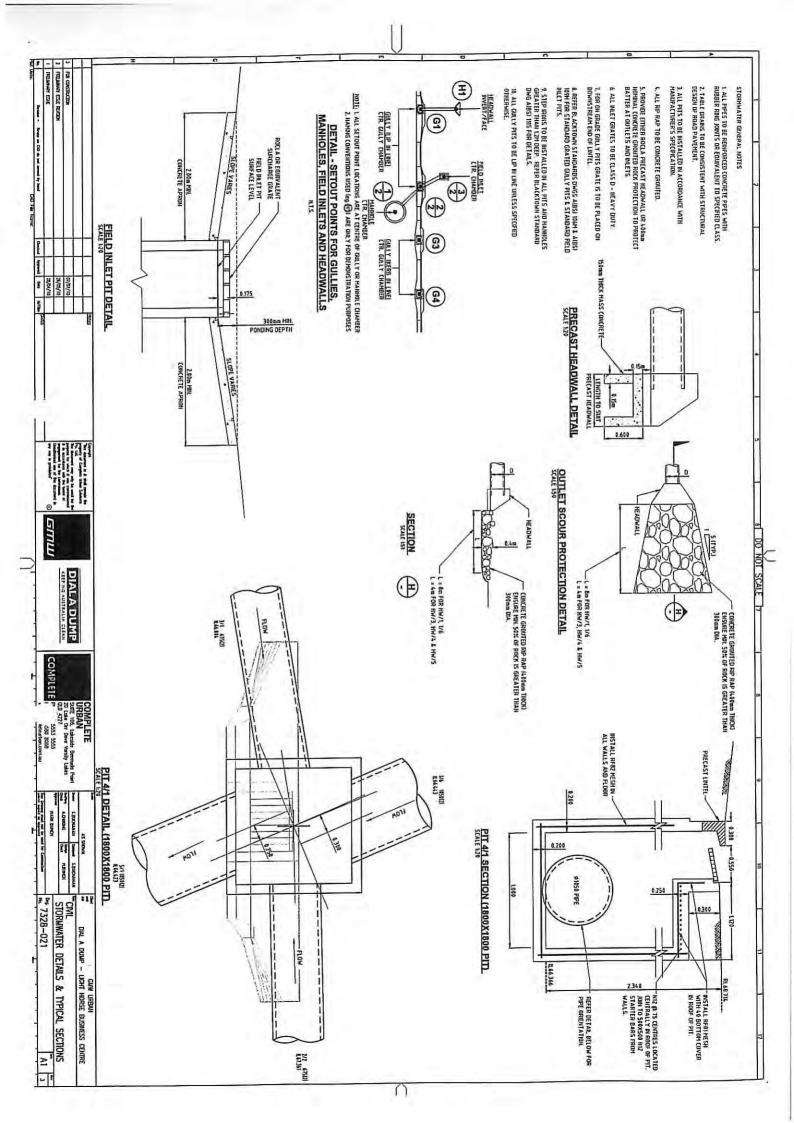


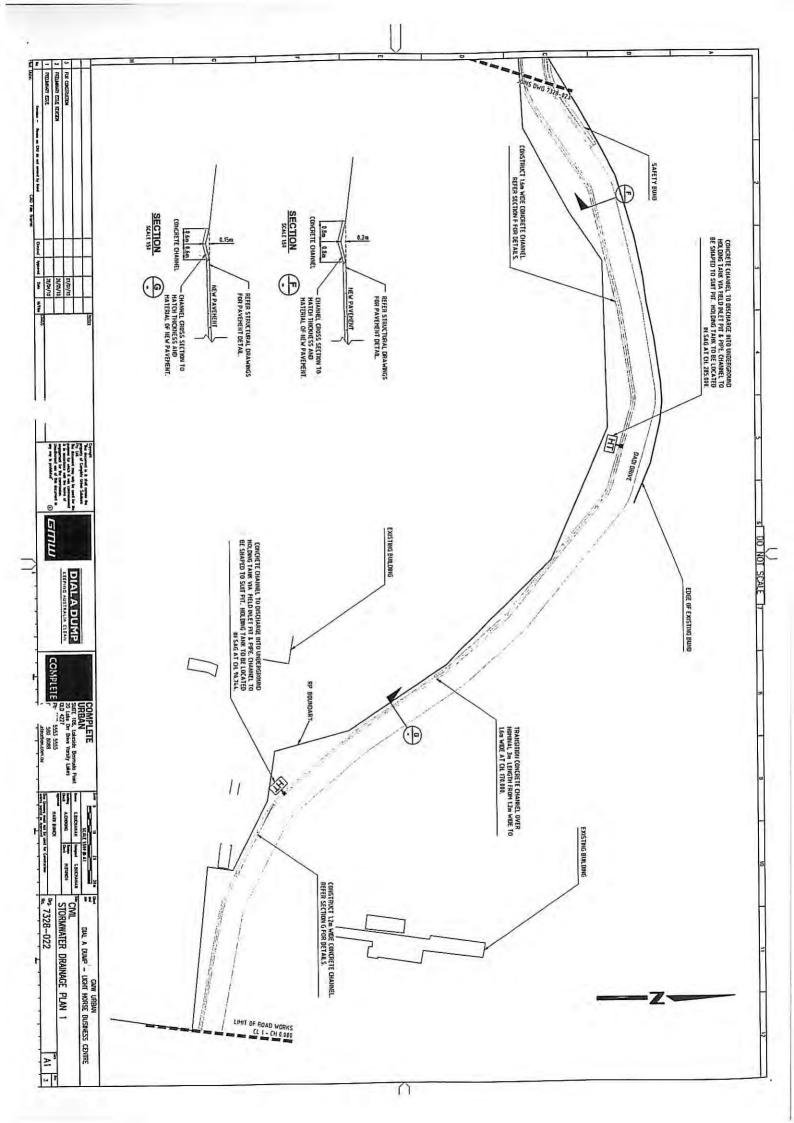


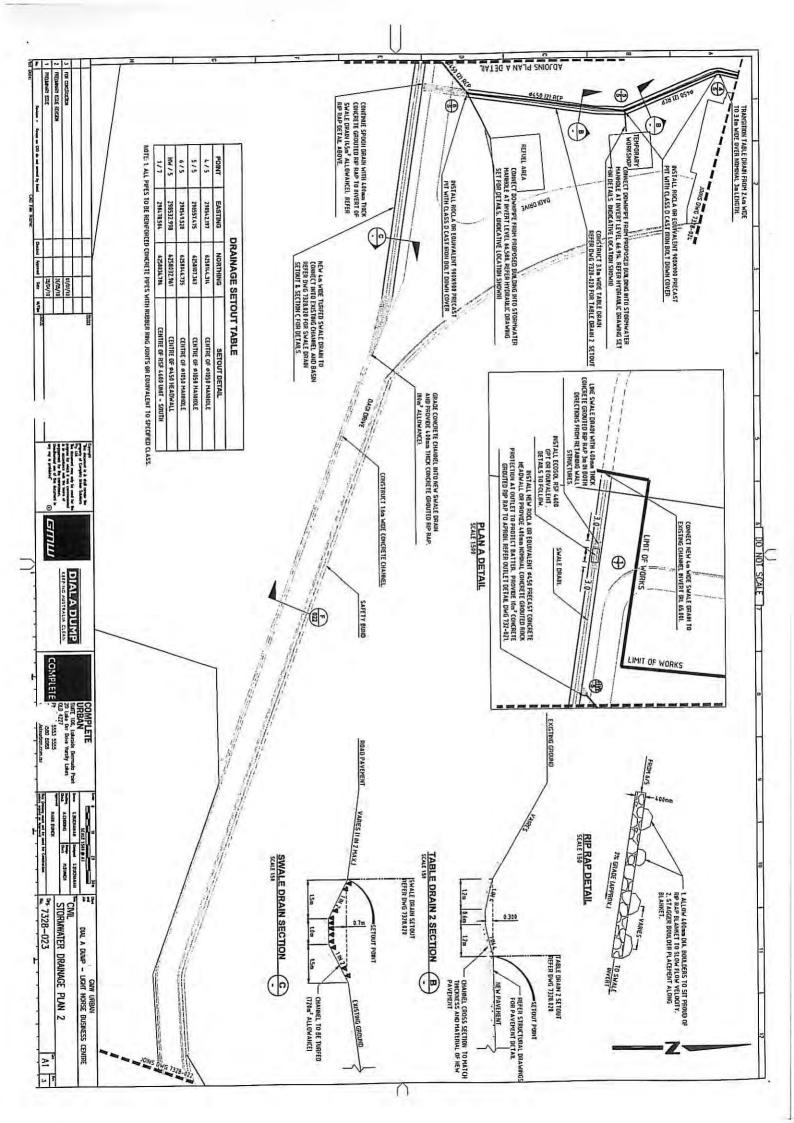


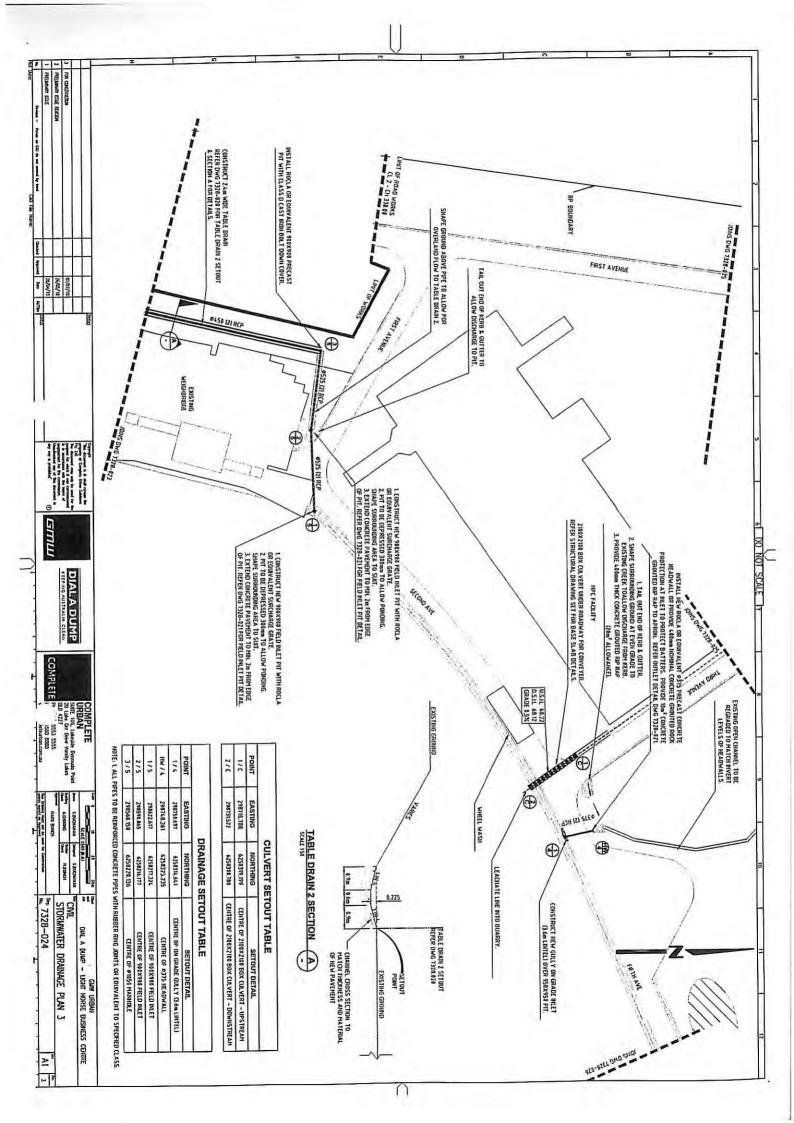
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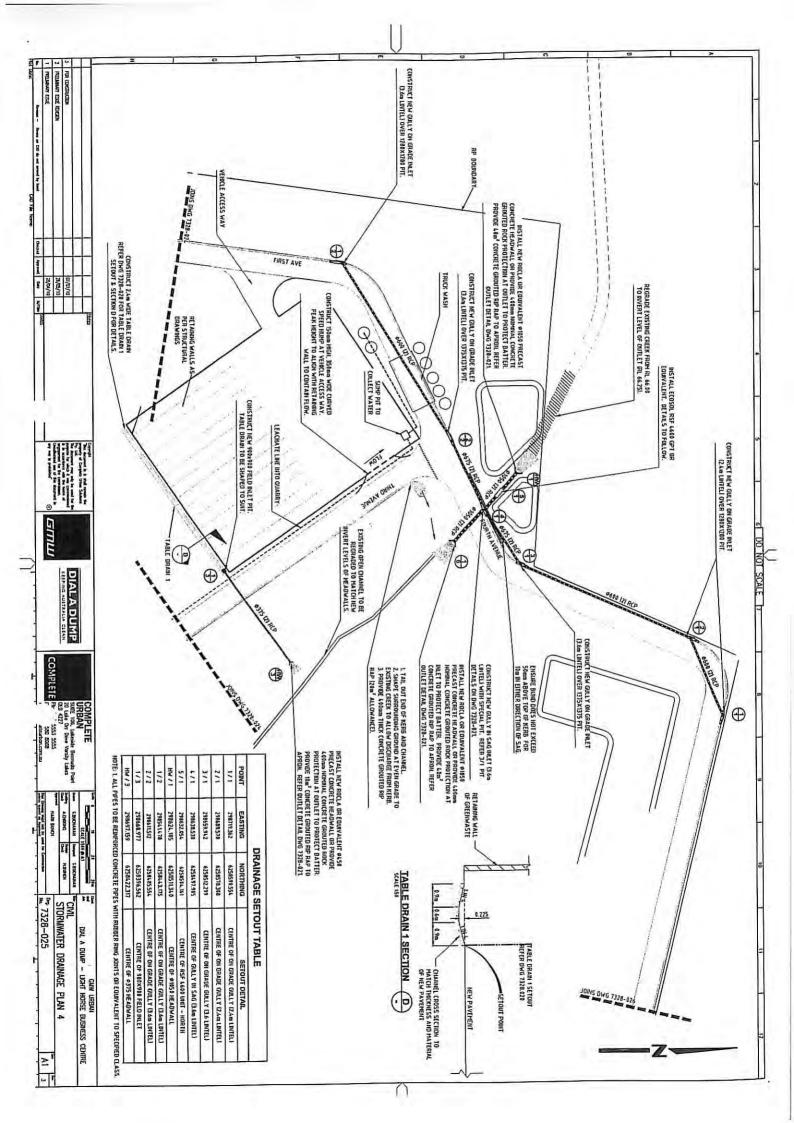


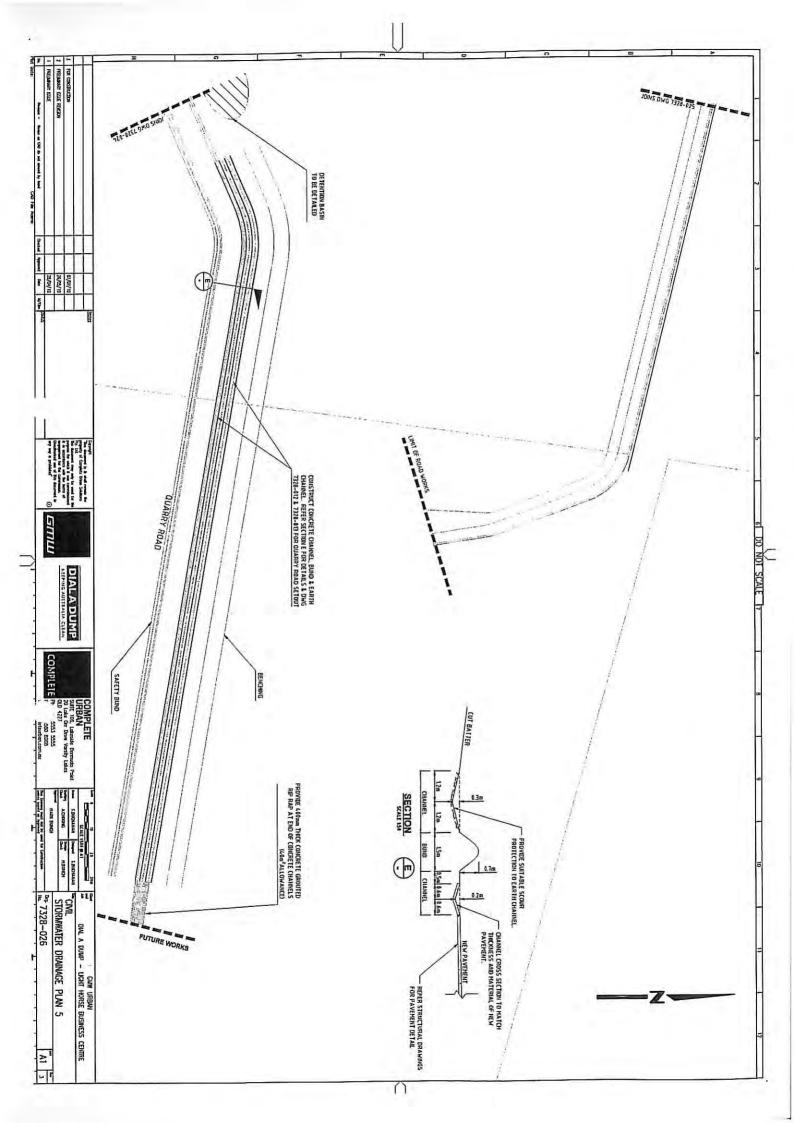






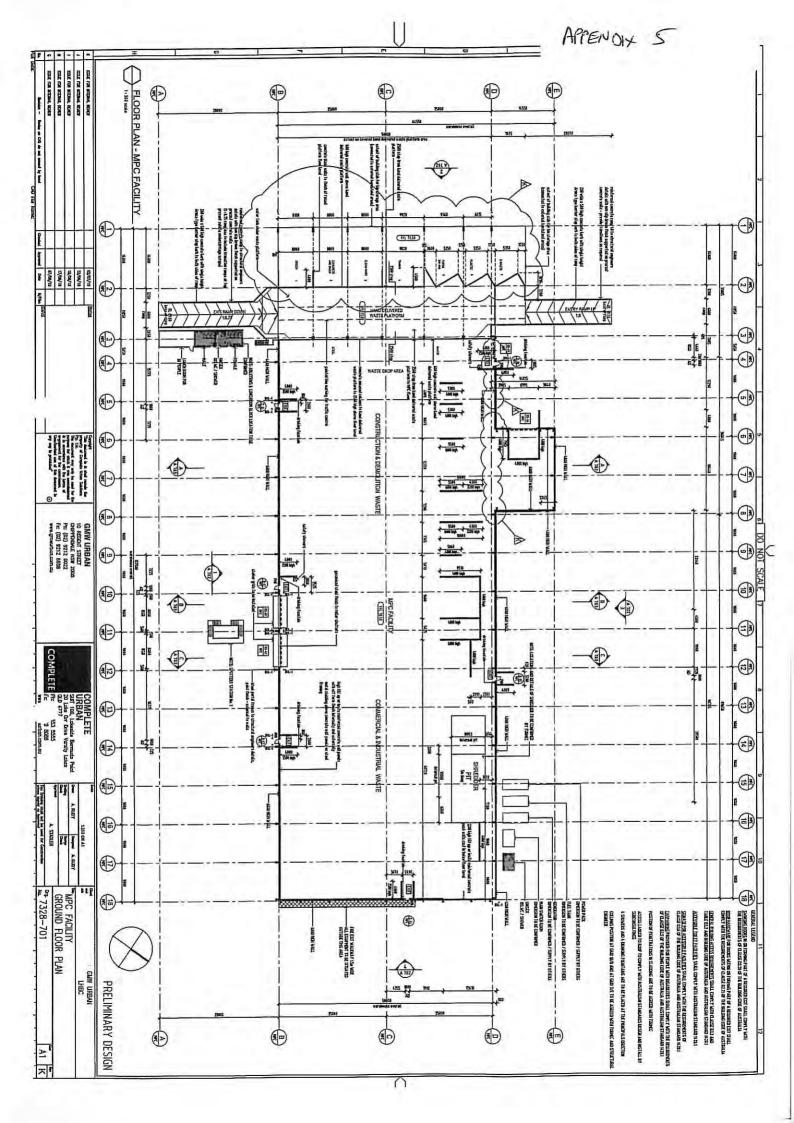


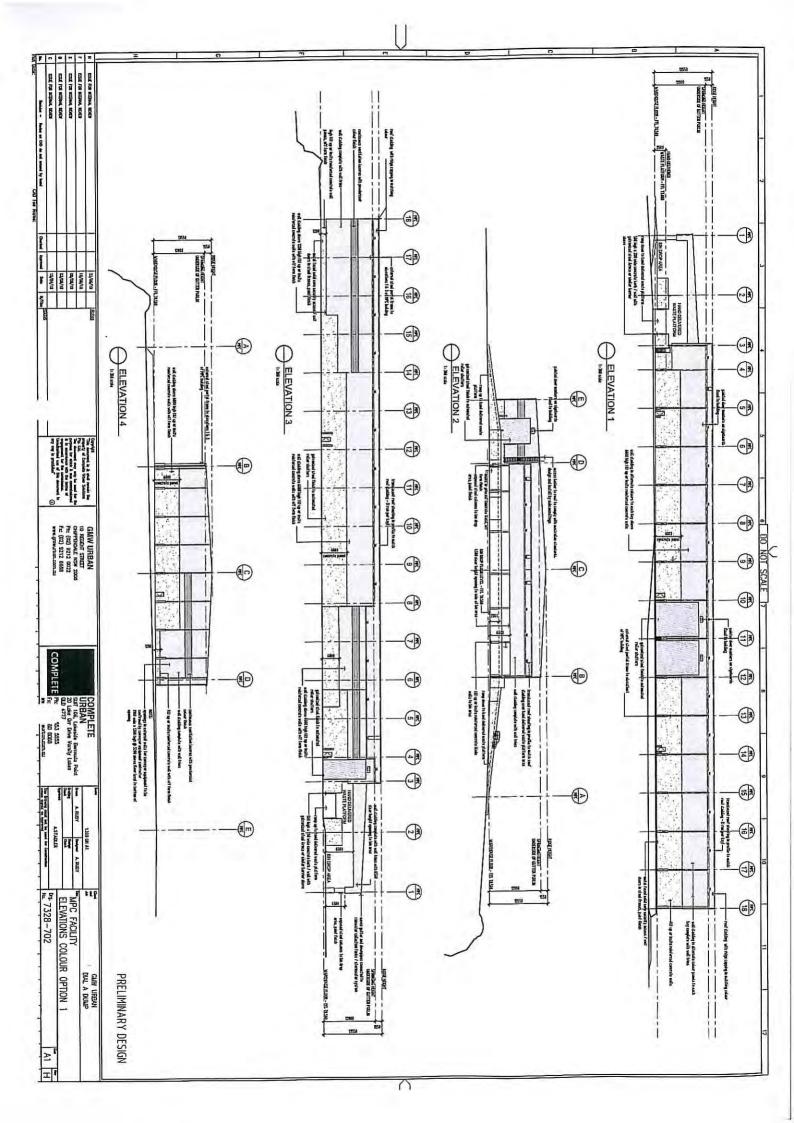


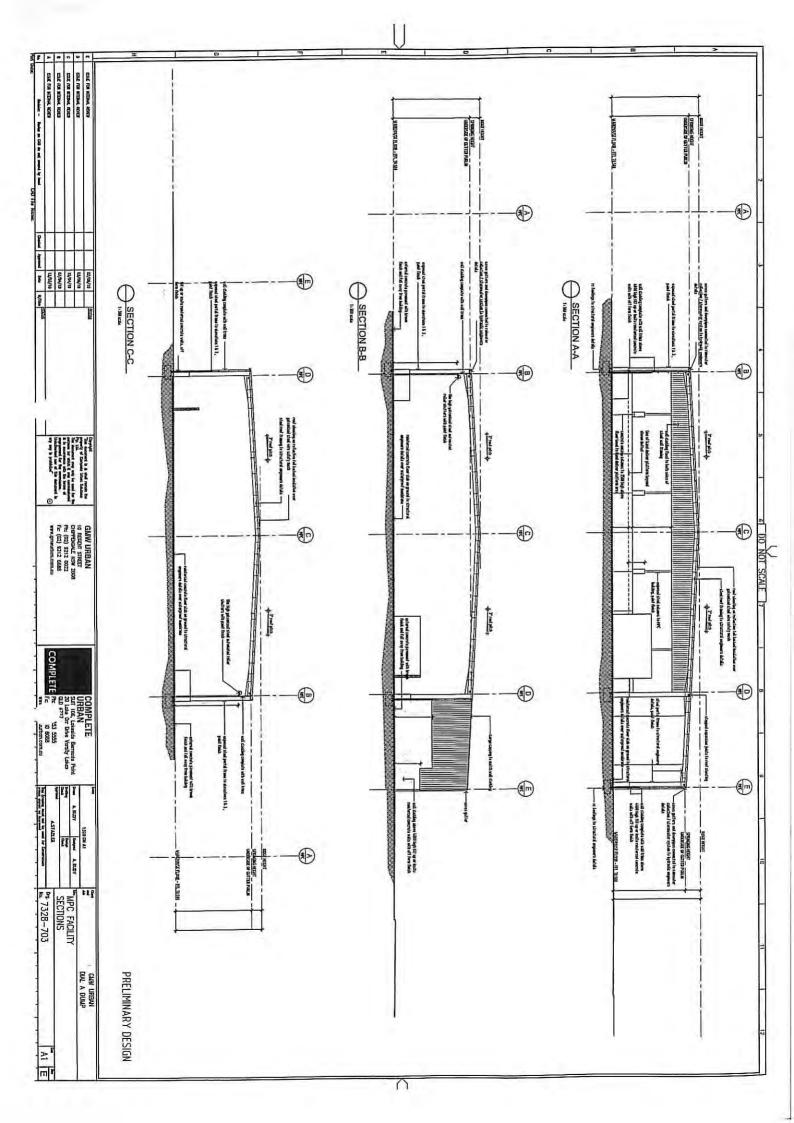


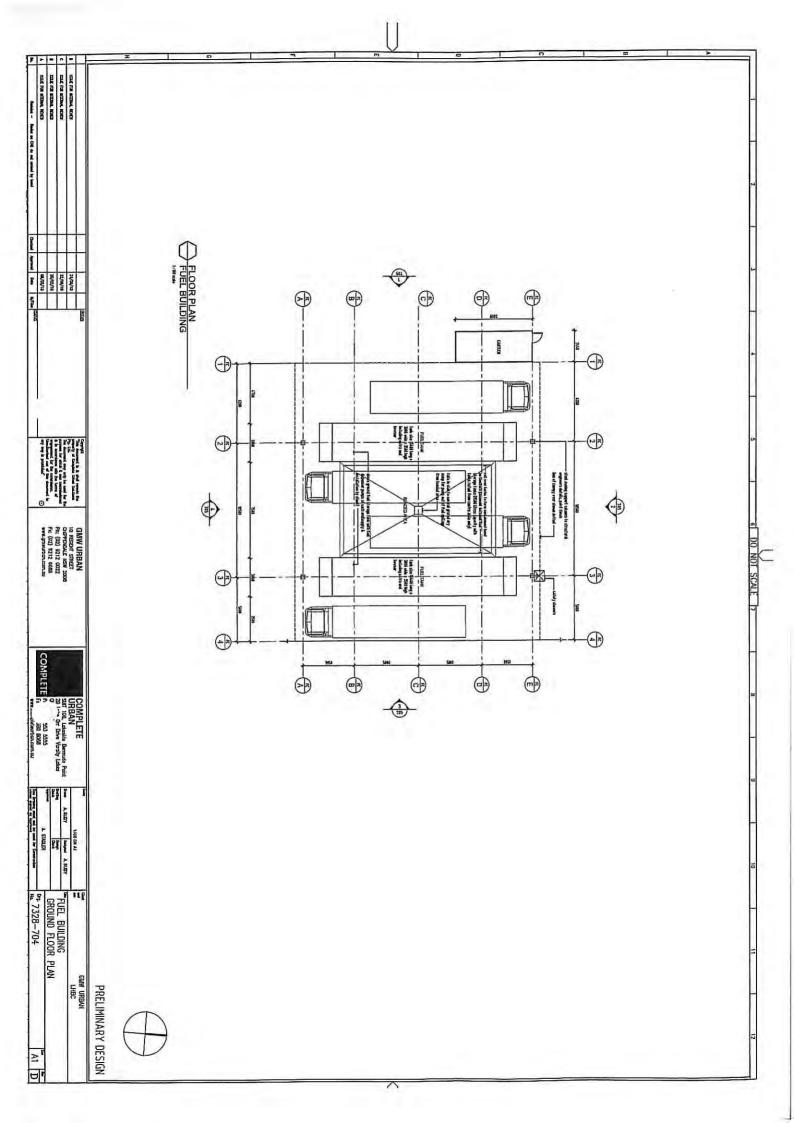
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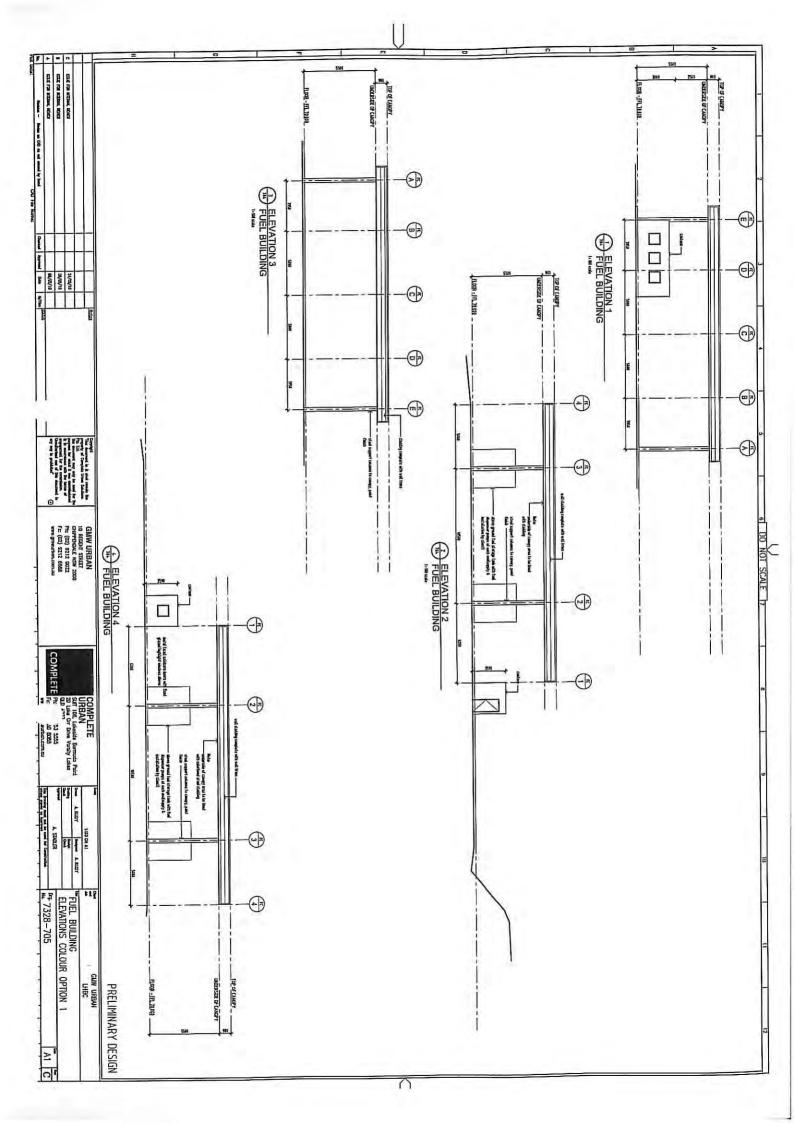
APPENDIX 5

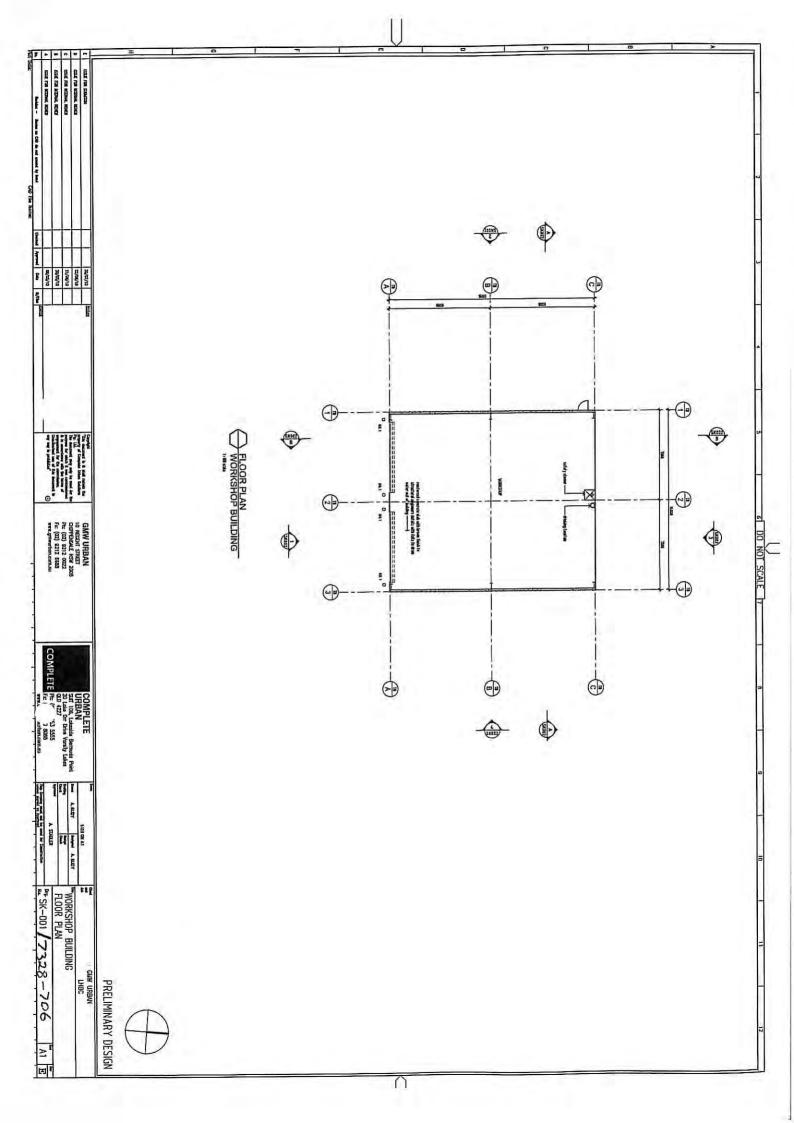


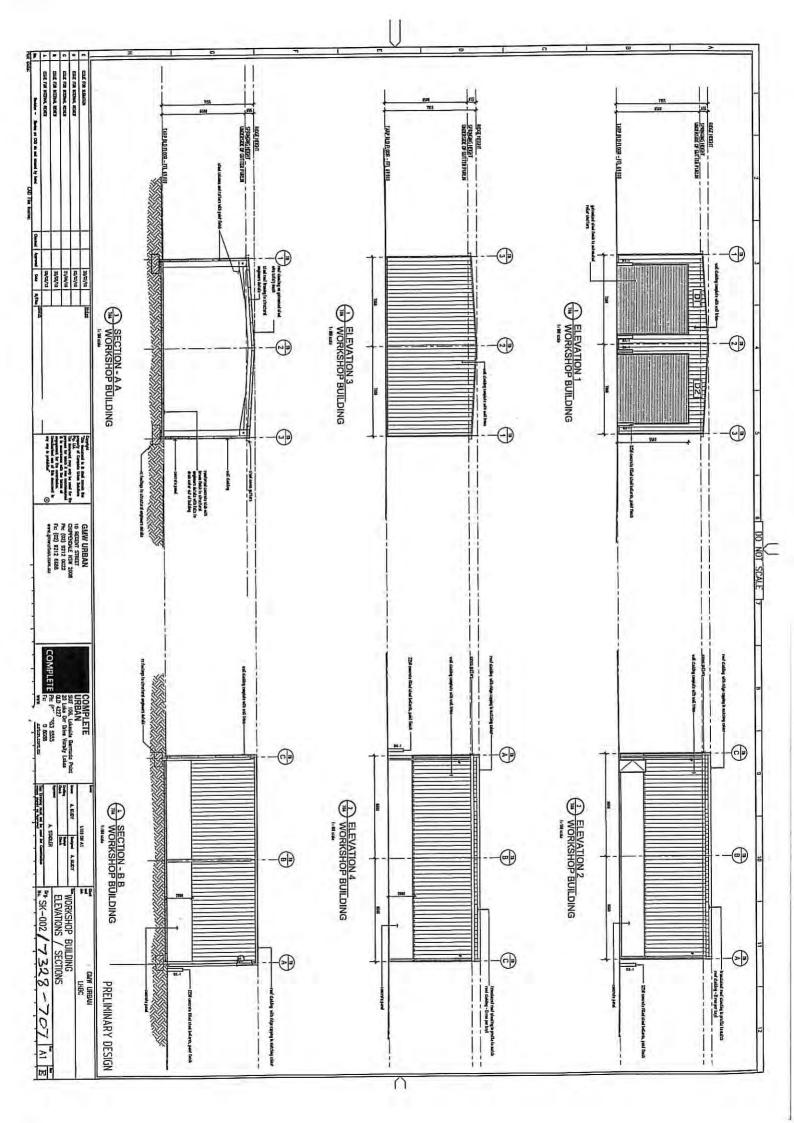






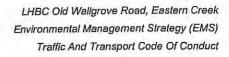






## COMPLETE

**APPENDIX 6** 





Project No. 44280 EMS July 2010

# ENVIRONMENTAL MANAGEMENT STRATEGY (EMS) TRAFFIC AND TRANSPORT CODE OF CONDUCT

Former QUARRY SITE AT OLD WALLGROVE ROAD EASTERN CREEK
MATERIALS PROCESSING CENTRE (MPC)
WASTE TRANSFER FACILITY associated with an adjacent
PROPOSED SOLID WASTE LANDFILL
Document Control

For controlled copies of this EMS the copy number is shown below and initialled in Red by the Light Horse Business Centre and the The Quarry Unit Trust Project Manager.

### Reference Document:

Traffic Impact Assessment prepared by Transport and Traffic Planning Associates (Traffic Impact Assessment)

Controlled Copy No:	Issued by:	
Issued To:	Original Issue Date:	

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Date: July 2010	Position: Group General Counsel	Prepared by: LHBC



### TRAFFIC AND TRANSPORT CODE OF CONDUCT

#### CRITERIA

The relevant criteria is set out in Schedule 3 Conditions 42, 47, 48 & 52 within Development Consent MP 06_0239 dated 22 November 2009

#### Condition 42 states:

Access to the Project from Archbold Road is not permitted.

#### Condition 47 states:

#### The Proponent shall:

- a) ensure that all internal site paved, trafficable or parking areas on site complies with AS2890.1 and/or AS2890.2 or their latest versions; and
- b) construct at least 50 parking spaces for employees and visitors with at least 2% Of those spaces provided for disabled drivers, clearly marked and signposted.

#### Condition 48 states:

The Proponent shall ensure that vehicles associated with the project do not park or queue on the public road network at any time.

#### Condition 52 states:

The Proponent shall prepare and implement a Transport Code of Conduct for the development to the satisfaction of the Director-General. This protocol must:

- be submitted to the Director-General for approval prior to the commencement of operations;
- b) be prepared in consultation with the RTA and Blacktown Council; and

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- describe measures that would be implemented to:
  - minimise the impacts of the development on the local and regional road network, including traffic noise.

#### ACHIEVEMENT OF REQUIREMENTS

Table 1.1 lists the consent conditions under Condition 42; provides a summary of the current compliance status and provides recommendations to achieve compliance and to improve the presentation of the program.

Table 1.1 Consent Conditions (Condition 42 of Schedule 3)

CONSENT REQUIREMENTS	COMPLIANCE STATUS	
Access to the Project from Archbold Road is not permitted	Complies Refer: This Management Plan; and Section 3.1 of Traffic Impact Assessment	

Table 1.2 lists the consent conditions under Condition 47; provides a summary of the current compliance status and provides recommendations to achieve compliance and to improve the presentation of the program.

Table 1.2 Consent Conditions (Condition 47 of Schedule 3)

CONSENT REQUIREMENTS	COMPLIANCE STATUS
The Proponent shall: a) ensure that all internal site paved, trafficable or parking areas on site complies with AS2890.1 and/or AS2890.2 or	Complies: Refer Section 5.2 of Traffic Impact Assessment
their latest versions; and b) construct at least 50 parking spaces for employees and visitors with at least 2% of those spaces provided for disabled drivers, clearly marked and signposted.	Complies At least 50 parking spaces with at least 2% of those provided for disabled drives will be constructed in the area identified as "carpark" in the Proposed Site Layout between pages 6 and 7 of Traffic Impact Assessment

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Date: July 2010	Position. Group General Counsel	110parou by 121120



Table 1.3 lists the consent conditions under Condition 48; provides a summary of the current compliance status and provides recommendations to achieve compliance and to improve the presentation of the program.

Table 1.3 Consent Conditions (Condition 48 of Schedule 3)

CONSENT REQUIREMENTS	COMPLIANCE STATUS	
The Proponent shall ensure that vehicles associated with the project do not park or queue on the public road network at any time	Complies: Refer this Management Plan	

Table 1.4 lists the consent conditions under Condition 52; provides a summary of the current compliance status and provides recommendations to achieve compliance and to improve the presentation of the program.

Table 1.4 Consent Conditions (Condition 52 of Schedule 3)

CONSE	NT REQUIREMENTS	COMPLIANCE STATUS
The Pro impleme Conduc the satis	ponent shall prepare and ent a Transport Code of t for the development to sfaction of the Director- I. This protocol must:	Complies Refer this Management Plan to be submitted to the Director- General
	be submitted to the Director-General for approval prior to the commencement of operations;	Future action
b)	be prepared in consultation with the RTA and Blacktown Council; and	Complies: Section 7 of Traffic Impact Assessment Complies
c)	describe measures that would be implemented to:	Refer: This Management Plan (generally); and Traffic Impact Assessment (generally)
	minimise the impacts of the development on the local and regional road network, including traffic noise.	

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LHBC Old Wallgrove Road, Eastern Creek Environmental Management Strategy (EMS) Traffic And Transport Code Of Conduct



## Access to the Site via Archbold Road is not Permitted.

This Code of Conduct will prevail in every aspect of the haulage to and from the Project Site at Eastern Creek.

#### AIM:

To demonstrate to the community a very real commitment to professional, efficient, safe and responsible haulage to and from the Eastern Creek Site.

To develop and maintain community confidence in the operation of the Eastern Creek Facility.

To minimise the impacts of the development on the local and regional road network, including traffic noise.

Minimize impact of vehicles on all public roads Professional, Safe and efficient transport of all materials to and from the site Endorsement of and compliance with Local and State Government regulations Universal commitment to enforce and abide by the Code of Conduct Transparent and proactive compliance to the Code of Conduct.

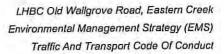
#### **OBLIGATION:**

Dial A Dump Industries (DADI) accepts the obligation of this code and will endeavour to enforce all aspects of this code with all operators, contractors and clients.

#### COMPLIANCE:

DADI will ensure that breaches of this Code of Conduct will be dealt with in a professional, responsible and ethical manner.

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Breaches of this code will result in warning and counselling of the individual, continuing disregard of this code will result in;

- Termination of employment in regards to employees
- Termination of contracts in respect of Contractors
- Where a client vehicle is responsible, DADI will contact the employer and request a
  meeting to discuss the relevant issues. If a single driver is responsible DADI will ban
  that driver from the site, where the company fails to enforce this, the organisation
  will be banned from the site.

#### CODE OF CONDUCT RESPONSIBILITIES

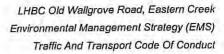
The Site Manager shall ensure:

- (a) that a Traffic Management Plan is designed and implemented and ensure that all proposed haulage routes are maintained to an agreed satisfactory standard.
- (b) that all operations are clearly identified by signage
- (c) all speed restrictions and directional signage are enforced,
- (d) that all signs are maintained in a clearly visible and readable state.
- (e) that all haulage operations are managed to eliminate dust and mud egress from the site
- (f) the Drug and Alcohol Policy is enforced
- (g) that Load covers appropriate for all transport requirements are enforced and provide appropriate facilities to enable this to take place
- (h) that all Company drivers have required licenses.
- (i) overloading for any haulage combination does not occur
- (j) that there is no access to or from the facility from Archbold Road
- (k) that vehicles associated with the facility do not park or queue on the public road network at any time

#### Provide.

(a) personal protective equipment for all employees

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(b) Maintain all vehicles and trailers in a safe and clean working condition in accordance with regulations.

Encourage professional and appropriate use of radio communication & Not tolerate use of obscene language on radio communication.

Not tolerate littering by any employees.

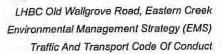
Not allow the transport of any dangerous article, explosive or firearm in any vehicle.

### VEHICLE DRIVERS OBLIGATIONS (employee, contractor and clients)

Vehicle drivers attending the site Must:

- a) hold a current appropriate licence for the vehicle they are operating.
- b) strictly comply with all traffic regulations.
- c) comply with all maximum gazetted speed limits on all roads, or a lesser speed as dictated by the site specific signage.
- d) drive in a manner at all times that is in accordance with road conditions.
- e) yield "right of way" whenever appropriate to ensure safe passage of other road users.
- at all times leave adequate distance between vehicles to allow safe passing by other road users.
- decrease vehicle speeds to minimise dust and noise around private dwellings, road works and stationary vehicles.
- h) not use engine braking where noise is likely to adversely impact on residents.
- i) remain calm and courteous when in contact with other road users, members of the public, landowners
- j) not operate any machinery whilst under the influence of drugs and/or alcohol.
- k) not operate any machine whilst suffering from fatigue.
- not interfere with any public property, livestock or farm infrastructure in the course of haulage operations.

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- m) promptly report to their supervisor any aspect of any operation that could negatively impact on the safe working environment, natural environment and/or the public
- n) wear the Personal Protective Equipment supplied by their employer.
- o) maintain a professional standard when using radio communication
- p) not use obscene language on radio communication.
- q) not accept overloading of vehicles.
- r) accurately complete required paperwork prior to departure.
- s) check security of the load at least once in transit and re-secure where necessary.
- t) not allow unauthorised passengers to travel in vehicles.
- u) maintain vehicles in a clean and tidy condition.
- v) ensure that there is no littering.
- w) not carry any dangerous article, explosive or firearm in any vehicle at any time.
- x) not carry any animal in any vehicle at any time.

## TRAFFIC MANAGEMENT (Benchmark Technique Table BM 32)

Traffic signs, notices, sign posts and general instructions on the site will be erected maintained and replaced as necessary.

Traffic signs will contain clear instructions and be legible from the cabs of vehicles.

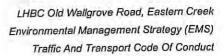
Stop signs and give way signs will be erected at all intersections of internal rods on the facility. Roads shall be linemarked in a manner consistent with linemarking on public roads. All roads will be signposted with speed limit signs of 15kph.

Similarly barriers, bollards, drums and bunting which restrict (public) access to certain areas of the site will be erected, maintained and replaced as required to ensure smooth traffic management and safe operations.

Active noise mitigation measures to be employed include the following:

All operating plant and machinery on the site to be well maintained and noise muffled;

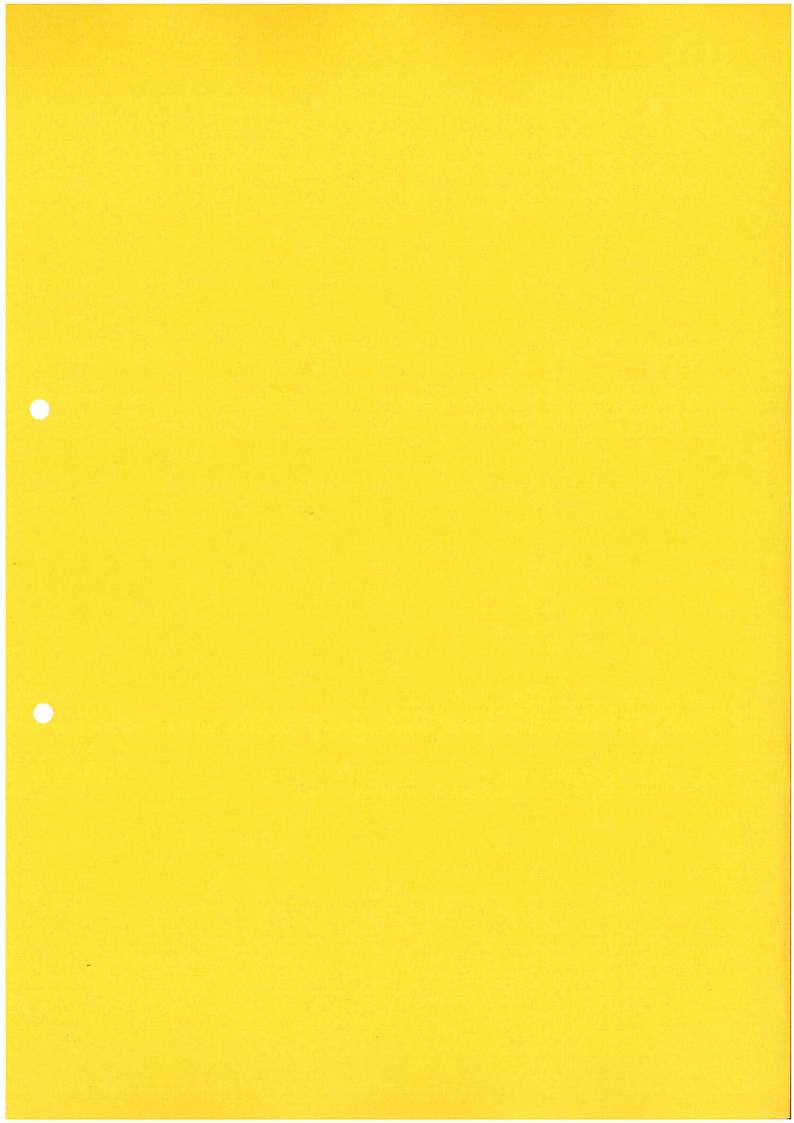
Issue 1	Authorised by: Christopher Biggs	Page 8
ate: July 2010	Position: Group General Counsel	Prepared by: LHBC





- Trucks entering the site to be reported if excessively noisy, signs to be erected to request that trucks do not rev engines excessively or use air brakes unless necessary for safety reasons;
- In the event of any noise related complaints the source of noise will be identified by observation and additional noise monitoring. The source of noise will be mitigated or eliminated as appropriate.

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Date: July 2010	Position: Group General Counsel	Prepared by: LHBC



## PROPOSED RESOURCE RECOVERY AND LANDFILL FACILITIES QUARRY ROAD, EASTERN CREEK

Traffic Impact
Assessment

April 2008

Reference 07323

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## **EXECUTIVE SUMMARY**

The former "Pioneer" site at Eastern Creek has been subject to an historical operation and use for quarrying, concrete production, asphalt production, transport logistics and related activities. With the recent cessation of the quarry use it is proposed to locate the other uses onto the subdivided southern part of the site.

The northern part, contains a large open quarry and provides an ideal opportunity for Resource Recovery Facility (RRF) and Landfill (LF). Light Horse Waste Management (LHWM) propose to construct and operate these facilities including a Materials Processing Centre and Waste Transfer Station (MPC and WTS) on this part of the site and the project will provide landfill for some 20 years with an ongoing life for the RRF. The facility will have the capacity to accept up to 2 million tonnes of waste per year and will recycle some 1.0 to 1.6 million tonnes per year with the residue being used for landfill on the site.

Planning for the development of the Eastern Creek Precinct has included detailed traffic generation and road network analyses to ensure a satisfactory traffic outcome for the envisaged development on the precinct lands. Assessment of the proposed development has concluded that the traffic generation of these uses will only be some 14% of that which was in fact assumed for the site in the studies undertaken by Council and the RTA for the development and operation of the road system.

The vehicle access and internal circulation arrangements for the proposed development will be suitable and appropriate while assessment has shown that the traffic outcome of the construction process will be quite satisfactory and subject to the identified amelioration measures.

The assessment has concluded that there will be no adverse traffic or transport implications to the proposed construction and/or operation of the proposed resource recovery and landfill development.

### 1. INTRODUCTION

ThaQuarry Pty Ltd and ACN 114 843 453 Pty Ltd seek project approval for the construction and operation of a Resource Recovery Facility including a materials processing centre (MPC) and waste transfer station (WTS) and a Class 2 inert and solid waste landfill at Eastern Creek, in Sydney's west. Project approval is sought from the NSW Minister for Planning under Part 3A of the *Environmental Planning and Assessment Act*, 1979 (EP&A Act). The application process is to be managed on behalf of both parties by ThaQuarry Pty Ltd under the project name Light Horse Business Centre.

Transport and Traffic Planning Associates (TTPA) has been engaged by Environmental Resources Management (ERM) on behalf of the proponent to assess the potential traffic and transport impacts of the project, as part of the overall environmental assessment.

The site (Figure 1) is located within the 'Eastern Creek Precinct' of the Central Western Sydney Employment Area which is subject to the provisions of State Environmental Planning Policy (SEPP) 59 Central Western Sydney Economic. The Eastern Creek Precinct Plan (Precinct Plan) was prepared under the provisions of the SEPP to guide the development of land within the Eastern Creek Precinct and this Plan along with the RTA's plan for the Erskine Park Link Road network have been considered during project planning.

Pioneer formerly operated a quarry on the site, however that quarry has now reached the end of its economic life and all quarrying activities ceased in September 2006 although the quarry void remains.

In summary, the proposed development will comprise:

- * 3 stages of construction namely:
  - preconstruction
  - general construction
  - commissioning

- * receipt of up to 2 million tonnes per annum (mtpa) of inert and solid wastes from construction and demolition (C&D), commercial and industrial (C&I) waste streams complying with acceptable waste of non putrescible Class 2 facilities and green waste clean ups
- * sorting, processing and storage/ stockpiling of wastes
- * recovery of recyclable material estimated to comprise 50-80% of incoming waste (1 to 1.6 mtpa, based on maximum capacity intake), and resale, predominantly to the building, landscaping and construction sectors
- * landfill of non-recoverable materials estimated to comprise 20-50% of incoming waste (0.4 to 1 mtpa, based on maximum capacity intake) within the quarry void
- * quarantine and transfer of any non complying wastes to an appropriate offsite facility for disposal.

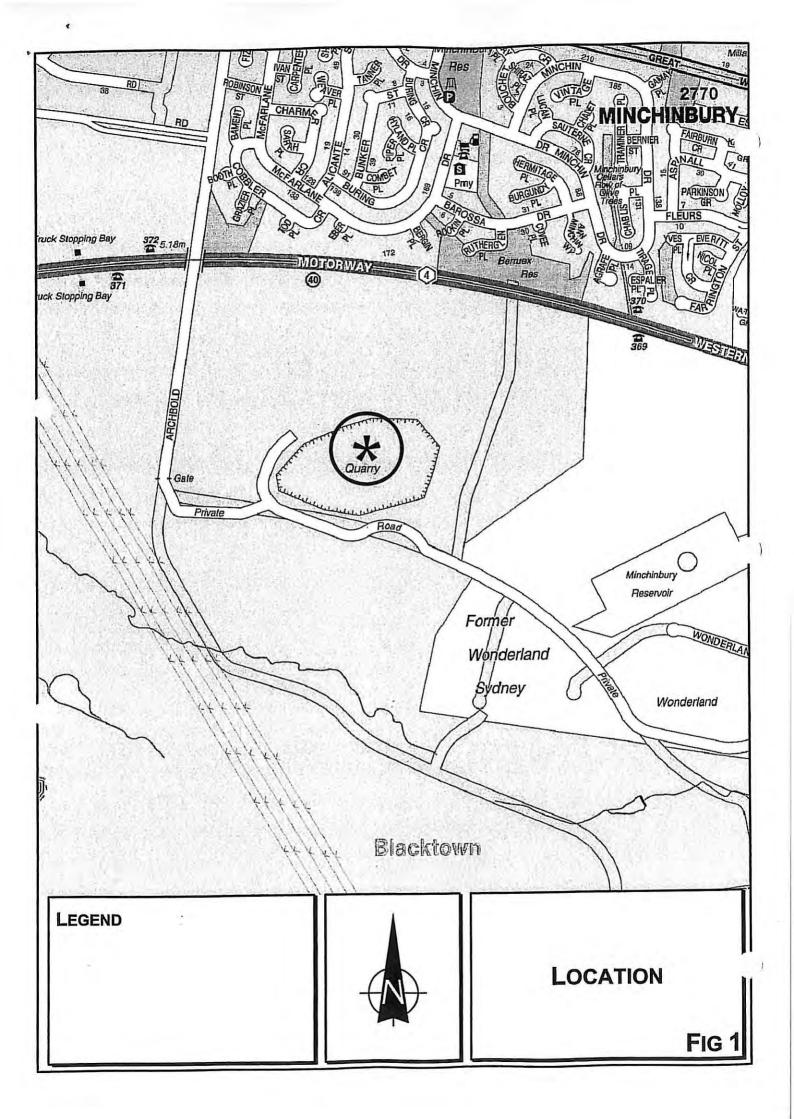
The Director General's Requirements for the project include:

- Traffic and Transport including details of traffic volumes likely to be generated during construction and operation and an assessment of the predicted impacts of this traffic on the safety and capacity of the surrounding road network, including the Old Wallgrove Road/Wallgrove Road intersection;
- Consultation Blacktown City Council, Roads and Traffic Authority

The purpose of this report is to:

- * describe the site, the existing/prior operations and the proposed redevelopment
- describe the road network serving the site and the prevailing traffic conditions
- * describe the proposed future road network and projected traffic conditions

- * assess the potential traffic and transport implications of the project
- * assess the suitability of the proposed vehicle access and internal circulation
- assess the need for amelioration measures
- * assess and respond to any issues raised by the RTA and Council.



# 2. PROPOSED DEVELOPMENT SCHEME

#### 2.1 SITE AND CONTEXT

4

The total former Pioneer site is a consolidation of Lot W of Deposited Plan (DP) 419612, Lot 1 of DP 400697, Lot 2 of DP 262213 and Lot 10 of DP 241859, and occupies an area of 121.6 hectares (ha). Vehicle access is provided by a private road (right-of-carriageway №. D227638) that connects to Old Wallgrove Road and an application for subdivision of the lots has been lodged with Blacktown City Council. Hanson currently leases part of Lot 2 of DP 262213 (Asphalt Batching Operations), Lot W of DP 419612 (Haul Road and operations) and Lot 1 of DP 400697 (Office & Workshop) and a separate application has been lodged with the Minister for Planning relating to proposed redevelopment of this land.

The site, which is situated within the Stage 3 Release Area of the Eastern Creek Precinct, is located in close proximity to the arterial road network including Westlink M7, M4 Motorway and the Great Western Highway. The operational part of the site which is subject to the proposed RRF and LF (Figure 2) comprises an area of some 44 ha which contains the large excavated quarry (being some 150 metres deep with an estimated volume of 11 million m³) along with an existing weighbridge, disused sheds and unsealed roads.

The site is bounded to the north by lands adjacent to the M4 Motorway and to the west by undeveloped open grazing land along Archibold Road which also extends along the southern and part of the eastern boundaries. Land occupied by the Hanson Construction Materials Pty Ltd extends along the south-eastern boundary with operations which include crushing, processing, stockpiling and transport of materials for the building and construction industry.



LEGEND



SITE

FIG 2

## 2.2 PRIOR USE

The historical use and operation of the site has included:

- * extractive hard rock quarrying including aggregates storage and distribution
- * concrete recycling including crushing, screening and blending facilities
- * storage of cement and cement products
- * asphalt production and sales including bitumen storage
- * transport/logistics depot and workshop with fuel storage and weighbridge
- * technical laboratories associated with concrete and asphalt production
- * offices.

The established total truck movements associated with the uses on the Pioneer site over recent years are some 390,000 trips per annum (tpa) comprising:

	Total	390,000 tpa
*	logistics	60,000
*	recycled products	20,000
*	asphalt	115,000
*	premix concrete	80,000
*	aggregate storage and distribution	45,000
*	quarry	70,000

The quantum and nature of the traffic movements into and out of the entire site in 2006 was established by a program of 'automatic' vehicle recording at the point of access on the right-of-way. The 7 day average total of trips into and out of the site over the survey periods was 1,065 which equates to some 389,000 trips per annum while he export of quarried product in 2006 involved some 70,000 tpa or 240 tpd.

The 'make up' of these 2006 movements in terms of vehicle classifications, as defined in Appendix A, was as follows:

Total	4	100%
B Double (Class 10)	4	1%
Long vehicles (Classes 6, 7, 8 and 9)		24%
Medium vehicles (Classes 3, 4 and 5)	14	30%
Light vehicles (Classes 1 and 2)		45%

Because the quarry was at the end of its extractive life and other uses (Hanson) were operating at reduced levels the recorded 2006 traffic movements were significantly less than the former annualised frequency. In order to establish the former operational circumstances the recorded movements have been 'factored up' to represent the annualised rate to provide the following representative former peak traffic circumstances during the morning and afternoon periods.

	Mor	ning	After	noon
	7-8am	8-9am	4-5pm	5-6pm
<b>Total Trips</b>	126	91	100	67

## 2.3 PROPOSED DEVELOPMENT

The development proposal is for the construction and operation of a Resource Recovery Facility and Landfill and the proposed site layout is identified on the plan overleaf. The construction process will involve:

#### Stage 1: Preconstruction

This process will include engineering design, installation of services and chainage and upgrade of access roads.

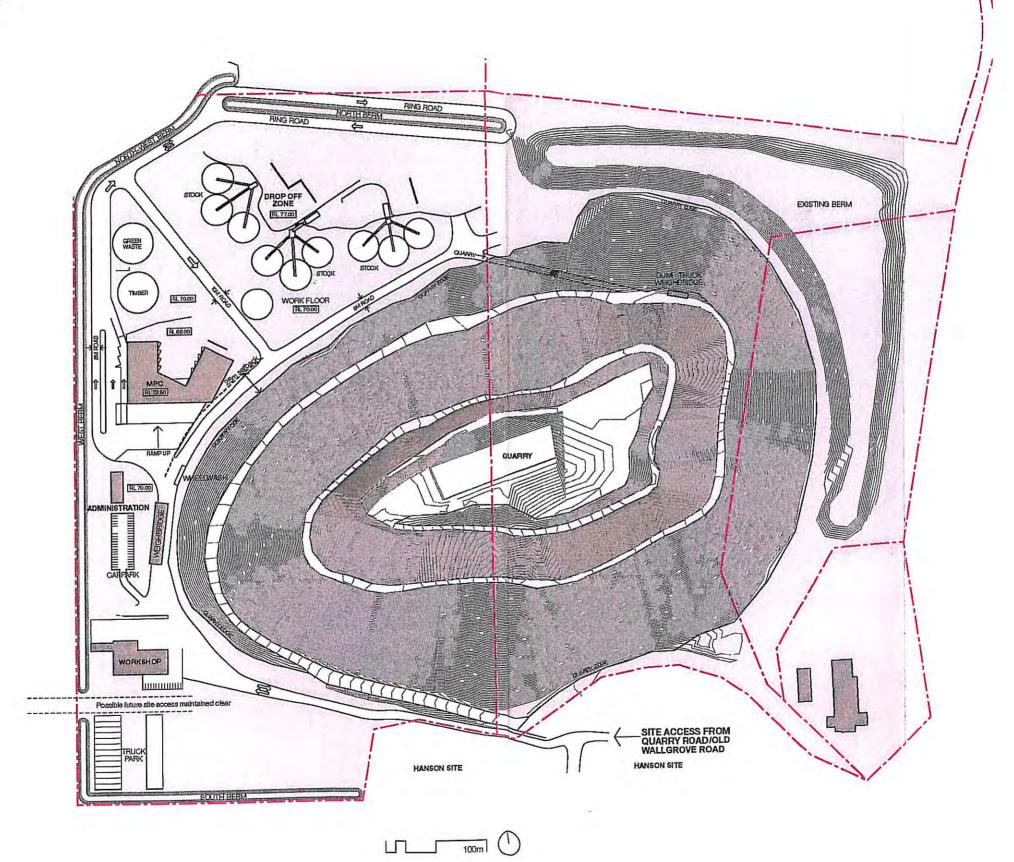
### Stage 2: General Construction

This process will include:

- * excavation of footing and foundations
- * construction and refurbishment of buildings
- construction of treatment plant, water storage and stormwater pond.

Light Horse Waste Management and Landfill Facility

Proposed Site Layout



### Stage 3: Commissioning

This process will include erection of fencing, testing of equipment and plant and training of personnel.

The total construction process will take some 6 months and will involve some 30 workers with work undertaken Monday – Friday (7.00am to 6.00pm) and Saturday (7.00am to 1.00pm). Vehicle access during this period will be along the existing access road to/from Old Wallgrove Road. The volume of vehicle movements will vary during the process, however this will not exceed the future operation movement at any time.

The Resource Recovery Facility will include a Materials Processing Centre and Waste Transfer Station including the recommissioning of the existing weighbridge. The proposed operation of the RRF is summarised in the following:

- capacity to receive up to two million tonnes of waste per annum onto the site, including inert and solid wastes from construction and demolition (C&D), commercial and industrial (C&I) waste streams complying with acceptable waste of non putrescible Class 2 facilities and green waste clean ups
- * on-site waste processing including sorting, screening, sieving, crushing, grinding, shredding and/or chipping, and composting of green waste
- recycling of an estimated 50-80% of incoming waste (1 to 1.6 mtpa, based on maximum capacity intake) eg to produce road base, aggregate, landscaping soil, bedding sand, mulch, wood chip, green waste compost and asphalt derived products for land application
- * testing and on-site storage/stockpiling of finished products prior to resale from stockpiles, predominantly to the building, construction and landscaping sectors and potentially the domestic market
- * transport of an estimated 20-50% of incoming waste (0.4 to 1 mtpa, based on maximum capacity intake) to the landfill facility within the quarry void, comprising of incoming materials which are unsuitable or uneconomical for

recovery and recycling (for example, contaminated soils, asbestos waste and loads that are so mixed they cannot physically be sorted)

* quarantine and transfer of unacceptable wastes to an appropriate offsite facility for disposal.

Vehicle access via the existing right-of-carriageway will be utilised until the future precinct access road system is available.

The Landfill Facility will have a projected life of 20 years while the RRF will be ongoing. There will be some 49 staff employed on the site along with contractors as necessary, operating 7 days per week (6.00am to 6.00pm). The RRF may receive materials after 10.00pm infrequently (eg once per 10 weeks) from essential works such as night roadworks.

The assessed vehicle movements which will be generated by the operation of the RRF and LF will vary depending on the level of material recovered (and not used for landfill). These movements will include receipt of waste, dispatch of recycled products, general site delivery and the light vehicle movement of staff, contractors and visitors. Details of the minimum and maximum vehicle movement scenarios are provided on the schedules prepared by ERM which are reproduced overleaf and summarised in the following:

	Light	Medium	Heavy	Total
Minimum Resource	Recovery Rate			
Peak hour	18	23	43	84
Daily	196	222	430	848
Annual	68,600	77,700	150,500	296,800
Maximum Resource	e Recovery Rate			
Peak hour	20	26	50	96
Daily	220	254	498	972
Annual	77,000	88,900	174,300	340,200

Operational Traffic Generation - Best Case Traffic I.e. maximum landfilling rate of 1mtpa

				Site Visits		Ď	Daily Movements	ants	Peak	Peak Hour Movements	ments
Activity	Description	Capacity (t)	Light	Medium	Heavy	Light	Medium	Heavy	Light	Medium	Heavy
Staff Movements	Utes/ cars	n/a	38			92			2	ì	į
Subconfractors	Utes/ cars	n/a	4		•	8			4		
Site Visitors	Utes/ cars	n/a	4			8	•	•	-	ì	1
Waste Deliveries	Utes	+	31	î		62			9	<b>3</b>	4
	Boarde, large skips, and morel bodies	12.5	i	41		•	85			80	•
	Other vehicles (small-medium bins)	7	ì	42	ì	1	84	1		80	ı
	walking floors	25	ı	1	9	•	ŧ	120	•	á	12
	truck and dog	32.5	ì	1	69		*	130		i	13
	B-double	40	,	ì	35	•	í	99			9
Bulk Product Dispatch from Stockpiles	es		19	22	22	38	54	114	4	2	1
General Deliveries (fuel, workshop	Ute/ cars	n/a	2			4	t.	•	1	÷	•
and administrative supplies, service	Flattop Truck	n/a		-	•	4	2	i	•	_	ı.
and maintenance activities etc)	Semi/ B-double	n/a	í	1	-	•	ì	2	•	1	
TOTAL	5 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1		86	111	215	196	222	430	18	23	43
TOTAL ANNUAL MOVEMENTS	Light Vehicles Medium Vehicles Heavy Vehicles ALL VEHICLES	68,600 77,700 150,500 <b>296,800</b>									
	Daily Volume Waste Received =	5730									

NB. This assumes 15% backloading efficiency for heavy vehicles delivering waste to the site and 10% backloading efficiency for light and medium delivery vehicles Assume 1.2 employees/ vehicle for staff movements

Light Horse Business Centre Predicted Operational Traffic Generation, Maximum Waste Intake (2,000,000 t/ annum) and Maximum Resource Recovery Rate (1,000,000 t/ annum)

				Site Visits		۵	Daily Movements	nts	Peak	Peak Hour Movements	ments
Activity	Description	Capacity (f) Light	Light	Medium	Heavy	Light	Medium	Heavy	Light	Light Medium Heavy	Heavy
Staff Movements	Utes/ cars	n/a	38			78	•		2		
Subconfractors	Utes/ cars	n/a	4	ı		8	•	-	4	•	1
Site Visitors	Ules/ cars	n/a	4	•		8	4	•		,	•
Waste Deliveries	Ules	1	34	1	1	62			8	•	•
	Boarle, large skips, and morel bodies	12.5	•	4		•	85	÷	•	8	٠
	Other vehicles (small-medium bins)	7	•	42		1	8			80	,
	walking floors	25	4	i	90	•		120		è	12
	truck and dog	32.5	· ·	Ť.	8		,	130	1	i	5
	B-double	40		4	32	q	,	64	1		9
Product Dispatch from Stockpiles			31	43	91	62	88	182	9	8	18
General Deliveries (fuel, workshop	Ute/ cars	n/a	2			4			-		
and administrative supplies, service		n/a	4	•	,	i	2	ì	•	-	í
and maintenance activities etc)		n/a	1	4				2	i	1	
TOTAL		1.25.1	110	127	249	220	254	498	20	26	20
TOTAL ANNUAL MOVEMENTS	Light Vehicles Medium Vehicles Heavy Vehicles ALL VEHICLES	77,000 88,900 174,300 340,200									

Assumptions (based on information supplied by proponent):

- 15% backloading efficiency for heavy vehicles defivering waste to the site and 10% backloading efficiency for Eght and medium delivery vehicles

- 1.2 employees/ vehicle for staff movements

- Dispatch Recovered Materials: 85% dispatched by heavy vehicles (40 t capacity (40%), 32.5t capacity (50%), 25 t capacity (10%); 12% medium vehicles (12.5t capacity (80%), 7 t capacity (20%)); 3% light (utos (15%), morel lights (85%) - Incorring Waste: 85% delivered by heavy vehicles (8-double numbers are half those of other heavies), 14.5% medium vehicles

- Peak Hour movements for Delivery and Dispatch are 10% of total delity movements
- Non-complying materials dispatch - 100% backloading
- Delivery and dispatch occurs 350 days/ year, with equal volumes of materials transported each day (i.e. 5730 t waste delivered/ day and 4572 t waste dispatched/ day)

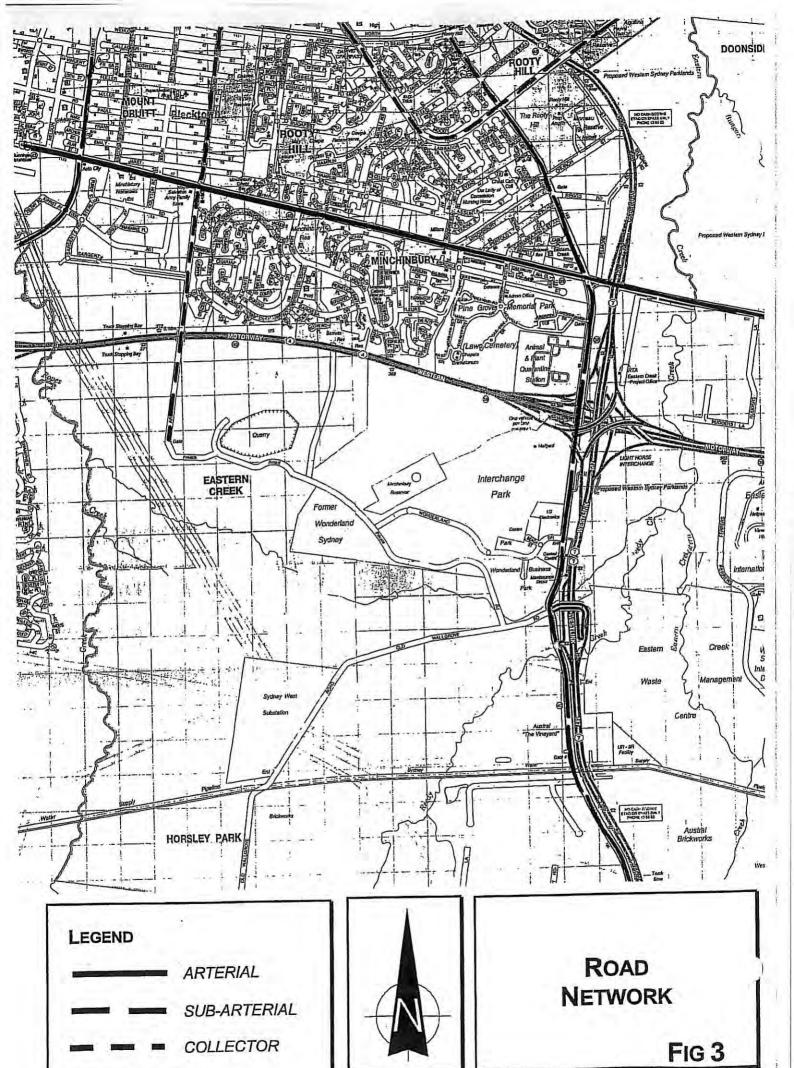
- Shift changeover times for the majority of site staff are outside of peak hour times for the sumounding road network, contributing to the low peak hour movements for staff

# 3. EXISTING ROAD NETWORK AND TRAFFIC CONDITIONS

### 3.1 ROAD NETWORK

The road network serving the site (Figure 3) comprises:

- * Westlink M7 a privately owned and operated Motorway, which forms part of the Sydney Orbital Route and connects between the South-Western Freeway at Prestons and the M2 Motorway at Seven Hills. This Motorway has 2 lanes in each direction with a 100 kmph speed limit
- * M4 Motorway a State Road and major arterial route connecting between Sydney and the Blue Mountains crossing. This Motorway has sections of 4 and 6 lanes divided with an 80 kmph speed limit
- Great Western Highway a State Highway and arterial route connecting between Sydney and Penrith. This Highway has sections of 4 and 6 lanes and the speed limit varies between 60 and 80 kmph
- * Wallgrove Road a State Road and sub-arterial route connecting between the Great Western Highway and Elizabeth Drive. The roadway has sections of 2 and 4 lanes with an 80 kmph speed limit
- Archibold Road a minor collector road connecting over the M4 to Great Western Highway (access is currently restricted in the section south of the M4)
- Old Wallgrove Road a local access roadway connecting to Wallgrove Road and the M7.



#### 3.2 TRAFFIC CONTROLS

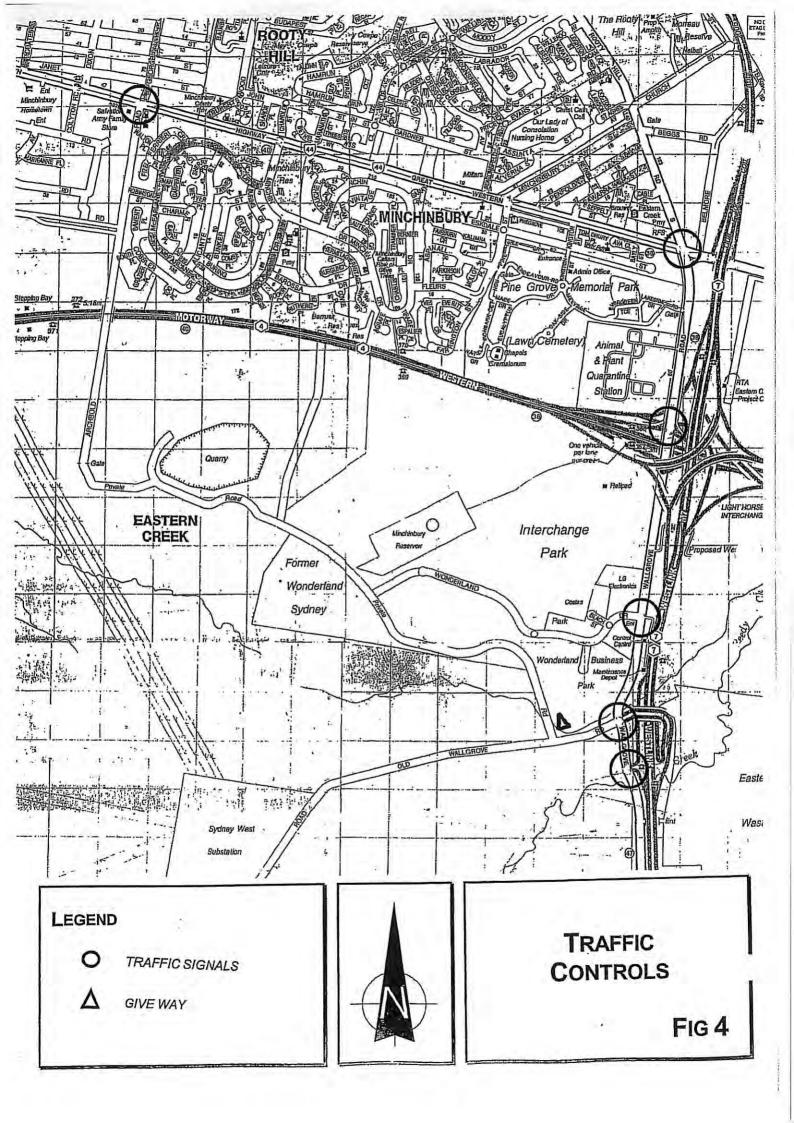
The principal existing traffic controls on the road system in the vicinity of the site (Figure 4) comprise:

- * the traffic signals at the Wallgrove Road, Old Wallgrove Road and southbound M7 ramp intersection. Details of this intersection arrangement are provided in the diagram provided in Appendix B
- * the traffic signals at the Wallgrove Road and northbound M7 ramps intersection
- * the traffic signals at the Wallgrove Road and Wonderland Drive intersection and at the M7/M4 ramp intersections
- * the traffic signals along the Great Western Highway including the Wallgrove Road and Archibold Road intersections
- * the GIVE WAY sign control on Quarry Road (private ROW) at Old Wallgrove Road
- * the RTA approved 'B Double' truck routes along Wallgrove Road and Old Wallgrove Road.

## 3.3 TRAFFIC CONDITIONS

The opening of the Westlink M7 Motorway has resulted in significant relief to the road network which serves Eastern Creek. In particular, it has allowed for the redistribution of traffic flows out of Wallgrove Road and eased conditions at the major M4 and Great Western Highway intersections.

Vehicle access to/from Old Wallgrove Road is facilitated by the traffic signals at the Wallgrove Road intersection and the ramps to/from the M7. These connections along with the new interchanges between the M7 and M4 and Great Western Highway ensure ready access to/from the arterial road system.



The results of traffic surveys undertaken at the Wallgrove Road/Old Wallgrove Road and Old Wallgrove Road/Quarry Road intersections during the morning and afternoon peak periods are provided in Appendix C and summarised in the following:

		AM	PM
Wallgrove Road	Northbound	737	1169
vvaligiovovice	Right-turn	11	3
	Left-turn	132	32
	Southbound	906	640
	Right-turn	157	43
	Left-turn	114	112
Old Wallgrove Road	Eastbound	26	24
	Right-turn	52	80
	Left-turn	87	97
	Westbound	54	14
	Right-turn	11	9
	Left-turn	35	4
Old Wallgrove Road	Eastbound	104	148
	Left-turn	14	4
	Westbound	168	48
	Right-turn	42	29
Long Bank	Dialet from	10	4
Quarry Road	Right-turn -	10	

## 3.4 TRANSPORT SERVICES

Rail services are available at Rooty Hill Station which is some 4 kms from the site. The only existing bus service in the vicinity of the site is the Busways Route 739 which connects between Mount Druitt and Minchinbury. This service runs along McFarlane Drive with 30 minute peak frequencies and this is located within convenient walking distance of the site.

## 4. FUTURE ROAD NETWORK AND TRAFFIC CONDITIONS

## 4.1 ROAD NETWORK

The proposed network for the Eastern Creek Precinct development, as identified in the SEPP 59 Precinct Plan document, is reproduced in Figure 5. Access road connections for the area will involve:

- 4 connections along Wallgrove Road including the existing Old Wallgrove Road and Wonderland Drive connection
- * connection along Archibold Road to Great Western Highway and potential ramp connection to/from the M4.

The exact outcome in relation to the major road network connections is still subject to assessments and negotiations involving the RTA, Blacktown City Council and the Dept of Planning.

Old Wallgrove Road will become a 'Sub-Arterial Road' while a 'Main Collector Road' will extend westerly and then northerly linking to Archibold Road. There will be a number of 'Standard Collector Roads' including the existing Quarry Road (private ROW) route past the site which will connect to Old Wallgrove Road to the south-east and Archibold Road to the north-west.

The extract from the Precinct Plan document reproduced overleaf specifies the following format for a Standard Collector Road:

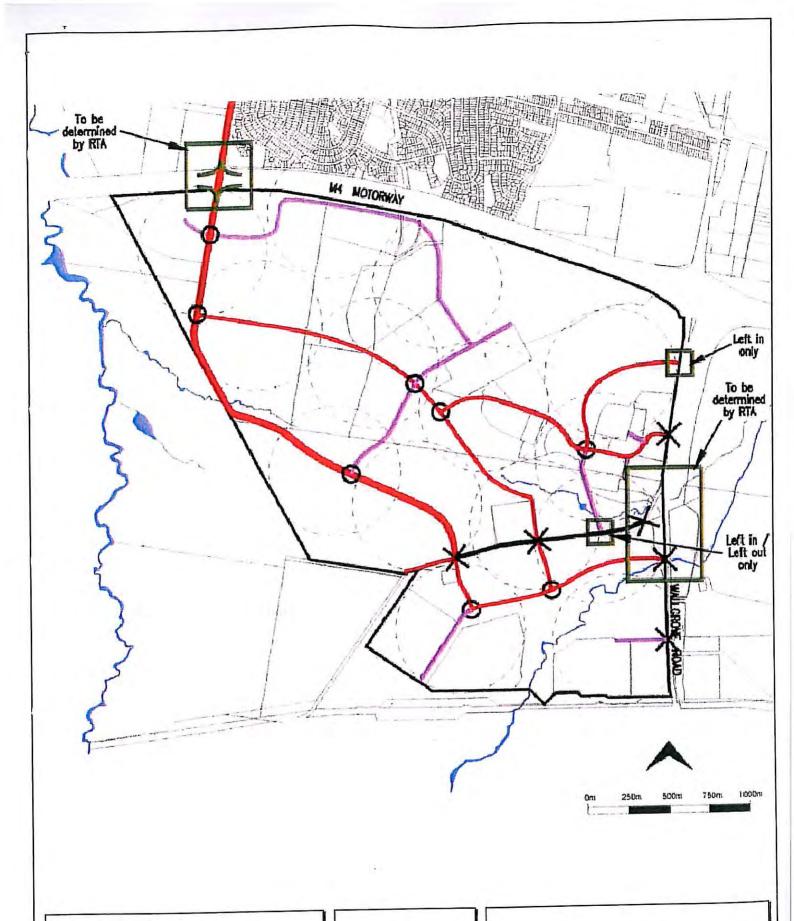
Road Reserve - 23.75 metres

Carriageway - 15.5 metres (1 travel lane + parking

lane in each direction)

Pedestrian - 3.75 metres

Pedestrian/Cycle - 4.5 metres







FUTURE ROAD
NETWORK AND TRAFFIC
CONTROLS

FIG 5

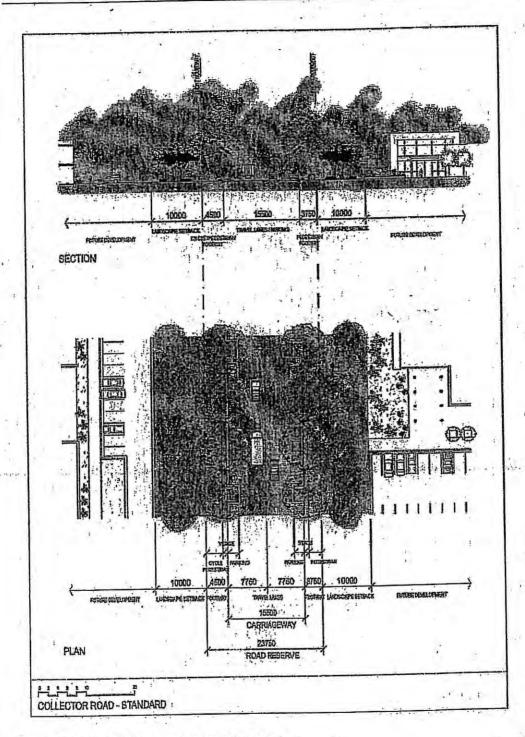


Figure 25 - Typical Standard Collector Road

Also relevant to the potential future road network outcome is the Erskine Park Link Road Network Concept and this proposal by the RTA is subject to a current Major Project Application (06/166) which is currently advertised for comment.

Details of this scheme are provided on the RTA diagram reproduced overleaf and includes:

- An east-west link route connecting Mamre Road and Erskine Park Road to Old Wallgrove Road interchange and the M7 Motorway.
- Eastern and western north-south link roads connecting the Erskine Park Link Road to the South West Precincts; and
- A northern access road to Archbold Road connecting to Erskine Park Link Road to the M4 Motorway and Great Western Highway.

The principal differences between the proposed road networks identified in the two planning documents the extension southerly of Archibold Road and the introduction of the Erskine Park Link Road to meet Old Wallgrove Road (under the RTA plan).

It is noted that the RTA have undertaken detailed investigations of both existing and predicted traffic conditions including traffic modelling of the proposed network. The results of these investigations will form part of the Environmental Assessment Report for the Concept Plan.

## 4.2 TRAFFIC CONTROLS

The proposed traffic controls on the road network under the Precinct Plan (Figure 5) will comprise:

- traffic signal control at the connections to Wallgrove Road
- traffic signal control at the intersection of the collector road past the site (Quarry Road) and Old Wallgrove Road

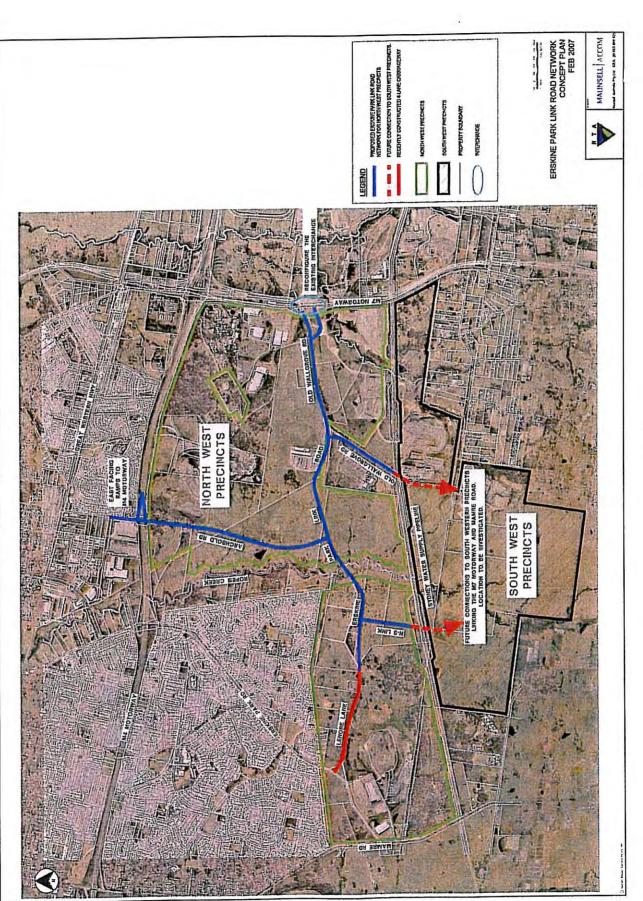


Figure 1.2: Western Sydney Employment Hub - Proposed Erskine Park Link Road Network (Option C)

* roundabouts at the intersection of the collector road (past the site) and Archibold Road as well as at the connections will other collector and local access roads.

#### 4.3 TRAFFIC CONDITIONS

An assessment¹ has been undertaken in relation to the traffic implications of the envisaged development in the Eastern Creek Precinct. That assessment established the projected traffic generation circumstances of development based on parameters provided by the authorities (Blacktown City Council and RTA).

The projections identified in this assessment are that there will be some 30,500 employees within the precinct and there will be some 8,700 vtph generated in the morning peak and some 10,000 vtph in the afternoon peak. An extract from that assessment is reproduced overleaf indicating the projected make-up of the various sites and their traffic generations.

The road network traffic modelling² undertaken for the precinct planning included numerous potential scenarios in relation to road links and connections with the arterial road system. The model output from those assessments (see Appendix B) indicates a potential total vehicle flow along the collector road fronting the site of some 1,000 vph (2 way) during the morning and afternoon peak periods (including the projected total site generation).

Hanson Construction Materials Pty Ltd lease the southern part of the Pioneer site and have submitted an application to the Department of Planning for Concept Approval to a development scheme which comprises:

- Concrete Batching Plant
- Concrete Recycling Plant
- Asphalt and Emulsion Plant
- Materials Storage Depot

Eastern Creek Precinct - Traffic Management Assessment Sims Varley May 2005



# The Study Area

The Eastern Creek Employment Area, consisting of some 612.7ha of developable commercial/industrial land, is located to the east of Ropes Creek, south of the M4 Motorway and to the west of Wallgrove Road, as shown in **Figure 1**.

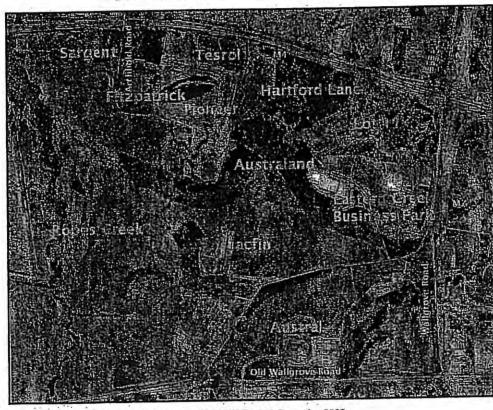


Figure 1: Eastern Creek Development Site

Source: 'Eastern Creek Strategic Landuse Studies', SKM Pty Ltd, December 2002

The commercial operations within the site are estimated to employ some 30,500, generate 8,700 vehicle trips in the AM peak period and 10,000 in the PM peak, as shown in **Table 2**.



Table 2: Eastern Creek Traffic Generation

			able 2	2: Eastern Creek	Creek	שווני כינו	ובומנוסוו			The state of the s	
	Land	nd Area (ha)	Number of	Employeas	To Rate of Peak I	ital Trips Assumi Hour Vehicle	ng Reduction in Gar Modo Spilt as per SEPP 59 AM Peak Hour	Car Nodo Spli Hour	tas per SEPP 59 PM Peak Hou	ig ik Hour	Netenal
sti Egild Parcel	Gross Areal	Developable Area	Employeés Levelopable Area (ha) ²	Total Number of Employees	AM Peak Hour Factor 5	omployee PM Paak Hour Factor 6,329	Outbound 6 15%	Inbound 285%	Culibound *	Inbound 4	Zonell
Lot 11	0.00	991	63.0	1.046	299	344	45	254	292	25	927
Hartford Lane - Lot 11	2	16.6	63.0	1,046	299	344	45	254	292	25	928
Eastern Creek		Ä	0.89	1.058	303	348	45	257	296	52	929
Business PK Total	58.0	50.0		3,150	905	1,035	135	992	880	155	
Stage 1.& 2	0		45.0	1.431	410	470	19	348	400	7	933
Australand	40.0	31.8		1,431	410	470	19	348	400	11	
Stage 3						1		990	305	42	973
Sargents	26.4	22.4	48.8	1,093	313	359	14	007	200	1.78	020
Fitzpatrick	94.0	74.0	48.8	3,611	1,034	1,186	155	8/8	900'1	9/1	020
Ploneer	48.4	45.4	48.8	2,216	634	728	95	239	619	50 1	930
Terral	42.0	32.0	48.8	1,562	447	513	29	380	436	11	9/4
losioi l'effin	127.0	107.1	48.8	5,226	1,496	1,717	224	1,271	1,459	258	931
Userford Line	119.7	30.0	48.8	1,464	419	481	63	356	409	72	936
Aurtm Bricke	150.7	120.0	48.8	5,856	1,676	1,924	251	1,425	1,635	289	932
Total		430.9		21,028	6,018	806'9	903	5,115	5,872	1,036	
Ropes Creek					800	208	201	194	681	120	934
Fitzpatrick	134.8		48.8	2,440	080	200	201	207	581	120	935
Jacfin	104.9	20.0	48.8	2,440	869	807	20.	1 187	1 263	240	i k h
Total				4,880	1,397	1,603	202	1,107	200,0	201	
				20.480	8 776	10.016	1,309	7,417	8,513	705,1	

TOTAL 935.9 612.7 30,489 8,726 10,016 1,309 7,417 8,513 1 (3 Gross and developable area provided by Blacktown Council as adopted from SGS report (March 2005)
2. Employees provided by Blacktown Council as adopted from SGS report (March 2005)
3. Peak hour trip factors adopted from RTA, Guide to Traffic Generating Developments - Table 3.4
4. Ratio of inbound to outbound trips based on standard ratios in RTA, Guide to Traffic Generating Developments
5. Peak hour trip factor with SEPP 59 car mode split reduction assumes all peak hour vehicle trips (i.e. journey to work + work trips) will reduce by 10%

- Logistics Operation and Workshop
- Office and Laboratory
- Concrete Masonry Plant

The make up of the existing and projected vehicle movements for the Hanson development scheme during the morning and afternoon peak periods is as follows:

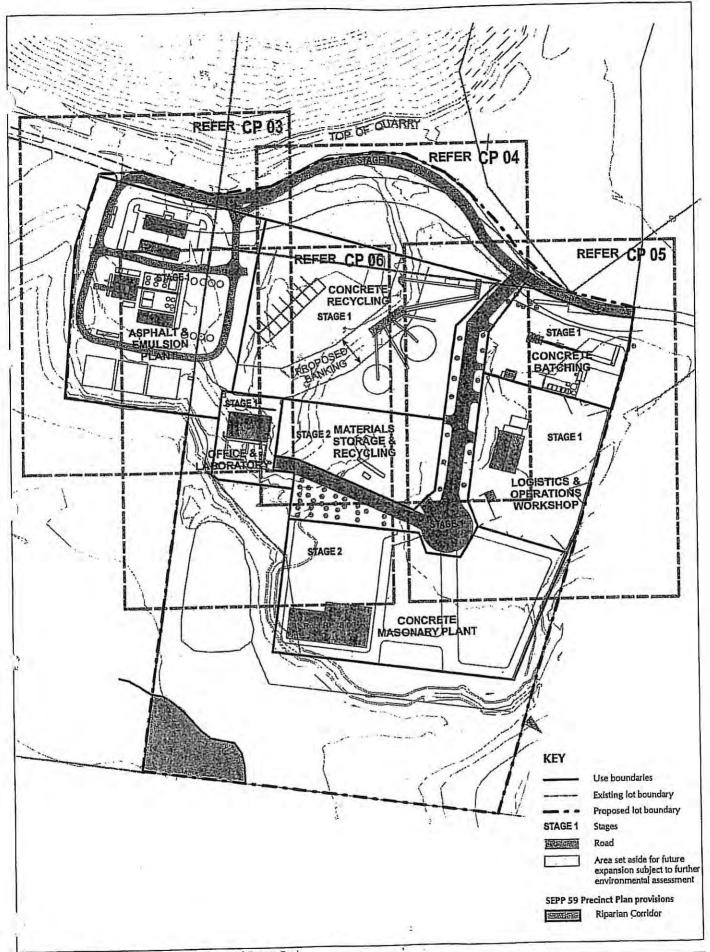
	Exis	sting	Fut	ture
	AM	PM	AM	PM
INBOUND				
Light	21	13	31	19
Medium	27	18	39	22
Heavy	12	2	16	6
Total	60	33	86	47
OUTBOUND				
Light	6	49	12	59
Medium	38	5	44	9
Heavy	10	6	14	10
Total	56	60	70	78
Two-Way Total	116	93	156	125

Details of the Hanson proposal are provided on the Concept Plan reproduced overleaf and it is noted that the projected traffic generation is substantially less than that assessed for that part of the Pioneer site under the Precinct Plan Assessment.

#### 4.4 TRANSPORT SERVICES

Public transport targets for development of the precinct are identified in SEPP 59 to help reduce reliance on travel by private car. The Precinct Plan enunciates the objectives and principles for fostering and facilitating public transport services (ie bus routes connecting to railway stations and major centres). These measures include:

provision of bus stops within 400 metres of major employment generating landuses



Central Western Sydney Employment Lands: Wallgrove Rd, Eastern Creek

CONCEPT PLAN - SITE LAYOUT

prepared by urban design workshop

A3 h 1:2500

bwe 5-10-06

CP 02

- * bus priority measures where possible
- * provision of appropriate bus shelters, paving and lighting
- * integration within the local and regional transport systems
- * provision of bus schedule and route information at bus stops
- * provision of pedestrian routes and road crossings for bus stops
- * provision of bicycle routes
- initiating Travel Demand Management Programs.

# 5. PROPOSED ROAD NETWORK, ACCESS AND INTERNAL CIRCULATION

#### 5.1 Access and Road Network

Vehicle access for the development will involve a number of elements as well as timing/ outcome scenarios, namely:

- * the access intersections on Old Wallgrove Road (ie Wallgrove Road and Quarry Road)
- * use of the existing roadway constructed within the Registered Right-of-Carriageway connecting between Old Wallgrove Road and the site boundary
- * use of the section of existing haulage road within the Contractual Right-of-Carriageway which runs along the southern side of the quarry wall
- * subject to approvals/timing replacement of the haulage road section with a new (parallel) section of roadway as proposed in the Hanson Application
- * ultimate access connection to the proposed new 'collector' roadway as prescribed in the Precinct Plan.

#### Access Intersections

The existing access intersections on Old Wallgrove Road comprise:

The traffic signal controlled Wallgrove Road intersection (details of which are provided in Appendix B) and the GIVE WAY sign controlled T Junction of Quarry Road. These intersections will be upgraded in the future to accord with the Precinct Plan/ Erskine Park Link Road Network schemes. However the timeframe for the undertaking of these works is not established.

The geometry and nature of these existing intersections is suitable for the types of vehicles associated with the proposed development (given the longstanding uses on the site (with heavy vehicles etc) and the other industrial uses in the area which access through these intersections which are subject to an RTA approved B Double route.

The existing roadway within the registered ROW connecting to Old Wallgrove Road is a heavy duty bitumen sealed 'industrial style' roadway. The roadway is some 8.0 metres wide, within a ROW some 10.5 metres wide, and is relatively straight and level (slight downgrade towards the east). The roadway, which has been well maintained and is in good condition, has a number of speed control devices (speed humps) which act to constrain undue vehicle speeds and has suitable sight distances available enabling safe overtaking of slow heavy vehicles if necessary.

It is apparent that this section of roadway will be appropriate and suitable for the uses engendered with the development scheme (ie heavy vehicles and public access). The roadway has been subject to constant use, including heavy vehicles, for many years without any apparent operational or safety problems.

The existing section of haulage road running within the Contractual ROW along the southern side of the quarry wall is unsealed and in a poor state of repair and it will be appropriate for a sealed industrial style pavement to be constructed for this section of access. The upgraded roadway should accord with the requirements of AS 2890.2 and be 7.0 metres wide with appropriate widenings on bends in accordance with Table 3.1 of that standard.

It is understood that a geotechnical investigation has been undertaken and recommendations made in relation to the stability of the quarry wall to support the roadway. Design of the roadway should include the provision of a guard rail along the quarry wall section (ie northern side) to accord with the criteria specified in the RTA Road Design Guide. A central 'barrier' line should be installed (to prevent overtaking) and a signposted speed limit of 40 kmph applied.

The Hanson development scheme proposes a new access roadway just to the south and parallel to the section of haulage road which is to be upgraded for site access. If this roadway outcome occurs then access for the site can be changed to be a simple extension of this roadway as depicted on the Hanson Site Layout Plan.

In the future circumstance with the ultimate construction of the 'collector' roadway the site access roadway can be truncated with access provided by a driveway located adjacent to the proposed workshop building.

#### 5.2 INTERNAL CIRCULATION

The proposed internal road system is identified on the Site Layout Plan and will involve a system of 8 metre wide roadways providing access to the various elements of the development including:

- * weighbridge
- * workshop
- * Materials Processing Centre
- waste drop-off zone
- * landfill
- * administration building
- * parking areas.

The roadways have been designed to rationalise and facilitate the 'flow' of materials with public access being limited to the Materials Processing Centre area. The main circulation roadways from the MPC will operate with a one-way traffic flow with two-way connectors to/from the drop-off zone and landfill etc. The proposed arrangement represents a very 'logical', efficient and relatively conflict free system for vehicle activity.

It will be appropriate for appropriate advisory (directional) signage as well as regulatory (one-way etc) signage to be provided including a 20 kmph speed restriction.

The design of the access roads, manoeuvring and carpark areas will be quite suitable and appropriate for the intended traffic movements and will accord with the requirements of:

- AS 2890.1 and 2
- Austroads
- Council's DCP's

#### 6. TRAFFIC

# 6.1 TRAFFIC PROJECTIONS AND IMPLICATIONS

Planning for the road system to serve development within the precinct has comprised a number of separate studies³. The Sims Varley study projected traffic generation derived from employees per developable ha criteria to provide the basis to the design and operational performance of the future road system. This study estimated that there would be some 30,500 people employed in the precinct and these would generate some 8,700 vehicle movements in the morning peak hour and 10,000 in the afternoon peak hour.

The project site forms part of the Fitzpatrick and Pioneer sites referenced in the Sims Varley assessment and the assessed employee density was 48.8 persons per ha with each person generating 0.286 vtph in the morning and 0.329 vtph in the afternoon. The source of this data is referred to as the SGS Report of March 2005.

The operational area of the RRF and LF will be some 44 ha and putting aside any normal reduction in relation to 'developable land' (which is difficult to define in this case) the traffic generation projection using the Precinct Assessment criteria would be as follows:

44 ha @ 48.8 - 2,148 employees

Morning peak - 614 vtph

Afternoon peak - 707 vtph

Eastern Creek Precinct – Traffic Management Assessment Sims Varley May 2005

The Maunsell Study undertaken for the RTA adopted a projected traffic generation characteristic for the developed industrial lands of 15 vtph per ha for the morning and afternoon peak periods. The adopted traffic generation for development of the site on this basis was relatively consistent with the Sims Varley estimate as follows:

The actual projected traffic generation of the proposed development during the morning and afternoon peak movements is however identified in Section 2 (Page 9) as follows:

Minimum	Maximum
84	96

The projected traffic generation outcome for the proposed development will therefore only be some 13 - 15% of that adopted in the Precinct Study and the RTA study. It is therefore apparent that the particular 'nature' of this proposed development is such that it will be a very low traffic generator in any context.

If the projected traffic movements of the proposed project are combined with that projected for the Hanson development the worst case (maximum) outcome for the morning and afternoon peak periods (ie total movement on the Quarry Road access) will be as follows:

	AM	PM
RRF and LF	96	96
Hanson	156	125
Total	252	211

The inbound and outbound trips will be relatively equal (directionally) and it is apparent that this demand will only be some 10% of that available on the 2 lane access road which has a capacity (two-way) of some 2,500 vtph.

The road system and intersections will ultimately be upgraded to accommodate the traffic demands of development in the area in line with the criteria established in the Precinct and RTA documents. However there is a need to consider the traffic implications of development on the site in relation to the existing access intersection arrangements.

In this regard, the combined traffic demands of the proposed development and the proposed Hanson development have been considered in relation to the existing (surveyed) background traffic demands and intersection geometry/control arrangements. The projected traffic demands are overlaid on the existing intersection demands in the following:

		AM	PM
Wallgrove Road	Northbound	737	1169
yvaligiovo risuu-	Right-turn	11	3
	Left-turn	157	61
	Southbound	906	640
	Right-turn	192	72
	Left-turn	114	-
Old Wallgrove Road	Eastbound	36	34
Old Wallgrove Lieuw	Right-turn	72	103
	Left-turn	119	130
	Westbound	64	22
	Right-turn	11	9
	Left-turn	35	4
Old Wallgrove Road	Eastbound	104	148
Old Wangiere	Left-turn	18	8
	Westbound	168	48
	Right-turn	112	87
Quarry Road	Right-turn	14	8
Quality 1 toda	Left-turn	104	118

The operational performance of the existing intersections under these projected demands has been assessed using SIDRA and the results of this analysis are provided in the following while criteria for interpreting the SIDRA results is reproduced overleaf.

		AM			PM	
	LOS	DS	AVD	LOS	DS	AVD
Wallgrove/Old Wallgrove	В	0.801	20.7	В	0.800	28.4
Old Wallgrove/Quarry	Α	0.183	4.6	Α	0.136	4.9

It is apparent that the performance of these intersections during the peak traffic periods will be quite satisfactory. Equally, because the traffic generation of the proposed developments on the site will only be a fraction of that assumed in the road planning studies it is quite apparent that the operation of the future (upgraded) intersections with development in the precinct will also be quite satisfactory.

Accordingly, both the existing and proposed road systems in the precinct will more than adequately cater for the traffic generated by the proposed development.

#### 6.2 CONSTRUCTION TRAFFIC

During the estimated six month construction phase of the Project, there will be some 30 workers on-site (compared to 49 workers when operational). Variable volumes of construction traffic would be generated. Given that the external traffic generation associated with the construction works will be at a significantly lower order than that which would occur under the final operational circumstances a specific assessment of impact has not been undertaken for the construction phase. However due to the following factors, impacts from construction traffic are anticipated to be minimal and are not expected to affect the capacity of the surrounding road network:

* relatively small volume of construction traffic to be generated, which will very largely be no greater than that associated with the former sites quarrying activities

# Criteria for Interpreting Results of SIDRA Analysis

## 1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good	Good
'B'	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
,C,	Satisfactory	Satisfactory but accident study required
'D'	Operating near capacity	Near capacity and accident study required
Έ'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity and requires other control mode
'F'	Unsatisfactory and requires additional capacity	Unsatisfactory and requires other control mode

# 2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
Α	less than 14	Good operation	Good operation
В	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
С	29 to 42	Satisfactory	Satisfactory but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
É	57 to 70	At capacity; at signals incidents will cause excessive delays Roundabouts require other control mode	At capacity and requires other control mode

# 3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by **traffic signals**⁴ both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a **roundabout or GIVE WAY or STOP signs**, satisfactory intersection operation is indicated by a DS of 0.8 or less.

the values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs

- heavy vehicles will generally be restricted to approved B-double routes, including along Wallgrove Road and Old Wallgrove Road
- * the impact would be short-term, as the construction period is only anticipated to last for six months; and
- * construction traffic will generally be restricted to day shift hours between 7.00am and 6.00pm).

The existing private access road more than adequately accommodated the former movements of vehicles accessing the site (including a significant percentage of heavy vehicles). It is apparent that the access movements during the construction phase can be suitably accommodated on this existing roadway particularly with the advantage provided by the traffic signal control at the Wallgrove Road intersections.

# 7. CONSULTATION PROCESS

Consultation has been undertaken with the Roads and Traffic Authority and Blacktown City Council in relation to the road network and traffic issues associated with the proposal. The issues which have arisen in this process are addressed specifically in the following:

## **Roads and Traffic Authority**

 The need to ensure that the site ties into the future road layout for the Eastern Creek Employment Lands.

Response: The site development will suitably enable that future 'tie in' and nothing which is proposed will obstruct or make difficult the future road network.

The applicable developer contributions towards external intersection works to be arranged and agreed with the RTA and DOP.

Response: This will be undertaken, however it is apparent, due to the nature of the proposed development and its low generation characteristics, that the existing road system will be quite adequate to accommodate the generated traffic (including that of the Hanson development).

### **Blacktown City Council**

 Width of the right-of-way and ability of the road surface to take the predicted traffic generation.

Response: The existing 8 metre wide roadway and its construction is more than adequate to accommodate the projected volume and nature of traffic movements.

2. Integrity of the road near the edge of the Quarry lip.

Response: This will be dealt with separately.

3. Need to assess the traffic impact.

Response: Assessment provided in the Traffic Impact Assessment

# 8. AMELIORATION ASSESSMENT

Assessment in relation to the potential traffic implications of the proposed redevelopment has concluded that the internal, access and external road systems will be suitable and adequate for the traffic needs and circumstances related to the proposed development. This outcome is largely due to:

- * the existing provisions for the historical uses on the site involving heavy vehicle activity
- * the traffic generation outcome with the proposed development being of a relatively low order and significantly less than that foreseen in the studies undertaken for the planning of the road system to serve development in the area.

Nonetheless, there are a number of amelioration measures relative to each element of access and circulation which will be necessary to ensure an appropriate and safe traffic outcome as follows:

# Access Road (Contractual ROW):

#### **Existing Circumstance**

In lieu of the access indicated on the 'Site Layout' plan provide a roadway along and within the site boundary connecting to the access road within the Registered ROW.

 construct a sealed industrial standard road pavement generally 7.0 metres wide along the existing section of 'haulage road' (AS 2890.2 for design and Council standards for construction)

- * install guard rail along the northern side of the road along the edge of the quarry wall (RTA standard for design)
- install 'barrier' centreline along the roadway with 40 kmph speed restriction and appropriate lighting.

#### **Future Circumstance**

With the advent of the Precinct Plan road system the 'Standard Collector Road' will be accommodated through the south-western corner of the site (in accordance with the detailed identified in the Precinct Plan). The site access will then be modified to provide an access connection with a driveway located adjacent to the Workshop building.

#### Circulation Roadways:

- construct a sealed industrial standard road pavement (Council design standard)
- provide appropriate directional and regulatory signposting
- * provide appropriate lighting
- provide appropriate fencing and barriers to avoid any safety issues in relation to the quarry wall (vehicle and pedestrian)
- provide paved parking areas and linemarked parking areas (AS 2890.1 design standard)
- ensure that design provides for the access and manoeuvring of all vehicles requiring to access the site (AS 2890.2 design standard).

# Appendix A

VEHICLE CLASSIFICATIONS AND TYPICAL TRAFFIC PROFILES

HISNE	00 4 10	VEHICI E TYPE	AXLE	AXLES AND AXLE GROUPS	AUSTROADS CLASSIFICATION
(indicative)	CLASS		AXLES	AXLES GROUPS	PARAMETERS
		LIGHT VEHICLES			
SHORT Up to 5.5m	1	SHORT VEHICLE SEDAN WAGGAL, 4WO, UTLITY, LIGHT VAN, BILTCLE, MOTORCYCLE WE	2	1 or 2	0(1) < = 3.2m and Axles = 2
	2	SHORT VEHICLE TOWING.	3, 4, or 5	6	Graups = 3 0(1) > = 2.1m, 0(1) < = 3.2m 0(2) > = 2.1 and Ades = 3.4, or 5
		HEAVY VEHICLES			
MEDIUM	8	TWO AXLE TRUCK OR BUS	2	7	d (1) > 3.2m and Axles = 2
5.5m to 14.5m	4	THREE AXLE TRUCK OR BUS	ю	2	Axles = 3 and Groups = 2
	2	FOUR AXLE TRUCK	8%	2	Axtes > 3 and Groups = 2
	9	THREE AXLE ARTICULATED: VEHICLE RIGID VEHICLE RIGID VEHICLE AND TRAILER, OR 3: AXLE ARTICULATED VEHICLE	6	8	d(1) > 3.2m. Axles = 3 and Groups = 3
LONG	7	FOUR AXLE ARTICULATED VEHICLE RIGID VEHICLE RIGID VEHICLE AND TRAILER OR 4, ALE ARTICULATED VEHICLE	7	*	q2) < 2.1m \u00f3
11.5m to 19.0m	8	FIVE AXLE ARTICULATED VEHICLE RIGID VEHICLE AND SENCE AND TRAILER, OR SAXLE AND SOURCE AND TRAILER.	ω	>5	d2) < 2,1m \(\alpha\) \< 2 \text{ im } \(\alpha\) \< 3.2m \(\alpha\) \> 3.2m \(\alpha\) \> 4\(\alpha\) \= 5 \(\alpha\) \(\alpha\) \\ Axles = 5 \(\alpha\) \(\alpha\) \(\alpha\)
	6	SIX AXLE ARTICULATED VEHICLE RIGID VEHICLE RIGID VEHICLE AND TRAILER, OR CORNORE) AXLE ARTICULATED VEHICLE	<b>پ</b> م	3 %	Axles = 6 and Groups > 2. or Axles > 6 and Groups = 3
MEDIUM	10	B-DOUBLE B DOUBLE OR HEAVY TRUCK AND ITANIER	*	4	Groups = 4 and Axles > 6
VEHICLE	11	DOUBLE ROAD TRAIN THUCK WITH TWO TRAILERS	*	for 6	Groups = 5 or 6 and Axles > 6
LONG COMBINATION VEHICLE Over 33.0m	12	TRIPLE ROAD TRAIN THIRE ROAD TRAILERS AND THATE TRAILERS	*	ý,	Groups > 6 and Ades > 6
	13	ALL OTHER VEHICLES	ı		

DEFINITIONS: Group - axle group where the axles are less than 2.1m apart Groups - number of axle groups
Axles - number of axles on the vehicle (maximum axle spacing of 10m)
d(1) - distance between first and second axle of vehicle d(2) - distance between second and third axle of vehicle

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Data displayed has been compiled from pneumatic traffic count processes and is subject to the documented limitations

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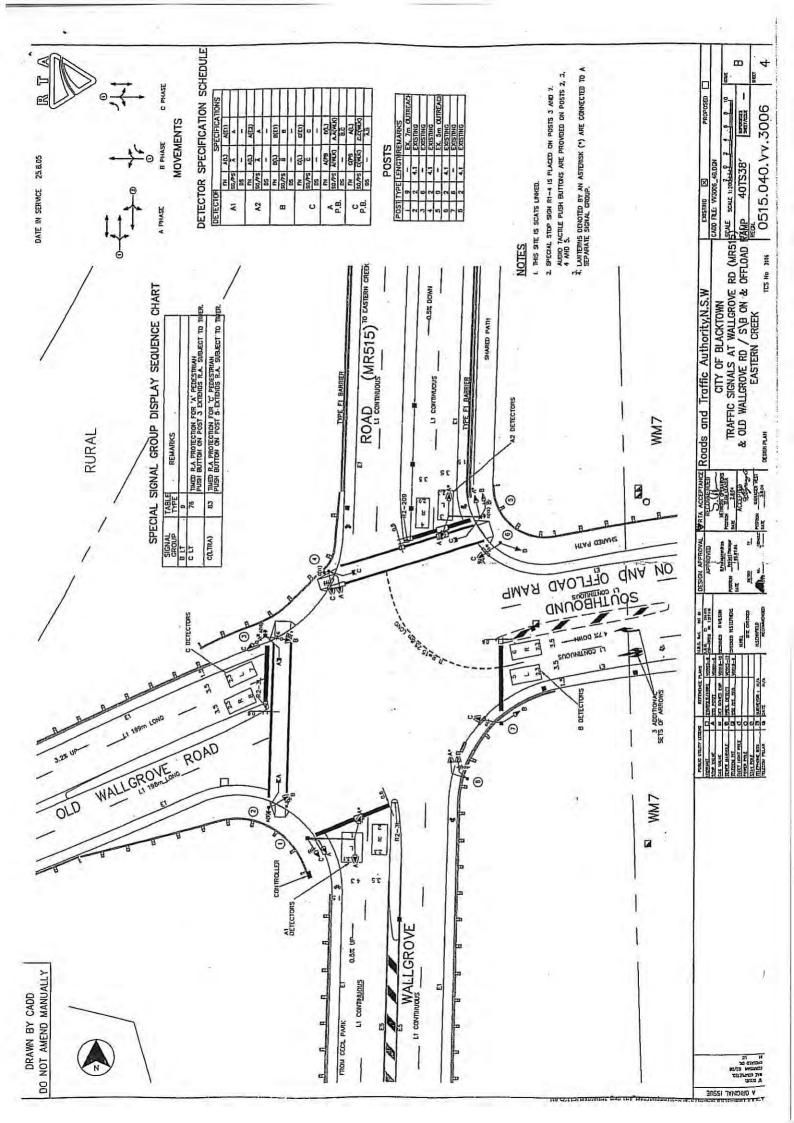
Data displayed has been compiled from pneumatic traffic count processes and is subject to the documented limitations

Location	Week	1 about	t 30-40 m	netres ea	Week 1 about 30-40 metres east of Hansons Cement Plant, avoid impact of speed hump on speed  Start Date  11-SEP-06  W	sons Ce	ns Cement Pla	ant, avoi	id impact of sp	of spee	d hump	aeds uo	ment Plant, avoid impact of speed hump on speed  Weekly 50th Percentile S  Weekly 85th Percentile S	Oth Perc	Carriage Car	Carriageway requestration or the Speed	57
	14-SEP-06	14-SEP-06	9				Start IIme Duration Interval		14 DAYS 1 HOUR	YYS. UR	The state of		Five Day ADT Seven Day ADT	re Day ADT ven Day ADT			686
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3pm - 4pm	-	28	0	-	F	-	0	0	0	-	0	0	0 (	0 0	43		/
4pm - 5pm	-	48	0	-	2	0	0	0 (	0 1	9 (	0 0	0 0	<b>o</b> c	<b>5</b> C	3 2	7,0	\
5pm - 6pm	-	23	0	2	•	0	0	<b>.</b>	0	o (	<b>5</b> (	<b>o</b> (	<b>o</b> 0		4 5		1
6pm - 7pm	0	7	0	0	0	0	0	0	0 (	<b>o</b> (	0 0	<b>5</b> 6	0	<b>-</b>	2 4		
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9nm - 10pm	a	2	0	0	0	0	0	0	0	0	0	0	0	9 (	7		
10pm - 11pm	0	-	0	0	0	0	0	O	0	n	0	0 (	0 (	0	4 1		
11pm - Midnight	0	0	0	0	÷	0	0	0	0	0	0	5	0		-		
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	Week	1 about	30-40 m	HANSON PRIVATE ROAD, EASTERN CREEI Week 1 about 30-40 metres east of Hansons C	STERN st of Har	CREEK	K: From OLD WALGROVE ROAD to ARCHBOLD ement Plant, avoid impact of speed hump on speed	OLD W	ALGRO d impact	VE ROA	D to AR	CHBOL In speed	D ROAD	: WEST	K: From OLD WALGROVE ROAD to ARCHBOLD ROAD: WEST BOUND cament Plant, avoid impact of speed hump on speed	VD Carriageway	
o detares						Start	Start Date Start Time		11-SEP 1200	1-SEP-06 200			Veekly 5 Veekly 8 Veekly 8	Oth Per 5th Per	Weekly 50th Percentile Speed Weekly 85th Percentile Speed	peed	51
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Time	00	10	02	03	04	05	90	20	08		10	11	12	13	Total		
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3am - 4am	0	9	0	0	0	0	0	0	0	8	0	0	0	0	α .		/
4am - 5am	o	23	0	0	0	0	0	0	0	0	0	0	0	0	53		/
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10pm - 11pm	0	0	0	0	0	0	0	0	ö	7	0	0	0	0	7		
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% of Total	-	4		6	11	ო		p. :	4	22							

Appendix B

INTERSECTION PLAN



Appendix C

TRAFFIC SURVEY RESULTS

R.O.A.R. DATA

Reliable, Original & Authentic Results

:2229 EASTERN CREEK Wallgrove Rd

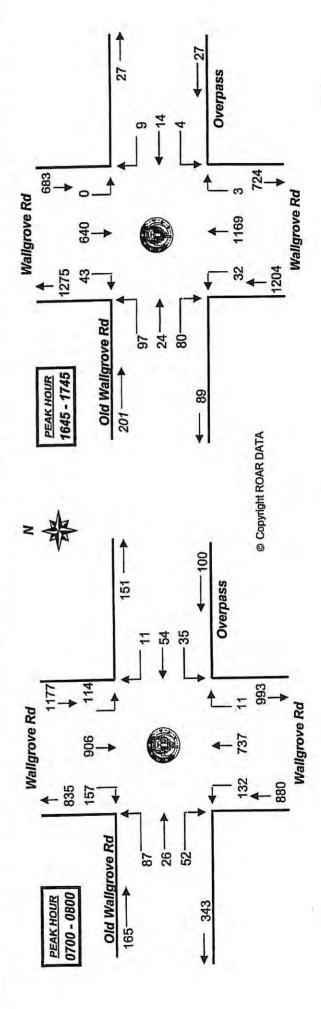
Job N. ,ame

T.T.P.A.

7. .0

342 547 558 Overpass EAST Wallgrove Rd :Wednesday 16th April 08 SOUTH 285 325 Old Wallgrove Rd NEST Day/Date Wallgrove Rd 202 179 180 157 181 Period End 1700 - 1715 1715-1730 1730 - 1745 1645 - 1700 1630 - 1645 1745 - 1800 All Vehicles 1615 - 1630 909 592 Overpass 2 Wallgrove Rd SOUTH Ph.88196847, Fax 88196849, Mob.0418-239019 Old Wallgrove Rd WEST 26 52 Wallgrove Rd NORTH 214 152 232 28 Period End 745 - 0800 3800 - 0815 0815 - 0830 0830 - 0845 730 - 0745 0700 - 0715 3845 - 0900 1715 - 0730 Vehicles Time Per

		TOT	3 2115	1949	2095	2115	2063	ŀ	2115	
EAST	Overpass	IR	15 13	12 10	13 8	14 9	11   4		14 9	
		1	10	4	4	4	4		4	
SOUTH	PA	R	4	3	3	3	4		3	
	Wallgrove	I	1033	1063	1157	1169	1126		1169	
		7	38	34	34	32	30	I	32	
WEST	old Wallgrove Re	αI	85	83	85	80	89		80	
		H	47	38	28	24	30		24	
		-1	139	137	115	26	96		97	
NORTH	Rd	2	4	31	3	43	44		43	
	Wallgrove	H	691	534	617	640	646		640	
		_1	0	0	0	0	0		0	
		Peak Time	1600 - 1700	1615 - 1715	1630 - 1730	1845-1745	1700 - 1800		PEAK HOUR	
		TOT	2322	2036	2046	1988	1972		2322	
EAST	SS	2	=	9	17	23	25		11	
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		1	35	26	28	28	23		35	
_	Rd	R	Ξ	10	3	46	15		F	
SOUTH	Jarove Rd	_	737	622	820	853	847		737	
3	Wa	-	132	126	137	117	114		132	1
WEST	grove Rd	R	52	57	2	202	49		52	
	allaro	L	28	25	22	Į č	12		26	
	DIN Wal	-	1 83	102	107	103	8		87	
NORTH	Rd	R	157	105	E E	75	93		157	
	Wallerove Rd	1	908	674	848	200	554		906	
	IN/SI		114	68	78	200	\$ 8		114	
-		Peak Time	UZUUZUUZU	0715 0815	0730 0830	0745 0046	0800 - 0800		PEAK HOUR	

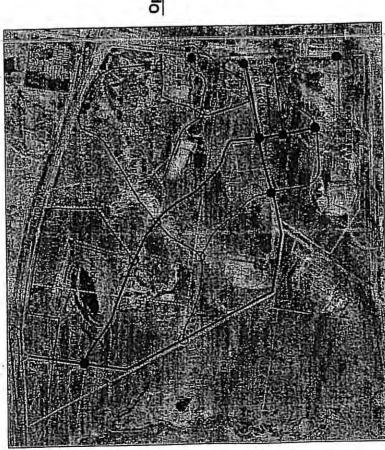


Appendix D

# EXTRACT FROM EASTERN CREEK PRECINCT TRAFFIC ASSESSMENT

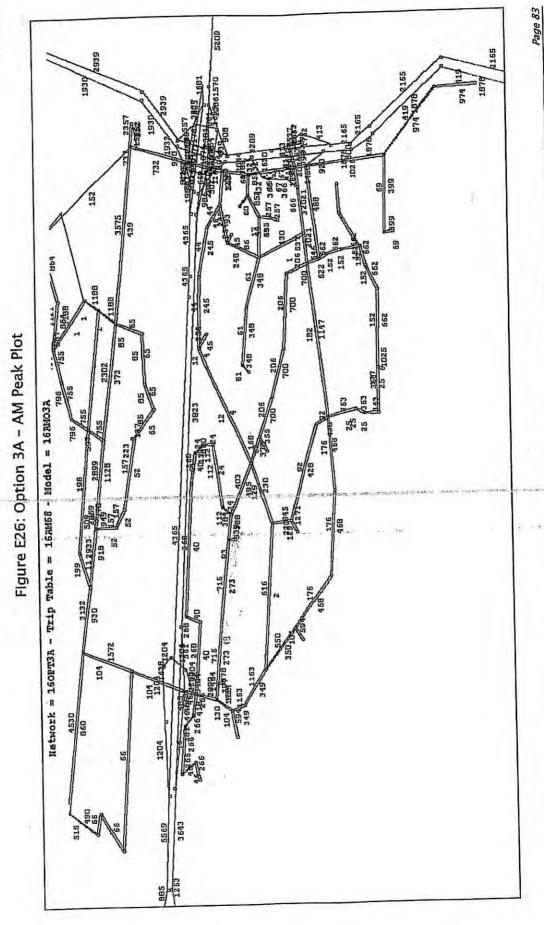


# Option 3A - Access south of Old Wallgrove Road with Recommended Regional Infrastructure



# Option 3 A

- Austral Bricks access connection to Old Wallgrove Road
- Eastern Creek Business Park connection to Old Wallgrove Road
  - No Connection through Sydney Water
- programmed M7 northbound carriageway offload ramps, some 200 Introduction of access onto Wallgrove Road at the site of the
- metres south of Old Wallgrove Road Widening of Archbold Road to 4 lanes Introduction of Archbold Road onload and offload ramps at the M4 Motorway
- Introduction of onload ramp to M7 northbound carriageway from Old Wallgrove Road and Wallgrove Road



Eastern Creek Precinct - Traffic Management Assessment



Page 85 Figure E28: Option 3A - PM Peak Plot Network = 160PT3A - Trip Table = 16AM68 - Model = 16AM03A 500

Eastern Creek Preclinct - Traffic Management Assessment

Appendix E

**SIDRA RESULTS** 

# SIDRA ---

# **Movement Summary**

# **Old Wallgrove and Wallgrove**

#### **Future AM Peak**

Signalised - Fixed time

Cycle Time = 90 seconds

#### **Vehicle Movements**

Mov ID	Turn	Dem Flow (veh/h)	%НV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Wallgrove	is e-tras elaettieth.	- Miles - Transported and Miles and Miles and Miles	er de la company de la comp		The state of the s	NAMES OF PARTY OF PAR			2.2.	152
1	L	165	0.0	0.414	16.4	LOS B	80	0.51	0.81	41.3
2	T	776	0.0	0.414	10.2	LOS A	86	0.56	0.51	46.9
3	R	12	0.0	0.413	20.0	LOS B	86	0.61	0.80	38.7
Approach		953	0.0	0.414	11.4	LOS A	86	0.55	0.56	45.7
New E leg									154	
4	L	37	0.0	0.456	55.0	LOS D	26	1.00	0.75	23.8
5	T	67	0.0	0.456	46.8	LOS D	27	1.00	0.75	26.2
6	R	12	0.0	0.456	55.0	LOS D	27	1.00	0.75	23.8
Approach		116	0.0	0.456	50.3	LOS D	27	1.00	0.75	25.2
New N leg	ne netwoj, polecu mie	range burner and second the	y (1984) 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		AND THE PARTY OF T					22-5
7	L	120	0.0	0.799	20.4	LOS B	222	0.79	0.88	38.4
8	T	954	0.0	0.801	13.7	LOS A	222	0.80	0.75	43.6
9	R	202	0.0	0.800	41.2	LOS C	98	0.92	0.99	28.1
Approach		1276	0.0	0.801	18.7	LOS B	222	0.82	0.80	39.6
Old Wallg	rove	to the series of the series	COMM. STORY OF THE PERSON NAMED IN COLUMN NAME						5.62	
10	L	125	0.0	0.757	56.4	LOS D	53	1.00	0.88	23.5
11	T	38	0.0	0.680	46.6	LOS D	48	1.00	0.84	26.3
12	R	76	0.0	0.680	54.8	LOS D	48	1.00	0.84	23.9
Approach		239	0.0	0.757	54.3	LOS D	53	1.00	0.86	24.0
All Vehicles		2584	0.0	0.801	20.7	LOS B	222	0.74	0.72	38.2

Symbols which may appear in this table:

Following Degree of Saturation # x = 1.00 for Short Lane with resulting Excess Flow * x = 1.00 due to minimum capacity

Following LOS

# - Based on density for continuous movements

Following Queue

# - Density for continuous movement

# SIDRA INTERSECTION

# **Movement Summary**

# **Old Wallgrove and Wallgrove**

# **Future PM Peak**

Signalised - Fixed time

Cycle Time = 80 seconds

# **Vehicle Movements**

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
Wallgrove	1.50(1.60() HT) - 11-11-11-1	acceptance (see )	ALEXANDRO PURE PER PERSON	CH. MATERIAL STATE OF			160	0.93	0.96	29.5
1	L	64	0.0	0.790	37.6	LOS C	168	0.93	0.90	34.6
2	T	1231	0.0	0.791	26.7	LOS B	168	0.93	0.93	31.7
3	R	3	0.0	0.800	32.5	LOS C	166	0.93	0.90	34.3
Approach		1298	0.0	0.791	27.3	LOS B	168	0.93		
New E leg	1 1 g 1 4 K			02.5	10.2	100.0	6	0.86	0.70	29.2
4	L	4	0.0	0.054	38.2	LOS C	6	0.86	0.61	32.9
5	T	23	0.0	0.054	30.0	LOS C		0.86	0.70	29.2
6	R	9	0.0	0.054	38.2	LOS C	6	0.86	0.64	31.5
Approach		36	0.0	0.054	33.0	LOS C	6	U.80	***********	el construction
New N leg		material limit of the last of the last			1424		154	0.90	0.90	32.9
7	L	2	0.0	0.741	29.9	LOS C	154	0.90	0.84	36.7
8	Т	674	0.0	0.757	23.1	LOS B	154	1.00	0.93	25.4
9	R	76	0.0	0.757	49.4	LOS D	49		0.85	35.1
Approach		752	0.0	0.757	25.8	LOS B	154	0.92	0.65	
Old Wallg	rove	7/11/2	•		25.2	712.0	46	0.94	0.79	28.2
10	L	137	0.0	0.430	41.0	LOS C	46	0.94	0.75	31.6
11	T	36	0.0	0.429	32.8	LOS C	47	0.94	0.79	28.2
12	R	108	0.0	0.430	41.0	LOS C	47		0.79	28.6
Approach		281	0.0	0.430	39.9	LOS C	47	0.94	U./9	201
All Vehicle	es	2367	0.0	0,800	28.4	LOS B	168	0.93	0.87	33.

# **Pedestrian Movements**

Mov ID	Dem Flow (ped/h)	Aver Delay (sec)	Level of Service	95% Back of Queue (m)	Prop. Queued	Eff. Stop Rate
P1	1	34.2	LOS D	0	0.93	0.93
P3	1	18.2	LOS B	0	0.68	0.68
P5	1	34.2	LOS D	0	0.93	0.93

## SIDRA INTERSECTION

# **Movement Summary**

## **Quarry Access**

**Future AM Peak** 

Give-way

#### **Vehicle Movements**

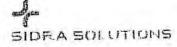
Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New E leg		a particular de succession de successión e e el	Princip of the Control of the Contro	The Court of the C		LOS A	9	0.28	0.00	56.3
5	Т	177	0.0	0.183	0.6		9	0.28	0.65	47.5
6	R	118	0.0	0.183	9.0	LOS A	9	0.28	0.26	52.5
Approach		295	0.0	0.183	4.0	LOS A	<u>9</u>	U,20		
New N leg	1					0.000	-	0.75	0.63	47.7
7	L	109	0.0	0.134	9.4	LOS A	5	0.26		47.7
9	R	15	0.0	0.134	9.6	LOS A	5	0.26	0.76	
Approach	1000	124	0.0	0.134	9.4	LOS A	5	0.26	0.65	47.6
New W le	<del></del>	AND THE RESERVE OF THE PARTY OF	nericus and rest (	The state of the s	201 4 T T T T T T T T T T T T T T T T T T				5.44	.12.5
10	L	19	0.0	0.066	8.2	LOS A	0	0.00	0.67	49.0
11	Ť	109	0.0	0.066	0.0	LOS A	0	0.00	0.00	60.0
Approach		128	0.0	0.066	1.2	LOS A		0.00	0.10	58.1
All Vehicle	es	547	0.0	0.183	4.6	Not Applicable	9	0.21	0.31	52.4

Symbols which may appear in this table:

Following Degree of Saturation # x = 1.00 for Short Lane with resulting Excess Flow * x = 1.00 due to minimum capacity

Following LOS # - Based on density for continuous movements

Following Queue
# - Density for continuous movement



Site: Quarry access AM F:\WORKO7\07323 EASTERN CREEK WASTE MANAGEMENT\SIDRA\old walgrove and wallgrove future.aap Processed Apr 23, 2008 10:55:05AM

A1011, TTPA, Small Office Produced by SIDRA Intersection 3.2.0.1455 Copyright 2000-2007 Akcelik and Associates Pty Ltd www.sidrasolutions.com

## SIDRA INTERSECTION

# **Movement Summary**

# **Quarry Access**

**Future PM Peak** 

Give-way

#### **Vehicle Movements**

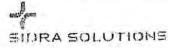
Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (m)	Prop. Queued	Eff. Stop Rate	Aver Speed (km/h)
New E leg		er - und mine ettern filler meeri de l'antidarie	enabet				4	0.28	0.00	56.2
5	T	51	0.0	0.101	0.7	LOS A		0.28	0.66	47.5
6	R	92	0.0	0.101	9.1	LOS A	4		0.42	50.3
Approach		143	0.0	0.101	6.1	LOS A	4	0.28	0.42	20.2
New N leg								0.70	0.65	47.7
7	L	124	0.0	0.136	9.2	LOS A	5	0.30	100	47.5
9	R	8	0.0	0.136	9.5	LOS A	5	0.30	0.74	
Approach		132	0.0	0.136	9.2	LOS A	5 ************************************	0.30	0.65	47.6
New W leg		A distribution of comments of the comments of						1.12	0.67	49.0
10	L	8	0.0	0.084	8.2	LOS A	0	0.00	0.67	
11	Т	156	0.0	0.084	0.0	LOS A	0	0.00	0.00	60.0
Approach		164	0.0	0.084	0.4	LOS A	and the second second second second	0.00	0.03	59.3
All Vehicle	es	439	0.0	0.136	4.9	Not Applicable	5	0.18	0.35	52.4

Symbols which may appear in this table:

Following Degree of Saturation # x = 1.00 for Short Lane with resulting Excess Flow * x = 1.00 due to minimum capacity

Following LOS # - Based on density for continuous movements

Following Queue # - Density for continuous movement



Site: Quarry access PM F:\WORK07\07323 EASTERN CREEK WASTE MANAGEMENT\SIDRA\old walgrove and wallgrove future.aap Processed Apr 23, 2008 11:06:01AM

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# COMPLETE

APPENDIX 7



# Dial A Dump LHBC SITE EMERGENCY PLAN

Prepared By: Jason French – GMW Project Manager Approved By: Brett Beauchamp – GMW General Manager

Revision 2: 23rd September 2010



#### **Scope Of Works**

The works involve the construction and commissioning of a waste recycling centre to the area surrounding the disused quarry at Old Wallgrove Road, Eastern Creek, NSW. The Works involve the construction of a material processing facility, workshop, refuelling area and associated infrastructure and hardstanding.

The works comprise but are not limited to:

- Ground improvement as required.
- Minor earthworks.
- Installation of underground services, including drainage, electrical and communications, water reticulation and hydraulic services.
- The buildings comprise fabricated steel beams and columns with cladding and reinforced concrete walls.
- Concrete roads and hardstanding.
- Electrical installation to buildings including lighting, power sources, emergency lighting and street lighting.
- Installation of water mains to buildings including hydrant mains.
- Irrigation
- Anticipated construction / storage duration 30 weeks.

#### **Potential Hazards**

The following hazards have been highlighted as possible to happen on site and from which an emergency response may be required.

- Material fire.
- Flammable liquid fire.
- Brush fire.
- Fall from height.
- Electrical shock & burns
- Snake / spider bite
- Lightning
- Mobile plant fire.
- Mobile plant collision.



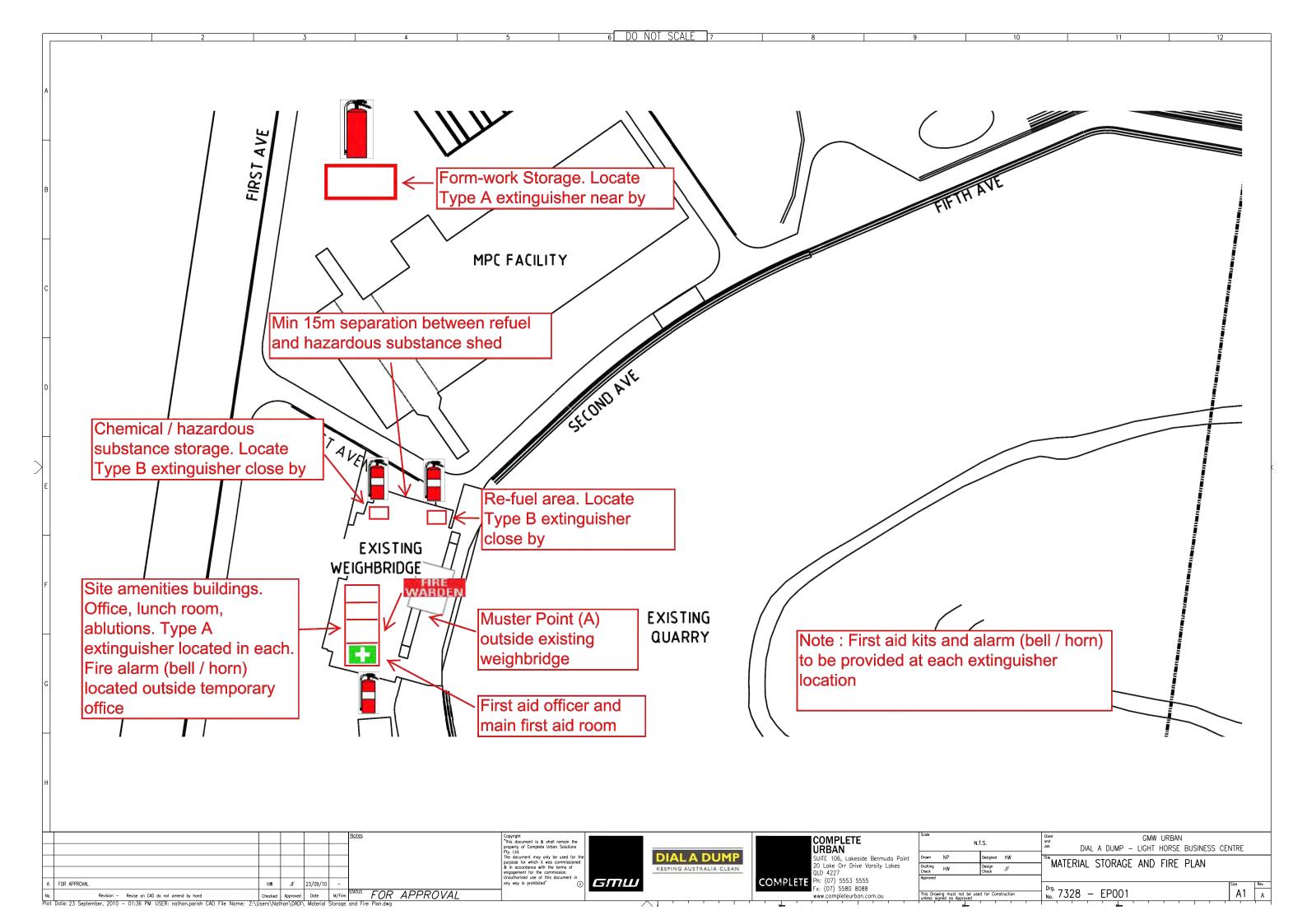
#### **Materials In Use**

The predominant materials to be stored on site during the construction period are as follows.

- Steel for the structure and reinforcement. (max 400t)
- Timber for use in formwork for reinforced concrete walls. (20t)
- Diesel for refuelling of plant. (max 1000 litres)
- Petrol for the refuelling of plant. (max 100 litres)
- Chemicals for curing of concrete. (max 100 litres)
- Cement. (max 50 bags)
- Sand. (max 100t)
- Recycled aggregates. (max 100t)
- Precast concrete materials.
- Plastic conduits. (2000lm)
- Cable. (max 2000lm)
- HDPE / MDPE piping.
- Copper piping.

## **Storage Of Materials**

- Generally materials will be stored as close as possible to the relevant work area. Flammable materials such as timber will be stored in one area and have a fire station containing fire fighting equipment and alarm adjacent to the storage.
- Highly flammable and hazardous materials such as fuel will be stored in accordance with NSW Code of Practice - Control of Workplace Substances: 1996 and GMW Urban's Hazardous Substances & Dangerous Goods Procedure.
- It is intended that no materials should be delivered to site more than 4 weeks prior to their use in construction.
- Housekeeping is to be kept in good order to reduce the possibility of fires starting or gaining momentum through burning rubbish.
- No burning of rubbish is to be allowed on site.
- Areas of storage will be cleared of natural fire fuels such as brush prior to storage.
- Please see attached Materials and Fire Plan drawing showing proposed storage areas and fire stations.





#### **Emergency Details**

#### **Site Address:**

Light Horse Business Centre Archbold Road Eastern Creek NSW

#### **Emergency Numbers:**

FIRE 000 (Mobile: 112)
 AMBULANCE 000 (Mobile: 112)
 POLICE 000 (Mobile: 112)
 POISONS INFO 131 126
 LOCAL POLICE (02) 9625 0000

#### **CALLING 000 ....**

- When calling for help dial 000 and ask the operator for the service you need e.g. Ambulance, Rescue Squad, Fire Depart, Police etc
- Wait to be connected
- Stay calm
- You will be asked some questions and the information below will assist you.
- Do not hang up or put the call on hold you may be asked additional information
- Do not place yourself in danger to make a telephone call or to stay on the line

#### DIRECTIONS ....

- TO BE USED FOR COMMUNICATION FOR EMERGENCY SERVICES.
- If travelling West from Sydney
- Exit M4 onto M7 Eastern Creek and Wallgrove road exit
- Take first exit on left for Walgrove road
- At lights, go straight, cross Walgrove Rd onto Old Wallgrove Rd)
- Turn Right into Boollwarroo Pde (2nd on right)
- Take first right Archbold Rd



- If travelling East from Penrith
- Merge right onto Westlink at M4, M7 interchange
- Take exit toward Old Wallgrove Road
- Keep right at fork, continue toward Old Wallgrove Rd.
- Merge left onto Old Wallgrove Road
- Take first right onto Archbold Rd

#### **Emergency Site Personnel:**

- Emergency Response / Fire Warden (signalled by red cross on door or helmet) Jason French 0402047930
- Emergency Response Manager / Fire Warden Deputy Hamish Wood 0415232905
- First Aiders (signalled by white cross on door or helmet) -Hamish Wood 0415232905
   Alan Edwards 0447210795

#### **GMW Contacts:**

If there is no reply, continue down the list.

•	PROJECT MANAGER:	[Jason French]	0402047930
•	PROJECT ENGINEER:	[Hamish Wood]	0415232905
•	PROJECT ENGINEER:	[Alan Edwards]	0447210795
•	HEAD OFFICE:	GMW HQ	02 92120022
•	REGIONAL GEN. MGR:	Brett Beauchamp	0414 687 404

The above will carry out the requirements as per Crisis Management Plan – including where applicable contacting Next of Kin, Authorities, Counselling of Employees, etc



#### **Site Personnel Responsibilities:**

#### Warden – Jason French

Will take overall charge of the emergency by:

Ensuring all persons within the worksite are advised of the emergency.

- Making themself aware as to the extent and nature of the emergency.
- Advising all persons which areas are safe to proceed to.
- Ensuring all warning devices are functioning i.e. audible, visual
- Accounting for the presence of all persons at the worksite.
- Coordination and assigning tasks to competent people for roles.
- Coordinating any evacuation procedure that may be required.
- Notify neighbours if appropriate.

The <u>Warden</u> will be required to constantly keep in contact with key personnel to assist with the Emergency Process.

The Warden shall delegate duties by:-

- If required appoint a First Aid Officer to the Emergency Location and another person to get a Portable First Aid Kit and then go to the Emergency Location
- Appoint a Sentry Person at the Main Gate to direct/escort emergency vehicles to emergency scene
- Appoint Coordinator at the Weighbridge who will also act as Sentry Person
- All other persons to muster at Weighbridge and wait for further instructions
- Advise persons to avoid the Emergency area if possible (use another route)
- Where possible secure or shut down any plant or equipment to control potentially dangerous situations and isolate any gas or electricity.
- The accident / incident Scene should be preserved as it was immediately after the Accident. Unless it Continues to be a Danger to Persons

If the weighbridge location is seen as an unsafe Muster Point – the next point shall be the Dial a Dump head office at the entrance to DADI Drive



#### First Aid Officers – Hamish Wood, Alan Edwards.

The first aid officer will:

- Ensure the area is safe prior to administering first aid (Check for danger).
- Administer First Aid ONLY until qualified emergency personnel arrive.

#### WHERE ARE THE FIRST AID KITS ARE LOCATED?

Portable Kits	Large Wall Mount Kits	Small Mountable Kits		
□ GMW Vehicles	□ Site Office	□ Fire Points		

#### **FIRST AID PROCEDURES**

When there is an incident that requires First Aid, that person giving first aid must be trained and their ticket current. The basics of First Aid are **DR ABCD**.

Remove **D**anger from yourself & others Check the casualty for some form of **R**esponse – talking or squeezing your hand Check for **A**irway, **B**reathing, and **C**irculation & **D**efibrillation – details on next page

#### Remember:-

- If the incident involves Chemicals, check the Material Safety Data Sheet (MSDS)
- If the incident involves Electricity, remove the power source before attempting to perform first aid on the individual.
- Do not move the injured person unless a life threatening situation occurs or unless you are sure it's a minor injury
- Always reassure the injured person to make them comfortable

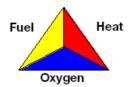


#### IF YOU DISCOVER FIRE OR SMOKE IN YOUR AREA

- Do not walk into the smoke
- Warn others in your area
- Raise emergency by contacting GMW Site Management or raising alarm at located fire points, only if it is safe to do so.
- Give details to the Warden such as Location, Size & Type of Fire
- Only try to fight a fire if your trained and confident to do so and ensure you are not putting yourself or others at risk
- If you cannot fight the fire, leave the area of danger immediately and go to the muster point.
- Do not re-enter the danger area under any circumstance.
- Should the entire site require evacuation the warden will organise the systematic evacuation from the muster point at the weighbridge or secondary muster point at DADI's site office.

#### WHAT'S A FIRE MADE UP OF?

The three components required for a fire to exist are:-



# The fire may cease by:-

- removing the fuel, it will starve the fire examples of fuel include wood, petrol, diesel, paper, tyres etc
- removing the heat source it will cool the fire example of heat are flames, sun etc
- removing the oxygen it will prevent the fire from progressing



#### WHICH EXTINGUISHER DO I USE?

- Class 'A' Ordinary combustible materials, eg. dry grass, wood, paper, plastics
- Class 'B' Flammable liquids, eg. petrol's, solvents, paint, cooking oils and fats
- Class 'C' Flammable Gases, eg. LPG, Butane, etc.
- Class 'D' Combustible metal, eg. Magnesium, aluminium. These fires should be fought with special purpose extinguishers only
- Class 'E' Electrical Equipment remove power source and fight as one of the above

#### HOW DO I USE AN EXTINGUISHER?

Remember the **PASS** word for using portable fire extinguishers ....

## Pull the pin

Aim low, pointing the extinguisher at the base of the fire

Squeeze the handle – this will release the extinguishing agent

Sweep from side to side, at the base of the fire until it appears to be out

#### Also remember ....

- extinguishers should only be used on small fires
- · test an extinguisher before approaching any fire
- check that you have the right type of extinguisher for the fire
- use the extinguisher to help you escape from a fire
- always stay on the exit side of the fire

Location of Fire Extinguishers					
<ul><li>Site Office</li><li>GMW Vehicles</li><li>At Fire Points As Indicated On Drawing</li></ul>					



# Types of fire extinguisher.

CLASS	OF FIRE	Α	В	С	(E)	В	
TYPE OF FIRE		Ordinary combust- ibles (fire paper, wood, etc)	Flammable and Combustible Liquids	Flammable Gases	Fire involving energised elect, equip.	Fire involving cooking oils and fats	
IDENTIFYING COLOURS	TYPE OF EXTINGUISHER		EXTINGU	ISHER SI	JITABILIT	Υ	CAUTION
	WATER	YES	NO	NO	NO	NO	Electrically Conductive
OATMEAL	WET CHEMICAL	NO	NO	Ю	YES	Electrically (Most Suitable)	Conductive
<u>^</u>	ALCOHOL RESISTANT FOAM	YES	YES (Suitable for alcohol fires)	NO	NO	NO	Electrically Conductive
BLUE	AFF TYPE FOAM	YES	YES (Not suitable for alcohol fires)	NO	NO	NO	Electrically Conductive
	AB(E) DRY CHEMICAL POWDER	YES	YES	YES	YES	NO	
RED/ WHITE BAND	B(E) DRY CHEMICAL POWDER	NO	YES	YES	YES	YES	
RED / BLACK BAND	CARBON DIOXIDE (CO2)	YES*	YES	МО	YES	YES	Depletes in confined spaces
RED/ YELLOW BAND	NAF PIII VAPOURISING LIQUID TYPE	YES	YES	NO	YES	YES	



# **Emergency Procedures For Specific Incidents**

Personnel will be inducted in the following procedures during the site safety induction and copies installed in all offices and amenity units.

## **Bomb Threat**

Personnel	Action
Persons	1. Remain calm
Receiving	2. Do not hang up the phone, even after the call has ended
Threat	3. Attempt to find out as much information as possible including:
	a. Where is the bomb situated?
	b. How long before it detonates
	c. What type of bomb is it?
	d. Why has the bomb been planted?
	3. Contact Warden / Supervisor immediately and inform them of the details. If contacting by phone, use a different phone from that which the threat was received on.
Warden /	Immediately upon receiving a bomb threat:
Supervisor	1. Police are to be called <b>immediately</b> on 000 or 112 for a mobile and assistance requested
	a. The Warden shall raise the alarm at one of the fire points. All persons should proceed in an orderly manner to the site muster point located at the weighbridge office and remain calm.
	3. Perform a drive through inspection of the site to ensure all persons are evacuating if safe to do so
	4. Warden shall then check all personnel are present using contractor and visitor sign in books. All persons must be accounted for
Personnel	Remain calm and act with due diligence at all times
	2. Shut down all powered equipment and the plant
	3. Notify anyone in your team if they have not heard the announcement
	4. Follow Warden's / Supervisors instructions
All Persons	Under no circumstances must the following occur:
	<ol> <li>Delaying police and site notification.</li> </ol>
	GMW employees investigating the threat themselves
_	



# **Burns**

Personnel	Action
Warden /	1. Immediately advise all personnel of the emergency and the course of action
Supervisor	2. Call emergency services on 000 or 112 if on a mobile and coordinate first aid
	response
	3. Secure the emergency site and act to prevent further injury or harm to personnel
Personnel	1. Remain calm. Assess the situation first for hazards and risks to oneself and others.
	2. Proceed to handle the situation that does not endanger yourself or others
	3. Contact Warden / Supervisor immediately and inform them of the situation.
	4. All personnel not involved in the emergency shall remain in their respective work
	areas unless instructed to render assistance or assemble at the emergency muster
F A. I	point located at the weighbridge.
First Aid	1. Assess the area first for hazards and risks to oneself and others. Prohibit access to
Officer	situations that may result in further injuries to rescuers.
	Remember Danger Response Airway Breathing Circulation Defibrillation
	2. Report the details of the situation to the Warden / Supervisor immediately
	3. If the injury is severe or you are unable to provide the necessary treatment required external medical and/or rescue services must be contacted
	4. Reassure the victim and assist them until help arrives
	5. If a burn is larger than the palm of the victims hand follow the "extensive burns first
	aid procedure" below. If not follow general burns procedure
	Under no circumstances must the following occur:
	Breaking blisters or removing peeled skin
	2. Applying ointments, gels, lotions, butter or creams to the burn injury as infection
	may occur and substance may have to be removed later
	<ol><li>Using adhesive tape on the skin around the burn or fluffy material on the burn.</li><li>This may cause damage to tissue or irritation of the skin</li></ol>

#### Extensive Burns First Aid Procedure:

- 1. Cool the injured area immediately with cold running water for a short period of time. Do not cool excessively or hypothermia may occur
- 2. Remove any clothing quickly and carefully which is wet with hot liquid or a chemical splash
- 3. Remove any tight clothing, watch, rings or jewellery from the injured area in case of swelling occurring
- 4. Cover the burn area with a sterile non-adherent dressing if available or a non-adherent fabric.
- 5. Treat the victim for shock by lying them down flat and raising their legs and covering their body with a blanket.

#### **General Burns First Aid Procedure:**

- 1. Cool the burn by holding the injured area close to running water for up to 20 minutes.
- 2. While cooling, remove any clothing quickly and carefully which is wet with hot liquid or a chemical splash as well as tight clothing, watches, rings or jewellery from the injured area in case of swelling
- 3. Treat the victim for shock if they are looking faint or asking to lie down. Assist them in lying down and raising their legs and cover the victim to keep them warm.
- 4. Apply a sterile non-adherent dressing to the area and cover with a light bandage to hold the dressing in place
- 5. Check bandage regularly to ensure swelling of the injury is not causing the bandage to constrict victim



# **Electric Shock / Burns**

Personnel	Action
Warden /	1. Immediately advise all personnel:
Supervisor	i. That an electrical shock has been received
	ii. Course of action
	2. Organise to have the power shut off and isolated to the area
	3. Request assistance from emergency services by calling 000 or 112 if on a mobile
	immediately and coordinate first aid response.
	4. Secure the emergency site and act to prevent further injury or harm to personnel
	5. Upon arrival back at work, the victim must report to the Supervisor and advise them of
	the results of their medical investigation
Personnel	1. Remain calm. Assess the situation first for hazards and risks to oneself and others.
	2. Proceed to handle the situation that does not endanger yourself or others
	3. Do not stand closer than 10 metres to the live source of electricity if it is high
	voltage
	4. Shut off and isolate power before entering the area or making any contact with victim.
	5. Contact Chief Warden / Supervisor immediately and inform them of the situation.
	6. All personnel not involved in the emergency shall remain in their respective work areas
	unless instructed to render assistance or assemble at the emergency muster point
	located at the weighbridge.
	7. If attempting to rescue the victim follow the First Aid Officer procedures for electric shock
First Aid	(below)  1. Assess the area first for hazards and risks to oneself and others. Prohibit access to
Officer	situations that may result in further injuries to rescuers.
Ciliodi	2. Do not stand closer than 10 metres to the live source of electricity if it is high
	voltage
	3. Shut off and isolate power before entering the area or making any contact with victim.
	4. If it is not possible to shut the power off and victim is still in contact with the live source,
	remove the victim from the source using a non-conducting object whilst standing on a
	non-conducting object. Only do this if you are confident that you will not endanger
	yourself or others.
	Remember Danger Response Airway Breathing Circulation Defibrillation
	5. Report the details of the situation to the Warden / Supervisor immediately and arrange for
	medical assistance
	6. Provide first aid as required
	7. Check for any burns as a result of electrical shock and follow emergency procedures for
	burns if required.
	8. Treat any burns as an extensive burn as damage may have occurred deep in the tissue and not be visible
	9. Reassure the victim and assist them until help arrives
	'
	10. Treat victim for shock and be ready to administer CPR



# **Environmental Incident / Spill**

Environmer	ital incident / Spill
Personnel	Action
Warden /	1. Immediately advise all personnel of:
Supervisor	a. The Environmental Incident and its location
	b. Course of action
	2. Secure the site and act to prevent further injury or harm to personnel or the
	environment. Establish the type of spill and the risk to human health
	3. If medical assistance is required call 000 or 112 on a mobile for an ambulance and
	coordinate first aid response
	4. Organise the prevention of further spread of the spill if safe to do so
	5. Call the local fire station / police / S.E.S / E.P.A if required
	6. Provide Materials Safety Data Sheet for material to the emergency services
	7. Refer to Materials Safety Data Sheet for material and organise the clean up if not being
	handled by emergency services.
Personnel	1. Remain calm. Assess the situation first for hazards and risks to oneself and others.
	2. Proceed to handle the situation that does not endanger yourself or others
	3. Contact Warden / Supervisor immediately and inform them of the situation.
	4. All personnel not involved in the emergency shall remain in their respective work areas
	unless instructed to render assistance or assemble at the emergency muster point
	located at the weighbridge
	5. Do not leave the quarry without the permission of the Warden / Supervisor
	6. If applicable, take all reasonable means to prevent the hazardous materials leaving the
	premises:
	Sweep up
	Vacuum or use absorbent material
	Do not hose down
	Cover all drains in the vicinity of spill
First Aid	Assess the area first for hazards and risks to oneself and others. Prohibit access to
Officer	situations that may result in further injuries to rescuers.
Officer	Remember Danger Response Airway Breathing Circulation Defibrillation
	2. Report the details of the situation to the Warden / Supervisor immediately
	3. Provide first aid if required
	!
	4. If the injury is severe or you are unable to provide the necessary treatment required external medical and/or rescue services must be contacted
	5. Reassure the victim and assist them until help arrives



## **Hazardous Material Spill**

Hazardous Material Spill	
Dorocanal	Action
Personnel	
Warden /	1. Immediately advise all personnel of:
Supervisor	a. The hazardous material spill and its location
	b. Course of action
	2. Secure the emergency site and act to prevent further injury or harm to personnel
	or the environment. Establish the type of spill and the risk to human health
	3. Contact the emergency services immediately by calling 000 or 112 if on a mobile
	and request assistance
	4. Coordinate first aid response if required
	5. Organise the prevention of further spread of the spill if safe to do so
	6. Call S.E.S / E.P.A if required
	7. Provide Materials Safety Data Sheet for material to the emergency services
	8. Refer to Materials Safety Data Sheet for material and organise the clean up if
Personnel	not being handled by emergency services.
Personner	Remain calm. Assess the situation first for hazards and risks to oneself and
	others.
	2. Proceed to handle the situation that does not endanger yourself or others
	<ul><li>3. Notify the Warden or Supervisor immediately.</li><li>4. All personnel not involved in the emergency shall remain in their respective work</li></ul>
	areas unless instructed to render assistance or assemble at the emergency
	muster point located at the weighbridge
	5. Do not leave the quarry without the permission of the Warden / Supervisor
	6. If applicable, take all reasonable means to prevent the hazardous materials
	leaving the premises:
	Sweep up, Vacuum or use absorbent material
	Do not hose down
	Cover all drains in the vicinity of spill
First Aid	Assess the area first for hazards and risks to oneself and others. Prohibit access
Officer	to situations that may result in further injuries to rescuers.
	Remember Danger Response Airway Breathing Circulation Defibrillation
	2. Report the details of the situation to the Warden / Supervisor immediately
	3. Provide first aid if required.
	4. If burns are received by any victims follow the burns emergency procedure
	5. If inhalation of fumes occurs seek medical attention for the victim
	6. If the injury is severe or you are unable to provide the necessary treatment
	required external medical and/or rescue services must be contacted
	7. Reassure the victim and assist them until help arrives
	•



# Lightning

Personnel	Action
Warden /	1. Immediately advise all personnel of:
Supervisor	a. The emergency
	b. Its location
	c. Course of action
	Secure the emergency site and act to prevent further injury or harm to personnel
	<ul> <li>3. If a fire has started as a result of the lightning strike (if safe to do so): <ul> <li>a. Organise for the gas and electricity in the area to be isolated</li> <li>b. Ensure no open flames are present</li> <li>c. Ensure fire hazards are removed from the area</li> </ul> </li> <li>4. Contact the emergency services immediately by calling 000 or 112 if on a mobile and request assistance if deemed necessary</li> </ul>
	5. Coordinate first aid response if necessary
	Coordinate hist and response in necessary     If mobile plant with tyres fitted has been struck by lightning, ensure the mobile plant is isolated in a vicinity prohibiting access to personnel for a period of 24 hours
	7. After period of 24 hours, remove all tyres from vehicle and deflate
	8. Initiate site evacuation procedure if deemed necessary
Personnel	Remain calm. Assess the situation first for hazards and risks to oneself and others.
First Aid	<ol> <li>Proceed to handle the situation that does not endanger yourself or others</li> <li>Notify the Warden or Supervisor immediately. If a fire has occurred as a result of a lightning strike         <ul> <li>Isolate the power and gas in the area</li> <li>Do not fight fire unless you are trained and confident to do so without putting yourself or others at risk</li> <li>Always ensure you have an available path of escape when fighting a fire</li> </ul> </li> <li>If lightning has struck mobile plant fitted with tyres, park and isolate the mobile plant for a period of 24 hours</li> <li>All personnel not involved in the emergency shall remain in their respective work areas unless instructed to render assistance or assemble at the emergency muster point located at the Site Office</li> <li>Assess the area first for hazards and risks to oneself and others. Prohibit</li> </ol>
Officer	<ol> <li>Assess the area first for hazards and risks to oneself and others. Prohibit access to situations that may result in further injuries to rescuers         Remember Danger Response Airway Breathing Circulation Defibrillation     </li> <li>Report the details of the situation to the Warden / Supervisor immediately</li> <li>Provide first aid if required</li> <li>If the injury is severe or you are unable to provide the necessary treatment required external medical and/or rescue services must be contacted</li> <li>Reassure the victim and assist them until help arrives</li> </ol>



# **Major Trauma**

Personnel	Action
Warden / Supervisor	Respond to trauma in a controlled manner, always considering the safety of personnel and the public first
	2. Only attempt to control a major trauma if it is safe to do so
	3. Call emergency services on 000 or 112 if on a mobile immediately and request assistance
	4. Coordinate first aid response
	5. Call S.E.S if deemed necessary
Personnel	Contact Chief Warden / Supervisor immediately and inform them of the situation.
	2. All personnel not involved in the emergency shall remain in their respective work areas unless instructed to render assistance or assemble at the emergency muster point located at the weighbridge.
First Aid Officer	Assess the area first for hazards and risks to oneself and others. Prohibit access to situations that may result in further injuries to rescuers.
	Remember Danger Response Airway Breathing Circulation
	Defibrillation
	2. The major trauma must be reported to the Warden / Supervisor immediately
	3. Provide first aid as required
	4. If the injury is severe or you are unable to provide the necessary treatment required external medical and/or rescue services must be contacted
	5. Reassure the victim and assist them until help arrives



# **Mobile Plant Collision**

Personnel	Action
Warden /	1. Immediately advise all personnel of:
Supervisor	a. The occurrence of the collision
	b. Its location
	c. Course of action
	2. Contact the emergency services immediately by calling 000 or 112 if on a
	mobile immediately and request assistance if deemed necessary or medical assistance is required
	3. Create an exclusion zone and prevent access to the area by personnel except emergency services unless they are to render assistance
	4. Coordinate the first aid response if necessary
	5. Ensure that the scene of the collision is disturbed as little as possible
Personnel	Remain calm. Assess the situation first for hazards and risks to oneself and others.
	2. Proceed to handle the situation that does not endanger yourself or others
	3. Shut down all mobile plant and exit the vehicle if safe to do so
	4. All personnel not involved in the emergency shall remain in their respective
	work areas unless instructed to render assistance or proceed to the site muster area located at the weighbridge.
	5. Ensure that the scene of the collision is disturbed as little as possible
First Aid	1. Assess the area first for hazards and risks to oneself and others. Prohibit
Officer	access to situations that may result in further injuries to rescuers.
	Remember Danger Response Airway Breathing Circulation Defibrillation
	2. Report the details of the situation to the Chief Warden / Supervisor immediately
	3. Provide first aid if required
	4. If the injury is severe or you are unable to provide the necessary treatment
	required external medical and/or rescue services must be contacted
	5. Reassure the victim and assist them until help arrives



#### **Mobile Plant Fire**

WIODIIE Plant Fire		
Personnel	Action	
Warden /	Immediately advise all personnel of:	
Supervisor	a. The occurrence of the mobile plant fire	
	b. Its location	
	c. Course of action	
	2. Secure the emergency site and act to prevent further injury or harm to	
	personnel	
	3. If tyre fire occurs, follow the tyre fire emergency procedure and do not attempt to fight a tyre fire under any circumstances	
	4. Contact the emergency services immediately by calling 000 or 112 if on a	
	mobile and request assistance if fire is assessed to be too dangerous to fight or	
	medical assistance is required.	
	5. Coordinate the first aid response if required	
	6. Ensure all fire hazards are removed from the vicinity of the mobile plant	
	7. Initiate site evacuation procedure and account for all personnel if required	
Plant	1. If you are operating mobile plant at the time the fire starts, stop the mobile plant	
operator	as soon as possible and activate the mobile plants fire suppression system	
	2. Notify the Warden or Supervisor immediately.	
	3. Park and isolate mobile plant	
	4. Evacuate the mobile plant and proceed to the site muster area	
	5. If fighting fire with an extinguisher do not fight fire unless you are trained and confident to do so without putting yourself or others at risk	
	6. Always ensure you have an available path of escape when fighting a fire	
	7. All personnel not involved in the emergency shall remain in their respective	
	work areas or the crib room unless instructed to render assistance or proceed	
	to the site muster area located at the weighbridge	
	8. If tyre fire occurs, follow the tyre fire emergency response procedure and	
E' . A' !	do not attempt to fight the fire under any circumstances	
First Aid	1. Assess the area first for hazards and risks to oneself and others. Prohibit	
Officer	access to situations that may result in further injuries to rescuers.	
	Remember Danger Response Airway Breathing Circulation Defibrillation	
	2. Report the details of the situation to the Warden / Supervisor immediately	
	3. Provide first aid if required	
	4. If victim has received burns, follow the burns emergency procedure	
	5. If the injury is severe or you are unable to provide the necessary treatment	
	required external medical and/or rescue services must be contacted	
	6. Reassure the victim and assist them until help arrives	



# Scrub / Bush Fire

Scrub / Bush Fire	
Personnel	Action
Chief Warden / Supervisor	<ol> <li>Immediately advise all personnel of:         <ul> <li>a. The occurrence of the scrub fire and its location</li> <li>b. Course of action</li> </ul> </li> <li>Create an exclusion zone and prevent access, if possible, by personnel to the area of the scrub fire</li> <li>Contact the fire brigade immediately by calling 000 or 112 if calling from a mobile and request assistance if the fire is assessed to be too dangerous to fight</li> <li>Contact emergency services if medical assistance is required and coordinate first aid response</li> <li>Arrange to have site air conditioners turned off to prevent smoke contamination within building and machines</li> <li>Ensure all fire hazards are removed from the vicinity of the scrub fire</li> <li>If fighting the fire, organise the personnel who are trained and confident to do so to render assistance</li> <li>Initiate site evacuation procedure if deemed necessary and account for all personnel</li> </ol>
Personnel	<ol> <li>Remain calm. Assess the situation first for hazards and risks to oneself and others.</li> <li>Proceed to handle the situation that does not endanger yourself or others</li> <li>If site personnel hear of or observe a scrub fire they must notify the Chief Warden or Supervisor immediately via the site radio frequency using "Emergency, emergency, emergency" and state:         <ul> <li>a. Your name or unit number</li> <li>b. The location and size of the fire</li> <li>c. Any other useful information</li> </ul> </li> <li>Do not fight the fire unless you are trained and confident to do so without putting yourself or others at risk</li> <li>Always ensure you have an available path of escape when fighting a fire</li> <li>Personnel are not to leave the site unless given permission from the Chief Warden / Supervisor</li> <li>All personnel not involved in the emergency shall remain in their respective or the crib room unless instructed to render assistance or assemble at the emergency muster point located at the Site Office</li> <li>Report all empty or partially used fire extinguishers to a responsible person for</li> </ol>
First Aid Officer	<ol> <li>replacement</li> <li>Assess the area first for hazards and risks to oneself and others. Prohibit access to situations that may result in further injuries to anyone.         Remember: Danger Response Airway Breathing Circulation Defibrillation     </li> <li>Provide first aid if required</li> <li>If burns are received by the victim, follow the burns first aid procedure</li> <li>If smoke inhalation has occurred seek medical assistance for the victim/s</li> <li>If the injury is severe or you are unable to provide the necessary treatment required, contact external medical and/or rescue services</li> <li>Reassure the victim and assist them until help arrives</li> </ol>



# **Snake / Spider Bite**

	ppider Bite
Personnel	Action
Warden/	1. Contact the emergency services immediately on 000 or 112 if calling from a
	mobile and request medical assistance
Supervisor	2. Immediately advise all personnel:
	a. Of the occurrence of the bite
	b. Not to attempt to capture or kill the snake / spider
	3. Coordinate the first aid response and ensure First Aid Officer has adequate
	access to appropriate first aid supplies/kit
	4. Ensure all details of the event are recorded and provided to the emergency
	services
Personnel	Remain calm. Assess the situation first for hazards and risks to oneself and
	others
	2. Proceed to handle the situation that does not endanger yourself or others
	3. Do not attempt to capture or kill the snake / spider
	4. Notify the Warden / Supervisor immediately.
	5. All personnel not involved in the emergency shall remain in their respective work
First Aid	areas unless instructed to render assistance
FIISL AIG	1. All snake and spider bites must be treated as and assumed to be
	venomous to ensure that no venomous bite is overlooked endangering the victim.
Officer	2. Do not attempt to catch the spider or snake
	3. Do not wash bite or attempt to suck out the venom
	<b>4.</b> Assess the area first for hazards and risks to oneself and others. Prohibit access
	to situations that may result in further injuries to anyone.
	Remember: Danger Response Airway Breathing Circulation Defibrillation
	5. Provide first aid as required
	6. The victim must be placed at rest, lying down to reduce the effects of shock and
	slow venom absorption.
	7. Frequent assurance must be given to the victim during and after treatment
	8. Bandage the bite firmly as if bandaging for a sprained ankle with crepe bandage.
	Do not cut off circulation
	9. Apply a firm pressure immobilisation over previous bandage around the bite by
	starting at the base of the limb and working upwards. This bandage must be
	applied firmly but not cut off circulation
	10. Keep bitten limb level with the rest of the body
	11. Immobilise the limb with a sling or by tying the limb to another stationary part of
	the body  12. Check regularly that bandages are not too tight because mayoment by the
	12. Check regularly that bandages are not too tight because movement by the victim to get comfortable will encourage more venom to enter the system
	13. Keep victim quiet, still and comfortable providing reassurance until help arrives
	14. Monitor victim and be ready to administer CPR if needed
	17. Monitor victim and be ready to administer OFA if needed