A 29/4/36

REPORT ABOUT MINISTER'S DECISION ON THE CALL IN OF A DEVELOPMENT

APPLICATION UNDER THE INTEGRATED PLANNING ACT 1997

29 NOV 2006

Pursuant to section 3.6.9 of the *Integrated Planning Act 1997* (IPA) where a development application has been called in under section 3.6.5 of the IPA, a report is required about the decision made on that call in and a copy of that report must be tabled in the Legislative Assembly within FANGLAN sitting days after the decision is made.

This is a report about the decision I made on the call in of a development application lodged by Gassman Development Perspectives Pty Ltd on behalf of Visy Industries Australia Pty Ltd with the Gold Coast City Council.

1.0 Development Approval

Applicant:

Gassman Development Perspectives Pty Ltd on behalf of Visy

Industries Australia Pty Ltd ABN 58 005 787 913

Type of Approval:

Development Permit for a material change of use for Industry

(Cardboard Box Manufacture) and Environmentally Relevant

Activity 26 (Metal forming)

Location:

298 Stapylton Jacobs Well Road, Stapylton

Proposed Use:

Material change of use of the site to establish a manufacturing plant which will manufacture corrugated cardboard boxes (using recycled materials) and food and beverage packaging containers

Subject Site:

Lot 2 on RP 163654, Parish of Albert, County of Ward

Original Assessment Manager

Gold Coast City Council

Dates of Original Decision

2 May 2006 (Decision Notice)

2.0 Notice of Call In

On 7 July 2006, I called in the development application by Gassman Development Perspectives Pty Ltd – a copy of the application is Annexure "A".

A copy of the Notice of Call In that was given pursuant to section 3.6.6 of the *Integrated Planning Act 1997* is Annexure "B".

3.0 Material considered

In assessing the application, to the extent relevant, I had regard to the material listed in my statement of reasons. I attach a copy of the referral agency response (Annexure "C") and an analysis of the relevant submission made in relation to the original application (Annexure "D").

4.0 Notice of Decision

On 4 August 2006 I approved the development application lodged by Gassman Development Perspectives Pty Ltd subject to conditions - Annexure "E".

<u>5.0</u> Reasons for the Decision

I attach the statement of reasons for my decision on the development application by Gassman Development Perspectives Pty Ltd as Annexure "F" to this report.

PETER BEATTIE MP

PREMIER AND MINISTER FOR TRADE

ANNEXURE 'A'

Development Application



development perspectives

planners designers

OUR REF:

3864-05 DEK

23rd December 2005



DR 8 25/03203 mws 25/01102 ERA 8 25/02177 mw ERA 8 25/02178 REG

The Chief Executive Officer Gold Coast City Council PO Box 5042 **GOLD COAST MAIL CENTRE QLD. 9729**

IMPLEMENTATION & ASSESSMENT BRANCH <u>ATTENTION:</u>

Dear Sir,

RE: DEVELOPMENT APPLICATION FOR MAKING A MATERIAL CHANGE OF USE (INDUSTRY - PROPOSED VISY BOARD AND VISY PAK FACILITY) AND MAKING A MATERIAL CHANGE OF USE (ENVIRONMENTALLY RELEVANT ACTIVITY - ERA 26 - METAL FORMING) AT 298 STAPYLTON-JACOBS WELL ROAD, STAPYLTON (LOT 2 ON RP163654)

We refer to the above land, and hereby lodge an application for the following development on behalf of the Applicant, Visy Industries:

- Development Permit for Making a Material Change of Use (Industry proposed Visy Board and Visy Pak facility); and
- Development Permit for Making a Material Change of Use (Environmentally Relevant Activity - ERA 26 - Metal Forming).

This application consists of the following components:

- One (1) copy of Council's Checklist for Development Applications;
- Eight (8) copies of a Planning Assessment Report, also containing the relevant Forms, Plans and Technical Reports:

APPENDIX A – IDAS Application Forms (Form 1 Parts A, D, G, Assessment Checklist) APPENDIX B – Site Analysis Plan (Gassman Development Perspectives Plan No. 3864-05-06)

<u>APPENDIX C</u> – Site Photos (Gassman Development Perspectives Plan No. 3864-05-07)

<u>APPENDIX D</u> – Contour/Detail Plan (Gassman Development Perspectives Plan No. 3864-05-05)

<u>APPENDIX E</u> – Landscape Site Analysis & Concepts (Gassman Development Perspectives Ptv Ltd)

<u>APPENDIX F</u> – Site Plan, Part Site Plan, Elevation, Signage Concept (W N Webb & Associates Architects Pty Ltd)

APPENDIX G - Geotechnical Investigation (Soil Surveys Engineering Pty Ltd)

APPENDIX H - Traffic Impact Assessment (Skildtraffic)

<u>APPENDIX I</u> – Visy Project – Lot 2 on RP163654, Stapylton – Stormwater Quality Management Strategy (Cardno Lawson Treloar Pty Ltd)

<u>APPENDIX J</u> – Visy Project, Stapylton – Flooding investigation (Cardno Lawson Treloar)

<u>APPENDIX K</u> – Waste Management Procedure, Trackable Waste in Queensland (Visy Board Pty Ltd)

<u>APPENDIX L</u> — Searches and Advice (Environmental Management Register/Contaminated Land Register, Environmental Protection Act 1994, Gold Coast Water Advice)

 Our Client's cheque's for \$ 3,242.30, made payable to Gold Coast City Council, being the prescribed application fee calculated as follows:

ltem	Reference	Amount
Industry – greater than 200m ² GFA	Council fee schedule 2005/06	\$ 3,032.00
 requires impact assessment 	·	
Environmentally Relevant Activity -	EPA Information Sheet summary	\$ 210.30
ERA 26 (devolved to Council)	of fees	
TOTAL		\$ 3,242.30

Should you require any further information, please don't hesitate to contact the undersigned.

Yours faithfully,

GASSMAN DEVELOPMENT PERSPECTIVES PTY, LTD.

DAVID KRETCHMANN

Cc: Visy Industries (Tony Di Paolo)



Implementation and Assessment Planning Environment & Transport Directorate

Phone: 5582 8708 Facsimile: 5582 3653 P O Box 5042 GOLD COAST MC 9729 QLD

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C	Checklist for Development Applications									
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	Car Parking Sewer & Water Reticulati Sediment & Erosion Contr		ormwater Drainage	ગ /	Mana	nold Subdivision (FRE) gement Lot Subdivision (MAG) Illaneous (MIS)				
P	ART A - Mandatory I	em	s for 'Properly M	ade	' Ap	plication Please 図/図		Аp	plicant	Receiving Officer
(G	Signature of all land owne (please refer to requiren	rs of nents	the site which is the sub listed in ITEM 1 on pag	ject e 2)	of th				×	×
Ρ	Correct application fee as	preso	cribed by current Counci	l Buc	get.	Fee Paid: \$3.,242.:	\$.5	ļ	X	Ø
, 	All parts of relevant IDAS	applic	cation forms completed i	inclu	ding	IDAS Referrals Checklist if applicable.			M	超
	RT B - Additional R	equ	irements for a 'W	/ell	Ma	de' Application Please ☑/区		Αp	plicant	Receiving Officer
Œ	IDENTIFICATION OF APPL	ICABL	E CODES Please ☑ all r	éleva	ant C	odes that apply to the proposed develop	oment.		X	D
		Code				Specific Development Codes				oint Codes oast Airport*
Fo	Local Area Plan Beenleigh Town Centre	10	Domain Rural			Adult Entertainment Premises Advertising Devices			Bushfir	
	Broadbeach		Park Living	ļ		Aged Persons Accommodation		ł	Manage	ement Areas*
	Bundall Central Bundall Equestrian		Village (mixed use) Detached Dwelling			Animal Husbandry Aquaculture			Canals Waterw	
ō	Burleigh		Residential Choice	- 1		Attached Dwellings		Œ	Car Par	king, Access
	Burleigh Ridge		Tourist and Residentia	ıl		Bed and Breakfast Tourist Accommoda	ation-		and Tra Integra	
	Chevron Island Coolangatta		Integrated Business Local Business			Brothels Caravan Parks				il Heritage
	Coomera		Fringe Business			Caretakers Residences		_	(Histori	ic)*
	Coomera Town Centre		Industry 1 (high impac		双	Changes to Ground Level and Creation	of New		Cultura (Indige)	ıl Heritage nous)
	Currumbin Hill Eagleby		Industry 2 (low impact Extractive Industry	:)		Waterbodies Child Care Centres			Dam Ca	atchment
ō	East Coomera/ Yawatpah		Marine Industry			Detached Dwellings			Areas*	affected Areas
	Conservation		Community Purposes	1		Display Homes and Estate Sales Office	S			Wetland
	Guragunbah Helensvale Town Centre		Conservation Private Open Space			Ecotourism Facility Family Accommodation				nd Natural
	Hope Island	=	Public Open Space			Farm Forestry			Waterw Nature	ays*
	Yudgeeraba Village	_				Farm Stay			Conserv	/ation*
	erang Palm Beach	Em	erging Communities			High Rise Residential and Tourist Accommodation		Ö		Front Land*
	Paradise Point		Beenleigh District			Kennels		_	Rail Cor Environ	
	Robina (for later incorporation after	ĺ _	Structure Plan	1		Landscape Work Low Rise Apartment Building	I		Road Tr	raffic Noise
	expiry of the Robina		Albert Corridor A: Orn Structure Plan	neau		Low Rise Commercial Tourist Accomme	odation	Ø	Manage Sedime	
П	Town Act)		Albert Corridor B:			Office		يقطام		Control
	South Stradbroke Southport		Oxenford/Upper Coome Structure Plan	era		Private Recreation Relocatable Home Parks			Service	
	Springbrook		Albert Corridor C: Otm	noor		Retail and Related Establishments			•	: Motorway) lopes or
	Surfers Paradise		Road Structure Plan			Reconfiguring a Lot			Unstabl	e Soils*
	The Spit (Gold Coast Harbour)		Albert Corridor D: Sou Helensvale Structure Pi			Rural Industry Salvage Yards				red Land
	Uplands Drive and		Albert Corridor E: Kop	- 1	ū	Service Stations	Ì		No relev Constra	
	Woodlands Way West Burleigh Township	_	Road Structure Plan			Surf Life Saving Clubs	}			
X	Yatala Enterprise Area		Gilston Structure Plan Reedy Creek Structure			Telecommunications Facilities Temporary Use				
			Plan			Tourist Cabins	į			
			Inter-Urban Break Structure Plan			Vegetation Management				
		: 	equators run			Vehicle Sales Working From Home				
					\boxtimes	Works for Infrastructure				
* 71	2 rolevene	1			Ó	None of the above	IDT)			
	* The relevance of these codes can be identified by using the Integrated Spatial Information Reporting Tool (ISIRT)									
DEV	C:\Documents and Settings\dkretchmann\Local Settings\Temporary Internet Files\OLK957\TRACKS-17266765-v1-FORM CHECKLIST FOR Page 1 of 5									

PART n - Additional Requirements for a 'Well Made' Application continued	Applicant	Receiving Officer
© Correct number of application copies including all forms and supplementary information.	\boxtimes	M
 Supporting Information: Outlining the development proposal Addressing the relevant codes and constraints, and Including all necessary information as per Item 2 	M	M
PART C - Acknowledgement Please ☑/図		
I acknowledge that the omission of any items in Checklist PART A may result in the refusal of Council to accept the lodgement of this application as 'Properly Made' in accordance with the provisions of the Integrated Planning Act 1997.	X	X
I acknowledge that I have attached a proposal report and supporting documentation addressing all Checklist PART B items relevant to my application.	\boxtimes	Ø
I acknowledge that I have not supplied all the information for PART B and that this may incur a surcharge.		
PART D - OPW Application Requirements Building and Construction Industry (Portable Long Service Leave) Act 1991		
rvide evidence of one of the following: Payment of levy, or Payment of the first instalment of levy, or An exemption from payment of levy, or An exemption from immediate payment of levy		
ITEM 1: Guide to Correct Landowners Consent		

Refer to IPA Guide 1 Making an IDAS development application for full requirements. Listed below are other requirements.

Integrated Planning and Other Legislation Amendment Act 2003 states that the Owner's Consent is required for applications for:

- (a) a material change of use of premises or a reconfiguration of a lot; or
- (b) work on land below high-water mark and outside a canal as defined under the Coastal Protection and Management Act 1995; or
- (C) work on rail corridor land as defined under the Transport Infrastructure Act 1994.

dy Corporate approval is required where a development is affecting the common property area - this includes sive use area. A resolution of the Body Corporate is required to accompany the Development Application for Oxiders Consent.

If a change of ownership of the land has occurred within the last six (6) months, it is recommended that provision of official legal documentation advising the transfer date is attached to the application, eg Solicitor's Letter.

Required Site Analysis Plan (drawn to appropriate scale and in accordance with Planning Scheme Policy 17 for Site Analysis): If applicable Photographs Reconfiguration of a Lot Applications Required Subdivision Proposal Plan (drawn to appropriate scale): If applicable, should include: Allotment layout showing proposed lots, road reserves, open space and easements. All allotments are to be fully dimensioned and include lot areas. Contours, gully lines, areas of flood inundation and areas of proposed cut and fill. Existing and future roads, open space and drainage linkages to adjoining sites. Any existing improvements on the sites. Slope Analysis Plan defining slopes in increment of 5% for sites with slopes in excess of 10%. Required A Site Analysis (reference should be made to Planning Scheme Policy 17 for Site Analysis). These requirements should be identified on the Subdivision Proposal Plan or a separate Site Analysis Plan. If applicable Statement of Landscape Intent Degrational Works Applications (Code) Change to Ground Level / Bulk Earthworks Drawings 3 copies required			Applicant	Assessment Officer
Required Site Plan (drawn to appropriate scale): If applicable, should include: North point and scale Car Parking Layout, drawn in accordance with Gold Coast Planning Scheme Part 7 - Codes, Division 3 - Constraint Codes, Chapter 4 - Car Parking, Access and Transport integration Location of Bin Storage Areas Existing Building Footprints including: Number of bedrooms Total use area (Commercial) Proposed Building Footprints for new Building Work including Total Use Area for commercial sites. Location of Ingress and Egress Points Required Building Elevations (for new building work) Site Analysis Plan (drawn to appropriate scale and in accordance with Planning Scheme Policy 17 for Site Analysis): Statement of Landscape Intent Optional Photographs Reconfiguration of a Lot Applications Required Subdivision Proposal Plan (drawn to appropriate scale): If applicable, should include: Allotment layout showing proposed lats, road reserves, open space and easements. All allotments are to be fully dimensioned and include for areas. Contours, gully lines, areas of flood inundation and areas of proposed cut and fill. Existing and future roads, open space and drainage linkages to adjoining sites. Any existing improvements on the sites. Sequired Slope Analysis Plan defining slopes in increment of 5% for sites with slopes in excess of 10%. A Site Analysis (reference should be made to Planning Scheme Policy 17 for Site Analysis). These requirements should be identified on the Subdivision Proposal Plan or a separate Site Analysis Plan. Gequired Statement of Landscape Intent Diperational Works Applications (Code) Change to Ground Level / Bulk Earthworks Drawings 3 copies required	Material C	hange of Use Applications 8 copies required.		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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		es required	
Required	Engineering Drawing Application Checklist form fully completed (re Appendix A of the Land Development Guidelines).	efer to	
Required	Application for Approval of Engineering Drawings for Reconfigu Works form fully completed (refer to Appendix B of the Land Guidelines).		
Required	Relevant supporting documentation.		
If applicable	Details of any non-conforming design and reasons for proposing its	use.	
lf applicable	Live connection design details for water supply and sewer reti details shall be sufficient to enable early costing by Council for the	culation. The connection.	
If applicable	Copy of all relevant Development Permits and approved manag where relevant.	gement plans,	
Tree Works	Private: 1 copy Development: 4 copies		
Required	Site plan, drawn to scale, detailing the following information, when	e relevant:	
· · · · · ·	 Street frontage and property boundaries, North point, 		
	 Location of all trees proposed for removal, pruning, transplant 	ing or	
	relocation, The position of existing or proposed buildings, structures,		
	roadworks/earthworks and drainage works, where applicable, Proposed limits of clearing and construction works,		
	 Copy of approved management plans, where applicable, 		
	Copy of approved building envelope plan, where applicable.		
andscape Wo	orks 3 copies re Streetscape/Park applicable: 4 copies		
Required	Detailed Landscape Plan.		
Required	Landscape plans are to be prepared by a Landscape Architect or a sugualified and experienced landscape design professional.	uitably	П
Required	Landscape drawings are to comply with Planning Scheme Policies:		
· \	Policy 12 - Landscape Character: Guiding the Image of the City Policy 13 - Landscape Works Documentation Manual		
Required	Landscape drawings should include the following general information	n: 📗 🗖	
	North point Location of proposed plant species to be shown graphically	-	
	Flant schedule indicating common & botanical names, pot sizes	& numbers	
	The nature of existing development adjoining the site		
	 Planting bed preparation detail including topsoil depth preparation, mulch type and depth, type of turf, pebble, 		ļ
	garden edge		
	 Reduced levels across the site The type and height of any retaining walls 		
	A maintenance period		
	Refer to Landscape Works Documentation Manual, Section B, 6.0 Checklist for Detailed Landscape Plans.) Submission	
lf applicable	List of related development application approval numbers.		
ote: Combine	d Material Change of Use, Reconfiguration of Lot and Operational Works Applications	should address all above requ	ulrements
where re	revant. combined application includes an OPW, the total number of copies must have the ad		

PLANNING ASSESSMENT REPORT

Proposed Industry (Visy Board and Visy Pak) Facility

Stapylton-Jacobs Well Road, Stapylton

Submitted by:

Gassman Development Perspectives Pty Ltd

On Behalf Of:

Visy Industries

Date:

December 2005



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<u>APPENDIX A</u> – IDAS Application Forms (Form 1 Parts A, D, G, Assessment Checklist)

<u>APPENDIX B</u> - Site Analysis Plan (Gassman Development Perspectives Plan No. 3864-05-06)

APPENDIX C - Site Photos (Gassman Development Perspectives Plan No. 3864-05-07)

<u>APPENDIX D</u> – Contour/Detail Plan (Gassman Development Perspectives Plan No. 3864-05-05)

<u>APPENDIX E</u> – Landscape Site Analysis & Concepts (Gassman Development Perspectives Pty Ltd)

<u>APPENDIX F</u> – Site Plan, Part Site Plan, Elevation, Signage Concept (W N Webb & Associates Architects Pty Ltd)

APPENDIX G - Geolechnical Investigation (Soil Surveys Engineering Pty Ltd)

APPENDIX H - Traffic Impact Assessment (Skildtraffic)

APPENDIX I – Visy Project – Lot 2 on RP163654, Stapylton – Stormwater Quality Management Strategy (Cardno Lawson Treloar Pty Ltd)

<u>APPENDIX J - Visy Project, Stapylton - Flooding investigation (Cardno Lawson Treloar)</u>

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APPENDIX L – Searches and Advice (Environmental Management Register/Contaminated Land Register, Environmental Protection Act 1994, -Gold Coast Water Advice)



1.0 INTRODUCTION

1.1 Executive Summary

Two industrial buildings for the purposes of manufacturing corrugated boxes, and food and beverage containers, are planned by Visy Industries for a site at Stapylton-Jacobs Well Road, Stapylton.

The application also involves assessment of an Environmentally Relevant Activity for Metal Forming.

The site is currently used for a variety of industrial activity, however is vacant in part, and is located within the Future Industry Precinct of the Yatala Enterprise Area Local Area Plan. The land is suitable for industrial activity due to existing site conditions.

An existing site constraint is the lack of Council infrastructure near the site (reticulated water and sewerage). This shall be dealt with through the extension of Council services to the site, from their current location west of the site which is the subject of a report under preparation by the Applicant.

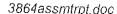
Proposed buildings shall be of high quality materials, colours and finishes to enhance streetscape amenity. The impact of the buildings' mass on the streetscape will be reduced through building setback and a landscaping strategy designed to buffer, screen and enhance visual amenity, along with addressing the impact of stormwater quality and management on and off site.

The application advances the intent of relevant parts of the South East Queensland Regional Plan and the Planning Scheme, including the Place Code, Desired Environmental Outcomes and Precinct intents.

Development of the proposed use will also create opportunities for employment creation, both during construction and operation of the facility, enable the full potential of the eastern Yatala/Stapylton area to be realised (through provision of Council infrastructure) and possibly encourage co-location of appropriate uses around the subject land.

1.2 Site Details

Address of Site	298 Stapylton-Jacobs Well Road, Stapylton
Real Property Description	Lot 2 on RP163654
Parish	Albert
County	Ward
Local Government Authority	Gold Coast City Council
Area of Site	TOTAL – 38.069 ha
Existing Local Area Plan (LAP)	Yatala Enterprise Area
Existing LAP Precinct	Precinct 4 – Future Industry
SEQ Regional Plan	Urban Purposes
Name of Owner	Holmbourne Pty Ltd (A.C.N. 010 417 455)





1.3 Application Details

The application consists of the following components:

- Development Permit for Making a Material Change of Use for an Industry (proposed Visy Board and Visy Pak facility); and
- Development Permit for Making a Material Change of Use for an Environmentally Relevant Activity (ERA 26 – Metal Forming – pressing, forging, extending, extruding or rolling metal, forming metal into plate, wire or rods or fabricating sheet metal).

This application will be subject to Impact assessment.

1.4 Scope of Report

This report presents the facts and circumstances made known to the author at the time of submission.

1.5 Applicant Contact

We kindly request Council direct all correspondence and requests for further information to the following person:

Visy Industries C/- Gassman Development Perspectives Pty Ltd Attention: David Kretchmann

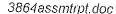
P.O. Box 392 BEENLEIGH, Q. 4207

Ph: 3807 3333 Fax: 3287 5461 Mobile: 0400 991 720

Email: dkretchmann@gassman.com.au

1.6 Applicant Reference

Gassman Development Perspectives reference in this matter is 3864-05.





2.0 DESCRIPTION OF THE PROPOSAL

2.1 Industry

Two buildings, each of approximately 15000m² GFA are proposed to accommodate a new manufacturing plant for Visy Industries.

Two stages of the development are proposed in two separate buildings, namely:

- Stage 1 − Visy Board; and
- Stage 2 Visy Pak.

Visy Board involves the manufacture of corrugated fibreboard boxes made from 100% recycled and kraft papers. Boxes are made in a variety of sizes, gauges and configurations to suit different products.

Visy Pak entails the manufacturing of packaging containers to house both food and beverages, such as aluminium cans, PET bottles, cartons for milk or juice and other products. These products are then transported to food and beverage companies to enable the actual product to be packaged within the container made on the subject land. No bottling or canning of foods or beverages shall be conducted on site in any of the proposed buildings.

Further information on products and services of both Visy Board and Visy Pak is available at www.visy.com.au, which will be a reflection of the proposed development services and products manufactured at Stapylton.

The buildings are one storey, and are a maximum of eight metres in height. They shall be detailed and designed with high quality materials, colours and finishes in order to enhance the appearance of the Yatala Enterprise Area (YEA) and encourage other industries to locate there.

A maximum of 64 people shall be employed at the Visy Board facility, while a maximum of 20 people shall be employed at the Visy Pak plant. The car parking proposed on site reflects the number of employees at the facility.

Proposed hours of operation are 24 hours per day, 7 days a week, and reflect the nature of the YEA where some industries are required to operate at all hours of the day.

A key component of the development consists of 'bringing forward' the provision of services to the site as a result of any Development Permit. It is proposed reticulated water and sewerage be connected to the site from its current location east of the development. This is currently the subject of a Services Report under preparation by the Applicant, which shall be forwarded to Council for consideration upon completion. However, Council have also given written consent to the collection, treatment and disposal of water and sewerage on site, a copy of which is provided as an appendix to this report.

Extensive on site landscaping is proposed for a variety of functions, including enhancing visual amenity and streetscape, buffering, stormwater bio-retention and communal open space for employee relaxation.



Primary site access is gained via an existing driveway crossover connecting the site to Stapylton-Jacobs Well Road, with secondary access available via Quinns Hill Road East. In the case of secondary access, the appropriate path is for vehicles to access the site from the east via Woolshed Road, as Quinns Hill Road East, west of the site to Stapylton-Jacobs Well Road is currently unsealed.

The application is subject to Impact assessment, given an Industry is listed as requiring Impact assessment in the Table of Development for Precinct 4 of the YEA LAP.

2.2 Environmentally Relevant Activity

A Development Permit is also sought for ERA 26 (Metal Forming), which will be required for Stage 2 of the proposal (Visy Pak).

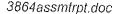
Given metal products (such as aluminium) will need to be shaped, pressed or rolled to form metal containers (and other products), ERA 26 is triggered.

Management of on site and off site impacts involving this particular ERA will be similar to those that Visy Industries employ at its other facilities, including that at Carole Park in Brisbane's south west (which is at capacity).

The activity does not involve ERA 49 (pulp or paper manufacturing) as the proposed activity fabricates secondary products from imported paper rolls in a similar manner to Visy Industries' current operations at Carole Park. Advice from the Environmental Protection Agency was received in 2002 with regard to the above, and is attached as an appendix to this report.

A Helipad is shown in the south eastern corner of the site, adjacent to the driveway connecting with Quinns Hill Road East. This shall be the subject of a separate development application.

The ERA is subject to Code assessment pursuant to Schedule 1, Part 3, Table 2, Item 1 of the *Integrated Planning Regulation 1998*. However, the higher level of assessment applies in this instance due to the Industry requiring Impact assessment.





3.0 SITE HISTORY

3.1 Current Use of the Subject Land

The current use of the site is in two components, as shown on the Site Analysis Plan:

- The southern part of the site (adjacent to Quinns Hill Road East) is vacant; and
- The northern part of the site is occupied by various industrial uses, including Atco Structures (hire of portable buildings), Complant Hire (commercial plant and equipment hire) and other uses. The proposed staging as discussed in section 8.2 of the report allows the uses in the northern part of the site to continue operating in the short term, until such time as demand for Visy Pak requires implantation of that use.

Some buildings shall be retained through development of the site, while others will need to be relocated or demolished. These buildings are colour-coded on the Site Analysis Plan.

3.2 Previous Approvals, Permits and Refusals

To the best knowledge of the Applicant, the only previous approvals and permits issued for uses operating on the site would pertain to those uses currently on site.



4.0 SITE ANALYSIS

4.1 Topography / Slope / Views

A Contour/Detail survey has been undertaken over the entire site, and is attached as an appendix to this report. It indicates the majority of the land is flat, particularly the southern portion of the site where Stage 1 of the development shall take place. Localised high points are generally at the south western and north eastern corners of the lot (see green star on Site Analysis Plan, along with Overburden Stockpile on the eastern side of the site which shall be removed.

The land is lower in the centre of the site, north of the Atco temporary buildings, indicated by the blue stars and comments on the Site Analysis Plan.

Land to the north, east and south of the site is generally flat or at gentle grades, whilst land to the west is higher due to its proximity to the range encompassing Mt Stapylton.

Slopes on the site should not present a significant constraint to building or operational works, however due to the scale and magnitude of the proposal, some earthworks will obviously be required in order to facilitate a suitable building pad for industrial development.

Views to and from the site are constrained approaching the site from the east along Quinns Hill Road East due to vegetation cover on Lots 10 and 11 on RP184230. However the land is clear in the south eastern corner (refer Site Photos) allowing for sea breezes to naturally penetrate the site. Views approaching the site from the east along Stapylton-Jacobs Well Road are also constrained because of the current road alignment. Views to the site from the west are more apparent and available due to the higher topography to the west of the site as noted above.

4.2 Existing Significant Vegetation

An assessment of existing vegetation communities has been undertaken within the Landscape Site Analysis & Concepts. However, the majority of the site has been cleared as shown on the Site Photos.

An inspection of the latest EPA Regional Ecosystem map indicates the site is not included within the:

- Remnant Endangered Regional Ecosystem; or
- Remnant Of Concern Regional Ecosystem.

A small area of Remnant Not of Concern Regional Ecosystem is located on the eastern part of the site as shown on the Site Analysis Plan (overlaid from Department mapping). Comment on this vegetation is contained in section 5.4 of this report, along with the Landscape Site Analysis & Concepts that documents existing vegetation on the subject land.



4.3 Surrounding Land Uses

Surrounding land uses are noted on the Site Analysis Plan. The closest dwellings are located approximately 200 metres to the south of the site on Quinns Hill Road East. Building design, orientation and placement of external activities (such as heavy vehicle loading and manoeuvring) should reduce potential impacts of the use upon nearby dwellings.



5.0 INTEGRATED PLANNING ACT 1997

5.1 Matters to be Considered

Section 3.5.5 of the *Integrated Planning Act 1997* specifies those matters that must be addressed as part of any Impact assessable application.

We consider the information contained in this report to be adequate to enable a decision to be made on the application.

5.2 Public Notification

Given the application is subject to Impact assessment, but does not require Referral Coordination, the application shall undergo Public Notification for a period of fifteen (15) business days upon response to all applicable Information Requests.

5.3 Referral Coordination Triggers

The proposal does not trigger Referral Coordination, as the proposal does not involve three or more concurrence agencies, or is not for or involves a facility or area prescribed in Schedule 7 or 8 of the *Integrated Planning Regulation 1998*.

5.4 Referral Agency Triggers

The application triggers referral to the Department of Main Roads for state-controlled road matters.

Assessment of the Environmentally Relevant Activity is devolved to Council.

Whilst the Site Analysis Plan indicates a small portion of DNR&M Remnant Not Of Concern Regional Ecosystem on the eastern part of the site (near the Overburden Stockpile), we believe referral to the Department is not required in this instance, as the existing use of the land is for industrial purposes, and not a rural or environmental use as stated in Schedule 2, Table 3, Item 11 of the *Integrated Planning Regulation* 1998.

5.5 Contaminated Land

A search of the Environmental Management Register and Contaminated Land Register revealed the site is not included on either register. A copy of this search is included as an appendix to this report.



6.0 STATE PLANNING POLICIES & SEQ PLAN

6.1 State Planning Policies Relevant to the Application

6.1.1 Gazetted State Planning Policies

One State Planning Policy is technically relevant to the application, being State Planning Policy 1/92 – Development and the Conservation of Agricultural Land. This has been considered as Overlay Map OM2 includes part of the northern portion of the site within the Good Quality Agricultural Land (GQAL) designation, where industrial activity currently takes place.

The designation of GQAL on the Overlay Map is an isolated area that does not have any association with adjoining GQAL or other development, nor the nearby cane fields to the east.

Given the development that has already taken place on the northern part of the site, a return to agricultural practices on the site is unlikely to result in the highest and best use of the land, as recognised in section 4.4 of the State Planning Policy which we consider relevant to the application.

There are no off site impacts of this development that would jeopardise any nearby GQAL.

We therefore conclude the development complies with the intent of the State Planning Policy.

6.1.2 Draft State Planning Policies

The Draft State Planning Policy for the Protection of Extractive Resources is applicable to the application, given the north western part of the site is located within the Separation Area and thus the boundary of the Stapylton Key Resource Area (KRA 69) as shown on the Site Analysis Plan.

The development does not incorporate any sensitive land uses that have the potential to become impacted upon through operation of the Stapylton KRA. Further, the development footprint of the proposal is located entirely outside the Separation Area in comparison of the Site Analysis Plan and Site Plan.

As the development does not increase the material effect on the amenity of employees working on the premises, it is considered the development achieves the policy outcomes stated in Part 5 of the draft State Planning Policy.

6.2 South East Queensland Regional Plan

6.2.1 Relevance of Assessment Provisions

The provisions of the SEQ Regional Plan do not change the level of assessment or require the referral of the application to the Office of Urban Management, given the site is located within the Urban Footprint designation of the Regional Plan.



6.2.2 Intent of South East Queensland Regional Plan

The site is contained within the Yatala industrial centre shown on Map 11 of the Regional Plan that illustrates centres of economic activity. The principle of this strategy includes the maximisation of "job creation and employment diversity in centres of economic activity, including regional activity centres, major industrial areas, mixed-use developments and knowledge precincts". The development encourages employment growth within the eastern Yatala/Stapylton area, both directly within the construction and operation of the development, and areas surrounding the site due to infrastructure being available to the locality. The development's promotion of economic and employment activity should result in the development being complementary to the intent of the Regional Plan.



7.0 PLANNING ASSESSMENT

7.1 Yatala Enterprise Area Local Area Plan

7.1.1 Intent of Local Area Plan and Precinct

The site is located within the YEA LAP. Council's intent for the area includes the promotion of "orderly economic development of the YEA as a major industrial employment district for both the Gold Coast City and the South East Queensland region".

The proposed Visy Board and Visy Pak facility will provide a major boost to economic development in the eastern Yatala/Stapylton area in the vicinity of Quinns Hill Road East and Rotary Park Road, given its ability to provide employment benefits both during construction and operation of the facility. The extension of infrastructure to the site, out of sequence is envisaged and supported in the LAP and thus the development complies with the intent of the LAP.

Precinct 4 of the LAP includes the subject land. Council's intent for this part of the Precinct encompasses the expectation the site will develop upon a similar manner evident in Precinct 1 (General Impact Business and Industry) of the LAP. As the development brings forward the existing infrastructure, west of the site to the subject land, the development is consistent with the aim of Precinct 4 that envisages the land be developed for industrial activity.

Precinct 1 of the LAP encourages general industrial uses of a production, manufacturing, construction or distribution nature, designed to support the growth of the YEA. The Precinct is expected to accommodate industry of regional or state significance, whilst being of an attractive design to encourage other business to establish within the area.

The plant is designed to support Visy Board's current facility at Carole Park, currently producing the largest amount of outputs in Visy Industries' plants around Australia. Continued growth within South East Queensland and the state in general will consolidate Visy Industries' position within Queensland as a significant supplier of manufactured corrugated boxes and packaging for food and beverage products.

Architectural design is intended to be practical for the needs of industrial development, whilst incorporating a number of elements to reduce the mass of the building and enhance streetscape character.

Therefore, the land complies with the intent of Precinct 4 of the LAP, and is consistent with the requirements expected for Precinct 1 of the LAP, its ultimate Precinct.

7.1.2 Desired Environmental Outcomes

Four Desired Environmental Outcomes (DEOs) are listed in the LAP. A brief comment on each DEO with regard to the proposal is contained below:

"DEO 3.1 The development of the YEA as an integrated employment area, including the establishment of industrial and business development, having particular regard to:



- a) regional population growth within the Brisbane/Gold Coast City corridor;
- b) the availability of a regionally significant extractive industry resource in the Luscombe Hill area:
- c) emerging environmental industries related to recycling with a focus on Council's landfill and recycling centre at Stapylton;
- d) the servicing needs of boat building and other marine industries in the northern Gold Coast City region; and
- e) tourism support industry needs (refer to DEO Econ. 1)."

Comment – The development supports the growth currently being experienced within the Brisbane/Gold Coast City corridor, through the provision of over 80 jobs during operation and approximately 180 jobs during construction. The provision of infrastructure to the site will enable other industries to locate within the eastern YEA, and further sustain growth within the area.

The site's proximity to the Stapylton landfill also may create a unique opportunity to create a synergy between the development and Council's landfill site, enhanced by the ability and intention of products made on site to be recyclable. It may also encourage similar and support uses to co-locate around the site.

The development respects the site's proximity to a number of extractive industries near the site, both in terms of uses proposed on the subject land, and preservation of haul routes required for extractive industry.

"DEO 3.2 Establishment of a highly desirable industrial/business environment, featuring a range of locational opportunities with ancillary facilities and services which will facilitate the activities of business (refer to DEO Econ.3)."

Comment – The lack of infrastructure around the site has restricted growth to an extent around the site. Provision of infrastructure should encourage support services and facilities to complement the Applicant's development along with others.

It is the Applicant's intention that this development will be a desirable place of employment for appropriately skilled workers, along similar lines to other plants operated by the Applicant.

"DEO 3.3 A planned land use and transport system that enables the efficient movement of people and goods within the YEA and provides for integration with existing and future transport systems operating in the region (refer to DEOs Econ.6 and Soc.6)."

Comment – Direct site connections are available using both arterial and collector roads, added to the fact that the site is located in close proximity to the Pacific Motorway. This will facilitate efficient movement of products both to and from the site.

"DEO 3.4 The sustainable management of the regionally significant extractive resources of the northern Darlington Range and Stapylton areas (refer to DEO Econ.5)."

Comment – The development supports the continued operation of the extractive industry areas near the site and is unlikely to jeopardise their operation as discussed in section 6.1.2 of this report.



We therefore believe compliance with the YEA DEOs is achieved through development of the site in a sustainable manner.

7.1.3 Place Code

The YEA LAP Place Code is applicable to Impact assessable development involving a Material Change of Use.

The proposal generally complies in full with the Acceptable Solutions in the Code, and is outlined in Table 1 below:

Ballolmanea		Comment
் தோங்க் PC1	AS PG, N/A):	Plans of development provided indicate the building is a maximum of two storeys, complying with AS1.1.
PC2 PC3	N/A AS	No dwellings proposed as part of this application. Site coverage is approximately 12.5% with reference to the Site Plan and Council's definition of site coverage. This includes both the proposed buildings, and buildings to be retained as shown on the Site Analysis Plan. This complies with the maximum of 70% and thus AS3.1. AS3.2 does not apply as the land is not located within Precincts 5 or 6.
PC4	AS	The new buildings are eight metres in height, and are setback at least 40 metres from the Quinns Hill Road East frontage, complying with the minimum of 15 metres specified in AS4.2. Side boundaries are setback a sufficient distance from both boundaries to ensure compliance with AS4.3.
PC5	AS	All vehicular crossings shall be constructed in accordance with Council's Standard Drawing 03-02-301, and this can be added as a condition of development approval to comply with AS5.
PC6	AS	Plans of development provided indicate the building is a maximum of two storeys, complying with AS6.
PC7	PC (no AS prescribed)	The staged format of the proposal allows uses currently within the northern part of the site to continue operating, until such time as the demand for Visy Pak requires implementation of that facility. The Visy Board building is sited on a generally flat area as demonstrated on the Site Analysis Plan, and is designed and sited to complement the industrial character on site and the surrounding area. The Site Analysis Plan notes some dwellings are located to the south of the site on Quinns Hill Road East. It is proposed these lots shall be the location of the relocated Atco premises currently operating on site (through a separate

|--|

Performance Griteria	Complies wi (AS, PC, N/A); Comment
PC8	PC (no A	development application). As the site is currently used for industrial activity, we believe compliance with PC7 is achieved. Spublic access areas for both Visy Board and Visy Pak are at the eastern end of the buildings, separate to servicing areas which are located at the northern part of each building.
PC9	PC (no Aprescribed)	Service areas are screened from Quinns Hill Road East through position of the building. Views from Stapylton-Jacobs Well Road (near location of the site entry) will also be screened due to the existing buildings on site. The Site Analysis Plan identifies views to the site from Stapylton-Jacobs Well Road travelling east. Views in this instance shall be screened using landscaping along the side boundaries (refer Landscape Site Analysis & Concepts for further details). Given the mass of the building, it is appropriate for both structures to be set back from both street frontages in order to reduce their visual dominance from the street. This has occurred in both instances. Both buildings shall be provided with high quality finishes, colours and materials to complement a contemporary industrial design. These factors should ensure compliance with PC9.
PC10	AS	The shape of the building is regular as shown on the Site Plan, allowing for internal or external expansion if needed. Indeed, Visy Board is configured in two stages and thus has allowed for flexibility in its design, complying with AS10.1. Any internal columns shall be generously spaced to comply with AS10.2.
PC11	AS	Both buildings are oriented towards the east in order to take advantage of site microclimate conditions, with minimal activities provided on the western side of the building (AS11.1). The buildings shall be air conditioned, therefore AS11.2 does not apply. The Part Site Plan and the Landscape Site Analysis & Concepts indicates that trees are planted along the western side of the site, adjacent to the access driveway, protecting the western façade (AS11.3). Shading devices and other energy-efficient principles shall be incorporated into the building where possible (AS11.4). Semi-enclosed work areas shall be suitably ventilated to ensure a high standard of working condition for employees and where possible, located in the cooler parts of the building,

(...)



Pariomanga Orkark	Compiles with (AS, PC, NA):	complying with AS11.5.
PC12	PC	While the proposed buildings are larger in mass and proportion than that of adjoining buildings, they are consistent with the ultimate Precinct expected in the area (Precinct 1 for General Impact Business and Industry). The Elevations indicate a high standard of building design has been incorporated into the development. It is difficult to comply with the Acceptable Solutions due to a lack of buildings near the site, however the standard of design proposed on the site should enhance the YEA character and ensure compliance with PC12.
PC13	AS	It can be conditioned that glass installed can comply with the relevant reflectivity requirements. The Elevations show the glass area is less than 60% of the total external wall.
PC14	AS	Refer to the Landscape Site Analysis & Concepts.
PC15	N/A	The development is not located adjacent to, or visible from the Gold Coast Railway or Pacific Motorway.
PC16	N/A	The development is not located adjacent to, or visible from the Gold Coast Railway or Pacific Motorway.
PC17	N/A	No signage is proposed as part of this application — this shall be the subject of a separate Operational Works application. Elevations and other drawings provide an indication only of the proposed signage as per Visy Industries' current arrangements in other plants around Australia. An indication of sign design is shown on the Signage Concept.
PC18	N/A	The land is not identified as Conservation on the relevant LAP Map, nor located adjacent to a Conservation Area, therefore AS18.1, AS18.4, AS18.5 and AS18.6 do not apply. The site is not the subject of a reserved Conservation Area, therefore AS18.2 does not apply. The development is located a sufficient distance away from the Albert River, Sandy Creek and Halfway Creek, therefore AS18.3 does not apply.
PC19	N/A	The land is not identified as Other Open Space on the relevant LAP Map, therefore PC19 does not apply.
PC20	AS	A Landscape Site Analysis & Concepts has been prepared to document any significant ecological site features, and recommend any rehabilitation procedures.
PC21	N/A	The development is located a sufficient distance away from the Albert River, Sandy Creek and



Performance Oriteria	Complies with (AS, PC, N/A):	Comment
		Halfway Creek, therefore AS21 does not apply.
PC22	PC	Halfway Creek, therefore AS21 does not apply. Appendix E contains an itemisation of proposed landscaping. It is noted that 13% of the site is landscaped (below the minimum of 20%), however the following should be noted in order to demonstrate compliance with the performance criteria: Landscaping is of high quality and serves a variety of purposes, including buffering, screening, enhancing visual amenity, and ecological sustainability (that is, stormwater bio retention) increasing the effectiveness of the landscaping; External areas are provided on site for employee relaxation, enhancing the useability of the space; A generous landscaped buffer is provided along each street frontage and side boundary to screen view, meaning buffers are capable of deep planting; Shade trees are provided within to the car park, providing visual and solar relief; and The landscape character of the locality can be maintained through the proposed landscape provision as opposed to 20% that would detract from the primary function of the
		Yatala area. It should be noted a future Planning Scheme amendment deletes the need to provide at least 20% of landscaping on site, and this has been incorporated into assessment of other development applications. These factors should ensure the development makes a positive contribution to the streetscapes
		and comply with PC22.
PC23	AS	The Landscape Site Analysis & Concepts indicates buffers have been introduced in appropriate locations to enhance visual amenity and manage any potential off-site impacts.
PC24	AS	The Landscape Site Analysis & Concepts illustrates the development makes a positive contribution to streetscape appearance and character through planting, paving and other landscaping.
PC25		The imposition of any reasonable contributions for public open space enhancement is expected as a result of this development.
PC26		On site landscaping shall retain the natural vista to Mt Stapylton from proposed on site open space areas, complying with AS26.1. Landscape design shall complement and integrate with the surrounding locality as noted

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Performati Criteria		GOIIIIIIEIII	and the state of t
		on the Landscape Site Analysis & Concepts (AS26.2). Details of planting themes are detailed within the Landscape Site Analysis & Concepts (AS26.3).	Corr.
PC27	AS	Open space areas are strategically located to allow passive surveillance both into and out of the space (such as near building entrances, driveways and road frontages), complying with AS27.	
PC28	AS	Details of planting within the car park are contained within the Landscape Site Analysis & Concepts.	1
PC29	N/A	No subdivision proposed as part of this application.	NLA
PC30	N/A	No subdivision proposed as part of this application.	NA
PC31	N/A	No subdivision proposed as part of this application.	Alu
PC32	N/A	No subdivision proposed as part of this application.	NA
PC33	N/A	No subdivision proposed as part of this application.	NK
PC34	N/A	No subdivision proposed as part of this application.	N/A
PC35	N/A	No additional roads are proposed as part of the application, therefore AS35.1, AS35.2 and AS35.3 do not apply.	MP
PC36	N/A	No additional roads are proposed as part of this application, therefore AS36.1, AS36.2, AS36.3, AS36.4, AS36.5, AS36.6, AS36.7 and AS36.8 do not apply.	NA
PC37	N/A	No additional roads are proposed as part of this application, therefore AS37.1 and AS37.2 do not apply.	NÍA
PC38	AS	No footpaths are located within the verge of either Stapylton-Jacobs Well Road or Quinns Hill Road East, and therefore new footpaths may be required (AS38.1).	Cod
		The construction of footpaths is anticipated as a result of any Development Permit (AS38.2). The site is not located adjacent to a major open space corridor, nor identified on Planning Scheme Policy 19 as requiring a cycle path, therefore AS38.3 does not apply.	<u>/</u>
		All footpaths designed and constructed within the verge shall be in accordance with Council standards (AS38.4).	
		Reasonable signage and lighting can be provided to delineate pedestrian areas where necessary to comply with AS38.5.	المرك
		The Part Site Plan illustrates the development provides staff amenities and facilities, such as	- John State of the State of th

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	Gomphes with (AS, PC, NA):	Comment
		showers, lunch rooms and locker areas, complying with AS38.6.
PC39	N/A	No additional roads are proposed as part of this application, therefore AS39.1 and AS39.2 do not apply.
PC40	AS	Refer to the Traffic Impact Assessment.
PC41	AS	It would be desirable for pavement to incorporate decorative hardscape landscaping, however the reality of industrial development dictates a more durable material (such as concrete) should be used for vehicle driveway crossovers. Softscape landscaping shall be utilised to distinguish driveway entries as shown on the Landscape Site Analysis & Concepts.
PC42	AS	Sealed pedestrian paths can be provided from access-impaired car parks to building entrances where necessary, and can be conditioned to comply with relevant standards and be separated from vehicular driveways.
PC43	PC (no AS prescribed)	Refer to section 8.3 and 8.4 of this report dealing with hours of operation and noise impact provisions. Refer to the Traffic Impact Assessment dealing with the impact of traffic upon amenity. All lighting shall be suitably designed, placed and directed in such a manner as to: Maximise personal security on site (important given the development will operate over a 24 hour period); Allow efficient operation of activities during night time hours; and Minimise spillage of light upon adjoining properties. Signage shall be the subject of a separate Operational Works application. Signage concepts are contained as an appendix to this report, and are designed to be attractive and inform employees and visitors. Visual amenity provisions are discussed elsewhere in this report. Given a lack of sensitive land uses (eg. Residential dwellings) adjacent the site, the use is unlikely to result in adverse privacy impacts. All odours and emissions shall be in accordance with relevant environmental requirements of Council and the Environmental Protection Agency.
PC44	PC (no AS prescribed)	Refer to section 8.3 and 8.4 of this report dealing with hours of operation and noise impact provisions. Refer to the Traffic Impact Assessment dealing with the impact of traffic upon amenity.

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Performano Gritteria	ce Compiles wi (AS, PC, N/A)k
		All lighting shall be suitably designed, placed and directed in such a manner as to:
		Maximise personal security on site (important)
		given the development will operate over a 24
ĺ		hour period);
		 Allow efficient operation of activities during
		night time hours; and
		Minimise spillage of light upon adjoining
		properties.
		Signage shall be the subject of a separate
		Operational Works application. Signage
		concepts are contained as an appendix to this
		report, and are designed to be attractive and
		inform employees and visitors.
		Visual amenity provisions are discussed
1		elsewhere in this report.
		Given a lack of sensitive land uses (eg.
		Residential dwellings) adjacent the site, the use
©±2%		is unlikely to result in adverse privacy impacts. All odours and emissions shall be in accordance
		with relevant environmental requirements of
		Council and the Environmental Protection
		Agency.
PC45	N/A	The land is not located adjacent to an agricultural
		area, therefore AS45 does not apply.
PC46	N/A	No extractive industry proposed as part of this
		application.
PC47	AS	Site layout is designed to allow all vehicles to
Ì		enter and exit in a forward gear, complying with
}		AS47.1.
		All driveway widths shall comply with relevant Council Standard Drawings to enable compliance
		with AS47.2.
PC48	PC	The Traffic Impact Assessment provides
		justification as to the proposed car parking supply
		on the site, in order to comply with PC48.
PC49	AS	Car parking is provided at the side of the site,
		behind an extensively landscaped buffer,
		complying with AS49.1.
		No car parking is proposed adjacent to either
		street frontage, therefore AS49.2 does not apply
		Disabled car parking spaces are located close to
		the front entry as shown on the Part Site Plan,
	1	whilst it is also reasonable to condition any short
		term parking be within close proximity to the
		building entry to comply with AS49.3. Driveways and car parking areas are not
		constructed to property boundaries, therefore
		AS49.4 does not apply.
PC50	AS	Loading areas shall be located at the rear of
		,
PC51		buildings as shown on the Site Plan.

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Plarformance Griteria	Complies with (AS, PC, N/A):	Comment
		provided to comply with AS51.1.
PC52	AS	All necessary services shall be supplied to the site as required. For further information, refer to the response to the Works for Infrastructure Code.
PC53	AS	Refer to the Traffic Impact Assessment.
PC54	N/A	No cycleways proposed as part of this application as no subdivision is proposed.
PC55	AS	Public toilets are provided within the Office & Amenity area as shown on the Part Site Plan, and shall be accessible to visitors during normal hours of operation to comply with AS55.

Table 1 - Compliance with YEA LAP Place Code

7.2 Specific Development Codes

A Material Change of Use development application in this location is subject to 19 Specific Development Codes as stated in the Planning Scheme. Due to the size and nature of the proposal, 18 of these Codes are not applicable to the development, as outlined in Table 2 below:

Specific Development Gode	Comment
Aged Persons	Aged Persons Accommodation, as defined in the Planning
Accommodation	Scheme, is not proposed as part of this application.
Caretaker's	A Caretaker's Residence, as defined in the Planning
Residence	Scheme, is not proposed as part of this application.
Child Care Centres	A Child Care Centre, as defined in the Planning Scheme,
	is not proposed as part of this application.
Detached Dwellings	A Detached Dwelling, as defined in the Planning Scheme,
	is not proposed as part of this application.
Display Homes and	A Display Home, or Estate Sales Office, as defined in the
Estate Sales Offices	Planning Scheme, is not proposed as part of this
	application.
Ecotourism Facility	An Ecotourism Facility, as defined in the Planning
	Scheme, is not proposed as part of this application.
Farm Forestry	Farm Forestry, as defined in the Planning Scheme, is not
	proposed as part of this application.
Kennels	A Kennel, as defined in the Planning Scheme, is not
	proposed as part of this application.
Landscape Work	Landscape work, as defined in the Planning Scheme, is
	not proposed as part of this application. However an
	Operational Works approval for landscaping will be
	required subsequent to this application (including a
	Detailed Landscaping Plan). A Landscape Site Analysis &
	Concepts are included as part of this application.
Low Rise	A motel, residential hotel, resort hotel, serviced apartment
Commercial Tourist	or hostel accommodation, as defined in the Planning
Accommodation	Scheme, are not proposed as part of this application.
Office	An Office, as defined in the Planning Scheme, is not





Specific Development Gode	Comment
Private Recreation	proposed as part of this application. Private recreation, as defined in the Planning Scheme, is not proposed as part of this application.
Retail and Related Establishments	A Shop, Shopping Centre Development, Take-away Food Premises, Fast Food Premises, Convenience Shop, Showroom, Tourist Shop, Café, Restaurant or Service Industry, as defined in the Planning Scheme, are not proposed as part of this application.
Rural Industry	A Rural Industry, as defined in the Planning Scheme, is not proposed as part of this application.
Salvage Yards	A Salvage Yard, as defined in the Planning Scheme, is not proposed as part of this application.
Service Stations	A Service Station, as defined in the Planning Scheme, is not proposed as part of this application.
Telecommunications Facilities	A Telecommunication Facility, as defined in the Planning Scheme, is not proposed as part of this application.
Vegetation	The application does not involve Operational Work
Management	involving vegetation clearing.
Working-from Home	A Home Office or Home Occupation, as defined in the Planning Scheme, is not proposed as part of this application.

Table 2 - Compliance of proposal with Specific Development Codes

The Works for Infrastructure Code is applicable to the application, compliance of which is contained in Table 3 below.

7.2.1 Works for Infrastructure Code

It should be noted a Services Report is currently under preparation by the Applicant, and this shall be forwarded to Council upon completion.

Criteria	Complies with (AS, PC, N/A):	Comment
PC1	N/A	No road design or construction proposed, however if any upgrades are required, they shall be conducted in accordance with relevant
		Council requirements,
PC2	AS	Refer to the Visy Project – Lot 2 on RP163654, Stapylton – Stormwater Quality Management Strategy.
PC3	AS	Street lighting can be installed if required, and designed to comply with Council standards.
PC4	AS	Water supply reticulation shall be connected to the site, through an extension of the Council infrastructure to the west. This is the subject of a Services Report that shall be forwarded to Council upon completion.
PC5	AS	Sewerage reticulation shall be connected to the site, through an extension of the Council infrastructure to the west. This is the subject of a Services Report that shall be forwarded to

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Performance Criteria	Complies with (AS, PC, N/A):	Comment	
		Council upon completion. 🦂]
PC6	N/A	No public open space areas proposed as part of this application.	$\int \Lambda$
PC7	AS	Car parking and associated manoeuvring areas shall be designed to comply with Planning Scheme Policy 11.	ري [
PC8	AS	Driveways and crossovers shall be designed to comply with Planning Scheme Policy 11.	
PC9	AS	The imposition of reasonable infrastructure contributions is expected as conditions of any Development Permit.	
PC:10	N/A	The site is located external to the area identified on Overlay Map OM25.	M
PC11	N/A	The site is located external to the area identified on Overlay Map OM25.	N

Table 3 - Compliance with Works for Infrastructure Code

7.3 Constraint Codes

Some of the Constraint Codes stated in the Planning Scheme are not applicable for this type of development. The reasons for this are provided in Table 4 below.

Constraint Code	Comment
Bushfire	The site is generally clear of vegetation as noted in Section
Management Areas	4, however the Overlay Map indicates small pockets of low
	to medium potential bushfire risk irregularly placed around
	15% of the site perimeter. The site is virtually flat and a
	driveway along the eastern boundary serves as an artificial
	fire break from denser vegetation to the east. Further, an
	extensive revegetation strategy is proposed and thus the risk of bushfire should be capable of being managed in
	accordance with Council and local fire brigade requirements.
Canals and	The proposal is not located adjacent to any canals or
Waterways	waterways shown on Overlay Map OM13 - Building Setback
	Line from Canals and Waterways.
Cultural Heritage	The development is not located on, or adjacent to, any site
(Historic)	listed in the:
	Queensland Heritage Register;
	Register of the National Estate;
	National Trust of Queensland; or
	 Any places of local heritage significance adopted in a
Cultural Heritage	LAP.
Cultural Heritage (Indigenous)	No characteristics of Indigenous Cultural Heritage
Rail Corridor	significance exist on the site. The site is more than 100 metres from a railway corridor and
Environs	is not a noise-sensitive use as defined in the Planning
	Scheme.
Road Traffic Noise	The site is located adjacent to an existing State-controlled
Management	road and haulage route, however the proposed use is not a
	'noise sensitive use' as defined in the Planning Scheme.



Performance Officia	Complies with (AS, PC, N/A):	Comment	
		Council upon completion. 🦂	,
PC6	N/A	No public open space areas proposed as part of this application.] N(A
PC7	AS	Car parking and associated manoeuvring areas shall be designed to comply with Planning Scheme Policy 11.	
PC8	AS	Driveways and crossovers shall be designed to comply with Planning Scheme Policy 11.	
PC9	AS	The imposition of reasonable infrastructure contributions is expected as conditions of any Development Permit.	
PC10	N/A	The site is located external to the area identified on Overlay Map OM25.	NA
PC11	N/A	The site is located external to the area identified on Overlay Map OM25.	1/1

Table 3 - Compliance with Works for Infrastructure Code

7.3 Constraint Codes

Some of the Constraint Codes stated in the Planning Scheme are not applicable for this type of development. The reasons for this are provided in Table 4 below.

Constraint Coole	Comment
Bushfire	The site is generally clear of vegetation as noted in Section
Management Areas	4, however the Overlay Map indicates small pockets of low
	to medium potential bushfire risk irregularly placed around
	15% of the site perimeter. The site is virtually flat and a
	driveway along the eastern boundary serves as an artificial
	fire break from denser vegetation to the east. Further, an extensive revegetation strategy is proposed and thus the
	risk of bushfire should be capable of being managed in
	accordance with Council and local fire brigade requirements.
Canals and	The proposal is not located adjacent to any canals or
Waterways	waterways shown on Overlay Map OM13 – Building Setback
	Line from Canals and Waterways.
Cultural Heritage	The development is not located on, or adjacent to, any site
(Historic)	listed in the:
	 Queensland Heritage Register;
	Register of the National Estate;
	 National Trust of Queensland; or
	 Any places of local heritage significance adopted in a LAP.
Cultural Heritage	No characteristics of Indigenous Cultural Heritage
(Indigenous)	significance exist on the site.
Rail Corridor	The site is more than 100 metres from a railway corridor and
Environs	is not a noise-sensitive use as defined in the Planning
F) 1 7' - 60' - 5 1 '	Scheme.
Road Traffic Noise	The site is located adjacent to an existing State-controlled
Management	road and haulage route, however the proposed use is not a
<u> </u>	'noise sensitive use' as defined in the Planning Scheme.



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Service Roads	The site is not adjacent to, or has access to any service
(Pacific Motorway)	roads of the Pacific Motorway.
Steep Slopes or Unstable Soils	The Code is not applicable to the application as the site is located in an area designated as being of 'very low risk of instability' on the relevant Planning Scheme Overlay Map. A Geotechnical Investigation has been prepared to further document any significant constraints from a slope or soil perspective.
Unsewered Land	The site is located in an area where reticulated sewerage shall be connected to the site.

Table 4 - Compliance of proposal with Constraint Codes

The following Constraint Codes are applicable to the application:

- Car Parking, Access and Transport Integration;
- Flood Affected Areas;
- Natural Wetland Areas and Natural Waterways;
- Nature Conservation; and
- Sediment and Erosion Control.

Responses to each applicable Code are contained below.

7.3.1 Car Parking, Access and Transport Integration Code

Performance Criteria	Commont
PC1-PC24	Refer to the appendix of the Traffic Impact Assessment.

Table 5 - Compliance with Car Parking, Access and Transport Integration Code

7.3.2 Flood Affected Areas Code

Penionnemee	
Criterla	Comment
PC1-PC14	Refer to the Visy Project, Stapylton – Flood investigation.

Table 6 - Compliance with Flood Affected Areas Code

7.3.3 Natural Wetland Areas and Natural Waterways Code

	Complies with (AS, PC, N/A):	Comment
PC1-PC5	AS	Refer to the Landscape Site Analysis & Concepts.
PC6	AS	Refer to the Visy Project, Stapylton – Flood investigation.
PC7	N/A	All waste water shall be disposed of utilising Council infrastructure that shall be extended to



Pedomanee Gilleda	Complies with (AS, PC, MA):	Comment
		the site.
PC8	AS	Refer to the Landscape Site Analysis & Concepts.
PC9-PC10	N/A	No ecological corridors required.
PC11	AS	No vehicular crossings cross any ecologically sensitive areas.

Table 7 - Compliance with Natural Wetland Areas and Natural Waterways Code

7.3.4 Nature Conservation Code

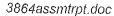
	Complies with (AS, PC, N/A):	
PC1	AS	Development does not occur within areas identified as Large Habitat Systems or Major Linkages shown on the relevant Overlay Map.
PC2-PC16	AS	Refer to the Landscape Site Analysis & Concepts.

Table 8 - Compliance with Nature Conservation Code

7.3.5 Sediment and Erosion Control Code

Periformance Critteria	Comment
PC1-PC3	Refer to the Visy Project - Lot 2 on RP163654, Stapylton -
	Stormwater Quality Management Strategy.

Table 9 - Compliance with Sediment and Erosion Control Code





8.0 ISSUES RELEVANT TO THE APPLICATION

8.1 Prelodgement Advice

No formal prelodgement meetings have been conducted with Council on the application. Written advice however has been received from Council (contained as an appendix to this report) on the provision of services to the site. Whilst it was initially envisaged on site collection, treatment and disposal of water and sewerage would result through the development, further refinement of the proposal has concluded that Council's water and sewer infrastructure shall be extended to the site. This is the subject of a Services Report, which is under preparation by the Applicant.

8.2 Timing of Project

The Applicant is ready to proceed with development as soon as Council and other authorities issue the necessary approvals. Given Visy Industries' current operations at Carole Park are at capacity, there is a clear need for the Applicant to establish on the site as soon as possible.

Staging has been incorporated into the development proposal as there is an immediate demand for Visy Board and its associated products. It also allows existing uses on the subject land (particularly those adjacent to Stapylton-Jacobs Well Road) to continue operating in the short term until such time as demand for Visy Pak is justified.

No variation to the statutory currency period as prescribed by the *Integrated Planning Act 1997* is requested.

8.3 Hours of Operation

For both Visy Board and Visy Pak, hours of operation are proposed to be 24 hours, 7 days. These hours are appropriate for a general industry as evidenced by other industrial development throughout Yatala that are required to operate at all hours of the day, and are consistent with the Regional Plan's requirements for enhancing economic productivity in industrial centres.

8.4 Acoustics

The site currently experiences a fair degree of ambient noise as shown on the Site Analysis Plan (mainly traffic and industrial activity). This would obviously increase through development of the locality, in turn increasing vehicular traffic using Stapylton-Jacobs Well Road.

Noise could also be generated from extraction activities at nearby quarries (such as blasting or sirens), however this was not encountered during site inspection.

Detached dwellings are located to the south and west of the site, and are generally of a rural residential nature. It is noted that all dwellings however are located on land designated (either in the existing Planning Scheme or superseded Planning Scheme) for future industry (Precinct 4). The closest dwellings are around 200 metres to the



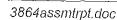
south west. It is likely these dwellings may no longer be used for permanent residential activity in the future, as the area evolves towards a general industrial precinct.

It is noted that external activities (such as loading and manoeuvring) will take place on the northern side of buildings, thus being screened from existing dwellings to the south of the site. Further, a lack of openings on the side of both buildings should result in potential noise emissions being contained within a solid structure, or directed away from a potential sensitive receiver. In each instance, this should significantly reduce the potential impact of acoustics upon nearby residences.

8.5 Waste Management

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Management of waste, both on site and during transportation, shall occur in a similar manner to Visy Industries' current practice at Carole Park. An example of this is contained in Appendix K of this report.





8.0 CONCLUSION / RECOMMENDATION

The Applicant, Visy Industries, is seeking to establish two industrial buildings, each of approximately 15000m² GFA on land at Stapylton-Jacobs Well Road, Stapylton (land described as Lot 2 on RP163654). The site also has direct vehicular access to Quinns Hill Road East. The application also involves an ERA for Metal Forming. Overall, the application is subject to Impact assessment and a Development Permit is requested. The land is located entirely within Precinct 4 (Future Industry) of the YEA LAP.

Relevant plans and technical reports have been prepared, to document the site and proposed uses.

The development involves two stages, encompassing Visy Board (manufacturing of corrugated boxes) in Stage 1, with Stage 2 being Visy Pak (manufacturing of food and beverage packaging containers).

The site is generally flat with gentle grades, and is vacant in part with industrial uses, predominantly hire firms, comprising the balance. A mixture of general industrial uses surround the site along with vacant land and some residential dwellings to the south on land designated for future industry.

The proposal is complimentary to relevant components of the South East Queensland Regional Plan, particularly issues relating to economic activity and centres.

The development complies and advances the intent of the YEA LAP, including the intent of the existing Precinct, ultimate Precinct, and DEOs for the LAP. It will create a number of employment opportunities during both construction and operation of the facility within a rapidly growing area.

We believe the proposed Industry and ERA should be approved, given:

- The development complies, generally in full with the LAP, including its intent and DEOs in full, along with the Place Code;
- The development will create a positive effect to the local economy and the City in general through investment in the eastern YEA, via infrastructure provision encouraging other industrial activity, along with job creation:
- The site is relatively unconstrained and ideal for large-scale industrial buildings proposed in this application; and
- A high standard of industrial design will apply to both buildings and landscaping on site, enhancing visual appearance given the site lies on a tourist route between the Pacific Motorway and Moreton Bay.

Based on the information contained in this report and supporting documentation, we anticipate Council issuing a Development Permit on the Material Change of Use, subject to any reasonable and relevant conditions.



APPENDIX A

IDAS Application Forms

Form 1 Parts A, D, G, Assessment Checklist

Form 1 Development Application

ldlas

Common details

The completion of <u>all applicable questions</u> on Part A is <u>mandatory</u> for all applications. Part A must be accompanied by the completed IDAS Assessment Checklist if required, and by one (1) or more other completed parts of the Form as required. For more information on the parts of the Form refer to <u>www.ipa.gkt.gov.au</u>.

Any information requested in the form may be provided in an attachment to the application. For further information about completing the following details, refer to <u>Guidle</u>:

Any information requested in the form may be	e provi	ded in an attachment to the application. For further information about completing the following details, refer to <u>Guide 1.</u>			
Description of land	1.	Street address: (including house number, street name, suburb/locality name & postcode) (if applicable)			
All land the subject of the epplication, must be identified. However, a description of the land is not		298 Stapylton-Jacobs Well Road, Stapylton			
required in relation to a mobile or temporary Environmentally Relevant Activity (ERA).	2.	Name of water body or watercourse, within which the development is proposed: (if epplicable)			
Advice for completing Q2 - Q2 applies if development is proposed within a water body or		N/A			
watecourse. Advice for completing Q3 - Most land can be	3.	Lot on plan description (eg. Lot 123 on RP 4567) / GPS coordinates:			
identified by a lot on plan description. These details can be obtained from title documents or through the		Lot 2 on RP163654			
local government	4.	The above description is for: (tick applicable box)			
However, if the land on which the development is proposed does <u>not</u> have a lot on plan description (i.e. the development is proposed in a water body or watercourse) provide –		 \(\) (i) the land on which the development is proposed; or \(\) the land adjoining the water body or watercourse, within which the development is proposed; or 			
the lot on plan description for the adjoining/adjacent land; or		(iii) the water body or watercourse.			
 GPS coordinates where there is no edjoining/adjacent land (eg. in Moreton Bay). 	5.	Shop / tenancy number: 6. Storey / level: 7. Total area of land: (m² of ha):			
Advice for completing Q7 - Q7 does not apply if the development is within a water body or watercourse.		N/A 38.069 ha			
Advice for completing Q8 - Q8 applies if development is within a local government area	8.	Local government area in which the land is situated: (eg. Est, Hervey Bay, Woocoo etc.) (if applicable)			
Note: Areas below high water mark are <u>not</u> within a local government's area unless provided for under the		Gold Coast City Council			
Local Government Act 1993. Advice for completing Q9 - Q9 applies if	9.	Port authority for the strategic port land or strategic port land tidal area on which the			
development is on strategic port land or a strategic port land tidal area. For more details refer to <u>Guide 11</u>		development is proposed (eg. Port of Brishene, Port of Townsville) (if applicable) N/A			
	<u> </u>				
Proposal details If there is insufficient room available, details may be	10.				
provided in an attachment to the application.	11.	Industrial purposes (refer report) Proposed use of the land: (eg. 6 unit apartment building, 30 lot residential subdivision, ERA for aquaculture in			
	' ' '	ponds with a total area of 7 ha for which wastes are released into waters etc).			
		Industry (proposed Visy Board and Visy Pak facility)			
Other applicable parts of Form 1	12.	Other parts of Form 1 completed as part of this application: (eg. Part D, Part I, etc)			
Part A must <u>always</u> be accompanied by other completed parts of Form 1. For information about		Part D, Part G, Assessment Checklist			
when a part of Form 1 may apply refer to Guide 1.	1				
Applicant details Clearly identify who is making the application. The	13.	Applicant's name: 15. Contact person: C/- Gassman Development			
applicant need <u>not</u> be the owner of the land. When signing and lodging this application	11	Visy Industries C/- Gassman Development Contact number: Perspectives Pty Ltd (David			
The applicant is responsible for ensuring the	14.	3807 3333 (Kretchmann)			
information provided is correct. The assessment manager, any referral agency & the Chief Executive (where applicable) will rely on this information when		16. Facsimile number/e-mail address			
assessing and deciding the application	4=				
If the applicant is a company - a contact person must be shown	17.	Postal address: PO Box 392, Beenleigh QLD 4207			
	40				
	10.	Signature: 19. Date			
		See attached list			

Land ewner's consent (if empicatile)	20.	Land owner's consent to the making of this applicat	ion:	
n 3 2.1(10)(a) of the IPA prescribes that an an after cannot be taken to be properly made		Name	Signature	Date
without the land owner's consent. An application <u>must</u> be supported by the consent of <u>all</u> land owner if the application involves: (i) a material change of use; (ii) reconfiguration of a lot; (iii) work on land below high-water mark & not with a canel as defined under the Coastal Protection and Management Act 1995;or (iv) work on rail corridor land defined under the Transport Infrastructure Act 1994. For a mobile or temporary ERA - fandowner's consent is <u>not</u> required. For more Information refer to <u>Guide 1</u> .		(ii) (iii) (iv) (v)	e attached list	rry maleriel on State
Section 3.2.1(10)(b) of the IPA prescribes that an application <u>cannot</u> be taken to be properly made without evidence of the resource entitlement <u>Activice for completing Q22</u> . Refer to schedule 10 of the <i>Integrated Planning Regulation</i> 1998 that prescribes the nature of evidence required by the State in support of the lodging of this development application.	22.	coastal land under the Coastal Protection and Management Act of NO - go to Q24 This application is required by regulation to be account (i) of the allocation of, or entitlement to, the resource (ii) the chief executive of the department administering consistent with an allocation of, or entitlement (iii) the chief executive of the department administering application may proceed in the absence of an argo to Q23	1995) a State resource? Ito Q22 Impanied by evidence: (tick a Item - atlach evidence Ing the resource is satisfied the Item to, the resource - go to Q23 Ing the resource is satisfied the	<i>pplicable box)</i> e development <u>is</u> e development
Advice for completing Q23 The information in (i) – (v) is mandatory if evidence is required under Q22 (ii) or (iii) above. The official stamp of the Department of Hatural Resources and Mines is mandatory where the application involves taking or interfering with water or riverine quarry material under the Water Act 2000.	23.	Evidence of the resource entitlement: (i) Resource entitlement / authority details (ii) Name of delegated officer (iii) Position of delegated officer (iv) Signature of delegated officer (v) Date	(iv) Official stamp of the administering the reapplicable)	
Assessment friggers This checklist does not apply if the application requires the completion of Parts A and B of the Form only. It must be completed for all other applications	24.		tached to this application? ager may refuse to accept this application has not been properly ma	
lans I drawings I reports An application should be accompanied by details to support the proposal & enable the assessment manager, referral agencies and any person viewing the application during public scrutiny or public notification to understand the scope of the proposal and any potential impact	25.	Plans/drawings/reports accompanying this application Plan / Drawing / Report Number (i) (ii) (iii) (iv) (v)	Title	Date
and any other relevant part	of For			equired by Part A
RECEIVED		13/13/05 RECEIVING OFFICER'S NAME/S NAME/S	NUMBER/S/V/CO	92/0110
·		at north again the styre, its Designation of the Committee of the committe	K. Calldag a cas collabol to be 90%	one Manager
anderium I kostola	the r	F	Ska arri	

CONSENT OF APPLICANT FOR DEVELOPMENT APPLICATION - LOT 2 |ONER | 63654 = 298 STAPYLTON-JACOBS WELL ROAD, STAPYLTON (TO ACCOMPANY IDAS PART A FORM)

Visy Industries Pty Ltd

BALL	BUTT	Joursson	
	•		

CONSENT OF <u>LAND OWNER</u> FOR DEVELOPMENT APPLICATION LILOT LON RP 163654 - 298 STAPYLTON-JACOBS WELL ROAD STAPYLTION (TO ACCOMPANY IDAS PART A FORM)

Holmbourne Ptv Ltd (A.C.N. 010 417 455)

D. J. Skapp	Dir. Sec.	
	SOLE DIRECTOR	

CURRENT TITLE SEARCH NATURAL RESOURCES & MINES, QUEENSLAND

equest No: 114728618

earch Date: 04/11/2005 8:33 am

Title Reference: 15944130
Date Created: 04/12/1979

evious Title: 15863183

GISTERED OWNER

LMBOURNE PTY LTD

TATE AND LAND

state in Fee Simple

•

REGISTERED PLAN 163654

County of WARD

Parish of ALBERT

Local Government: GOLD COAST CITY

E. TS, ENCUMBRANCES AND INTERESTS

Deed of Grant No. 10568216 (POR 285)

- 2. MORTGAGE No 602225734 (G978000) 09/05/1983 TO WESTPAC BANKING CORPORATION
- 3. LEASE No 602225735 (H761152) 27/11/1985
 OF PART OF THE LAND
 TO AGQUIP METRO PTY LTD
 FOR 3 YEARS
 ORIGINAL TERM: COMMENCING 01 MAY 1984
 OR OPTIONS AS MAY BE STATED
- 4. LEASE NO 708613687 28/04/2005 at 08:35
 DACELA NOMINEES PTY LTD A.C.N. 084 756 605
 TENANT IN COMMON 1/2
 PESARO PTY LTD A.C.N. 008 267 043 TENANT IN COMMON 1/2
 OF LEASE B ON SP179085

SUB LEASE No 708985253 19/09/2005 at 08:57 EASE: 708613687 ATCO STRUCTURES PTY LTD A.C.N. 083 902 309 OF LEASES C & D ON SP183881

NISTRATIVE ADVICES - NIL GISTERED DEALINGS - NIL

IFICATE OF TITLE ISSUED - No

ion - Charges do not necessarily appear in order of priority

** End of Current Title Search **

RIGHT THE STATE OF QUEENSLAND (NATURAL RESOURCES & MINES) [2005] sted By: CITEC CONFIRM

Page 1/1

DATE RECEIVED

Form 1 Development Application

Material change of use assessable against a local government's planning scheme

Completion of <u>all</u> materia	<i>appl</i> al cha	icable questions on Part D is mandatory for all applications involving assessment of a nge of use (MCU) assessable against a local governments planning scheme.
Nature of the application A development permit authorises development to occur, while a preliminary approval is a step in the approval process and does not authorise development to occur.		This application is for: (tick 1 or both if applicable) Preliminary approval for a material change of use of premises including conceptual design for any associated works that require approval under the planning scheme (i.e. consideration of the proposal concept)
		AND / OR Development permit for a material change of use of premises including conceptual design for any associated works that require approval under the planning scheme.
The subject land	2.	How the subject land is identified in the planning scheme (name the zone, precinct etc.)
For the definition of "gross floor area" go to the planning scheme against which the application will be assessed.		Yatala Enterprise Area Local Area Plan. Precinct 4 - Future Industry
	3.	Existing gross floor area: (if applicable) N/A
	4.	Are there any existing easements on the land? ☑ NO ☐ YES – attach plans of the location and details of the purpose of the easement
Material change of use details	5.	Details of the change to the use of the land; (eg. vacant land to shopping centre, house to apartment building vacant land to industry (tyre manufacturing) etc.)
		Industry (proposed Visy Board and Visy Pak facility)
	6.	Number of employees: Visy Board - 64, Visy Pak - 20, Total - 84
	7.	Operating days and hours: 24 hours, 7 days
Associated building works details (if applicable)	8.	Site cover: Approximately 12.5%
r the definition of "site cover", "gross floor urea" and "storey" go to the planning scheme against which the application will be	9.	Gross floor area: Approximately 33000m²
assessed.	10.	Number of on-site car parking spaces: 140 -
	11.	Number of storeys / maximum height above natural ground: One storey/eight metres
	12.	Number of employees Total - 84
	13.	Hours and days the use will operate 24 hours, 7 days
Associated operational works details (if applicable)	14.	Details of associated operational works (eg. landscaping, cut and fill, drainage, road works etc.)
		N/A
· · · · · · · · · · · · · · · · · · ·	use t	PLEASE NOTE tion cannot be accepted unless accompanied by Part A of Form 1. o accept an application that, at the time of lodgement, fails to provide all applicable information quested by Part A and any other relevant part of Form 1.

Form 1 Development Application

Threshold:

iolas

Environmentally relevant activity (ERA)

Completion of <u>all questions</u> on Part G is <u>mandatory</u> for all applications involving assessment against the Environmental Protection Act 1994 for ERAs (i.e. material change of use of premises for an ERA or development for a mobile or temporary ERA) for which a Code of Environmental Compliance has not be made.

For further information about environmentally relevant activities refer to <u>Guide 4 Environmentally relevant activities</u> available free from <u>www.ipa.gld.gov.au</u> or the Environmental Protection Agency's (EPA's) Information sheets available free from <u>www.epa.gld.gov.au</u> under Ecoaccess/ business and industry. Alternatively, contact the local government.

Nature of the application

To identify who the administering authority is for each ERA, refer to Schedule 1 of the invironmental Protection Regulation 1998 or the information sheets essential the EPA or local government.

Note: The operator of an ERA must be registered. A registration form is available on the EPA's website or from the relevant local government.

ERA name and number: (eg. increase in threshold for ERA 3 – Pig Farming)								
ERA 26 - Metal Forming								
Is the ERA mobile or temporary?								
NO YES - Identify below all local government areas in which it is intended to operate								
N/A								
Details of exis	ding ERA (ii applicable)							
Level 1	Level 2							
Throchold	(eg. less then 5,000 standard plg units)							
Threshold:								
Details of <u>proposed</u> ERA (if applicable)								
Level 1								
Threshold:	(eg. less then 5,000 standard pig units)							
 THROUNDIO,	N/A							
 ERA name and number:								
Is the ERA mobile or temporary?								
	nie or remonary:							
	DIE of terriporary? The YES – identify below all local government areas in which it is intended to operate							
□ NO								
□ NO	YES – identify below all local government areas in which it is intended to operate							
NO Defails of exist	YES – identify below all local government areas in which it is intended to operate							
Details of exist Level 1 Threshold:	YES – identify below all local government areas in which it is intended to operate							

INTEGRATED PLANNING ACT 1997						rait G, veision 3.0, 4 Octobel Zot	
Natire of the application (cont)		(iii)	ER/	A name and I	number:		
			L_	· · · · · · · · · · · · · · · · · · ·			
					ile or temporary?		
				NO [YES - identify below all local government	areas in which It is intended to operate	
					Prince A		
			Ţ		<u>ng</u> ERA (if applicable)		
				Level 1		Level 2	
			TI	reshold:			
			Det	alls of <u>propo</u>	osed ERA (if applicable)		
				Level 1		Level 2	
,			Th	reshold:			
	2.	Does t	this a	annlication re	equire assessment against a planning	scheme?	
	-	E NO		-pp://outson.co	Adulta conocomone againer a pranting	onomo:	
		_		omplete other re	elevant parts of the IDAS Application Form 1		
he subject land	3.				applicable box(es), that the following	details are provided in plans and	
N900r4		written	ı info	rmation supp	porting this application:		
		\boxtimes	: (f)		on of the existing environment (i.e. map. urrounding areas);	s of the land and surrounding area, zoning of	
		\boxtimes	(ii)	Details of th	ne distance to any watercourse, dam,	bore etc on or adjoining the land;	
			(iii)		ny of the following types of materials of combustible meterials, chemicals, other hazar		
			(iv)		ny acid sulphate soils within or adjoini	, ·	
The proposal	4.				applicable box(es), that the following o		
This information required for all applications for an ERA.				• •	porting this application:		
An application for an ERA must be supported by enough information to enable the		\boxtimes	(1)	A description details);	n of the activity (i.e. proposed operation an	d activities, discharge points, process	
administering authority to decide the application, including, for example, relevant	(ii) Details of stormwater runoff management and dis					sposal (t.e. stormwater management plans);	
information about the likely risks to the environment, details of waste to be generated					aste produced, including solid and liquiant, trade waste permit);	ıld Waste (i.e. waste management, waste	
and any waste minimisation strategy.		\boxtimes			ontaminant releases and their impacts	on the receiving environment (i.e.	
		()			aters, air, land; generation of noise, discharge		
<i>)</i>		\boxtimes (, ,		ny of the following types of materials paterials, chemicals, other hazardous substance	·	
		\boxtimes ((vi)	Details of pro	oposed hours of operation;	-	
		<u> </u>	(vii)	Details of bu	isiness trading name.		
Fee payable	5.	Details	of th	e fee payabl	le for each ERA listed in Question 1:		
		(1)	ERA	26	ERA	Applicable Fee \$ 210.30	
		(i) E				\$ 210.30	
	 	(iii)					
	:	(iv)					
		(v)					

PLEASE NOTE

PART G of Form 1 cannot be accepted by the assessment manger unless accompanied by PART A of Form 1.

The assessment manager may refuse to accept an application that, at the time of lodgement, fails to provide all applicable information requested by Part A and any other relevant part of Form 1.

MITECRATED DI ANNIMO ACT 1007

INTEGRA	TED PLANNIN	G ACT 1997	 . <u>.</u>	art G, Version 3.0, 4 October 2004
Des.	ECEIVED	REFERENCE NUMBER/S	COSTCODE	4026 / OCZ / 01 / SROZ
			(Applicable to EPA only)	

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Form 1 Development Application

idlas

IDAS Assessment Checklist

(Formerly the "Referrala Checklist")

IMPORTANT NOTE FOR ALL APPLICANTS:

- This checklist was formerly referred to as the "Referrals Checklist". Some of the "Guides" to using the iDAS Application Forms continue to refer to this document as the
 "Referrals Checklist". The name of this checklist was changed from 25 July 2005 to more accurately describe its function.
- 2. Under the IPA and IDAS framework, an application may require assessment by the local Council and/or certain Queensland State entities (e.g. Environmental Protection Agency, Dept. of Natural Resources and Mines, Queensland Heritage Council etc.).
- This checklist is provided to assist applicants to determine when an application requires assessment by a Queensland State entity and may also assist the applicant to determine the assessment manager¹ for the application.
- 4. Therefore, the completion of all questions in section 1 of this checklist is mandatory for all applications (other than those requiring the completion of Parts A & B only).
- 5. It is the responsibility of the applicant to accurately complete this checklist.
- 6. Depending on the nature of the application, an applicable State entity may be either the assessment manager or an IDAS referral agency for the application.
 - The assessment manager for the application will rely on the information provided in this checklist (as well as any material lodged in support of the application) to identify any applicable referral agencies for the application in the Acknowledgement Notice. The assessment manager will also rely on this information when identifying if the application triggers referral coordination².
- 8. To assist you in answering the following questions a series of guides are available free from www.ipa.gld.gov.au.
- Any other parts of Form 1 that this checklist requires to be completed are available from the Council or the applicable State entity, or can be downloaded free from www.lpa.gid.gov.au.
- 10. Section 2 provides advice about the referrals that can be required for applications for building work assessable against the Standard Building Regulation 1993 (SBR).

SECTION 1 - STATE ASSESSMENT (completion mandatory)

Note: The following state assessment triggers apply to development other than for building work assessable against the Standard Building Regulation 1993 (SBR)).

Trotor The following state assessment (rigge)	is app	y to development outer trial for building work assessable against the standard building Neguration 1995 (SDIN).
Environmentally relevant activity For more information refer to Guide 4. Unless you answered "none of the above" to Q1, the application requires assessment by the administering authority. If an entity, other than the administering authority, is the assessment manager for the application, the administering authority is a concurrence agency for the application in relation to this matter. Note: An application involving ERA 19 and/or 20 will also require completion of Part K; of Form 1 for approval where an allocation under the Water Act 200 is required.		The application involves: (tick applicable box/es) ☑ (i) an environmentally relevant activity (ERA) for which a code for environmental compliance has not been made - complete Part G of Form 1 ☐ (ii) a mobile or temporary ERA for which a code of environmental compliance has not been made - complete Part G of Form 1 ☐ (iii) none of the above
ite-controlled road matters For more information refer to <u>Guide 3</u> . Unless you enswered "none of the above" to Q2, the application triggers referral to the <u>Department of Main Roads</u> (DMR) as a referral agency. In certain circumstances DMR will be an advice agency, while in other circumstances DMR will be a concurrence agency. Schedule 2 of the <u>IP Regulation</u> will assist you to determine where DMR is an advice or concurrence agency for the application.	2.	The application involves: (tick applicable box/es) (i) development on land contiguous4 to a State controlled road and for [

State-controlled road.

¹ The assessment manager is responsible for assessing and deciding an IDAS application. The assessment manager for an application is prescribed in schedule 8A of the IPA.

² For additional information refer to Guide 6 Does my application trigger the referral coordination process?

³ The 'administering authority' may be either the Environmental Protection Agency, the relevant local government (for a devolved ERA) or the Queensland Department of Primary Industries and Fisheries (for a delegated ERA).

⁴ Land contiguous to a State-controlled road is defined in schedule 14 of the IP Regulation to mean land - if part of the land is within 100m of the State-controlled road; or that is part of a future State-controlled road.

INTEGRATED PLANNING ACT 1997			IDAS Assessment Checklist, Version 15.0, 18 November 2005
State-controlled road matters (cont)	_	[] (ii)	development on land not contiguous to a State-controlled road and -
·			(a) material change of use -
			 assessable against the local government's planning scheme; and
			 mentioned in schedule 5 of the IP Regulation and exceeding the thresholds set by that schedule;
			(b) reconfiguring a lot for a purpose mentioned in schedule 5 of the IP regulation and exceeding the thresholds set by that schedule;
			(c) cperational work (not associated with a material change of use assessable against the planning scheme or reconfiguring a lot mentioned in (b) above)—
			 assessable against the local government's planning scheme; and mentioned in schedule 5 of the IP Regulation and exceeding the thresholds set by that schedule.
		[] (iii)	none of the above
Clearing vegetation	3.	The ap	Dilication involves: (tick applicable box/es)
For more information refer to Guide 12.	}		material change of use -
Unless you answered "none of the above" to Q3, the application requires assessment by the <u>Department</u>			(a) assessable against the planning scheme;
of <u>Hatural Resources and Mines</u> (NR&M). If an agency other than NR&M is the assessment			(b) on a lot containing –
manager for the application, NR&M is a concurrence agency for the application in relation to this matter.			 a category 1, 2 or 3 area shown on a property map of assessable vegetation; or if there is no property map of assessable vegetation for the lot - remnant vegetation; (c) where the existing use of the land is a rural or environmental use; and (d) where the size of the land is 2 hectares or larger - complete Part J of Form 1
		☐ (ii)	reconfiguring a lot
		、,	 (a) on a lot containing a category 1, 2 or 3 area shown on a property map of assessable vegetation or, if there is no property map of assessable vegetation for the lot, remnant vegetation; (b) where the size of the lot before the reconfiguration is 2 hectares or larger; (c) where 2 or more lots are created; and (d) where the size of any lot created is 25 hectares or smaller - complete Part J of Form 1
,		(iii)	operational work -
		(**)	(a) for the clearing of native vegetation where the vegetation clearing is made assessable under Schedule 8 of the IPA; and
			(b) not associated with a material change of use assessable against the planning scheme mentioned in (i) or reconfiguring a lot mentioned in (ii) - complete Part J of Form 1
ĺ		(iv)	none of the above.
Strategic port land For more information refer to Guide 11. If you ticked (i) - the relevant Port Authority is the ssessment manager for the application.	4.	☐ (i) c	fication involves: levelopment on strategic port land as defined in the <i>Transport Infrastructure Act 1994</i> (Ti oct) - complete Part I of Form 1
u ticked (ii) Queensland Transport is a concurrence agency for the application.			material change of use that is inconsistent with the land use plan approved under the I Act for the strategic port land - complete Pert I of Form 1
		🛛 (iii) n	one of the above
Acid sulfate soils For more information refer to <u>Quide 10</u> . Unless you answered "none of the above" to Q5, the application requires assessment by <u>Department of Natural Resources and Mines</u> (NR&M).	5.	and whe ☐ (i) t	ication involves development on land situated in an identified ⁵ local government area re the surface of the land is: (tick applicable box) below 20m AHD ⁶ and the development will involve the excavation of 1000m ³ or more of boil or sediment at or below 5m AHD, or
If an agency other than NR&M is the assessment manager for the application, NR&M is an advice agency for the application in relation to this matter.		[] (ii) a	t or below 5m AHD and the development will involve filling the site with 1000m³ or more f material
		⊠ (iii) n	one of the above

The identified local government areas are: Aurukun, Bowen, Brisbane, Broadsound, Bundaberg, Burdekin, Burke, Burnett, Caboolture, Cairns, Cafliope, Caloundra, Cardwell, Carpentaria, Cook, Cooloola, Dounglas, Fitzroy, Gladstone, Gold Coast, Hervey Bay, Hinchinbrooke, Isis, Johnstone, Livingstone, Logan, Mackay, Maroochy, Maryborough, Mirium Vale, Mornington, Noosa, Pine Rivers, Redcliffe, Redland, Rockhampton, Sarina, Thuringowa, Tiaro, Torres, Townsville, Whitsunday.

Australian Height Datum (AHD).

INTEGRATED PLANNING ACT 1997		IDAS Assessment Checklist, Version 15.0, 18 November 2005
Major hazard facilities or possible np. "Yazard facilities For Information refer to Guide 17. If you answered "YES" to Q6, the application requires assessment by the Department of Emergency Services (DES). If an agency other than DES is the assessment	n [2	Does the application involve a <i>material change of use</i> for a major hazard facility or possible major hazard facility as defined under the <i>Dangerous Goods Safety Management Act 2001?</i> ☑ NO ☑ YES - complete Part L of Form 1
manager for the application, DES is a concurrence agency for the application in relation to this matter.	<u> </u>	
Water related development uncler the Water Act 2000 For more Information about items (a) – (d), refer to Guide 15. For more information about item (e), refer to Guide 14 Does my application involve assessment of a referable dam? Unless you answered "none of the above" to Q7, the application requires assessment by the Department of Natural Resources and Mines (NR&M). If an agency other than NR&M is the assessment manager for the application, NR&M is a concurrence agency for the application in relation to this matter.		 The application involves: (i) operational work, for taking or interfering with water under the Water Act 2000, that is: (tick applicable box/es) (a) In a watercourse, lake or spring, or from a dam constructed on a watercourse (eg. a pump, gravity diversion, stream re-direction, weir or dam) - complete Part K₂, K₃, K₄, K₆, or K₆ of Form 1 whichever is applicable; (b) for an artesian bore anywhere in the State, no matter what the use - complete Part K₁ of Form 1; (c) for a subartesian bore, in declared groundwater area7, for use for purposes other than stock and/or domestic use - complete Part K₁ of Form 1; (d) for a subartesian bore, in certain declared groundwater area, for use for stock and/or domestic purposes - complete Part K₁ of Form 1; (e) for constructing a referable dam8 or that will increase the storage capacity of a referable dam by more than 10% - complete Part K₃ of Form 1; or (f) for taking or interfering with overland flow water - complete Parts K₃ and G of Form 1
		\vec{rack} (ii) none of the above.
Removal of quarry material from a watercourse For more information refer to <u>Guide 16</u> . If you answered "YES" to Q8, the application requires assessment by the <u>Department of Natural Resources and Mines</u> (NR&M). If an agency other than NR&M is the assessment manager for the application in relation to this matter. Note: Part G of Form 1 is required to be completed as the activity of removing quarry material from a watercourse is also an Environmentally Relevant Activity (ERA).	re	oes the application involve development for the removal of quarry material from a watercourse equiring an allocation notice under the Water Act 2000? NO YES - complete Parts K ₇ and G of Form 1
Operational works in a tidal area or	9. Tr	ne application involves operational work that is: (tick the applicable box/es)
Operational works in a fidal area or coastal management district. For more information refer to Guide 18. For more information about prescribed tidal work in local government tidal areas refer to Guide 24. Unless you enswered "none of the above" to Q9, the application requires assessment by the Environmental Protection Agency (EPA). In agency other than EPA is the assessment in ager for the application, EPA is a concurrence agency for the application in relation to this matter. Local government is the assessment manager for all prescribed tidal work.	l	Part M of Form 1 if any box/es (a) to (i) below are ticked. (a) constructing or installing works in a watercourse between MHWS and HAT (i.e. other then those works in tidal water) where the development has been determined not to be assessable against the Water Act 2000; (b) constructing a canal ¹² intended to be connected to tidal waters; (c) constructing an artificial waterway; (d) reclaiming land under tidal water; (e) disposing of dredge spoil or other solid waste material in tidal water; (f) interfering with quarry material on State coastal land above high-water mark; (g) draining or allowing drainage or flow of water or other matter across State coastal land above high-water mark; (h) removing or interfering with coastal dunes on land, other than State coastal land, that is in an erosion prone area and above high-water mark; (i) constructing a bank or bund wall to establish a ponded pasture on land, other than State coastal land, above high-water mark; or

The declared ground water areas are listed in <u>Guide 13 Development in a declared catchment area</u>

Referable dam is defined under the Water Act 2000.

Watercourse is defined in sch 10 of the IPA.

Tidal work is defined in sch 10 of the IPA.

Prescribed fidal work is defined in the Coastal Protection and Management Regulation 2003 and includes certain tidal works completely or partly within a local government tidal area.

Canal means canal as defined under the Coastal Protection and Management Act 1995

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Operational work below high water	10.	The ap	oplication	n involves operational work that is: (tick the applicable box/es)
m Foe information refer to <u>Guide 18</u> . For more information about prescribed tidal work in local		[i)		ork ¹³ as defined under the <i>Coastal Protection and Management Act 19</i> 95 (the I Act) that is not prescribed tidal work – <i>complete Part M of Form 1;</i> or
government tidal areas refer to <u>Guide 24</u> .		☐ (ii)	tidal wo	rk that is prescribed tidal work ¹⁴ - complete Part P of Form 1; Or
Unless you answered 'none of the above' to Q10, the application triggers referral to Queensland		🔲 (iii) carried	out within a coastal management district ¹⁵ under the Coastal Act and for -
Transport (QT) (Mantime Safety Old) as a concurrence agency. Local government is the assessment manager for all	ı		(a)	disposing of dredge spoil or other solid waste material in tidal water – complete Part M of Form 1;
prescribed tidal work.			(b)	reclaiming land under tidal water - complete Part M of Form 1; or
			(c)	constructing a canal 16, if the canal is associated with reconfiguring a lot – complete Pert M of Form 1;
		(iv)	none	of the above.
Curtal	14			
Coastal management For more information refer to Guide 18	11.			involves: (tick the applicable box/es)
Unless you answered "none of the above" to Q11, the application requires assessment by the		☐ (i) _	work	erial change of use assessable under a planning scheme involving operational carried out completely or partly in a coastal management district ¹⁵
Environmental Protection Agency (EPA). If an agency other than EPA is the assessment manager for the application, EPA is a concurrence		☐ (ii)	a mat work,	erial change of use assessable under a planning scheme involving building carried out completely or partly in a coastal management district that is –
agency for the application in relation to this matter.				construction of a new premises with a GFA ¹⁷ of at least 1000m ² enlargement of the GFA of existing premises by more than 1000m ²
X		(iii)		figuring a lot assessable under schedule 8 of the IPA where the land is situated etely or partly in a coastal management district
)		☐ (iv)		figuring a lot ¹⁸ assessable under schedule 8 of the IPA and in connection with a struction of a canal 18 – complete Part M of Form 1
		(v)	none c	of the above
Development within the limits of a port	12.	Does thunder t	e applic ne <i>Trans</i>	ation involve development below high water mark ¹⁹ and within the limits of a port
For more information refer to <u>Guide 18.</u> For information about prescribed tidal work refer to <u>Guide 24</u>		⊠ NO		
If you answered "YES" to Q12, the application briggers referral to the Port Authority.			э — сопірк	ete Part M of Form 1, or Part P of Form 1 if the work is prescribed tidal work
The Port Authority is a concurrence agency if the development is – within 200m of a shipping channel or an entry				
and exit shipping cornidor for the port within 1000m of a swing basin, a commercial shipping wharf, a mooring, anchorage or spoil				
grounds; within 1000m of a planned port facility identified in a land use plan approved under the <i>Transport</i>	l			
Infrastructure Act 1994. In all other situation the Port Authority is an advice egency.	ı			
rinas	13.	Does th	e applica	ation involve <i>operational work</i> that is tidal work for a marina ²⁰ with more than 6
or more information refer to Guide 18. For		vessel b		•
information about whether a marina is prescribed tidal work refer to Guide 24. The local government		⊠ NO		_
is the assessment manager for all prescribed tidal work.		☐ YES	3 - comple	te Part M of Form 1, or Part P of Form 1 if the tidal work is prescribed tidal work
If you answered "YES" to Q13, the application				
triggers referral to Queensland Fire and Rescue Service as an advice agency.				
Tidal works in strategic port land tidal	14.	Does th	e applica	tion involve tidal works within a strategic port land tidal area ²¹ ?
areas		⊠ NO		<u>-</u> .
For more information refer to Guide 18.		YES	- comple	ie Part M of Form 1
Unless you answered 'NO' to Q14, the relevant Port Authority is the assessment manager for the application and the Environmental Protection Agency (EPA) and Queensland Transport (QT) are concurrence agencies for the application.				
The state of the s				

¹³ Tidal work is defined in sch 10 of the IPA
14 Prescribed tidal work is defined in the Coastal Protection and Management Regulation 2003 and includes certain tidal works completely or partly within a local government tidal area.
15 Coastal management district under section 47(2) of the IPA and means a coastal management district under the Coastal Protection and Management Act 1995, other than an area declared as a coastal management district under section 47(2) of that Act.
16 Canal means canal as defined under the Coastal Protection and Management Act 1995
17 GFA is defined in sch 14 of the IPA to mean the gross floor area. For a definition of how to calculated GFA, go to the planning scheme against which the application is being assessed.
18 Under s117 of the Coastal Protection and Management Act 1995, an application for reconfiguration, where the reconfiguration is associated with the construction of an artificial waterway, must be accompanied by the application for the operational works to construct the artificial waterway.
19 High water mark is defined in the Coastal Protection and Management Act 1995 and means the ordinary high water mark at spring tide.
20 Marina is defined in the Transport Operations (Maritime Pollution) Regulation 1995.

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For f information refer to Guide 19. If you sowered "YES" to Q15, the application triggers referred to the Queenstand Heritage Council as concurrence agency for the application.	 Does the application involve development in a heritage registered place as defined under the Queensland Heritage Act 1992? ☒ NO ☐ YES – complete Part C of Form 1
Declared catchment areas For more information, including a list of the declared catchment areas within Queensland, refer to Guide 13. Unless you answered "none of the above" to Q16, the application requires assessment by the Department of Natural Resources and Mines (NR&M). If an agency other than NR&M is the assessment manager for the application, NR&M is a concurrence agency for the application in relation to this matter.	 16. The application is in an area declared to be a catchment area under the Water Act 2000 and involves: (ttck the applicable box/es) ☐ (i) reconfiguring a lot, if any lot resulting from the reconfiguration is less than 16 hectares; ☐ (ii) development assessable against the planning scheme involving the establishment or expansion of a waste water disposal system, other than a disposal system for carrying out an environmentally relevant activity under the Environmental Protection Act 1994; ☒ (iii) none of the above
Confaminated land Applications involving material change of use and / or reconfiguring a lot may trigger this referral. For more information refer to <u>Guide 5</u> . Unless you answered "none of the above" to Q17, the application requires assessment by the <u>Environmental Protection Agency</u> (EPA). If an agency other than EPA is the assessment manager for the application, EPA will be a concurrence agency for the application in relation to this matter.	 17. The application involves: (tick the applicable box/es) ☐ (i) reconfiguring a lot for which all of part of the premises are — (a) premises mentioned in the IPA, schedule 8, part 1, table 2 — item 5, including the exemption otherwise provided for by paragraph (d); item 6, including the exemption otherwise provided for by paragraph (e); or item 7, including the exemption otherwise provided for a mining activity or petroleum activity; or (b) in an area for which an area management advice has been given for unexploded ordnance - complete Part N of Form 1 ☐ (ii) a material change of use — (a) made assessable under the IPA, schedule 8, part 1, table 2, items 5 to 7; or (b) assessable against the planning scheme and if all or part of the premises is in an area for which an area management advice has been given for unexploded ordnance - complete Part N of Form 1 ☑ (iii) none of the above
Electricity infrastructure For more information refer to schedule 2of the IP Regulation. Unless you enswered "none of the above" to Q18, the application triggers referrel to the agency to which the essement is granted in favour of as advice agency.	 The application involves: (tick the applicable box/es) (i) reconfiguring a lot where any part of the lot is — subject to an easement in favour of a distribution entity or transmission entity under the Electricity Act 1994 and the easement is for a transmission grid or supply network under that Act; or situated within 100m of a substation site; (ii) a material change of use, assessable against a planning scheme and not associated with reconfiguring a lot if — any part of the premises is subject to an easement in favour of a distribution entity or transmission entity under the Electricity Act 1994 and the easement is for a transmission grid or supply network under that Act; and any structure or work that is the natural and ordinary consequence of the use is, or will be, located wholly or partly in the easement; (iii) a material change of use, assessable against a planning scheme and not associated with reconfiguring a lot if any part of the premises is situated within 100m of a substation site; (iv) operational work that is filling or excavation assessable against the planning scheme, not associated with reconfiguring a lot, if — any part of the premises is subject to an easement in favour of a distribution entity or transmission entity under the Electricity Act 1994 and the work is located wholly or partly in the easement; the work is located wholly or partly within 10m of a substation site; (v) none of the above.

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Land designated for community in ' 'ructure

Applications involving development on land designated for community infrastructure may trigger this referral.

For more information refer to schedule 2 of the IP Regulation.

If you answered "YES" to Q19, the application requires assessment by the chief executive of the department administering the Act authorising the development for the designated purpose.

If an agency other than the designator is the assessment manager for the application, the designating agency will be a concurrence agency for the application in relation to this matter.

19.	Does the application involve development assessable against the planning scheme and on land
	designated for community infrastructure?

- (i) intended to be supplied by a public sector entity; and
- (ii) on land not owned by or on behalf of the State; and
- (iii) other than development -
 - (a) for the designated purpose; or
 - (b) carried out by, or on behalf of, the designator.

⊠ NO

YES

SEQ Regional Plan

For more information refer to schedule 2 of the IP Regulation.

Unless you answered "none of the above" to Q20, the application requires assessment by the Office of Urban Management (OUM).

The application involves a material change of use of premises in the SEQ Region²² for: (tick the applicable box/es)

(i) urban activities²³, other than where the premises are zoned for urban activities under a planning scheme in a rural village²⁴ or the Mt Lindesay/North Beaudesert Study Area, for which all or part of the premises, the subject of the development, is in the —

(a) Regional Landscape and Rural Production Area;

- (b) Rural Living Area;
- (c) Investigation Area; or
- (d) Mt Lindesay/North Beaudesert Investigation Area.

(ii) rural residential purposes²⁵ where the premises are not zoned for rural residential purposes and the premises are in the –

- (a) Regional Landscape and Rural Production Area;
- (b) Investigation Area; or
- (c) Mt Lindesay/North Beaudesert Investigation Area;

(iii) none of the above

Fisheries matters

For more information refer to schedule 2of the <u>IP</u> Regulation.

Unless you answered "none of the above" to Q21, the application requires assessment by the <u>Department of Primary Industries and Fisheries</u> (DPt&F).

If an agency other than DPI&F is the assessment manager for the application, DPI&F is a concurrence agency for the application in relation to items (i) – (iv) and an advice agency in relation to item (v).

21.	The	application	involves:	(tick the	ар	plicable	box/es	;)
-----	-----	-------------	-----------	-----------	----	----------	--------	----

- \Box (i) an assessable **material change of use** for aquaculture complete Part O_1 of Form 1;
- (ii) assessable operational work that is the construction or raising of a waterway barrier complete Part O₃ of Form 1;
- (iii) assessable *operational work* completely or partly within a declared fish habitat areacomplete Part O₂ of Form 1;
- (iv) assessable *operational work* that is the removal, destruction or damage of a marine plant *complete Part O₂ of Form 1*;
- (v) development assessable under the IPA, schedule 8, part 1, on land that adjoins a declared fish habitat area;
- (vi) none of the above.

²² Local Governments within the SEQ Region are identified in the South East Queensland Regional Plan as Beaudesert Shire, Boonah Shire, Brisbane City, Caboolture Shire, Caloundra City, Esk Shire, Gatton Shire, Cold Coast City, Ipswich City, Kilcoy Shire, Laidley Shire, Logan City, Maroochy Shire, Noosa Shire, Pine Rivers Shire, Redcliffe City, Redland Shire and Toowoomba City.

²³ Urban activity means urban activity as defined in schedule 2, Part H Regulatory Provisions, South East Queensland Regional Plan. The term includes some facilities and purposes and excludes some purposes. A single residential dwalling on a lot is not included in urban activity.

²⁴ Rural village means rural village as defined in schedule 2, Part H Regulatory Provisions, South East Queensland Regional Plan.

²⁵ Rural residential purpose means rural residential purpose as defined in schedule 2, Part H Regulatory Provisions, South East Queensland Regional Plan.

INTEGRATED PLANNING ACT 1997		IDAS Assessment Ci	hecklist, Version 15.0, 18 November 2005
Integration of land use and public	22,	The application involves: (tick the applicable box/es)—	
tran: pt For m. information refer to <u>Guide 23,</u> schedule 84 of the <u>IPA</u> , & schedule 2 of the <u>IP Regulation</u> .	4	(i) a material change of use assessable against the planning mentioned in schedule 13C of the IP Regulation and except the schedule 13C of the IP Regulation 13C of the IP Regulat	
Unless you answered "none of the above", the		schedule.	
application triggers referral to QT as a concurrence agency		(ii) reconfiguring a lot—	ublic transport corridor; and the
		(a) on land that is completely or partly within a putotal number of lots increases;	
		(b) on land that is completely or partly within a fu an airport's public safety area;	,
		(c) on land that is within 400m of a public passen public passenger transport facility, and the to	tal site area is 5000m² or greater;
		(d) for a residential purpose within the 25 ANEF (
	1	(e) for a residential purpose resulting in 100 or m	
		(iii) operational work assessable against the planning sche material change of use mentioned in (i) above or reconfig	
		above, on land that—	garring a rot moreomod in (a)
·		(a) is completely or partly within a public transpor transport corridor;	t corridor or a future public
		(b) will result in work that encroaches into an airp	ort's operational airspace.
	}	(iv) none of the above.	
Railway safety and efficiency	23.	The application involves: (tick the applicable box/es)—	
For more information refer to Guide 23, schedule 8A	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(i) a <i>material change of use</i> assessable against the plannin	og scheme for a purpose
of the IPA & schedule 2 of the IP Regulation. The street in the schedule in the school of the schoo		mentioned in schedule 13D of the IP Regulation and exce	
application triggers referral to QT as a concurrence		schedule.	,
agency,] (ii) reconfiguring a lot—	
i		(a) on land that is completely or partly within a fut	
		future railway land or a railway tunnel easeme	
]	 (b) on land that is within 400m of a Citytrain passes Citytrain passenger railway station, and the tot greater; 	
ļ	ļ	(c) on land that abuts rail corridor land, commercial land, and the total number of lots increases;	al corridor land or future railway
		(d) on land that abuts rail corridor land, commercial land and an easement abutting the corridor or	
		(e) on land that is completely or partly within 100n to, a railway level crossing, and the total numb	n of, and abutting an approach
}	ı	(f) for a residential purpose resulting in 100 or mo	
		(iii) operational work assessable against the planning schen	
		material change of use mentioned in (i) above or reconfig	
		above, involving extracting, excavating or filling greater th	
\		(a) is completely or partly within rail corridor land of	
		the work is not for rail transport infrastructure of (b) is completely or partly within future railway land	
		(c) abuts rail corridor land, commercial corridor lar	
		the work is within 25m of the railway boundary	
		☑ (iv) none of the above.	
Referral coordination	24.	oes the application trigger referral coordination?	
An information request requires referral coordination		⊠ NO	
if the application involves – (i) 3 or more concurrence agencies; or		YES, as the application: (tick the applicable box/es)	
(ii) a facility or area assessable under a		p-and	
planning scheme and prescribed in schedule7 or 8 of the IP Regulation; or		(i) triggers 3 or more concurrence agencies;	anable under a alexaliti
(iii) development which is subject to an application for preliminary approval mentioned in s3.1.6 of the IPA.		(ii) involves a <i>material change of use</i> made asse scheme and prescribed in schedule 7 of the IP	Regulation;
For more information go to <u>Guide2</u> and <u>Guide fi</u> .		(iii) involves a material change of use (other than or farm building) made assessable under a plat reconfiguring a lot, in an area prescribed in so	nning scheme, or
Ì		(iv) is for a preliminary approval mentioned in s3.1.	-
			5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6

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Referral agency responses prior to l' ment	25. Did a referral agency give a referral agency response under s3.3.2 of the IPA <u>before</u> the application was made to the assessment manager?
Under s3.3.2 of IPA a referral agency may give a referral agency response on a matter within its jurisdiction about a proposal before an application for the proposal is made to the assessment manager.	NO YES - attach a copy of the referral agency/s response/s
This is commonly the case where an application requires referral to a building referral agency (eg. Qld Fire and Rescue Service).	
	nanager may refuse to accept an application, which, at the time of lodgement, falls to provide the ssessment Checklist (if applicable).
OFFICE USE ONLY (applicable to assess DATE RECEIVED	ment menager) REFERENCE NUMBER/S

SECTION 2 – BUILDING REFERRALS (completion <u>not</u> mandatory)

Note: Below is a list of the referrals that can apply to an application for building work assessable against the Standard Building Regulation 1993 (SBR)). This section of the IDAS Assessment Checklist is not required to be completed and lodged with an application for building work assessable against the SBR only.

Fire safety For more information go to schedule 2 of the IP Regulation	1.	An application may trigger referral to Qld Fire and Rescue Services as an advice agency if the building work the subject of the application requires the installation of a fire safety system.
Fire safety for budget accommodation For more information go to schedule 2 of the IP Regulation	2.	An application may trigger referral to Qld Fire and Rescue Services as an advice agency if the building work the subject of the application requires the installation of a fire safety system for a budget accommodation building.
Spray psinting For more information go to schedule 2 of the IP Regulation	3.	An application may trigger referral to the Department of Industrial Relations (DIR) as a concurrence agency if the application involves a workplace incorporating spray painting.
Retail meat premises For more information go to schedule 2 of the <u>IP</u> Regulation	4.	An application may trigger referral to Safe Food Qld as a concurrence agency if the application involves a retail meat premises.
Private health facilities For more information go to schedule 2 of the IP Regulation	5.	An application may trigger referral to the Department of Health as a concurrence agency if the application involves a private health facility.
Workplace area less than 2.3m² For more information go to schedule 2 of the IP Regulation	6.	An application may trigger referral to the Department of Industrial Relations (DIR) as an advice agency if the application involves a work place area less that 2.3m².
Land contiguous to a State-confrolled road or more information go to schedule 2 of the IP Regulation	7.	An application may trigger referral to the Department of Main Roads as a concurrence agency or advice agency if the application involves land contiguous to a State-controlled road.
Pastoral workers accommodation For more information go to schedule 2 of the IP Regulation	8.	An application may trigger referral to the Department of Industrial Relations (DIR) as a concurrence agency if the application involves pastoral workers accommodation.
Child care centre For more information go to schedule 2 of the IP Regulation	9.	An application may trigger referral to the Department of Communities as a concurrence agency if the application involves a childcare centre.
Coastal development For more information go to schedule 2 of the IP Regulation	10.	An application may trigger referral to the Environmental Protection Agency (EPA) as a concurrence agency if the application involves land completely or partly seaward of a coastal building line ²⁶ .
Heritage For more information go to schedule 2 of the IP Regulation	11.	An application may trigger referral to the Heritage Council as a concurrence agency if the application involves a heritage registered place.
Fisheries matters For more information go to schedule 2 of the IP Regulation	12.	An application may trigger referral to the Department of Primary Industries and Fisheries (DPI&F) as a concurrence agency if the application involves assessable building work in a declared fish habitat area; or as an advice agency if the application involves assessable building work on land that adjoins a declared fish habitat area.
Integration of land use and public vansport more information go to schedule 2 of the IP	13.	An application may trigger referral to Queensland Transport as a concurrence agency if the application involves existing or future public transport corridors, or airport operational airspace ²⁷ .
Railway safety and efficiency For more information go to schedule 2 of the IP Regulation	14.	An application may trigger referral to Queensland Transport as a concurrence agency if the application involves future railway land.

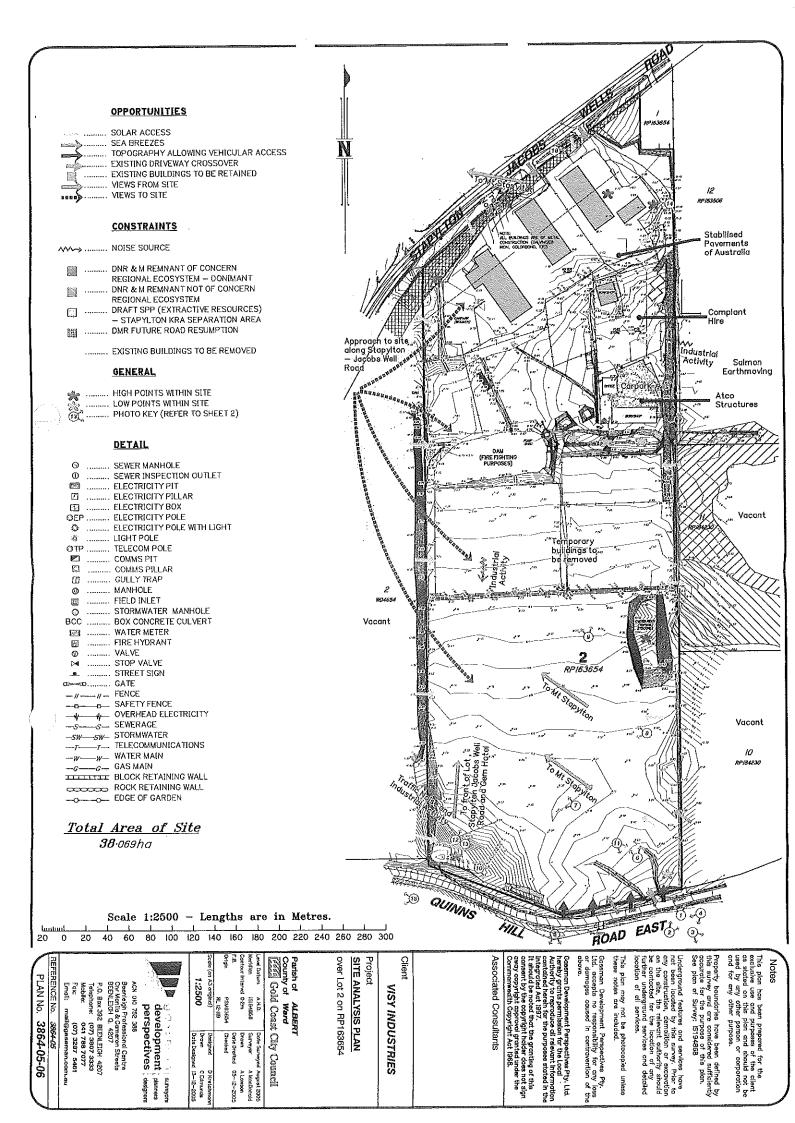
Coastal building lines are prescribed under the Coastal Protection and Management Act 1995.
 Operational airspace is as defined in State Planning Policy 1/02 *Development in the Vicinity of Certain Airports and Aviation Facilities".



APPENDIXB

Site Analysis Plan

Gassman Development Perspectives Plan No. 3864-05-06





APPENDIX C

Site Photos

Gassman Development Perspectives Plan No. 3864-05-07



Photo 1 Existing eastern site boundary, looking north from Quinns Hill Road East.

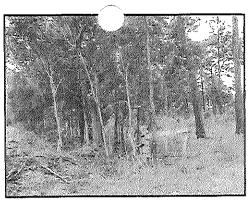


Photo 2 Vegetation on lot 10 on RP184230.

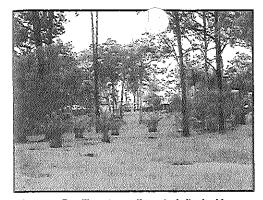


Photo 3 Dwellings to south east of site, looking from Quinns Hill Road East.

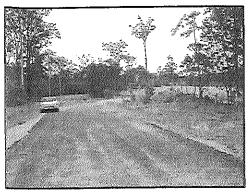


Photo 4 Existing state of Quinns Hill Road East adjacent to site.



Photo 5 Dwelling to south of site (76 Quinns Hill Road East).



Proposed area of Visy Board facility.



Photo 7 View to Mt Stapylton from within site.



Photo 8 Dwelling on adjoining lot to west (222 Stapylton - Jacobs Well Road.

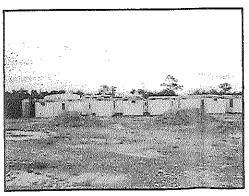


Photo 9 Existing Atco buildings.

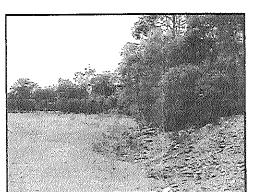


Photo 10 Existing site interface with Quinns Hill Road East.

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Client

VISY INDUSTRIES

Project

SITE PHOTOS

Parish of ALBERT County of Ward Gold Coast City Council

Level Datum	A.H.D.	Date Surveyed	2005 teupuA
Meridion	ISI04668	Surveyor	A MacDonald
Contour Interv	al 0-2m	Drawn	A Lawson
F.B.		Oate Drolled	05-12-2005
Origin	PSM63854	Checked	
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Scale (on A3 original)		Designed	D Kratchmonr
1-1	000	Drawn	C Edmunds
g ''	000	Date Designed	13-12-2005



Comments of the surveyors development planners perspectives | designent

Beenleigh Professional Centre Onr Manila & Cameron Streets BEENLEIGH Q. 4207

P.O. Box 392 BEENLEIGH 4207 Telephone: (07) 3807 3333 Mobile: 041 788 7077 (07) 3287 5461 Fax Email: mail@gassman.com.au

REFERENCE No. 3864-05

PLAN No. 3864-05-07

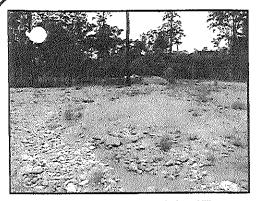


Photo 11 Existing site entry from Quinns Hill Road East.

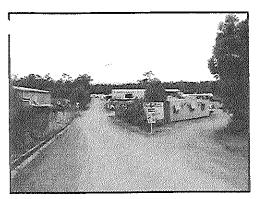


Photo 14 Existing driveway servicing Atco and Complant Hire.

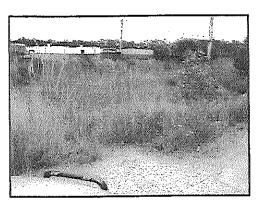


Photo 17 Existing dam south of Atco workshop.

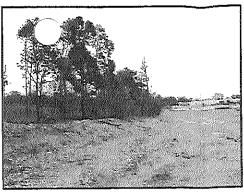


Photo 12 Existing western site boundary, looking north from high point on site.

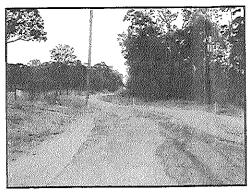


Photo 15 Existing state of Quinns Hill Road East, west of the site.

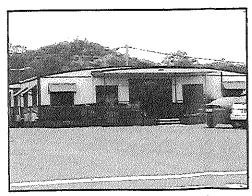


Photo 18 Existing Atco office to be removed.



Photo 13 Proposed area of Visy Board Facility.

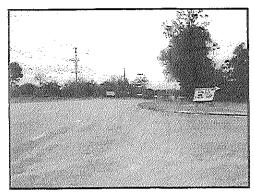


Photo 18 Northern entry to site from Stapylton -Jacobs Well Road, looking east.

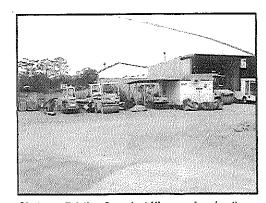


Photo 19 Existing Complant Hire premises (part).

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Client

VISY INDUSTRIES

Project

SITE PHOTOS

Parish of ALBERT County of Ward Gold Coast City Council

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Date Designed 13-12-2005

A Lawson Date Drafted 05-12-2003



 $\beta \sim \{|\Omega_{\alpha}|, |\alpha|\}$ surveyors development planners perspectives designers

ACN 010 752 388

Beenleigh Professional Centre Car Manila & Comeron Streets BEENLEIGH Q. 4207

P.O. Box 392 BEENLEIGH 4207 Telephone: (07) 3807 3333 041 788 7077 (07) 3287 5461 Email: mail@gassman.com.au

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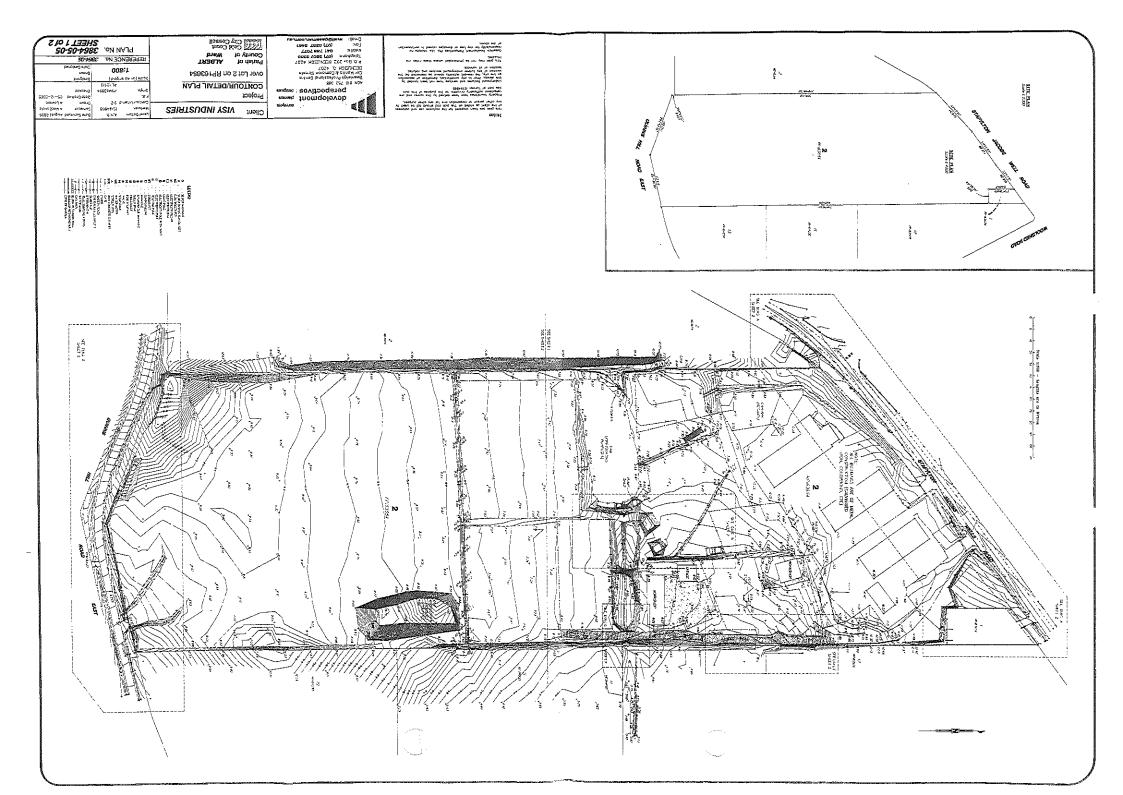
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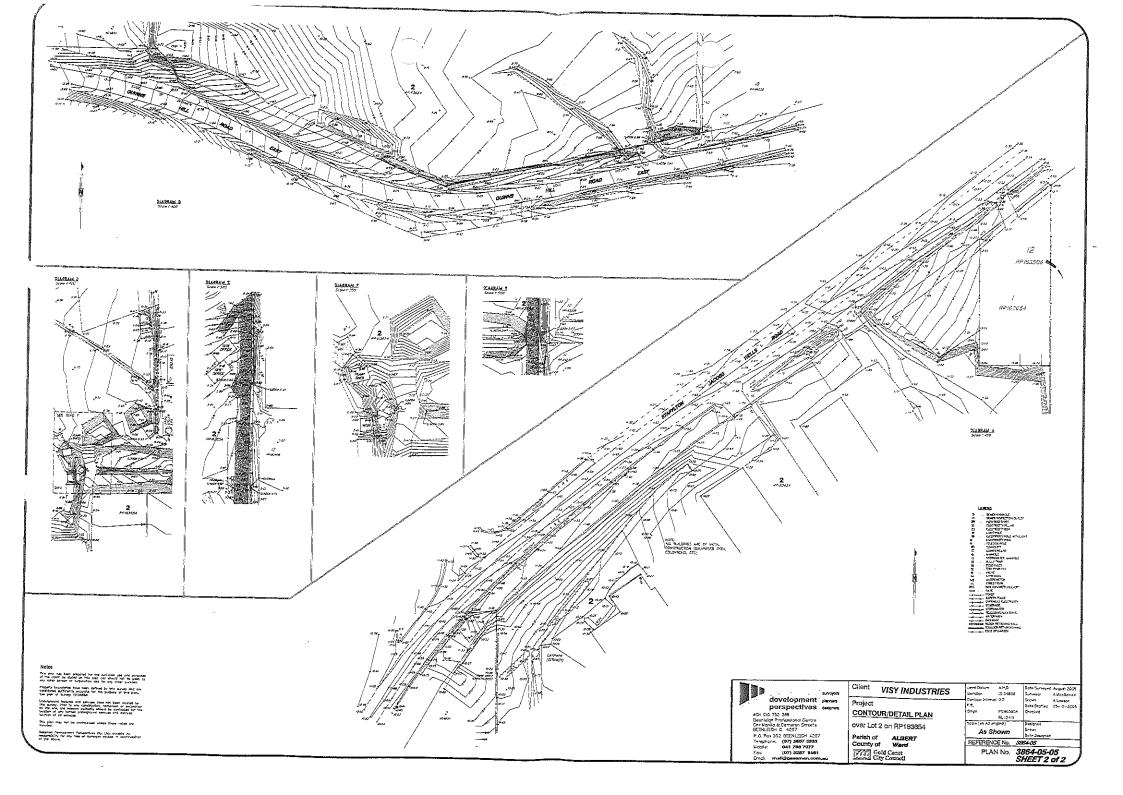


APPENDIXD

Contour/Detail Plan

Gassman Development Perspectives Plan No. 3864-05-05



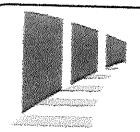




APPENDIX E

Landscape Site Analysis & Concepts

Prepared by Gassman Development Perspectives Pty Ltd

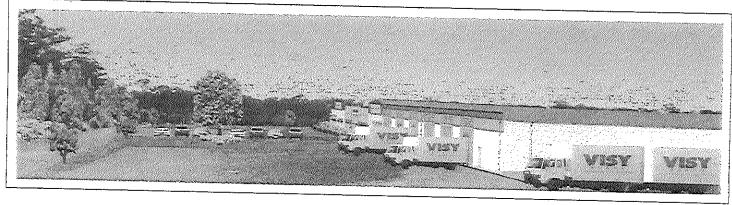


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VISY BOARD MANUFACTURING PLANT

LANDSCAPE SITE ANALYSIS & CONCEPTS



LOT 2 ON RP 163 654 STAPYLTON JACOBS WELL RD STAPYLTON

CLIENT



PRODUCED BY JOHN BRUUN (BEM) MARK REIF (CERT IV HORT)

10/12/05

IOB 619

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Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd – Quinn's Hill Rd, Stapylton. Produced by John Bruun (B.B.M. Environmental Manager) and Mark Reif (Cert.IV Hort, Botanical field assistant). Representing Gassman Development Perspectives, 08/12/2005.

1.0 LANDSCAPE SITE ANALYSIS

DEVELOPMENT PROPOSAL – LOT 2 ON RP 163654 STAPYLTON JACOBS WELL RD, STAPYLTON

1.1 OBJECTIVES OF THE LANDSCAPE SITE ANALYSIS

This site analysis will collect and analyse information from the subject site and its surrounds that relate to the design and construction of the proposed residence. This is provided in order to create a development that, compliments local neighborhood character, incorporates principles that enhances visual amenity and will provide management strategies to reduce negative impacts of the development. This site analysis will help to facilitate a complete assessment of the proposed landscape concepts and its integration within the existing setting.

2.0 VEGETATION MANAGEMENT

2.1 INTRODUCTION

The following vegetation assessment includes the locations and descriptions of the main vegetation communities recorded on-site and the native & introduced species and their interactions. A description of the vegetation type recorded on the neighbouring properties to the east and west of the site has also been included.

2.2 OBJECTIVES

To identify and locate the existing tree species.

To provide specific details to species removal and treatment

To provide on site mulching and stockpile areas for reuse within the landscaping areas if acceptable species are present.

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd—Quian's Hill Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert.IV Hort. Botanical field assistant). Representing Gassman Development Perspectives. 08/12/2005.

2.3 EXISTING VEGETATION

The major vegetation association (as recognized in the G.C.C.C. Nature Conservation Strategy Maps, 1998), for the surrounding areas within the vicinity of the site is recorded as Blue Gum (Eucalyptus tereticornis) – Grey Ironbark (Eucalyptus siderophloia) and / or Pink Bloodwood (Corymbia intermedia) Open Forest. Listed below are the native and introduced species recorded on site.

2.4 VEGETATION COMMUNITIES – (Refer to Vegetation Communities Plan)

An on-site field survey revealed the following vegetation associations contained within the subject site.

Vegetation Community 1 (V.C.1) - Melaleuca Wetland community association is allocated for development as indicated in the proposal plans.

Vegetation Community 2 (V.C.2) - Degraded Drainage System is overgrown with introduced grasses.

Vegetation Community 3 (V.C.3) is distinguished as the mounded stockpile of soil where native re-growth and weed species have been recorded

Vegetation Community 4 (V.C.4) – Re-growth Eucalypt / Allocasuarina Woodland is identified as the corridor of native mixed canopy and under storey vegetation running adjacent to Quinn's Hill Rd.

Vegetation Community 5 (V.C.5) – Cleared Area is mostly devoid of vegetation which is the largest percentage area of the site that is allocated for development.

The vegetation on neighbouring properties has been noted to give an indication of possible associations that may be utilized in landscaped buffer revegetation

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2.4.1 V.C.1: Melaleuca Wetland



Situated on the north-western side of the proposed development is a low-lying wetland area. This system is quite heavily degraded due to the industrial activity surrounding the area, increased sediment loading, fragmentation, rubbish dumping and light exposure, there are a multitude of introduced species which thrive in disturbed areas as well as aquatic conditions. It must also be noted that a good proportion of the natural vegetation conditions still retain the integrity of the original community, therefore a diverse mosaic of native & introduced plant species interacting in this generally open space area with the dominant canopy vegetation being a stand of Melaleuca quiquinervia that is established in the central zone. Occupying the perimeter of these lake areas were a number of native rushes and sedges from the Cyperaceae and Juncaceae families. These included Juncus usitatus (Common Rush) & Schoenoplectus validus (Schoenoplectus), and in the aquatic edge environment a good representation of Eleocharis pusilla (Small Spikerush) and Phylidrum lanuginosum (Frogsmouth) inhabit this area; floating on the surface of the water was the common water lily species, Nymphoides indica, of the Menyantahaceae family. The outer perimeter surrounding the lakes contains a vigorous blady grass layer which includes introduced Poaceae species of both cylindrical & open panicle seed heads, as well as abundant Couch (Cynodon spp.), and in amongst this were a common scattering of native Acacia leiocalyx (Late-flowering Black Wattle) re-growth.

At the water's edge, the introduced species of water weeds that are very common in these environments included Cyperus flavus (sedge), Persicaria attenuata (Smartweed), Wedelia bifurcata (Singapore Daisy) and Baccharis halimifolia (Groundsel Bush); other invasive species sited in the dryer areas include Ageratum houstonianum (Billy Goat Weed), Cirsium vulgare (Scotch Thistle), Verbena bonariensis (Purple Tops) and Ipomoea cairica (Mile-a-minute).

This vegetation community will be removed by the development proposal including the filling of the lake system.

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2.4.2 V.C.2: Degraded Drainage System

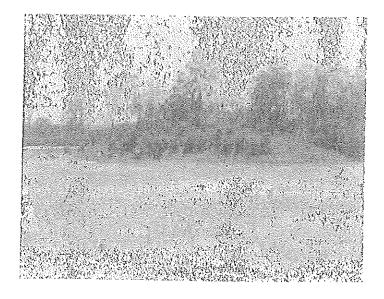


As can be seen in the above image, this section of the site mostly contains overgrown introduced grasses, in particular *Vulpia myuros* (Rat's Tail Fescue), with *Baccharis halimifolia* (Groundsel Bush) and a few other weed species mentioned in the species list. In the foreground, where the turbid, sediment filled water is located, the native water lily, *Nymphoides indica*, is one of the few natives in this vegetation associaton, including a few Acacia re-growth species.

This vegetation community will be removed by the development proposal

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2.4.3 V.C.3: Weed dominated Acacia Re-growth



A large soil stockpile is located on the eastern side of the property and is vegetated by both native re-growth species and an abundance of disturbed site introduced species all of which are competing vigorously for space upon this stock-piled mound. In particular, many juvenile individuals of *Acacia leiocalyx* (Late-flowering Black Wattle) and *Acacia disparrima* (Gold Coast Hickory Wattle), as well as juvenile individuals of several *Eucalyptus & Allocasuarina* species represented the native re-growth, whilst many of the common introduced species that thrive in open, strong light conditions were also present (Billy Goat Weed, Singapore Daisy, Couch grass, Groundsel Bush, Castor Oil Plant, Purple Tops etc).

This vegetation community will be removed by the development proposal

2.4.4 V.C.4: Re-growth Eucalyptus / Allocasuarina Woodland

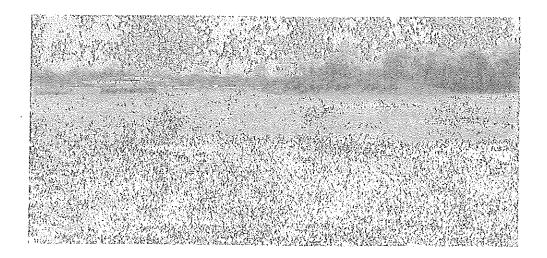


Along the southern perimeter of the site, and running adjacent to Quinn's Hill Road, is a corridor of natural vegetation (between 5 - 10 metres in width) which contains a mixed canopy layer of Eucalypts & associated genera of the Myrtaceae family, this included Eucalyptus propinqua (Small-fruited Grey Gum), Eucalyptus dura (Smooth-branched Ironbark), Corymbia intermedia (Pink Bloodwood), Lophostemon suaveolens (Swamp Box), as well as the endemic Corymbia henryi (Large-leaved Spotted Gum). Making up the sub-canopy and shrub layer were a number of Wattle and She-oak species which represented re-growth in the understorey - the main species noted here were Acacia disparrima (Gold Coast Hickory Wattle), Acacia leiocalyx (Late-flowering Black Wattle), Acacia podalyriifolia (Old Silver Wattle), and Allocasuarina littoralis (Black She-oak); also present were a number of re-growth Dodonaca triquetra (Hop-bush) and Melaleuca leucadendron (Narrow-leaved Paperbark). The ground layer directly beneath the canopy was quite open due to the litter mulch layer produced by the cladodes of Allocasuarina littoralis, but a few natives were present such as Lomandra multiflora (Many-flowered Mat-rush), Daviesia ulicifolia (Gorse Bitter Pea), Hardenbergia violacea (Purple Coral Pea), and Senecio lautus (Senecio). In the more open spaces adjacent to this corridor a few hardy introduced and native species competed for space, such as the cosmopolitan, introduced Melinus repens (Red Natal Grass), Persicaria spp, and Cyperus spp; a few Acacia re-growth species were evident here.

This vegetation community will be retained and enhanced by the revevgetation and landscaping procedures

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2.5.5 V.C.5: Cleared Area



Where the main proposal for development is to be located there is currently a non-vegetated zone where the top-soil and substrate layers have been removed, exposing the underlying shale sedimentary rock type. The only plant species here are a few hardy clumping, and running introduced grasses, as well as a few weed species such as *Passiflora foetida* (Stinking Passionflower).

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd—Quinn's Hill Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert.IV Hort, Botanical field assistant). Representing Gassman Development Perspectives. 08/12/2005.

3.0 VEGETATION PROTECTION

The areas of vegetation to be retained have been identified on the Landscape Concept Plan. These areas will combine with proposed revegetation plantings to provide

- Ecological functions
- Visual Buffers
- Potentials for wildlife habitat
- Habitat corridors
- Rehabilitation frameworks
- A natural landscape feature
- Visual amenity for property owners and local community

The vegetation identified outside of the allocated clearance areas will be protected from on site construction activities by incorporating the following procedures,

- No site sheds parking areas or buildings are located within a vegetation zone or under its drip line.
- The protected vegetation zones will be clearly identified and marked accordingly
- A temporary fence will be placed around any vegetation that occurs within 10m proximity from building envelope clearance and road construction activities.
- Vegetation identified for retention will only be selectively pruned if necessary, in accordance with AS 4373 1996 "Pruning of Amenity Trees".
- Soil levels within the protected vegetation zones are not to be altered.

The vegetation removal process has focused on providing environmentally sensitive and sustainable practices, these include

Reuse of felled material on the site as mulch within landscaping areas

Whilst most of the site is already heavily cleared and disturbed and there are no significant tracts of remnant vegetation, it is suggested that in particular where the corridor of Eucalypt canopy vegetation running adjacent to Quinn's Hill Rd be retained as best as possible as it contains the endemic Corymbia henryi (Large-leaved Spotted Gum), and that sample species be used in further on-site landscaping projects as these species represent those that are well suited to the shale rock type of the region. Also, where the low-lying wetland is to be in-filled, a note of those particular native species which may be appropriate for proposed swale / gully buffer revegetation (for eg, Phylidrum lanuginosum, Schoenopletus validus, Juneus usitatus, Eleocharis spp, and Melaleuca spp — a comprehensive listing is to be included with the recommended landscape plantings).

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3.1 VEGETATION TO BE REMOVED

The Vegetation Communities Plan provides locations and type of the plant species for removal, listed below are the specific requirements and treatments that will be implemented to ensure the best practice method of clearing is used on the site.

3.1.1 Vegetation Clearing Process

- 1) All Machine Operators are to have an on site meeting with the Environmental Manager prior to commencement
- 2) The area surrounding the tree for removal is clear of any hazards and maintains adequate room to safely conduct the removal.
- 3) Clearly mark and protect vegetation to be retained within 10m of building envelope and road construction areas.
- 4) Fell the allocated vegetation ensure that it occurs in the recommended clearance direction
- 5) Woodchip felled vegetation on site.
- 6) Stockpile the mulch in allocated areas indicated on The Impact Assessment Plan, If for unforeseen circumstances this turns out to be unsuitable, site supervisors may identify alternate stockpile locations in accordance with the stockpile specifications.
- 7) Stump grind remains or remove with excavator.

3.1.2 Wood chipping

The wood chipped vegetation is proposed to be reused on the site in future landscape plantings. Pasteurization is the minimum process required to achieve weed and pathogen free mulch from the chipping process.

The vegetation proposed for wood chipping is weed free and poses little threat from contaminants. Stockpiles of mulch will need to be at 55°C for three weeks to produce conditions to kill possible pathogens, longer periods will not damage the material however occasional turning of the stockpile will limit decomposition of the mulch.

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3.1.3 Wulch germination test

Before the use of the mulch, lay a 1m2 sample on the ground at the proposed mulching thickness for planting areas. The sample mulch should be watered and fertilized at rates proposed by the planting. This sample should be inspected in 2 weeks to determine any signs of weed germination.

If weed germination occurs the stockpiled mulch should be covered with black plastic to trap in heat to reach the required temperatures, and left for an additional 3 weeks, then tested again.

Any existing logs or rocks in building envelopes and road construction areas allocated on the existing cleared land will be placed in rehabilitation zones where they can provide maximum habitat potential.

3.1.4 Stockpiles

Stockpiles are not to be located within 30m of a creek system or water body

Stockpiles are not to be located within 30 meters from significant stands of vegetation

Stockpiles are not to be located in areas allocated for road constructions.

Stockpiles are not to be located in areas with difficult access or on steep slopes.

3.1.5 Hollow Bearing Trees

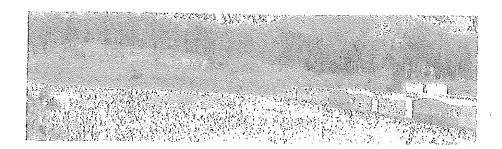
The subject site contains no trees with hollows

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4.0 SURROUNDING ENVIRONMENT



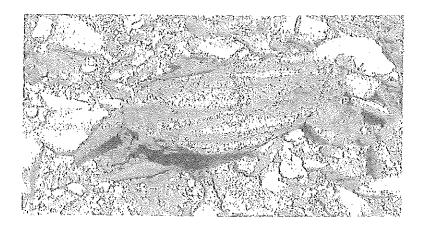
To the east of the site an Open Eucalypt Forest is dominated by Ironbarks and Stringy barks including the following species — Eucalyptus acmenoides (White Mahogany), Angophora leiocarpa (Smooth-barked Apple), Eucalyptus siderophloia (Grey Ironbark) and Eucalyptus fibrosa (Broad-leaved Ironbark). In the understorey were many re-growth Acacias such as A.leiocalyx & A.disparrima. Along the fence line were re-growth Melaleuca sp. and Allocasuarina sp. adjoining the site.



On the western side of the site, the adjoining property was of a very different vegetation structure of mostly open degraded grassland of introduced species with a perimeter of native vegetation similar to that of the industrial site and eastern neighbouring property. Also noted on this property were a number of dead Eucalypt trees scattered amongst this grassland.

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5.0 GEOLOGY



The geology of the region is described as Mesozoic to Proterozoic moderately to strongly metamorphosed sediments (Sattler P., & Williams R., Eds. 1999) – the digital image was taken on site and shows bedding layers of a shale sedimentary rock amongst scattered rock fragments which litter the site and have been exposed with the removal of the topsoil & substrate layers which originally covered the site. A nearby road cutting (about 50 metres from Quinn's Hill Road) shows the large scale tilting of the original bedding layers. Also noted on site in some of the shallow ditches and swales were clay types, known as 'cracking clays' (eg, Illite), which are derived from such sedimentary rocks as shale.

5.0 MICRO-CLIMATE

The micro-climate of the site is determined by such factors as distance to the ocean (and hence sea breezes etc), aspect (determined by sun direction), prevailing winds, surrounding ranges, annual rainfall, humidity, and topography. In the case of this Stapylton site, the Pacific Ocean is approximately 12-13 kms to the east (via the Redland Shire) and would still receive minimal ocean derived breezes, the wind direction noted at the time of the field assessment was northerly. Because the site is of a very open (ie, exposed) nature – due of course to past clearing and industrial activity – the sun would be extremely harsh throughout the middle of the day (in regards to landscape replanting this should be noted and hardy species selected for such conditions, as well as the cracking clays to be taken into account). It is quite likely that as this is a low-lying area surrounded by ranges in certain directions as can be seen below to the west, there would be low, cool fog in the morning before the temperature climbs rapidly during the day and cooling again mid-evening, producing a wide range of temperature parameters.

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd—Quina's Hill Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert.IV Hort. Botanical field assistant). Representing Gassman Development Perspectives. 08/12/2005.

6.0 ENVIRONMENTAL FEATURES

In the context of the environmental significance of the site and it's ecological connection with other terrestrial vegetation systems, there are a number of factors which can be considered to link topographical features together (with the possibility of landscape enhancement to provide vegetation corridors and fauna / flora links as a buffer system is put in place) – these would include the moderately well established re-growth vegetation systems occurring on neighbouring properties, the Albert & Logan Rivers to the east and north of the site within a 5 km radius, also the Carbrook Wetlands Conservation Park to the north and the Tambourine Ranges further to the south. Immediately to the west of the site is a small vegetation-covered hillside which provides links to the site for arboreal birds and mammals. Within the site itself there are a number of proposed bior retention swales and buffer plantings that have the potential to be a focus for future links (with environmental enhancement by selection of endemic species and those that attract native wildlife). Naturally the in-filling of the existing lake system, albeit a disturbed area, will reduce wetland diversity on-site and has been offset by further plantings.

7.0 NOISE SOURCES

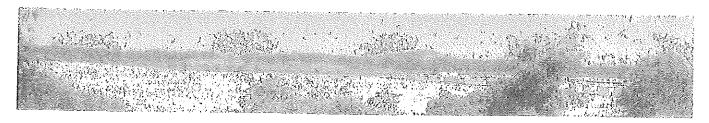
The main influence of noise on the subject site is caused by the traffic from Stayplyton Jacob's Well Road and the industrial properties adjacent to the site, both are located to the North.

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd – Quinn's Hifl Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert. IV Hort. Botanical field assistant). Representing Gassman Development Perspectives. 08/12/2005.

8.0 VISUAL ANALYSIS

The following visual analysis gives directional views from various locations on-site, with a short description of the topographical and man-made visual characteristics of relevance.

8.1 WEST



VIEW

Across the site, towards the west at the neighbouring property and beyond.

CHARACTERISTICS

This image shows the raised, sloping property neighbouring the site with it's cleared rural character and introduced grass covering in the middle of the image. Behind this property to the right is a vegetated range which also shows signs of man-made activity — extractive industry — with water tower at top. The significance of these sloping hills and range is its fauna / ecosystem linkage when the on-site native landscape plantings have been established.

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd – Quina's Hill Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert.IV Hort. Botanical field assistant). Representing Gassman Development Perspectives. 08/12/2005.

8.2 SOUTH



VIEW

Looking towards the south-east comer of the site where Quinn's Hill Rd adjoins the property to the east.

CHARACTERISTICS

This view clearly shows the bare open space of the site proper, plus the fringing vegetation that forms the corridor along Quinn's Hill Rd as well as the vegetated rural properties in the background, also depicting the start of the Open Eucalypt Forest to the left of the image from the neighbouring property.

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8.3 NORTH



VIEW

Looking towards the north from the subject site.

CHARACTERISTICS

This view shows the existing industrial land to the north of the site which can be accessed via Stapylton Jacob's Well Rd. This image also shows the relatively level surface of the exposed central zone.

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8.4 EAST



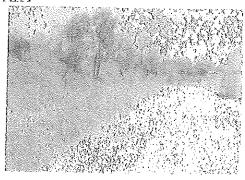
VIEW

This image is a view looking towards the east at the adjacent property.

CHARACTERISTICS

This view demonstrates the existing Eucalypt forest that is present on the adjacent propertyAs has been mentioned in the Vegetation Communities section, this adjoining property gives indications of the former native species types which can be useful when assessing the types of species that grow well in the clay soils of the area and provides correlations for endemic buffer zone planting concepts.

8.5 WESTERN BOUNDARY



VIEW

Looking towards the north and running parallel to the western side of the property, existing industrial buildings can be seen to the right and directly ahead.

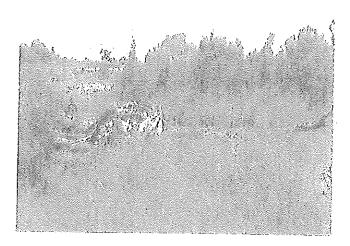
CHARACTERISTICS

This vegetation zone and the adjacent track will be the focus of a much improved native rehabilitation and revegetation landscape swale buffer zone - all of which will have the purpose of creating corridor linkages, sediment quality control & runoff, and aesthetic enhancement through native planting guilds.

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd – Quinn's Hill Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert.IV Hort, Botanical field assistant). Representing Gassman Development Perspectives, 08/12/2005.

9.0 MATERIAL REUSE

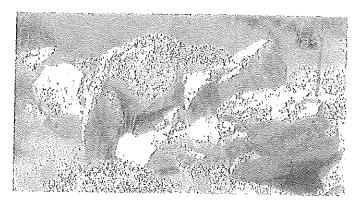
1) Cleared vegetation and existing felled vegetation to be reused as mulch



Function

The existing felled vegetation on the site and the vegetation allocated for removal will be wood chipped on site stockpiled and reused as mulch with the landscaping areas

2) Rocks to be reused in bio retention swales and buffers

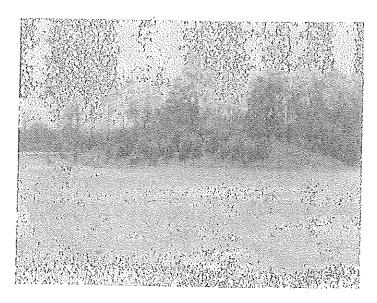


Function

This image has been included to indicate the usefulness of on-site materials, it is proposed that these types of large boulders occurring on the site be utilized for both function and form in the buffer zone & landscape layout (a visual representation – virtual image of buffer re-plantings - has been included as part of a 5 year projection), they will provide micro-habitats as part of an ecosystem swale corridor, and just as importantly they can provide the function of bank stabilization for water run-off and lastly add aesthetic appeal which ties in well with the landscape character intent of the Albert Region Rural / Industrial corridor.

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd – Quinn's Hill Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert.IV Hort. Botanical field assistant). Representing Gassman Development Perspectives. 08/12/2005.

3) Topsoil stockpiles



Function

Whilst it is good practice to utilize on-site materials to maximum benefit, the soil quality of this mound would be too impure to be used for buffer replanting as it contains copious amounts of weed seed stock evident in the re-growth. However, the soil may be used for in-filling the lake and non-level surfaces proposed for development.

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd—Quinn's Hill Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert.IV Hort, Botanical field assistant). Representing Gassman Development Perspectives. 08/12/2005.

10.0 BUILT FORM AND CHRACTER OF ADJACENT PROPERTIES

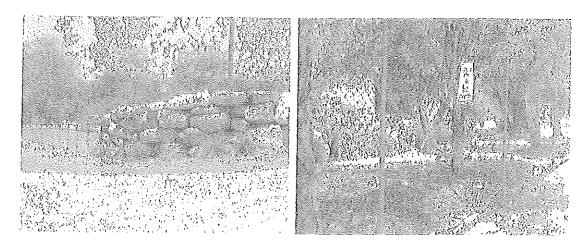
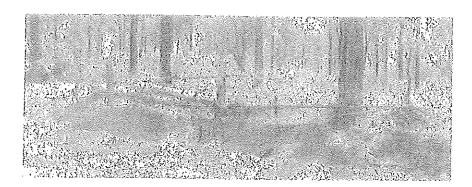


Image taken from a neighbouring industrial property.

This provides and example of how buffer areas and landscaping rocks may be utilized in a simple buffer replanting, it provides visual back-up of effective use of materials and, as mentioned above, awareness of maintaining some integration in concept and design with neighbouring properties of similar land use.

11.0 ON-SITE FENCING



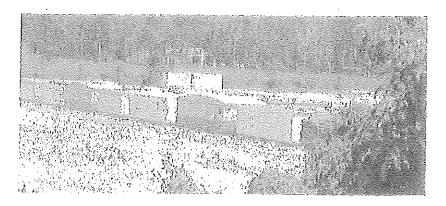
The existing on site fencing is made of degraded and broken hardwood timber and barbed wire it will be removed from site to accommodate the proposed development. It is recommended that a fauna friendly fence is erected that allows movement between the buffer areas and the neighbouring vegetation.

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd – Quinn's Hill Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert.IV Hort. Botanical field assistant). Representing Gassman Development Perspectives. 08/12/2005.

12.0 CHANGES IN LEVELS

The topographical information provided on the site plan demonstrates changes in levels are associated with the gully depressions running parallel to the western side of the site which adjoins the neighbouring property to the west. The proposed development area is relatively flat with proposed retaining walls located in the South Western corner of the site.

13.0 EXISTING BUILDINGS



The site contains portable offices and storage containers these will be relocated to cater for the proposed development.

14.0 COMMUNITY FACILITIES



Local shops, hotel and petrol station are located across Stapylton Jacobs Well road. The Stapylton landfill and recycling centre, New Haven Crematorium and memorial gardens and the Yatala Drive In are all located within 2km of the site.

Statement of Landscape Intent and Landscape Site Analysis for the proposed industrial development on Lot 2, Jacob's Well Rd – Quian's Hill Rd, Stapylton. Produced by John Bruun (B.E.M. Environmental Manager) and Mark Reif (Cert.IV Hort. Botanical field assistant). Representing Gassman Development Perspectives. 08/12/2005.

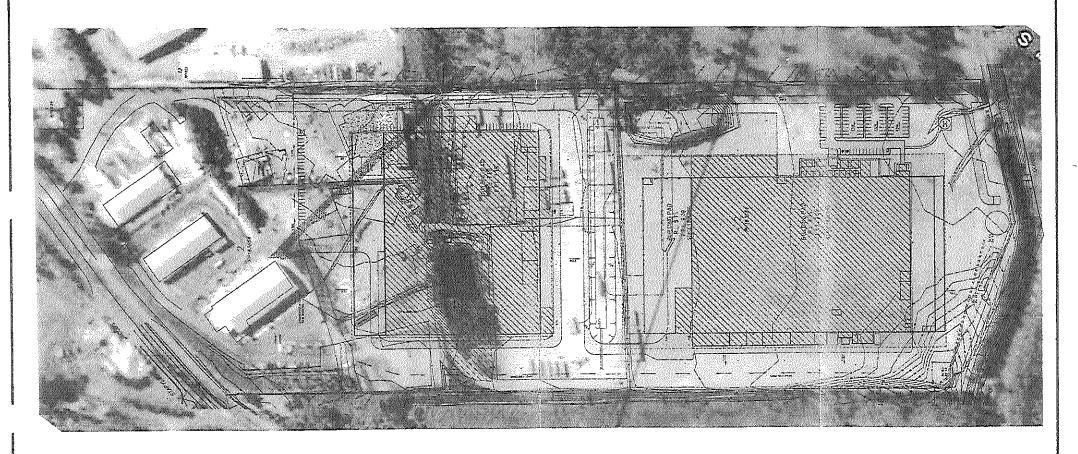
15.0 DESIRED LANDSCAPE CHRACTER

O

The proposed landscaping, bio retention swales revegetation buffers areas proposed for the development allow the site to incorporate many features sought after in the landscape character of the Albert Corridor. This includes that the areas of the development can provide frontages and screening areas that present an attractive garden outlook using predominately native species, retain and enhance existing natural vegetation and drainage systems by using ecological stable species that enhance water quality and increase habitat potentials.

The concept behind the proposed landscaping areas of the development will provide a wide range of functions, especially as the revegetation and landscaping areas continue to develop. These benefits will include an increase in ecological processes, visual buffers, increase wildlife habitat, and provide natural landscape features and visual amenity for property owners and the local community

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PLANT LOT 2 RP 163654
STAPYLTON JACOBS
WELL RD, STAPYLTON

Parish of County of Local Govt



gassman surveyors
development planners
perspectives designers

ACN 010 752 388

Beenleigh Professional Centre
Chr Manild & Comeron Streets
BEENLEIGH Q. 4207

P.O. Box 392 BEENLEIGH 4207 Telephone: (07) 3807 3333 Mobile: 041 788 7077 Fax: (07) 3287 5451 Email: moll@gassman.com.au

REFERENCE No. 0000-00

PI IT SPECIES RECORDED ON SITE

NATIVE SPECIES

SCIENTIFIC NAME

Acacia disparrima

Acacia leiocalyx

Acacia podalyriifolia

Allocasuarina littoralis

Corymbia henryi

Corymbia intermedia

Daviesia ulicifolia

Dodonaea triquetra

Eleocharis pusilla Eucalyptus dura

Dacitypius uuru

Eucalyptus propinqua

Eucalyptus seeana

Eucalyptus sideropholia

Eucalyptus tereticornis

Hardenbergia violacea

Juncus usitatus

Lomandra multiflora

Lophostemon suaveolens

Macaranga tanarius

Melaleuca leucadendron

Melaluca quinquinervia

Phylidrum lanuginosum

Schoenoplectus validus

Senecio lautus

COMMON NAME

Hickory wattle

Late-flowering Black Wattle

Old Silver Wattle

Black She-oak

Large-leaved spotted gum

Pink bloodwood

Gorse Bitter Pea

Hop Bush

Small Spike Rush

Smooth-branched Ironbark

Small-fruited Grey Gum

Narrow-leaved Red Gum

Grey ironbark

forest red gum

Purple Coral Pea

Common Rush

Many-flowered Mat-rush

Swamp Box

Macaranga

Narrow-leaved Paperbark

Paperbark

Frogsmouth

River Clubrush

Variable Groundsel

INTRODUCED SPECIES

Vulpia myuros

Passiflora foetida

Persicaria attenuata

Wedelia bifurcata

Baccharis halimifolia

Ageratum houstonianum

Ipomoea cairica

Cynodon dactylon

Ricinus communis

Verbena bonariensis

Cirsium vulgare

Bidens pilosa

Leucaena leucocephala

Cyperus flavus

Melinus repens

Gomphocarpus physocarpus

Rat's Tail Fescue

Stinking Passionflower

Smartweed

Singapore Daisy

Groundsel Bush

Billy Goat Weed

Mile-a-minute

Couch

Castor Oil Plant

Purple Tops

Scotch Thistle

Cobbler's Pegs

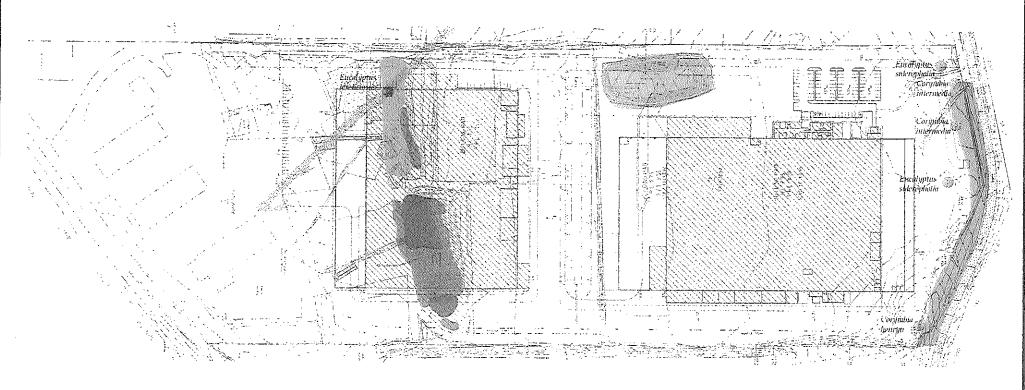
Coffee bush

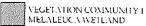
Sedge

Red Natal Grass

Balloon cotton

VEGETATION COMMUNITIES





VEGETATION COMMUNITY 2 DEGRADED DRAIN AGE SYSTEM

VEGETATION COMMUNITY 3 WEED DOMINATED ACACIA REGROWTH

VEGETATION COMMUNITY 4 REGROWTH EUCALYPT CASUARIN A WOODLAND

VEGETATION COMMUNITY 5 CLEARED AREA

PERMANENT WATER

SAME INCLUDE



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ACN 010 752 388 Beenleigh Professional Centre Car Manila & Comeron Streets BEENLEIGH Q. 4207

P.O. Box 392 BEENLEICH 4207 Telephone: (07) 3807 3333 Mobile: 041 788 7077

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RECOMMENDED SPECIES FOR LANDSCAPING AREAS

SCIENTIFIC NAME

Palms & Cycads

Archontophoenix cunninghamiana

Archontophoenix alexandra Lepidozamia peroffskyana

Livistonia australis

Linospadix monostachya

Dioon spinulosum

Trees

Acmena smithii

Backhousia citriodora Brachychiton acerifolius Buckinghamia celsissima

Callistemon salignus

Calistemon viminalis Cupaniopsis anacardiodes

Elaeocarpus reticulatis
Eucalyptus summer red
Xanthostemon chrysanthus

Shrubs

Acacia podalyriifolia Austromyrtus dulcis

Austromyrtus inopholia

Baekea virgata (Dwarf) Banksia 'Giant candles'

Banksia spinulosa

Calistemon viminalis(dwarf)

Callistemon pearsonni

Cordyline stricta Cyathea coopeii Dianella caerulea Elaeocarpus Cultivar Grevillia 'ned kelly'

Grevillia ned kelly Grevillia 'Cocoanut ice' Grevillia 'honey gem' Grevillia sandra gordon Grevillia 'Robyn Gordon'

Leptospermum flavecens Melaleuca linariifolia

Melaleuca thymifolia Pittosporum revolutum

Pultenaea villosa Syzygium luehmanni Syzigium paniculatum

Westringia fruticosa

Ground covers

Lomandra longifolia Crinum pedunculatum

Poa labillarddieri Themeda australis

COMMON NAME

Bangalow palm Alexandra palm

Shinning burrawong

₂Fan palm

Walking stick palm

Dioon

Liliy pily

Lemon Scented myrtle

Flame tree lvory curl

White Bottlebrush

Wildfire Tuckeroo Blueberry ash Summer red Golden Penda

Qld Silver Wattle

emblem

Blushing beauty

Baekea

Giant candles Spinulosa Little John

Rocky rambler

Palm lily
Tree fern
Cassa Blue
Prima donna
Ned kelly
Cocoanut ice
Honey gem
Flowers along
Robyn Gordon
Wild May

Copper tops thyme leaved myrtle Yellow Pittosporum

Hairy Pea Bush standard lily pily

lilly pily

coast rosemary

Tanika River lily

Tussock grass Kangaroo Grass

RECOMMENDED NATIVE SPECIES FOR BIO-RETENTION SWALES

Botanical Name

CANOPY

Angophora subvelutina Casuarina cunninghamiana

Diploglottis australis Eucalyptus grandis Eucalyptus robusta Eucalyptus seeana Eucalyptus tereticornis

Ficus coronata

Lophostemon confertus
Lophostemon suaveolens
Melaleuca leucadendron
Melaleuca quinquinervia
Waterhousia floribunda

UNDERSTOREY

Acacia longissima
Acacia maidenii
Acacia melanoxylon
Babingtonia similis
Callistemon salignus
Callistemon viminalis
Commersonia bartramia
Dodonaea triquetra
Hovea acutifolia

Leptospermum polygalifolium

Macaranga tanarius Syzygium wilsonii

GROUND COVER

Alpinia caerulea
Austromyrtus dulcis
Baumea articulata
Cordyline stricta
Dianella caerulea
Juncus usitatus
Lomandra hystrix
Melastoma affine

Common Name

Broad-leaf Apple
River She-oak
Native Tamarind
Flooded Gum
Swamp Mahogany
Narrow-leaved Red Gum

Forest Red Gum

Creek Sandpaper Fig

Brush Box Swamp Box

Narrow-leaved Paperbark Broad-leaved Paperbark

Weeping Lilly Pilly

Long-leaved Wattle Maiden's Wattle Black Wattle Tall Baeckia

Willow Bottlebrush Weeping Bottlebrush Brush Kurrajong

Hop bush

Pointed-leaf Hovea

Tantoon Macaranga

Powder-puff Lilly Pilly

Native Ginger Midgenberry Baumea Tall Cordyline Paroo Lilly Common Rush Creek Mat-rush

Blue Tongue

RECOMMENDED SPECIES FOR BUFFER ZONE

CANOPY

Corymbia intermedia
Corymbia citriodora
Eucalyptus tereticornis
Eucalyptus propinqua
Angophora leiocarpa
Eucalyptus acmenoides
Angophora woodsiana
Lophostemon confertus
Eucalyptus fibrosa
Corymbia henryi
Eucalyptus dura
Eucalyptus crebra
Eucalyptus siderophloia

UNDERSTOREY

Acacia disparrima
Acacia falcata
Acacia leiocalyx
Alyxia ruscifolia
Austromyrtus dulcis
Babingtonia similis
Baeckea virgata
Banksia robur
Breynia oblongifolia
Bursaria spinosa
Callistemon pachyphyl

Callistemon pachyphyllus Cassinia subtropica Daviesia ulicifolia Dodonaea triquetra Hovea acutifolia

Leptospermum polygalifolium Luecopogon recurviseplaus (E)

Melaleuca thymifolia Melastoma affine

Ozothamnus diosmifolius Pittosporum revolutum

Pultenaea villosa

GROUND COVER

Lomandra multiflora Lomandra longifolia Themeda australis Patersonia sericea Daviesia ulicifolia Hardenbergia violacea Pink Bloodwood Spotted Gum Forest Red Gum Small-fruited Grey Gum Smooth-bark Apple

Smooth-bark Apple White Mahogany

Smudgee Brush Box

Broad-leaved Ironbark
Large-leaved Spotted Gum
Smooth-branched Ironbark
Narrow-leaved Red Ironbark

Grey Ironbark

Gold Coast Hickory Wattle

Sickle Wattle

Late-flowering Black Wattle

Prickly Alyxia Midyimberry Tall Baeckia

Twiggy Heath Myrtle Swamp Banksia Coffee Bush Prickly Pine

Wallum Bottlebrush Broad-leaved Cassinia Prickly Native Gorse

Dogwood

Pointed-leaved Hovea

Tantoon

Thyme-leaved Honey Myrtle

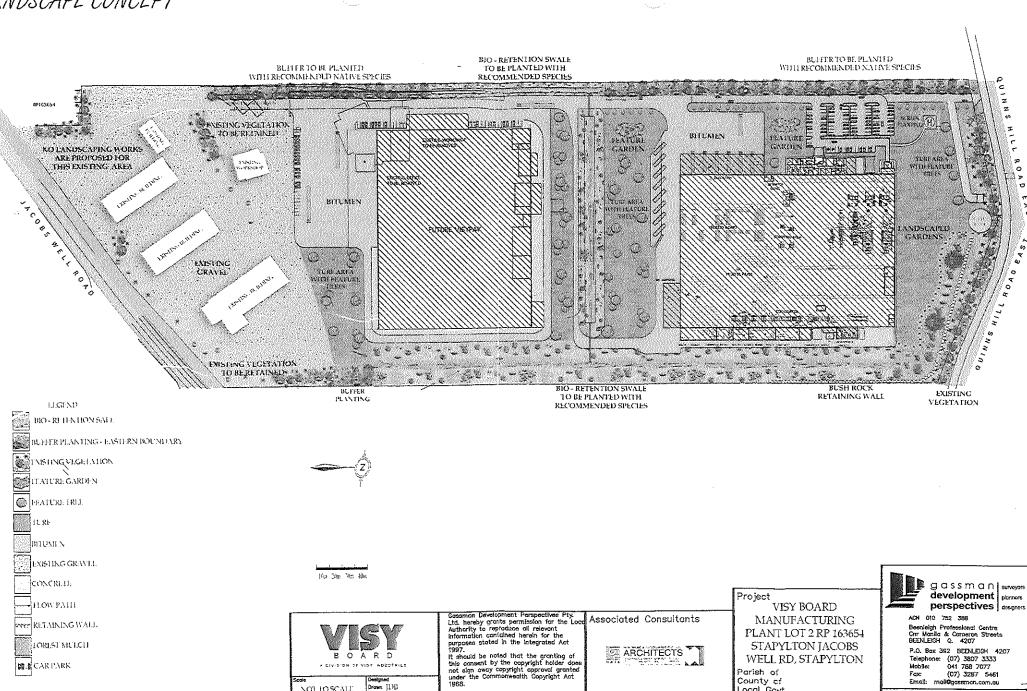
Blue Tongue Sago Flower

Yellow Pittosporum Hairy Bush Pea

Many-flowered Mat-rush Spiky-headed Mat-rush Kangaroo Grass

Silky Purple Flag Gorse Bitter Pea Purple Coral Pea

L. NDSCAPE CONCEPT



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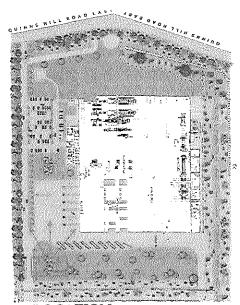
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LANDSCAPED CARPARKS & EASTERN BUFFER ZONE





LOCATION OF PHOTO

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STAPYLTON JACOBS
WELL RD, STAPYLTON

Parish of County of Local Govt

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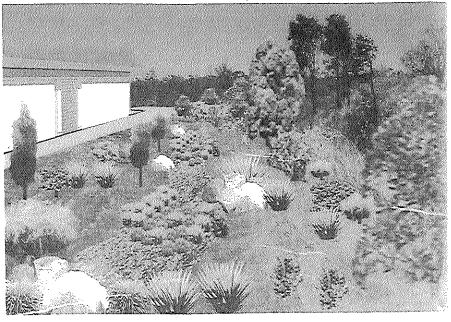
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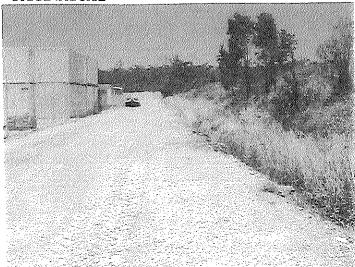
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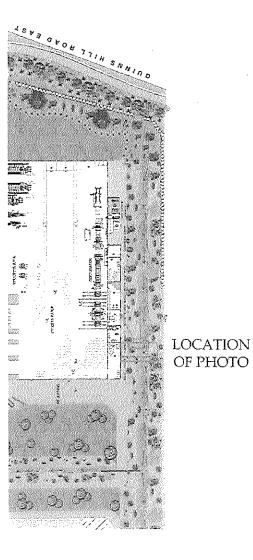
DIGITAL CONCEPT DESIGNS

BIO - RETENTION SWALE - 5 YEAR PROJECTED VEGETATION STATUS



ORIGINAL SITE





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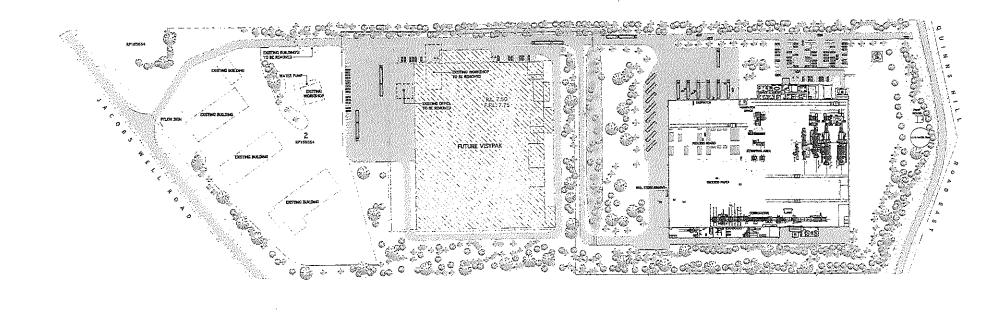


APPENDXF

Site Plan
Part Site Plan
Elevation
Signage Concept

Prepared by W N Webb & Associates Architects Pty Ltd

3864assmtrpt.doc



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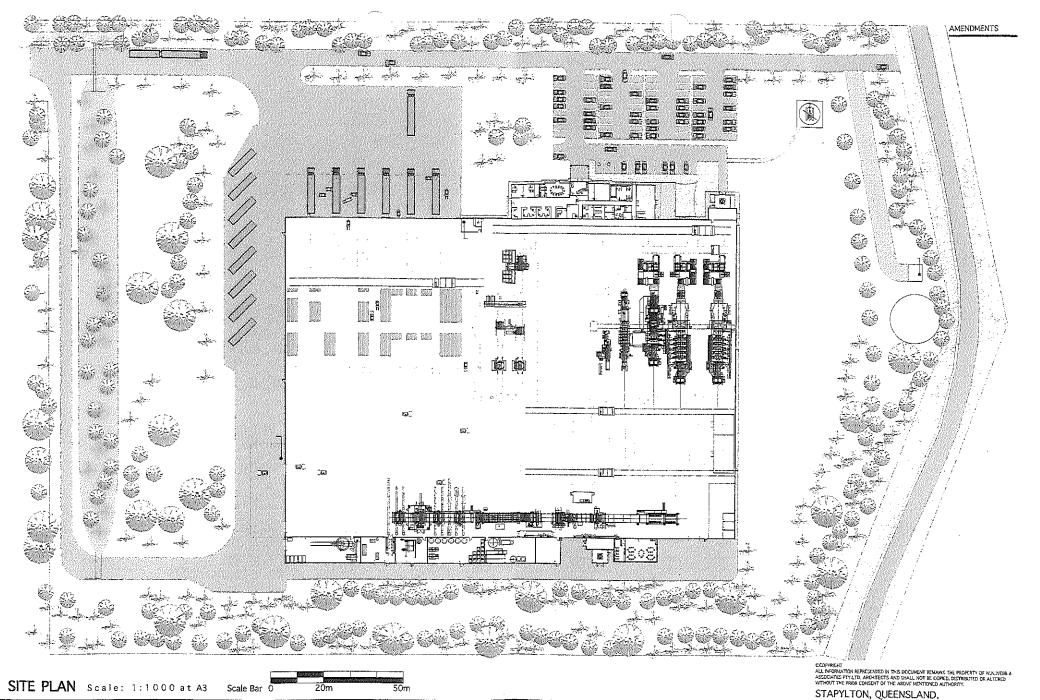
PROJECT No. **S2949**

PROPOSED NEW VISY BOARD MANUFACTURING PLANT, AT STAPYLTON. FOR VISY INDUSTRIES

SITE PLAN Scale: 1:2500 at A3 Scale Bar 0 20m





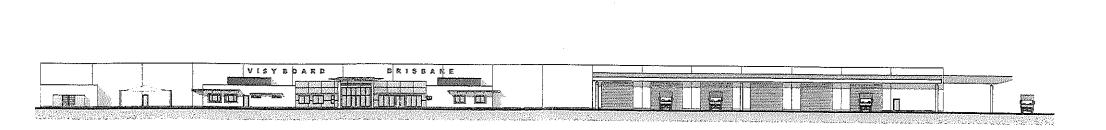


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PART STE PLAN
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PART STE PLAN
SCALC: 1:1000
PROJECT No. DWG No.
S2949
02



ELEVATION Scale: 1:500 at A3

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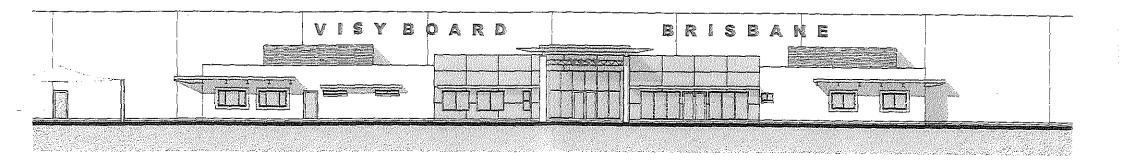


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ELEVATION: ORAWN. L.T.

| SCALE: 11.51
| PROJECT No. DAW

\$2949



PART ELEVATION (Office Component) Scale: 1:200 at A3

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VISY PAPER 4 & 5

VISY RECYCLING

VISY PAPER COATINGS

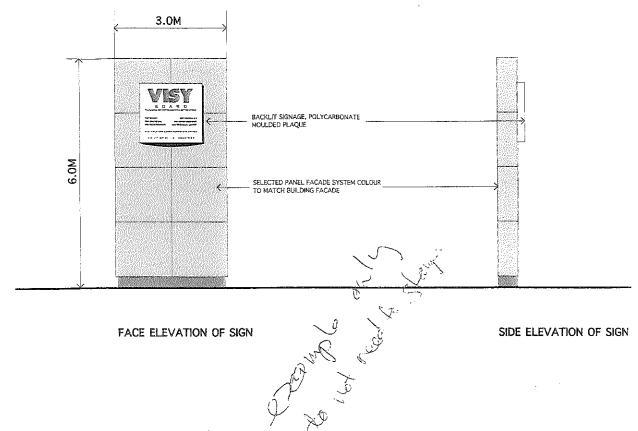
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A DIVISION OF VISY INDUSTRIES

DETAIL OF SIGNAGE



SIGNAGE CONCEPT N. T. S.

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> SCALE: NTS S2949

DIVG No.

VISY PROJECT LOT 2 ON RP163654, STAPYLTON STORMWATER QUALITY MANAGEMENT STRATEGY

Report Prepared For

Gassman Development Perspective Pty Ltd

Report #J8632/R2 December, 2005

Cardno Lawson Treloar Pty Ltd Level 1 9 Gardner Close Milton QLD 4064 Australia

Telephone: 61 7 3310 2455

Facsimile:

61 7 3369 9722

A.C.N, 001 882 873 ABN: 55 001 882 873



REPORT STATUS

Version	Date	Status	Prepared by:	Reviewed by:	Approved by:
J8632/R2	21/12/05	FINAL	КТО	DNN	NIC
			KTQ	DNN	NIC
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Figure 3 – MUSIC Pre-Development Model Layout
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Figure 5 – Conceptual Construction Stormwater Management Strategy
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APPENDIX

Appendix A – Stormwater Management Plan Appendix B – Maintenance Plan Details



1. INTRODUCTION

This Stormwater Quality Management Strategy (SWMS) has been prepared by Cardno Lawson Treloar Pty Ltd (CLT), specialist hydraulic and water quality consultants, on behalf of Gassman Development Perspectives Pty Ltd, for a proposed industrial development situated between Jacob Wells Road, Woolshed Road and Quinns Hill Road East. The site covers Lot 2 on RP163654, Parish of Albert, County of Ward, as shown on Figure 1.

This report is intended to demonstrate for a Material Change of Use application for industrial purposes, the stormwater and water quality management for the proposed industrial development is in accordance with Gold Coast City Council's (GCCC's) draft *'Stormwater Management and Water Quality Guidelines'* (2002a).

A separate report has been prepared to assess the hydraulic impacts of the proposed industrial development is in accordance with the requirements of Gold Coast City Council's (GCCC's) draft 'Stormwater Management and Water Quality Guidelines' (2002a). This report has been prepared by Cardno Lawson Treloar for Gassman Development Perspectives Pty Ltd 'Visy Project Stayplton Site Flooding Investigation' dated December 2005 (ref# J8632/R1).



2. PURPOSE AND SCOPE OF THE REPORT

The purpose of this SWMS is to evaluate the quantity and quality of stormwater associated with the proposed industrial development and indicate to GCCC an appropriate management strategy has been adopted. This SWMS will be in effect throughout construction and until all operational conditions, as set out in the Stormwater Management Plan (SWMP), are met. In addition this SWMS provides guideline requirements for future commercial/residential development stages.

Included in Appendix A is a SWMP for water quality, for possible inclusion in an overall environmental management plan (EMP). The SWMP is a framework of reference to prevent adverse water quality impacts on the environment throughout the construction and operational phases of the development.

The SWMP specifically addresses the following, for both construction and operational phases on various elements/issues:

- Operational Policy (Objective);
- Performance Criteria:
- Responsibility;
- Implementation Strategy;
- Monitoring;
- Auditing;
- Reporting;
- Identification of incident or failure; and
- Corrective action;

With correct application of the SWMS:

- appropriate standards will be maintained on all stormwater aspects within the site;
- pollution control measures will operate correctly and be maintained;
- the surrounding area will not be adversely affected nor unduly disrupted by stormwater during construction, operation and maintenance; and
- a unified clear and concise plan for stormwater management is available throughout every step of the development process.



3. SITE CHARACTERISTICS

The subject site is located on Lot 2 RP836914. The site boundary is shown in Figure 1. The main access to the site is from Jacob Wells Road to the north.

The site is approximately 16 ha in size and is bounded by:

- Jacob Wells Road to the north;
- Quinns Hill Road East to the south:
- The existing lot 2 WD4654 to the west; and
- Lot 10 RP184230 and lot 11 RP184230 to the east (Refer Figure 1).

The site is cleared open land with generally impervious soils, with elevations generally between 6.5mAHD with a local hill rising up to 14mAHD. surrounding hills on the north, south and east side form the catchment boundaries for the subject site. Woolshed Road forms the catchment boundary on the west side.

In the current situation an excavated channel crosses the site from east to west, with a local dam within this channel being used for fire fighting purposes. The excavated channel drains the run off from external catchments, as well as the bulk of the site drainage. The excavated channel passes through an 1800mm diameter pipe before leaving the site on its way to lot 11 RP 184230, where, after 250 metres the flow reaches Woolshed Road and passes through 12/900x750 RCBCs. From this point forward, the flow heads off in a north-west direction towards Jacob Wells Road. The ultimate receiving waters for the site are that of the Logan River via Sandy Creek.

Only a relative small part of the site drains away from the excavated channel. In the current situation, there is a minor sheet flow off the south-west corner of the site to Quinns Hill Road East.

The proposed development layout has been provided by Cozens Regan Williams Prove Pty Ltd. The plan indicates that the commercial component of the overall proposed development will consist of two industrial building, local roads and parking places.

A new building is proposed over the existing excavated channel. Therefore a new drainage path is proposed that consists for a large part of two interconnecting basins to create additional storage. The main basin is situated 135 metres south of the current channel; the second basin is positioned along the east side of the site, connecting the current channel with the main basin. Along the west side of the site, a new channel is proposed to divert water flows out of the detention basin and back to the original drainage path.



4. DATA

Site specific data used for assessments of water quality have been based on:

- Detailed survey of the site supplied by Gassman Development Perspectives Pty Ltd;
- Overall layout and concept design for the site prepared by Cozens Regan Williams Prove Pty Ltd. Details of the concept design are shown on Figure 2: and
- « Rainfall data for Beenleigh provided by Bureau of Meteorology.



5. OPPORTUNITIES AND CONSTRAINTS

5.1 Risk Assessment

Gold Coast City Council's Draft 'Stormwater Management and Water Quality Guidelines' (2002a) indicates that a risk assessment be undertaken for each proposed development.

To assign a risk level for the proposed industrial site the following has been considered:

- Proximity of significant receiving waters (a small tributary of Logan River);
- Type of development (small Industrial development); and
- Flow paths passing through the site (drainage path flows through the majority of the site).

Based on the above, the proposed industrial site is considered as 'High Risk' in accordance with the GCCC guidelines. This, therefore, indicates that high order modelling should be undertaken. Details of the Water Quality assessment are discussed in Section 7.

5.2 Constraints

Key Statutory requirements that provide constraints for the proposed development include the following:

- Stormwater discharging from the Site is to be at acceptable discharge standards, in terms of quality (i.e. pollutants are to be contained and/or controlled on-site).
- Reasonable and practicable measures must be implemented to avoid inappropriate use of any floodways, mitigation basins or waterbodies.
- All reasonable and practicable measures must be taken to minimise or prevent environmental harm.
- EPA's requirements for water quality control relevant to the Site are detailed in the EPP for Water, and in their 'Quality Control Guidelines – Stormwater for Local Governments.'



5.3 Opportunities

The opportunities identified for the proposed Visy industrial site include:

- Provision of a design, management and on going maintenance set of guidelines; and
- Adoption of suitable management practices to ensure the water quality is discharged at an acceptable level.



WATER QUALITY

6.1 Environmental Values and Water Quality Objectives

As indicated, the site drains to a tributary of Logan River. The tributary discharges into the Logan River, which flows to the southern extents of Moreton Bay.

Considering the importance of the downstream receiving waters, an appropriate stormwater management strategy should ensure that no detriment to the downstream environment is caused by the proposed development. To this end, Water Quality Objectives (WQOs) have been nominated for the project based on existing and potential environment values (EVs) associated with Coomera River's current condition.

Typically EVs for receiving waters are based on stakeholder/community opinions arising out of a consultation process and catchment management planning. From discussions with GCCC this has not occurred for the Coomera River catchment; therefore, EVs based on 'South East Queensland Regional Water Quality Management Strategy' (September 2001) will be adopted as follows:

Table 6.1 - High Importance Environmental Values: Lower Logan River

The intrinsic value of aquatic ecosystems (e.g. plants, animals and
their ecological interactions).
Riparian wildlife and their habitat, food and drinking water (e.g. key
species such as turtles, platypus, seagrass and dugongs).
Health of humans consuming aquatic foods (such as fish, crustaceans
and shellfish, other than oysters) from natural waterways.
Indigenous and non-indigenous cultural heritage (e.g. custodial,
spiritual, cultural and traditional heritage, hunting, gathering and ritual
responsibilities; symbols, landmarks and icons (such as waterways,
turtles and frogs); and lifestyles (such as agriculture and fishing)).
Health of aquaculture species and humans consuming aquatic foods
(such as fish, molluscs and crustaceans) from commercial ventures.
Suitability of water supply for irrigation (e.g. irrigation of crops,
pastures, parks, gardens and recreational areas).
Suitability of water supply for production of healthy livestock.
Suitability of domestic farm water supply, other than drinking water
(e.g. water used for laundry and produce preparation).
Health of humans consuming oysters from natural waterways and
commercial ventures.
Maintenance or rehabilitation of seagrass habitat.



Table 6.2 - Medium Importance Environmental Values: Lower Logan River

Primary Recreation	Health of humans during recreation which involves direct contact and a high probability of water being swallowed (e.g. swimming, surfing, windsurfing, diving and water-skiing).
Secondary Recreation	Health of humans during recreation which involves indirect contact and a low probability of water being swallowed (e.g. wading, boating, rowing and fishing).
Visual Recreation	Amenity of waterways for recreation which does not involve any contact with water (e.g. walking and picnicking adjacent to a waterway).
Drinking Water	Suitability of raw drinking water supply. This assumes minimal treatment of water is required – for example Coarse screening and/or disinfection.

With these EVs in mind, the long term WQOs proposed are as follows:

Table 6.3 - Long-Term Water Quality Objectives (Operational Phase)

Indicator	Water Quality Objective	Criteria Type
рН	6.5 to 9.0	Range
Dissolved Oxygen	50-105%	Range
Total Phosphorous	0.06 mg/L	Median
Total Nitrogen	0.45 mg/L	Median
Turbidity	20 NTU	Median
Suspended Solids	50 mg/L	Median
Faecal Coliforms	150 organisms/100mL (minimum of 5 samples taken at regular intervals not exceeding one month, with 4 to 5 not exceeding 4000 organisms/100mL)	Maximum
Oils & Grease	No visible films or odour	
Litter/Gross Pollutants		

Notes:

If a parameter relevant to a particular activity (e.g. an organophosphorus pesticide for a
pesticide formulator) is not given in the above table please refer to Australian Water Quality
Guidelines for Fresh and Marine Waters (ANZECC, 2000).

It should be noted that these WQOs are long-term objectives for a fully stabilised catchment with fully established water quality improvement devices throughout.

During the short construction period a set of water quality objectives has also been nominated to be immediately achievable for the release criteria to ensure the EVs are maintained.



Table 6.4 - Water Quality Objectives - Construction Phase

Indicator	Water Quality Objective	Criteria Type
рН	6.5 to 9.0	Range
Dissolved Oxygen	80-105%	Range
Suspended Solids	<50mg/L	Maximum
Litter/Gross Pollutants	No visible litter washed from the site	

6.2 Pollutant Impact Assessment

6.2.1 Approach

CLT has carried out detailed pollutant export analysis using the Co-Operative Research Centre for Catchment Hydrology's (CRCCH's) Model for Urban Stormwater Improvement Conceptualisation Version 3.1 (MUSIC) to assess the possible pollutant loads from the site.

The pollutant impact analysis utilised the latest literature for South East Queensland as follows:

- e CRC for Catchment Hydrology, 2005, "MUSIC User Guide Version 3.0".
- Gold Coast City Council, 2005 "MUSIC Modelling Guidelines" DRAFT
- Gold Coast City Council, 2002 "Stormwater Management and Water Quality Guidelines" DRAFT
- Gold Coast City Council, 2002a "Stormwater Treatment Device Design and Selection Guidelines" DRAFT
- Brisbane City Council, 2003, "Guidelines for Pollutant Export Modelling in Brisbane", Version 7 DRAFT

CLT has considered the following modelled catchment conditions:

- Pre-developed catchment conditions; and
- Post-developed catchment condition with treatment.

The catchment extents are the same for both the pre- and post-developed site models. The MUSIC model extents are shown on Figure 3 and 4 respectively.



Table 6.5 below indicates the modelled catchment areas and land uses adopted for each development scenario.

Table 6.5 - Adopted Land Uses and Catchment Areas

Caspasia	Catchment Land Use		Effective	Area	
Scenario	Label	Actual	Modelled	Fraction Imp (%)	(ha)
Pre- developed	SITE	Hardstand	Industrial	50	12.74
	SC1	Urban	Rur Res	9	1.32
Dont	SC2	Urban	Rur Res	5	0.89
	SC3	Urban	Roof	100	3.12
Post –	SC4	Urban	Roof	100	2.37
developed	SC5	Urban	Ground	22	2.81
	SC6	Urban	Rur Res	15	0.73
	SC7	Urban	Roads	46	0.57
i	SC8	Urban	Roads	42	0.93

The water quality assessment indicates the following treatment train is required to mitigate the impact of the proposed industrial site, as follows:

- Swales with underlying bio-retention system; and
- Roof water will flow to Rainwater Tanks.

Local rainfall was obtained for the Beenleigh Bowls Club (Station Number 40406) from the Bureau of Meteorology. A continuous period of 6 minute rainfall data for this station was available from 01/1989 to 07/2000. An eleven year period between 1989 and 1999 was assessed. Average monthly potential evapotranspiration details were obtained from the Bureau of Meteorology web site.

6.2.2 Pollutant Load (MUSIC) Results

The predicted average annual pollutant loads discharged downstream of the site for both the pre-developed and post-developed cases are shown in Table 6.6.

Table 6.6 - Predicted 11 Year Average Annual Pollutant Loads

	Pre	Post (with treatment)			
Pollutant	Load	Load Imp		act	
	(kg/yr)	(kg/yr)	(kg/yr)	(%)	
SS	10300	2250	-8050	-78	
TP	28	8	-19	-70	
TN	183	87	-96	-52	



The results in Table 6.6 show that the proposed development with the treatment train described above, meets GCCC requirements of a 50% reduction in suspended solid and nutrients over the pre-developed scenario.

The predicted median pollutant concentrations discharged downstream of the site for both the pre-developed and post-developed cases are shown in Table 6.7.

Table 6.7 - Predicted Median Pollutant Concentrations

Pollutant	Pre (mg/L)	Post (with treatment) (mg/L)	WQOs (mg/L)
SS	44.10	3.08	15
TP	0.200	0.025	0.060
TN	1.74	0.32	0.45

The results in Table 6.7 show that the proposed development with the treatment train described above, meets the proposed water quality objectives for the site.



7. STORMWATER MANAGEMENT

7.1 Construction Phase Management

It is expected that the construction phase works will comprise of:

- Final allotment trimming and profiling;
- Road boxing and construction; and
- Access Road drainage.

In accordance with GCCC draft Guidelines the pollutants that are to be managed during the construction phase include:

- Litter: and
- Sediment.

During the construction stage the management of stormwater runoff from the exposed earthworks surfaces will be based on containment, diversion and retention. Throughout the stages of construction these will include:

- Erosion controls such as sediment fences surrounding stripped earth.
- Sediment fences surrounding stockpiles of soil and debris.
- Construction of perimeter bunding at the toe and/or top of the earthworks batters.
- Catch drains, including check dams, though the site to catch and direct runoff.
- The containment of runoff from the site into temporary sediment basins for each sub-catchment.

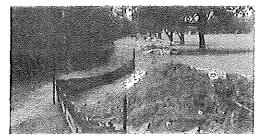


Plate 7.1 - Sediment Fences



Plate 7.2 - Catch Drain



Plate 7.3 - Sediment Basin

It will be the responsibility of the Contractor to prepare an approved Erosion and Sediment Control Plan to Council specifications prior to any construction activity taking place. At all stages of the construction process current standards will be adhered to.



7.2 Operational Phase Management

The pollutants of concern for the operational phase of proposed development in accordance with GCCC draft guidelines include:

- Litter;
- Sediment:
- Nutrients (Total Nitrogen and Total Phosphorous); and
- Hydrocarbons.

These pollutants will be treated on site through a treatment train approach that includes the following SQIDs:

- 1. Oil and Grease Collectors Stormwater will be directed through an oil and grease separator to trap hydrocarbons and sediment (and associated attached metals) that are produced by the industrial activity.
- 2. Rainwater Tanks On-site water re-use on industrial buildings. Water re-use would take the form of a number of tanks, to collect roof runoff. The storage capacity of each tank will be used to supply water to the building for re-use purposes. The quality of water in the rainwater tanks will be suitable for all non-potable (or non-drinking) purposes. As such, the water will be used for some or all of the following:
 - Toilet water supply flushing;
 - · Landscape irrigation; and
 - Lawn watering.

In order to supply pressure for these uses, water could be pumped to a suitable 'header' tank in the ceiling of each separate building. In the event of the rainwater tank level falling below a critical level (say 5% of capacity), automatic topup by town water will occur.

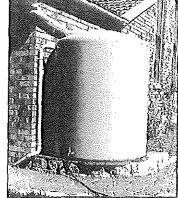


Plate 7.4 - Rainwater Tank

The implementation of rainwater tanks for stormwater reuse will reduce the quantity of potable water required by the development, compared to a similar development with no reuse. It is estimated that water usage could be reduced by between 25 and 50%. Toilet flushing alone could save of the order of 25% water usage. This saving in water consumption will considerably contribute to the sustainability credentials of the development.



- 4. Grass Swales with underlying bio-retention system— The swales, which comprise broad, shallow, grassed and vegetated channels are effective in:
 - reducing flow volumes (by infiltration);
 - slowing flow rates (due to the retarding effect of vegetation on flows); and



Plate 7.5 - Typical Grass Swale

 improving water quality (by filtering and settling particulate pollutants and trapping dissolved pollutants).

Underlying some of the swales will be a bio-retention system. This will allow the stormwater to pass through a sand/gravel filter and a bio-film medium. This should improve the water quality by removing:

- suspended solids;
- nutrients; and
- · metals.
- 5. On-Site Landscaping Practices the landscaped areas will be vegetated using species and techniques that do **not** require excessive fertilisation and watering. This will significantly reduce the potential for the export of nutrients from the site.

Concise details of the SWMS are contained in the SWMP for the operational phase water quality control located in Appendix A.



8. WATER QUALITY MONITORING PROGRAM

8.1 Construction Phase Monitoring

The critical issue during construction is sediment control; though trash and gross pollutants will also be managed.

Monitoring will therefore be aimed around these pollutants with regular inspections required, particularly after rainfall events.

Following a rainfall event (>25mm of rainfall), and prior to discharge, water quality monitoring will be conducted on the waters detained in the sediment basins to check the suspended solids concentration and pH.

Table 8.1 below details the water quality parameters to be monitored during each monitoring campaign.

Table 8.1 - Construction Phase Water Quality Parameters

In-situ	Laboratory Parameters
Temperature	Suspended Solids
Dissolved Oxygen	·
pH	(
Specific Conductance	
Salinity	
Turbidity	ľ

The construction phase monitoring is detailed in the SWMP in Appendix A.

8.2 Operational Phase Monitoring

The operational monitoring will consist of up to 2 events being sampled following rainfall, collecting stormwater prior to it leaving the site for up to 12 months following completion of the construction. Monitoring shall be for the parameters listed in Table 8.2.

Table 8.2 - Operational Phase Water Quality Monitoring

In-situ	Laboratory Parameters
Temperature	Suspended Solids
Dissolved Oxygen	Total Nitrogen
pH	Total Phosphorous
Specific Conductance	Faecal Coliforms
Salinity	1
Turbidity	}

The operational phase monitoring is detailed in the SWMP in Appendix A. Additional monitoring may be required depending on the results of the event sampling.



MAINTENANCE 9.

Key stormwater quality improvement devices requiring maintenance during the operational phase of the project are the oil and grease collectors, grass swales and grass swales with underlying bio-retention system. Appendix B provides indicative maintenance plan details.

Maintenance of oil and grease collectors consists of

- Regular inspections to confirm clean out requirements
- Clean out of sediment and gross pollutants

Maintenance requirements for grass swales and grass swales with underlying bio-retention systems shall consist of:

- Regular and storm event inspection to ensure:
 - -sufficient vegetation;
 - -no erosion has occurred; and
 - -any cleanup required is undertaken.
- Regular mowing/harvesting to ensure vegetation is maintained at acceptable levels.
- Removal of litter.
- Regular inspections for clogging.
- Cleaning of clogged sand medium may include high pressure flushing and/or replacement of the clogged medium.



10. ADMINISTRATION OF THE EMP

10.1 Responsible Persons

As defined in the SWMP person(s) and/or companies have been identified as being specifically responsible for the SWMP implementation. Unless stated otherwise these people are:

(a) Contractor:

The Contractor's Site Manager. This person or his representative will be notified to Council upon assignment.

(b) Civil Engineer:

This person/ company and/or a nominated representative will be notified to Council upon assignment.

(c) Environmental Consultant:

This person/ company and/or a nominated representative will be notified to Council upon assignment.

10.2 Amendments

It is likely that as the development proceeds amendments to the SWMP will be required to reflect knowledge gained during the course of the operation.

Amendments shall be made by application in writing to Gold Coast City Council stating clearly and in detail:

- (a) The SWMP provision to be amended
- (b) The reasons for the amendment, and
- (c) How the new amendment better serves the environmental management of the development and its surroundings.



11. REFERENCES

ANZECC/ARMCANZ 2000 "Australian and New Zealand Guidelines for Fresh and Marine Water Quality"

Brisbane City Council, 2005, "Guidelines for Pollutant Export Modelling in Brisbane City Council" Version 7 DRAFT

Co-operative Research Centre for Catchment Hydrology, 2005, "MUSIC User Guide"

Gold Coast City Council, 1999 'Land Development Guidelines'.

Gold Coast City Council, 2002a "Stormwater Management and Water Quality Guidelines" DRAFT

Gold Coast City Council, 2002b "Stormwater Treatment Device Design and Selection Guidelines" DRAFT

Gold Coast City Council, 2002c "Health of the Waterways"

Gold Coast City Council, 2005 "MUSIC Modelling Guidelines" DRAFT

South-East Queensland Regional Water Quality Management Committee, 2001, 'South-East Queensland – Regional Water Quality Management Strategy'.



12. QUALIFICATIONS

This report has been prepared by Cardno Lawson Treloar (CLT) specifically for Gassman Development Perspectives Pty Ltd and specifically to provide advice on Stormwater Management Planning associated with a proposed industrial development at Lot 2 on RP163654, Parish of Albert, County of Ward, .

Our analysis and overall approach has been specifically catered for the particular requirements of Gassman Development Perspectives Pty Ltd, and may not be applicable beyond this scope. For this reason any other third parties are not authorised to utilise this report without further input and advice from Cardno Lawson Treloar.

Cardno Lawson Treloar has relied on the following information provided by others:

- Detailed survey of the site supplied by Gassman Development Perspectives Pty Ltd;
- Overall layout and concept design for the site prepared by Cozens Regan Williams Prove Pty Ltd; and
- Rainfall data for Beenleigh provided by Bureau of Meteorology.

The accuracy of this report is dependent on the accuracy of this information.

Pollutant assessments, provided in this report, have been based on published typical land use parameters and are therefore indicative only. Monitoring would be required to accurately assess pollutant impacts of this development. It is for this reason, that the SWMP contained in this report should remain a living document throughout the construction and operational phases of this development.

FIGURES

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Date: December 2005

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FIGURE 1 SITE LOCATION

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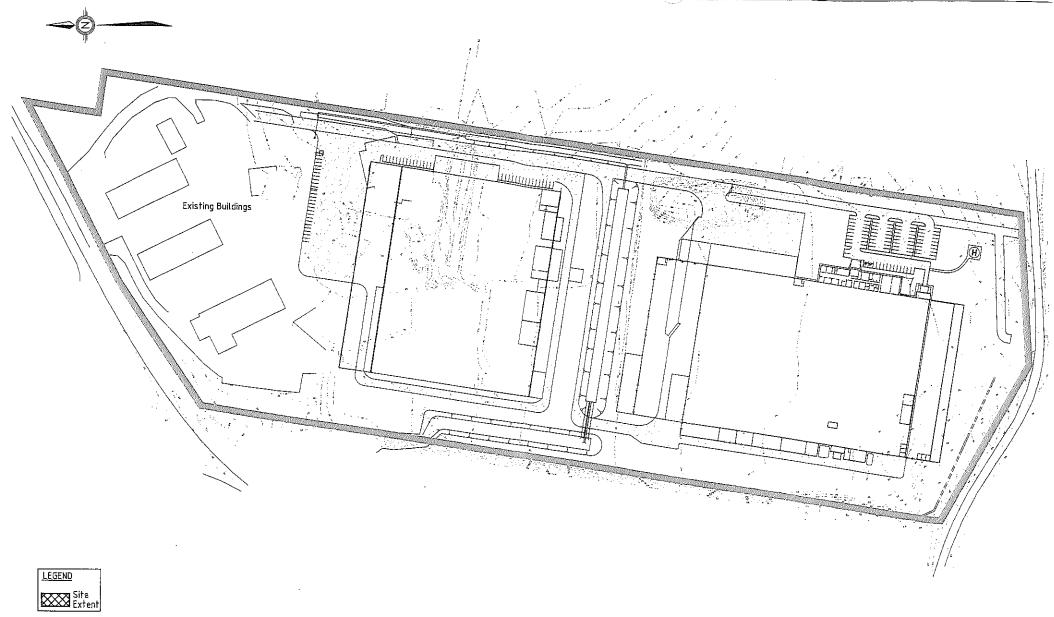
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Site Extent

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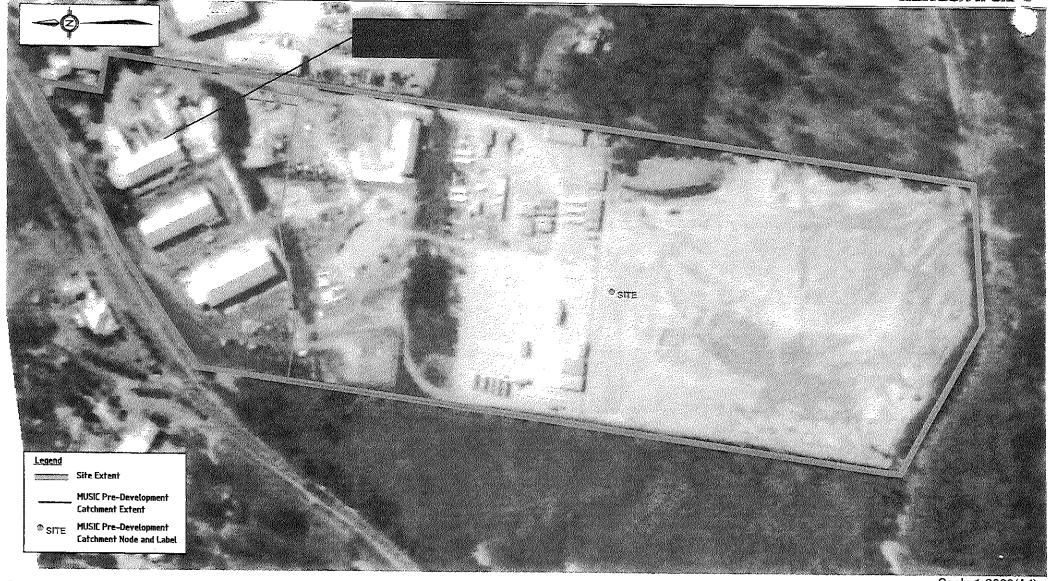
Gassman Development Perspectives Ptv Ltd

Scale 1:2000(A3) FIGURE 2

PROPOSED DEVELOPMENT

Visy Project Lot 2 on RP163654, Stapylton Stormwater Management Strategy





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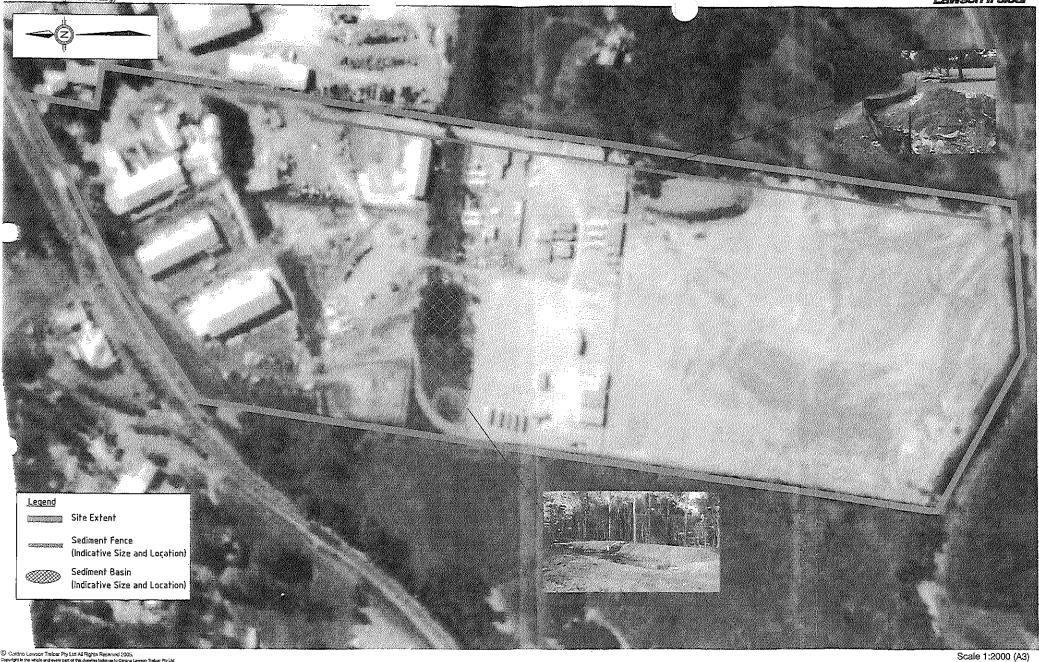
FIGURE 3

MUSIC PRE-DEVELOPMENT MODEL LAYOUT

Project No.:

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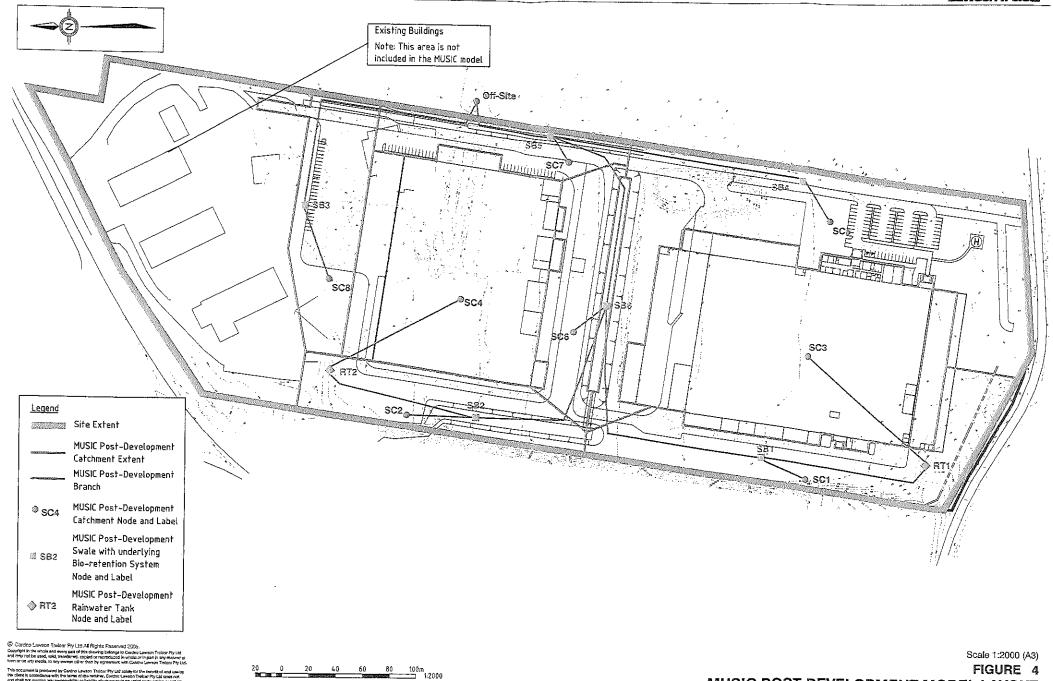
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FIGURE 5 CONCEPTUAL CONSTRUCTION STORMWATER MANAGMENT STRATEGY

Project No.: J8632

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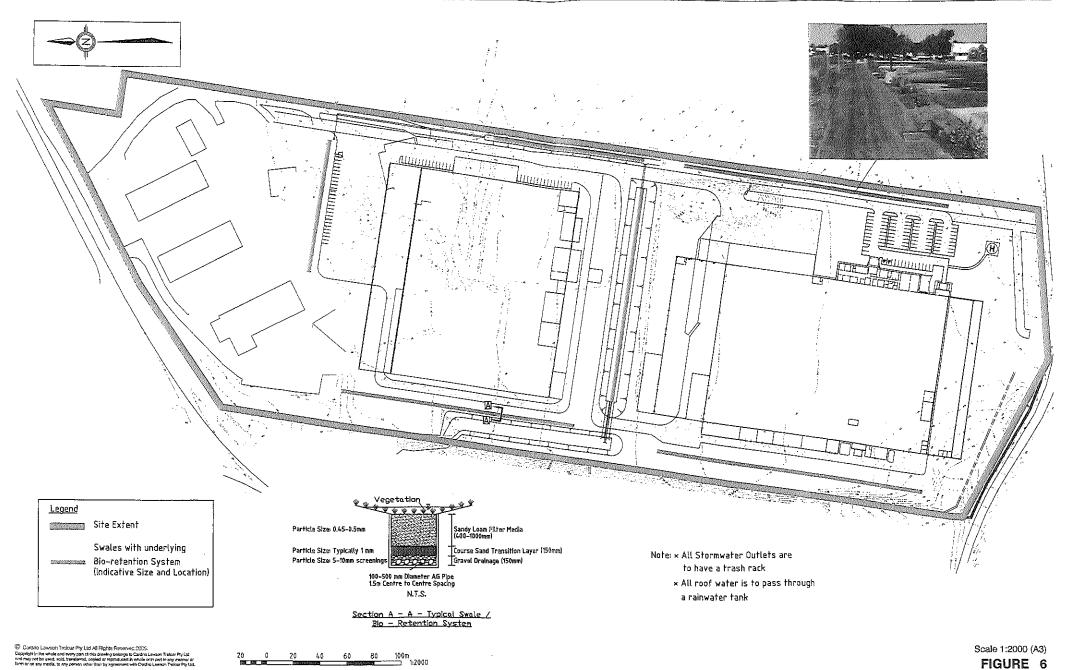


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FIGURE 4 MUSIC POST-DEVELOPMENT MODEL LAYOUT

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Date: December 2005

CONCEPTUAL OPERATIONAL STORMWATER MANAGEMENT STRATEGY

FIGURE 6

APPENDICES

APPENDIX A
Stormwater Management Plan



APPENDIX A

PROPOSED INDUSTRIAL DEVELOPMENT

VISY PROJECT, STAPYLTON

STORMWATER MANAGEMENT PLAN

1. Water Quality Management - Construction Phase

Issue:	Water Quality Management – Construction Phase
Operational Policy:	To provide a set of guidelines to control the severity and extent of erosion and pollutant transport during firstly the earthworks stage, and then construction.
Performance Criteria:	Water discharges off the site are to comply with the Environmental Protection Act to ensure that no detrimental impacts on water quality and aquatic environment occur during the construction phase. The quality of discharge from the site should not exceed the Water Quality Objectives, as follows: Release Criteria
	 pH – 6.5-9.0.(range) Dissolved Oxygen – 80 – 105% (range) Suspended Sollds – <50mg/L. (maximum Litter – no visible litter washed from site.
Responsibility:	The owner of the property or their appointed representative & the Construction Contractor. The owner will be responsible for the implementation of the SWMP during the course of all construction activity.
Implementation Strategy:	A detailed erosion & sediment control plan is to be prepared by the projects civil engineers & will incorporate the following: • Sediment and erosion control in accordance with the
	Institution of Engineers Australia Soil Erosion and Sediment Control Guidelines will be adopted.
,	Earthworks will be completed in stages with works restricted to the immediate areas.
;	 Subsequent stages of development should not commence if prior stages are affected by acid sulphate conditions &/or construction phase water quality objectives are not met.



(SSUE)	Water Quality Management – Construction Phase
Implementation Strate (Cont'd):	 Prior to the commencement of any stage construction works temporary sediment basins are to be installed as per the details shown in the stages construction phase stormwater management strategy.
	All disturbed site discharge to pass through temporary sediment basins prior to discharge from the site.
	 Catch drains should be installed to divert upstream 'clean' water.
	Silt fences will be placed along the downstream extents of all earthworks.
	Check dams will be installed at regular intervals along catch drains.
	Drains and bund wails will be topsoiled and vegetated with suitable vegetation as soon as possible.
	Sediment and sludge trapped in the basins will be removed and mixed with topsoil and reused on site for landscaping purposes.
	Clean-up of general site litter on a weekly basis and after significant rainfall events. (>25mm/24hours)
	Landscaping activities and revegetation will occur as soon as possible during/after the construction phase of the development.
	Only appropriate herbicides and fertilisers are to be used.



Issue: Monitoring: <	Water Quality Management – Construction Phase Sediment and erosion control measures will be inspected daily by the site manager during periods of rainfall. (>25mm/24hrs)
	Establishment and growth of vegetation – to be monitored monthly.
	No occurrence of excessive sediment deposit - to be monitored weekly or daily during periods of heavy rainfall (>25mm/24hrs).
	No release of construction material and silt from the site – to be monitored weekly or daily during periods of heavy rainfall (>25mm/24hrs).
	Vegetation established and growing prior to the rainy season.
	Erosion monitoring immediately following heavy rainfail. (>25mm)
	Inspection of silt fences and check dams following heavy rainfall. (>25mm/24hrs)
	Water quality monitoring shall occur after any rainfall event >25mm &/or prior to release:
	Surface Waters within basins: following a rainfall event (>25mm) and prior to discharge. Parameters: temperature, dissolved oxygen, pH, specific conductance, salinity, turbidity and suspended solids.
	Note that additional water quality monitoring maybe required if the WQO's are not being met.
Auditing:	Reviews are to be carried out on a monthly basis to assess the implementation strategy. A checklist is to be completed which assesses the strategies listed above.



Issue:	Water Quality Management – Construction Phase
Identification of Incident of Failure:	Non compliance with agreed performance criteria will be identified by:
·	Visual inspections identifying: build up of sediment on and off the site. Excessive erosion on the site Release of construction material from the site Lack of vegetation establishment
	2. Poorly maintained, damaged or failed control devices.
	Deteriorated water quality identified by the Environmental Consultant as being attributable to the construction activities.
Corrective Action:	After any identification of incident or failure, the source is to be located immediately and the following measures implemented:
	 If vegetation growth falls, new vegetation should be planted and established. Vegetation may require supplementary watering & replanting.
	If silt fences fail, replace and monitor more frequently.
	If gully erosion occurs, fill, vegetate and install velocity dissipation steps.
	If release of silt and other material off the site occurs, or water quality monitoring indicates levels not within the WQOs, clean up, inspect all treatment techniques, revise designs and review different alternatives and install, otherwise reduce the rate of excavation.
	If monitored levels within the sediment basins do not conform to the release criteria for: Suspended solids: flocculate and retest. PH: add acid if pH is too high or add hydrated lime if pH is too low and retest.
Reporting:	Popoda will be submitted monthly during the second of
roporting.	Reports will be submitted monthly during the construction of each stage. The reporting will include: Construction Contractor site managers report; & Environmental Consultant water quality monitoring report
į	Reporting will conform to the SWMP & identify performance of the implementation strategy, monitoring, identification of incidents & failure & associated corrective action. Reports will be submitted to the owner (or their appointed representative) monthly for submission to Council.



2. Water Quality Management - Operational Phase

Issue:	Water Quality Management – Operational Phase
Operational Policy:	To provide a concise plan to ensure that the water quality in the waterways remain at an acceptable level as
	specified in the water quality objectives (WQOs) for the commercial component of the site at all times and to ensure that any waters discharged from commercial component of the site are of an acceptable quality.
Performance Criteria:	Water discharges off the site should be of a quality, which ensures there is no detriment to the downstream environment.
	The quality of discharge from the site should achieve the following long term WQO's:
	Release Criteria
	 pH - 6.5-9.0. (range) Dissolved Oxygen -50 - 105% (range). Total P - 0.06mg/L. (median) Total N - 0.45mg/L (median). Turbidity - 20NTU (median) Suspended Solids - <30mg/L (median). Faecal Coliforms - 150/organisms/100mL. Litter/Gross Pollutants - No man made materials >5mm in any dimension.
	'WQO's are upper limits for median values or ranges in which medians should lie, unless otherwise stated
Responsibility:	The owner of the property or their appointed representative. The owner will be responsible for implementation of the SWMP for a period of 12 months after completion of construction.
Implementation Strategy:	A comprehensive conceptual stormwater runoff management system is proposed for the development, comprising local runoff water quality control.
	Local catchment runoff water quality control is achieved by:
	Oil and grease collectors; Grass Swales; and
	Grass Swlaes with underlying bio-retention system.

;



Assue?		Water Quality Management – Operational Phase
Implementation (Cont'd):	Strategy	These controls will:
(Cont u):		 trap trash; trap coarse sediment and attached nutrients and heavy metals; and remove nutrients
		Periodical monitoring of erosion or sediment deposition within treatment devices.
		Periodic maintenance of vegetation within treatment devices.
	į	Oil and grease collectors to be cleared out quarterly to annually dependent on visual inspection and maintenance form.
		Inspection of vegetated swales for weeds and erosion.
		Inspection of infiltration systems for clogging.
Monitoring:		Inspect outflow points from the stormwater outlets and treatment trains to ensure that there are no signs of erosive activity or significant sediment deposits. Monitoring shall include inspection of all treatment devices
		to ensure they are operating efficiently.
	į.	During the operational phase monitoring period of the development water quality monitoring shall include 1-2 event sampling. The parameters tested shall include:
		Surface Waters: Event Based Monitoring Parameters: temperature, dissolved oxygen, pH, specific conductance, salinity, turbidity, suspended solids, total nitrogen, total phosphorous and faecal collforms. Note that additional water quality monitoring may be required if the WQO's are not being met.
Auditing:		Reviews are to be carried out on a quarterly basis to assess the implementation strategy. A checklist is to be completed which assesses the strategy against each of the monitoring points above.



Jasue:	Water Quality Management – Operational Phase
Identification of Incident or Failure:	Non compliance with agreed performance criteria will be identified by:
	Visual inspections identifying: build up of sediment & litter on and off the site. Excessive erosion on the site Release of construction material from the site Lack of vegetation establishment
	2. Poorly maintained, damaged or failed control devices.
	Deteriorated water quality identified by the Environmental Consultant as being attributable to the site operations.
Corrective Action:	If erosion occurs, fill, vegetate and/or install velocity dissipation. To be in accordance with the institute of Engineers Erosion and Sediment Control Guidelines.
	If release of silt and other material off the site occurs, clean up, inspect all treatment techniques, revise designs and review different alternatives and install.
	If litter escapes from the site, clean up and inspect GPT operation.
	If poor water quality continues to occur, inspect all treatment techniques, revise designs and review different alternatives and install.
Reporting:	A Water Quality Report for all water quality monitoring results and assessments shall be submitted to Council, following a monitoring campaign for up to 12 months after construction phase.

APPENDIX B Maintenance Plan Details



APPENDIX B.1

MAINTENANCE PLAN DETAILS

OIL AND GREASE COLLECTOR

SCHEDULE OF SITE	VISITS												
Purpose of Visit	Frequency	J	F	M	Α	M	J	J	Α	S	0	N	D
Routine inspection	12/year	V	√	V	V	✓	√	1	√	1	1	1	√
Annual inspection	1/year				✓								
Routine maintenance	4/year		1		1		· · · · · ·		1				V
Routine clean out of sediment	1 year				1								

The above schedule is a guideline only. Routine clean out of sediment and gross pollutants should be scheduled based on the outcome of routine inspection and/or manufacturers guidelines.

INS	PECTION
1.	Routine Inspection
1.1	Routine inspection should be carried out on a regular monthly basis. The purpose of the inspection is to indicate when cleanout of the oil and grease collector is required.
1.2	The depth of oil and grease/sediment/gross pollutants in the oil and grease collector should be measured according to design specifications.
1.3	Complete an appropriate Maintenance Form. Routine cleanout of sediment/gross pollutants should be scheduled when the depth of sediment/gross pollutants in the oil and grease collector s exceeds design levels.
2.	Annual Inspection
2.1	Once a year, the condition of the oil and grease collector should be closely inspected. Any damage or problems should be noted on the Maintenance Form for action.

ROL	TINE MAINTENANCE
1.	Purpose
1.1	Routine maintenance of the oil and grease collector involves the collection of any weeds, oil, grease and gross pollutants, if required.
2.	Weed Management
2.1	If weeds have been observed during routine inspection, these weeds should be removed from the oil and grease collector. Weeding generally involves manual removal of perennial species.
2.2	The aim is to remove the weed including the roots when the weeds are less than 3 months old, otherwise weeds infestation rapidly occurs and is difficult to control.
2.3	Herbicides should not be used as they would contaminate the water in the creek.
2.4	The weeds should be disposed offsite at appropriate waste management facility.
2.5	Replant appropriate plant species, where necessary, in areas that have been extensively weeded.
L	



3.	Gross Pollutant Management
3.1	Remove and dispose of gross pollutants that may be visible around the oil and
]	grease collector perimeter.

CLE	ANOUT OF SEDIMENT
1.	Setup and Prepare Site for Cleanout
1.1	Notify adjacent residents of cleanout at least three days prior to date of cleanout.
1.2	Setup equipment onsite including pump.
2.	Cleanout of Sediment
2.1	The preferred method of cleanout of the oil and grease collector is by using equipment as specified by oil and grease collector designer.
2.2	Position the equipment on the side of the oil and grease collector to allow easy access into the sediment area and transfer of material into adjacent tipper truck. The truck should be positioned so that water from the truck body drains into the oil and grease collector.
2.3	Drain waste in the truck thoroughly before proceeding to the disposal point.



APPENDIX B.2

MAINTENANCE PLAN DETAILS

VEGETATED SWALE

SCHEDULE OF SITE	VISITS								-				
Purpose of Visit	Frequency	J	F	M	Α	M	J	J	Α	S	0	N	D
Routine inspection	12/year	✓	V	V	✓	V	V	1	V	√	✓	1	~
Annual inspection	1/year				✓								
Routine maintenance	12/year	1	1	V	V	✓	V	V	V	✓	1	1	V

The above schedule is a guideline only. Routine maintenance should be scheduled based on the outcome of routine inspection.

1	Routine Inspection
1.1	Routine inspection should be carried out on a regular monthly basis. The purpose of the inspection is to indicate when mowing/maintenance of the swale is required.
1.2	The length of grass in the swale should be assessed.
1.3	Complete appropriate Maintenance Form. Routine mowing/maintenance should be scheduled when the height of vegetation in the swale is excessive.
2.	Annual Inspection
2.1	Once a year, the condition of the swale should be closely inspected. Any damage or problems should be noted on the Maintenance Form for action.

ROU	TINE MAINTENANCE
1.	Purpose
1.1	Routine maintenance of the swale involves weed control the collection of any litter, and mowing of excessive vegetation.
	1327 - 500
2	Weed Management
2.1	If weeds have been observed during routine inspection, these weeds should be removed from the swale. Weeding generally involves manual removal of perennial species.
2.2	The aim is to remove the weed including the roots when the weeds are less than 3 months old, otherwise weeds infestation rapidly occurs and is difficult to control.
2.3	Herbicides should not be used as they would contaminate the water in the creek.
2.4	The weeds should be disposed offsite at appropriate waste management facility.
2.5	Replant appropriate plant species, where necessary, in areas that have been extensively weeded.
	,
3.	Litter Management
3.1	Remove and dispose of litter that may be visible around the swale/buffer.
	T
4.	Mowing
4.1	Mow excessive vegetation and dispose of mulch at any appropriate waste management facility.



APPENDIX B.3

MAINTENANCE PLAN DETAILS

BIO RETENTION SYSTEM

SCHEDULE OF SITE	VISITS												
Purpose of Visit	Frequency	J	F	M	Α	M	J	J	A	S	0	N	D
Routine inspection	12/year	√	1	V	√	V	1	✓	✓	~	✓	V	✓
Annual inspection	1/year				V								
Routine maintenance	2/year				1						V		
Routine clean out of	1 / 2 years				1								
sediment	•								ļ				

The above schedule is a guideline only. Routine clean out and maintenance should be scheduled based on the outcome of routine inspection.

1.	Routine Inspection
1.1	Routine inspection should be carried out on a regular monthly basis. The purpose of the inspection is to indicate when maintenance of the Bio retention system is required.
1.2	Inspections should consider erosion, condition of vegetation, ponded water.
1.3	Complete appropriate Maintenance Form. Maintenance is required if failure of the above sediment.
2.	Annual Inspection
2.1	Once a year, the condition of the bio retention system should be closely inspected. Any damage or problems should be noted on the Maintenance Form for action.

ROU'	TINE MAINTENANCE
1.	Purpose
1.1	Routine maintenance of the bio retention system involves weed control and the collection of any litter, removal of dead or diseased vegetation, and mulch replacement.
2.	Weed Management
2.1	If weeds have been observed during routine inspection, these weeds should be removed from the bio retention system. Weeding generally involves manual removal of perennial species.
2.2	The aim is to remove the weed including the roots when the weeds are less than 3 months old, otherwise weeds infestation rapidly occurs and is difficult to control.
2.3	Herbicides should not be used as they would contaminate the water in the creek.
2.4	The weeds should be disposed offsite at appropriate waste management facility.
2.5	Replant appropriate plant species, where necessary, in areas that have been extensively weeded.
3.	Litter Management
3.1	Remove and dispose of litter that may be visible around the bio retention system.



4.	Dead or Diseased Vegetation
4.1	Remove or dispose of any dead or diseased vegetation within system
5.	Mulch Replacement
5.1	Mulch replacement is recommended when erosion is evident or system looks

CLE	ANOUT OF SEDIMENT
1	Setup and Prepare Site for Cleanout
1.1	Notify adjacent residents of cleanout at least three days prior to date of cleanout.
1.2	Setup equipment onsite.
2	Cleanout of Sediment
2.1	The preferred method of cleanout of the bio retention system is replacing the
	clogged medium.
2.2	Position the equipment on the side of the system to allow easy access into the bio retention system and transfer of material into adjacent tipper truck. The truck should be positioned so that water from the truck body drains into the bio retention system.
2.3	Drain waste in the truck thoroughly before proceeding to the disposal point.



APPENDIX J

Visy Project, Stapylton – Flooding investigation

Prepared by Cardno Lawson Treloar Pty Ltd

3864assmtrpt.doc



APPENDIXE

Geotechnical Investigation

Prepared by Soil Surveys Engineering Pty Ltd



PROJECT NO. 205-5829 NOVEMBER 2005

VISY INDUSTRIES PTY LTD

PROPOSED INDUSTRIAL SUBDIVISION LOT 2 QUINNS HILL ROAD EAST STAPYLTON



Soil Surveys Engineering Ply Limited Specialists in Applied Geolechnics A.B.N. 70 054 043 631

www.sollsurveys.com.au

Directors
PJ Dixon
PR Cosh
NT Perkins
MV Geale
GEJ Gray
P Elkington

BE(Hons) RPEQ BE(Civil) CPEng MIE Aust RPEQ BAppSC(AppGeol) BEng(Hons1) BEng(Civil) MBA CPEng MIE Aust RPEQ

iJ Gray Elkington BE(Civil

BE(Civil) MIE Aust RPEQ

Associates AM Rutten St Gamble

BE(Hens1) MEngSc LGE CPEng MIE Aust RPEQ BE(Geol) CPEng MIE Aust RPEQ

Gold Coast Office Job No: 205-5829 Ref: 2-5829BR Author: Robert Burke

6 December 2005

Visy Industries Pty Ltd C/- Cozens Regan William Prove Pty Ltd PO Box 2711 NERANG QLD 4211

ATTENTION:

MR JOHN WILLIAMS

Dear Sir.

RE: GEOTECHNICAL INVESTIGATION

LOT 2 QUINNS HILL ROAD EAST, STAPYLTON

Enclosed is a copy of our report for the above project dated November 2005. Three copies of the report have been issued.

Authority to proceed with the investigation was received from John Williams of Cozens Regan Williams Prove Pty Ltd.

Should you have any queries regarding this report, please do not hesitate to contact Robert Burke or Peter Elkington at our Gold Coast Office.

Yours faithfully,

P. ELKINGTON (RPEQ 7226)

for and on behalf of

SOIL SURVEYS ENGINEERING PTY LIMITED

Brisbane
Level 2, 19 Finchiey Street
Mitton Old
PO Box 317
Peddington Old 4654
Australia
Ph 617 3369 6060
Fax 617 3309 6660
brisbanc@soileurreys.com.au

Gold Coast
Unit 9, 39 Lawrence Drive
Herang Gld
PO Box 2743
Nerang Gld 4211
Australia
Ph 617 5596 1528
Fax 617 5578 3916
goldcoast@scilsurveys.com.ou

Sunshine Coart
11 Production Avenus
Kawana Waters Old
PO Box 2
Beddina Old 4575
Australia
Ph 017 5493 1880
Fox 617 5493 2837
sunshinecoast@soilsurveys.com.au

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- A Notes Relating to this Report
- B Borehole Records
- C Laboratory Test Results
- D Site Plan

1.0 INTRODUCTION

This report presents the results of the geotechnical investigation carried out by Soil Surveys Engineering Pty Limited on the 8th and 15th November 2005 for the proposed industrial subdivision at Lot 2 Quinns Hill Road East, Stapylton.

The objectives of this investigation were to assess subsurface conditions at the site in accordance with the Scope of Services detailed in Section 2.0.

SCOPE OF GEOTECHNICAL SERVICES

The scope of geotechnical services provided by Soil Surveys Engineering Pty Limited was directed towards evaluating the following items as detailed in our proposal 2-5829P dated 15th September 2005.

- Foundation recommendations.
- Earthworks data.
- Retaining wall parameters.
- Preliminary pavement design information.
- Site management recommendations.

3.0 PROPOSED DEVELOPMENT

It is understood that two tilt concrete factories are proposed for the industrial subdivision. It is understood that the first factory adjacent to Quinns Hill Road East is to be constructed as the first stage, with the second factory to be built sometime later in the northern area of the site after the demolition and removal of existing structures and services.

The buildings are to be surrounded by pavements for highly loaded vehicular traffic.

Earthworks in Stage 1 are envisaged to consist of a minor cut operation in the south western corner of the site (up to 2m), with minor filling across the remainder of the area.

4.0 GEOTECHNICAL INVESTIGATION

4.1 Field Investigation

Subsurface conditions at the site were investigated by drilling and sampling eighteen boreholes to depths of 0.45m to 9.0m, using a Jacro 200 drilling rig, supplemented with Dynamic Cone Penetrometer tests (DCP's). Boreholes were drilled by auger techniques to TC bit refusal or a maximum depth of 9.0m.

The soil classification descriptions, field and laboratory testing were carried out in general accordance with Australian Standards.

AS.1726 - 1993

Geotechnical Site Investigations

AS.1289

Methods of Testing Soils for Engineering Purposes

A description of the investigation method, borehole records and a site plan showing the approximate location of the boreholes are included in the Appendices.

4.2 Site Description

The site was cleared across the southern section of the site and had been subject to an excavation operation.

Existing factories and other auxiliary buildings were located across the rear of the site in the north.

Trees and bushlands were located to the east and west while Quinns Hill Road East bounds the site to the south and Jacobs Well Road to the north.

Site drainage was assessed as poor at the time of the field work.

A dam was located centrally on the site, with a west to east graded drain leading to and from the dam.

Project No. 205-5829 November 2005

Ref: 2-5829R

Visy Industries Pty Ltd - Lot 2 Quinns Hill Road East, StapyIton

4.3 <u>Laboratory Testing</u>

Laboratory testing was undertaken to determine the site reactivity, strength and subgrade characteristics of the subsurface material.

Laboratory testing included-

- Shrink/Swell Index to assess the reactivity of the subsurface material.
- Califorina Bearing Ratio to assess the subgrade characteristics of the subsurface material under soaked conditions.

Results of the laboratory testing will be forwarded once testing has been finalised.

5.0 **GEOTECHNICAL MODEL**

<u>5.1</u> Subsurface Profile

The subsurface profile encountered can be diverted into two distinct areas. Where the proposed Stage 1 factory, adjacent to Quinns Hills Road East, is to be constructed, conditions generally consisted of thin strata upper level fill underlain by minor bands of hard sandy clays further underlain by high level, weak sandstone and siltstone. Refer boreholes 1 to 11. Depths to very weak sandstone tended to increase as boreholes extend northward.

In the northern area of the site (Stage 2), the subsurface profile generally encountered varying significant depths of uncontrolled fill material underlain by stiff sandy clays that generally improved in strength with depth. Very weak sandstone and siltstone was encountered in all bores except for Boreholes 13 and 17.

A summary of the subsurface profile is presented in Table 1 with full borehole records presented in Appendix B.

Visy Industries Pty Ltd - Lot 2 Quinns Hill Road East, Stapylton

TABLE 1

GENERALISED SUBSURFACE PROFILE

вн	Filling		Sandy Clay		Weathered	Termination	
	(m)	Stiff (m)	Very Stiff (m)	Hard (m)	Rock (m)	Depth	
1	0.0 - 0.1	NE	NE	0.1 - 0.5	0.5 - TD	0.7	
2	0.0 - 0.2	. NE	NE	0.2 - 0.35	0.35 - TD	0.45	
3	0.0 - 0.1	NE	NE	0.1 - 2.2	2.2 - TD	2.3	
4	0.0 - 0.75	NE	NE	NE	0.75 - TD	0.95	
5	0.0 - 0.15	NE	NE	NE	0.15 - TD	0.45	
6	0.0 - 0.1	NE	NE	NE	0.1 - TD	0.7	
7	0.0 - 1.4	NE	NE	NE	1.4 - TD	1.55	
8	0.0 - 0.1	NE	NE	NE	0.1 - TD	1.7	
9	0.0 - 0.35	NE	0.35 - 0.75	0.75 - 1.2	1.2 - TD	1.65	
10	0.0 - 1.0	1.1 - 2.4	NE	NE	2.4 - TD	2.7	
11	0.0 - 0.8	0.9 - 1.4	1.4 - 2.1	2.1 - 5.4	5.4 - TD	6.0	
12	0.0 - 1.6	1.6 - 2.4 3.4 - 6.6	2.4 - 3.6	3.6 - 5.4 6.6 - 8.4	8.4 - TD	9.0	
13	0.0 - 2.4	2.4 - 3.6	3.6 - 5.1	5.1 - TD	NE	9.0	
14	0.0 - 0.9	1.1 - 1.6	1.6 - 2.2	2.2 - 2.7	2.7 - TD	3.5	
15	0.0 - 2.7	2.7 - 3.6	3.6 - 5.2	5.2 - 5.8	5.8 - TD	6.5	
16	0.0 - 0.4	0.4 - 1.3	NE	NE	1.3 - TD	3.0	
17	0.0 - 2.30	2.3 - 3.2	3.2 - 4.8 5.8 - 6.8	4.8 - 5.8	6.8-TD	7.5	
18	0.0 - 0.15	0.25 - 1.3	1.3 - 1.55	NE	1.55 - TD	1.9	
Notes:							

Notes:

5.2 Groundwater

Groundwater was not encountered during the course of the field work.

^{1.} TD - Termination Depth

^{3.} NE - Not Encountered

^{2.} All depths in metres below existing ground level at the time of undertaking fieldwork.

6.0 ENGINEERING ASSESSMENT

This section of the report includes evaluation of the following:-

- Foundation Recommendations
- Earthworks
- · Retaining Wall Parameters
- Preliminary Pavement Designs
- Excavation characteristics

6.1 General

Fill material was encountered across the majority of Stage 2, to depths of up to 2.7m. This material is considered to be uncontrolled.

The presence of this uncontrolled fill material will impact on the proposed foundation system. It is considered that four options are available for the treatment of the uncontrolled fill:

- Excavate and re-compact existing fill material this would also allow high level footings to be founded in controlled fill.
- ii) Support the structure on piers/piles.
- iii) Construct the slab on ground and pavements over existing fill, accepting the risk that some settlement may occur.
- iv) Treat the existing fill material insitu using high energy import rolling etc.

Should Option 1 be adopted, recommendations as contained in Section 6.3 apply.

For Option 2 the allowable bearing capacity for piers/piles is given in Section 6.4.

Option 3 - to further assess the viability of this option, a series of backhoe excavated test pits and field density testing is recommended to assess the degree of compaction achieved in the existing fill. However, it should be noted that the owner/developer would still need to accept some risk that settlement may occur regardless of the results of the field density testing. As can be appreciated, the possibility exists that undetected parts of the fill may not be uniformly compacted.

6.2 Traffickability and Site Preparation

At the time of the field investigation, traffickability was considered to be good. However, low lying area and dry loose/soft upper level soils may be impaired following rainfall as the water will pond on the top of the fill and infiltrate through the surface cracks, with subsequent softening of surface soils. This may render the surface untrafficakable.

Depressions could be formed resulting in further water traps and potential softening of adjacent and underlying soils.

An important aspect of maintaining traffickability is drainage control. It should be ensured that runoff is diverted away from the construction area to prevent ponding of water. In addition, the construction area should be "sealed" at the completion of each day and in the event of rain.

Traffickability across the existing dam and drain is likely to be limited for conventional earthmoving equipment. Any existing wet material should be removed to competent natural ground. The use of a bridging layer may be required across the base of the dam.

Nevertheless, the contractor should fully inform himself of the ground conditions on site prior to commencement of earthworks. This requirement should be explicit in any earthworks specification or contract.

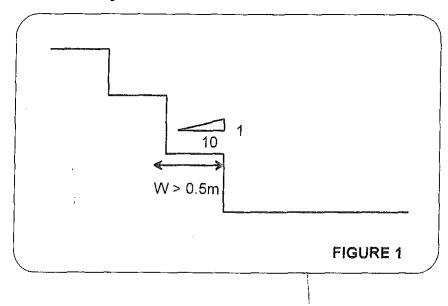
6.3 Earthworks and Site Management

It is understood that cuts of up to 3m and fills to depths of up to 2m will be required to create the level building platforms, access roads, pavements and parking facilities.

Earthwork procedures should be carried out in a responsible manner in accordance with AS.3798-1996 "Guidelines on Earthworks for Commercial and Residential Developments".

Earthwork procedures should include the following:-

- If the option of removal and placement of the existing fill is adopted, the fill should be stopped to the natural soils and inspected.
- The existing fill material encountered on site, natural sandy clays and weathered
 rock material obtained from cutting or footing excavations, is considered suitable for
 use as structural fill provided the materials are free of organic matter, appropriately
 mixed and moisture conditioned and oversize rock (>100mm) is removed or broken
 down.
- Sloping ground, etc. should be benched to "key in" fill material and optimise compaction. The benches should slope back at 10H:1V and be at least 0.5m wide.
 Wider benches to accommodate the width of the roller may need to be adopted in some situations. Figure 1 refers.



- · Following stripping, the exposed surface should be proof rolled under the supervision of an experienced geotechnical engineer from Soil Surveys to detect any soft or loose material. Loose soils, particularly loose surface clayey sands, should be compacted to the appropriate requirements. Soft, wet clays should preferably be removed.
- The insitu soils, where free of organic and deleterious material, may be used for structural fill provided the moisture content of the soils on placement approximates the optimum moisture content required for compaction. This may require conditioning to bring the soils to optimum. However, it should be noted that the plastic clay soils could be expected to present difficulties in handling, placement and compaction if the appropriate moisture content could not be achieved, particularly if the clays were overly moist. The weathered rock will form a good fill source provided that it can be broken down to a well graded material with a maximum particle size of 100mm.
- Any imported fill, if needed to make up earthwork deficiencies, should be of fair to good quality and conform to the following general specification:-

Soaked CBR

Compaction).

Minimum of 10%

Maximum Aggregate Size - 75mm

≤ 1.0%

Guidelines for minimum relative compaction values for insitu soils and imported fill for the building and pavements are presented in Table 2.

TABLE 4

MINIMUM RELATIVE COMPACTION

Location	Minimum Dry Density Ratio (%)
Building Area	98
Pavement Area	
a) >0.3m below pavement subgrade	95
b) ≤0.3m below pavement subgrade	98
Note: The recommended compactions are percentaged density determined by Australian Standard 12	

- Field density testing should be carried out to check the standard of compaction achieved and the placement moisture content. The frequency and extent of testing should be as per guidelines in AS.3798-1996, Section 8.0.
- Backfilling for service trenches, etc. should use good quality material. The backfill should be placed in uniform layers over the full width of the excavations with the layers not exceeding 200mm thickness, loosely placed. The backfill material should be compacted to the specifications outlined above for insitu or imported cohesive material.

High Energy Impact Rolling

Insitu treatment of the existing fill could be considered. This could involve the compaction of the existing uncontrolled fill using an Impact Roller.

Stripping and levelling of the area of the site to be treated would be required, followed by the compaction of the fill using a 3, 4 or 5 sided roller.

Companies specialising in Impact Rolling should be contracted to treat the fill.

A reduction in the risk of adopting pavements in the existing fill could be achieved if this option is adopted.

Construction Over Existing Fill

Should the option of constructing over the existing fill material and supporting the structure on piers/piles be adopted (ie. Option 2, refer Section 6.1), earthwork procedures should include the following:-

- Clearing, stripping and grubbing should be carried out across the building area.
- Proof roll the existing ground surface to detect any soft/loose soils. Surface soft/loose soils identified should be compacted to the required density or alternatively removed.
- Place and compact fill material as per recommendations in Section 6.3.1 and Table 3.

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Earthworks Supervision

Given the building type and the nature of the earthworks operation, "engineering supervision" of the earthworks operations is recommended.

It is recommended that the following "objectives" (as a minimum) are incorporated into the earthworks specification:-

- Certification that all general earthworks operations (ie. stripping proof rolling of subgrade, etc.) have been carried out in accordance with the earthworks specification.
- Certification that fill has been placed and compacted to the required minimum density in accordance with the earthworks specification.
- Certification that the controlled fill is suitable for support of conventional high level footings and slab and has a minimum bearing capacity of 150kPa.
- Certification that the controlled fill material is suitable to support a conventional slab on ground floor (slab loads of 10 to 15kPa are expected).
- Certification that the quality of any imported fill complies with the earthworks specification requirements.

Excavation Characteristics

It is anticipated that excavations will consist of the following:-

- Bulk cuts to create building platform.
- Trenching for underground services and footings.

The assessment of excavation characteristics of soil and weathered rock is normally based on the depth of penetration of the drilling rig using various bit attachments.

The limit of the 'TC' bit is indicative of the limit of excavations of a medium sized dozer in bulk excavation (Cat D 7E, D 8) or a large excavator 20 tonnes in trench excavation (Kato or Hymac).

TC refusal was encountered in Boreholes 1 to 10 and 18.

Generally, below the 'TC' bit limit, compressor driven pneumatic tools or hydraulic rock breakers would be required for excavation. Ripping depths can be significantly increased when the rock is bedded, laminated and highly jointed. The nature of the rock and inherent planes of weakness therefore play an important part in rock excavation assessment.

Batter Slopes

The following maximum batter angles are recommended for cut batters (Table 5). Steeper batters are possible by use of retaining structures.

TABLE 5

BATTER ANGLES

Material	Short Term	Long Term
Sandy Clay Soils	45 degrees	26 degrees
Weathered Rock	60 degrees 1)	45 degrees 1

It is essential that batters be suitably protected from erosion and scour by the establishment of ground cover and shrubs, installation of surface drains, etc. Runoff should not be allowed to discharge directly across the batters.

6.4 Building Foundation

Stage 1 Building

Based on the findings of the geotechnical investigation, a combination of high level footings and of backhoe excavated pedestals and possibly short bored piers could be considered for the proposed factory in Stage 1.

Stage 2 Buildings

In the northern area of the site, where fill of uncertain quality up to 2.7m was encountered, consideration could be given to removing the fill and then conditioning the soils and before carrying out a filling operation under an engineering supervision and testing program. It is anticipated that after the completion of the supervision and testing program a high level foundation system could be adopted for future developments.

Alternatively, a deep foundation system extending through the fill and natural sandy clays to found on the weathered rock could also be considered. Full assessment (ie. proof rolling, testpits, etc.) of the existing fill would be required to determine if the uncontrolled fill is suitable for slab on ground construction or if a fully suspended ground slab would be required, as outlined in Section 6.3.

6.4.1 Site Classification

While a site classification in accordance with AS 2870 'Residential Slabs and Footings' relates to residential type construction and is not directly applicable for this development, it is however a valuable method of site assessment.

Site investigation and laboratory test results indicate that the site may be designated Class 'P' problem site due to the presence of filling on the site. Class 'P' does not signify any particular severity of problem but rather that the site is disqualified from the other classes and therefore requires special consideration using engineering principles.

In terms of reactivity, the Stage 1 area of the site would be anticipated to have a ground surface movement (Y_s) of ≤ 15 mm, equivalent to Class 'S'.

The northern section of the site where the future factory is to be located would have an anticipated ground surface movement (Ys) of 40mm equivalent to Class 'M'. It is recommended that further site specific testing be completed prior to preparation of any building platform.

6.4.2 High Level Footings

High level strip/pad footings founding a minimum of 200mm into controlled fill or on competent low strength rock could be considered for the Stage 1 of the development.

Allowable bearing capacities have been detailed in Table 6. Bearing capacities are subject to inspection and confirmation by an experienced Geotechnical Engineer from Soil Survey's Engineering at the time of construction.

TABLE 6

Material Strength	Maximum Allowable Bearing Pressure (kPa		
UnControlled Fill	Not Recommended		
Controlled Fill (if adopted)	150		
Clay			
- Stiff	100		
- Very Stiff	200		
- Hard	400		
Very Weak Rock (ie. above 'TC' limit)	600		
Weak Rock (ie. below 'TC' limit)	1000		
Noto:	<u> </u>		

Note:

Higher allowable bearing capacities may be available at depth in rock, if required, however this would be subject to confirmation by an experienced geotechincal engineer from Soil Surveys Engineering.

If footing beams cannot be east on the same day as excavation, a concrete blinding layer of at least 50mm thickness is recommended across the footing base.

Inspections

It is recommended that inspections be undertaken by an experienced geotechnical engineer from Soil Surveys Engineering following footing excavations to confirm the adequacy of the founding soil. Inspections should be carried out prior to placement of reinforcing steel and ordering of concrete.

Articulation

It is suggested that masonry walls supported on high level footings founded in natural clay strata be articulated. This articulation may be achieved by the use of full height (footings to eaves) openings or vertical construction joints at regular intervals. Guidelines on articulation are contained on the Cement and Concrete Associations Technical Not 61, 'Articulated Walling'

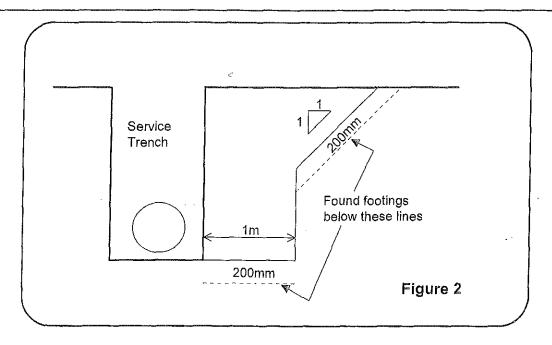
<u>Underground Services</u>

Where footings are located adjacent to underground services, the footings should extend to base a minimum of 200mm below the trench base level for a distance of 1.0m. out from the trench. Beyond 1.0m the footings should be taken a minimum of 200m below an imaginary line drawn up at 45° from the trench base level. Figure 2 refers.

These requirements do not override minimum footing levels.

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6.4.3 Deep Footings

If removal and replacement of the uncontrolled fill is undertaken or loads are not excessive for high level footings, a deep foundation system, utilising bored piers founding through the upper level uncontrolled fill, natural clays and socketed into rock could be adopted across the site.

It is recommended that the deep foundation system be designed in accordance with AS 2159-1995 'Piling - Design and Installation'. This code uses the limit state design method.

The design of a deep foundation system should consider the following:-

- Compressional capacity
- · Construction considerations

 (\ldots)

Compressional Capacity

The design of a single pile or \hat{a} pile group must be such that both the geotechnical strength R^*_g and the structural strength R^*_s , are greater than or equal to the design action effect S^* , ie.

$$R_g^* \ge S^*$$
 and $R_s^* \ge S^*$

The design geotechnical strength (R^*_g) can be calculated as the ultimate geotechnical strength (R_{ug}) multiplied by the geotechnical strength reduction factor \mathcal{Q}_g . Ultimate geotechnical strength (R_{ug}) parameters for the materials encountered on the site are outlined in Table 7.

Specialist piling contractors should be consulted for their assessment of likely piling depths, considering their equipment type and installation methods

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ULTIMATE GEOTECHNICAL STRENGTH (Rug) PARAMETERS TABLE 4 (BORED PIERS)

Material	Base Bear	Skin Friction (kPa)	
	L≤4D		
Fill Material	N	NC	
Clay - Stiff	NR		20
Very Stiff	NR		30
Hard	NR	1800	60
Rock - Very Weak	1800	2700	90
Weak	2400	3600	120

Notes:

- 1. L = Pier socket into stratum, D = Pier diameter.
- 2. NR Not Recommended; NC Not Considered in skin friction calculations.
- 3. Recommended geotechnical strength reduction factor (\emptyset_g) = 0.45 to 0.55. Please note that the upper limit of the \emptyset_g range is only appropriate for bored piers if geotechnical supervision (and certification) is carried out during construction.
- 4. Considering limit state analysis (AS 2159-1995), the design geotechnical strength $R^{\star}_{\mathfrak{g}}$ is calculated by multiplying the ultimate geotechnical strength R_{ug} by the geotechnical strength reduction factor \mathcal{Q}_g , ie. R^{\star_g} $= R_{ug} \times Q_{g}$
- 5. Should a "working stress" approach be adopted, a minimum factor of safety of 3.0 on base and 2.0 on skin friction is recommended.
- 6. Higher strengths may be available in the weathered rock. This should be assessed on site by an experienced geotechnical engineer/engineering geologist.

Some difficulty with fall-in may occur with bored piers, particularly when drilling through

fill material. It should be ensured that all loose material is removed from the base of

piers prior to pouring of concrete. The use of a 'clean-out' bucket should be explicit in

instructions to the drilling contractor. The practice of 'using water and spinning the

augers' to remove loose material from the pier base is generally unacceptable.

Whilst groundwater was not encountered in the test locations, seepage could be

expected in the fill and at the fill/natural and clay/rock interfaces. A bored pier

foundation system should make allowance for dewatering and the use of liners. In

addition, it may be prudent to drill a "trial pier" to fully assess construction difficulties.

Given the nature and strength of the subsurface material encountered, it is

recommended that inspections be undertaken by an experienced geotechnical

engineer/engineering geologist from Soil Surveys Engineering Pty Limited during pier

excavations to confirm the adequacy of the founding material. Inspections should be

carried out prior to placement of reinforcing steel and following cleaning of pier bases.

Pier liners will be necessary should a down the hole base inspection be required.

6.4.4 Slab on Ground Construction

Field and laboratory testing results indicated that the insitu natural soils encountered in

the Stage 1 area of the site, where the proposed factory is to be located is suitable for

slab on ground construction provided any earthworks are carried out in accordance with

recommendations in section 6.2 to 6.3.

In addition, as noted in Section 6.4 the slab on ground floor design should consider the

anticipated potential ground surface movements.

In the Stage 2 area of the site, it is recommended that further assessment be carried out

to determine if filled soils are suitable for slab on ground construction and will be

dependant upon the treatment methods adopted.

Consideration could be given to designing the slab ground floors using an industrial

pavement type approach.

Sub-Base

It is suggested that a 100 to 150mm thick sub base layer be provided under all concrete ground slabs.

The sub base under a concrete slab:

- Provides a stable "working platform" on which to operate construction equipment.
- Facilitates the provision of a uniform bearing surface under the slab.

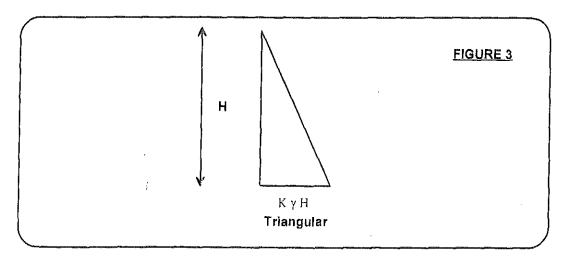
It is recommended that slabs be jointed at regular intervals with joints either keyed or dowelled to prevent differential movement across the joint.

6.5 Retaining Walls

It is understood that retaining walls may be across the development. The expected maximum retained height will be approximately 2.0m.

Where walls are designed to be braced (eg. by floor slabs) then a trapezoidal type distribution should be analysed. For cantilever walls or temporarily braced walls, a triangular distribution should be considered.

For cantilever walls, or temporarily braced walls, which allow movement at the top, ie. at least 0.005H in clays, the active case (Ka) applies with a triangular distribution. For walls which cannot tolerate this movement, the at rest (Ko) case applies with a triangular distribution. Figure 3 refers.



The lateral pressure distribution shown in Figure 3 does not include hydrostatic pressure or surcharge loadings.

The force exerted by the soil on a unit length of wall for the triangular distribution is given by:

$$P = 1/2 \gamma H^2 K$$

P = force per unit length (kN/m) where

 γ = unit weight of soil

H = height of wall (m)

K = earth pressure co-efficient

Assuming that temporary batters will be cut at angles as detailed in Section 6.3, the following parameters may be adopted for wall design (Table 6).

TABLE 6

PARAMETERS FOR USE IN RETAINING WALL DESIGN

Page 20

MATERIAL	DENSITY (kN/m³)	EARTH PRESSU VERTIC	Long Term Drained Ø		
		Ka	Ко	(degrees)	
Fill	17	0.41	0.58	25	
Gravel	19	0.33	0.50	30	
Hard Clay	19	0.36	0.53	28	
Very Weak Rock	21	0.27	0.43	35	

Any backfill placed behind the wall should be loose granular material. should not be heavily compacted since research has shown that compaction can raise the earth pressure to above the 'at rest' pressure.

Adequate surface and subsoil drainage should be provided for all retaining walls on the site. Cut-off / interceptor drains should also be provided around the high side of the wall to ensure stormwater runoff from the area above the wall is suitably diverted.

The placement of a filter fabric between the retained soil and the drainage material (eg. granular backfill) for protection against silting of the drainage material is recommended. The outlets to subsoil pipe drains must be located beyond the ends of the walls and connected to a proper drainage system. It is suggested the pipes be wrapped in filter fabric to minimise silting.

In weather exposed locations, to reduce infiltration by surface runoff, the surface of the backfill should be sealed. This can be achieved by either compacting a material of low permeability ie. on site clay or concrete, etc. with a slope towards an open drain.

Due to possible long term problems with blocking of gravel filters and drains and short term storm conditions that could flood the fill behind retaining walls, it is recommended that all retaining walls be designed for some water pressure distribution. A suggested water pressure distribution for retaining walls on this site would be half height water pressure using the recommended factor of safety (sliding and overturning = 2.0 - British Code of Practice). The design should then be checked using limiting equilibrium for full height water pressure.

During installation of any retaining walls, the insitu soils should be battered back to minimise fall-in and subsequent disruption of works. Temporary batter angles are given in Section 6.2. Suitable precautions to satisfy Health & Safety requirements must also be adhered to.

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6.6 Pavements |

It is understood that a combination of flexible asphalt pavements and rigid concrete pavements will be adopted across the site.

Following earthworks, it is envisaged that a combination of extremely weathered rock and a full subgrade will be exposed in Stage 1 of the site, while in Stage 2 of the site a silty sand gravel fill would generally be anticipated.

Laboratory testing is currently being completed to determine the insitu material's California Bearing Ration (CBR); this value represents the 'strength' of this material, compacted to 98% standard density ratio, under saturation.

For areas of exposed weathered rock a presumption design CBR of 20% to 25% and a subgrade modulus of 55kPa/mm are anticipated.

For areas of silty sandy gravel fill, a presumption CBR of 20% and a subgrade modulus of 70kPa/mm would be anticipated.

Onsite CBR testing is recommended once the proposed roadways have been marked out to confirm design CBR values.

Along with recommendations contained in Sections 6.1 and 6.2, the following general earthworks recommendations are made:-

- Incorporate a perimeter drain at the pavement edges to prevent possible construction. Water should not be allowed to pond on or near pavement surfaces.
- ii. Pavements should be well drained both during and upon completion of construction. Water should not be allowed to pond on or near pavement surfaces.
- iii. Subgrades should be compacted to achieve the minimum density ratios as outlined in Section 6.2 'Earthworks'.

Pavement materials should be compacted to minimum density ratios:

Sub base 95% - AS 1289 5.2.1 (modified)

Base course 98% - AS 1289.5.2.1 (modified)

- iv. It is recommended that inspection and testing be carried out following general earthworks to confirm conditions.
- v. Concrete pavements should preferably be keyed and dowelled at transverse joints and keyed and tied at longitudinal joints.

7.0 SITE MANAGEMENT

It is important that proper site management methods be observed for the existing soil conditions is observed by both the builder at the time of construction and the owners throughout the life of the development.

- It is important that the site be well drained. The ground around the building should slope away at 1 in 20 for 2 metres and then fall to the stormwater system to prevent ponding of water adjacent to the building.
- Keep service trenches under the building to a minimum.
- Ensure services are well graded to promote rapid removal of effluent under the site.
- Roof downpipes and garden taps should not be allowed to saturate the surface soils.
- Do not let the slab subgrade "dry out" prior to casting.
- Particular care is to be given to the location of gardens and general landscaping adjacent to the building as the surface fills may be adversely affected by the ingress of water.

8.0 **LIMITATIONS**

We have prepared this report for the use of VISY INDUSTRIES PTY LTD, for design purposes in accordance with generally accepted soils and foundation engineering practices. No other warranty, expressed or implied, is made as to the professional advice included in this report. This report has not been prepared for use by parties other than VISY INDUSTRIES PTY LTD or their consultants, ie. Architect and Civil/Structural Engineers. It may not contain sufficient information for purposes of other parties or for other uses.

Soil Surveys Engineering offer a documentation review service to verify that the intent of geotechnical recommendations is properly reflected in the design. It is recommended that clients avail themselves of this service; our standard rates will apply.

R.E. BURKE

P. ELKINGTON (RPEQ 7226)

for and on behalf of

SOIL SURVEYS ENGINEERING PTY LIMITED

November 2005 Ref: 2-5829R

(...)

<u>Visy Industries Pty Ltd</u> - Lot 2 Quinns Hill Road East, Stapylton

APPENDICES

Ref: 2-5829R

Visy Industries Pty Ltd - Lot 2 Quinns Hill Road East, Stapylton

APPENDIX A NOTES RELATING TO THIS REPORT

INTRODUCTION

These notes are provided by Soil Surveys Engineering Pty Limited (the Company) to complement the geotechnical report in regard to classification methods and field procedures. Not all notes are necessarily relevant to all reports.

The ground is a product of continuing natural and man-made processes and therefore exhibits a variety of characteristics and properties which vary from place to place and can change with time. Geotechnical engineering involves gathering and assimilating limited facts about these characteristics and properties in order to understand or predict the behaviour of the ground on a particular site under certain conditions. This report may contain such facts obtained by inspection, excavation, probing, sampling, testing or other means of investigation. If so, they are directly relevant only to the ground at the place where and at the time when the investigation was carried out.

DESCRIPTION AND CLASSIFICATION METHODS

Soils - The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726-1993 (Geotechnical Site Investigations), where appropriate. In general, descriptions cover the following properties - soil or rock type, colour, structure, strength or density, and inclusions. Identification and classification of soil and rock involves judgement and the Company infers accuracy only to the extent that is common in current geotechnical practice.

Soil types are described according to the dominant particle size and behaviour as set out in AS 1726-1993.

Cohesive soils are classified on the basis of strength (consistency) either by use of hand penetrometer, shear vane, laboratory testing or engineering examination. The strength terms are defined in AS1726-1993 Table A4.

Non-cohesive soils are classified on the basis of relative density usually based on insitu testing or engineering examination (see AS1726-1993 Table A5).

Rocks - Rock types are classified by their geological names (AS1726-1993 Table A6), together with

Table 1 Estimated strength descriptions given to rock based on engineering examination

Strength Term	Approximate Qu (MPa)
Extremely Weak	< 1.0
Very Weak	1.0 - 5.0
Weak	5.0 - 25
Medium Strong	25 - 50
Strong	50 - 100
Very Strong	100 - 250
Extremely Strong	> 250

Ref ISRM "Suggested Methods for the Quantitative

Description of Discontinuities in Rock Masses"

descriptive terms regarding weathering (AS1726-1993 Table A9), strength (refer Table 1

below), defects (AS1726-1993 Table A10), etc. Where strength testing (ie Point Loads) is carried out, AS1726-1993 Table A8 is used. Where relevant, further information regarding rock classification is attached.

SAMPLING

Sampling is carried out during drilling or from other excavations to allow engineering examination (and laboratory testing where required) of the soil or rock.

Disturbed samples taken during drilling provide information on plasticity, grain size, colour, moisture content, minor constituents and, depending upon sample disturbance, (information on strength and structure).

Undisturbed samples are taken by pushing a thin walled sample tube, usually 50mm diameter (U50), into the soil and withdrawing it with a sample of the soil contained in a relatively undisturbed state. Such samples yield information on structure and strength, and are necessary for laboratory determination of shear strength, volume change potential and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

Details of the type and method of sampling used are given on the attached logs.

INVESTIGATION METHODS

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The following is a brief summary of investigation methods currently adopted by the Company and some comments on their use and application.

Test Pits - These are normally excavated with a backhoe or a tracked excavator, allowing close examination of the insitu soils if it is safe to descend into the pit. The depth of penetration is limited to about 3m for a backhoe and up to 6m for an excavator. Limitations of test pits are the problems associated with disturbance and difficulty of reinstatement and the consequent effects on close-by structures. Care must be taken if construction is to be carried out near test pit locations to either properly recompact the backfill during construction or to design and construct the structure so as not to be adversely affected by poorly compacted backfill at the test pit location.

Hand Auger Drilling - A borehole of 50 to 100mm diameter is advanced by manually operated equipment. Refusal of the augers can occur on a variety of materials such as hard clay, gravel or rock fragments and does not necessarily indicate rock level. Continuous Spiral Flight Augers - The borehole is advanced using 75 to 300 mm diameter continuous spiral flight augers, which are withdrawn at intervals to allow sampling or insitu testing. This is a relatively economical means of drilling in clays and in sands above the water table. Samples are returned to the surface by the flights or may be collected after withdrawal of the augers. Information from the drilling (as distinct from specific sampling) is of relatively lower reliability due to remoulding, inclusion of cuttings from above or softening of samples by groundwater, or uncertainties as to the original depth of the samples. Augering below the groundwater table has a lower reliability than augering above the water table. Various drill bits are attached to the base of the augers during the drilling. The depth of refusal of the different bit types can provide information as to the strength of the material encountered. Generally two different bit types are used. The 'V' bit is a V shaped steel bit and the 'TC' bit is a tungsten carbide tipped screw type bit.

<u>Wash Boring</u> - The borehole is usually advanced by a rotary bit with water or fluid pumped down the hollow drill rods and returned up in the space between the

rods and the soil or casing, carrying the drill cuttings. Only major changes in stratification can be determined from the cuttings, together with some information from "feel" and rate of penetration. More accurate information on soil strata is gained by regular testing and sampling using the Standard Penetration Test (SPT) and undisturbed thin walled tube samples (U50). Mud Stabilized Drilling - Either Wash Boring or Continuous Core Drilling can use drilling mud as a circulating fluid to stabilize the borehole. The term "mud" encompasses a range of products ranging from bentonite to polymers such as Revert or Biogel. The mud tends to mask the cuttings and reliable identification is only possible from regular intact sampling (eg. from SPT and U50 samples) or from rock coring, etc.

Continuous Core Drilling - A continuous core sample is obtained using a diamond or tungsten carbide tipped core barrel. Provided full core recovery is achieved (which is not always possible in very weak rocks and granular soils), this technique provides a very reliable method of investigation. In rocks, NMLC coring (nominal 52 mm diameter) is usually used with water flush. The length of core recovered is compared to the length drilled and any length not recovered is shown as CORE LOSS. The location of losses is determined on site by the supervisor. If the location of the loss is uncertain, it is placed at the top end of the run, when the core is placed in a storage tray and recorded on the log.

Standard Penetration Tests - Standard Penetration Tests (SPT) are used mainly in non-cohesive soils, but can also be used in cohesive soils, as a means of indicating density or strength. The test procedure is described in Australian Standard 1289, "Methods of Testing Soils for Engineering Purposes" - Test 6.3.1.

The test is carried out in a borehole by driving a 50mm diameter split sample tube with a tapered shoe, under the impact of a 63 kg hammer with a free fall of 760 mm. It is normal for the tube to be driven in three successive 150 mm increments and the 'N' value is taken as the number of blows for the last 300 mm, the upper 150 mm being neglected due to possible disturbance from the drilling method. In dense sands, very hard clays or weak rock, the full 450 mm

penetration may not be practicable and the test is discontinued at a reduced penetration.

In the case where full penetration is obtained with successive blow counts for each 150 mm of, say 4, 6 and 7 blows, the record shows,

$$4, 6, 7$$
 $N = 13$

In a case where the test is discontinued short of full penetration, say after 15 blows for the first 150 mm and 30 blows for the next 40 mm, the record shows:

15, 30/40mm

The results of the test can be related empirically to the engineering properties of the soil.

Occasionally, the drop hammer is used to drive 50mm diameter thin walled sample tubes (U50) in clays. In such circumstances, it is noted on the borehole logs.

A modification to the SPT test is where the same driving system is used with a solid 60° tipped steel cone of the same diameter as the SPT hollow sampler. The solid cone can be continuously driven for some distance in soft clays or loose sands, or may be used where damage would otherwise occur to the SPT. The results of this Solid SPT are shown as "N_c" on the borehole logs, together with the number of blows per 150 mm penetration.

<u>Cone Penetration Tests</u> - Test Method - Cone Penetration Tests (CPT) are carried out in accordance with AS 1289 Test 6.5.1-1977, using an electrical friction-cone penetrometer.

The test essentially comprises the measurement of resistance to penetration of a cone of 35.7 mm diameter pushed into the soil at a rate of 10-20 mm per second by hydraulic force. The resistance to penetration is recorded in terms of pressure on the end area of the cone (cone resistance, qc, in MPa) and friction on the side of the 135 mm long sleeve immediately above the top of the cone (friction resistance, fs, in kPa). These forces are measured by electrical transducers (strain gauges) within the cone device. The ratio between friction resistance and cone resistance is also calculated as a percentage, ie.

Friction Ratio (FR) = $\frac{Friction \ Resistan \ ce, f_s \ (kPa) \times 100}{cone \ resistan \ ce, q_c \ (kPa)}$ The friction ratio, FR, is generally low in sands (less than 1% or 2%) and generally higher in clays (say 3% or more). The interpretation of sandy clays, clayey sands and material with a high silt content is more

difficult, but intermediate values (between 1% and 3%) would be expected. Highly organic clays and peats generally have a friction ratio in excess of 5%.

Static cone data is recorded in the field on disc for later presentation using computer aided drafting.

The equipment can be operated from any conventional drill rig. A total applied load in the range of 4 to 10 tonnes is required for practical purposes, although lighter loads may be used. The cone penetrometers are available with various capacities of cone resistance ranging up to 100 MPa for general purpose investigations, while a range of 0 to 10 MPa can be used where more sensitive investigations of soft clay are required.

The cone resistance value provides a continuous measure of soil strength or density, and together with the friction ratio, provide very useful indications of the presence of narrow bands of geotechnically significant layers such as thin, soft clay layers or lenses of sand which might otherwise be missed using conventional drilling methods.

The lithology of the encountered soils is interpreted from static cone data and is generally presented on the static cone log sheets.

It is important to note that the lithology is interpreted information and is based on research by Schmertmann (1970), Sanglerat (1972), Robinson and Campinalli (1986), modified to suit local conditions as indicated by borehole information and laboratory testing.

As soils generally change gradually it is sometimes' difficult to accurately describe depths of strata changes, although greater accuracy is obtained with the static cone compared with conventional drilling. In addition, friction ratios decrease in accuracy with low cone resistance values, and in desiccated soils. As a result, some overlap and minor discrepancies may exist between static cone and nearby borehole information.

Portable Dynamic Cone Penetrometers - Portable Dynamic Cone Penetrometer (DCP) tests are carried out by driving a rod into the ground with a falling weight hammer and measuring the blows for successive 100mm increments of penetration.

The DCP comprises a Cone of 20 mm diameter with 30 degree taper attached to steel rods of smaller section.

The cone end is driven with a 9 kg hammer falling 510 mm (AS. 1289 Test 6.3.2). The test was developed initially for pavement subgrade investigations, and empirical correlations of the test results with California Bearing Ratio have been published by various Road Authorities. The Company has developed their own correlations with Standard Penetration tests and Density Index tests in sands.

LOGS

The borehole or test pit logs presented herein are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on the frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will enable the most reliable assessment but is not always practicable or possible to justify on economic grounds. In any case, the boreholes or test pits represent only a very small sample of the total subsurface conditions.

The attached explanatory notes define the terms and symbols used in preparation of the logs.

Interpretation of the information shown on the logs, and its application to design and construction, should therefore take into account the spacing of boreholes or test pits, the method of drilling or excavation, the frequency of sampling and testing and the possibility of other than "straight line" variations between the boreholes or test pits. Subsurface conditions between boreholes or test pits may vary significantly from conditions encountered at the borehole or test pit locations.

GROUNDWATER

Where groundwater levels are measured in boreholes, there are several potential problems.

- Although groundwater may be present in lower permeability soils, it may enter the hole slowly or perhaps not at all during the time the hole is open.
- A localized perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes and may not be the same at the time of construction.

•The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be bailed out of the bore and mud must be washed out of the hole or "reverted" if water observations are to be made.

More reliable measurements can be made by use of standpipes which are read after stabilizing at periods ranging from several days to perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from perched water tables or surface water.

FILL

The presence of fill materials can often be determined only by the inclusion of foreign objects (eg. bricks, steel, etc.) or by distinctly unusual colour, texture or fabric. Identification of the extent of fill materials will also depend on investigation methods and frequency. Where natural soils similar to those at the site are used for fill, it may be difficult with limited testing and sampling to reliably determine the extent of the fill.

The presence of fill materials is usually regarded with caution as the possible variation in density, strength and material type is much greater than with natural soil deposits. Consequently, there is an increased risk of adverse engineering characteristics or behaviour. If the volume and quality of fill is important to a project, then frequent test pit excavations are preferable to boreholes.

LABORATORY TESTING

Laboratory testing is normally carried out in accordance with Australian Standard 1289 "Methods of Testing Soil for Engineering Purposes". Details of the test procedure used are given on the individual report forms and the attached explanatory notes summarize important aspects of the Laboratory Test Procedures adopted.

ENGINEERING REPORTS

Engineering reports are prepared by qualified personnel and are based on the information obtained and on current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal the information and interpretation may not be relevant if the design proposal is changed. If this happens, the Company will

be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical aspects and recommendations or suggestions for design and construction. Since the test sites in any exploration represent a very small proportion of the total site and since the exploration only identifies actual ground conditions at the test sites, even under the best circumstances actual conditions may vary from those inferred to exist. No responsibility is taken for:-

- Unexpected variations in ground and/or groundwater conditions.
- Changes in policy or interpretation of policy by statutory authorities.
- The actions of other persons.
- Any work where the company is not given the opportunity to supervise the construction using the Companies designs/recommendations.

If differences occur, the Company will be pleased to assist with investigation or advice to resolve any problems occurring.

SITE ANOMALIES

In the event that conditions encountered on site during construction appear to vary from those expected from the information contained in the report, the Company requests that it immediately be notified. Most problems are more readily resolved when conditions are exposed than at some later stage, well after the event.

REPRODUCTION OF INFORMATION FOR CONTRACTUAL PURPOSES

Attention is drawn to the document "Guidelines for the Provision of Geotechnical Information in Tender Documents", published by the Institution of Engineers, Australia. Where information obtained from this investigation is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances, where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. The Company would be pleased to assist

in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

REVIEW OF DESIGN

Where major civil or structural developments are proposed <u>or</u> where only a limited investigation has been completed <u>or</u> where the geotechnical conditions/ constraints are quite complex, it is prudent to have a joint design review which involves a senior geotechnical engineer. We would be happy to assist in this regard as an extension of our investigation commission.

SITE INSPECTION

The Company will always be pleased to provide engineering inspection services for geotechnical aspects of work to which this report is related.

- i) Site visits during construction to confirm reported ground conditions
- ii) Site visits to assist the contractor or other site personnel in identifying various soil/rock types such as appropriate footing or pier founding depths, the stability of a filled or excavated slope; or
- iii) Full-time engineering presence on site.

In the vast majority of cases it is advantageous to the principal for the geotechnical engineer who wrote the investigation report to be involved in the construction stage of the project.

Soil Surveys Engineering Pty. Limited Consulting Gootschrical engineers PPECO No. 195 ACN GOS GOS GOS ACRICAN GOS GOS LIVEYS COM. EU

LEGEND SHEET



vel 2 19 Finchley Street ton Q 4064 1 Fox 317

11 Production Ave Kawane Wellers O 4578 PO Box 2 PU Box 2 Buddina O 4578 Ph 61 7 5493 1733 Fax 61 7 5493 2837

Information

DRILLING TYPES

DRILLING TYPES

V - open hole drilling using augers and a steel "V" bit

TC - open hole drilling using augers and a Tungsten Carbide bit

WB - wash boring using a drag or blade bit

RR - wash boring using a rock roller bit

NMLC - coring using a NMLC core barrel

Casing - steel casing in hole

DEPTH

Expressed in metres below the surface unless otherwise noted

ROCK DESCRIPTION

Rock name, grain size, colour, texture, fabric and any other relevent comments

WEATHERING GRADES

XW - Extremely Weathered DW - Distinctly Weathered SW - Slightly Weathered FR - Fresh

STRENGTH

STHENGTH
(estimate of UCS)
VW - very weak 0.7 to 2.4 MPa
W - weak 2.4 to 7.0 MPa
W - weak 2.4 to 7.0 MPa
S - strong 24 to 70 MPa
VS - very strong 70 to 240 MPa
VS - very strong 70 to 240 MPa

CORING DETAILS

Rec - core recovery in each run expressed as a % RQD - Rock Quality Description expressed as a %

Defect Description

3.00m;J45;p,s,o,z

Depth in metres; Defect Type and angle with the core axis; planarity, roughness, aperture, infill Depth in metres; Depth in metres; Depeted Type
J - Joint
F - Foliation
B - Bedding
V - Vein
S - Shear Zone
T - Fault
C - Clay Seam
Z - Contorted Zone
RJ - Relict Joint Infill

Planariy Roughness Aperture
p - Planari s - Smooth c - Closed
c - Curvi-linear v - Very Rough
u - Undulating I - Slickensides

z - Clean c - Clay q - Quartz k - Calcite w - Weathered Rock

I - Limonite

<u>Testing</u>

SPT 10,15,15

SPT testing

N value Blows/150mm or as noted

U50 (50) PP = 500 kPa

U50 Tube Samples (% Recovery) Pocket penetrometer reading

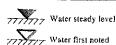
1,30,5 : 25

Vane Shear Testing Seating, peak and residual : Corrected value

DIST

Disturbed Samples

Water Intersections



<u>Testing</u> Results

Corrected Point Load Test Result Is50=4 (A) A • Axial, D • Diametral

Graphic Legend

CH - CLAY of high plasticity

CI - CLAY of intermediate plasticity

CL - CLAY of low plasticity

MH - SILT of high plasticity

MI - SILT of intermediate plasticity

ML - SILT of low plasticity

Pt - PEAT

OH - Organic SILTS and CLAYS of high plasticity

OL - Organic SILTS and CLAYS of low plasticity

SC - Clayey SAND

SM - Silty SAND

SP - poorly graded SAND

SW - Well graded SAND

GC - Clayey GRAVEL

GM - Silty GRAVEL

GP - poorly graded GRAVEL

GW -well graded GRAVEL

Fill

Core loss

Phyllite

Meta-Siltstone

Meta-Sandstone

Greywacke

Tuff

Sandstone

Siltstone

Mudstone

Conglomerate

Втессіа

0 0 0 C

Granite

VOLCANIC ASH

VOLCANIC AGGOLMERATE

MARINE DEPOSITS

<u>Visy Industries Pty Ltd</u> - Lot 2 Quinns Hill Road East, Stapylton

APPENDIX B BOREHOLE RECORDS

Soil Surveys Engineering Pty. Limited

BOREHOLE RECORD SHEET Borehole Number:

1

Project Number:

205-5829

Project Name:

Proposed Factory Development

Quinn Hill Rd East, Staphyton

Location: Easling: 524946 Northing: 6933051 RL:

Client:

Drilling Method	Graphic	Date :	08/11/2005	DCP Test (blows/100mm)	Page : Samples a Remarks	ı and s
0.10	FILI coan NAT moti	IDSTONE (XW) Weak, grey streaked	ne to n plasticity, grey moist. aked orange	5 10 15 20 25	P}>600 U50	
2.0	Born	ehole 0.70m minated				
MENTS Groundwater not observed. 2) Mar. 4) DCP Refusal at 0.6m.	x V bit at 0.6m.		pproved:			

Logger: RB

Soil Surveys Engineering Pty. Limited Consulting Geotechnical engineers RPECQ No. 186 ACN 004 004 037 ACN 004 004 037

Driller: RB

Drilling Rig: Jacro200

BOREHOLE RECORD SHEET

Borehole Number:

2

Project Number:

205-5829

Project Name:

Proposed Factory Development

Quinn Hill Rd East, Staphyton

Easting: 524878 Northing: 6933083

Location: Client:

Visy Industries Pty. Ltd.

Date:

08/11/2005

Page: Drilling Method DCP Test (blows/100mm) Samples and Remarks Depth Description 5 ★ # A 10 15 20 25 FILL Silty Sandy GRAVEL (GM) Loose, fine to coarse size, grey brown, some cobbles, fine to coarse 0.20 grained sand, some clay fines, moist.

NATURAL Sandy CLAY (CH) Hard, high plasticity, grey mottled orange brown, fine grained sand, moist.

SANDSTONE (XW) Very weak, grey streaked orange 0.35 Borehole 0.45m Terminated 1) Groundwater not observed. 2) Max TC bit at 0.45m.

Soil Surveys Engineering Pty. Limited

BOREHOLE RECORD SHEET

3 Borehole Number:

205-5829

Project Name:

Proposed Factory Development

Location:

Quinn Hill Rd East, Staphyton

Easting: 524760 Logger: RB

Northing: 6933093

Driller: RB

RL:

Drilling Rig: Jacro200

Client:

Visy Industries Pty. Ltd.

Project Number:

08/11/2005

	Date : 08/11/2005		Page: 1
Drilling Method Depth	Description	DCP Test (blows/100mm) 5 10 15 20 25	Samples and Remarks
0.10	FILL Silty Sandy GRAVEL (GM) Medium dense, fine to coarse size, grey brown, some cobbles, fine to coarse grained sand, moist. NATURAL Sandy CLAY (CH) Hard, high plasticity, grey mottled orange brown, fine grained sand, moist.		
3.0	SANDSTONE (XW) Very weak, grey streaked orange brown Borehole 2.30m Terminated		
COMMENTS 1) Groundwater not observed, 2) Max TC bit :	4 2.3m	and the state of t	
2, 1, 1, 1, 0, 0, 1	Approved:	· · · · · · · · · · · · · · · · · · ·	The Input of Organization

Logger: RB

Soil Surveys Engineering Pty. Limited Consubra Georgeonical angineers ACN 954 053 551 ACN 954 053 551 ACN 954 053 551 ACN 954 054 551

Driller: RB

Drilling Rig: Jacro200

BOREHOLE RECORD SHEET

4 Borehole Number:

205-5829

Project Name:

Project Number: Proposed Factory Development

Location:

Quinn Hill Rd East, Staphyton

Northing: 6933208 Easting: 524770 RL:

Client:

Visy Industries Pty. Ltd.

08/11/2005 Date: Page:

		- (P-14) P(1)	Date: 08/11/2005		Page: I
Drilling Method	Depth	Graphic	Description	DCP Test (blows/100mm) 5 10 15 20 25	Samples and Remarks
	0	0,40	FILL Silty Sandy GRAVEL (GM) Loose, fine to coarse size, grey brown, some cobbles, fine to coarse grained sand, some clay fines, moist. FILL Silty Sandy GRAVEL (GM) Loose, fine to coarse size, grey brown, some cobbles, fine to coarse grained sand, some clay fines, wet.		
	- o.	1.75 1,85	SANDSTONE (XW) Very weak, grey streaked orange brown.		
	4.8 0	ुर कि	SANDSTONE (XW) Weak, grey streaked orange brown.		
	3.0		Borehole 0.95m Terminated		
MENTO	V.V	1 1			
IMENTS	noted at 0.9m 2)	Max TC bit a	t 0.95m. 3) DCP Approved :		

Date:

Soil Surveys Engineering Pty. Limited

Borehole Number:

5

BOREHOLE RECORD SHEET

Project Number:

205-5829

Project Name:

Proposed Factory Development

Location:

Quinn Hill Rd East, Staphyton

Easting: 524526 Logger: RB

(...)

Driller: RB

6933204

RL: Drilling Rig: Jacro200

Client:

Visy Industries Pty. Ltd.

rilling Method 보호호호 Depth	Graphic	Description		DCP (blows/1 5 10 15	00mm)	Samples and Remarks
	0,15	FILL Sity Sandy GRAVEL (GM) Loose fine to coarse size, grey brown, some col to coarse grained sand, moist NATURAL SANDSTONE (XW) Very w orange brown.	to medium dense, obles, fine eak, grey streaked			
<u> </u>	0.40	SANDSTONE (XW) Weak, grey streake	1	_	;	
		Borehole 0.45m	o orange provin		1	-
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ENTS						
roundwater not observed.	2) Max TC bit at	0.45m.				
		1.	proved:			

Soil Surveys Engineering Pty. Limited

Borehole Number:

6

BOREHOLE RECORD SHEET

Project Number:

205-5829

Project Name:

Proposed Factory Development

Easting: 524857

Logger: RB

Northing: 6933147

Driller: RB

Drilling Rig: Jacro200

Location:

Quinn Hill Rd East, Staphyton Visy Industries Pty. Ltd.

Client:

Date: 08/11/2005 Page: Drilling Method DCP Test (blows/100mm) Samples and Remarks Depth Description 5 10 15 20 25 FILL Silty Sandy GRAVEL (GM) Medium dense, fine to 0.10 coarse size, grey brown, some cobbles, fine to coarse grained sand, moist.

NATURAL SANDSTONE (XW) Very weak, grey streaked orange brown. 0.60 SANDSTONE (XW) Weak, grey streaked orange brown. Borehole Terminated COMMENTS 1) Groundwater not observed. 2) Max TC bit at 0.7m. 3) DCP Refusal at 0.4m. Date:

ISSUE No. 1.1 08/10/97 RS007A

Soil Surveys Engineering Pty. Limited Computing Geotechnical angineers RPECO No. 185 ACH COS COST SST. REPECO No. 185 ACH COST SST. REPECO No. 185 **BOREHOLE RECORD SHEET** 7 Borehole Number: Project Number: 205-5829 Project Name: Proposed Factory Development Location: Quinn Hill Rd East, Staphyton Easting: 524876 RL: Northing: 6933251 Client: Visy Industries Pty. Ltd. Logger: RB Drilling Rig: Jacro200 Oriller: RB 08/11/2005 Date: Page: Drilling Method DCP Test (blows/100mm) Depth Samples and Description 78 48 TC Remarks 15 20 25 FILL Silty Sandy GRAVEL (GM) Loose to medium dense, fine to coarse size, grey brown, some cobbles, fine to coarse grained sand, some clay fines, moist. 1,40 1.45 NATURAL SANDSTONE (XW) Very weak, grey streaked \Orange brown.\SANDSTONE (XW) Weak, grev streaked orange brown. Borehole 1.55m Terminated COMMENTS 1) Groundwater not observed. 2) Max TC bit at 1.55m.

Approved : Date :

ISSUE No. 1.1 08/10/97 RE007A

Soil Surveys Engineering Pty. Limited BOREHOLE RECORD SHEET 8 Borehole Number: Project Number: 205-5829 Project Name: Proposed Factory Development Location: Quinn Hill Rd East, Staphyton Easting: 524976 Northing: 6933196 Client: Visy Industries Pty. Ltd. Logger: RB Driller: RB Drilling Rig; Jacro200 Date: 08/11/2005 Page: Drilling Method DCP Test (blows/100mm) Graphic Samples and Depth Description P 3 8 3 8 Remarks 5 10 15 20 25 FILL Silty Sandy GRAVEL (GM) Loose to medium dense, 0.10 fine to coarse size, grey brown, some cobbles, fine to coarse grained sand, moist NATURAL SANDSTONE (XW) Very weak, grey streaked orange brown. 1.60 SANDSTONE (XW) Weak, grey streaked orange brown. Borehole 1.70m Terminated 1) Groundwater not observed. 2) Max TC bit at 1.7m. Approved: Date :

Easting: 524983

Logger: RB

Soil Surveys Engineering Pty. Limited Consulting Geoscophical anglineer ACN 1981 004:831 AC

Northing: 6933302

Driller: RB

Drilling Rig: Jacro200

BOREHOLE RECORD SHEET

Borehole Number:

9

Project Number:

205-5829

Project Name:

Proposed Factory Development

Location:

Quinn Hill Rd East, Staphyton

Client:

Visy Industries Pty. Ltd.

93-00 min	•			_				Date :	08/11/2005		Page: 1
his and a second			elhod L		Depth	Graphic		Description		DCP Test (blows/100mm) 5 10 15 20 25	Samples and Remarks
					0.	35	FILL Clayey Sandy GR coarse size, grey brown sand, low plasticity fine NATURAL Silty CLAY plasticity, brown mottle sand, moist.	, fine to coarse grained s, some cobbles, moist.			
1.11 mg					1.0	75	Silty CLAY (CH) Hard, mottled grey, some fine	high plasticity, dark grained sand, moist.	ey		PP>600)
					1.:	50	SANDSTONE (XW) Vebrown. SANDSTONE (XW) We				
		X			2.0		Borehole Terminated	1.65m			
1)	Gre 55m	งนาด 1. 4)	lwate DCi	r i R	ot observed. 2) l efusal at 1.3m.	vlax V bit at	1.5m. 3) Max TC bit at	Approv	red :		

Approved: Date:

ISSUE No. 1.1 08/10/97 R5007A

Soil Surveys Engineering Pty. Limited Consulting Geotochical angineers RPECQ No. 195 A.C.N. 054 043 651 ACM 054 043 651 ACM 054 043 651 ACM 054 043 651 ACM 054 043 651 ACM 054 043 651 ACM 054 043 651 ACM 054 054 651 ACM 054 054 651 ACM 054 054 651 ACM 054 054 654 ACM 054 054 054 ACM 0

BOREHOLE RECORD SHEET Borehole Number:

10

Project Number:

205-5829

Project Name:

Proposed Factory Development

Location:

Quinn Hill Rd East, Staphyton

Easting: 524833 Logger: RB

Driller: RB

Northing: 6933322

Drilling Rig: Jacro200

RL:

Client:

Visy Industries Pty. Ltd.

Date

08/11/2005

					Date :	08/11/2005		Page: 1
	Onlling Method	Depth	Graphic	of the state of th	Description		DCP Test (blows/100mm) 5 10 15 20 25	Samples and Remarks
			0.30	coarse size, grey bro sand, low plasticity fines, moist. FILL Clayey Sandy coarse size, grey bro	GRAVEL (GC) Medium own, fine to coarse graine fines, some cobbles, some GRAVEL (GC) Medium own, fine to coarse graine fines, some cobbles, some ulders, moist.	d e clay dense, fine to d		
		- 10	0.70	plasticity, grey mottl	CLAY (CL) Stiff, low to ed brown and orange bro led sand, fine to coarse si	wn		
			1.10	NATURAL Silty SA medium grained, dar Sandy CLAY (CH) S	ND (SM) Medium dense k grey, moist tiff, high plasticity, brow medium grained sand, m			
THE PARTY OF THE P			1.60	Sandy CLAY (CH) S mottled grey, fine to	tiff, high plasticity, brow medium grained sand, mo	n nier		PP=320 U50
and the second of the second of the second		2.0		monded gloss, this to t		7.54.		
The state of the s		 -	2.40	SANDSTONE (XW) grey.	Very weak, orange brown	n bleached		
		_	270		Weak, grey streaked orar	ige brown.		
		4.0		Borehole Terminated	2.70m			
CON	MMENTS	5.0]
(1		not observed. 2	!) Max TC bit i	at 2,7m. 3) DCP Refus		oved ;		
ŀ					Date			i

186UE No. 1.1 08/10/97 R6007A

Soil Surveys Engineering Pty. Limited CONSUMPLY SOURCE PROPERTY AND 1955 ACAN DOS 1955 RPECO NO. 1955 ACAN DESCRIPTION OF THE PROPERTY AND 1955 ACAN DESCRIPTION OF THE PROPERTY AND THE PROPERTY

BOREHOLE RECORD SHEET

Borehole Number:

11

Project Number:

205-5829

Project Name:

Proposed Factory Development

Easting: 524779 Northing: 6933277 RL:

Location:

Quinn Hill Rd East, Staphyton Visy Industries Pty. Ltd.

Logger: RB

Driller: RB

Drilling Rig: Jacro200

Client:

rilling Method 유용물물	Depth		Graphic	Description	DCP Test (blows/100mm) 5 10 15 20 25	Samples and Remarks
	-	0.50	10 min 15 min	FILL Silty Clayey GRAVEL (GM) Medium dense to dense, fine to coarse size, grey brown, fine to coarse grained sand, some cobbles, moist.		
	- - - 1.0	0.80 0.90		FILL Silty Clayey GRAVEL (GM) Medium dense to dense, fine to coarse size, grey brown, fine to coarse grained sand, some cobbles, some small boulders, moist.		
	-	1.40		NATURAL Silty SAND (SM) Medium dense, fine to medium grained, brown bleached grey, moist		
	<u>-</u>	1.10		Sandy CLAY (CH) Stiff, high plasticity, brown mottled gray, fine to medium grained sand, moist.		
	2.0	2.10		Sandy CLAY (CH) Very stiff, high plasticity, brown mottled grey, fine to medium grained sand, moist.		 - -
	_	2.10		Sandy CLAY (CH) Hard, high plasticity, brown mottled grey, fine to medium grained sand, moist.	1	
	3.0					
	-	3.40		Sandy CLAY (CH) Hard, high plasticity, grey mottled		
'	4.0			orange brown and brown, fine to medium grained sand, moist.		
						•
	_					
	5.0				. k	
E		5.10		Sandy CLAY (CH) Hard, medium plasticity, grey		-
	-	5.40		mottled orange brown and brown, fine to medium grained sand, moist. SANDSTONE (XW) Very weak, orange brown streaked		
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ISSUE No. 1.1 08/10/97 R6007A

Soil Surveys Engineering Pty. Limited

BOREHOLE RECORD SHEET

Borehole Number:

12

Project Number:

205-5829

Project Name:

Proposed Factory Development

Quinn Hill Rd East, Staphyton

Easting: 524843

Northing: 6933475

Client:

Location:

Visy Industries Pty. Ltd.

Logger: RB Driller: RB Drilling Rig: Jacro200

09/11/2005

Page:

Date: DCP Test Drilling Method Samples and (blows/100mm) Depth Description 2 2 2 2 3 Remarks 10 15 20 FILL Silty Sandy GRAVEL (GC) Medium dense to dense, fine to coarse size, grey brown, fine to coarse grained sand, some cobbles, moist 0.25 FILL Silty Sandy GRAVEL (GC) Medium dense to dense, fine to coarse size, grey brown, fine to coarse grained sand, some cobbles, some small boulders, 1.0 moist. 1.60 NATURAL Sandy CLAY (CH) Stiff, high plasticity, grey mottled orange brown, fine to medium grained sand, 2.0 PP-250 2.40 Sandy CLAY (CH) Very stiff, high plasticity, grey mottled orange brown, fine to medium grained sand, moist. 3.0 3.60 Sandy CLAY (CH) Hard, high plasticity, grey mottled orange brown, fine to medium grained sand, moist-5.0 5.40 Sandy CLAY (CH) Stiff, medium to high plasticity, grey mottled orange brown, fine to medium grained 6.0 6.60 Sandy CLAY (CH) Hard, high plasticity, grey, fine to medium grained sand, moist, 7.0 8.0 8.40 SANDSTONE (XW) Very weak, grey streaked orange 9.0 Borehole 9,00m Terminated 10.0 1) Groundwater not observed. 2) DCP Refusal at 0.2m, 0.7m and 2.4m. Approved: Date:

ISSUE No. 1.1 08/10/97 RS007A

Soil Surveys Engineering Pty. Limited CONSUMER SOLD STATES ACEN OS DOI STATES ACEN DOI STATE

Northing: 6933477

BOREHOLE RECORD SHEET

Borehole Number:

13

Project Number:

205-5829

Project Name:

Location:

Proposed Factory Development Quinn Hill Rd East, Staphyton

Visy Industries Pty. Ltd.

Easting: 524906 Logger: RB

Driller: RB Drilling Rig: Jacro200

Client: Date :

09/11/2005

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Soil Surveys Engineering Pty. Limited **BOREHOLE RECORD SHEET** Borehole Number: Project Number: Project Name: Proposed Factory Development Location: Quinn Hill Rd East, Staphyton Easting: 524923 Northing: 6933549 Client: Visy Industries Pty. Ltd. Logger: RB Driller: RB Drilling Rig: Jacro200 09/11/2005 Date: Drilling Method DCP Test Depth Description (blows/100mm) 2 3 E 2 3 10 15 20 25 FILL Gravelly Sandy CLAY (CI) Stiff to very stiff, medium plasticity, grey mottled dark grey and orange brown, fine to medium grained sand, fine size gravel, moist. 0.50 FILL Silty Sandy GRAVEL (GC) Dense, fine to medium size, grey brown, some coarse size gravel, fine to medium grained sand, some clay fines, moist. 0.90 NATURAL Silty SAND (SM) Medium dense, fine to medium grained, dark brown, moist. 1.10 Silty CLAY (CH) Stiff, high plasticity, grey mottled orange brown, moist.

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205-5829

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Remarks

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ISSUE No. 1.1 08/10/97 RS007A

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BOREHOLE RECORD SHEET

Borehole Number:

15

Project Number:

205-5829

Project Name:

Drilling Rig: Jacro200

Location:

Proposed Factory Development Quinn Hill Rd East, Staphyton

Easting: 525007 Logger: RB

Northing: 6933421

Driller: RB

RL:

Client:

Visy Industries Pty. Ltd.

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Soil Surveys Engineering Pty. Limited

Borehole Number:

16

BOREHOLE RECORD SHEET

Project Number:

205-5829

Project Name:

Proposed Factory Development

Northing: 6933353

Drilling Rig: Jacro200

Location:

Quinn Hill Rd East, Stapylton

Easting: 524976 Logger: RB

Driller: RB

RL:

Client:

Visy Industries Pty. Ltd.

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Borehole Number:

17

Project Number:

205-5829

Project Name:

Proposed Factory Development

BOREHOLE RECORD SHEET

Easting: 524889

Logger: RB

Driller: RB

Northing: 6933466

RL:

Drilling Rig: Jacro200

Location: Client:

Visy Industries Pty. Ltd.

Quinn Hill Rd East, Stapylton

Date:

15/11/2005

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	5.0	4.80		Silty CLAY (CH) Hard, high plasticity, grey mottled red brown, moist.		
	6.0	5.80		Silty CLAY (CH) Very stiff, high plasticity, grey mottled orange brown, moist.		·
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Logger: RB

Soil Surveys Engineering Pty. Limited

Driller: RB

Drilling Rig: Jacro200

BOREHOLE RECORD SHEET

18

Borehole Number: Project Number:

205-5829

Project Name:

Proposed Factory Development

Quinn Hill Rd East, Stapylton

Location: RL: Northing:

Client:

Visy Industries Pty. Ltd.

Logger, RB	Dhiler: RB	Drilling Hog : Jacro200	Date: 15/11/2	2005	Page: 1
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	1.80		W) Weak, orange brown bleached grey.		
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Date:

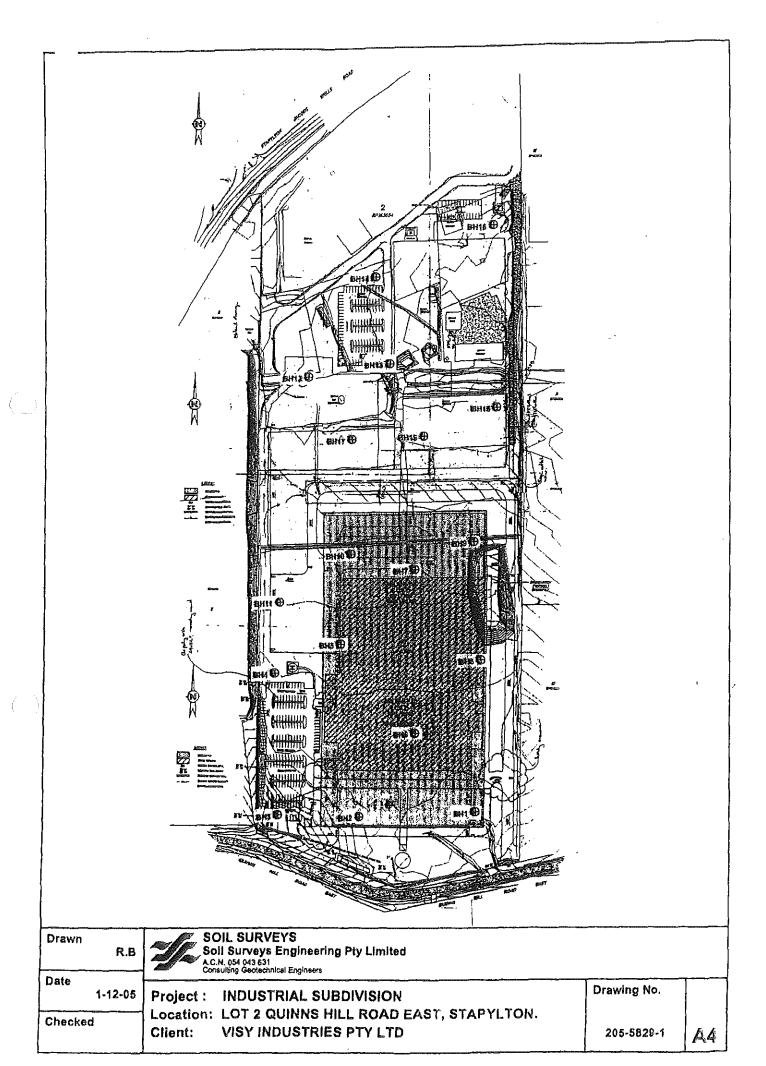
ISSUE No. 1.1 08/10/97 RS007A

Visy Industries Pty Ltd - Lot 2 Quinns Hill Road East, Stapylton

APPENDIX C LABORATORY TEST RESULTS

Visy Industries Pty Ltd - Lot 2 Quinns Hill Road East, Stapylton

APPENDIX D SITE PLAN





APPENDIXH

Traffic Impact Assessment

Prepared by Skildtraffic

3864assmtrpt.doc

Skildtraffic

Proposed Recycling Facility

Lot 2 on RP163654

Stapylton – Jacob's Well Road, Stapylton

TRAFFIC IMPACT ASSESSMENT

Prepared for **Visy Industries** Final Report issued **20 December 2005** Reviewed By **Luke Rytenskild**

Report Location: z:\Traffic\10173

Suite 7, 2563 Gold Coast Hwy Mermaid Beach QLD 4218 PO Box 441 Mermaid Beach QLD 4218 Phone 07 55277333 Fax 07 55277555 iuke.rytenskild@blgpond.com abn 39512916084

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5.	Development Traffic Estimates	14
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Appendix – Response to Gold Coast Planning Scheme Car Parking, Access and Transport Integration Constraint Code

1. INTRODUCTION

Skildtraffic has been engaged by Visy Industries to undertake a Traffic Impact Assessment of its proposal to develop a recycling plant at Stapylton.

It is intended that this report will form part of a Development Application to the Gold Coast City Council. The following issues have been addressed as part of the assessment:

- The impact of proposed development traffic upon the surrounding road network;
- Current road network planning
- Car parking supply and design
- Access to the subject site.

It is intended that this report will satisfy the Department of Main Roads' requirements for a *State Controlled Road Impact Assessment*.

A response to the Planning Scheme's Car Parking, Access and Transport Integration Constraint Code is provided as Appendix A.

2. PROPOSED PLAN OF DEVELOPMENT

As shown in Figure 2.1, the subject site is located on the southern side of the Stapylton – Jacob's Well Road at Stapylton. The northern portion of the subject site is currently used for industrial purposes and contains three large sheds. The balance of the site is vacant.

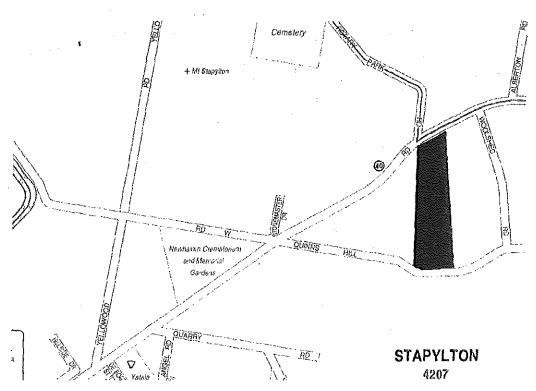


Figure 2.1 - Location of Subject Site

It is proposed that the project be developed over the following three stages:

Stage 1 - Visyboard Plant in southern sector of site.

Approx. 15,000m2 factory building

Stage 2 - Extension to Visy Board plant (approx. 3,000m² factory)

Stage 3 - Visypak Plant in northern portion of site

Approx. 15,000m2 factory building

Visy Board is a cardboard recycling and box / packaging manufacturing facility. Visy Pak is a aluminium and plastics recycling and food / beverage container manufacturing facility. More information regarding the operation of each facility can be found at www.visy.com.au.

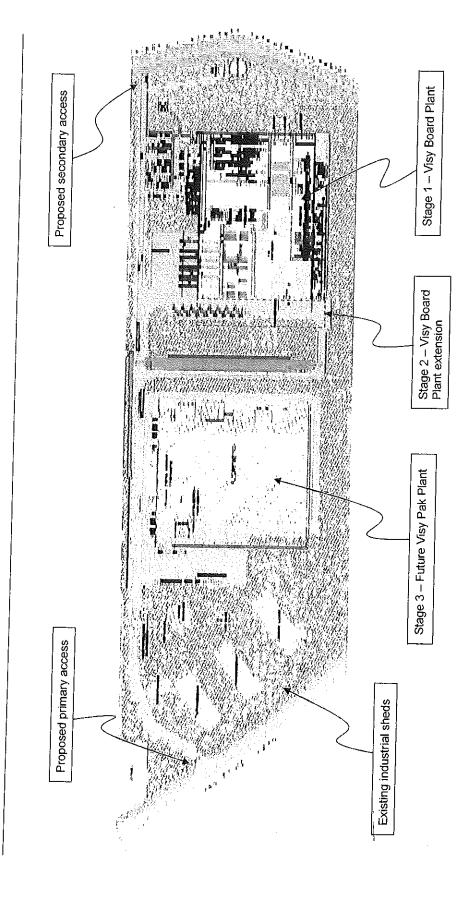


Figure 2.2 – Proposed Plan of Development

The Visy Board plant will be operated by a maximum of 64 employees at one time. The future Visy Pak plant will be operated by a maximum of approximately 20 employees at one time.

Access to the site is proposed to occur via an existing driveway located in the Stapylton – Jacob's Well Road frontage of the site. Secondary access will be gained via the Quinns Hill Road frontage. As discussed in the following section, access to the site may also be gained through the adjacent property if and when it is subdivided.

3. EXISTING ROAD NETWORK

The Stapylton – Jacob's Well Road is a State controlled road and therefore managed by the Department of Main Roads. The only other State controlled road considered to be relevant to this assessment is the Pacific Motorway. All other roads in the local area are managed by the Gold Coast City Council.

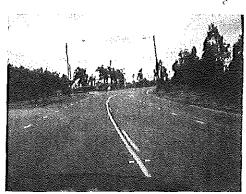
The Stapylton – Jacob's Well Road functions as an arterial road, however, its current state is a two lane rural road. The section of road between the Rotary Park Road and Woolshed Road intersections comprises of four lanes, however, the kerbside lane (in each direction) only has an auxiliary function.

Recent traffic counts indicate that the Stapylton – Jacob's Well Road currently carries in the order of 4,000 vehicles per day in the vicinity of the subject site, 9,600 vehicles per day just west of the Pacific Motorway interchange.

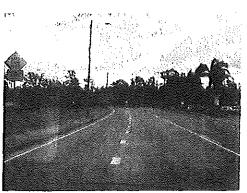
Rotary Park Road intersects with the Stapylton – Jacob's Well Road adjacent to the western boundary of the subject site. This intersection operates as an unsignalised 'T' junction with the Rotary Park Road leg being channelised.

Quinns Hill Road East is aligned parallel to the southern boundary of the subject site and extends between Woolshed Road and the Stapylton – Jacob's Well Road. This road currently has a gravel surface and is only used for minor property access.

Images of existing road conditions in the vicinity of the subject site are shown in Figure 3.1.



Stapylton – Jacobs Well Road / Rotary Park Road intersection



Stapylton - Jacob Well Road looking east



Stapylton – Jacobs Well Road looking west from Yellowood Road intersection



Stapylton - Jacobs Well Road looking west towards Woolshed Road

Figure 3.1 – Images of Existing Roads and Intersections in the Vicinity of the Subject Site

4. CURRENT ROAD NETWORK PLANNING

The following road planning activities are considered to be relevant to the subject site:

- Widening of the Stapylton Jacob's Well Road to four lanes
- Construction of the Intra Regional Transport Connector (IRTC).
- Development of the local road network.

Duplication of Stapylton - Jacob's Well Road

The Department of Main Roads has advised that a portion of the subject site is required for future road widening purposes (four lanes on Stapylton – Jacob's Well Road). This is shown in Figure 4.1.

Whilst Main Roads has allowed for the future four lanes on the Stapylton – Jacob's Well Road in its road widening requirements, this work would only ever be required to support the IRTC. Therefore, it is unlikely that the four lanes will occur within the next 15 - 20 years.

Intra Regional Transport Connector

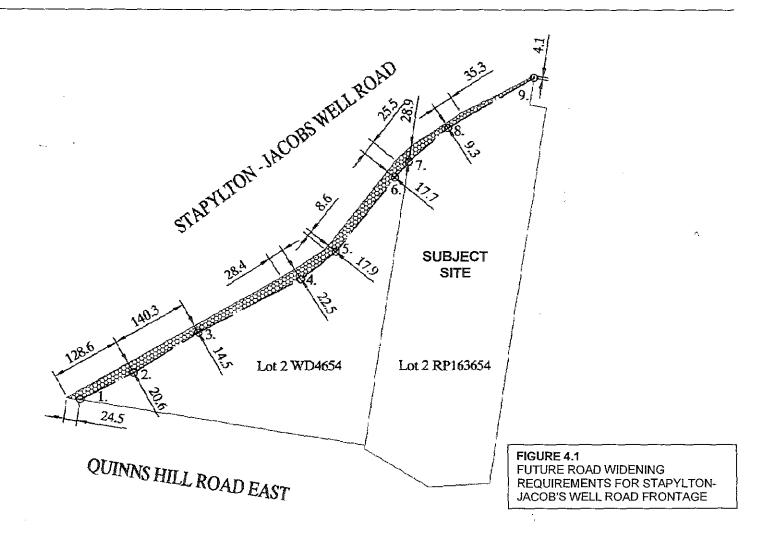
The planned IRTC extends from Stapylton to Nerang. This road is intended to provided for local arterial movement and reduce the pressure on the Pacific Motorway. Under the South East Queensland Infrastructure Plan, the road is planned to be constructed by 2026 and has \$1.6 billion allocated to it. It is expected that the southern section, between Coomera and Nerang would be constructed first and then the Coomera – Stapylton section.

Local Road Network

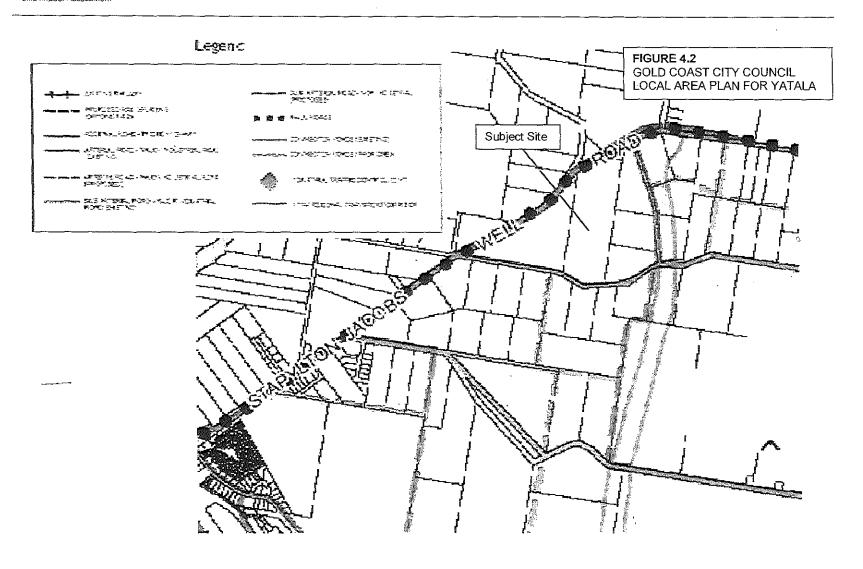
As shown in Figure 4.2, the Local Area Plan for the Yatala Enterprise Area nominates the Stapylton – Jacob's Well Road as an Industrial Arterial Road and a Haul Road.

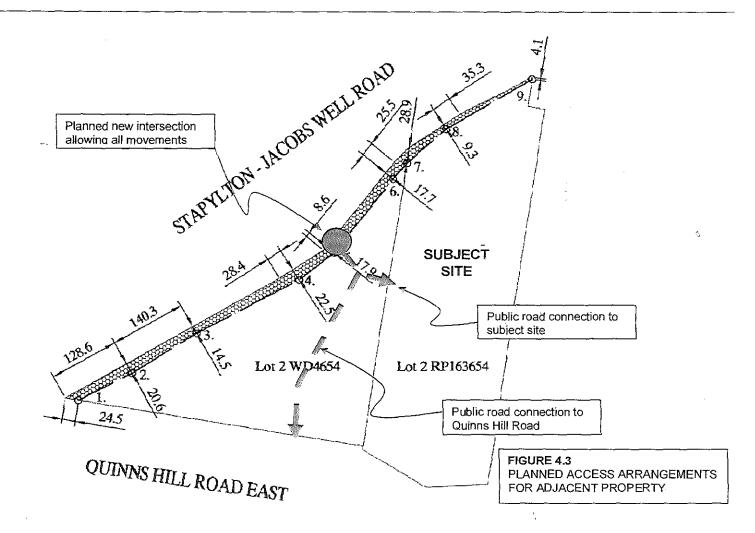
Quinns Hill Road East is also nominated as an Arterial Road. Whilst its road reserve exists, this road is currently a gravel track and only used for minor access. Previous discussions with Council and Main Roads indicate that the Quinns Hill Road East may only be constructed as a Collector Road due to geometrical constraints (visibility) at the Stapylton – Jacob's Well Road / Quinns Hill Road East intersection.

Main Roads has advised that it has given "in principle" support for the implementation of new intersection with the Stapylton – Jacob's Well Road, just west of the site. This intersection will be constructed as part of the future subdivision of the adjacent property, and is only supported on the premise that a public road connection is provided through the adjacent property to connect with Quinns Hill Road and the subject site. This is shown in Figure 4.3.



Skildtraffic





5. DEVELOPMENT TRAFFIC ESTIMATES

Traffic Generation

Visy has advised that the proposed cardboard recycling / manufacturing plant (Visy Board) will generate the following heavy vehicle movements during a typical weekday:

- 34 x dual axle trailer trucks per day (ie. 68 trips in + out)
- 8 x B Double trucks per day (ie. 16 trips in + out)
- 4 x Heavy rigid trucks per day (ie. 8 trips in + out)

The Visy Board plant will be operated by up to 64 staff at one time. Employees will arrive at the site at staggered intervals between 5am and 10am.

It is estimated that the proposed aluminium and plastics recycling plant (Visy Pak) will generate the following heavy vehicle movements during a typical weekday:

- 2 x B Double trucks per day (ie. 4 trips in + out)
- 33x Heavy rigid trucks per day (ie. 66 trips in + out)

The Visy Pak plant will be operated by up to 20 persons at one time.

A summary of the estimated traffic generation of the proposed development is provided in Table 5.1.

Trip Distribution

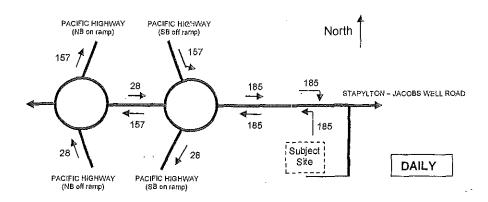
For the purpose of this assessment, it can be assumed that all traffic generated by the proposed development will travel to and from the west, the majority of which will use the Pacific Motorway.

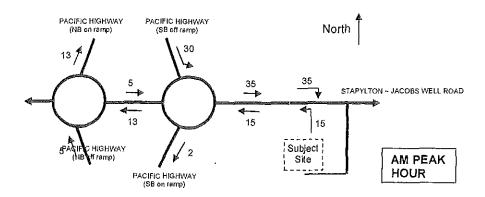
For the purpose of this report it has been assumed that all traffic generated by the proposed development will use the Pacific Highway. Visy estimates that approximately 85% of development traffic will travel to and from the north and the balance to and from the south (via the Motorway).

Resultant estimates of proposed development traffic at the Pacific Motorway / Stapylton – Jacobs Well Road interchange are shown in Figure 5.1.

Table 5.1 – Summary of Estimated Traffic Generation (Visy Board & Visy Pak Plants Combined)

Period	Staff (Cars)		Visitors (Cars)		Trucks		Total	
	In	Out	In	Out	In	Out	ln	Out
Daily	84	84	20	20	81	81	185	185
Morning Peak Hour	25	5	2	2	8	8	35	15
Afternoon Peak Hour	5	25	2	2	8	8	15	35





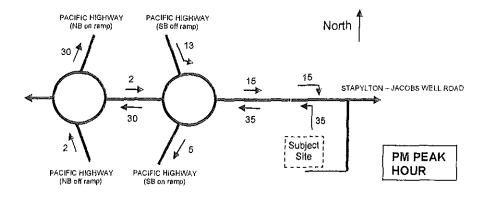


Figure 5.1 – Peak Hour Development Traffic Estimates For the Proposed Development

6. TRAFFIC IMPACT

State Controlled Road Network

In accordance with Main Roads policy, the extent of proposed development traffic impacts must be assessed where the development proposal is likely to result in an increase of at least 5% of existing daily volumes on any State controlled road section or 10% of existing daily volumes on any individual turning movement at a State controlled intersection.

The proposed development will increase existing daily traffic volumes on Stapylton – Jacobs Well Road by approximately 370 vehicles per day. Given that almost all development traffic will use the Pacific Motorway, the first turning movements will occur at the eastern roundabout of the Motorway interchange.

As discussed in Section 3, the Stapylton – Jacob's Well Road currently carries in the order of 9,600 vehicles per day just east of the eastern roundabout at the interchange. Consequently, proposed development traffic will constitute approximately 3.8% of existing daily volumes (ie. 370 / 9600). It is concluded, therefore, that the proposed development will not have a significant impact upon the performance of the Pacific Motorway / Stapylton – Jacob's Well Road interchange, or any other State controlled road infrastructure. In accordance with Main Roads policy, detailed capacity analysis is not warranted.

Proposed Access Intersection

As mentioned previously, it is proposed that access to the site be gained via an existing driveway in the Stapylton – Jacob's Well Road frontage of the site. Secondary access will also be gained via the Quinns Hill Road frontage.

It is expected that the adjacent property to the west will be developed as an industrial subdivision in the future. As discussed in Section 4, Main Roads has provided "in principle" support for such a subdivision to be accessed via a new intersection with the Stapylton — Jacob's Well Road, however, such an intersection must also provide access to the subject site and Quinns Hill Road. This would provide the opportunity for the proposed access to be reduced to left in / left out in the long term (if considered to be necessary by Main Roads).

The proposed access in the Stapylton – Jacob's Well Road frontage currently serves three industrial speds located on the subject site. However, turning demands are relatively low (< 5 per hour).

The existing intersection essentially consists of an Austroads Type 'B' arrangement with the overtaking lane extending between Rotary Park Road and Woolshed Road.

The proposed development will generate in the order of 35 right turn ingress movements during the morning peak hour, and less during the afternoon. The opposing westbound flow on Stapylton – Jacob's Well Road during the morning peak hour will be approximately 280 vehicles per hour under current conditions and approximately 388 vehicles per hour in 10 years after completion of the development (ie. year 2017).

The right turn ingress movement will be approximately 5% saturated during both year 2006 and 2017 traffic conditions. In other words, traffic will rarely have to queue and wait for a gap in order to enter the subject site.

As shown in Figure 6.1, the projected turning demands and current traffic conditions warrant the provision of an Austroads Type 'B' treatment at the proposed access point in the Stapylton – Jacob's Well Road frontage. This may increase to a Type 'C' treatment under year 2017 conditions, however, it is likely that the adjacent property will have developed by then, in which case right turn ingress movements to the proposed development will be diverted to a new (Type 'C') intersection located further to the west.

It is concluded, therefore, that the existing access arrangements (Type 'B') will satisfactorily accommodate the proposed development.

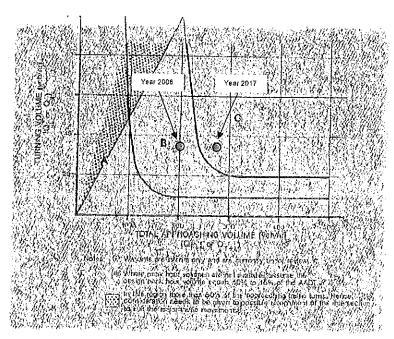


FIGURE 5.23a Warrants for Rural Turn Lanes

Figure 6.1 -- Austroads Warrants for Turning Treatment at
Proposed Access Intersection in the
Stapylton -- Jacob's Well Road Frontage

7. CAR PARKING

Under the Gold Coast Planning Scheme, *Industry* developments are required to provide car parking at a rate of 1 space / 40m² Gross Floor Area.

Application of this rate to the proposed development results in a requirement for approximately 750 spaces (for both plants).

The Planning Scheme rate is appropriate for industrial developments that have intensive employee requirements. As shown by the indicative floor layout in Figure 2.2, the proposed buildings will house large equipment items.

As discussed in Section 5, the proposed Visy Board plant will be operated by a maximum of 64 staff at one time. Similarly, the future Visy Pak plant will be operated by approximately 20 staff. There will also be a need for visitor parking.

The proposed plan of development provides approximately 90 parking spaces adjacent to the Visy Board plant (Stage 1) and approximately 50 spaces adjacent to the future Visy Pak plant. It is expected that this parking capacity will comfortably accommodate daily demands.

8. TRUCK ACCESS

The proposed plan of development has been designed to accommodate vehicles as large as a 25 metre B-Double.

As shown in Figure 8.1, the existing driveway located in the Stapylton – Jacob's Well Road frontage of the site will need to be widened in order to allow B-Double trucks to enter and exit the site simultaneously.

Figure 8.2 demonstrates that large trucks will be able to negotiate the internal roadway system satisfactorily.

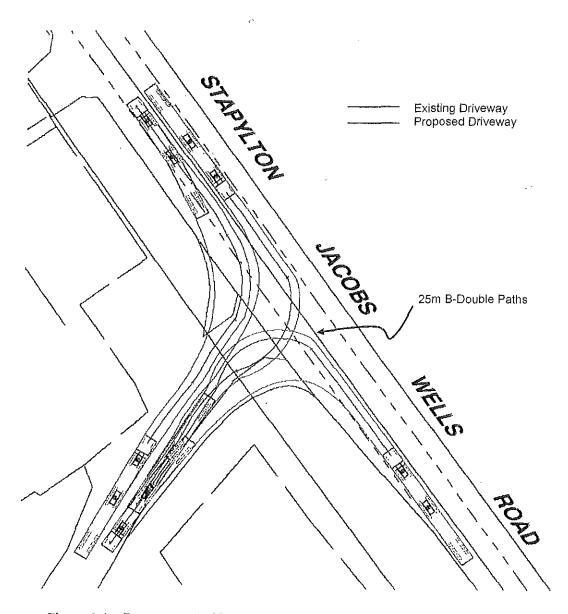
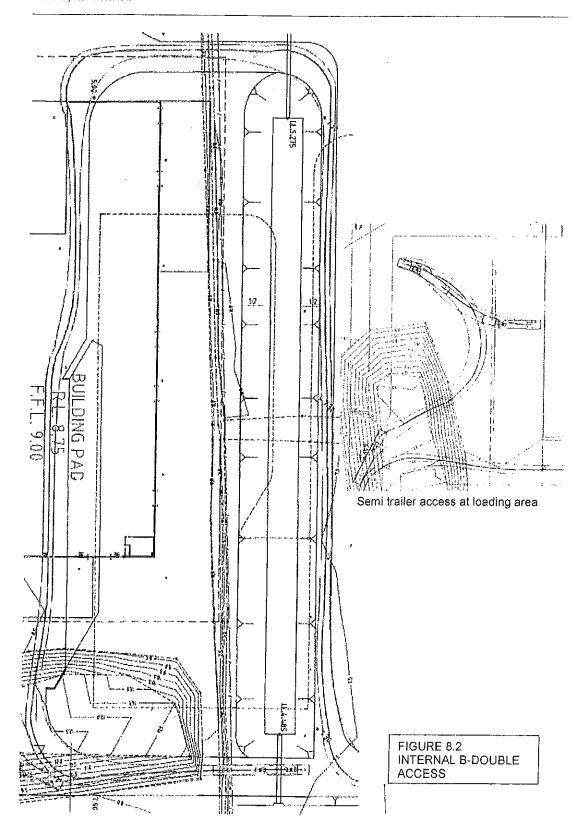


Figure 8.1 – Recommended Driveway Layout in Stapylton – Jacob's Well Road



9. SUMMARY OF CONCLUSIONS & RECOMMENDATIONS

- The proposed plan of development comprises of two recycling plant buildings. Both buildings will have a Gross Floor Area of approximately 15,000m².
- The Visy Board plant will be operated by a maximum of 64 employees at one time. The future Visy Pak plant will be operated by a maximum of approximately 20 employees at one time.
- Access to the site is proposed to occur via an existing driveway located in the Stapylton – Jacob's Well Road frontage of the site. Secondary access will be gained via the Quinns Hill Road frontage. Access to the site may also be gained through the adjacent property (to the west) if and when it is subdivided.
- The Department of Main Roads has long term plans (i.e. in the next 20 30 years) for a new North South Arterial Corridor (known as the Intra Regional Transport Corridor). This road may cause the need for the Stapylton Jacob's Well Road to be widened to four lanes.
- Main Roads has advised that a strip of land across the frontage of the subject site will be required to facilitate the future widening of the Stapylton – Jacob's Well Road. This requirement has been incorporated into the proposed plan of development.
- It is estimated that the proposed development will generate in the order of 370 vehicles per day and approximately 50 vehicle trips during each peak hour.
- Projected turning volumes at the proposed access point in the Stapylton Jacob's Well Road frontage warrant the provision of an Austroads Type 'B' treatment under current conditions. This may increase to a requirement for a Type 'C' treatment in the future, however, it is expected that right turn ingress movements will be diverted to a new intersection planned to be constructed further to the west when the adjacent property develops. The existing access essentially already consists of a Type 'B' arrangement.
- The Stapylton Jacob's Well Road currently carries in the order of 9,600 vehicles per day just east of the Pacific Motorway. Therefore, even if all traffic generated by the proposed development uses the Motorway interchange, the resultant proportional impact would be approximately 3.8%. Consequently, the impact of the proposed development upon the wider State controlled road network will be minor.

- The proposed car parking provisions do not comply with Planning Scheme requirements for *Industry*. However, they are considered to be adequate given the specific operating characteristics of the proposed development.
- The proposed internal layout and roadway system will adequately accommodate B-Double truck movement.

Report reviewed by:

Luke Rytenskild, BEng, RPEQ

Principal, Skildtraffic

Appendix -

Response to Gold Coast Planning Scheme Car Parking, Access and Transport Integration Constraint Code

PART 7

CODES

DIVISION 3

CONSTRAINT CODES

CHAPTER 4

CAR PARKING, ACCESS AND TRANSPORT INTEGRATION

3.0 DEVELOPMENT REQUIREMENTS

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
	PMENT THAT IS SELF ASSESSABLE,		
PROTECTION AND PRESERVATION NEW TRANSPORT CORRIDORS	OF AREAS REQUIRED FOR ROAD W	IDENING, THE PROVISION OF PUB	LIC TRANSPORT FACILITIES OR
PC1 Land affected by any proposed road realignment or widening must not have development constructed over that part of the land required for road realignment or road widening.	AS1 All sites that are affected by Future Road Requirement as shown on the Domain Maps, do not have buildings or structures erected forward of the indicated building setback line. This requirement does not apply to a fence with a height not exceeding 1.8 metres and a width not exceeding 0.5 metres.	The plan considers road widening required by Main Roads	
PORT COCHERES			
Where provision is made for a porte cochere, it must be designed to enable vertical clearance, manoeuvring, access and queuing of vehicles. The capacity of the porte cochere and associated access and manoeuvring must accommodate vehicles entirely within the site, including the queuing of	AS2 The porte cochere has a minimum vertical clearance of 4.5 metres.	Not applicable	
vehicles. DESIGN OF CAR PARKING AREAS	AND CAR PARK SPACES		<u> </u>

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
PC3 All car parking spaces must be constructed and line marked to the correct size and standard.	AS3.1 All car parking spaces are constructed in compliance with AS2890.1, Parking Facilities Part 1: Off Street Car Parking.	Complies	
	AS3.2 Where the development includes a combination of low turnover and high	All parking bays provided at 2.6m width	
	turnover car spaces, the parking spaces and aisles are designed to the high turnover or Class 3 requirements in AS2980.1, Parking Facilities Part 1: Off Street Car Parking.		3
PC4 Car parking areas must be landscaped	AS4 In car parking areas exceeding 300m ² in	Refer to Landscape report	
to reduce visual impact and to provide opportunities for shade.	site area: a) at least 5% of the area is landscaped; b) a landscaped buffer, with a minimum height of 600mm and width of 1500mm, is provided along any public street frontage and the common boundary to the adjoining property; and c) one landscaped tree bay is to be provided for every 21 car parking spaces.		
SIGNS AND LINE MARKING			
PC5 Signs and line marking must be provided to indicate the location of the car park and the position of the access points for all car parks used by the public where: a) a car park is located at the	AS5.1 Signs incorporate the standard Service Sign Series "P" sign, as detailed under Guide Signs in the Manual of Uniform Traffic Control Devices, Queensland. (This does not apply to residential		1

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
rear of the site; b) access to the car park is not located in the main frontage road; c) there are a number of access points serving different parts of the site.	developments with less than 10 units) AS5.2 Signs are used to mark car parking bays which are provided for disabled drivers, motorcycles and special zones, such as bus zones.		
TANDEM CAR SPACES PC6	100		
Tandem car parking must only be used in circumstances where no inconvenience arises from its use.	AS6.1 Tandem car parking spaces (i.e. two car parking spaces, nose to tail) are counted as one space, except in the following cases: a) the development is for residential purposes; b) the tandem spaces are to be used by the occupants of the site, in one tenancy; c) the car park area is to be operated as a public car park with on-site management. In this case, a tandem car park may be counted as no more than 1.5 car spaces. AS6.2 The minimum length of the tandem car space is 10.4 metres.	No tandem parking proposed.	
ACCESS TO CAR PARK AREAS	AS6.3 Tandem garages have a minimum internal length of 11 metres.		
PC7	AS7.1	γ	
Car parking areas must not cause vehicle queues into the frontage road system or encourage drivers to reverse into the road system.	For developments in excess of 100 residential units with frontage to major roads, a turn round facility with a minimum diameter of 12.0m is provided	Provision for at least two cars to queue between kerb and first conflict point within site	',

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
***	between the gate and the road. AS7.2 All car parking facilities, except those associated with detached dwellings and duplex dwellings is designed so that all vehicles enter and exist the site in a forward gear."		?
PC8 Car parking areas must allow for the separation of vehicles and pedestrians.	AS8 Sealed pedestrian footpaths, at a gradient not exceeding 1:12, are provided from the car parking area along the shortest possible route to the point of destination.	Complies	
PC9 Access to car parking spaces must be provided for employees and visitors.	AS9.1 Car park areas have no gateways, doors or similar devices which restrict vehicular access by employees or visitors.	Provided in accordance with this code	
DRIVEWAYS AND CROSSOVERS			
PC10 Driveways from car parks or developments into public roads must be minimised to reduce interference with public road traffic and pedestrians.	AS10.1 The maximum number of crossovers for residential developments is one for detached dwelling properties and two for multiple unit dwelling complexes. AS10.2 The maximum number of crossovers for	Existing driveway to be utilised in main road frontage. Additional driveway to be provided in Quinns Hill Road for secondary access.	
	non-residential developments is two crossovers per property. AS10.3 A vehicle crossover is separated from any other vehicle crossover by a minimum distance of three metres.		
PC11 All development must make provision for safe access to roads or streets adjacent to the site. Crossovers must	AS11.1 The geometric design of entry and exit driveways conforms with Standard Drawing No 59218 of Planning Scheme	Existing driveway will be upgraded to accommodate B-Double access	

PERFORMANCE CRITERIA	ACCEP	TABLE SO	LUTIONS		
				How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
be constructed to a standard consistent with the vehicles using the site.	Policy 11 Guidelines	- Land	Development		

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
	AS11.2 Access to roads or streets adjacent to the site is consistent with AS2890.1 - Parking Facilities Part 1: Off Street Car Parking and AS2890.2 - Off Street Parking Part 2: Commercial Vehicles. AS11.3 Where separate entry and exit driveways are used, the first driveway reached from the kerbside land is clearly delineated and sign-posted. AS11.4.1 Access to developments on dual carriageway roads is left in/left out. OR AS11.4.2 A new intersection is provided between the access way and the dual carriageway. AS11.5 Developments with traffic signal controlled or roundabout access to the frontage road dedicate land as public road to accommodate all intersection infrastructure, including traffic signal loops. AS11.6 The boundaries of the frontage road are modified to accommodate all intersection infrastructure within the public road. AS11.7 Developments with new traffic signal controlled access, within network traffic systems, provide the necessary infrastructure to integrate the new signals.		

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
INTERNAL CIRCULATION			
PC12 All developments must provide internal circulation to avoid use of the public road system for movement between different car parking and vehicle service areas in the development.	AS12.1 The internal layout of the site is consistent with AS2890.1 - Parking Facilities Part 1: Off Street Car Parking and AS2890.2 - Off Street Parking Part 2: Commercial Vehicles. AS12.2	Proposed layout complies with each of these provisions.	
	Parking and circulation aisles have a maximum length of 100 metres. AS12.3 Dead end aisles do not exceed 20 metres in length. AS12.4		^
	Aisle design does not include cross intersections. AS12.5 Car parking space/s is/are not located in areas used for manoeuvring of heavy vehicles. AS12.6		
· · · · · · · · · · · · · · · · · · ·	Car parks are designed so that vehicles do not reverse across pedestrian crossings. AS12.7 Speed humps are not provided in entry or exit queuing areas.		
LOADING BAY AND SET DOWN AR			
PC13 Development must make provision for loading bays and set down areas for the: a) collection and set down of passengers; b) parking of trailers; c) service vehicle parking; and d) loading and unloading of goods.	AS13 Loading and set down areas are provided consistent with the AS2890.2 - Off Street Parking Part 2: Commercial Vehicles.		

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
DESIGN SERVICE VEHICLE REQU	JIREMENTS		
PC14 Development must provide for the required 'design service vehicle' to service the development.	AS14.1 Provision is made for service vehicles, in accordance with the Table to Acceptable Solution AS14.1, for sites greater than 4,000m² in area. AS14.2 Provision is made for service vehicles, in accordance with the Table to Acceptable Solution AS14.2, for sites less than 4,000m² in area that require access by service vehicles. AS14.3 Provision is made for height clearance of 4.5 metres for service station canopies and access clearance height associated with the appropriate	Compties	
	design vehicle in other applicable developments. AS14.4 A driveway which caters for heavy vehicles is designed in accordance with AS2890 Off Street Parking, Part 2: Commercial Vehicles Facilities and Standard Drawing No 59218 Section 7.4 of Planning Scheme Policy 11 - Land Development Guidelines.		

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
PROVISION OF BICYCLE PARKING			
PC15 Bicycle parking must be provided for all non-residential developments where the required car parking provision exceeds 20 parking spaces.	AS15.1 Where non-residential development requires the provision of more than 20 car parking spaces, bicycle parking is provided in accordance with the Austroads Guide to Traffic Engineering Practice: Part 14: Table 10.1. AS15.2 Where bicycle parking is to be provided, additional facilities for bicycle users are designed and constructed in accordance with AS2890.3, Parking Facilities Part 3: Bicycle Parking Facilities.	Not required	Codifion
PROVISION OF CAR PARKING SPA			
PC16 Sufficient car parking spaces must be provided to meet the car parking needs of the development. The number of car parking spaces provided must be consistent with the practical opportunities available for shared car parking provision and the operation of alternative transport modes to private motor vehicles.	AS16.1Car parking is provided in accordance with the number of spaces required for the specific use listed in the Table to Acceptable Solution AS16.1. AS16.2 If an additional building is constructed, or an existing building is extended, the car space requirements determined from Table to Acceptable Solution AS16.1 accrue only for the additional building or extension, provided that the use of the land remains the same and any existing area for car parking is not reduced or, if disturbed, any existing car spaces are replaced in the new development.	Proposed parking provisions satisfy operating characteristics of development - refer to traffic report for further details.	Califica

Table to Acceptable Solution AS16.1

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
	DEVELOPMENT THAT IS CODE AS:	SESSABLE OR IMPACT ASSESSABLE	
PC17 New development must not result in any adverse impact, through the reduction in the car parking capacity of the site and/or the local area.	AS17.1.1 Any car parking spaces lost are replaced elsewhere on the site. OR AS17.1.2 A monetary contribution is provided to Council for those car parking spaces lost, consistent with AS16.2 OR AS17.1.3 The Building Work is associated with a Material Change of Use that requires a lesser number of parking spaces than the existing use.	Complies	
DRIVEWAYS AND CROSSOVERS			
PC18 Vehicle crossovers must be constructed to minimise conflict with passing traffic and pedestrians.	AS18 Access to developments with more than one frontage road is via minor roads. Impacts of driveway traffic are concentrated on less busy roads, with traffic distributed to major roads via existing intersections.	Complies	
SAFE PEDESTRIAN ACCESS			
PC19 All development must make provision for safe pedestrian access to the building from the street and from any car parking or set down area to the building's main entrance.	AS19.1 The design of the development ensures that priority is given to pedestrians for direct links to the building's main entrance and to any adjoining local activities or public transport services.	Safe pedestrian access provided between car parks and buildings.	

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS					
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?			
***	AS19.2 Landscaping surrounding the pedestrian walkways and shelters is no higher than 600mm and incorporates trees with branching not lower than 2m (clear stem trees). AS19.3 Solid walls and fences are avoided adjacent to pedestrian walkways to improve actual and perceived safety. AS19.4 Security is to be enhanced by passive surveillance over the car parking area from nearby residences or other activities, where practicable					
SAFE PEDESTRIAN AND CYCLIST						
PC20 The design of pedestrian and cyclist facilities must be safe, useable and readily accessible.	AS20 Pedestrian and cyclist facilities are designed to encourage the use of these modes by:	Complies				
	a) minimising distances, and providing safe grading paths, separated from motorised traffic; b) using even, non-slippery pavement materials.					
	INTEGRATION OF DEVELOPMENT WITH PUBLIC TRANSPORT					
PC21 Development that attracts a high proportion of people dependent on public transport must provide facilities to accommodate public transport servicing requirements.	AS21.1 Any development that includes activities listed in the Table to Acceptable Solution AS21.1 provides a bus set down facility on and off-site, in close proximity to the entrance of the development. AS21.2 Where a bus set down area is provided,	Not applicable				

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
DC22	it is integrated into the development, easily accessible, safe, secure, clearly identified, and attractive to use (in the case of major developments providing a covered walkway to the entry).		
PC22 Development that attracts a reasonable proportion of people dependent on public transport must assist in supporting facilities for public transport servicing.	AS22.1 Any development that includes activities listed in the Table to Acceptable Solution AS22.1 provides a bus stop and/or a bus shelter, if the entry to the development is not within 400 metres of a an existing bus stop or within 800 metres of a railway station. AS22.2 The bus shelter is located adjacent to the frontage of the site and is connected to the entry of the development by a sealed footpath.	Not applicable	
CASH IN LIEU OF CAR PARK SPAC	ES REQUIRED		
PC23 Car parking must be provided to meet the car parking needs of the development. If it cannot be provided on site, alternative arrangements may be proposed.	AS23.1.1 The car parking spaces required by Table to Acceptable Solution AS13.1 are provided on the subject site. OR AS23.1.2 A monetary contribution for all or part of the required car parking may be made towards one or more of the following:	Not applicable	

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS		
		How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use - Has compliance with the Acceptable Solution / Performance Criteria been demonstrated? Is a request for further information required?
w. *	a) provision of off-street car parking in the vicinity of the development; b) provision of improved on street car parking and streetscape improvement works, in the vicinity of the development; and/or	·	
TDATES MADAGE	 c) provision of improved public transport facilities and services in the vicinity of the development. 		
TRAFFIC IMPACT	T.C.		
PC24 Where appropriate, specific measures must be taken in the provision of car parking spaces and access to these, to ensure that the traffic impacts of the car park area's use does not have a negative impact on the local amenity and the operation of the local street network.	AS24 A Traffic Impact Report is prepared and implemented, unless: a) the development has less than 250 high turnover or 500 low turnover parking spaces; or b) it has less than 100 parking spaces with direct access to a major road; or c) the Assessment Manager advises a Traffic Impact Report	Refer to accompanying traffic report	
	is not required. This Traffic Impact Report shows how the proposed development is able to comply with the provisions of this code and Section 7.4 of Planning Scheme Policy 11 - Land Development Guidelines.		



APPENDIX I

Visy Project – Lot 2 on RP163654, Stapylton – Stormwater Quality Management Strategy

Prepared by Cardno Lawson Treloar Pty Ltd

3864assmtrpt.doc

Visy Project, Stapylton Flooding investigation

Report Prepared For

Gassman Development Perspectives

Report #J8632/R1 December, 2005

Cardno Lawson Treloar Pty Ltd Level 1 9 Gardner Close Milton QLD 4064 Australia

Telephone: 61 Facsimile: 61

61 7 3310 2455 61 7 3369 9722

A.C.N. 001 882 873 ABN: 55 001 882 873



REPORT STATUS

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J8632/R1	20/12/05	Final	WLT	JMcA	NIC
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It is the responsibility of the reader to verify the currency of the version number of this report. All subsequent releases will be made directly to the Client.

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1. INTRODUCTION

This Flooding Investigation Report has been prepared by Cardno Lawson Treloar Pty Ltd (CLT), specialist hydraulic and water quality consultants, on behalf of Gassman Development Perspectives., for a proposed industrial development situated between Jacob Wells Road, Woolshed Road and Quinns Hill Road East. The site covers Lot 2 on RP163654, as shown on Figure 1. This report has been prepared to support an MCU application for industrial purposes for the site.

This report demonstrates that the hydraulic impacts of the proposed industrial development are in accordance with the requirements of Gold Coast City Council's (GCCC's) draft 'Stormwater Management and Water Quality Guidelines' (2002a). The Water Quality Management Plan will be reported separately.

This report details the predicted hydraulic impacts of the proposed development for the 2, 5, 10, 20, 50 and 100 year Average Recurrence Intervals (ARI's) for the local tributary of Sandy Creek.

In addition this Flooding Investigation Report provides the requirements for stormwater quantity management resulting from the current conceptual ultimate development of the site, consisting of two stages. The development plans are shown in Figure 2. Additional assessment will be required as layouts for future stages are completed.



2. EXISTING SITE AND PROPOSED DEVELOPMENT

The subject site is located on Lot 2 RP836914. The site boundary is shown in Figure 1. The main access to the site is from Jacob Wells Road to the north.

The site is approximately 16 ha in size and is bounded by:

Jacob Wells Road to the north

(...)

- Quinns Hill Road East to the south
- The existing lot 2 WD4654 to the west and
- Lot 10 RP184230 and lot 11 RP184230 to the east (Refer Figure 1).

The site is primarily cleared rural land, with elevations generally between 6.5 mAHD with a local hill rising up to 14 mAHD.

The surrounding hills on the north, south and east side form the catchment boundaries for the subject site. Woolshed Road forms the catchment boundary en the west side.

In the current situation an excavated channel crosses the site from east to west, with a local dam within this channel being used for fire fighting purposes. The excavated channel drains the run off from external catchments, as well as the bulk of the site drainage.

The excavated channel passes through an 1800 mm diameter pipe before leaving the site on its way to lot 11 RP 184230, where, after 250 metres the flow reaches Woolshed Road and passes through 12 900x750 RCBC's. From this point forward, the flow heads off in a north-west direction towards Jacob Wells Road. The ultimate receiving waters for the site are that of the Logan River via Sandy Creek.

Only a relative small part of the site drains away from the excavated channel. In the current situation, there is a minor sheet flow off the south-west corner of the site to Quinns Hill Road East.

The proposed development layout has been provided by Cozens Regan Williams Prove Pty Ltd. The plan indicates that the commercial component of the overall proposed development will consist of two industrial building, local roads and parking places.

A new building is proposed over the existing excavated channel. Therefore a new drainage path is proposed that consists for a large part of two interconnecting basins to create additional storage. The main basin is situated 135 metres south of the current channel; the second basin is positioned along the east side of the site, connecting the current channel with the main basin. Along the west side of the site, a new channel is proposed to divert water flows out of the detention basin and back to the original drainage path.



3. DATA

Site specific data used for assessments of water quantity have been based on:

- 1:25000 scale topographic maps, supplied by SUNMAP, used to delineate the surrounding catchments;
- Detailed survey of the site supplied by Gassman Development Perspectives.; and
- Aerial laser survey data provided by Gold Coast City Council.

Vegetation type was noted from a field inspection, and was used in association with aerial photography to determine floodplain roughness values.



4. HYDROLOGY

4.1 General

Cardno Lawson Treloar (CLT) has carried out a hydrologic and hydraulic assessment to determine peak discharges and flood levels across the site. The following sections detail the hydrologic investigation. Chapter 5 details the hydraulic study.

4.2 WBNM model

The hydrologic analysis has been undertaken to calculate peak flows for input into the hydraulic model.

The Watershed Bounded Network Model (WBNM2003) Version 103 has been utilised. WBNM is a non-linear runoff routing software package produced by the University of Wollongong in New South Wales. WBNM, and is a widely accepted industry package.

Parameters used in the WBNM model are in accordance with standard industry practices outlined in 'Australian Rainfall and Runoff" (1997) and the 'Queensland Urban Drainage Manual' (1994) and GCCC's 'Land Development Guidelines' (1999).

The catchment extents have been estimated from the Beenleigh and Kingston 1:25000 Topographic Maps, supplied by Sunmap.

WBNM model scenarios have been setup as follows:

- Pre-Development Case: This case models the site in its existing condition (rural/residential/industrial) and the external catchments in an ultimate condition.
- Post-Development Case: Ultimate Development of the Site. The development of the site changes the hydrology, hence the post development case differs from the pre development situation as follows:
 - The catchment areas are redefined, which led to more catchment areas. The total catchment area increases slightly, because the southern part of the subject site starts contributing to the main flow, as in the current situation the sheet flow of this area, flows to the Quinns Hill Road East.
 - The percentage of fraction impervious area is modified for subcatchment within the site.



 Mitigated Post-Development Case: The post-development model has been modified further to mitigate the împacts of the full Site Development through the inclusion of a detention basin.

As the overall site development is conceptual at this stage, both post-development and mitigated post-development cases will need to be re-assessed once development layouts are confirmed.

The catchment layouts for the pre and post development models are shown in Figures 3 and 4 respectively.

Details of the WBNM-cases for the pre and post development situations are shown in table 4.1.

Table 4.1 - Characteristics of WBNM models

wite-	Pre- development situation	Post-development situation
Number of sub-catchment areas	14	17
Downstream point	Woolshed Road	Woolshed Road
Total catchment area	58.4 ha.	60.35 ha.

4.3 Calibration pre and post development situation

Calibration of peak flows from WBNM has been carried out using a Rational Method Approach. The calibration point for the entire catchment is located immediately downstream of Woolshed Road, as shown of Figure 3 and 4. This calibration point corresponds to WBNM sub-catchment 'V14' in the predevelopment situation and subcatchment 'V17' in the post-development situation. Rational Method calculations are detailed in Appendix A and are summarised below.

Table 4.2 - Rational Method Parameters

	Pre- development	Post-development
	situation	situation
Area (ha.)	58.38	60.35
Runoff Coefficient (C ₁₀)	0.629	0.682
Fraction Impervious (Fi)	0.13	0.29
Time of concentration (min)	30	25



Results of the calibration are shown in Table 4.3 and Table 4.4, which show a general agreement with the rational method for all ARI's.

Table 4.3 – Pre-development WBNM Calibration Results

ARI	Predicted Peak Pre-Development Flow						
(yrs)	Entire catchment (node V14)						
)	Rational Method	WBNM	Difference				
	(m ³ /s)	(m ³ /s)	(%)				
2	6.2	6.6	7 %				
5	8.4	9.0	7 %				
10	9.7	11.3	16 %				
20	11.4	13.1	15 %				
50	14.3	15.2	6 %				
100	16.3	16.9	4 %				

Table 4.4 - Post development WBNM Calibration Results

ARI	Predicted Peak Post Development Flow							
(yrs)	Entire catchment (node V17)							
{	Rational Method	WBNM	Difference					
	(m ³ /s)	(m³/s)	(%)					
2	7.7	8,5	10 %					
_ 5	10.4	11.4	10 %					
10	12.0	14.1	17 %					
20	14.1	16.2	15 %					
50	17.6	17.7	1 %					
100	20.0	19.7	-2 %					

4.4 Hydrographs of hydrologic model are input for hydraulic model

Hydrographs produced by the WBNM pre-development and mitigated post development models have been utilised as input for the hydraulic model as discussed in chapter 5.

The hydrologic model has been used to asses design events with average recurrence intervals (ARI) of 2, 5, 10, 20, 50 and 100 years. Each ARI has been run for a number of typical durations form 10 to 270 minutes.

Peak flows from the hydrologic model are summarised below for the pre and post development situations in table 4.5.



Table 4.5 - WBNM Predicted Peak Flows and Impacts

ARI	Site Catchment (Node V11 / V14)			Entire Catchment (Node V14 / V17)		
	Pre-	Post-	Impact	Pre-	Post-	Impact
Node	V11	V14		V14	V17	-
2	5.46	7.03	1.56	6.62	8.50	1.88
5	7.47	9.39	1.93	9.01	11.43	2.42
10	9.38	11.55	2.17	11.29	14.06	2.77
20	10.90	13.33	2.43	13.13	16.24	3.11
50	12.48	14.21	1.73	15.22	17.69	2.47
100	13.88	15.76	1.88	16.94	19.65	2.71

As can be seen in Table 4.5, without flow attenuation, the proposed development is predicted to increase flows at the downstream extent of the site and the entire catchment.

To reduce the impact of the development immediately downstream of the site, detention storage is proposed to attenuate flow.



5. HYDRAULICS

5.1 General

The hydraulic analysis has been undertaken using SOBEK version 2.09.004. SOBEK is a dynamic one-dimensional hydraulic model developed by Delft Hydraulics. SOBEK has been used in accordance with GCCC's 'Land developments Guidelines' (1999) and QDUM (1994).

Hydraulic analysis bas been performed to:

- Determine peak flood levels and flow velocities within the main drainage path through the proposed development. Details of cross sections are shown in Figures 5 and 6.
- Ensure no adverse impacts on levels and flows upstream and downstream of the development are caused by the development.

5.2 Pre and post development scenarios

The hydraulic modelling considered the two following scenarios:

Pre-Development Case

The pre development site is modelled to establish the pre-development flood levels and flow patterns.

Post-Development Case

The post-development site is modelled with a new drainage path, since the existing excavated channel will be filled. The new drainage path consists for a large part of two interconnecting detention basins, to create additional storage. The main basin is situated 135 metres south of the current channel; the second basin is positioned along the east side of the site, connecting the current channel with the main basin. To get the water out of the detention basin and back to the original drainage path, a new channel is foreseen on the west side of the site. The hydraulic model is used to size the detention basins and the channel to ensure no adverse impacts external to the site are caused by the development.

5.3 Channel design

From a field inspection in association with aerial photography a pre and post Manning's roughness of 0.05 has been assumed for the channel as the channel is naturally vegetated. A Mannings's roughness of 0.013 has been assumed for the culverts and pipes.



The pre-development cross-section profiles utilised in the SOBEK model are derived from a Digital Elevation Model (DEM) of the detailed field survey date that was provided.

The post-development cross-section profiles and drainage path (Figure 6) have been set up in accordance with Cozen Regan Williams design (Figure 2). Refer to Figure 5 and 6 for pre and post-development cross section locations. Refer to Appendix D and E for the dimensions of the cross sections in the pre- and post-development situation.

5.4 Culverts and pipes

In the post development situation two new structures are necessary to cross proposed internal access roads. One of these structures is also the outlet structure of the proposed detention basin. This outlet structure is designed to retain water flows, without impacting water levels or flows upstream and downstream of the development. Refer to cross section B (CSA) in Figure 6 for the location of the outlet structure.

The other structure is referred to as cross section A. This structure is designed to ensure water flows between the two interconnecting detention basins without significant hydraulic restriction.

The table below summarizes the proposed structure requirements.

Location Cross section B Cross section A Outlet structure Internal road detention basin crossing Structure Type **RCB RCBC** Dimensions 1/2000 2 / 3600 * 1500 Upstream Invert Level 4.480 m AHD 5.280 m AHD Downstream Invert Level 4.485 m AHD 5.275 m AHD Length (approximately) 18 metres 18 metres

Table 5.1 - Proposed structure dimensions

In the 50 and 100 year events the storage within the two interconnecting detention basins is filled completely and the internal access roads will function as spillways. The advised minimum road crown level is 6.90 m AHD, with a minimum width of 12 metres.



5.5 Hydraulic Results

Table 5.2 below details the 100 year ARI predicted flood levels and discharge for the pre- and post-development. Figures 5 and 6 show the pre- and post-development models respectively. Appendix B and C contain predicted peak flood levels, discharges and velocities for the 2 to 100 year ARI. Appendix B shows the results for the cross sections, Appendix C for the structures. The post development model includes mitigated flow off the developed site.

Table 5.2 - Predicted 100 year ARI Peak Flood Levels and Discharge

SOBEK Section ID		1	lood Level AHD)	Impact (m)		scharges ³/s)	Impact (m³/s)		
Pre-	Post-	Pre-	Post-		Pre-	Post-			
		. ∖Cı	oss section	ns upstrea	ım				
CS1	CS1	8.0	8.0	0.00	6.60	6.50	-0.30		
CS2	CS2	7.2	7.3	0.10	6.80	7.80	1.00		
E-CS3	CS3	7.0	7.2	0.20	6.80	7.80	1.00		
Cross sections within Visy site									
CS4		6.90			6.80	-	=		
CS5		6.86	-		11.20	-			
CS6		6.78	_	-	12.50	-	•		
CS7		6.77	-	•	12.40	-			
CS8		6.77	<u>-</u>	-	12.40	-	E		
CS9		6.42		-	12.30	-			
CS10		6.41			13.20	-	-		
CS11		6.41		+	13.20	-	<u> </u>		
CS12		6.41	-	•	13.20	-			
CS13		6.27	_		13.20	-			
CS14		6.27	_	-	13.70	-	þ		
CS15		6.27		-	13.60	-			
		Cros	s sections	downstre	am				
C\$21	CS21	4.3	4.3	-0.01	13.60	11.70	-1.90		
CS22	CS22	3.6	3.6	-0.04	15.30	13,40	-1.90		
	CS31		7.21		-	7.60			
	CS32	-	7.19			8.50	•		
	CS33		7.13	-	-	12.30			
	CS34	-	7.12	-	_	11.40	-		
	CS35	-	5.94	-	-	11.40			
	CS36	-	4.66		-	11.50			

Table 5.2 indicates the detention basin in conjunction with the flow regulating outlet structure provides adequate storage in the 100 year event to ensure existing flow attenuation trough the site is maintained.

Table 5.2 also indicates that within the Visy Site the predicted peak water levels in the post development situation do rise above those in the pre development situation. Still, the higher water levels do not cause flooding of the site. The



highest water level in the most upstream cross section (CS31) in the 100 year ARI is 7.21 AHD, whereas the proposed surface level is 7.30 AHD.

Table 5.3 and 5.4 below detail the 100 year ARI predicted discharges, velocities and water levels for the new structures in the post-development situation.

Table 5.3 - Results structure A - Internal road crossing

	Culverts	Weir
Structure Type	RCBC	
Dimensions	2 * 3600 * 1500	
Width Weir		12 m
Minimum Road Crown Height		6.90 m AHD
Peak Discharge	12.56 m ³ /s *	3.3 m ³ /s
Peak Velocities	2.01 m/s	1.12 m/s
Peak Water Level Upstream		7.18 m AHD
Peak Water Depth on Internal Road		0.28 m

^{*} Total discharge of two culverts

Table 5.4 - Results structure B - Outlet structure

	Culverts	Weir
Structure Type	RCP	
Dimensions	1 / 2000	
Width Weir		12 m
Minimum Road Crown Height		6.90 m AHD
Peak Discharge	9.19 m ³ /s	2.21 m ³ /s
Peak Velocities	3.05 m/s	0.95 m/s
Peak Water Level Upstream		7.12 m AHD
Peak Water Depth on Internal Road		0.22 m



6. CONCLUSIONS

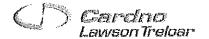
This Flooding Investigation Report details the predicted hydraulic impacts of the proposed development for the 2, 5, 10, 20, 50 and 100 year Average Recurrence Intervals (ARIs) for a local tributary of Sandy Creek.

In addition this report provides the requirements for stormwater management.

The SOBEK one-dimensional modelling indicates that with the inclusion of the proposed two interconnecting detention basins, peak flows at the downstream extent of the site are not increased.

Within the site the predicted peak water levels in the post development situation do rise above those in the pre development situation, but the higher water levels do not cause flooding of the site. The highest water level in the most upstream cross section (CS31) in the 100 year ARI is 7.21 AHD, whereas the proposed surface level is 7.30 AHD.

There are no adverse off site impacts predicted.



7. QUALIFICATIONS

This report has been prepared by Cardno Lawson Treloar (CLT) specifically for Gassman Development Perspectives and Visy Industries specifically to provide an assessment of pre and post development flooding characteristics across Lot 2 RP163654.

Our overall analysis and approach has been specifically catered for the particular requirements of Gassman and Visy and may not be applicable beyond this scope. For this reason any other third parties are not authorised to utilise this report without further input and advice from CLT.

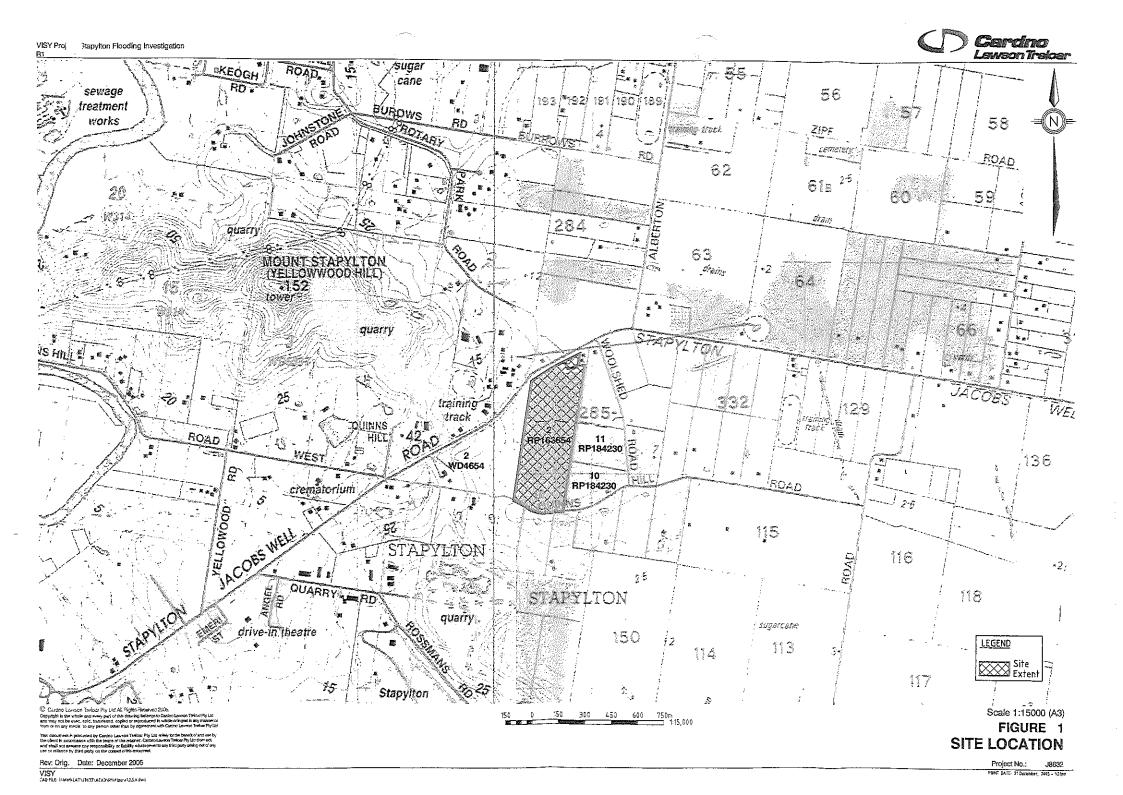
This report is based on the following information prepared by others:

- 1. CLT has relied on aerial photography provided on 1:25 000 Topographic Image Map supplied by Sunmap.
- 2. Detailed survey of the site supplied by Gassman Development Perspectives.
- Proposed subdivision layout supplied by Cozens Regan Williams Prove in association with Gassman Development Perspectives shown on drawing number G1722 Issue A.

The accuracy of this report is dependent upon the accuracy of this information. Whilst CLT's report accurately assesses catchment hydrologic performance, using industry standard theoretical modelling techniques, no historic flood calibration was possible; hence, actual future observed catchment flows and inundation may vary from predicted.



FIGURES



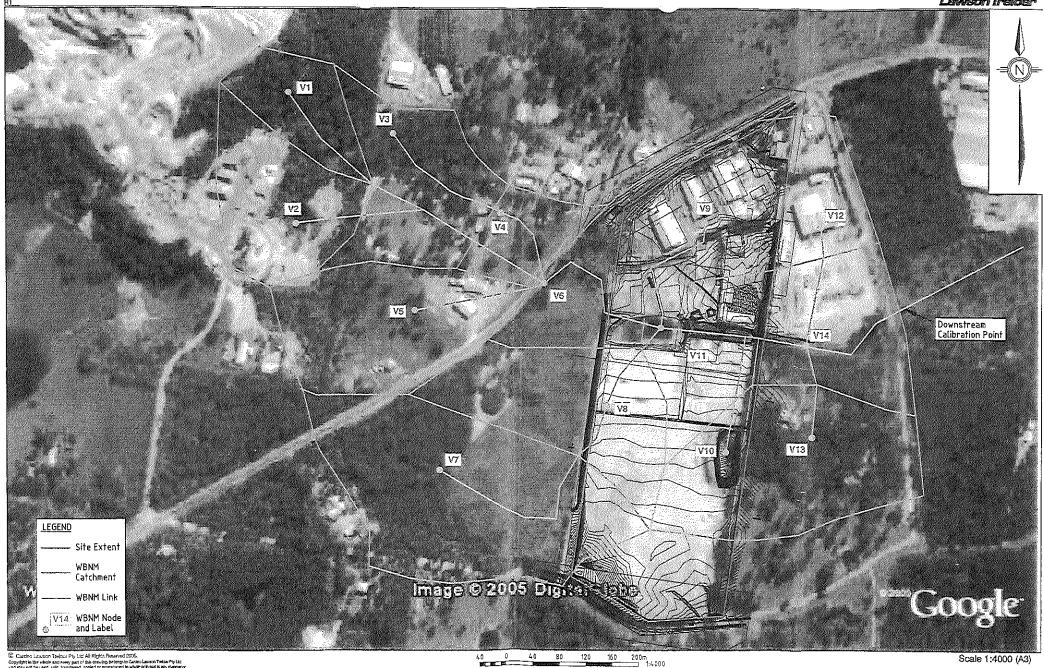
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Rev: Orig. Date: December 2005

Project No.: J8632
PRIT DATO 21 Detember, 2005 - 134 pr.

PROPOSED DEVELOPMENT





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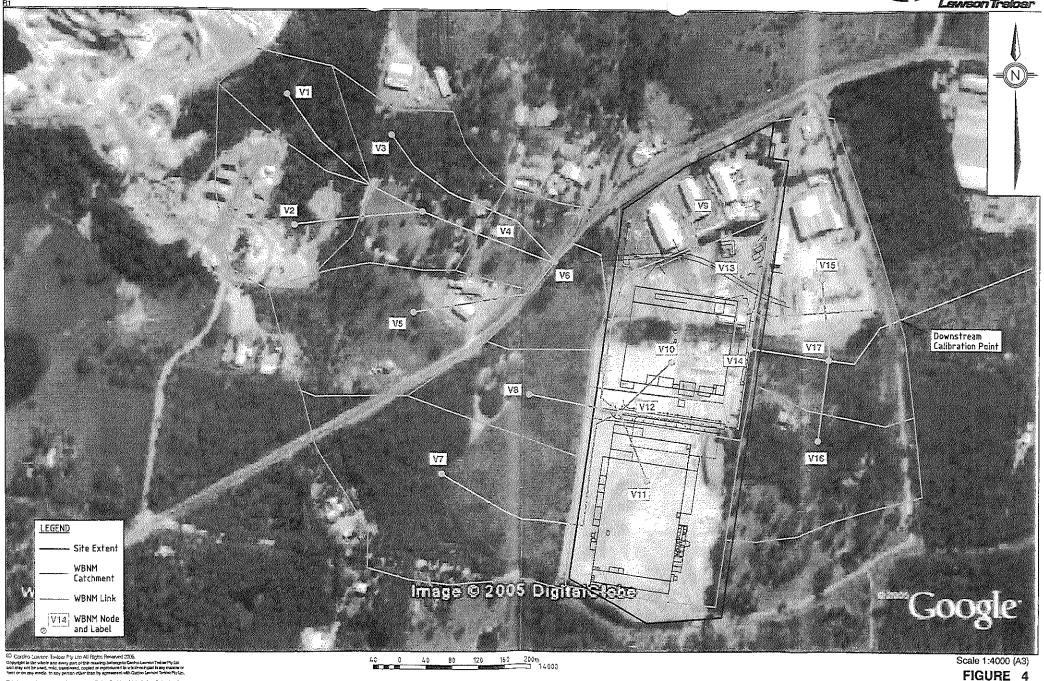
FIGURE 3 PRE-DEVELOPED WBNM MODEL LAYOUT

Project No.:

PRINT DATE: 27 December, 2005 - 125pm

Rev: Orlg. Date:

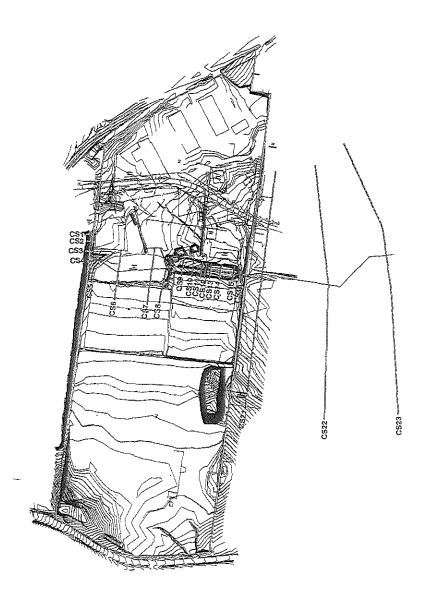




POST DEVELOPED WBNM MODEL LAYOUT

Project No.: J8632





0 40 80 120 160 200F;

Site Extent

SOBEK (rossSection Location)

CS18 SOBEK (rossSection Label)

SOBEK Branch

Scale 1:4000 (A3)

FIGURE 5

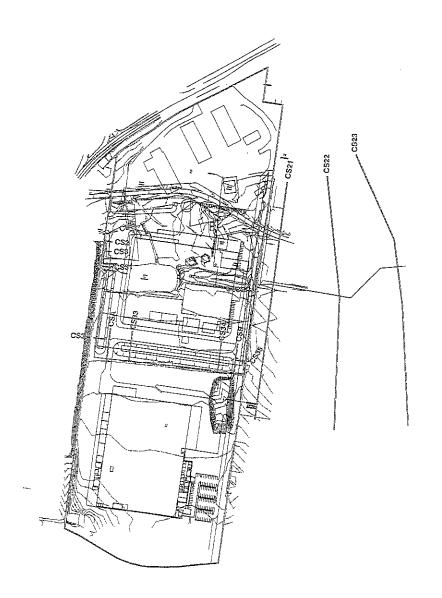
PRE-DEVELOPED SOBEK MODEL LAYOUT

Project No.: J8632

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LEGEND - Site Extent SOBEK Cross-Section Location SOBEK Cross-Section Label C\$13 - SOBEK Branch

Scale 1:4000 (A3)

FIGURE 6

POST-DEVELOPED SOBEK MODEL LAYOUT

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VISY

Project No.: PR#17 DATE: 21 Detember, 2005 - 106571



APPENDIX A

RATIONAL METHODS CALCULATIONS



Cardno Lawson and Treloar

Project Title: Visy Stapylton - Pre-Development Situation

Subject: Rational Method Hydrology Calculations Job No.: J8632

Designer: WLT Check: RES Date: 20/12/2005 Page: 1 of 2

Rain Fall Data Used:

Location:	Stapylton, GCCC							
AR&R Vol 2 1987 Parameters			Time (hrs)	i ₂ (^{mm} / _{hr})	I ₅₀ (^{mm} / _{hr})			
Skewness	0.00]	1	47.50	82.50			
F2	4.75]	12	9.50	19.30			
F50	17.95		72	2.90	6.50			

Column and Variable Definition

	Variable		ARI (years)						
		1	2	5	10	20	50	100	
i	f _y	0.80	0.85	0.95	1.00	1.05	1.15	1.20	

Catchment Data for location description

Variable	Value	Unit
Area	58.43	ha
f _l	0.130	Fraction
C ₁₀	0.629	Fraction

Catchment Discharges for location description

Adopted 11	<u>110,</u>	30	iviinutes (or	0.50 nours)			
Variable	ARI (Years)				30		
	1	2	5	10	20	50	100
f _y	0.80	0.85	0.95	1.00	1.05	1.15	1.20
Intensity	56.6	71.3	86.7	95.1	106.8	121.7	132.8
Discharge		6.2	8.4	9.7	11.4	14.3	16.3

Calculation Type: QUDM Type 1 Version: EX.970907

Part 1 of 1



Cardno Lawson and Treloar

ect Title: Visy Stapylton - Post-Development Situation
Subject: Rational Method Hydrology Calculations Job No.: J8632 Designer: _ WLT Check: RES Date: 20/12/2005 Page:

Rain Fall Data Used:

Location:	Stapylton, G	ccc			
	1987 Paramet	ters	Time (hrs)	i ₂ (^{mm} / _{hr})	I ₅₀ (^{mm} / _{hr})
Skewness	0.00		1	47.50	82.50
F2	4.75		12	9.50	19.30
E50	17.95		72	200	6.50

Column and Variable Definition

Variable	00000000000000000000000000000000000000			ARI (years)		•	
	1	2	5	10	20	50	100
f _y	0.80	0.85	0.95	1.00	1.05	1.15	1.20

Catchment Data for location description

Variable	Value	Unit
Area	60.33	ha
f	0.290	Fraction
C ₁₀	0.682	Fraction

Catchment Discharges for location description

Adopted I in	1e:	25	Minutes (or	0.42 hours)			
Variable				ARI (Years)			
	1	2	5	10	20	50	100
f _y	0.80	0.85	0.95	1.00	1.05	1.15	1.20
Intensity	62.6	78.8	95.7	104.8	117.7	134.0	146.1
Discharge	57	77	10.4	12 N	1/1	17.6	20.0

Calculation Type: QUDM Type 1

Version: EX.970907

Parl 1 of 1



APPENDIX B

SOBEK RESULTS CROSS SECTIONS FOR THE 2 TO 100 YEAR ARI PREDICTED PEAK FLOOD LEVELS, DISCHARGES AND VELOCITIES

SOBEK Cross-s	ection	1							Peal	Flood Le	vels (m Al-	ID)							
Pre- ID	Post-ID	. 1	00 Year A	RI	5	0 Year AR	ı		0 Year AF			0 Year Al	रा		5 Year AR	ı I		2 Year AR	:I
		EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact
CS1	CS1	8.00	8.00		7.97	7,97		7.94	7.93	-0.01	7.90	7.90	.4114	7.85	7.85	1227	7.80	7.79	-0.01
CS2	CS2	7.19	7.29	0.10	7.16	7.23	0.07	7.12	7.17	0.05	7.09	7.12	0.03	7.03	7.06	0.03	6.97	6.99	0.02
CS3	CS3	7.04	7.24	0.20	7.00	7,15	0.15	6.96	7.00	0.04	6.92	6.90	-0.02	6.86	6.81	-0.05	6.79	6.73	-0.06
CS4		6.90	-	-	6.86	-	-	6.82	-		6.78	-	0.0	6.73	17401		6.67	0.10	-0.00
CS5		6.86	T .	-	6.82	-		6.78		 	6.75			6.70		 <u>-</u>	6.65		
CS6		6.78		-	6.74	-		6.69			6.64		 	6.58		 	6.49	<u> </u>	 -
CS7				<u></u>							0.0		 	0.00	·	 	0.40	<u> </u>	- -
CS8		6.77	· ·	-	6.73			6.69		 	6.64			6.57		 	6.49 ²		 -
CS9		6.42	-		6.37			6.29			6.19			5.99	ļ	 	5.82	<u> </u>	
CS10		6.41			6.36	-		6.29			6.18			5.99	<u> </u>	 	5.81		 -
CS11		6.41	-		6.36		<u> </u>	6.29		<u> </u>	6.18			5.99	— <u> </u>		5.81		
CS12	· · _ · _ · _ · _ · _ · _ · _ · _ ·	6,41	 -		6.36			6.29		 	6.18			5.99			5.81		 -
CS13		6.27	-	-	6.23			6.15			6.03		 	5.67	-	-	5.28		
CS14	·	6.27			6.23	-	-	6.15			6.03		<u>-</u>	5.67			5.27	 	 - -
CS15		6.27	-		6.22		-	6.15	-	 	6.02		<u> </u>	5.67		├┈ <u>-</u>	5.27		
CS16 Basin upstream		6.27		-	6.22			6.15		 	6.02			5.67	 -	 -	5.27		
CS21	CS21	4.29	4.28	-0.01	4.27	4.25	-0.02	4.23	4.22	-0.01	4.20	4.20	Virgini (S. 15)	4.17	4.17		4.13	4.13	<u> </u>
CS22	CS22	3.62	3.58	-0.04	3.59	3.55	-0.04	3.55	3.51	-0.04	3.52	3.48	-0.04	3.49	3.46	-0.03	3.45	3.42	-0.03
													<u> </u>			1			1
	CS31		7.21			7.11		-	6.93	J	-	6.75	-	-	6.57	-		6.35	
	CS32		7.19	-		7.09			6.91	-	-	6.73			6.53	-	-	6.29	
	CS33		7.13			7.03		-	6.85	-	_	6.68		-	6.49	-		6.25	<u> </u>
	CS34		7.12			7.03	-	-	6.84	T -		6.67	T -	-	6.48	1	-	6.24	_
	CS35	_	5.94		-	5.85		-	5.74	-		5.68	<u> </u>		5.60	<u> </u>	-	5.49	
_	CS36	-	4.66	-		4.60		-	4,53	T -	-	4.48	T		4.43	T		4.35	

SOBEK Cross	s-section								P	eak Discha	arge (m³/s	:)							
Pre- ID	Post-ID	1	00 Year A	R)	5	0 Year AR	1		20 Year Al			10 Year Ai	21		5 Year AR	ī ———		2 Year AF	71
7 10-10	FOSI-1D	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact
CS1	CS1	6.8	6.5	-0.3	6.1	5.9	-0.2	5.4	5.2	-0.2	4.6	4.5	-0.1	3.7	3.6	-0.1	2.7	2.6	-0.1
CS2	CS2	6.8	7.8	1.0	6.1	7.0	0.9	5.4	6.2	0.8	4.6	5.4	0.8	3.7	4.3	0.6	2.7	3.1	0.4
CS3	CS3	6.8	7.8	1.0	6.1	7.0	0.9	5.4	6.2	0.8	4.6	5.4	0.8	3.7	4.3	0.6	2.7	3.1	0.4
CS4		6.8	-		6.1		-	5.4			4.6	1		3.7	7.5	0.0	2.7	 	tacat
CS5		11.2	-	T	10.0	-	-	8.8			7.6	 	 	6.0	- -	 _	4.4	ļ. <u> </u>	+
CS6		12.5	-		11.2		-	9.8	-	 	8.4	 		6.6			4.8	 	
CS7				1						 	0.1		1	-0.0		<u> </u>		- -	
CS8		12.4	-	 	11.1			9.6		 	8.2	 -		6.4		 	4.6	 	·
CS9		12.3	-		11,0			• 9.5		 	8.2	 	 -	6.4			4.6	 	<u> </u>
CS10		13.2	-	 	11.8	-	 	10.1		·	8.8		 	6.9		— <u> </u>	4.9	 	-
CS11		13.2			11.7	_		10.0			8.8	- -		7.0		- -	4.9	 	
CS12		13.2	<u> </u>	-	11.7		-	10.0			8.8		 	7.0			4.9	 	
CS13		13.2	T -		11.7			9.7	 		8.6	 		6.9			4.9	 	
CS14		13,7	-		12.1		ti	10.0	 _ -	†- <u>-</u>	8.5			6.9		<u> </u>	5.0		
CS15		13.6		-	12.1	-	-	9.9	<u> </u>	 .	8.2	·		6.7			5.0	 	- <u>-</u> -
CS21	CS21	14.2	11.7	-2.5	12.5	9.9	-2.6	10.2	8.1	-2.1	8.3	7.0	-1.3	6.9	5.9	-1.0	5.2	4.5	0.7
CS22	CS22	15.3	13.4	-1.9	13.5	11.3	-2.2	11.0	9.3	-1.7	9.1	8.1	-1.0	7.5	6.9	-0.6	5.7	5.2	-0.5
									-				1			0.0	9/1	17.4	-0.0
	CS31		7.6	1 -	-	6.9	-		6.1			5,3			4.2	 	 	3.1	
	CS32	-	8.5	<u> </u>	-	7.6		-	7.2	 -		6.3	 	 	5,2		 _	4.0	-
	CS33	-	12.3	-	-	11.1	-	-	10.5	 - -		9.1			7.5	 		5.8	
	CS34	-	11,4	-		9.7			8.0	 -	-	7.0	-	 	5.9	 	 	4.5	+
	CS35	-	11.4	1	-	9.7	-		7.9	-		6.9	-		5.7		 	4.4	+
	C\$36	-	11.5	 		9.8			7.9	 		6.9	 	 -	5.8	 	 	4.4	 - -

SOBEK Cross	-section	<u> </u>								Peak Veloc	ity (m/s)								
Pre- ID	Post-ID	1	00 Year A	RI	5	0 Year AR	ı		20 Year Al			0 Year Al	₹!		5 Year AR	1	<u> </u>	2 Year AF	18
	1 03(-10	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact
CS1	CS1	2.6	2.5	-0.1	2.5	2.4	-0.1	2.4	2.4		2.3	2.3		2.1	2.1		1.9	1.9	1
CS2	CS2	2.2	2.5	0.3	2.1	24	0.3	2.0	2.3	0.3	1.9	2.2	0.3	1.8	2.1	0.3	1.6	1.9	0.3
CS3	CS3	1.7	1.9	0.2	1.7	1.8	0.1	1.6	1.8	0.2	1.5	1.7	0.2	1.3	1.6	0.3	12	1.4	0.2
CS4		0.5	T -	1 -	0.5	_		0.4			0.4			0.3	1.0		0.3	1,3	10.2
CS5		0.8	-	1	0.7			0.7			0.6			0.5	 	 	0.4	 	- -
CS6		0.6	-		0.6			0.6			0.5		 	0.5			0.4		+- <u>-</u> -
CS7				<u> </u>						 				0.0	 -	 	0.7	 	
CS8		1,9	-	-	1.8	-		1.8			1.7			1.6	 -	 -	1.5	 	
CS9		0.4	-	†	0.4		T	0.4	 -	 	0.4		† .	0.4	 	 	0.4	 	
C\$10		0.6			0.5		-	0.5		 -	0.5		 	0.4		 -:	0.4	 	 -
CS11		0.4	-	-	0.4	T -	1	0.3	 -	 	0.3		† <u>. </u>	0.3		 	0.2	 	
CS12		0.4	1	1 - 1	0.3		<u> </u>	0.3		 	0.3			0.3	 	 	0.2		- -
CS13		0.6	-		0.6		-	0.6	-	 	0.6			0.5	 	 	0.5	 	
CS14		0.5	-	- 1	0.5	<u> </u>		0.5			0.5			0.5		 	0.5		
CS15	T	0.4		1 - 1	0.4	† <u>-</u>		0.4			0.4		 	0.4	 	 	0.5	+ -	
CS21	CS21	0.4	0.3	-0.1	0.4	0.3	-0.1	0.4	0.3	-0.1	0.3	0.3	100 N 100	0.3	0.3	1.25	0.3	0.2	-0.1
CS22	C\$22	0.3	0.3		0.3	0.3		0.3	0.3	3 15-53	0.3	0.3	Land Artig	0.3	0.3	A	0.2	0.2	+
										 			 			 		+ ***	
	CS31	-	0.8	-	-	0.8	-	-	0.7	 	-	0.7	<u> </u>		0.7	}		0.6	
	_ CS32	-	0.6	_		0.6			0.6	 -	-	0.5	 		0.5	+	 -	0.5	
	CS33		0.7	-	-	0.7	-		0.6	 		0.6	 		0.6	† - -	 	0.5	
	CS34	-	0.4			0.4	†~~~~		0.4	 		0.4	 		0.3	 	 -	0.3	
	CS35	\vdash	1.5		-	1.5			1.4			1.3	 -		1.2	 		1.1	
	C\$36		1.9			1.8			1.6	 		1.6			1.5	 		1.3	 -



APPENDIX C

SOBEK RESULTS STRUCTURES FOR THE 2 TO 100 YEAR ARI PREDICTED PEAK FLOOD LEVELS, DISCHARGES AND VELOCITIES

EX1. Pre-Development Topo and Pre-Development Flows
D02. Post-Development Topo and Mitigated Flows includes

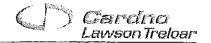
SOBE	K Cross-section								Pea	k Flood Le	vels (m /	(dh							
Pre-ID	Post- ID	1	00 Year A	RI		0 Year Al	RI	2	O Year Al			0 Year Af	સ		5 Year AF	y .		2 Year AR	स
	1 USC 12	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02,	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact
CS5 Weir, upstream		6.84	-	-	6,81		-	6.77	-		6.74			6.70			6.65		
CS5 Weir, downstroam		6.78		-	6.74	-	-	6.70	-	-	6.65			6.58			6.49		
CS5 Culvert, upstream		6.86	-		6,82		-	6.78		-	6.75			6.70	<u>-</u>	<u> </u>	6.65		
CS5 Culvert, downstream		6.78	-	-	6.74		-	6.70	-		6.65			6.58			6.49		
CS8 Weir, upstream		6.77	-	-	6.73	-	T	6.69			6.64			6.57		 	6,49		
CS8 Weir, downstream		6.42	-	-	6.37			6.29	-		6.19		-	6.00		 	5.82		
CS12 Weir, upstream		6.41	-	-	6.36			6.29			6.18			5.99			5.81		
CS12 Weir, downstream		6.27			6.23			6.16	<u>-</u>	<u> </u>	6.03	-	 	5.67		 	5.28		
CS16 Weir, upstream		6.27	-		6.22	-	 -	6.15		 	6.02	 	\vdash $=$	5.67	 		5.27	 	
CS16 Weir, downstream		4.31	-		4.28			4.25			4.22	 	 	4.19	 	 	4.14	 	+
CS16 Culvert, upstream		6.26	-		6.22		 	6.14			6.02	 		5.66	- -	 - -	5.26	 -	
CS16 Culvert, downstream		4.31	-		4.28	-		4.25			4.22			4.19		 	4.14		 - -
	CSA Culvert in basin, upstream	-	7.18	-	-	7.08	-	-	6.90	-	-	6.72			6,53	 	7.17	6.29	-
	CSA Culvert in basin, downstream		7.13			7.03			6.85			6.68			6.49			6.25	
	CSA Weir into bassin, upstream		7.18			7.08			6.90			6.72			6.53	 		6.29	 _
	CSA Weir into bassin, downstream	-	7.13			7,03		_	6.85			6.68			6.49			6.25	 -
	CSB Culvert out basin, upstream	-	7.10	T	-	7.01	 -		6.83	 		6.66			6.47	 -		6.24	
	CSB Culvert out basin, downstream		6.00	-	-	5.91	 -		5.80	 -		5.73	 	 -	5.65	 -	 -	5.54	+:
-	CSB Weir out basin, upstream		7.12	T -		7.02	 -		6.84			6.67	 		6.48	 	<u> </u>	6.24	
	CSB Weir out basin, downstream		6.00	T		5.91			5.80			5.73			5.65			5.54	

Pre-Development Case: Post-Development Case: EX1. Pre-Development Topo and Pre-Development Flows
D02. Post-Development Topo and Mitigated Flows includes

SOBEK C	Pross-section								F	eak Disch	arge (m³/s	5)							
Pre- ID	Post-ID	1	00 Year A	RI		0 Year A	RI		20 Year Al			0 Year Al	રા .		5 Year AF	रा		2 Year AR	ξ <u>Ι</u>
116-15	FOST-ID	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D62.	Impact	EX1.	D02.	Impact
CS5 Weir		10.80		-	9.66	-	-	8.40	-	-	7.19		-	5,56			3.87	-	
CS5 Culvert		0.94	-	-	0.93	-	T -	0.91	-	- (0.90			0,89	-	· -	0.87		-
CS8 Weir		12.37	-	-	11.10	-	-	9.60	-	-	8.21		-	6.44	ļ <u>-</u> -	-	4.59	-	
CS12 Weir		13.18	-	_	11.73	-	-	9.96	-	- 1	8.78	-	-	6.99	_	-	4.88	<u> </u>	
CS16 Weir		4.68	-	-	3,28	-	1 -	1.38	-		0.02			0.00		-	0.00		- -
CS16 Culvert		8.94	-	-	8,79		T -	8.52		-	8.05			6.70			4.98		
	CSA Culvert into basin	-	6.28			5.73	-	-	5,47	- 1		4.79			3.96			3.03	T
	CSA Weir into bassin	-	3.30	-	-	1.78	-	-	0.00			0.00			0.00	-	-	0.00	T -
	CSB Culvert out basin	-	9,19	-	-	8.76	-	-	7.86	-	-	6.87	-	-	5.74	T -	-	4.37	T
-	CSB Weir out basin		2.21	-	-	0.96	_	-	0.00			0.00	<u> </u>		0.00	1	-	0.00	

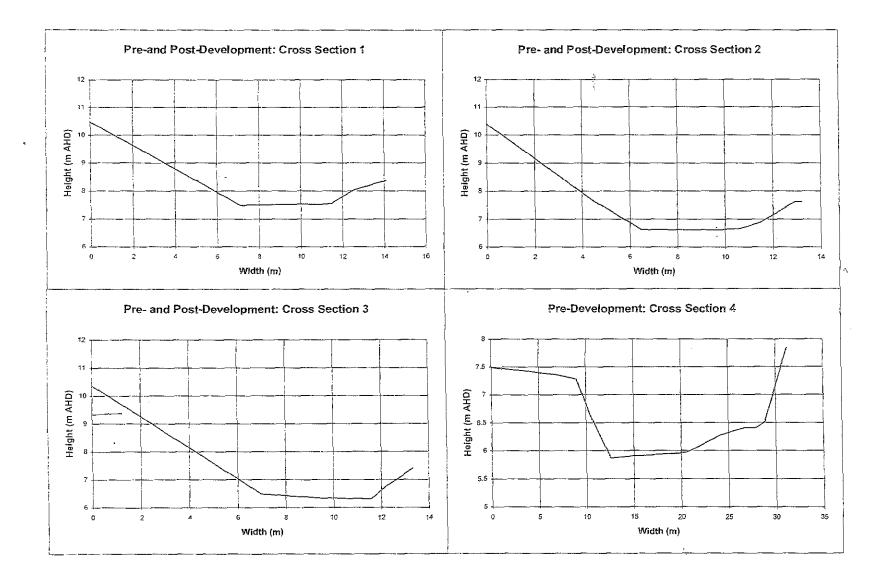
Pre-Development Case: Post-Development Case:

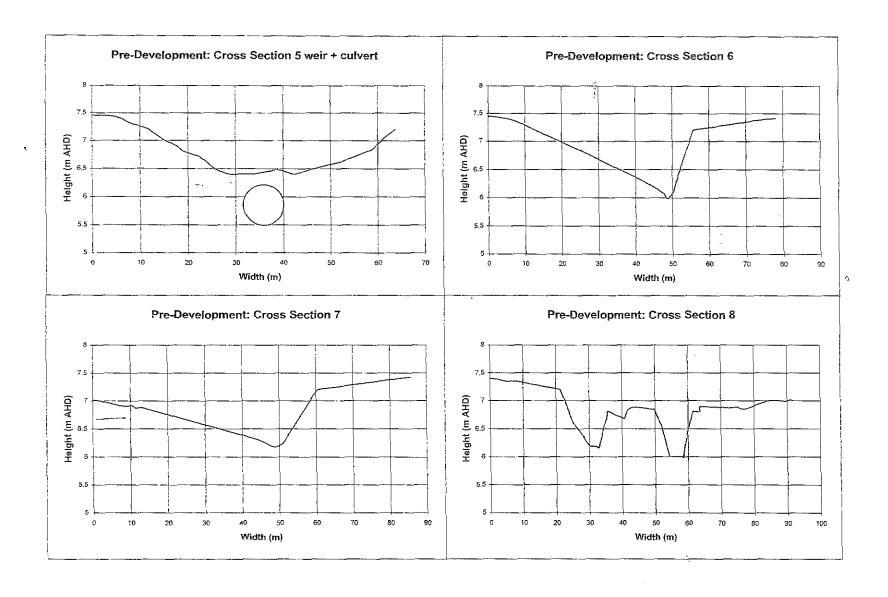
SOBE	K Cross-section									Poak Velo	city (m/s)								
Pre- ID	Post- ID	1	00 Year A	RI		50 Year A	Ri		20 Year Al	रा	1	0 Year AF	रा		5 Year AR	1		2 Year AF	रा
	Post-ID	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact	EX1.	D02,	Impact	EX1.	D02.	Impact	EX1.	D02.	Impact
CS5 Weir		1.41	-	-	1.38	-		1.36	Γ		1,32		Ţ.,	1.24	-		1.12		-
CS5 Culvert		2.54	-	T	2.51	-	-	2.49			2.47			2.44			2.39		
CS8 Weir		1.86	Ţ		1.83	<u> </u>	-	1,78			1.73		-	1.65			1.53	<u> </u>	1
CS12 Weir		2.53	-		2.54	-	T -	2.54	T	-	2.49			2.40	- -		2.25	 	 _
CS16 Weir		1.15		-	1.03	-	T	0.83	· ·	· -	0.34	-		0.00			0.00		+
CS16 Culvert				-	-	-			-	-			1		 				1 -
	CSA Culvert into basin		2.01	-		1.94	1		1.83		-	1.75			1.62			1.50	1
	CSA Weir into bassin	-	1.12		-	1.01			0.00	-	_	0.00			0.00			0.00	1
	CSB Culvert out basin		3.05			2.94	-	1	2.75	-	_	2.58	 -		2,40			2.17	- -
	CSB Weir out basin	-	0.95	-		0.72	~	Ţ	0.00	-		0.00		·	0.00			0.00	†

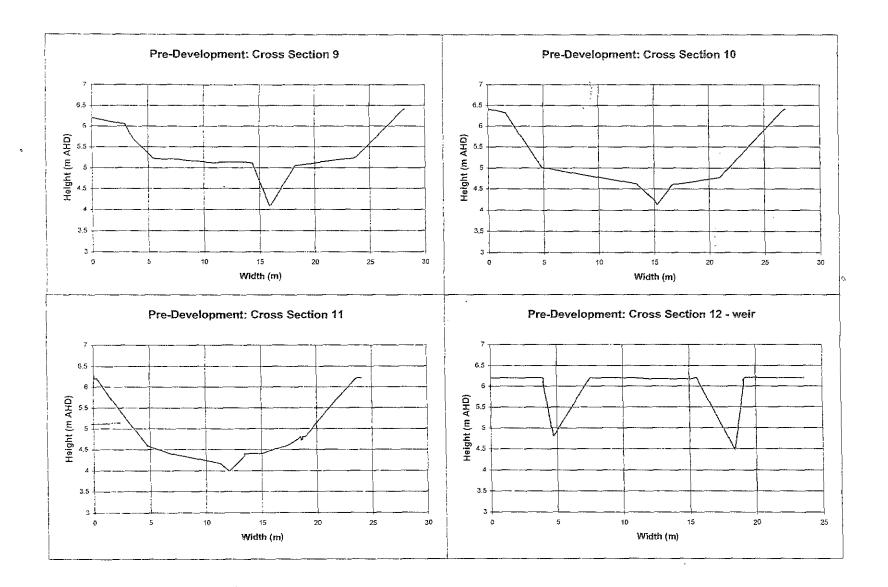


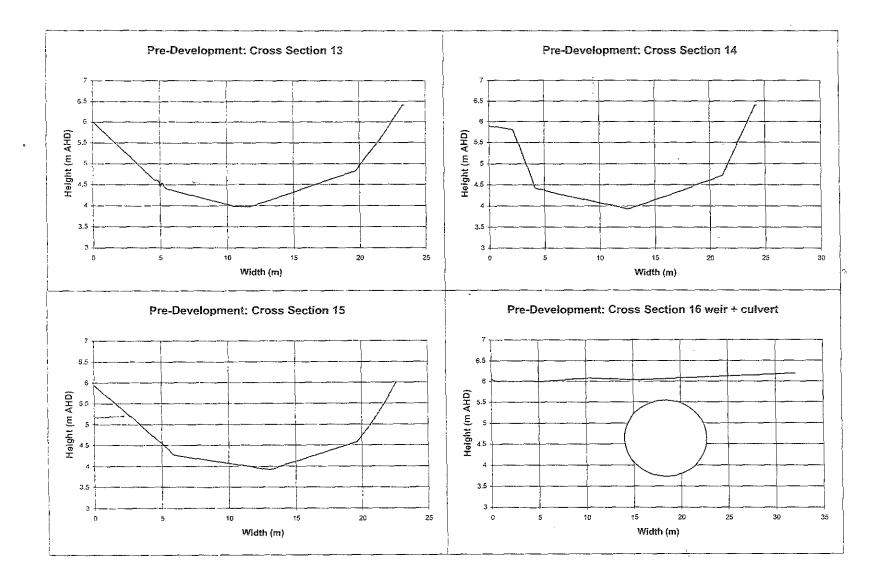
APPENDIX D

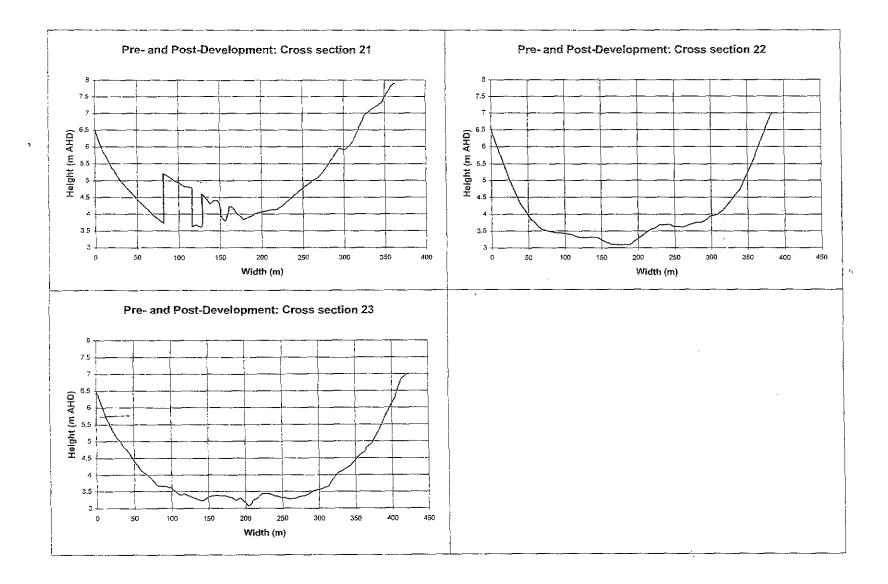
SOBEK CROSS SECTIONS PRE- DEVELOPMENT SITUATION







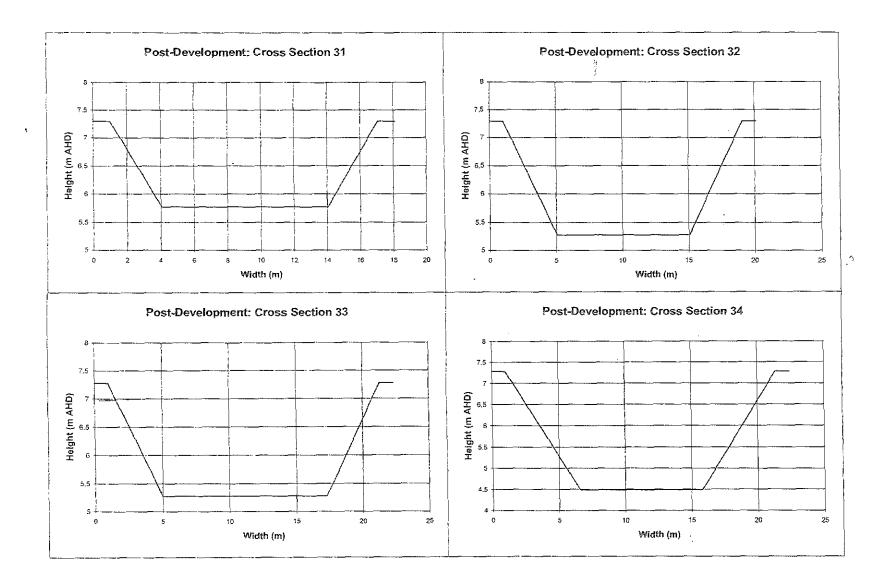


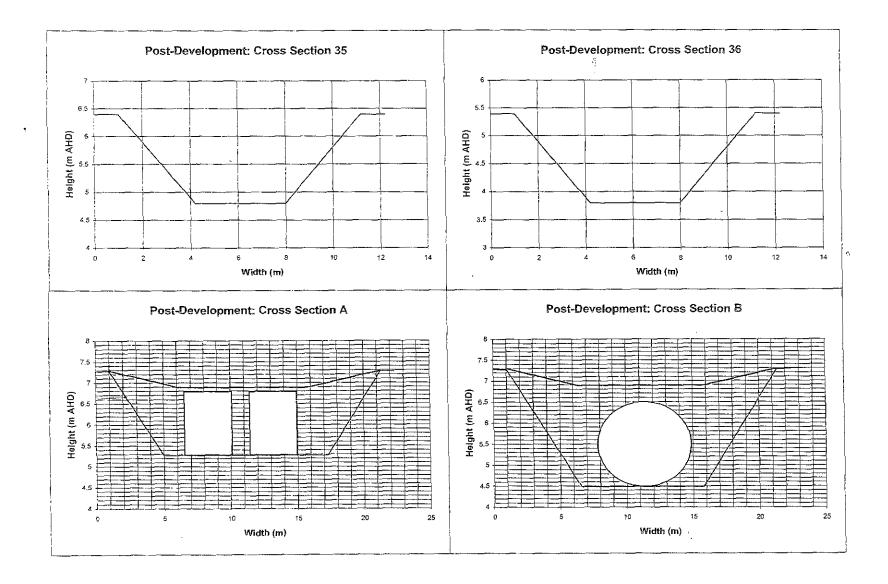




APPENDIX E

SOBEK CROSS SECTIONS POST-DEVELOPMENT SITUATION







APPENDIX K

Waste Management Procedure Trackable Waste in Queensland

Prepared by Visy Board Pty Ltd

3864assmtrpt.doc

VISY BOARD PTY. LTD. QUE: SLAND DIVISION

A C N 005 787 913



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38 Cobalt Street Carole Park QLD, Australia, 4300 Telephone: 61-7-3248-1444

Facsimile: 61-7-3271-3036

VB- CP 015 Waste Management Procedure

1.0 Purpose

The purpose of this procedure is to ensure that all wastes generated and stored at Visy Board Carole Park are managed and disposed of in accordance with all environmental legislation.

2.0 Scope

This procedure applies to the storage and disposal of all waste materials generated at Visy Board Carole Park, except waste disposed to sewer under a Trade Waste Agreement.

3.0 Other Relevant Procedures

VB- CP 009 Materials Management (Non-hazardous and Hazardous Substances)

VB- CP 010 Environmental Incident Reporting

VB- CP 013 Stormwater Management

4.0 Procedure

Conoral

Gene	General		
4.1	Provide appropriate and sufficient storage facilities for all wastes generated, with regard to preventing stormwater contamination and littering. Ensure wastes are only disposed of to these areas. As a minimum each key area at the site has: • General waste receptacles. • Prescribe waste receptacles.		
	 'Commingle' recycling bins (ie. bins where all recyclables can be disposed to one receptacle which is then sorted prior to recycling/reuse etc). 		
4.2	There are separate waste receptacles for recyclable and reusable materials (ie. 'Commingle' bins that are provided for each key area at the site). On-sell, reuse or recycle these materials, wherever possible.		
4.3	Provide adequate spill containment and protection from the weather for on-site prescribed waste storage areas, as described in the EPA Bunding Guidelines.		
4.4	Locate waste collection receptacles on hardstand areas away from stormwater drains. Ensure regular collection of waste to avoid overflow of containers.		
4.5	Implement waste minimisation recommendations made in the Board Carole Park Action Plan, VB- CP 003, and Business Improvement Plans,		
4.6	Report any non-compliance or issues regarding waste management to the Environment Representative, immediately. In their absence report to the Shift Supervisor and/or the General Manager.		

Revision 0

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Issue date: 12 December 2002

Page 1 of 4

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issued by: Site Environmental Coordinator

Print date:31/10/2005

VISV BOARD PTY. LTD.

VCN 005 787 913



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Facsimile: 61-7-3271-3036

VB- CP 015 Waste Management Procedure

	ii tibto Trank Garanti i Toodaa e			
4.7	Report all environmental incidents in accordance with the Environmental Incident Reporting procedure, VB- CP 010.			
4.8	IMPORTANT: Review and follow the Action Plan (ie. waste management program for the site) to ensure all improvement opportunities are identified and carried out in the specified timeframe.			
Presc	Prescribed Waste			
4.9	Identify prescribed wastes by referring to Schedule 1 of the Environment Protection (Prescribed Waste) Regulations 1998. Empty containers that contained a prescribed substance are also considered to be a prescribed waste (eg. ink containers).			
4.10	Store prescribed wastes, which are also, classified as dangerous goods in accordance with the Dangerous Goods (Storage & Handling) Regulations 2003 (eg. in appropriate receptacles under cover or with secure lid, away from drains and open ground).			
4.11	Dispose of prescribed wastes in accordance legislation.			
	Note: Ensure all prescribed wastes are disposed to an appropriately licenced facility by a licensed transporter under a Waste Transport Certificate, as per the Completion of Prescribed Waste Transport Certificates work instruction. All waste transport dockets must be completed and recorded.			

5.0 Authority

The Environment Representatives have the authority to complete the Waste Transport Certificates (for prescribed waste).

The Environment Representative has the authority to report non-compliances and/or issues to the regulatory bodies with regard to this procedure, only after prior notification of the Site Environmental Coordinator and the relevant Division Manager.

In the absence of the Environment Representative, the Maintenance Manager/Supervisor, have the authority to report non-compliances and/or issues to the regulatory bodies with regard to this procedure.

6.0 Responsibilities

The Environment Manager (or their delegate) is responsible for ensuring prescribed wastes are disposed of to appropriately licensed facilities.

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Page 2 of 4

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VISY BOARD PTY.LTD QUE SLAND DIVISION

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innovativo Fackaging Solvtions 38 Cobalt Street Carole Park QLD, Australia, 4300 Telephone: 61-7-3248-1444 Facsimile: 61-7-3271-3036

VB- CP 015 Waste Management Procedure

The Site Environmental Coordinator is responsible for:

- Ensuring this procedure is kept up to date.
- Providing annual waste returns to the EPA of prescribed wastes disposed of from the site, as per Clause 12 of the *Environment Protection (Prescribed Waste) Regulations 1998*.
- Ensuring prescribed wastes are disposed of to appropriately licensed facilities.
- Ensuring that the waste management Action Plan is reviewed at EMS Team meetings (or monthly) whichever occurs first, and that it is updated appropriately.

All Employees are responsible for disposing of all wastes to designated waste receptacles or recycling containers, as appropriate for their Division.

7.0 Reference Documentation

Divisional Aspects Registers.

10 The Con-

- Management Program Waste Management.
- Legislation:
 - Environment Protection Act 1970 (EP Act).
 - Environment Protection (Prescribed Waste) Regulations 1998.
 - Industrial Waste Management Policy (Waste Minimisation).
 - > Industrial Waste Management Policy (National Packaging Covenant).
 - > Draft Industrial Waste Management Policy (Prescribed Industrial Wastes).
 - Australian Code for the Transport of Dangerous Goods by Road and Rail 1998 ('ADG Code').
 - State Environment Protection Policy (Used Packaging Materials).
- EPA Information Bulletin No. 448 Classification of Wastes.
- EPA Information Bulletin No. 395 Instructions for Completion of Waste Transport Certificates.
- EPA Information Bulletin No. 423 List of Treatment and Disposal Facilities for Prescribed Waste.
- EPA Information Bulletin No. 344 Transport and Disposal of Empty Drums Containing Hazardous Compounds.

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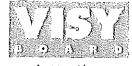
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VISV BOARD PTY. LTD. QUEL SLAND DIVISION

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VB- CP 015 Waste Management Procedure

- Operating procedures.
- Monitoring and measurement plans.
- AS/NZ ISO 14001:1996 Environmental Management Systems Specification with Guidance for Use.
- 8.0 Forms and Attachments
- 9.0 Definitions

TIT THE

A.C.N. 005 787 911



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Facsimile: 61-7-3271-3036

eg: Fitter Cake-Carole Park Disposal Procedure

VB- CP 004.1 ENVIRONMENTAL REGULATIONS AND OTHER REQUIREMENTS

TRACKABLE WASTE IN QUEENSLAND

1.0 Objective

The objective of this procedure is to ensure compliance with the Queensland trackable waste regulations.

2.0 Scope

This generic procedure should be the basis of the trackable waste procedures for Visy Board Queensland.

3.0___References

Environmental Protection (Waste Management) Regulation 2000 (The Regulation)

4.0 Definitions

Trackable waste:

applies to the transportation of a regulated waste of the type specified in Schedule 1 of the

Regulation.

VB- CP 004.1 ENVIRONMENTAL REGULATIONS AND OTHER REQUIREMENTS
Last updated 20/12/2001 By site Workplace Health and Safety and Environment Manager

Prescribed information:

is the information that a waste handler (generator, transporter or receiver) must provide to the administering authority ie. the EPA.

5.0 Procedure

5.1	Prior to using a particular transporter, Visy must ensure that the transporter is licensed ie. holds a suitable environmental authority. A copy of the environmental authority must be obtained and retained on in the waste disposal register held on site.	
5.2	Section 5.1 applies to any waste that is given to another person to transport it commercially or in a load of more than 250 kg in a vehicle. (Clause 41 of the Regulation)	
5.3	Visy may request exemptions for certain trackable wastes if they can be shown not to have any environmental significant characteristics (Clause 39 of the Regulation).	
5.4	For each consignment of trackable waste, Visy must complete the prescribed form, which is usually provided by the waste transporter, or can be obtained from the EPA directly. The form must be completed with the following information: The generator's name, address, local government area and contact details; or The generator identification number The name, address and contact details of the person to whom the waste is being transported The load number For a load of waste transported to a receiver outside Queensland, special conditions apply. The necessary documentation can be obtained by the waste transporter if the waste does not leave the State immediately, or Visy needs to contact relevant State EPA to obtain the documentation applicable to that State. If the waste is dangerous goods, the type and number of containers in which the waste is contained The following details of the waste: The type of waste The amount (in kilograms or litres)	

VB- CP 004.1 ENVIRONMENTAL REGULATIONS AND OTHER REQUIREMENTS
Last updated 20/12/2001 By site Workplace Health and Safety and Environment Manager

	 Its physical nature (solid, liquid, paste or gas) Its waste code If the waste is dangerous goods: its UN number its packaging group designator its dangerous goods class and any subsidiary risk the waste origin for the activity that generated the waste 	
5.5	Visy must record and give to the EPA the following information (Schedule 2 of the Regulation): the information mentioned in Section 5.3 the transporter's name, address and contact details the transporter's environmental authority number if the vehicle used to transport the waste is a motor vehicle, its registration number.	
5.6	The information in Section 5.4 must be provided to the EPA within 7 days unless the information is provided in another way that has been approved by the EPA (Clause 21 of the Regulation).	
5.7	Visy must keep records of the waste disposal for 5 years (Clause 23 c of the Regulation).	
5.8	The following trackable wastes of relevance to Visy are exempt from the waste tracking requirements until June 30, 2002 (Clause 69 of the Regulation): grease trap waste (waste type K110) liquid food processing waste (K200) mineral oils (J100) oil and water mixtures or emulsions, or hydrocarbon and water mixtures and emulsions (J120) sewage sludges and residues including septic tank sludge (K130) tyres (T140)	

6.0 Responsibilities

VB- CP 004.1 ENVIRONMENTAL REGULATIONS AND OTHER REQUIREMENTS
Last updated 20/12/2001 By site Workplace Health and Safety and Environment Manager

- 6.1 The site Workplace Health and Safety and Environment Manager is responsible for:
 - Establishing and maintaining the Five page Manifesto used for trackable waste in QLD and communicating environmental compliance requirements to employees at Visy Board QLD.
- 6.2 The Employees are responsible for:

 Complying with environmental regulation and company expectations as outlined in the Visy Environment Policy and this Trackable waste procedure.



APPENDIX L

Searches and Advice

Environmental Management Register/Contaminated Land Register Environmental Protection Act 1994 Gold Coast Water Advice

3864assmtrpt.doc

QLD ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

Transaction ID:

793261 EMR Site Id:

19 December 2005

This response relates to a search request received for the site:

Lot: 2

Plan: RP163654

EMR RESULT

The above site is NOT included on the Environmental Management Register.

CLR RESULT

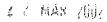
The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

Note: The Statutory fee for a search extract has increased to \$34.00 per lot for Internet Searches & \$40.00 per lot otherwise. Extra service fees apply for CITEC CONFIRM'S Internet and Express services. Searches may also be conducted through the State Government website www.qld.gov.au. The EPA will be closed for business from Friday afternoon 23 December and will re-open on Monday 3 January 06

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen Registrar, Contaminated Land Unit





19 March 2002

Sarah Gardiner Visy Board 38 Cobalt St Carole Park QLD 4300

Dear Ms Gardiner

Environmental Protection Act 1994

I refer to your letter of 19 February 2002 requesting confirmation of verbal advice from our Mr Gary Kane in relation to ERA 49.

I confirm that your operation does not constitute ERA 49 if it does not process paper or pulp on site, and simply fabricates secondary products from imported paper rolls using a dry process

Please contact the undersigned if you have any further enquiries.

Yours faithfully

Maurice Mathews

A/Operations Manager

Page 1 of 1

288 Edward St. Brisbane Queensland 4000 Australia GPO Box 2771 Brisbane Queensland 4001 Australia Telephone Facsimile Website www.epa.qld.gov.au ABN 87 221 158 786 Date:

23 September 2005

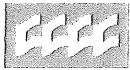
Author:

B. Burrows Location: Nerang Office (07) 5582 8339

Phone:

Your Ref: 3864 BG:TB

Our Ref: PN133729/01/DA5



Gold Coast City Council

Gassman Development Perspectives PO Box 392 BEENLEIGH QLD 4207

Attention: Mr B. Gassman

Dear Sir

PROPOSED INDUSTRIAL DEVELOPMENT, LOT 2 RP163654 STAPYLTON JACOBS WELL ROAD, STAPYLTON

Reference is made to your email of 29 august 2005 regarding the above.

You are advised that Gold Coast Water (GCW) agrees to your proposal to not connect to water supply and sewerage services at this time but to utilise an on-site treatment and disposal system, subject to submission of a management plan for the treatment system. Connection to services will be required when those services become available.

GCW also supports your proposal to connect to the recycled water main for wash down, irrigation, toilet flushing etc. Please liaise with Mr Glen Noble on 5582 8422 for Council's requirements for this connection.

Please note that Water Supply and Sewerage Headworks charges are payable for the development, in accordance with Council's Policy for Developer contributions (3A and 3B).

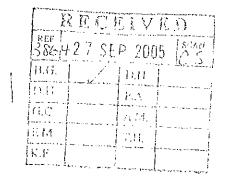
Please contact Brian Burrows if you have any gueries regarding the above.

Yours faithfully

Brian Burrows

Acting Co-ordinator Development Control

for the Chief Executive Officer



"initials":::odma\pcdocs\tracks\17882973\1





ANNEXURE 'B'

Notice of Call In

NOTICE OF MINISTERIAL CALL IN OF DEVELOPMENT APPLICATION MADE UNDER THE INTEGRATED PLANNING ACT 1997

Pursuant to section 3.6.6 of the *Integrated Planning Act 1997* ("IPA"), I hereby give notice that on 7 July 2006 I have called in, to re-assess and re-decide, the development application by Gassman Development Perspectives Pty Ltd made on 23 December 2005 for a proposed cardboard manufacturing plant which was approved by the Gold Coast City Council on 2 May 2006.

This notice is given to the Gold Coast City Council ("the Council") as the assessment manager for the application.

Details of the development application called in for assessment and decision are provided below.

Applicant:

Gassman Development Perspectives Pty Ltd on behalf of Visy Industries Australia Pty Ltd ABN 58 005 787

913

Type of Application:

Development Permit for a material change of use for

Industry (Cardboard Box Manufacture) and Environmentally Relevant Activity 26 (Metal forming)

Location:

298 Stapylton Jacobs Well Road, Stapylton

Proposed Use:

Material change of use of the site to establish a cardboard manufacturing plant which will manufacture corrugated fibreboard boxes using recycled materials

and food and beverage packaging containers

Subject Site:

Lot 2 on RP 163654, Parish of Albert, County of Ward

As required by sections 3.6.6(2)(a) and 3.6.7(1)(c) of IPA, the point in the Integrated Development Assessment System process from which the process for the called in application will restart is the end of the notification stage.

Pursuant to section 3.6.6(2)(b) of IPA, I am required to state the reasons for calling in the application. It is my opinion the proposed development involves a "State interest". The development involves an interest that in my opinion affects an economic or environmental interest of the State or a region, namely, part of which is in the Brisbane Statistical Division.

Background:

- Visy Industries Australia Pty Ltd ("Visy Industries") is one of the world's largest privately owned packaging and recycling companies.
- Visy Industries is committed to recycling and the environment. They have been voted Australia's leading company for environmental performance in the Sydney Morning Herald and The Age newspapers for the last four years.

- Visy Industries' current facility at Carole Park has reached its capacity. The company decided a new facility was required to meet growth in the Queensland market.
- The Subject Site was chosen for the large industrial site with convenient access to the Pacific Motorway.
- The proposed development generally complies with the requirements of the Yatala Enterprise Area Local Area Plan of the Gold Coast Planning Scheme 2003.
- The manufacturing industry is a key target sector in the development of Queensland's industries evidenced by the Smart State World Class Manufacturing Project which developed the Making Queensland's Future A Manufacturing Development Plan ("the Manufacturing Development Plan"). The Manufacturing Development Plan details a Manufacturing Investment Strategy which states how the Queensland Government intends to seek investment in manufacturing. The type of investments sought include those that:
 - o Are productive manufacturing activities;
 - o Contribute to the development of internationally competitive manufacturing sub-sectors;
 - Offer net economic benefits to the State;
 - o Generates new skilled employment in manufacturing;
 - Contributes to the sustainable development of Queensland and adds value to the State's natural resources;
 - Expands the productive capacity of the State's manufacturing sector and facilities, the introduction and diffusion of new technologies and other skills into Queensland's manufacturing sector;
 - Supports research and development, and the commercialisation of new manufacturing technologies, products and processes;
 - Seeks to maximise the participation of Queensland and Australian manufacturing firms.
- On 16 March 2006 Bermuda Realty Pty Ltd ("Bermuda") made a properly made submission in respect of the application. The submission was accepted by the Council and was not withdrawn by Bermuda.
- On 18 April 2006 at the Gold Coast City Planning Committee Meeting the development application was approved subject to conditions.
- On 24 April 2006 at the Gold Coast City Council Meeting the resolution of the Planning Committee was adopted with a slight correction to Conditions 15 and 24 attached to the development permit.
- On or about 25 May 2006 the Council advised Bermuda of its decision to approve the application.
- On 22 June 2006 Bermuda filed a Notice of Appeal in the Planning & Environment Court appealing the Council's decision to approve the application.
- On 28 June 2006 Visy wrote to the Deputy Premier, Treasurer and Minister for State Development, Trade and Innovation requesting that the Premier call in the development application under the powers conferred in IPA.

In forming my opinion that this development involves a matter of "State interest" I had regard to the following material:

Documents:

- Ministerial Statement dated 22 November 2005, Visy Industries, The Honourable Anna Bligh, (then the Deputy Premier, Minister for Finance and Minister for State Development, Trade and Innovation).
- Planning Assessment Report dated December 2005 submitted by Gassman Development Perspectives Pty Ltd on behalf of Visy Industries.
- Letter dated 11 April 2006 from Richard Pratt to The Honourable Anna Bligh.
- Gold Coast City Council Minutes from the 399th Council Meeting dated 24 April 2006, Item 4 Implementation and Assessment Branch.
- Letter dated 2 May 2006 from Gold Coast City Council to Visy Industries C-/ Gassman Development Perspectives enclosing the Decision Notice.
- Letter dated 3 May 2006 from Peter Bittner, Partner, Home Wilkinson Lowry to Tony DiPaolo, General Manager – Procurement, Visy Industries Pty Ltd.
- Letter dated 29 May 2006 from Richard Pratt to Ross Rolfe, Coordinator General and Director-General of the Department of Premier and Cabinet and Claire Single, Manager, Deputy Coordinator General's Office.
- Notice of Appeal filed on 22 June 2006 in the Planning & Environment Court by Home Wilkinson Lowry for the appellant, Bermuda Realty Pty Ltd.
- Facsimile dated 26 June 2006 from Peter Bittner to Tom Dickson for service on The Crown Solicitor attaching, by way of service, Bermuda Realty's Notice of Appeal.
- Letter dated 28 June 2006 from Tony Di Paolo, GM Procurement, Visy Industries to the Honourable Anna Bligh, Deputy Premier, Treasurer and Minister for State Development, Trade and Innovation;
- Yatala Enterprise Area Local Area Plan forming part of the 2003 City of Gold Coast Living City Planning Scheme.
- A comprehensive plan developed under the Smart State World Class Manufacturing Project Making Queensland's Future A Manufacturing Development Plan.
- Verbal advice given on 29 June 2006 (documented in file note of same date) from the Planning & Environment Court Listings Manager that the matter is unlikely to be heard by the Court before November and is also subject to appeal to superior Courts.
- South East Queensland (SEQ) Regional Plan produced by the Office of Urban Management Queensland, released 30 June 2005.
- Advice from Clayton Utz dated 5 July 2006.

Legislation:

- Integrated Planning Act 1997
- Acts Interpretation Act 1954

From the material I have had regard to, I make the following findings of fact:

On or about 23 December 2005, Gassman Development Perspectives Pty Ltd ("Gassman") made a development application to the Gold Coast City Council ("the Council") for a development permit for making a material change of use for an Industry (Cardboard Box Manufacture) and Environmentally Relevant Activity 26 (Metal Forming) in respect of the land.

- At the time the application was made the land the subject of the application was owned by Holmbourne Pty Ltd (ACN 010 417 455). The land is now owned by Visy Packaging Properties Pty Ltd.
- The land the subject of the development application is included within Precinct 4 (Future Business and Industry) of the Yatala Enterprise Area Local Area Plan forming part of the 2003 City of Gold Coast Living City Planning Scheme.
- Gassman proposed to construct two buildings for the purpose of accommodating a new manufacturing plant for Visy Industries.
- The development proposed by Visy Industries and approved by the Gold Coast City Council will be constructed at a cost of \$74 million for Stage 1 and an estimated \$110 million for Stages 2-5.
- The proposed development will generate 180 jobs during the construction phase and 84 permanent full-time jobs during the operational phase of Stage 1.
- The proposed development will have the initial capacity to manufacture 50,000 tonnes of corrugated cardboard each year from recycled paper products.
- The proposed development positions Queensland for a new export market.
- The proposed development will use recycled product which is significant in decreasing the amount of landfill. For every tonne of paper and cardboard that is recycled, four cubic metres of landfill is saved.
- The Queensland Government has previously granted assistance for the proposed development for the purpose of attracting investment into key target sectors in Queensland, creating sustainable jobs and to increase the skills base of employees in Queensland. The development proposed by Visy Industries will provide Queensland with a competitive advantage over other States in Australia with respect to large manufacturing operations and highly automated plants, employing senior engineering professionals and highly skilled trade staff.

For the following reasons, I am of the opinion that the development involves a "State interest":

- Time is of the essence to undertake the development works. The proposed development will complement the existing Visy Industries facility located at Carole Park, Brisbane.
- The decision of the Council to approve the development application, subject to conditions, has been appealed to the Planning and Environment Court. There is no certainty as to the final outcome of the appeal or the timeframe to achieve such an outcome.
- The proposed development will benefit the environment by making a significant contribution to reducing landfill in Queensland. The reduction of landfill is a stated principle in Part 10.7 of the South East Queensland Regional Plan 2005, including the Draft Amendment 1, March 2006 ("SEQ Regional Plan").
- The development proposed by Visy Industries will create 180 additional jobs in the Brisbane Statistical Division region during construction and 84 permanent jobs once the facility is operational.
- The proposed development, in encouraging employment growth in the Yatala/Stapylton area, will also contribute to the establishment of the Yatala area of economic activity, as identified in the SEQ Regional Plan.

- The proposed development represents a direct investment by Visy Industries of \$74 million and will increase Visy Industries' estimated investment value in Queensland to \$314 million.
- The proposed development will inject large capital investment into the State of Queensland which will result in additional flow on investment.
- The proposed development will diversify the State's export product and import replacement in Queensland.
- The development will assist the State of Queensland in demonstrating how it is meeting it Smart State position objectives and will assist in building the reputation and confidence for future investors into the State.
- Other benefits to the Queensland economy include:
 - o The likelihood that employment opportunities will multiply with transport operations in and out of the plant;
 - o Development of robotic manufacturing; and
 - o A quality assurance laboratory.
- The proposed development will assist in achieving what the Manufacturing Development Plan sets out to achieve by increasing investment in Queensland's industries. In particular, the proposed development will:
 - o develop international competitiveness;
 - o enhance the image and profile of manufacturing:
 - build export performance and improve business supply chains and networks;
 - o grow investment in manufacturing:
 - o increase innovation, research and development activities and technology adoption
 - o support regional manufacturers; and
 - o embrace environmentally sustainable work practices.

Pursuant to section 3.6.7(2) of the Act, the assessment manager (Gold Coast City Council) before the application was called in, must give me all reasonable assistance to assess and decide the application, including:

- all material about the application the assessment manager had before the application was called in; and
- any material received by the assessment manager after the application is called in.

PETER BEATTIE MP

PREMIER OF QUEENSLAND

ANNEXURE 'C'

Referral Agency Response



31 July 2006

Department of Main Roads

The Premier of Queensland PO Box 15185 City East QLD 4002

Dear Sir

REFERRAL AGENCY RESPONSE – ADVICE AGENCY MINISTERIAL CALL IN

Development Permit for Material Change of Use
Visy Recycling Facility
Lot 2 on RP163654
298 Stapylton Jacobs Well Road
Stapylton

This letter replies to the following correspondence:

- The meeting held on 17 May 2006 at Main Roads office between various stakeholders where the applicant requested amendments to Main Roads Referral Agency Response;
- The letter dated 29 June 2006 received from Skildtraffio regarding access arrangements to the above site;
- The letter dated 7 July 2006 received from The Premiers Department regarding the Notice of Ministerial Call In';

Having regard to the outcomes of the meeting held on 17 May 2006, the department has reviewed the submitted drawing 10173-b prepared by Skildtraffic and dated June 2006.

Under the provisions of the Integrated Planning Act 1997, the Queensland Department of Main Roads is identified in this instance as an Advice Agency as a result of the Call In provisions. Please find below the amended conditions which are recommended to be included in any decision notice.

Condition I - Access:

The location and standard of the existing access as shown on the Site Plan prepared by W.N. Webb & Associates Architects - Drawing No. 01A is approved as a temporary all movements access. The Applicant is required to apply to Main Roads for a permit to allow for this temporary access through an Ancillary Works and Encroachment (AWE), under Section 50 of the Transport Infrastructure Act 1994. This permit is to be limited for a period of four (4) years or until such time as an alternative access to Stapylton Jacobs Well Road is available. The applicant must obtain AWE approval from Main Roads prior to commencement of the proposed use.

South East Region South Coast Hinterland District PO Box 442 Nerang Old 4211 ABN 57 838 727 711 Our ref 160/1003/102 smk-smk.497 B590A Your ref T735 Enquiries Suean Kidd Telephone +61 7 5596 9488 Facsimile +61 7 5596 9511 Website <u>www.mainroads.gid.gov.au</u> The reason for requiring the above condition is that Main Roads has a duty of care to minimise conflict points and protect the safety and efficiency of the state controlled road network. The controlled nature of this access is to ensure that any future conflicts which may arise with the future Inter Regional Transport Corridor (IRTC) are able to be addressed. The AWE will allow ultimate removal of the access if/when an alternate permanent access along the State Controlled Road is constructed.

Condition 2 - Access to be Removed:

The applicant shall remove the western most existing allotment access off Stapylton Jacobs Well Road and reinstate the area between the road edge and the property boundary to its pre-existing condition. You are not allowed to carry out any work in the state-controlled road reserve until you have a works permit. Please phone Graham Kent on 0418190708 to arrange a prestart meeting. Please allow about five working days notice. You will be given your works permit at this meeting,

The reason for requiring the above condition is that Main Roads has a duty of care to minimise conflict points and protect the safety of traffic flows.

Condition 3 - Road Impact Contribution

The Applicant is required to provide contributions to the Department of Main Roads in the amount of \$7081.22 in accordance with the Road Impact Assessment (RIA) prepared by Skildtraffic dated 23 March 2006.

The reason for the above requirement is that the proposed development will have an impact on the pavement life of the adjacent state controlled road. This contribution will be allocated towards the maintenance of Stapylton Jacobs Well Road.

Condition 4 - Setback:

The development shall incorporate the appropriate Local Government building setback from the future property boundary, as indicated on attached Main Roads' Plan No. 1003/TP06020. Main Roads will not accept any permanent structure in the land shown as required on the sketch.

The reason for requiring the above condition is that Main Roads planning indicates a future land requirement. Setback from this future land requirement will minimise both disruption to landowners and acquisition costs.

Condition 5 - Land Dedication (Possible Future Intersection):

The applicant is to dedicate the area as shown generally on the concept planning prepared by Main Roads for the future intersection of Stapylton Jacobs Well Road and Rotary Park Road. Any gates or such structures are to be setback from the future intersection to enable the largest design vehicle to be accommodated in front of the gates and well out of the future intersection and the State Controlled Road reserve.

The reason for the above condition is to accommodate a future possible intersection in this location that could provide access to the subject site. This will ensure that the development will not have a negative impact on the overall road network.

Condition 6 - Landscaping:

The applicant is required to close off vehicular access to/from Stapylton Jacobs Well Road from Quinns Hill Road East. The informal access track unlawfully being utilised at this intersection is to be 'planted out' in the State Controlled Road reserve across. The applicant shall apply to the Department of Main Roads for an AWE Permit to landscape this area. Details of the proposed landscaping are to be submitted to the department for approval.

The reason for requiring the above condition is to ensure the safety and efficiency of the State Controlled Road is maintained. This will make certain that this informal access is not utilised by vehicles associated with the proposed development.

Condition 7 - Construction within the State-controlled road reserve:

The applicant shall apply to Main Roads for construction approval under Section 33 of the Transport Infrastructure Act 1994 before commencing any work. The application must include detailed engineering drawings of the proposed works. The drawings shall be prepared in accordance with Main Roads requirements.

The reason for requiring the above condition is that an application for construction approval allows Main Roads to assess the suitability of the works and to apply conditions.

Condition 8 - Environmental (dust):

The applicant shall submit for Main Roads' approval, the actions proposed to prevent dust from the site causing a nuisance.

The reason for requiring the above condition is that an application for approval allows Main Roads to assess the actions being taken to prevent dust nuisance occurring.

Condition 9 - Environmental (debris):

The applicant shall submit for Main Roads' approval, the actions proposed to prevent debris being carried onto the state controlled road.

The reason for requiring the above condition is that an application for approval allows Main Roads to assess the actions being taken to prevent debris nuisance occurring.

Condition 10 - Compliance:

The applicant shall provide Council with a letter from Queensland Department of Main Roads confirming compliance by the applicant with the requirements of the department prior to commencement of any new use of the land.

The reason for requiring the above condition is that Main Roads has a statutory obligation to ensure that the department's conditions of development have been satisfactorily complied with.

Advice Regarding Condition 5

Future access to the site from Stapylton Jacobs Well Road is planned to be obtained via an intersection between Stapylton Jacobs Well Road / Rotary Park Road and the subject site. The applicant is therefore required to dedicate the land required for the apron of the new intersection.

To address this issue, both the applicant and the Department of Main Roads have informally agreed to enter into an Infrastructure Agreement which will require the apron of the future intersection to be dedicated to the department.

Advice to Assessment Manager

Due to the specific traffic generating potential of the subject development, it is requested that any approval of the proposed development should be limited to 'Industry (Cardboard Box and Aluminium Plant)' only. This is to ensure that should any other form of Industrial land use be proposed for the site, a Material Change of Use Development Application would be required to be submitted to Council for approval.

Advice - Cultural Heritage

(. .)

The Aboriginal Cultural Heritage Act 2003 commenced in Queensland on April 16, 2004. The Act is administered by the Department of Natural Resources, Mines and Energy (DNRM&E). Under the new Act, Indigenous parties are key in assessing cultural heritage significance. The Aboriginal Cultural Heritage Act 2003 establishes a 'Duty of Care' for Indigenous cultural heritage. The Cultural Heritage 'Duty of Care' lies with the person or entity conducting an activity.

Penalty provisions apply for failing to fulfil the Cultural Heritage 'Duty of Care'.

Those proposing an activity that involves additional surface disturbance beyond that which has already occurred at the proposed site need to be mindful of the Duty of Care requirement. Details of how to fulfil the 'Duty of Care' are outlined in the Duty of Care Guidelines gazetted with the Act.

Main Roads strongly advises that you contact DNRM&E's Cultural Heritage Coordination Unit on 3238 3835 or 3238 3839 or visit the following website http://www.heritage.gov.uu/ahpi/index.html to obtain a copy of the Duty of Care Guidelines and further information on the responsibilities of developers under the terms of the Aboriginal Cultural Heritage Act 2003.

It is also recommended that the Local Indigenous Group be contacted for a site inspection regarding any Cultural Heritage issues associated with the work site.

The reason for advising of the above requirement is that the applicant has a duty of care to ensure that the works proposed in this application does not disturb any cultural heritage items.

Yours sincerely

for Miles Vass

District Director (South Coast-Hinterland)

ANNEXURE 'D'

Analysis of Submission

ANALYSIS OF SUBMISSIONS MADE ABOUT THE DEVELOPMENT APPLICATION THE SUBJECT OF MINISTERIAL CALL IN UNDER THE INTEGRATED PLANNING ACT 1997

On 7 July 2006, pursuant to section 3.6.6 of the *Integrated Planning Act 1997*, I called in, to reassess and re-decide, a development application by Gassman Development Perspectives Pty Ltd on behalf of Visy Industries Australia Pty Ltd made on 23 December 2005 for a proposed manufacturing plant which was approved by the Gold Coast City Council on 2 May 2006.

During the notification stage for the development application under the Integrated Development Assessment System process of the *Integrated Planning Act 1997*, one properly made submission about the development application was received by the Gold Coast City Council.

The submission received by the Gold Coast City Council has been provided to me pursuant to section 3.6.7(2) of the *Integrated Planning Act 1997*.

The submission received by the Gold Coast City Council objected to the development application.

Pursuant to section 3.6.9(2)(d) of the *Integrated Planning Act 1997*, I am required to include an analysis of any submissions made about the development application in the report I prepare about my decision on the development application.

The analysis of the submission made about the development application called in by me on 7 July 2006 is set out in tabular form below. The matters raised by the submitter have been grouped to reflect their prominent and recurrent concerns and reasons for objecting to the development application.

Submitter

1. Dan Marchetti, Consultant Planner, Pat Cash Properties Pty Ltd on behalf of Bermuda Realty Pty Ltd the proprietor of the land adjoining 298 Stapylton Jacobs Well Road.

Table of Submission:

Summary of Representations		Analysis of Representations
	The applicant is in breach of s 3.4.3(3) of the Integrated Planning Act 1997	The Department of Main Roads ("DMR") information request issued to the applicant was dated 16 February 2006 and as such the submitter stated that it was within the information request period, which was to expire on 17 February 2006. The submitter considered that as the applicant did not respond to the DMR information request before commencing public notification, the applicant was in breach of s 3.4.3(3) of the <i>Integrated Planning Act 1997</i> . DMR (as Concurrence Agency) is also required to issue a copy of the information request to Council as the Assessment Manager. The applicant claims the information request was not received until 24 February 2006, being eight (8) days after the information request period had expired. Council as Assessment Manager, did not receive a copy of DMR's information request until 24 February 2006. The applicant sought legal advice in this regard, which determined that an information request was not issued within the information request period and as such the applicant may progress the application to the public notification stage. DMR did not challenge this legal advice, and permitted the application to progress to public notification. Officers of The Coordinator-General sought further legal advice with respect to this matter (from solicitors and senior counsel). The legal advice sought found: The DMR information request extension was not made within time because it was not given to the applicant by the due date. The DMR information request was not made within time because it was given outside the 10 business days allowed; Public notification was properly commenced;

On the basis of the legal advice received there are no further issues with respect to this representation.

- Proposal will have detrimental impacts on the surrounding road network
- Proposal is at variance with DEO Soc 6 and related Key Strategies and provisions of the Planning Scheme

Stapylton Jacobs Well Road, being a State-controlled road, is the responsibility of DMR. DMR is satisfied the proposal will not result in adverse safety impacts. DMR has also provided conditions of approval attached to this report to ensure access to the site is safe and adequate for the scale of development proposed. Furthermore, Council as assessment manager has also provided conditions of approval (which were imposed by me as the assessment manager) relating to site access to ensure the development occurs in an efficient and safe manner, consistent with the relevant provisions of the Gold Coast Planning Scheme 2003.

 Provision of on site car parking is inadequate The applicant offers the following justification for the proposed relaxation of car parking provisions, which is supported by Council's Transport Planning Branch.

The applicant proposes to provide one hundred and twenty four (124) car parking spaces for the development, which they consider appropriate to the use of the site. This figure has been reached based on the following calculations.

Visy Board Plant maximum number of employees = 64 staff Visy Pak Plant maximum number of employees = 20 staff Visitor Parking ancillary to Visy Board Plant = 20 car parking spaces

Visitor Parking ancillary to Visk Pak Plant = 20 car parking spaces

Total number of on site car parking spaces = 124 car parking spaces

It is acknowledged that the total number of car parking spaces provided on-site being 124 spaces, is considerably less than the 750 car parking spaces that would be required should the applicant strictly adhere to the Industry car parking provisions of 1 per 40m² as required by the Car Parking Access & Transport Integration Constraint Code.

Due to the scale of the development (30,000m² Gross Floor Area) it would be unreasonable to require all car parking spaces to be provided on site as this would not be considered an efficient use of land. Further to this, the machine intensive nature of the use does not require large numbers of staff to operate the plant.

Further to this, Council requested the applicant demonstrate how the statutory car parking requirement can

be provided on site if the use were to change in the future. The applicant was able to demonstrate to Council that an additional 520 car parking spaces could be provided on site should the use change in the future. This amounts to a total of 644 on site car parking spaces. This number is considered acceptable, with Council imposing a condition of approval that requires the above car parking spaces be provided prior to the use changing, or the sale or lease of the site to another party. This condition was also imposed in my decision notice of 7 August 2006. Proposal does not comply The applicant has been party to various meetings with with the Works for Council, and in particular Gold Coast Water, to determine Infrastructure Code how the proposed development will connect to Council's reticulated water and sewerage supply services. Gold Coast Proposal is at variance with DEO Econ 6 and related Water has provided a list of conditions that must be strictly adhered to, to ensure the development connects to Key Strategies and Council's services, and that such is done with best provisions of the Planning management development practices in accordance with Scheme Planning Scheme Policy 11 - Land Development Guidelines. Gold Coast Water supports the application, and considers that the imposition of appropriate conditioning will satisfy Council's Works Infrastructure Code. It is a condition of approval that the development connects Proposal is ambiguous to Council's reticulated water and sewerage supply systems. Restricted on-site treatment of stormwater shall occur, however this does not alleviate the requirement of the development to connect to Council's Services. Proposal is in conflict with The applicant has revised the Flood Investigation Report prepared by Cardno Lawson Treloar Pty Ltd dated March the Flood Affected Areas Code 2006 in response to Council's request for additional information. The revised Flood Investigation Report was assessed by Council's Hydraulic Assessment Branch who determined that the revised report was acceptable, as it determined that no loss of flood storage shall occur on site. Council's Hydraulic Assessment Branch has further imposed additional conditions relating to the revised Flood Investigation Report. These conditions have been imposed on the approval of the development application in the decision notice of 7 August 2006. These conditions will ensure the development occurs in accordance with Council's requirements. Residential dwellings on Quinns Hill Road East, are Proposal has detrimental impacts residential located on large blocks generally around 40,000m² in area.

amenity

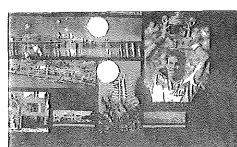
 Proposal is in conflict with DEO Soc 5 of the Planning Scheme The residential dwellings are positioned toward the rear of the sites, creating a separation distance of at least two hundred (200) metres between the use and the nearest residential dwelling. The two hundred (200) metre separation is heavily treed, further reducing any potential noise impacts that may occur from the subject site.

Further, the residential dwellings located to the south of the site are closer to Lot 1 SP171268 (to the south) where an extractive industry occurs on site. The impacts of noise, odour and emissions from the subject application will not exceed those already experienced as a result of the extractive industry to the south of the residential lots.

The residential dwelling to the west (owned by the submitter) is located approximately seventy (70) metres from Stapylton Jacobs Well Road, and one hundred and fifty (150) metres from the nearest industrial activity to the north. Both these land uses would result in more intense noise, traffic, odour and emissions occurring at the residential dwelling than the subject site, which is located over three hundred (300) metres to the east of the dwelling.

• IDAS process should be recommenced pursuant to s 3.2.9 of the *Integrated Planning Act 1997*

Both Council and DMR issued their formal information requests outside of the required timeframes. As the applicant did not receive these requests within the information period, the applicant could progress the application to public notification stage. In choosing to address the issues raised by Council and DMR, the applicant ensured the proposal was consistent with the requirements of Council as the Original Assessment Manager and DMR as the original Concurrence Agency.





PAT CASH PROPERTIES



Shop 8a, SOHO Building, 195 Varsity Parade, Varsity Lakes, Queensland 4227 PO Box 859, Robina DC QLD 4226, Australia Phone: 1300 300 067 Fax: (07) 5575 7500 www.patcash.com.au info@patcash.com.au

16 March 2006

Gold Coast City Council PO Box 5042 Gold Coast Mail Centre, Q, 9729

Att: Mr Adam Brown



PN133729/01/DA7 – Representation Against Proposed Industry (Visy Plant) at 298 Stapylton JacobsWell Road, Stapylton.

We advise that we act for and on behalf of Bermuda Realty Pty Ltd, the proprietor of land located at 222 Stapylton Jacobs Well Road, Stapylton, adjoining the above listed parcel. This submission is prepared in accordance with s3.4.9 of the Integrated Planning Act, 1997, and details those aspects of the application and proposal to which Bermuda Realty wishes to make representation.

The grounds upon which Bermuda Realty Pty Ltd objects to the proposal are as follows:

1. Breach of s3.4.3 of the Integrated Planning Act, 1997

Section 3.4.3(3) of I.P.A states that:

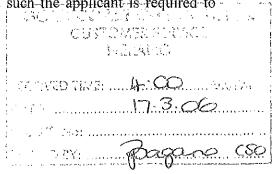
If an information request has been made during the information request period, the applicant may start the notification period as soon as the applicant gives:

- (a) all information request responses to all information requests made; and
- (b) copies of the responses to the assessment manager.

Review of Council files show that the Department of Main Roads (as Concurrence Agency) issued an information request dated 16 February 2006. The information request requires the applicant to respond to a number of significant concerns in order for further assessment to occur.

Council files indicate that DMR's information request was issued within the information request period (which expired 17 February 2006). As such the applicant is required to







respond to this information request prior to commencement of public notification, as stipulated in s3.4.3(3) above.

The applicant commenced public notification on 24 February 2006 without responding to DMR's information request and as such is in breach of s3.4.3(3) of the Act. This breach is reiterated in Council's correspondence of 2 March 2006 to the applicant wherein it requires the applicant to cease public notice immediately until such time as a response to DMR's information request is forthcoming.

It is our understanding that the applicant has elected to complete the public notice process without responding to the information request and has no intention of recommencing the public notification process. The application is fundamentally flawed in this regard.

2. The subject proposal will have detrimental impacts upon the surrounding road network & is therefore at variance with D.E.O Soc.6 & related Key Strategies & provisions of the Planning Scheme.

The submitter is concerned that the access proposed onto Stapylton Jacobs Well Road is inadequate to safely accommodate the scale of development proposed. This concern is reiterated within the Department of Main Roads' information request dated 16 February 2006, wherein DMR requests the applicant to justify the traffic generation of 50 trips per peak hour assumed in the Traffic Impact Assessment Report prepared by Skildtraffic.

As stated in the information request DMR assumes that the proposed development could generate in the order of 297 trips per peak hour based on the accepted Traffic Generation Rate for light industry development. It is evident that the projected vehicle trips assumed by the applicant's consultant are grossly understated, and that the type and location of access proposed onto Stapylton JacobsWell Road is inappropriate.

Further, the applicant states that the proposed development will require an Austroads Type 'C' access. In its proposal the applicant relies upon a new intersection planned to be constructed further west at the Stapylton JacobsWell Road frontage of the adjoining land owned by the submitter, Bermuda Realty Pty Ltd. It should be noted that connectivity previously proposed to the subject site, via Bermuda Realty's land was done so on the assumption that the subject site would in future be subdivided to form a logical extension to the proposed subdivision of Bermuda Realty's land.

Bermuda Realty Pty Ltd will not be providing connectivity and is not obligated to provide connectivity to the subject site for the purposes proposed by Visy Industries. To do so would be detrimental to the development of the Bermuda Realty site given the extent of disturbance that would be created by the constant barrage of heavy vehicle movements associated with the proposed operations. Access through the adjoining property to the west is therefore not an option for the proposed development.



Accordingly, primary access to the proposed development is limited to the subject site's frontage to Stapylton JacobsWell Road. This location is not within Council or DMR's future planning for the development of major intersections along Stapylton JacobsWell Road. The subject site is therefore not capable of accommodating the nature and extent of vehicle movements proposed by the subject development. The result is a development that is too intense for the site upon which it is proposed.

3. The provision of on site car parking for the proposed development is inadequate

The proposed development is subject to the Car Parking, Access & Transport Integration Code. The purpose of this Code is to ensure that transport needs, including car parking and service vehicle requirements associated with the development of land are met. More specifically, Performance Criteria (PC16) of the Car Parking, Access & Transport Integration Code requires that:

Sufficient car parking spaces must be provided to meet the car parking needs of the development. The number of car parking spaces provided must be consistent with the practical opportunities available for shared car parking provision and the operation of alternative transport modes to private motor vehicles.

The Table of Acceptable Solution AS16.1 stipulates a minimum car parking rate of 2.5 spaces per 100 sqm of GFA for Industry. Based on the proposal to develop 30,000sqm of GFA, 750 car parking spaces would be required to accommodate the proposed development. This does not take into account the existing uses on site which include three industrial sheds and a smaller office totalling somewhere in the order of 4000sqm of GFA, which would trigger the need for an additional 100 car parking spaces. Whilst some car parking is currently provided for these existing sheds, the exact number is not known as the subject application is silent on the details of the existing uses and their performance against the provisions of the planning scheme.

Notwithstanding this, review of the plans which accompany the subject application reveal that a total of 143 car parking spaces are proposed, being some 707 car parking spaces short of the required 850 parking spaces, taking into account the retention of the site's most northern sheds. This is an alarming proposition which is made more concerning by the traffic engineering report prepared by Skildtraffic which justifies the staggering shortfall by simply making the statement that the proposed use will only employ a total of 84 persons.

The planning report prepared by Gassman planning consultants does little to address the proposal's non compliances with the Car Parking, Access & Transport Integration Code, apart from referring the issue to the Skildtraffic report which addresses the matter with very little detail.

The effects of this approach and the resultant unacceptable shortfall of 707 on site car parking spaces will potentially have detrimental impacts upon the surrounding road



network and surrounding properties. This is again due to the site being inappropriate to accommodate the scale of development proposed.

4. The proposal does not comply with the Works for Infrastructure Code and is at variance with D.E.O Econ.6 & related Key Strategies & provisions of the Planning Scheme.

The subject site is currently not serviced by Council's reticulated water and sewerage supply system. Section 2.1 of the planning report which accompanies the subject application states:

A key component of the development consists of bringing forward the provision of services to the site as a result of any development permit. It is proposed reticulated water and sewerage be connected to the site from its current location east of the development. This is currently the subject of a Services Report under preparation by the applicant, which shall be forwarded to Council for consideration upon completion.

As part of its obligation to provide services to the site the proposed development is subject to Council's Works for Infrastructure Code, the purpose of which is to ensure that all works relating to the provision of sewerage reticulation and water supply reticulation are provided with best management land development practices in accordance with Planning Scheme Policy 11 – Land Development Guidelines.

The application as displayed on public notice does not contain any supporting information to specifically demonstrate how the proposed development will connect to Council's sewerage and water supply systems. Whilst the applicant makes the statement that a Services Report is currently under preparation, it is imperative that such essential information be provided prior to commencement of public notification. In this case the applicant has failed to do so and as such the submitter has been denied the opportunity to comment on the completed application.

The application is fundamentally flawed in this regard and does not satisfy the requirements of Council's Works for Infrastructure Code. This is supported by Council's request to the applicant for additional information dated 2 March 2006 which includes the following requirement from Gold Coast Water:

The applicant is requested to specifically demonstrate how the proposed development will connect to Council's sewerage (via a gravity solution) and water supply systems.

The applicant is yet to respond to this request.



5. The proposal is ambiguous

As cited above, the applicant states at page 5 of its planning report that a key component of the proposal is the proponent's extension of Council's reticulated sewerage and water supply services to the site. The report then goes on to state:

..However, Council have also given written consent to the collection, treatment and disposal of water and sewerage on site, a copy of which is provided as an appendix to this report.

The written consent referred to above is in the form of a letter from Gold Coast Water dated 23 September 2005. The letter is in response to an email dated 29 August 2005 and states:

You are advised that Gold Coast Water agrees to your proposal to not connect to water supply and sewerage services at this time but to utilise an on-site treatment and disposal system, subject to submission of a management plan for the treatment system...

It is important to note that the above letter does not constitute an approval from Council, as implied by the applicant, but rather a letter of support from Gold Coast Water, given in response to an email. The applicant's claim is misleading in that an approval for such a proposal would need to be obtained following assessment of a properly made application to Council, and would need to be determined by full Council at its Ordinary Meeting.

It is of concern also that this letter of support from Gold Coast Water is at serious variance with the provisions of Council's planning scheme, particularly with respect to the scheme's intent for the development of Precinct 4 of the Yatala Enterprise Area. Further, this earlier advice from Gold Coast Water (dated 23 September 2005) is contradictory to its most recent advice, issued to the applicant on 2 March 2006, which as mentioned above, states:

Land identified within Precinct 4 of the Yatala Local Area Plan (LAP) currently has inadequate infrastructure to service the precinct and subsequently, the subject development site. The intent of Precinct 4 of the Yatala (LAP) does permit out of sequence development on the provision "the proponent is prepared to pay the full cost to offset the impact of out of sequence development, as determined by Council. The applicant is requested to specifically demonstrate how the proposed development will connect to Council's sewerage (via a gravity solution) and water supply systems.

Given that a key component of the applicant's proposal is to extend Council's reticulated sewerage and water supply systems to the subject site, it is unclear as to why the applicant has made reference in its application to the earlier letter issued by Gold Coast Water which lends support to an unserviced arrangement. Such an arrangement is not being proposed within this application and would nonetheless, be at serious variance with the provisions of Council's planning scheme.



6. Flooding

(...)

The subject site is partly located below Council's designated flood level. Accordingly, the subject proposal is subject to the Flood Affected Areas Code. The purpose of this Code is:

To ensure that, where premises within flood affected areas are to be developed, adequate measures are taken to:

- ensure that the development does not cause, or have the cumulative potential to cause, real damage;
- provide standards for development in these areas that will ensure that the runoff from land and/or premises does not create any adverse environmental impacts.

The applicant has not demonstrated compliance with the relevant Performance Criteria of the Flood Affected Areas Code, in particular Performance Criteria (PC1) which requires that:

All development activity conducted on land below the designated flood level must not detrimentally affect the flood storage capacity of the catchment and the drainage regime.

The subject application has failed to demonstrate that the proposed development will result in no loss of flood storage below the designated flood level.

7. The proposal has detrimental impacts upon residential amenity and is at variance with D.E.O Soc.5 & related Key Strategies & provisions of the Planning Scheme.

Immediately south of the subject site lie several residential dwellings having frontage to Quinns Hill Road East. A residential dwelling is also located on the adjoining site to the west owned by the submitter, Bermuda Realty Pty Ltd.

Performance Criteria (PC44) of the Yatala Enterprise Area Place Code states:

The proposed development must take into account and seek to ameliorate any negative aspects of the existing amenity of the local area, having regard, but not limited, to the existing impact of:

- a) noise:
- b) hours of operation;
- c) traffic;
- d) lighting;
- e) signage;
- f) visual amenity;
- g) privacy;
- h) odour and emissions.



The subject proposal does little to address the anticipated impacts that the proposed development will have on these surrounding residential parcels. The applicant justifies these impacts by stating that they are to be expected within a locality designated for future industrial use.

It is fundamental planning practice to take into account the impacts a development will have on its surrounding environment, particularly in circumstances where an area is undergoing a transition from residential use to industrial.

The impacts arising from noise, traffic, odour and emissions anticipated from the subject proposal upon the surrounding residential properties have been completely ignored.

7. <u>IDAS process should be recommenced pursuant to s3.2.9 of the Integrated Planning Act, 1997</u>

It is our understanding that the applicant intends to respond to both DMR's information request and Council's request for additional information, but not before the completion of public notification. In order to address the concerns raised by Council and DMR, substantial changes would be required to the proposal.

Pursuant to s3.2.9(3)(a)(ii) of I.P.A such a change to the proposal would stop the IDAS clock, forcing the application to revert back to the start of the acknowledgement period as the application is subject to referral to DMR. s3.2.9(3)(a)(ii) states that:

The IDAS process stops on the day the notice of the change is received by the assessment manager and starts again—

- (a) from the start of the acknowledgment period, if 1 or more of the following apply...
 - ..(ii) there are referral agencies for the original application, the changed application or both the original application and the changed application;..

S3.2.9(4) & (5) goes on to state:

However, the IDAS process does not stop if

- (4) (a) the change merely corrects a mistake about—
 - (i) the name or address of the applicant or owner; or
 - (ii) the address or other property details of the land to which the application applies; and
- (b) the assessment manager is satisfied the change would not adversely affect the ability of a person to assess the changed application.



(5) To remove any doubt, it is declared that this section does not apply if an applicant changes an application in response to an information request.

Substantial changes to the application would render clause (4) above not applicable. Such changes would not be in response to an information request as referred to in clause (5) above, as the applicant has decided to exercise its rights under the Act and terminate the information request period and make irrelevant any information requests prepared by Council or any referral agencies. The changed application would therefore bring the application back to the acknowledgement period pursuant to s3.2.9(3), following which Council and DMR will have the opportunity to re exercise their rights with respect to the preparation of any information requests, if required.

Perhaps more importantly, this process would also allow any submitters to comment on the changed application.

In closing, it is the submitter's view that the proposed development is at serious variance with Desired Environmental Outcomes (D.E.O Econ.6, D.E.O Soc.5 & D.E.O Soc.6) and related Key Strategies and provisions of the Gold Coast Planning Scheme, 2003 relating to issues concerning provision of infrastructure, traffic & transport planning and impacts upon residential amenity.

The development is also at variance with the Flood Affected Areas Code.

Further, from a procedural point of view the subject application is in breach of s3.4.3 of the Integrated Planning Act, 1997 with respect to public notice procedures and should be recommenced. The I.D.A.S process should also be recommenced pursuant to s3.2.9 of the Act given that substantial changes would need to be made to the application in order for further assessment to occur.

Accordingly, we request on behalf of the submitter, Bermuda Realty Pty Ltd that the subject application be refused pursuant to s3.5.14 of the Integrated Planning Act, 1997.

Yours Faithfully

Dan Marchetti BAPL MRAPI

Consultant Planner

ANNEXURE 'E'

Notice of Decision

DECISION NOTICE OF MINISTERIAL CALL IN OF DEVELOPMENT APPLICATION MADE UNDER THE INTEGRATED PLANNING ACT 1997

Pursuant to the *Integrated Planning Act 1997*, I hereby give notice regarding the Ministerial call in I exercised on 7 July 2006 to reassess and re-decide the development application by Gassman Development Perspectives Pty Ltd. The development application was for a proposed cardboard manufacturing plant which was approved by the Gold Coast City Council on 2 May 2006.

Details of the development application called in for reassessment and re-decision are set out below.

Applicant:

Gassman Development Perspectives Pty Ltd on behalf

of Visy Industries Australia Pty Ltd ABN 58 005 787

913

Type of Application:

Development Permit for a material change of use for

Industry (Cardboard Box Manufacture) and Environmentally Relevant Activity 26 (Metal Forming)

Location:

298 Stapylton Jacobs Well Road, Stapylton

Proposed Use:

Material change of use of the site to establish a cardboard manufacturing plant which will manufacture corrugated fibreboard boxes (using recycled materials)

and food and beverage packaging containers

Subject Site:

Lot 2 on RP 163654, Parish of Albert, County of Ward

Local Government:

Gold Coast City Council

I have reassessed and re-decided the development application and I approve the development application made, subject to the conditions set out in the attached Schedules.

The following provides details of this decision:

1. Approval Type

Development Permit – Making a material change of use of premises for Industry (Cardboard Box Manufacture) and Environmentally Relevant Activity 26 (Metal Forming).

2. Conditions

The Assessment Manager's conditions are set out in Schedule 1. The Department of Main Roads' conditions are set out in Schedule 2.

3. Referral Agency

Pursuant to section 3.6.7(1)(d) of the *Integrated Planning Act* 1997 until the Minister gives the decision notice, a concurrence agency is taken to be an advice agency. The following are advice agencies for this development application:

i) Department of Main Roads, South Coast Hinterland District, PO Box 442, NERANG, QLD, 4211.

4. Further Development Permits

The following further Development Permits are necessary to allow the development to be carried out:

 Building Works, Plumbing and Drainage, Operational Works (Landscaping), Operational Works (Changes to Ground Level), Vehicle Crossover Permit.

5. Assessment

The application does not compromise the achievement of the Desired Environmental Outcomes for the Gold Coast City Planning Scheme or conflict with any of the following:

- Applicable codes
- •The Gold Coast City Planning Scheme
- •Relevant State Planning Policies
- •The SEQ Regional Plan

6. Properly made submissions (for applications subject to Impact Assessment only)

One properly made submission was lodged about the application by Pat Cash Properties (acting for and on behalf of Bermuda Realty Pty Ltd) of PO Box 859, Robina DC QLD 4226.

7. Rights of Appeal

There is no right of appeal by virtue of section 3.6.7(1)(e) of the *Integrated Planning Act* 1997

PETER BEATTIE MP

PREMIER OF QUEENSLAND

CONDITIONS

That in respect to the following property:

Real Property Description

Lot 2 on RP163654

Address of Property

298 Stapylton Jacobs Well Road Stapylton

Area of Property

161,000m²

Proposed Use

Industry and ERA No. 26 (Metal Forming)

Further Development Permits

Building Works, Plumbing and Drainage, Operational Works (Landscaping), Operational Works (Changes to Ground Level),

Vehicle Crossover Permit

A The applicant and submitter be notified as required under the provisions of the *Integrated Planning Act* that the assessment manager approves the issue of a Development Permit for Material Change of Use for Industry (Cardboard Box Manufacture and Environmentally Relevant Activity 26 - Metal Forming) subject to the following conditions:

DEVELOPMENT IN ACCORDANCE WITH PLANS

1. An amended plan/s and details shall be submitted generally in accordance with the plans listed in the table below:

Dwg No.	Rev No.	Title	Date	Drawn By
01		Site Plan	Nov 25	W.N. Webb & Associates
02a	а	Part Site Plan	Dec 05	W.N. Webb & Associates
03a	a	Elevation	Nov 25	W.N. Webb & Associates
04a	a	Elevation	Nov 25	W.N. Webb & Associates

showing the following modifications:

Site Plan shall be submitted illustrating a suitable area clear of any existing buildings, significant landscaping etc, for the provision of an additional five hundred and twenty (520) constructed car parking spaces in accordance with AS2890.1. The site plan is to demonstrate that in the event of the use on the subject site changing, or the sale or lease of the site to another party, or an increase in Gross Floor Area/expansion of the development, the required additional car parking spaces can be provided on site. The design and construction of such an area shall be to the satisfaction of the Chief Executive Officer, at no cost to Council and prior to the sale, lease, change or expansion of the site. The amended Site Plan (if deemed satisfactory by the Chief Executive Officer) will become the endorsed plan in the instance of a change of use, sale, lease or expansion of the development.

Such plan/s and details shall be submitted and approved by the Chief Executive Officer prior to the issue of a development permit for the carrying out of building work, or if an application for building work is not required, prior to the commencement of the use the subject of this approval.

Such plan/s and details, when approved by the Chief Executive Officer shall become the endorsed plan forming part of this approval and a stamped copy will be returned to the applicant.

INFRASTRUCTURE CHARGES

- 2. Contributions toward Sewerage Network Infrastructure shall be paid to the Council in accordance with Planning Scheme Policy 3B Policy for Infrastructure Sewerage Network Developer Contributions prior to the endorsement of plan of survey, the issue of a certificate for building works, commencement of use or the carrying out of final plumbing inspection whichever occurs first. Contributions shall be calculated at the rates current at the due date for payment. The demand shall be assessed as follows:
 - (a) At 16 Equivalent Tenements (ET) per hectare (ha), where the Developer is permitted to pay in stages commensurate with the active use of land; and
 - (b) Where the activity uses more than 16ET/hectare, the Developer/use is required to pay additional charges based upon any consumption greater than this allowance; or
 - (c) In the event that the Developer enters Council's standard Commercial and Industry Water Conservation Scheme, the Development shall be assessed at 10 ET per hectare for this whole site.
- 3. Contributions toward Transport Network Infrastructure shall be paid to the Council in accordance with Planning Scheme Policy 19 Policy for Infrastructure Transport Network Developer Contributions prior to the endorsement of the plan of survey, the issue of a certificate for building works or the carrying out of final plumbing inspection whichever occurs first. The amount of the contribution currently is as follows:

Transport Infrastructure – Stapylton Account: 74648 TRANSPRT 1,500.0000 Vehicle Trips per Day @ \$360.00 =

540,000.00

TOTAL

\$540,000.00

Contributions shall be calculated at rates current at due date for payment.

- 4. Contributions toward Water Supply Network Infrastructure shall be paid to the Council in accordance with Planning Scheme Policy 3A Policy for Infrastructure Water Supply Developer Contributions prior to the endorsement of plan of survey, the issue of a certificate for building works, commencement of use or the carrying out of final plumbing inspection whichever occurs first. Contributions shall be calculated at the rates current at the due date for payment. The demand shall be assessed as follows:
 - a) At 16ET/hectare, where the Developer is permitted to pay in stages commensurate with the active use of land; and
 - b) Where the activity uses more than 16ET/hectare, the Developer/use is required to pay additional charges based upon any consumption greater than this allowance; or
 - c) In the event that the Developer enters Council's standard Commercial and Industry Water Conservation Scheme, the Development shall be assessed at 10 ET per hectare for the whole site.

INFORMATION:

By way of background information, Council's current total developer contribution charges for water supply and sewerage are as follows:

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Category 1 Water (W1BEEENL) = $ 2,578/ET
Category 2 Water (W1BEEENL) = $ 2,675/ET
Category 1 Sewerage (S1STPLT) = $ 4,974/ET
Category 2 Sewerage (S2STPLT) = $ 2,610/ET
Total = $12,810/ET
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These charges are indexed quarterly and reviewed from time to time to reflect current planning scenarios and construction costs.

For the development of Lot 2 on RP163654 the developer contribution infrastructure charges for water supply and sewerage are currently \$3.3m based upon 16 ET/hectare (area = 16.1 hectares). If Visy enters Council's Commercial and Industry Water Conservation Scheme, the charges would be \$2.06m if paid today, assessed at 10ET/hectare.

Contributions shall be calculated at rates current at due date for payment.

CAR PARKING & ACCESS

- 5. The applicant shall provide off street car parking at the rate of one (1) space per staff member employed on site at all times, in addition to a minimum of 20 car spaces for visitor parking in Stage 1 and a further 20 visitor spaces in Stage 2. The location, design and configuration of any additional off street car parking area/s required on site to support any increase in staff numbers shall be submitted to and approved by the Chief Executive Officer prior to their construction. At no time shall staff or visitors park vehicles outside the boundaries of the site.
- 6. The applicant is to advise Council in writing in the event of the use on the subject site changing, or the sale or lease of the site to another party, or an increase in Gross Floor Area/expansion of the development. The required additional car parking spaces must be provided on site and the applicant is to provide the additional car parking spaces in accordance with Condition 1 herein. The design and construction of such an area shall be to the satisfaction of the Chief Executive Officer, at no cost to Council and prior to the sale, lease, change or expansion of the site.
- 7. The applicant shall construct a Type 7 driveway at the secondary vehicular access point along Quinns Hill Road East in accordance with GCCC Standard Drawing No. 05-02-301. All works are to be completed to the satisfaction of the Chief Executive Officer, at no cost to Council and prior to the commencement of use on the site
- 8. The applicant shall dedicate, free of cost to Council, land as shown in T-Plan 258 for road widening and realignment purposes along the Quinns Hill Road East frontage. The land dedication shall be to the satisfaction of the Chief Executive Officer and shall be completed prior to the commencement of the use the subject of this approval.
- 9. The applicant shall relocate any building or structure that would encroach into the area required for road widening and realignment purposes along the Quinns Hill Road East frontage as shown in T-Plan 258 to maintain the required set back from the road boundary alignment.
- 10. The applicant shall construct kerb and channel and any associated pavement widening, pavement resurfacing, drainage and verge works along the full length of the Quinns Hill

Road East frontage of the subject site necessary to achieve an Industrial Collector Street profile in accordance with GCCC Standard Drawing No. 05-02-004 and T-Plan 258. Minimum pavement width shall provide for a 3.5m parking lane and 2x3.5m travel lanes. All works shall be completed to the satisfaction of the Chief Executive Officer, at no cost to Council and prior to the commencement of the use the subject of this approval.

11. The applicant shall provide bicycle parking and end of trip facilities in accordance with Section 3.4.23 of Council's Land Development Guidelines 2005 and Chapter 10 of AUSTROADS Part 14 – Bicycles. The minimum bicycle parking facilities provided shall be four bicycle parking spaces in Stage 1 and two spaces in Stage 2.

SERVICES AND UTILITIES - WATER SUPPLY

- 12. The development shall be connected to Council's water supply system prior to the commencement of the use, and at no cost to Council.
- 13. The connection point shall be the existing 300mm main in Stapylton Jacobs Well Road, near the corner of Christensen Road, unless otherwise approved by Gold Coast Water.
- 14. The Developer shall provide an overall water reticulation schematic plan and network analysis for the proposed development to be approved by Gold Coast Water prior to the submission of the Operational Works application for the development.
- 15. The Developer shall construct a new water main (size shall be determined as part of the water network analysis and sized to service this development alone) to the development site unless otherwise approved by Gold Coast Water. An Operational Works application must be submitted to and approved by Council (and the Department of Main Roads) prior to commencement of works.

Note: The construction of works not identified in Council's current planning (ICP 2003) will create a public asset and entitle the Developer to Headworks credits in accordance with Council's Our Living City Gold Coast Planning Scheme Policy 3A - Policy for Infrastructure- Water Supply Network Developer Contributions.

16. In the event that the Developer and Council agree to accelerate the construction of water main services ahead of Gold Coast Water's ICP timetable (works identified in Council's current planning, ICP 2003), then the Developer shall initially fund these works. The Developer shall be eligible to offset the cost of the headworks works against the Category 2 Water Contributions for the Development subject to a bring forward cost penalty (inclusive on any easement acquisition costs). The bring forward adjustment is calculated from the formula:

- 17. In the event that the Developer and Council agree to an External Works Scheme that shares the cost of temporary water works, Clause 12.4.6 of Policy 3A Policy for Infrastructure Water Supply Network Developer Contributions shall apply.
- 18. The applicant shall provide water storage to the level specified in Council's Water Supply Policy for Building Class 1 to 9 dated March 1992.

- 19. Council requires that the development be physically connected to the water supply network prior to the commencement of the use. This shall include the completion of all infrastructure downstream of the development site to the point of connection.
- 20. All live connections to the existing water main are to be performed by Council.

SERVICES AND UTILITIES - SEWERAGE

- 21. The development shall be connected to Council's reticulated sewerage system prior to the commencement of the use and at no cost to Council.
- 22. The connection point shall be the existing manhole 4/1 in Stapylton Jacobs Well Road unless otherwise approved by Gold Coast Water.
- 23. The Developer shall provide an overall sewerage reticulation schematic plan for the proposed development to demonstrate how the development is to be connected to the sewerage network. The schematic sewerage plan must be approved by Gold Coast Water, prior to the submission of the Operational Works application for the Development. Special attention must be given to septicity.
- 24. A private pump station and rising main shall be constructed discharging into the existing sewer manhole 4/1 in Stapylton Jacobs Well Road. An Operational Works application must be submitted to and approved by Council (and the Department of Main Roads) prior to commencement of works.
 - Note: The construction of works not identified in Council's current planning (ICP 2003) will create a public asset and entitle the Developer to Headworks credits in accordance with Council's Our Living City Gold Coast Planning Scheme Policy 3B Policy for Infrastructure Sewerage Network Developer Contributions.
- 25. In the event that the Developer and Council agree to accelerate the construction of sewerage services ahead of Gold Coast Water's ICP timetable (sewerage works identified in Council's current planning, ICP 2003), then the Developer shall initially fund these works. The Developer shall be eligible to offset the cost of the headworks works against the Category 2 Sewerage Contributions for the Development subject to a bring forward cost penalty (inclusive on any easement acquisition costs). The bring forward adjustment is calculated from the formula:
 - Value of the works / $(1 + \text{discount rate}) ^ (\text{Planned construction year} \text{Installed Year})$, where the value of the works is calculated from Council's adopted Unit Cost Report and the discount rate is currently 6%. Therefore, given that the works will be built after 2021, the adjustment factor will then be; Value of the works/ $(1.06)^15 = 0.417 \times \text{Value}$ of the works.
- 26. In the event that the Developer and Council agree to an External Works Scheme that shares the cost of temporary sewerage works, Clause 12.4.6 of Policy 3B Policy for Infrastructure Sewerage Network Developer Contributions shall apply.
- 27. Council requires that the development be physically connected to the sewerage network prior to the commencement of the use. This shall include the completion of all infrastructure downstream of the development site to the point of connection.
- 28. All live connections to the existing sewerage facilities are to be performed by Council.

- 29. Easements shall be provided in favour of and at no cost to Council over relevant Council infrastructure located in private land. The terms of such easements shall be to the satisfaction of the Chief Executive Officer, and shall be executed prior to the commencement of the use the subject of this approval.
- 30. All proposed structures shall be located a minimum distance of 2.0 metres from Council infrastructure (i.e. sewer, stormwater and water).
- 31. That the Developer shall provide a 6 metre wide sewerage easement through Lot 2 on RP163654, from the common boundary of Lot 11 on RP184230 and Lot 12 on RP183506 (the Salmon property) to Lot 2 on WD 4652 at a location acceptable to the Chief Executive Officer. The easement shall be created with two years of issuing of the first Certificate of Classification at the site pursuant to this approval.

LANDSCAPING AND ECOLOGY

- 32. A detailed landscaping plan (prepared by a qualified landscape architect or similar qualified landscape design professional) generally in accordance with landscape plan titled 'Landscape Site Analysis and Concepts' prepared by John Brunn & Mark Reif dated 10/12/05, complying with Planning Scheme Policy 13 Landscape Works Documentation Manual, shall be submitted and approved by the Chief Executive Officer prior to the issue of a development permit for carrying out building work or if an application to carry out building work is not required, prior to commencement of the use the subject of this approval.
- 33. The applicant shall provide appropriate landscaping and plantings along the western site boundary, generally within the area of the proposed dedicated road in Lot 2 on WD4654. Plantings and landscaping should allow for the future construction of an industrial culde-sac within the development site and a driveway connecting to the proposed dedicated road so as to avoid the need for a cul-de-sac head within the adjacent lot.
- 34. All landscape materials, plants, vegetation and watering systems shown on the approved landscaping plan shall be properly maintained to the satisfaction of the Chief Executive Officer.
- 35. The applicant shall provide additional information at the Operational Works Stage in relation to Acid Sulphate Soils so as to demonstrate that the proposed development complies with the provisions of State Planning Policy SPP 2/02.
- 36. The submitted Acid Sulfate Soils Assessment and Management Plan is approved subject to the following amendments:
 - All ambiguous statements such as 'should be' and 'may be', must be replaced with prescriptive statements such as 'shall be' and 'will be'.

It is noted that accurate excavation and fill volume and depth are not currently provided and therefore a full assessment of the potential impacts of the development is not possible. The applicant will therefore be required to submit a detailed investigation at the time of Operational Works (Changes to Ground Level) Application when excavation depth and volume are finalised.

37. All protected size vegetation not located within the construction footprint must be retained. The City Wide Significant tree, spotted gum (*Corymbia henryi*), identified at the south west of the site must be retained. An Arborist report shall be required at Operational Works (Vegetation Clearing) Stage to assess and provide for the ongoing health and vigour of this tree.

38. A QNPWS approved wildlife spotter/catcher must inspect the dam and associated vegetation on site to identify all fauna habitat prior to dam draining and filling. A brief report regarding potential fauna on site and proposed fauna management shall be submitted in conjunction with any future Operational Works Application. A Spotter Catcher shall be required to be present on site during the draining of the dam to ensure that wildlife is unharmed.

CONSTRUCTION

- 39. A Construction Management Plan shall be submitted to and approved by the Chief Executive Officer prior to the issue of a development permit for carrying out building work. The Construction Management Plan shall address all operations associated with the construction of the development including but not limited to parking of vehicles (including on site employees and delivery vehicles) and vehicle access (including responsibility for maintenance of the defined cartage route) during construction hours, building waste / refuse disposal, maintenance of safe pedestrian movement across the site's frontage/s and on-site dust and noise management, so as not to cause unreasonable disturbance of the amenity of the surrounding area.
- 40. The developer shall ensure that the construction of all works to be carried out pursuant to these conditions or as a result of this approval is carried out only between the hours of 6.30am and 6.30pm, Monday to Saturday inclusive. No works will be carried out outside these hours or on Sundays or public holidays, unless prior written approval is given by the Chief Executive Officer.
- 41. During the transportation of soil and other fill material:
 - All trucks hauling soil, or fill material shall have their loads secure and covered; and
 - Any spillage that falls from the trucks or their wheels shall be collected and removed from the site and streets along which the trucks travel, on a daily basis;
 and
 - Prior to vehicles exiting the site, measures shall be taken to remove soil from the wheels of such vehicles to prevent soil and mud being deposited on public roads and streets.

WATER MANAGEMENT

- 42. The developer shall design and construct the proposal to ensure that all stormwater drainage is directed to a Lawful Point of Discharge in accordance with QUDM Section 3.02. Should the development be unable to satisfy the conditions of the first test of QUDM Section 3.02 a detailed drainage plan shall be submitted to Council for approval prior to the issue of the development permit for carrying out building work, or if an application for carrying out building work is not required, prior to commencement of the use the subject of this approval.
- 43. Surface water, resulting from 1 in 20 year storm event and which is collected or concentrated by a building or site works, must be disposed of in a way which avoids the likelihood of damage or nuisance to any other building or property in the neighbourhood to the satisfaction of the Chief Executive Officer.

HYDRAULICS

Stormwater Quality

- 44. Prior to commencement of any work onsite the applicant shall submit amended stormwater management plan confirming the relocation of proposed online bio-retention systems to make off-line and/or increasing the areas of other bio-retention basins for compensation as proposed through the email submission of dated 6 April 2006. This must ensure that water quality objectives on the pollutant loads are achieved in accordance with GCCC guidelines.
- 45. All works shall be conducted, undertaken and completed in accordance with the approved (or to be approved as per conditions of this decision notice) stormwater management plan prepared Cardno Lawson Treloar Pty Ltd of dated December 2005 and the MUSIC model submitted with the Information Response of dated 31 March 2006 at no cost to Council.
- 46. The swale/bio-retention systems shall be designed and installed in accordance with the following design principles:
 - a) The extended detention depth of 0.3 m;
 - b) A sandy loam filter media depth of 400 to 1000 mm;
 - c) Below this filter media is to be a sand transition layer of 150 –200mm;
 - d) Underlying the transition layer is to be a course gravel drainage layer of 150 200 mm that incorporates the slotted AG pipe;
 - e) AG/slotted pipes are to be 100-150 mm in diameter and located at 1.5m centres.
- 47. Prior to commencement of works onsite the applicant shall submit detailed engineering drawings of all stormwater devices identifying inlet and outlet details, riser pipes, inspection maintenance pipes, scour protection/ energy dissipation (if required), weir detail, planting details, outlet and inlet grating details, pipe invert levels and any other typical details which would be necessary for civil construction
- 48. Provide certification from a qualified stormwater engineer/scientist that all stormwater devices have been properly installed and functioning as designed in accordance with the approved stormwater management plan. This certification is to be submitted prior to the commencement of use of the developed site.
- 49. The developer/applicant shall be responsible for all management and maintenance works for all stormwater devices at no cost to Council.
- 50. During all site works the applicant shall ensure that Sediment and Erosion control measures are implemented in accordance with best industry practices, Council's Planning Scheme's Sediment and Erosion Control Constraint Code and the Soil Erosion and Sediment Control Engineering Guidelines for Queensland Construction Sites (The Institution of Engineers, Australia Queensland Division June 1996).
- 51. During all site works, sediment control structures (eg sediment fences) shall be placed at the base of all material imported on-site to alleviate any possible sediment runoff.

STORMWATER QUANTITY

52. All works shall be conducted, undertaken and completed in accordance with the approved (or to be approved as per conditions of this decision notice) hydraulic report titled *Visy Project, Stapylton: Flooding Investigation* prepared Cardno Lawson Treloar Pty Ltd of dated December 2005 and email submission of dated 6 April 2006 at no cost to Council.

- 53. Prior to commencement of work onsite the applicant shall submit detailed engineering drawings of the proposed drainage path including scour protection and energy dissipation measures, and details of all control systems for Council's approval.
- 54. Prior to commencement of works onsite the applicant shall submit certification from the hydraulic consultant confirming that the proposed drainage system is sustainable for the lifetime of the development having a number of 90° bends along its path and will not cause any adverse impact external to the site.
- 55. Prior to commencement of works onsite the applicant shall submit detailed engineering drawings of proposed detention basin including stage-storage characteristics and identifying inlet and outlet details, scour protection/ energy dissipation (if required), weir detail, and any other typical details, which would be necessary for civil construction.
- 56. Provide certification from a qualified stormwater/hydraulic engineer that the detention basin has been properly installed and functioning as designed in accordance with the approved configuration and design of the basin as stated above. This certification is to be submitted prior to the commencement of use of the developed site.
- 57. Prior to commencement of work onsite the applicant shall provide certification from the hydraulic consultant that the overall development including the road crossing to the drainage path complies QUDM and flood constraint codes' requirements in relation to maximum inundation depths and product of velocity and depths.
- 58. The proposed development shall result in no adverse impact external to the subject site in relation to stormwater drainage and/or local catchment flooding during storm/flood events up to and including the 100-year ARI event.
- 59. The applicant shall dedicate a drainage easement along the major flow path carrying external flows through the site of 3m width or the width of the drainage system, whichever is higher, in favour of and at no cost to Council.

GENERAL

- 60. A copy of the Decision Notice and accompanying approved plans for this material change of use shall be submitted with any application for the carrying out of building work
- The applicant shall comply with all plans, reports, and details submitted to and approved by Council or its delegate pursuant to these conditions of approval.

CONCURRENCE AGENCY CONDITIONS

Department of Main Roads Conditions attached.

ADVISORY NOTES

- B That the Applicant be advised that nothing in this Decision Notice alleviates the need to observe all relevant legislation including standard requirements of the Building Code of Australia, Council's Planning Schemes, and Local Laws.
- C All approvals regarding the development's Refuse and Recycling Services shall be sought from the Health and Regulatory Services Branch of Council prior to commencement of the use the subject of this approval.

D The majority of advertising devices require a license under Council's Local Law 7 (Control of Advertising Devices). The Applicant shall ensure that prior to the erection of any advertising devices, contact is made with Council's Health and Regulatory Services Branch on (07) 5581 6140 to discuss requirements and necessary applications.

NOTICE OF INDIGENOUS CULTURAL HERITAGE LEGISLATION AND DUTY OF CARE REQUIREMENT

The Aboriginal Cultural Heritage Act 2003 commenced in Queensland on April 16, 2004. The Act is administered by the Department of Natural Resources, Mines and Energy (DNRM&E). Under the new Act, Indigenous parties are key in assessing cultural heritage significance.

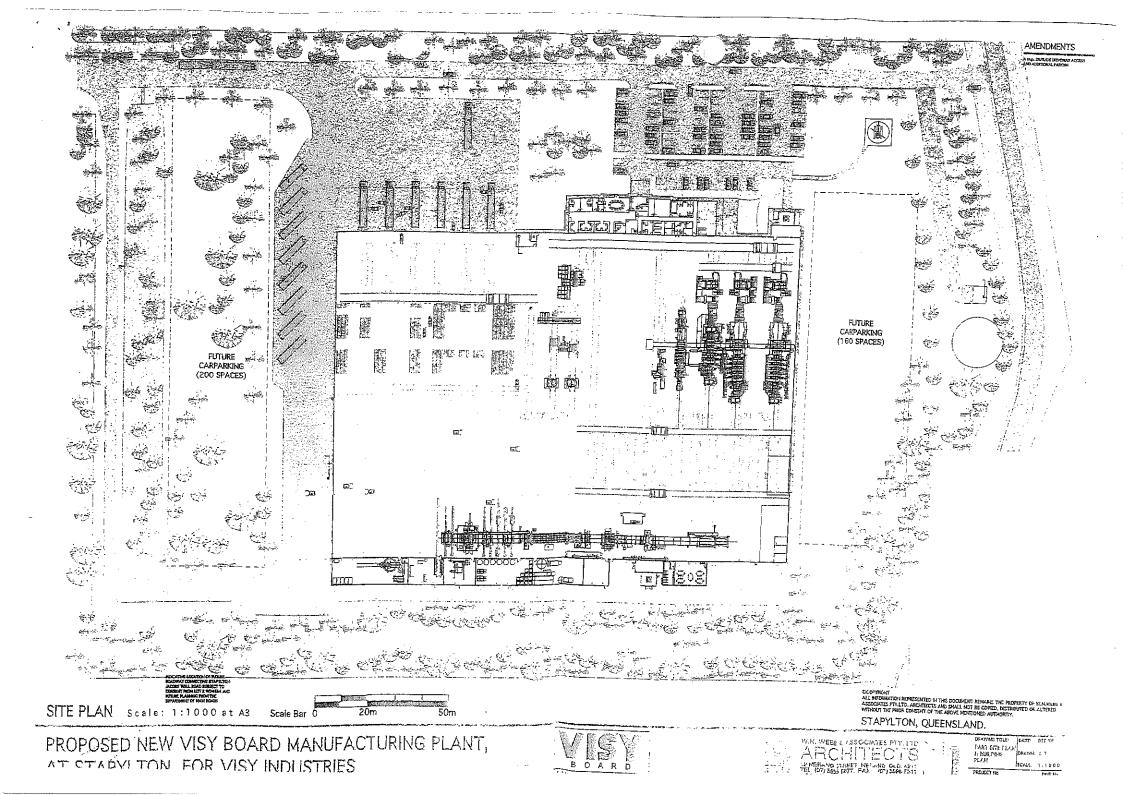
The Aboriginal Cultural Heritage Act 2003 establishes a Duty of Care for Indigenous cultural heritage. This applies on all land and water, including freehold land. The Cultural Heritage Duty of Care lies with the person or entity conducting an activity.

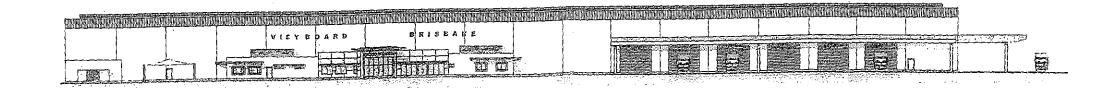
Penalty provisions apply for failing to fulfil the Cultural Heritage Duty of Care.

E

Those proposing an activity that involves additional surface disturbance beyond that which has already occurred at the proposed site need to be mindful of the Duty of Care requirement. Details of how to fulfil the Duty of Care are outlined in the Duty of Care Guidelines gazetted with the Act.

Council strongly advises that you contact DNRM&E's Cultural Heritage Coordination Unit on 3238 3835 or 3238 3839 to obtain a copy of the Duty of Care Guidelines and further information on the responsibilities of developers under the terms of the *Aboriginal Cultural Heritage Act 2003*.





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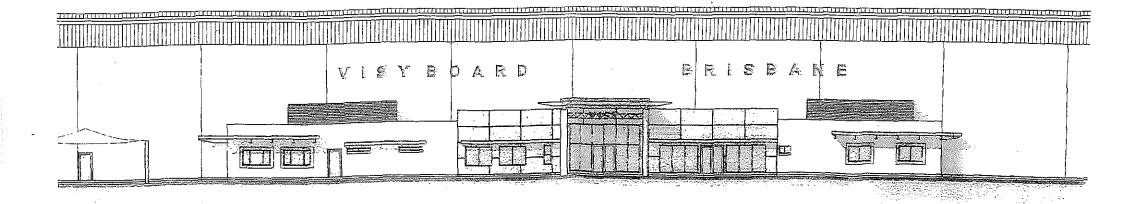
STAPYLTON, QUEENSLAND.

ELEVATION Scale: 7:500 at A3

PROPOSED NEW VISY BOARD MANUFACTURING PLANT, AT STAPYLTON. FOR VISY INDUSTRIES







PART ELEVATION (Office Component) Scale: 1:200 at A3

PROPOSED NEW VISY BOARD MANUFACTURING PLANT, AT STAPYLTON. FOR VISY INDUSTRIES



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STAPYLTON, QUEENSLAND.

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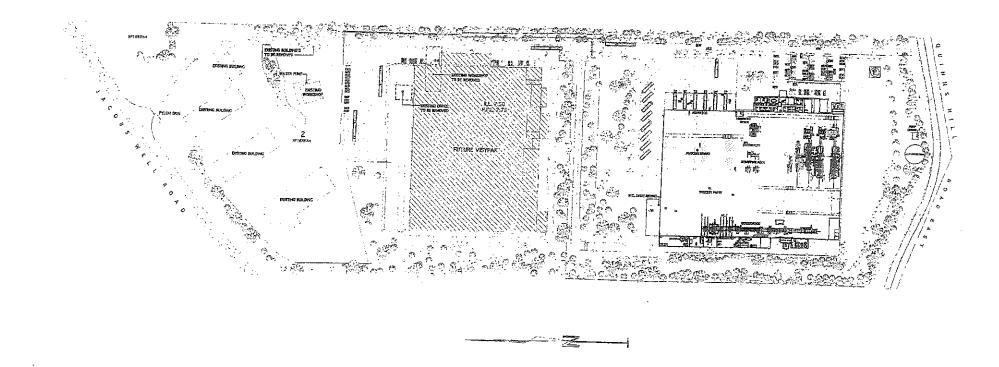


DRAWNS TITLE: DATE: NOV.2

ELEVATION DRAWN: L.T.

SCALE: 1:20

S2949



SITE PLAN Scale: 1:2500 at A3 Scale Bar 0 20m



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STAPYLTON, QUEENSLAND.





PROJECT No. \$2949

PROPOSED NEW VISY BOARD MANUFACTURING PLANT, AT STAPYLTON. FOR VISY INDUSTRIES

REFERRAL AGENCY CONDITIONS

Department of Main Roads

Condition 1 - Access:

The location and standard of the existing access as shown on the Site Plan prepared by W.N. Webb & Associates Architects - Drawing No. 01A is approved as a temporary all movements access. The Applicant is required to apply to Main Roads for a permit to allow for this temporary access through an Ancillary Works and Encroachment (AWE), under Section 50 of the Transport Infrastructure Act 1994. This permit is to be limited for a period of four (4) years or until such time as an alternative access to Stapylton Jacobs Well Road is available. The applicant must obtain AWE approval from Main Roads prior to commencement of the proposed use.

Condition 2 - Access to be removed:

The applicant shall remove the western most existing allotment access off Stapylton Jacobs Well Road and reinstate the area between the road edge and the property boundary to its pre-existing condition. You are not allowed to carry out any work in the state-controlled road reserve until you have a works permit. Please phone Graham Kent on 0418190708 to arrange a prestart meeting. Please allow about five working days notice. You will be given your works permit at this meeting.

Condition 3 - Road Impact Contribution

The Applicant is required to provide contributions to the Department of Main Roads in the amount of \$7081.22 in accordance with the Road Impact Assessment (RIA) prepared by Skildtraffic dated 23 March 2006.

Condition 4 - Setback:

The development shall incorporate the appropriate Local Government building setback from the future property boundary, as indicated on attached Main Roads' Plan No. 1003/TP06020. Main Roads will not accept any permanent structure in the land shown as required on the sketch.

Condition 5 - Landscaping:

The applicant is required to close of vehicular access to/from Stapylton Jacobs Well Road from Quinns Hill Road. The informal access track unlawfully being utilised at the northern end of Quinns Hills Road is to be 'planted out' in the State Controlled Road reserve across. The applicant shall apply to the Department of Main Roads for an AWE Permit to landscape this area. Details of the proposed landscaping are to be submitted to the department for approval.

Condition 6 - Construction within the State-controlled road reserve:

The applicant shall apply to Main Roads for construction approval under Section 33 of the Transport Infrastructure Act 1994 before commencing any work. The application must include detailed engineering drawings of the proposed works. The drawings shall be prepared in accordance with Main Roads requirements.

Condition 7 - Environmental (dust):

The applicant shall submit for Main Roads' approval, the actions proposed to prevent dust from the site causing a nuisance.

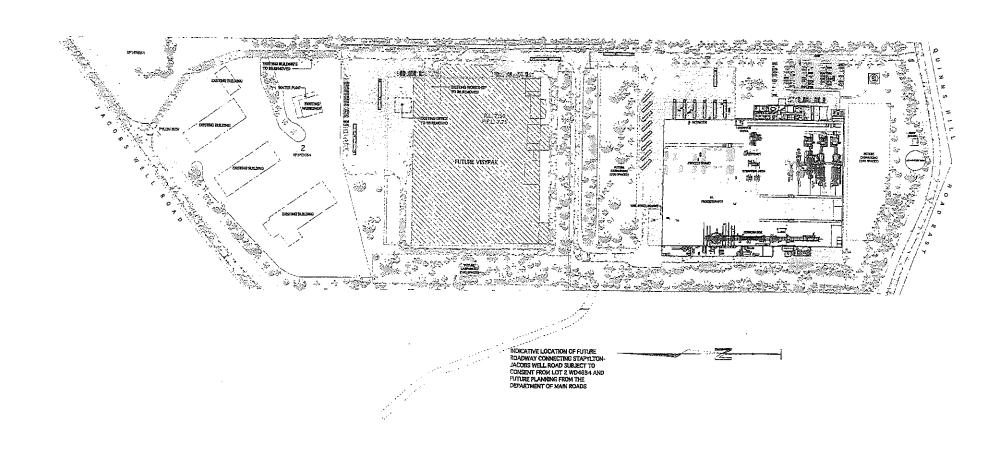
SCHEDULE 2

Condition 8 - Environmental (debris):

The applicant shall submit for Main Roads' approval, the actions proposed to prevent debris being carried onto the state controlled road.

Condition 9 - Compliance:

The applicant shall provide Council with a letter from Queensland Department of Main Roads confirming compliance by the applicant with the requirements of the department prior to commencement of any new use of the land.



PROPOSED NEW VISY BOARD MANUFACTURING PLANT, AT STAPYLTON. FOR VISY INDUSTRIES

SITE PLAN Scale: 1:2500 at A3 Scale Bar 0 20m





STAPYLTON, QUEENSLAND. 5CALD 1:2500 PROJECT No. S2949 01A

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ANNEXURE 'F'

Statement of Reasons

REASONS FOR DECISION ON DEVELOPMENT APPLICATION CALLED IN ON 7 JULY 2006 BY THE MINISTER ADMINISTERING THE INTEGRATED PLANNING ACT 1997

Requirement for statement of reasons

Pursuant to section 3.6.9(2)(f) of the *Integrated Planning Act 1997* (IPA) I am required to state reasons for the decision by me, on the development application by Gassman Development Perspectives Pty Ltd ("Gassman") on behalf of Visy Industries Australia Pty Ltd ABN 58 005 787 ("Visy Industries") for a proposed cardboard box manufacturing plant which was approved by the Gold Coast City Council on 2 May 2006.

Evidence or other material on which findings on material questions of fact are based

In forming my decision to approve, subject to conditions I have specified, the development application made by Gassman on behalf of Visy Industries, I had regard to the following material:

Documents

All material about the application the Gold Coast City Council ("the Council")
had before the application was called in, and any material received by the
Council after the application was called in, as required to be provided
pursuant to section 3.6.7(2) of IPA. The material was provided by the Council
on 10 July 2006.

I had particular regard to the following:

- 1. Letter dated 2 May 2006 from Council to Visy Industries C-/ Gassman Development Perspectives enclosing the Decision Notice.
- 2. the development application lodged by Gassman dated 23 December 2005;
- 3. the Acknowledgment Notice for the development application issued by the Council dated 17 January 2006;
- 4. a letter dated 1 February 2006 from Council to Gassman advising that the Council as assessment manager elected to extend the information request period by a further 10 business days;
- 5. a letter dated 2 February 2006 from the Department of Main Roads ("DMR") to Gassman advising that DMR intended to extend the information request period by a further 10 business days;
- an email dated 15 February 2006 from David Kretchmann of Gassman to the Council;
- 7. a letter dated 16 February 2006 from DMR to Gassman requesting further information:

- 8. an email dated 23 February 2006 from David Kretchmann of Gassman to Council advising that public notification had commenced;
- Request for additional information from Council to Gassman dated 2 March 2006;
- a Notice of Compliance dated 20 March 2006 showing that public notification had commenced on 27 February 2006 and terminated on 17 March 2006;
- 11. a letter dated 31 March 2006 from Gassman to Council enclosing response to Council's request for additional information;
- 12. Legal Advice from Philips Fox to Gassman dated 8 March 2006;
- 13. the referral agency response from DMR dated 10 April 2006;

(...)

- 14. Minutes from the 399th Council Meeting, 24 April 2006, Item 4 Implementation and Assessment Branch;
- 15. Submission dated 16 March 2006 received and properly made under the legislation by Pat Cash Properties on behalf of Bermuda Pty Ltd, the sole submitter:
- 16. a letter dated 20 April 2006 from Home Wilkinson Lowry to Council;
- 17. Notice of Appeal filed by Bermuda Pty Ltd on 22 June 2006 in the Planning & Environment Court;
- 18. Gold Coast City Council's Decision Notice dated 2 May 2006.
- Ministerial Statement dated 22 November 2005, Visy Industries, The Honourable Anna Bligh, (then the Deputy Premier, Minister for Finance and Minister for State Development, Trade and Innovation).
- Planning Assessment Report dated December 2005 submitted by Gassman Development Perspectives Pty Ltd on behalf of Visy Industries.
- Letter dated 11 April 2006 from Richard Pratt to The Honourable Anna Bligh, Deputy Premier, Treasurer and Minister for State Development, Trade and Innovation.
- Letter dated 3 May 2006 from Peter Bittner, Partner, Home Wilkinson Lowry to Tony DiPaolo, General Manager – Procurement, Visy Industries Pty Ltd.
- Letter dated 29 May 2006 from Richard Pratt to Ross Rolfe, Coordinator General and Director-General of the Department of Premier and Cabinet and Claire Single, Manager, Deputy Coordinator General's Office.
- Notice of Appeal filed on 22 June 2006 in the Planning & Environment Court by Home Wilkinson Lowry for the appellant, Bermuda Realty Pty Ltd.
- Facsimile dated 26 June 2006 from Peter Bittner to Tom Dickson for service on The Crown Solicitor attaching, by way of service, Bermuda Realty's Notice of Appeal.

- Letter dated 28 June 2006 from Tony Di Paolo, GM Procurement, Visy Industries to The Honourable Anna Bligh, Deputy Premier, Treasurer and Minister for State Development, Trade and Innovation;
- Yatala Enterprise Area Local Area Plan forming part of the Our Living City Gold Coast Planning Scheme.
- A comprehensive plan developed under the Smart State World Class Manufacturing Project Making Queensland's Future – A Manufacturing Development Plan.
- File note dated 29 June 2006 of verbal advice given on 29 June 2006 from the Planning & Environment Court Listings Manager that the matter is unlikely to be heard by the Court before November and is also subject to appeal to superior Courts.
- South East Queensland (SEQ) Regional Plan produced by the Office of Urban Management Queensland, released 30 June 2005.
- Legal Advice from Clayton Utz dated 5 July and 19 July 2006.
- Advice from Counsel dated 24 July 2006.

Legislation

- Integrated Planning Act 1997
- Acts Interpretation Act 1954

Findings on material questions of fact

From the material I have had regard to, I made the following findings of fact:

- On or about 23 December 2005, Gassman made a development application on behalf of Visy Industries to the Council for a development permit for making a material change of use for Industry (Cardboard Box Manufacture) and Environmentally Relevant Activity 26 (Metal Forming) in respect of the land. The application sought approval for a development permit allowing material change of use on the site to establish a cardboard manufacturing plant to manufacture corrugated fibreboard boxes using recycled materials and food and beverage packaging containers.
- The plant is designed to use wholly recycled materials.
- The use of recycled materials has important environmental benefits as it will make a significant contribution to reducing the amount of landfill in Queensland. The reduction of landfill is a stated principle in Part 10.7 of the South East Queensland Regional Plan 2005, including the Draft Amendment 1, March 2006 ("SEQ Regional Plan").
- The development will produce significant flow on economic benefits for the State by encouraging investment in this type of industry in Queensland. The

State of Queensland is working towards industry development and investment as part of its 20 year plan (SEQ Regional Plan).

- The application falls within the Gold Coast City Council local government area and is included within Precinct 4 (Future Business and Industry) of the Yatala Enterprise Area Local Area Plan forming part of the Our Living City — Gold Coast Planning Scheme.
- The original assessment manager, Gold Coast City Council, assessed the application having regard to the matters required by the *Integrated Planning Act 1997* and made a decision to approve the application.
- Conditions were formulated by the Council as the original assessment manager consequent upon the assessment and were attached to the original development approval.
- No negotiated decision was sought from the Council as the original assessment manager.

Reasons

For the following reasons, I am of the opinion that the development application made should be approved, subject to conditions set out in the Schedules attached to the Decision Notice of Ministerial Call In:

- Approval of the development application will provide for the development of a manufacturing plant using world class machinery and equipment. The development will provide Queensland with a competitive advantage over other Australian States and Territories with respect to large manufacturing operations and highly automated plants, employing senior engineering professionals and highly skilled trade staff.
- The manufacturing plant will result in significant environmental benefits by using recycled materials which will assist in decreasing landfill in Queensland.
- The development proposal will create permanent employment opportunities during the plant's operation and substantial employment opportunities during construction.
- The development will increase export opportunities for Queensland.
- Completing the assessment process in a timely manner will encourage future investment in this type of industry in Queensland. The State of Queensland has been working towards implementing and encouraging investment of this nature in Queensland for some time as it will provide a significant economic boost to the State. The development will assist the State of Queensland in demonstrating how it is meeting its Smart State position objectives and will assist in building the reputation and confidence for future investors into the State.
- The approval decision has been appealed to the Planning and Environment Court. There is no certainty as to the final outcome of the appeal or the timeframe to achieve an outcome.

- Whilst the conditions proposed by the Gold Coast City Council are appropriate, I am of the view that Condition 5 proposed by DMR can be enforced in an alternative way.
- I decided not to include Condition 5 proposed by DMR as Condition 5 is able to be dealt with through a separate infrastructure agreement between Visy Industries and DMR.

PETER BEATTIE MP

PREMIER AND MINISTER FOR TRADE