

Statement of Witness

Queensland Floods Commission of Inquiry

<i>Name of Witness</i>	Nicholas John WHITE
<i>Date of Birth</i>	[REDACTED]
<i>Address and contact details</i>	Hume Street, Woodend Qld 4305
<i>Occupation</i>	Business owner
<i>Officer taking statement</i>	Detective Sergeant Stephen Platz
<i>Date taken</i>	11 th October 2011

Nicholas John WHITE states:

1. I am a [REDACTED] year old male presently residing at [REDACTED] Hume Street, Woodend with my partner, Elizabeth TILBROOK. This house was purchased this house in 1980. Our house is located on the western bank of the Bremer River and is approximately 22 metres above river level. Our house is a three bedroom, highset, Queenslander style wooden dwelling that was built in the 1850's and is located in the Ipswich Parish, [REDACTED]. The land zone in our area is classed as residential.
2. At the time of purchasing our house we conducted the normal property searches as well as further research concerning flood. As a result of inquiries through word of mouth and flood maps, we learnt that in 1893 our house was inundated to the roof level but survived due to its traditional structure. In 1974 the water came up to about half way up the stumps of the house and did not inundate the floor level. We were aware that our area was flood prone but were satisfied that our house was sufficiently resilient to flood based on this information.

QFCI

Date:

28/10/11

JM

Exhibit Number:

904

Witness Signature

Page Number 1 of 8

Signature of officer

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1 800 65 959 415 158

3. In January 2010 we became aware of an operational works application for the land directly across the Bremer River from our house, at the southern end of the North Ipswich Railway Yards. I have photographs of this site prior to development and am able to produce these.

Exhibit; **Photographs of aforementioned site Part of [REDACTED]**
[REDACTED] prior to subdivision and development

Marked Exhibit No/...

4. I learnt that the applicant, Leda Design and Construction (Qld) Pty Ltd had plans to develop this site for a high density residential development. I reviewed the material that was available on-line which proposed the shifting of contaminated soil from stockpiles on the site in order to build steeper river banks. We had a number of concerns about this proposed development, which included; increased flooding towards our property; toxic contamination; erosion to properties on the opposite bank; increased dust and a flawed vegetation management plan. We detailed these concerns in an objection to the proposed development that we sent to the Ipswich City Council on the 20th January 2010.

Exhibit: **Objection to Planning Application OW 6291/2009 & MCU**
- 6293/2009 dated the 20th January 2010

Marked Exhibit No/...

5. On the 5th February 2010 my partner and I sent in an objection to this application due to our further concerns of toxic fill and subterranean fires at the site. I am able to produce this letter.

Exhibit: **Objection to Planning Application OW 6291/2009 & MCU**
- 6293/2009 dated the 5th February 2010

Marked Exhibit No/...

6. On the 8th June 2010 the Ipswich City Council (ICC) responded to our concerns outlined in our previous objections. I am able to produce this response from the council.

Exhibit: Letter from Ipswich City Council dated 8 June 2010 regarding objections to Material Change of Use Application

Marked Exhibit No/...

7. Within this letter the council mentioned that a flood impact study had been conducted and was submitted with the development application. I subsequently requested a copy of the flood study which was sent to me by Aaron KATT, the Senior Engineering officer on the 27th August 2010. I am able to produce this flood study.

Exhibit: Cardno Riverlinks Central Flood Study dated 23rd July 2008

Marked Exhibit No/..

8. Upon analysing this report I identified a number of areas that I think were deficient in the study. The areas I identified included; failure to include 100 year flood scenarios; modelling based on data that does not include post 1974 flood impact; the instability of the proposed site area as a result of the planned 19.5 m platform; failure to study likely flood scenarios and erosion of properties on the west bank. I outlined these areas plus further points in an e-mail to Aaron KATT on the 31st August 2010. I am able to produce this e-mail and his response on the 1st September 2010.

Exhibit: E-mail to Aaron KATT in relation to Cardno Flood Study and subsequent response.

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Witness Signature.
Page Number 3 of 8

Signature of off

9. I later received a response from Cardno concerning the areas identified in my e-mail. This response still did not explain how the constriction of the river profile would cause flood levels and velocities to decrease. On the 23rd of November 2010 I sent an e-mail back to Aaron KATT highlighting this issue. I am able to the Cardno response and my return e-mail.

Exhibit: Cardno response with regards to property owner's concerns and E-mail sent to Aaron KATT in relation to Cardno response dated 23rd November 2010.

Marked Exhibit No/...

10. Due to my further inquiries on this issue I learnt that an Operational Works development permit had been issued for Lots [REDACTED] North Ipswich. I also obtained a copy of this permit issued by [REDACTED] of the ICC. I am able to produce a copy of this document.

Exhibit: Operational Works Development Permit, Application number 3262/10, for Lots 51-55 SP222487 dated 15th July 2010

Marked Exhibit No/...

11. I was not happy with regards to the approval for this permit. It appeared that the council had dismissed our reasonable objections and our concerns, relying instead on the developer, Leda Holdings Pty Ltd having done due diligence

Witness Signature.
Page Number 4 of 8

Signature of office

12. In November 2010 I learnt that the ICC had approved the development application for Lot 55 of the said location. I subsequently obtained copies of this application and a report from Energex concerning the material change of use for this site. I am able to produce these copies.

Exhibit: Development Application Decision Notice for Lot 55 on SP222487 and Energex report with regards to this site

Marked Exhibit No/...

13. On the Wednesday the 12th January 2011 after significant rain and flooding in the region, the Bremer River peaked and flooded properties to our North at the river bend. The water rose to 19.5 metres above the normal river height and came to our back retaining wall. We suffered flood damage to a small workshop that I have below the retaining wall but there was no flood incursion into our premises. I observed that the land across the river, the site of the proposed development, was totally submerged. I am able to produce photographs of the site during the flood.

Exhibit: Series of photographs of Lots 51-55 SP222487 during the January 2011 flood

Marked Exhibit No/...

14. At this time I was aware that the rail line height was more than 19.5 metres and it was covered with water. I am able to produce a Bureau of meteorology graph showing the peak height on the 12th of January 2011 at the Bremer River.

Exhibit: Bureau of Meteorology graph indicating river heights for the Bremer River during the January 2011 floods.

Marked Exhibit No/...

15. I also obtained a 'NearMap' photograph of the Bremer River at the site of the proposed development, which he was taken the day after the flood peak. I am able to produce this photograph.

Exhibit: Nearmap photograph of the Bremer River captured on the 13th January 2011

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16. On Monday the 21st day of February 2011 I observed work continuing at the proposed site. Since this time the river bank has been extended, creating a platform 19.5 metres above river height. I am able to produce a Riverside central plan and a Nearmap image displaying the elevated platform to 19.5 RL.

Exhibit: Riverside Central Site Plan depicting Elevated platform to 19.5 metres adjacent to the Bremer River

Marked Exhibit No/...

17. I have sent a number of objections to this development to various agencies and departments. I have outlined these concerns within letters to the Ipswich Electorate Officer, the Premier, the Reconstruction Authority and the Queensland Floods Commission of Inquiry. I am able to produce these letters which outline my concerns to this development.

Exhibit: E-mail to Ipswich Electorate office dated 15th February 2011

Marked Exhibit No/...

Exhibit: E-mail to Queensland Redevelopment Authority dated 1st of March 2011

Marked Exhibit No/...

Exhibit: Letter to Queensland Premier dated 5th of August 2011

Marked Exhibit No/...

Exhibit: Letter to Queensland Premier dated 15th of September 2011

Marked Exhibit No/...

Exhibit: Submission to Queensland Floods Commission of Inquiry

Marked Exhibit No/...

18. In summary we believe that the whole process with regards to the approval of the Riverside Central development did not involve or take into consideration the residences on the opposite bank of the Bremer River. The opportunity to make a public submission concerning their proposals was limited and the attaining of applications and other supporting documents was difficult. None of our concerns have been suitably addressed. In summary our concerns relate to; the inappropriate re-profiling of the riverbank, which I believe will increase flood risk and flood flows; failure of the Council to obtain 3rd party review of the 2008 Cardno Flood Study which I believe is flawed as it used inappropriate modelling tools; inappropriate use of the river bank to store contaminated fill; the potential for increased storm water run off into the Bremer river from the development, causing scouring on our side of the river; and the high flood risk for the many hundreds of units that are proposed for the Riverside Central site (most to be built approximately 2 metres below the Temporary Local Planning Instrument level) will endanger lives and property in future floods. As the earthworks for Riverside Central have been continuing unabated since the flood, it is apparent to me that both state government and local council are conflicted when choosing between

Witness Signature, . Signature of officer 

encouraging development and avoiding the tragic loss of life and property through inappropriate floodplain development.

N. WHITE

Justices Act 1886

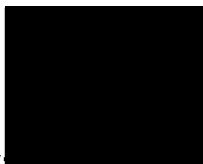
I acknowledge by virtue of section 110A(5)(c)(ii) of the Justices Act 1886 that:

- (1) This written statement by me dated 11/10/2011 and contained in the pages numbered 1 to 8 is true to the best of my knowledge and belief; and
- (2) I make this statement knowing that, if it were admitted as evidence, I may be liable to prosecution for stating in it anything that I know is false.

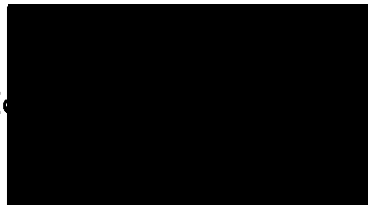
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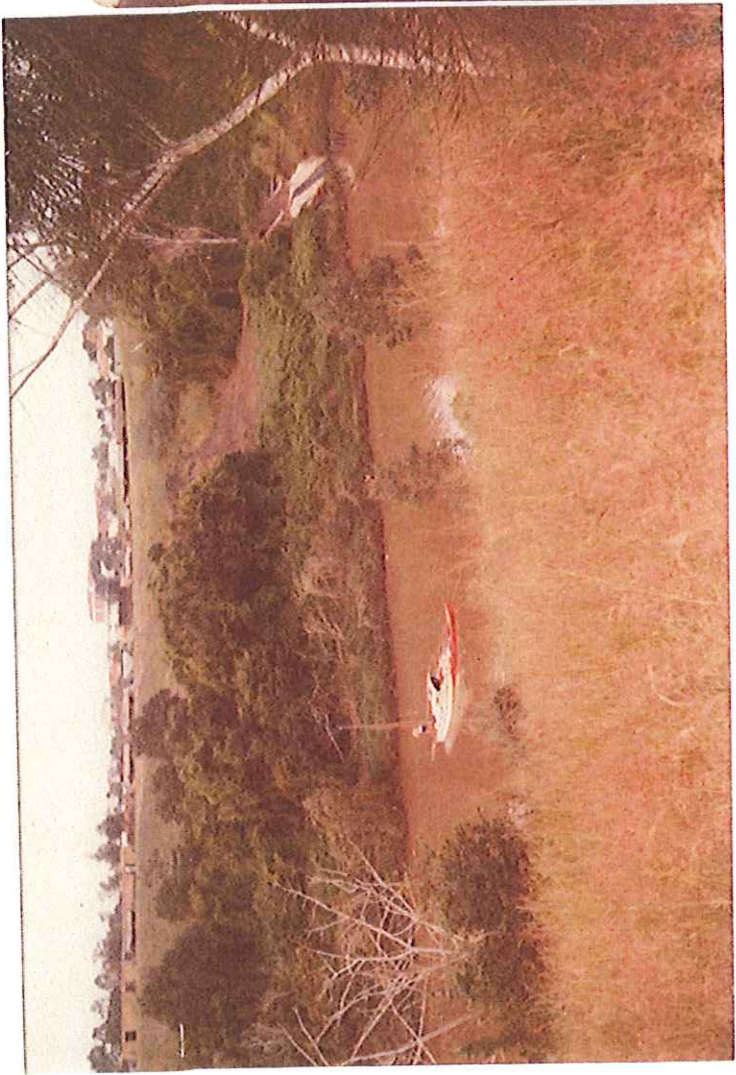
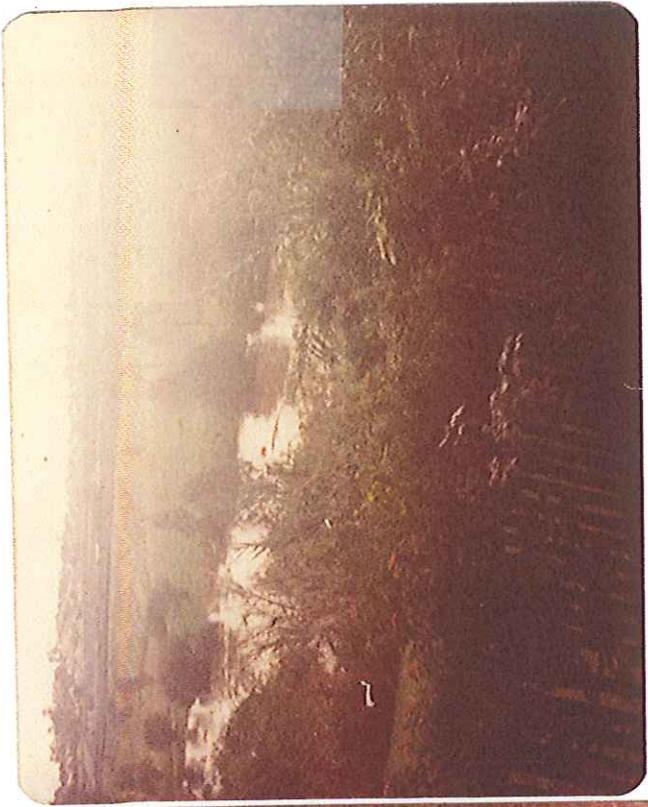
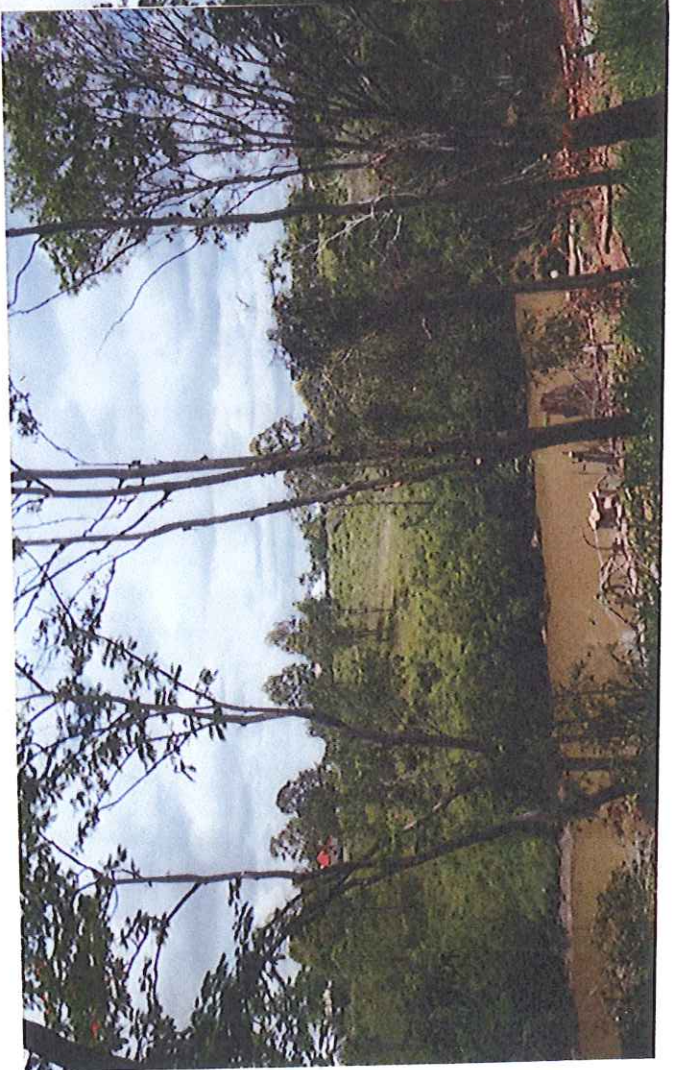
Signed atIpswich...this...14th day of.....October.....2011

Witness Signature



Signature of officer





Nick J White & E Tilbrook

■ Hume St
Woodend Qld 4305
Ph: ■■■■■■■■■■
Email: ■■■■■■■■■■

Your ref: ■■■■■■■■■■

20 January 2010

Chief Executive Officer
Ipswich City Council
PO Box 191
Ipswich Qld 4305

Dear Sir,

Re: Objection to Planning Application OW 6291/2009 & MCU -6293/2009
Address: North & WM Hughes St, North Ipswich
Description:
Applicant: Leda Design and Construction (Qld) Pty Ltd
RPD: Part of Lot 36 on SP175172

Formal notification of objection to the application is hereby given. We have reviewed the material available online concerning an application for Material Change of Use made by Lipoma Pty Ltd and wish to make the following submission in relation to the application.

Whilst it is appreciated that higher density inner city developments are essential for managed growth, the Council should resist the clamor to absolutely maximise the housing density when there could be ramifications for future liability for ratepayers and taxpayers. Collingwood Park residents faced with issues of major subsidence and structural damage are suing the Council and the State Government, and the nature of this site could well lead to the same outcome.

In a letter dated 20 July 2007 Geoff Doyle stated that "Council has undertaken the appropriate enforcement action to:

- (a) cease any additional waste depositing at the site, and
- (b) have the material appropriately removed and managed in a manner that will involve all reasonable measures to minimise the health and environmental risks identified with this activity and the site."

Since this time the only activities on the site have been to add to the stockpiles.

The reasons for objection are:

1. Exposure for future liability for ratepayers and tax payers when subsidence/toxic contamination/flooding issues are raised
2. Erosion to properties on opposite bank
3. No/insufficient dust/contaminant control strategy
4. Vegetation management plan is flawed

Details of each objection are explained below.

1. (a) Future liability - subsidence issues

From my reading of the proposal, the DA proposes to shift contaminated soil (Levels 1-3) from the stockpiles and build up steeper riverbanks. This plan does not adequately address the fact that a lot of this site is underlaid by fill of an unknown nature.

(b) Future liability - contamination issues

An assessment by GHD in 1998 found the site failed to meet criteria for an educational institution. Extensive further stockpiles of material have been dumped on the site in the interim, and with rain events toxic substances will have leached from these later deposits into lower layers. The development proposal refers only to shifting the recent stockpiles. There is no remediation proposed for the contaminated material deposited by QR on this unit development site, other than covering it with a couple of meters of 'mildly' contaminated soil. There is no planned closed cell containment of the QR contaminated material. However, one of the original criteria for development of the site was that the contamination issues of the bare site were to be addressed. *It is unacceptable that this be forgotten in this DA.* There is a wealth of anecdotal evidence that suggests there is contaminated areas that would need to be isolated both above and below the fill that Leda/Limpoma have deposited. There is a lot of documentation of contamination that has been ignored.

The current Remediation Plan acknowledges "old QR fill" in one place in their proposal. The volume of this fill is not quantified, there has been no sampling carried out, and it has been classified as "class 3" (Attachment 1, Appendix 7 Remediation Plan). This should be verified. The GHD study identifies areas of severe contamination. We dispute that the QR fill is Class 3: as shown by the QGH report. This site was only previously approved for industrial and commercial development (refer pdonline map 0024D681.001.pdf).

This current Lipoma proposal is unsatisfactory as it ignores the QR contaminated material and could lead to future health risk to residents, and future liability to ICC ratepayers and Queensland taxpayers.

(c) Future liability - flood issues

The DA proposes to shift material from the stockpiles to the riverbank areas (wide gully and extended river platform). This will have the effect of artificially steepening the river bank profiles. In the event of a flood this will increase the local flood level, locally raising the RL100 and adversely impacting on properties. This would affect our property as well as many more in the Woodend/North Ipswich area and could lead to future liability for ICC and Qld government tax payers.

2. Erosion

Currently the storm water drain from the Leda site directs storm water across the river, causing erosion and slumping to the riverbank opposite. On page 6 of the Cardno Riverlinks Central Flood Study, it is stated "the peak discharge will increase as a result of the development" - and this will scour the opposite side of the river with increased velocity - and cause more loss of land on this property at [redacted] Hume St Woodend. We have already lost land with the current arrangement. We do not want to lose more.

Also, the Cardo study assumes normal porosity on the site. This is an error as the site currently has higher than normal porosity owing to much of the site being composed of ash and unconsolidated fill (see Figure 1). The construction plan would have the effect of increasing the runoff from hard surfaces and decreasing the porosity of the site, resulting in substantially more peak flow discharge.

3. Dust control/contaminated soil management issues

There appears to have been no dust control nor contaminant monitoring during continued, recent dumping on site and during the construction of the medical centre. Note that this was occurring on a stockpile that was supposed to have been removed (as per correspondence from [redacted] SEHO ICC, letter dated 20/07/07) and is rated Level 3.

4. Vegetation Management Plan

(a) Council is developing a Waterways Health Strategy that requires various buffer zones for streambank management. There is no mention of these parameters in the DA.

(b) There are several notifiable weed species on site (Groundsel and Annual rag weed). These should be removed.

(c) DA proposes to remove all trees from the building site for ease of construction. This requires the removal of several mature eucalypts. This would be removing remnant native vegetation and wildlife habit. This is not in accordance with the Council's Waterways Health strategy.

Leda should not be allowed any more Planning Application Approvals on this North Ipswich site before they have completed the site remediation and decontamination.

There should be stringent monitoring of the river water.

Yours faithfully,



NJ White and EN Tilbrook

Figure 1



E Tilbrook
Hume St
Woodend Qld 4305
Ph: [REDACTED]
Email: [REDACTED]

Your ref: OW 6291/2009 & MCU -6293/2009

05 February 2010

Chief Executive Officer
Ipswich City Council
PO Box 191
Ipswich Qld 4305

Dear Sir,

Re: Objection to Planning Application OW 6291/2009 & MCU -6293/2009
Address: North & WM Hughes St, North Ipswich
Description:
Applicant: Leda Design and Construction (Qld) Pty Ltd
RPD: Part of Lot 36 on SP175172

Formal notification of objection to the application is hereby given to the DA as it currently stands.

The site has a history of subterranean fires. The current DA does not address this issue. The current DA does not propose to remove the material that was dumped and filled by QR on the riverbanks. Any ground fire on the site can ignite a seam of this material as there are many places where the seams are near or just below the surface - particularly on the steep riverbanks. The resultant subterranean fires are notoriously difficult to extinguish and give off toxic fumes. As a precautionary principle, the Council should require the developer to remove all of the QR fill material from the riverbanks on the site, restore the riverbanks to pre-1985 contours.

Also, the Council should require the developer to plant and maintain approved riverbank vegetation between the high tide and RL100 contours or require the developer to engage a contractor with knowledge of local plant species and provenance for streambank management for bank protection and wildlife corridor.

Yours sincerely,

Elizabeth Tilbrook

Page C

Your reference
Our reference 6293/09 & 2727/10 B/D-B
Contact Officer Brett Davey
Telephone 3810 6258



Ipswich City Council

45 Roderick St
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Australia

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Mr N J White and Ms E Tilbrook
Hume Street, Woodend
WOODEND QLD 4305

8 June 2010

Dear Sir/Madam

Re: Application Number: 6293/09
Address: 21a North Street, Noth Ipswich
Application Type: Material Change of Use - Multiple Residential: 100 Units

I refer to your letter dated 29 January 2010 and 5 February 2010 relating to various issues associated with the above referenced development application.

In reply, it is advised that the development applications currently before Council are being assessed and will be determined in accordance with the requirements of the *Integrated Planning Act 1997*, *Sustainable Planning Act 2009* and the Ipswich Planning Scheme. The items raised by the above referenced submissions are addressed below, and will be considered as part of the assessment of the relevant Development Applications. Please be advised that for the purposes of the *Integrated Planning Act 1997*, the submissions are not properly made submissions and therefore are not afforded submitter appeal rights pursuant to Section 3.4.9 of the *Integrated Planning Act 1997*.

Subterranean Fires, Contaminated Land and Unapproved Fill Material

The issue of contamination on the site is subject to assessment by the Department of Environment and Resource Management (DERM) pursuant to the *Environmental Protection Act 1994* and the *Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland*. It should be noted that the Material Change of Use Development Application (6293/09) has been referred to DERM as a Concurrence Agency. As a result, DERM have the opportunity to assess the proposal, request further information as necessary, and direct if the

Card no 5ed. 4
Yates Table 3.2
Post Dvmt Rate F60 Summary

proposal is approved (including conditions of approval) or refused. Concerns regarding the contaminated land issues should be directed to DERM.

Rehabilitation of Riparian Areas

As a consequence of development along the Bremer River, Council requires that the area along the riverbank be established as linear open space in accordance with Council's Planning Scheme. However, the area of the riverbank is not the subject of the current Material Change of Use Development Applications (referred to above) and as a consequence, this is not relevant to the assessment of the current applications.

Site Soil Stability

The stability of the site is a matter which requires assessment prior to the issue of building works approvals. This is not of relevance to the assessment of Material Change of Use Development Applications at this time.

Flooding

The land the subject of the Material Change of Use Development Application is subject to flooding. Part 11 of the Ipswich Planning Scheme includes requirements for development in the context of development constraints, including flooding. As part of the assessment of the application, the effects of flooding on the proposal and conversely the effects of the proposal on flooding are considered. In this instance, a Stormwater Impact Assessment Report was submitted in support of the application identifying the scope of impact and attenuation measures (if appropriate) and addressing the requirements of Part 11 of the Planning Scheme. This information will be considered in the assessment of the application.

Erosion and Dust Control

Erosion Control is not directly related to the current Material Change of Use Application. However, as part of any Operational Works to be undertaken on the site, it is a requirement of Planning Scheme Policy 3: General Works that erosion and sediment control be undertaken in accordance with the *'Best Practice Sediment and Erosion Control, International Erosion Control Association, November 2008'*. Measures are required to be implemented prior to the commencement of construction, and during construction to prevent erosion and siltation. This is assessed as part of any Operational Works applications to be lodged with Council, and is ongoing throughout the construction of the development.

Similarly, dust control is usually associated with the undertaking of works on the premises. This is not relevant to the assessment of the current Material Change of Use Development Application. However, dust nuisance is controlled under the *Environmental Protection Act 1994* and the subordinate Environmental Protection Policies.

Vegetation Management

The development application proposed will result in clearing of vegetation from the subject site. However, it should be noted that the current Material Change of Use Development Application

does not include works adjacent to the Bremer River with the exception of a stormwater pipe outlet. As a result, as part of the current Material Change of Use Application, Council will be considering stabilisation and rehabilitation requirements for the area proposed to be disturbed by the outlet works. Where a future development application includes the lots adjacent to the Bremer River, or where the a future proposal includes works in the riparian area, Council will consider the requirements for rehabilitation, and dedication of the riparian corridor to Council as linear open space pursuant to the requirements of the Ipswich Planning Scheme.

Should you require any further information or assistance with respect to this matter, please contact Brett Davey on the above telephone number.

Yours faithfully



Jo Pocock

TEAM COORDINATOR (CENTRAL/WEST)



RIVERLINKS CENTRAL

Flood Study

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		Name	Initials	Name	Initials
1	23 July 2008				

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**RIVERLINK CENTRAL
FLOOD STUDY**

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Figure 2	Proposed Development and MIKE11 Cross-sections

APPENDICES

APPENDIX A	MIKE11 Cross-sections
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1. INTRODUCTION

It is proposed to construct some units along the Bremer River as part of the Riverlinks development. The location of the proposed development is shown in Figure 1. As the proposed development is located within the existing extent of flood inundation of the Bremer River, compensatory excavation was required to ensure that the development did not impact on peak flood levels for neighbouring properties.

This flood study details the modelling that has been undertaken in relation to the proposed development.

2. HYDRAULIC MODEL

2.1 Previous Modelling

To conduct the hydraulic assessment, Ipswich City Council (ICC) made available a small section of The Ipswich Rivers MIKE11 hydraulic model. The extracted portion of the MIKE11 model included the reach of the Bremer River upstream and downstream of the proposed development site under existing conditions. The truncated model reach is from cross section BREM1010020 to BREM1014640.

Cardno previously completed an analysis of the Riverlinks development downstream of the proposed units. Further analysis of this area was conducted in June 2008 for the proposed Medical Centre in the northern section of the Riverlinks development. This MIKE11 model was used for this analysis as it represents the current plan of development. In the area of interest (BREM 1011150 to BREM 1010700) cross-sections were located at approximately 100m intervals, so as to provide sufficient detail of the development area.

The "existing case" model did not include the Riverlinks development downstream of the proposed units. The "developed case" model did include this downstream development.

Earthworks design for the "developed case" was carried out by Burchill VDM for the proposed development area following a preliminary analysis of the site using MIKE11. The MIKE11 cross-sections for the existing and developed cases are shown in Appendix B.

2.2 Design Events

The main design case being analysed was the Brisbane River 30 hour flood event, which was previously identified in the SKM Ipswich Rivers Flood Study (IRFS) as being the event that produced the maximum water levels in the area of the Riverlinks development. As the IRFS is currently under review, the 50 year ARI event is assumed to give the 100 year ARI flood levels. The 100 year ARI peak flood level in the proposed development area is therefore 18.30 m AHD. The 50, 20 and 10 and 5 year Brisbane River flood events were examined.

To ensure that the proposed development did not result in affluxes for local flood events, the Bremer River 18 hour flood was also analysed. The 100 and 50 year Bremer River flood events were examined.

2.3 Proposed Development

The extent of filling and excavation for the proposed development are shown in Figure 2.

For the area of fill a buffer of at least 30 metres along the riverbank was maintained in the proposed development area. The batter profile includes a 1 in 3 batter to a 3 metre wide access track at 12.00 m AHD, and then a 1 in 2 reinforced batter to 19.50m AHD.

It is proposed to excavate an area to the north of the proposed development. A buffer of 30 metres was maintained between the extent of the proposed excavation and the riverbank. The slope of the batters was 1 in 3, and the level of excavation was limited to 9.50 m AHD. The proposed excavation extends approximately 100 metres north from the extent of filling.

The Manning's *n* roughness value in the proposed development area was 0.08, which was less than the 'existing case' roughness value in the area.

3. MIKE 11 RESULTS

3.1 Brisbane River Flood Events

The peak water level results of MIKE 11 for the Brisbane River flood events are shown in Table 1. The proposed development area is highlighted. As is shown in this table the peak water levels are slightly reduced upstream of the proposed development due to the Riverlinks development.

Table 1 Peak Water Levels – Brisbane River Flood Events

Cross-section	100 Year ARI Event			> 20 Year ARI Event			> 10 Year ARI Event			> 5 Year ARI Event		
	BRIS 50Y30H			BRIS 20Y30H			BRIS 10Y30H			BRIS 5Y30H		
	Ex Case	Dev Case	Afflux (mm)	Ex Case	Dev Case	Afflux (mm)	Ex Case	Dev Case	Afflux (mm)	Ex Case	Dev Case	Afflux (mm)
BREM 1010020.00	18.42	18.38	-37	16.39	16.34	-52	13.68	13.62	-61	11.23	11.18	-51
BREM 1010090.00	18.37	18.33	-37	16.33	16.28	-52	13.61	13.55	-64	11.15	11.10	-52
BREM 1010150.00	18.32	18.30	-22	16.29	16.25	-37	13.56	13.51	-48	11.09	11.05	-42
BREM 1010250.00	18.32	18.30	-16	16.28	16.25	-30	13.56	13.51	-43	11.09	11.05	-40
BREM 1010340.00	18.26	18.21	-53	16.23	16.17	-58	13.49	13.43	-55	11.01	10.97	-42
BREM 1010430.00	18.22	18.16	-62	16.19	16.13	-62	13.46	13.40	-58	10.99	10.95	-44
BREM 1010510.00	18.15	18.10	-47	16.12	16.07	-49	13.40	13.35	-48	10.93	10.89	-37
BREM 1010590.00	17.99	17.97	-23	15.99	15.96	-29	13.27	13.24	-32	10.82	10.79	-22
BREM 1010645.00	18.01	18.00	-10	15.99	15.96	-21	13.25	13.23	-28	10.79	10.77	-21
BREM 1010700.00	17.90	17.89	-6	15.90	15.88	-19	13.19	13.16	-28	10.73	10.71	-20
BREM 1010890.00	17.69	17.68	-6	15.71	15.70	-19	13.02	12.99	-28	10.57	10.55	-21
BREM 1010915.00	17.61	17.61	-8	15.64	15.62	-20	12.95	12.92	-28	10.51	10.49	-20
BREM 1010950.00	17.56	17.57	4	15.60	15.59	-9	12.92	12.89	-22	10.48	10.46	-18
BREM 1010985.00	17.56	17.57	2	15.60	15.59	-11	12.91	12.89	-22	10.47	10.46	-17
BREM 1011040.00	17.56	17.55	-15	15.59	15.57	-25	12.90	12.87	-31	10.45	10.43	-21
BREM 1011090.00	17.52	17.51	-9	15.56	15.54	-19	12.88	12.85	-28	10.44	10.42	-20
BREM 1011185.00	17.47	17.45	-23	15.51	15.47	-32	12.81	12.78	-30	10.38	10.36	-21



Cross-section	100 Year ARI Event			> 20 Year ARI Event			> 10 Year ARI Event			> 5 Year ARI Event		
	BRIS 50Y30H			BRIS 20Y30H			BRIS 10Y30H			BRIS 5Y30H		
	Ex Case	Dev Case	Afflux (mm)	Ex Case	Dev Case	Afflux (mm)	Ex Case	Dev Case	Afflux (mm)	Ex Case	Dev Case	Afflux (mm)
BREM 1011320.00	17.43	17.42	-12	15.46	15.44	-23	12.76	12.74	-15	10.32	10.31	-4
BREM 1011465.00	17.33	17.32	-5	15.36	15.35	-12	12.68	12.67	-8	10.25	10.25	-3
BREM 1011575.00	17.21	17.21	7	15.25	15.24	-14	12.58	12.57	-10	10.16	10.16	-3
BREM 1011700.00	17.05	17.07	18	15.10	15.10	-7	12.45	12.44	-8	10.05	10.04	-5
BREM 1011790.00	16.96	16.94	-12	15.00	14.98	-26	12.35	12.33	-18	9.95	9.95	-7
BREM 1011810.00	16.91	16.90	-9	14.97	14.95	-14	12.31	12.30	-12	9.91	9.91	-3
BREM 1011930.00	16.82	16.80	-16	14.86	14.85	-14	12.19	12.19	-2	9.78	9.79	6
BREM 1012045.00	16.77	16.77	0	14.81	14.81	0	12.14	12.14	0	9.73	9.73	0
BREM 1012050.00	16.80	16.80	0	14.84	14.84	0	12.17	12.17	0	9.76	9.76	0
BREM 1012070.00	16.79	16.79	0	14.82	14.82	0	12.15	12.15	0	9.68	9.68	0
BREM 1012200.00	16.75	16.75	0	14.78	14.78	0	12.11	12.11	0	9.64	9.64	0
BREM 1012870.00	16.73	16.73	0	14.76	14.76	0	12.09	12.09	0	9.61	9.61	0
BREM 1013380.00	16.70	16.70	0	14.72	14.72	0	12.03	12.03	0	9.55	9.55	0
BREM 1013700.00	16.68	16.68	0	14.69	14.69	0	12.00	12.00	0	9.52	9.52	0
BREM 1014220.00	16.58	16.58	0	14.56	14.56	0	11.89	11.89	0	9.41	9.41	0
BREM 1014640.00	16.52	16.52	0	14.50	14.50	0	11.83	11.83	0	9.36	9.36	0

The peak velocity results of MIKE 11 for the Brisbane River flood events are shown in Table 2. The proposed development area is highlighted. As is shown in this table the impact of the proposed development on peak velocities is minimal.

Table 2 Peak Velocities – Brisbane River Flood Events

Cross-section	100 Year ARI Event			> 20 Year ARI Event			> 10 Year ARI Event			> 5 Year ARI Event		
	BRIS 50Y30H			BRIS 20Y30H			BRIS 10Y30H			BRIS 5Y30H		
	Ex Case	Dev Case	Afflux (m/s)	Ex Case	Dev Case	Afflux (m/s)	Ex Case	Dev Case	Afflux (m/s)	Ex Case	Dev Case	Afflux (m/s)
BREM 1010020.00	1.72	1.73	0.00	1.55	1.56	0.01	1.40	1.42	0.01	1.33	1.34	0.01
BREM 1010090.00	1.60	1.61	0.01	1.50	1.51	0.01	1.44	1.45	0.01	1.34	1.35	0.01
BREM 1010150.00	1.63	1.64	0.01	1.59	1.60	0.01	1.48	1.44	-0.04	1.44	1.45	0.01
BREM 1010250.00	1.20	1.11	-0.09	1.10	1.03	-0.07	1.04	0.96	-0.08	0.96	0.96	0.00
BREM 1010340.00	1.51	1.62	0.11	1.47	1.49	0.02	1.40	1.41	0.02	1.30	1.31	0.01
BREM 1010430.00	1.31	1.58	0.27	1.24	1.41	0.17	1.17	1.26	0.09	1.10	1.12	0.02
BREM 1010510.00	1.42	1.56	0.14	1.30	1.41	0.11	1.19	1.26	0.07	1.09	1.12	0.03
BREM 1010590.00	1.84	1.87	0.04	1.67	1.69	0.02	1.53	1.54	0.01	1.36	1.37	0.00
BREM 1010645.00	1.37	1.38	0.01	1.34	1.34	0.01	1.26	1.27	0.01	1.19	1.19	0.00
BREM 1010700.00	1.62	1.62	0.00	1.46	1.46	0.00	1.31	1.32	0.00	1.16	1.16	0.00
BREM 1010890.00	1.68	1.68	0.00	1.50	1.50	0.00	1.35	1.36	0.01	1.21	1.21	0.00
BREM 1010915.00	1.99	1.99	0.00	1.80	1.81	0.00	1.66	1.66	0.00	1.52	1.51	-0.01
BREM 1010950.00	2.00	1.93	-0.07	1.79	1.74	-0.05	1.60	1.56	-0.04	1.42	1.40	-0.02
BREM 1010985.00	1.75	1.71	-0.04	1.56	1.52	-0.04	1.39	1.36	-0.04	1.22	1.19	-0.03
BREM 1011040.00	1.48	1.56	0.07	1.34	1.41	0.06	1.22	1.25	0.03	1.10	1.11	0.01
BREM 1011090.00	1.54	1.56	0.02	1.36	1.38	0.01	1.16	1.17	0.01	0.97	0.98	0.00
BREM 1011185.00	1.46	1.59	0.13	1.35	1.44	0.08	1.28	1.30	0.02	1.15	1.16	0.01
BREM 1011320.00	1.19	1.20	0.00	1.15	1.08	-0.07	1.07	0.98	-0.08	1.02	0.88	-0.13
BREM 1011465.00	1.38	1.45	0.07	1.28	1.29	0.01	1.12	1.11	-0.01	0.95	0.93	-0.01
BREM 1011575.00	1.71	1.82	0.11	1.58	1.64	0.06	1.46	1.47	0.01	1.29	1.29	0.00
BREM 1011700.00	1.92	1.96	0.04	1.72	1.75	0.03	1.56	1.57	0.02	1.37	1.39	0.01



Cross-section	100 Year ARI Event				> 20 Year ARI Event				> 10 Year ARI Event				> 5 Year ARI Event			
	BRIS 50Y30H				BRIS 20Y30H				BRIS 10Y30H				BRIS 5Y30H			
	Ex Case	Dev Case	Afflux (m/s)		Ex Case	Dev Case	Afflux (m/s)		Ex Case	Dev Case	Afflux (m/s)		Ex Case	Dev Case	Afflux (m/s)	
BREM 1011790.00	1.95	2.06	0.11	1.74	1.83	0.09		1.56	1.61	0.05		1.37	1.40	0.03		
BREM 1011810.00	1.92	2.04	0.12	1.74	1.82	0.08		1.58	1.62	0.04		1.41	1.41	0.01		
BREM 1011930.00	1.72	1.82	0.10	1.63	1.66	0.03		1.51	1.49	-0.02		1.37	1.36	-0.01		
BREM 1012045.00	1.64	1.63	0.00	1.57	1.57	0.00		1.39	1.39	0.00		1.29	1.29	0.00		
BREM 1012050.00	1.31	1.31	0.00	1.18	1.18	0.00		1.06	1.06	0.00		0.93	0.93	0.00		
BREM 1012070.00	1.31	1.32	0.00	1.18	1.18	0.00		1.06	1.06	0.00		0.94	0.94	0.00		
BREM 1012200.00	1.61	1.61	0.00	1.49	1.49	0.00		1.35	1.35	0.00		1.23	1.23	0.00		
BREM 1012870.00	1.02	1.02	0.00	0.89	0.89	0.00		0.78	0.78	0.00		0.69	0.69	0.00		
BREM 1013380.00	1.35	1.35	0.00	1.28	1.28	0.00		1.10	1.10	0.00		1.06	1.06	0.00		
BREM 1013700.00	1.31	1.30	0.00	1.27	1.26	0.00		0.95	0.95	0.00		0.99	0.99	0.00		
BREM 1014220.00	1.66	1.66	0.00	1.50	1.51	0.00		1.37	1.37	0.00		1.23	1.23	0.00		
BREM 1014640.00	1.63	1.63	0.00	1.44	1.45	0.00		1.28	1.28	0.00		1.13	1.13	0.00		

3.2 Bremer River Flood Events

The peak water level results of MIKE 11 for the Bremer River flood events are shown in Table 3. The proposed development area is highlighted. As is shown in this table the peak water levels are slightly reduced upstream of the proposed development due to the Riverlinks development.

Table 3 Peak Water Levels – Bremer River Flood Events

Cross-section	> 100 Year ARI Event			> 50 Year ARI Event		
	BREM 100Y18H			BREM 50Y18H		
	Ex Case	Dev Case	Afflux (mm)	Ex Case	Dev Case	Afflux (mm)
BREM 1010020.00	19.12	19.07	-51	17.17	17.13	-46
BREM 1010090.00	19.06	19.01	-54	17.11	17.06	-47
BREM 1010150.00	19.00	18.96	-35	17.05	17.02	-29
BREM 1010250.00	19.00	18.97	-25	17.05	17.03	-20
BREM 1010340.00	18.93	18.85	-76	16.98	16.92	-57
BREM 1010430.00	18.87	18.78	-92	16.93	16.87	-64
BREM 1010510.00	18.78	18.70	-75	16.84	16.80	-47
BREM 1010590.00	18.57	18.53	-46	16.67	16.65	-20
BREM 1010645.00	18.60	18.57	-25	16.67	16.66	-8
BREM 1010700.00	18.45	18.43	-21	16.56	16.55	-6
BREM 1010890.00	18.16	18.14	-23	16.31	16.30	-6
BREM 1010915.00	18.06	18.04	-25	16.22	16.21	-7
BREM 1010950.00	17.99	17.98	-8	16.16	16.17	8
BREM 1010985.00	17.99	17.98	-11	16.16	16.17	6
BREM 1011040.00	17.98	17.95	-35	16.15	16.13	-13
BREM 1011090.00	17.93	17.90	-27	16.10	16.10	-6
BREM 1011185.00	17.86	17.81	-45	16.04	16.01	-25
BREM 1011320.00	17.81	17.78	-29	15.98	15.97	-13
BREM 1011465.00	17.66	17.65	-17	15.85	15.84	-2
BREM 1011575.00	17.49	17.49	5	15.70	15.69	-4
BREM 1011700.00	17.26	17.28	25	15.50	15.50	5
BREM 1011790.00	17.11	17.09	-22	15.36	15.34	-21
BREM 1011810.00	17.04	17.02	-13	15.31	15.29	-17
BREM 1011930.00	16.89	16.86	-28	15.16	15.14	-20
BREM 1012045.00	16.79	16.79	0	15.08	15.08	-1
BREM 1012050.00	16.84	16.84	0	15.13	15.13	0
BREM 1012070.00	16.82	16.82	0	15.10	15.10	0
BREM 1012200.00	16.75	16.75	0	15.04	15.04	0
BREM 1012870.00	16.71	16.71	-1	15.01	15.01	0
BREM 1013380.00	16.66	16.66	0	14.96	14.96	0
BREM 1013700.00	16.62	16.62	0	14.92	14.92	0
BREM 1014220.00	16.43	16.43	0	14.74	14.74	0
BREM 1014640.00	16.30	16.30	0	14.65	14.65	0

The peak velocity results of MIKE11 for the Bremer River flood events are shown in Table 4. The proposed development area is highlighted. As is shown in this table the impact of the proposed development on peak velocities is minimal.

Table 4 Peak Velocities – Bremer River Flood Events

Cross-section	> 100 Year ARI Event			> 50 Year ARI Event		
	BREM 100Y18H			BREM 50Y18H		
	Ex Case	Dev Case	Afflux (m/s)	Ex Case	Dev Case	Afflux (m/s)
BREM 1010020.00	1.96	1.97	0.01	1.76	1.77	0.01
BREM 1010090.00	1.77	1.78	0.01	1.67	1.68	0.01
BREM 1010150.00	1.76	1.68	-0.08	1.65	1.56	-0.09
BREM 1010250.00	1.35	1.26	-0.09	1.25	1.15	-0.10
BREM 1010340.00	1.55	1.81	0.26	1.50	1.69	0.19
BREM 1010430.00	1.48	1.81	0.33	1.36	1.62	0.26
BREM 1010510.00	1.58	1.77	0.19	1.48	1.61	0.14
BREM 1010590.00	2.09	2.15	0.06	1.91	1.94	0.03
BREM 1010645.00	1.46	1.46	0.00	1.43	1.43	0.01
BREM 1010700.00	1.86	1.86	0.00	1.68	1.68	0.00
BREM 1010890.00	1.94	1.94	0.00	1.74	1.74	0.00
BREM 1010915.00	2.28	2.29	0.01	2.08	2.08	0.00
BREM 1010950.00	2.30	2.23	-0.07	2.08	2.02	-0.06
BREM 1010985.00	2.03	1.99	-0.04	1.82	1.77	-0.05
BREM 1011040.00	1.71	1.80	0.10	1.56	1.63	0.08
BREM 1011090.00	1.79	1.82	0.04	1.59	1.61	0.02
BREM 1011185.00	1.67	1.81	0.15	1.54	1.67	0.13
BREM 1011320.00	1.23	1.32	0.10	1.19	1.26	0.07
BREM 1011465.00	1.55	1.62	0.07	1.45	1.52	0.07
BREM 1011575.00	1.96	2.02	0.06	1.80	1.90	0.11
BREM 1011700.00	2.22	2.19	-0.03	2.01	2.05	0.04
BREM 1011790.00	2.22	2.33	0.11	2.05	2.17	0.12
BREM 1011810.00	2.22	2.34	0.12	2.03	2.15	0.12
BREM 1011930.00	1.92	2.03	0.11	1.82	1.93	0.11
BREM 1012045.00	1.89	1.89	0.00	1.72	1.72	0.00
BREM 1012050.00	1.54	1.54	0.00	1.38	1.39	0.00
BREM 1012070.00	1.54	1.54	0.00	1.39	1.39	0.00
BREM 1012200.00	1.83	1.83	0.00	1.70	1.70	0.00
BREM 1012870.00	1.22	1.22	0.00	1.07	1.07	0.00
BREM 1013380.00	1.33	1.33	0.00	1.29	1.30	0.00
BREM 1013700.00	1.24	1.24	-0.01	1.10	1.10	0.00
BREM 1014220.00	1.90	1.90	0.00	1.77	1.77	0.00
BREM 1014640.00	1.95	1.95	0.00	1.74	1.74	0.00

3.3 Results Summary

The results of MIKE11 show that the Riverlinks development, including the proposed units does not increase the flood levels for neighbouring properties. In the proposed location of the units there is generally a decrease in peak water levels of up to 92mm.

The increase to peak velocities is minimal, the largest increases (0.33 m/s) occur around the proposed development area and do not extend upstream or downstream of the Riverlinks development.

3.4 Defined Flood Level

The platform level proposed for the units is 19.50m AHD. The 100 year flood level (from the 50 year Brisbane River flood event) is 18.30m AHD in the area of development. This will provide the proposed units with 1200mm of freeboard, which is more than sufficient for habitable floor levels. Section 11.4.7 of the Ipswich Planning Scheme specifies 250mm of freeboard be provided above the 100 year ARI flood level.

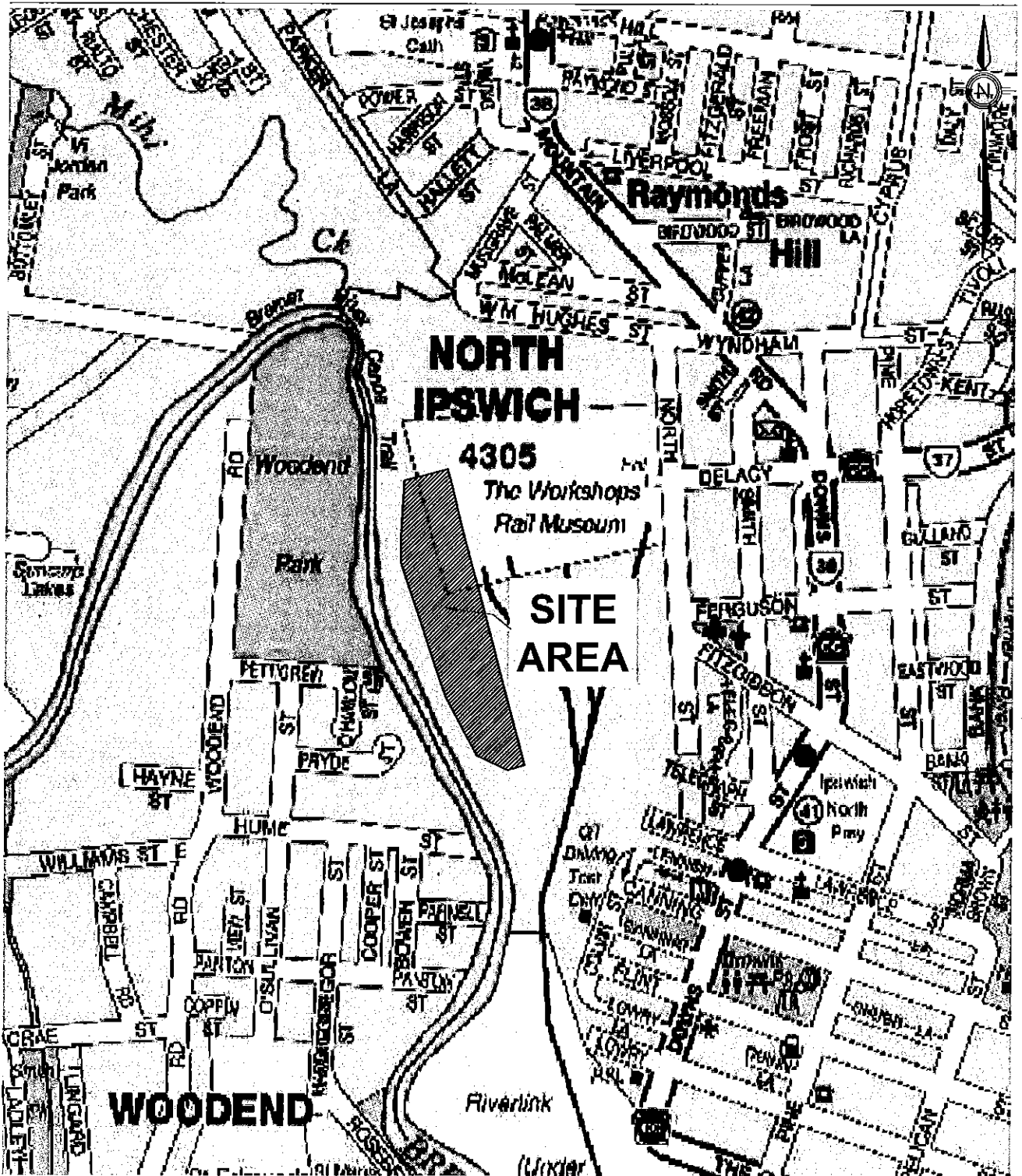
4. CONCLUSION

MIKE11 modelling has shown that the proposed development, due to compensatory excavation, does not increase flood levels for neighbouring properties. The proposed development does produce slight increases to the peak velocities. However, these increases are constrained to the area of development and are only observed for major flood events, so the impact is considered to be minor.

FIGURES

Figure 1 Locality Plan

Figure 2 Proposed Development and MIKE11 Cross-sections



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 XREF: 5

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FIGURE 1
LOCALITY PLAN

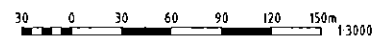
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LEGEND

MIKE11 Cross-section



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MZF

Scale 1:3000 (A3)

FIGURE 2

PROPOSED DEVELOPMENT AND MIKE11 CROSS SECTIONS

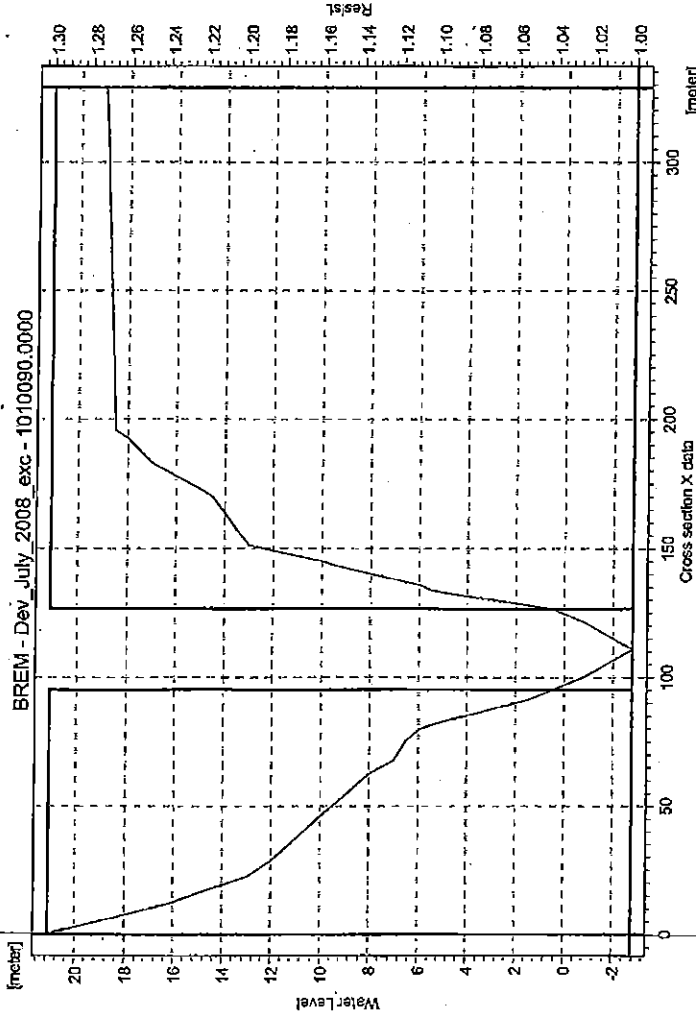
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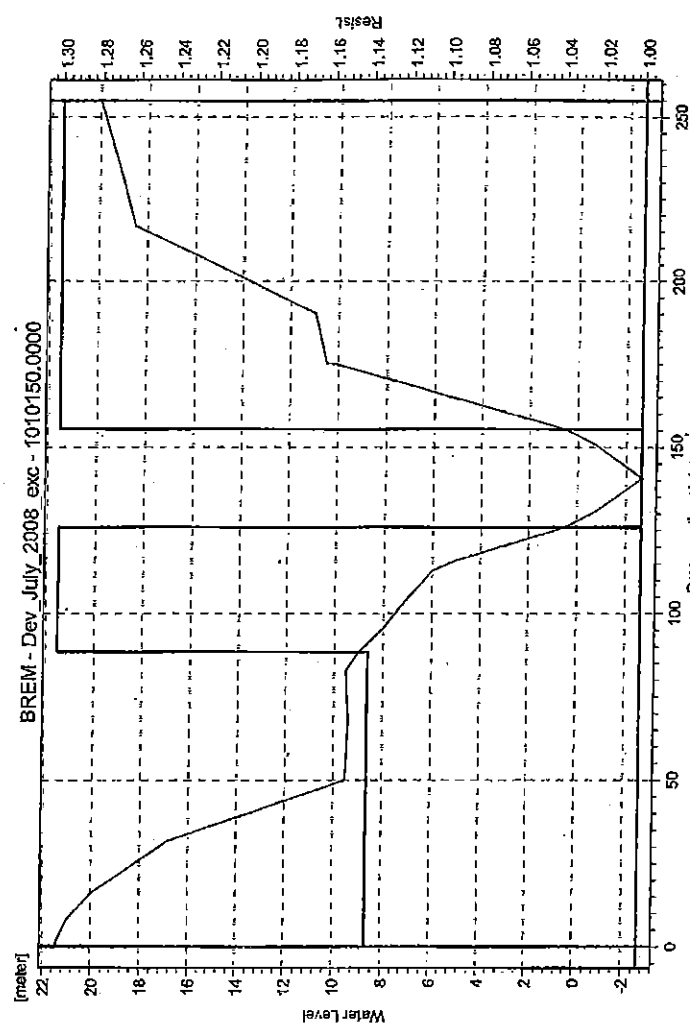
APPENDIX A

MIKE11 Cross-sections

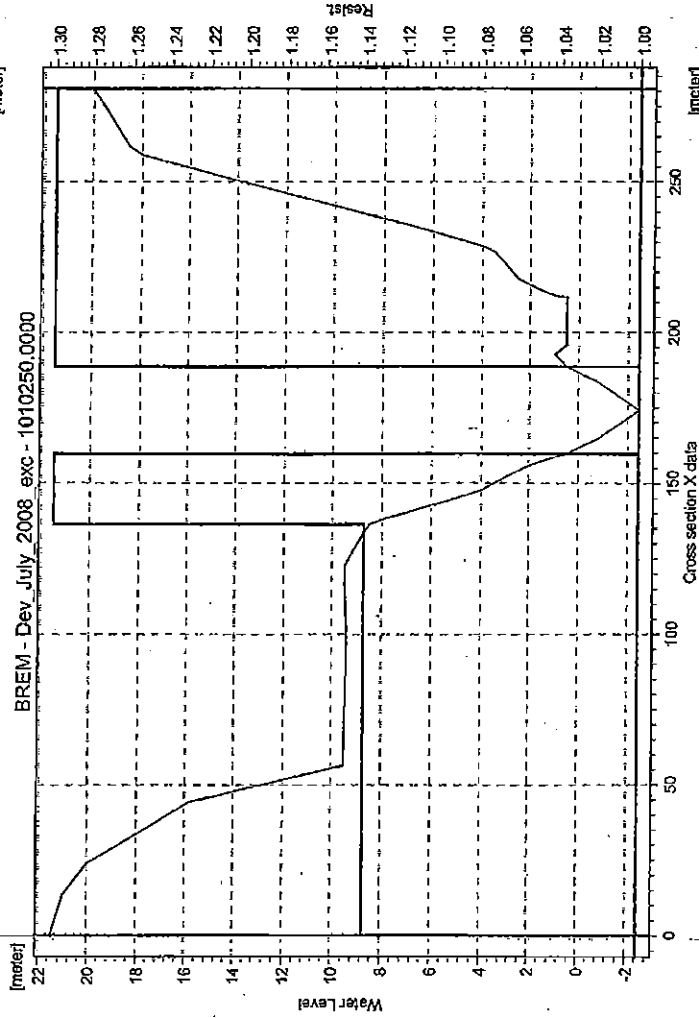
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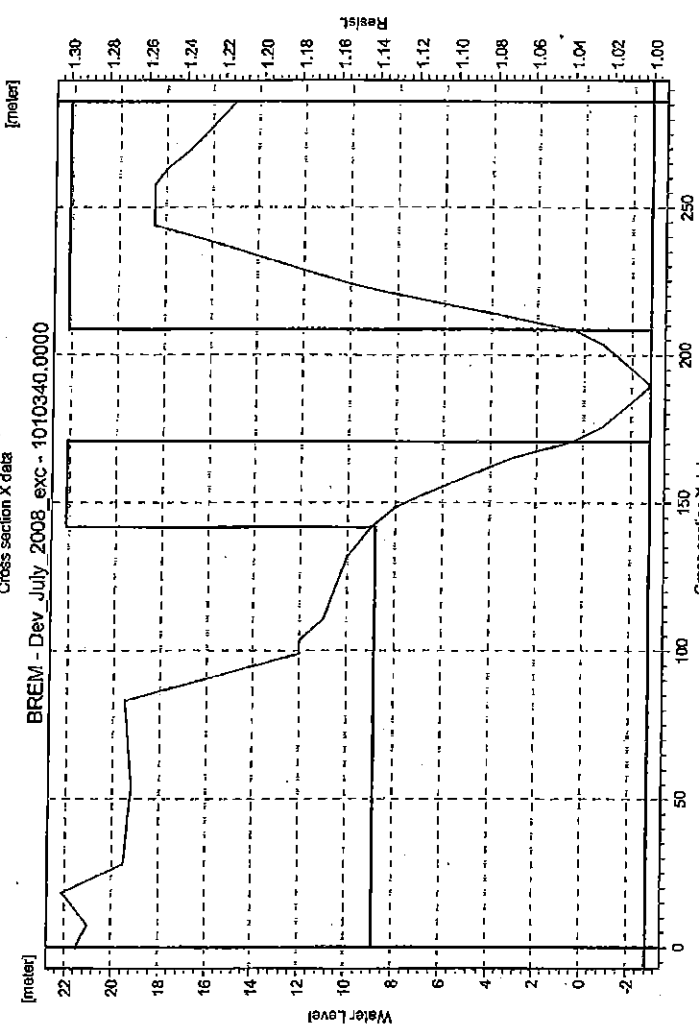
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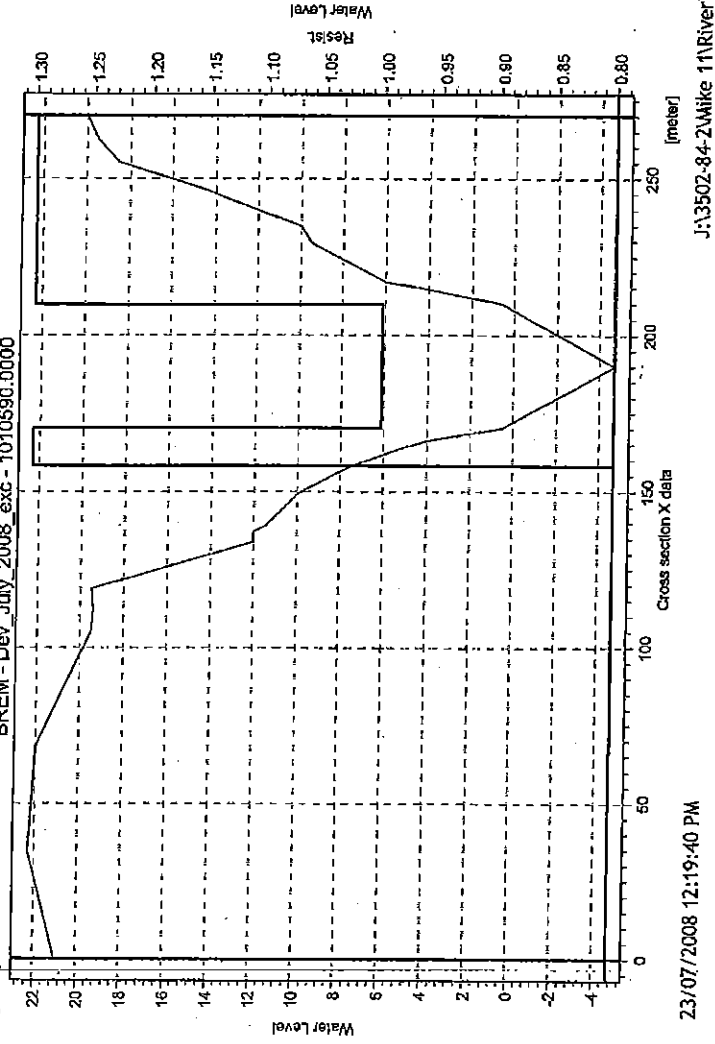
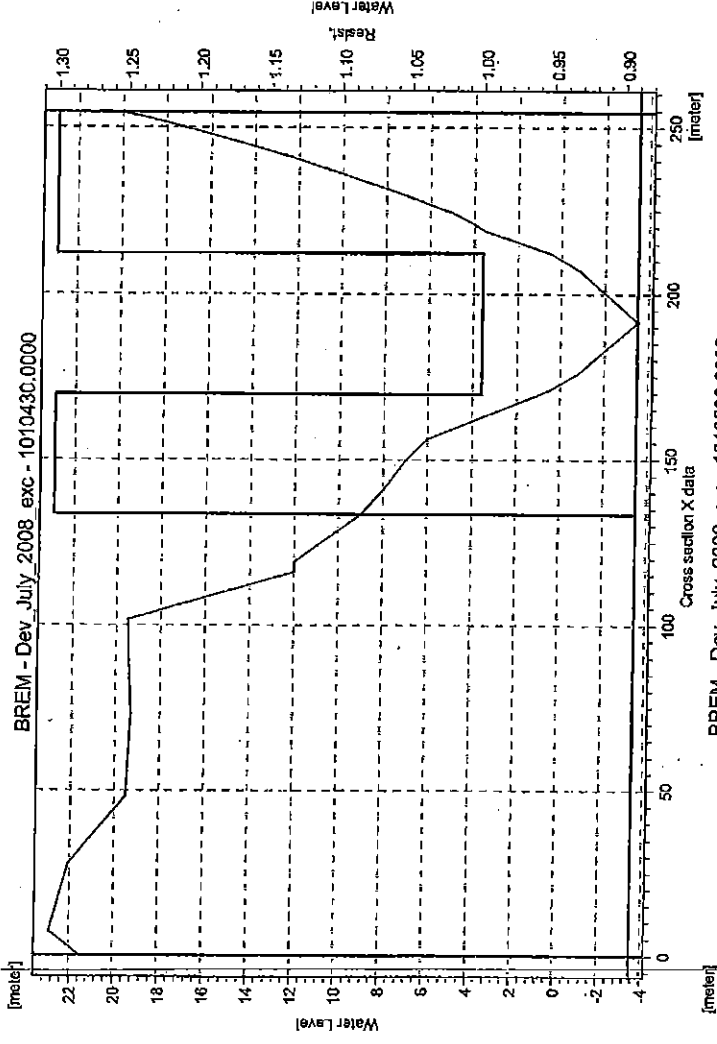
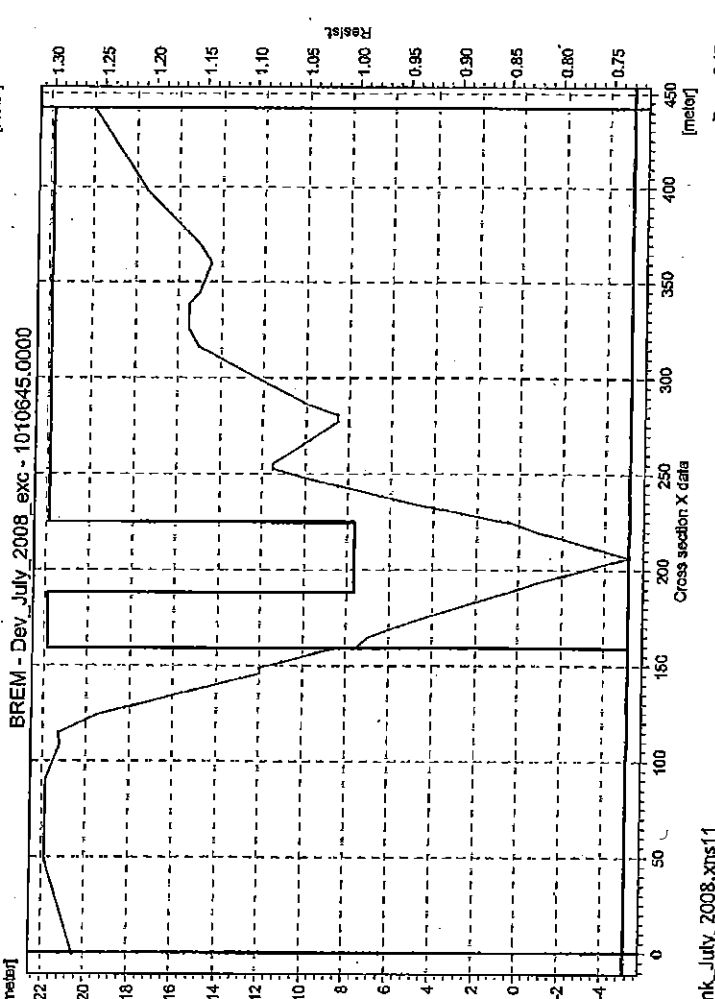
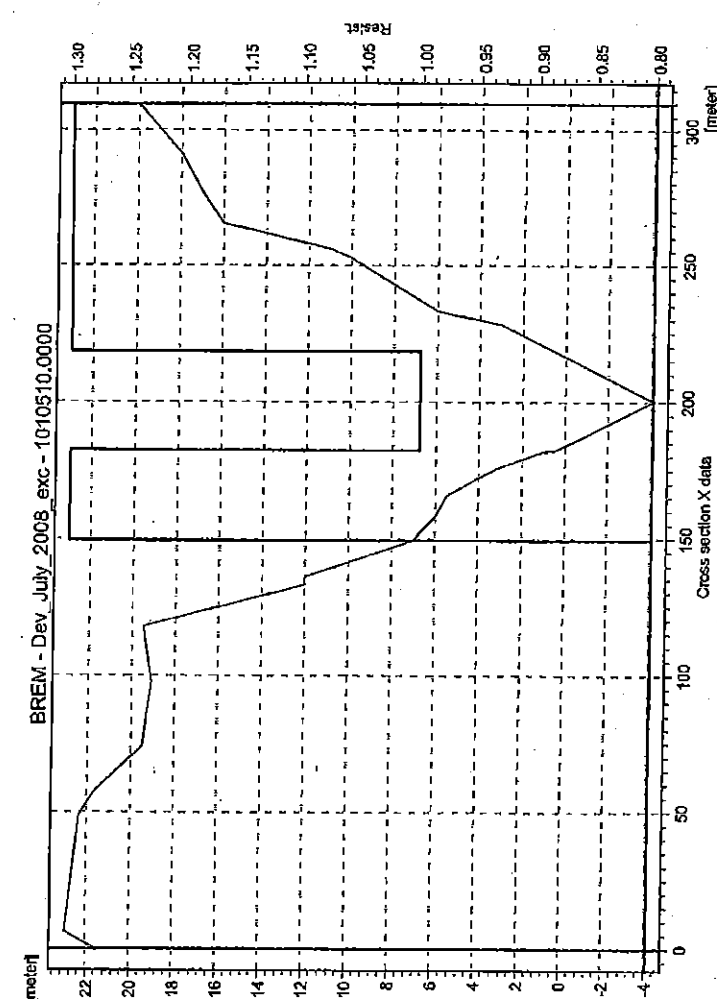


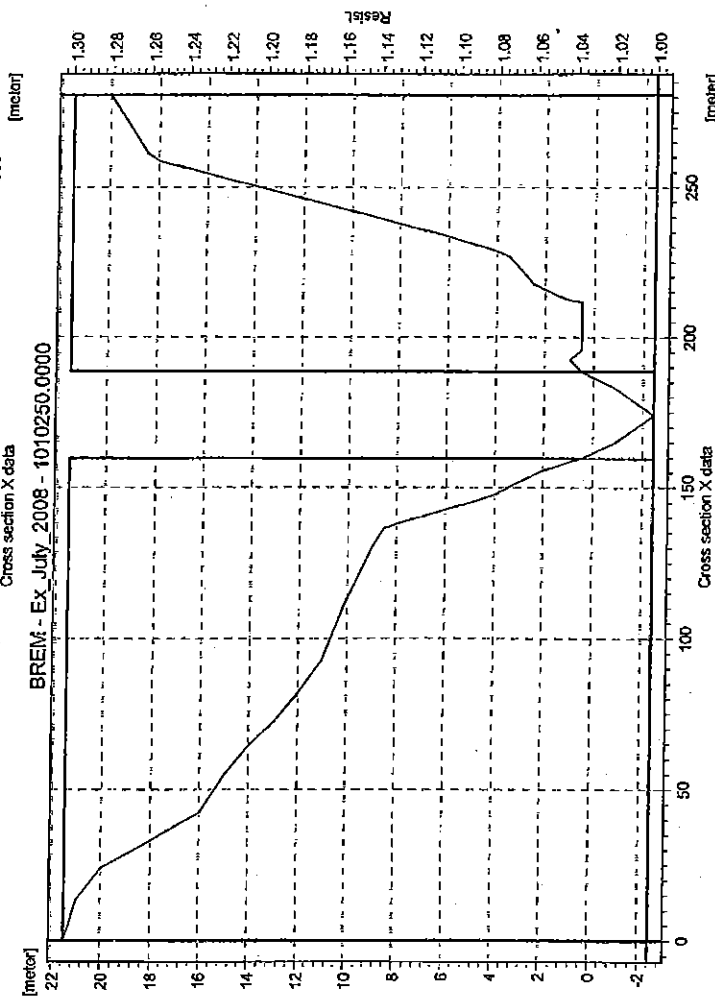
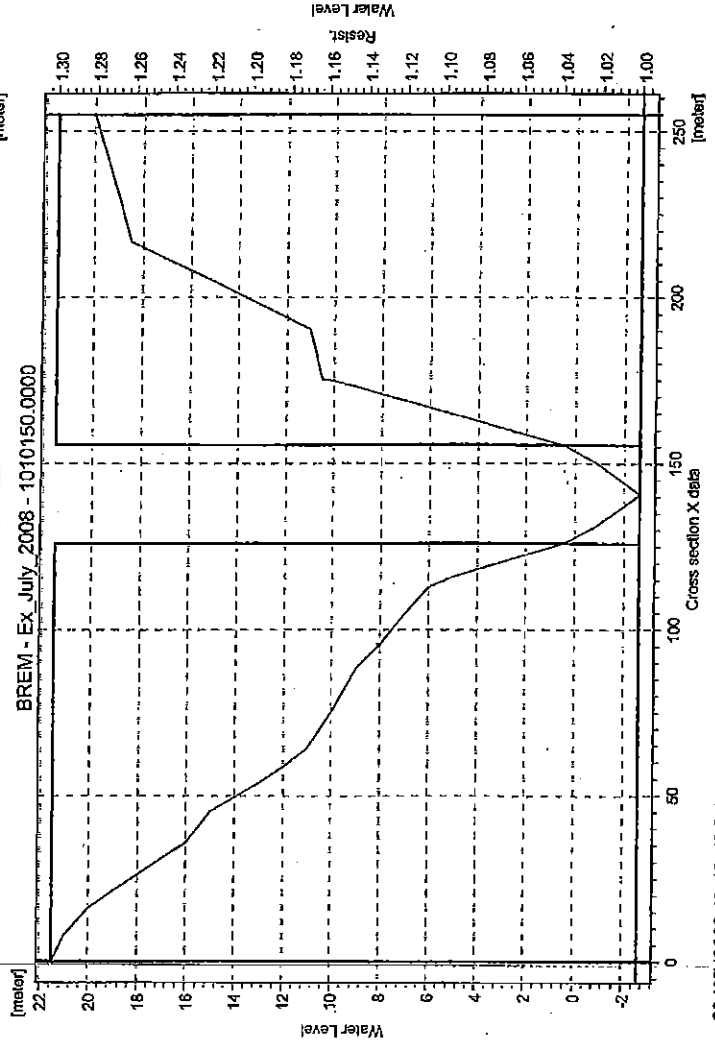
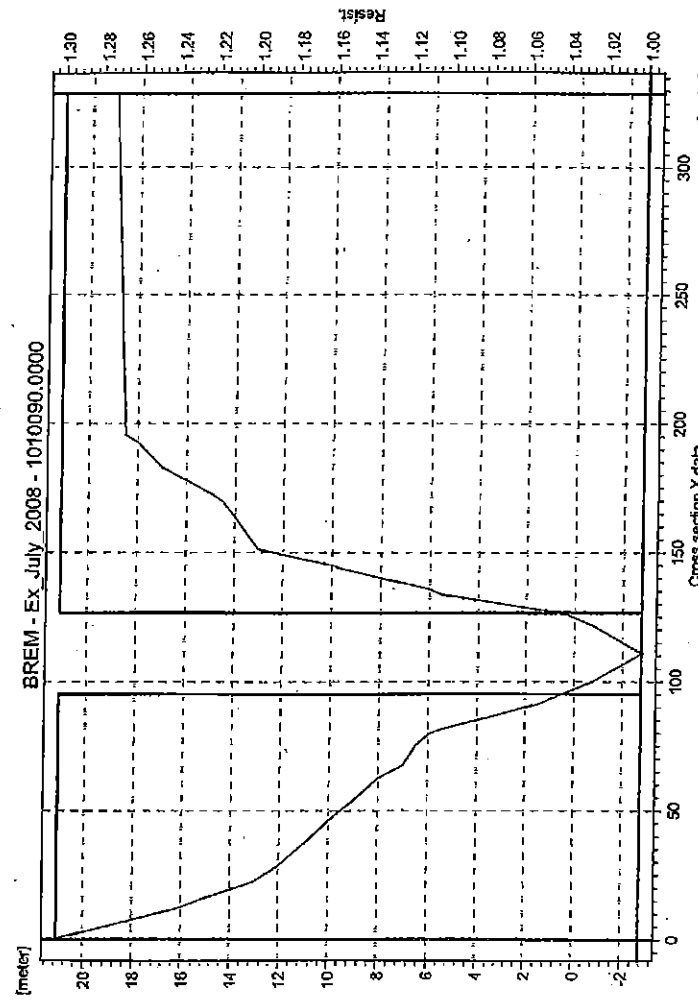
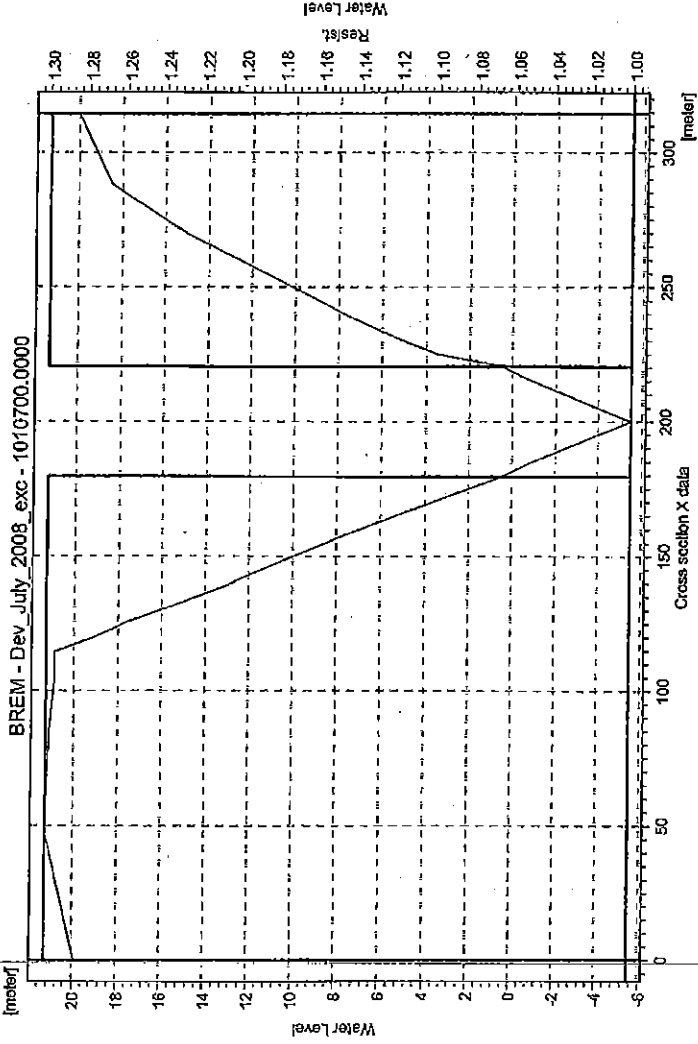
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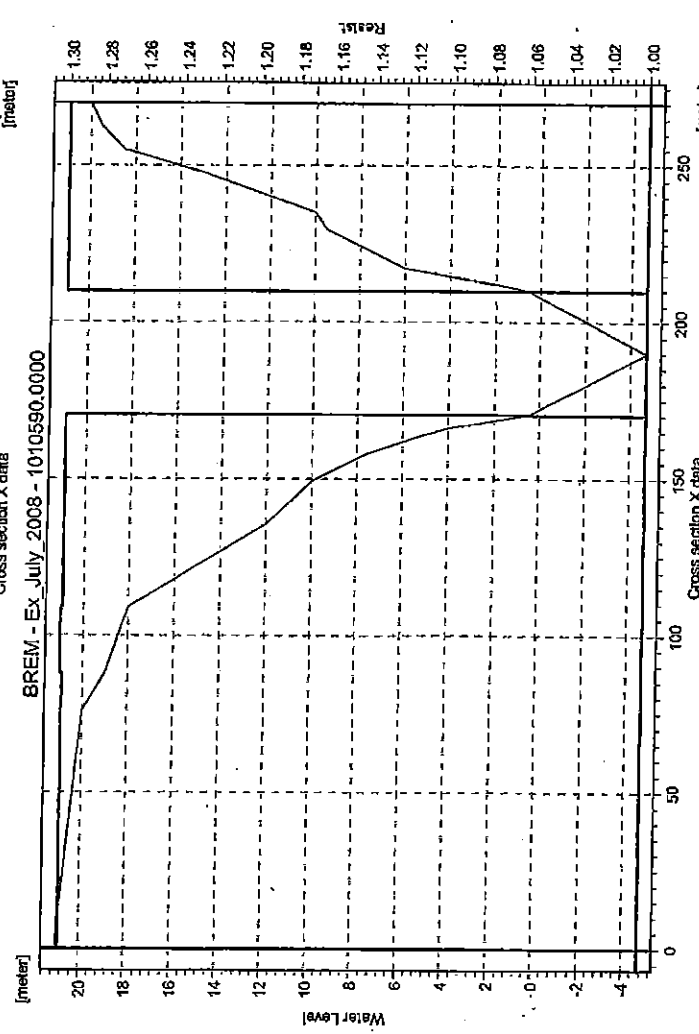
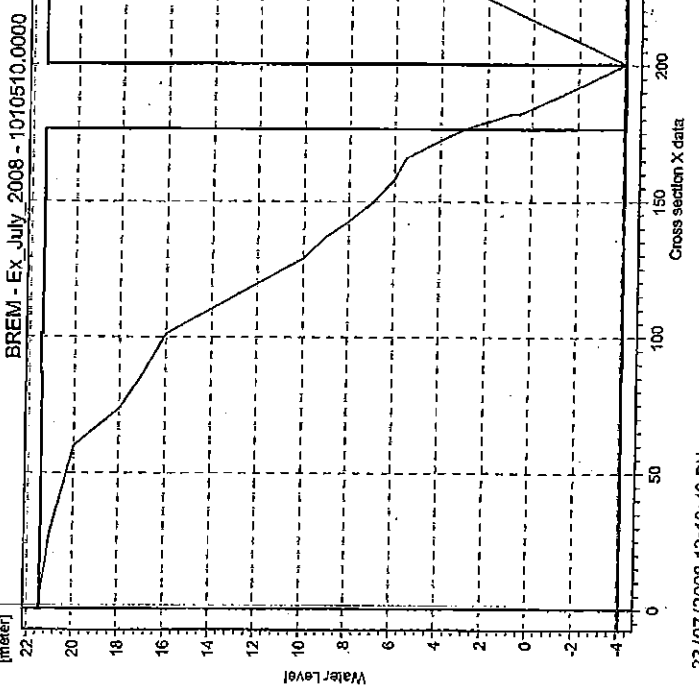
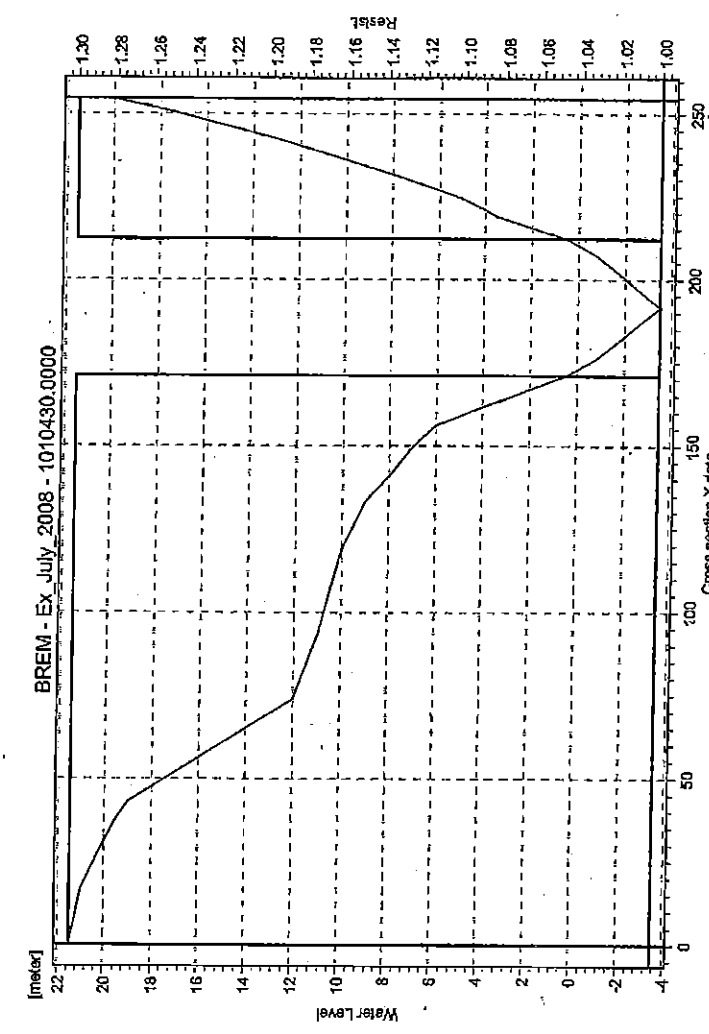
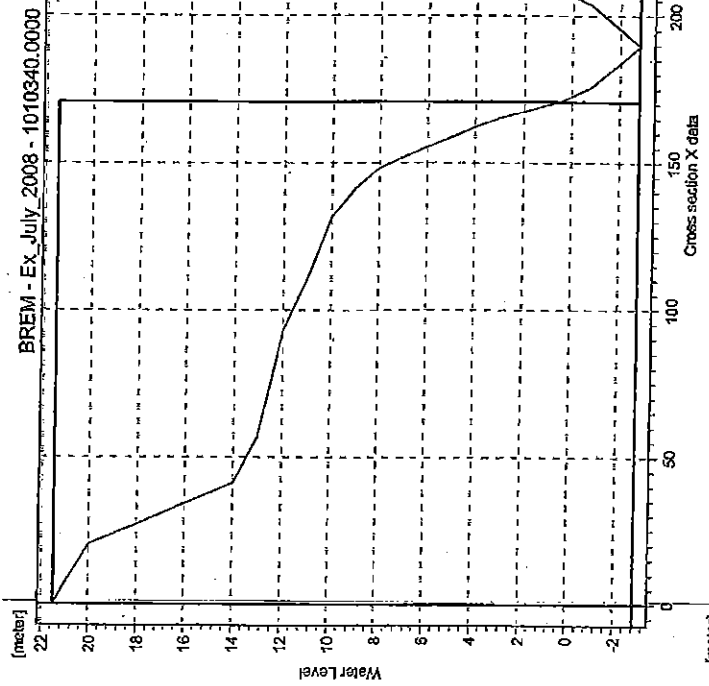


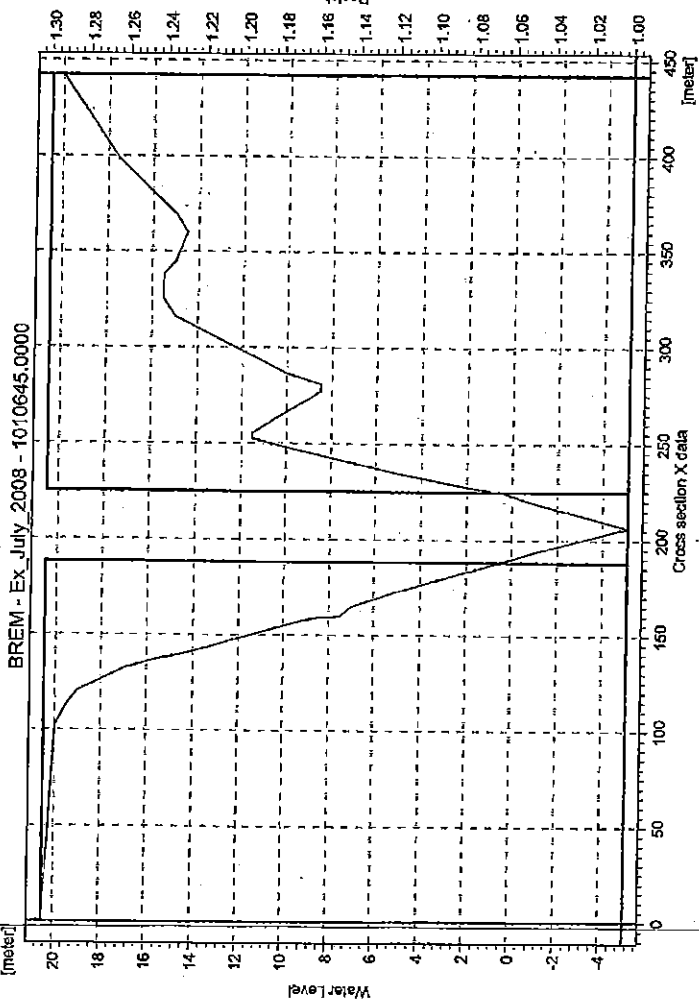
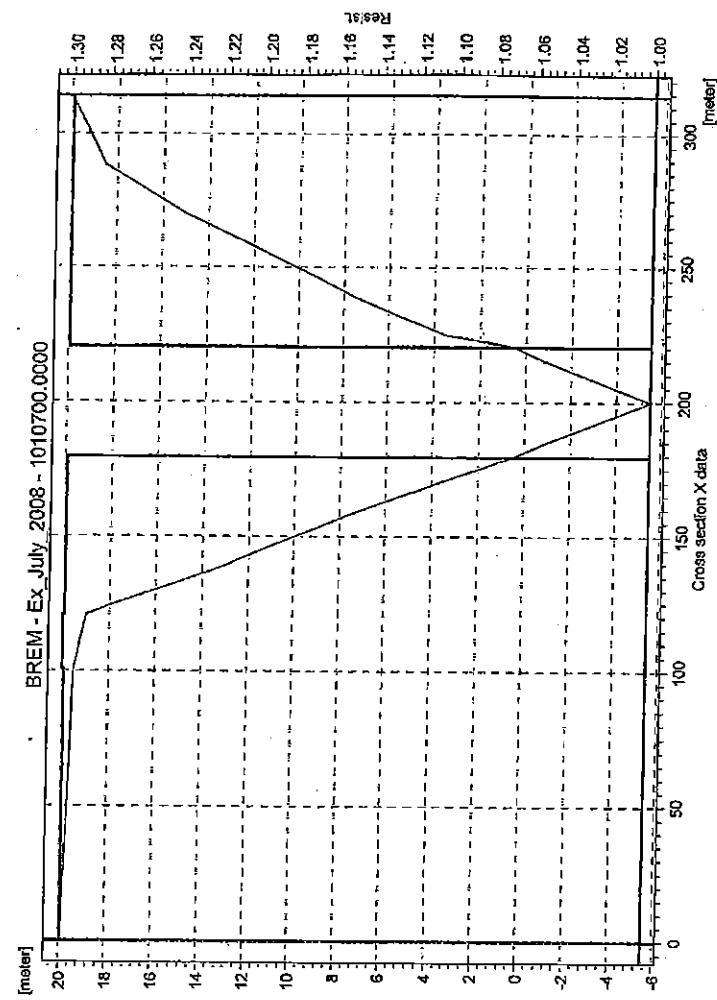
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From: Nick White <[REDACTED]>
To: Aaron Katt <[REDACTED]>
Subject: RE: RE: Operational works 3262/2010
Date: 01/09/10 08:54:14

Aaron,

Thankyou for your prompt action.

Nick

On Wed, 2010-09-01 at 08:47 +1000, Aaron Katt wrote:

Nick,

Thankyou for your submission. As Mr [REDACTED] of Cardno (Qld) Pty Ltd has overseen the preparation of the flood analysis I will assemble your comments below onto a Council letterhead and send this through to Mr [REDACTED] requesting he respond back to Council in relation to these queries as soon as possible. A copy of this letter will be emailed to you at time of sending. I will also provide you with Cardno's response once received by Council.

Regards

Aaron Katt | Senior Engineering Officer

T| 07 3810 6837

From: Nick White <[REDACTED]>
Sent: Tuesday, 31 August 2010 8:44 AM
To: Aaron Katt
Subject: (DWS Doc No 47.10.181) RE: Operational works 3262/2010

D

Dear Aaron,

1. The Flood Study states it uses '50 year ARI event' levels in its calculations. I believe that failure to include 100 year ARI event levels is a serious omission. The calculations should be redone to include 100 year ARI event modelling.
2. The Flood Study is based on modelling a mismatch of data - recent contour maps (2008) and historical flood level and velocity data. The bank profile on the site has changed significantly since 1974. If there has been considerable reprofiling of the entire river bank on Lot 54 and this has not been taken into account, then you would get the same result as the Cardno Report - ie, a relocation of existing fill results in little net change between 'existing' and 'developed' cases in a flood event. The modelling does not take into account the significant narrowing of the stream profile since the 1974 flood. The modelling needs to be redone using actual 1974 river bank profiles in order to assess the effect of proposed development profile with a 50 and 100 year ARI event.
3. (i) The instability of the proposed Site Area referred to in the Flood Study is of great concern. For example, the planned earthworks to build a 19.5m platform requires up to eight meter high fill to be contained with a 1 in 2 reinforced batter. And this is on top of a substrate of railway fill (fly ash, etc) and loose sandy loams.

(ii) The 2008 Cardno Flood Study has not adequately addressed likely flood scenarios. The report falls

to consider the stability of various levels of site substrate. (Also, there have been several past instances of subterranean fires in ash fill on this site - this is another threat to the stability of the site that has not been addressed in any earthworks plan). If the Site Area were to collapse in the future due to a flood or fire event, it would be catastrophic for the site, for us and other properties downstream and the Bremer River. It would make the Collingwood Park subsidence disaster look tame in comparison.

4. The Flood Study does not take into consideration the swirling nature of flood events and lateral flows.
5. The Flood Study does not take into consideration increased erosion of properties on the western bank as a result of flood waters being directed from the proposed steep reinforced 1:2 or 1:3 walls.

Already since the dumping of spoil on the Riverlink North site (Lot 54) there has been considerable erosion and bank slumping on the western (Woodend) side of the river. The characteristics of a minor flood changed markedly since 2007 causing increased velocities and eddying across the river. In the minor flood event of 2008 some properties on the western side lost many cubic meters of their land as a result.

6. The report suggests Manning roughness coefficient for the developed site is 0.08 (Cardo Flood Study 2008, p2). However, this is approximately half the targeted value in the Council's 2008 Riparian Corridor Rehabilitation Guideline which is aimed at reducing flood velocities, sediment loads and streambank erosion. The development plans should be revised to ensure Manning roughness coefficient is more in line with Council targets.
7. There are absolutely no silt barriers around current earthworks, even though they come to within just a few meters of AHD.

In summary, I call for an immediate halt to development activity on the site whilst the 2008 Cardo Flood Study is revised to incorporate 100 year ARI event and pre-Riverlink profiles in their modelling. If any increase in flood levels or velocities (including lateral flows) are found in the revised report, the development plan would need to be amended. If these above matters are not adequately remedied then we will have no option other than to consider legal action because we are very concerned about this development causing further erosion to our property in a future flood event.

Regards,
Nick

Nick White
Conrad Blocks
28 Hume St
Woodend Qld 4305
Australia
Ph: (07) [REDACTED]
Int: 61 [REDACTED]
Mobile: [REDACTED]
info@conradblocks.com
Web: www.conradblocks.com

On Fri, 2010-08-27 at 15:56 +1000, Aaron Katt wrote:

Blick,

Please find attached Flood Study as requested.

Regards

Aaron Katt | Senior Engineering Officer

Our Ref 3502/70 :mpg

Contact Martin Giles



12 November 2010

Ipswich City Council
PO Box 191
IPSWICH QLD 4305

Attention: Mr Aaron Katt

Dear Sir

**RIVERLINK CENTRAL FLOOD STUDY
48 WM HUGHES STREET, NORTH IPSWICH
RESPONSE TO ADJOINING PROPERTY OWNER**

Cardno (Qld) Pty Ltd
ABN 57 051 074 992

Level 11
515 St Paul's Terrace
Fortitude Valley QLD 4006
Australia

Locked Bag 4006
Fortitude Valley QLD 4006
Australia

Phone: 61 7 3369 9822
Fax: 61 7 3369 9722

www.cardno.com.au

We refer to the request received from Council in relation to the preparation of a response to queries raised by an adjacent landowner regarding the above flood study. As requested, we have prepared a response to the queries raised.

Each query and the response to the query is provided below.

- '1. The Flood Study states it uses '50 year ARI event' levels in its calculations. I (the property owner) believes that failure to include the 100 year ARI event levels is a serious omission. The calculations should be redone to include 100 year ARI event modelling.'**

The use of the 50 year ARI event is based on the work undertaken for the Ipswich Rivers Flood Study and subsequent work undertaken in relation to the rainfall intensities applicable to the catchment. The Ipswich Rivers Flood Study was completed by consultants Sinclair Knight Merz in 2000 for Ipswich City Council. Following the completion of the flood study, a major review was undertaken in relation to the rainfall intensities applicable to design events in the catchment. The review indicated that the rainfall intensities adopted for the previous study were overly conservative. Although it is understood that the Ipswich Rivers Flood Study is currently under review, advice from Council when the flood study was completed was that the modelled 50 year average recurrence interval 30 hour Brisbane River event is now considered to be equivalent to an event with a recurrence interval of 100 years.

Based on the revision of rainfall intensities, the 100 year 18 hour Bremer River event is also considered to have a recurrence interval greater than 100 years. The 100 year 18 hour Bremer River event (revised recurrence interval greater than 100 years) and the 50 year 30 hour Brisbane River event (equivalent to a 100 year average recurrence interval event) were both used to analyse the development. The impact on flood levels and velocities for neighbouring properties in both cases was found to be acceptable.

- '2. The Flood Study is based on modelling a 'mismatch of data' – recent contour maps (2008), historical flood level and velocity data. The bank profile on the site has changed significantly since 1974. If there has been considerable reprofiling of the entire river bank on Lot 54 and this has not been taken into account, then you would get the same result as the Cardno Report – ie, a relocation of existing fill results in little net change between 'existing' and 'developed' cases in a flood event. The modelling does not take into account the significant narrowing of the stream profile since the 1974 flood.'**

The modelling needs to be redone using actual 1974 river bank profiles in order to assess the effect of proposed development profile with a 50 and 100 year ARI event.'

As noted in response to the first query, the Cardno flood study was based on the Mike-11 hydraulic model established for the Ipswich Rivers Flood Study by consultants Sinclair Knight Merz in 2000 for Ipswich City Council. The model and the report produced by the consultants has been adopted by Council and is used to provide calculated flood levels in response to flood search applications. The model therefore represents the base case against which the impact of proposed development is assessed.

The model developed for Council in 2000 was set up and calibrated to the 1974 event (among others), and then design storms (calculated in accordance with the procedures identified in the Institution of Engineers Australia publication *Australian Rainfall and Runoff, A Guide to Flood Estimation*) were input to the model to determine the flood levels for events with various recurrence intervals. Therefore the adopted flood level used is not based on "historical flood level and velocity data" but design events using a model calibrated to previous historic events. It is considered that the modelling approach adopted by Council's consultants represents standard engineering practice and is acceptable.

In any case, the modelling of conditions that would have been present in 1974 is not possible. The calibration conducted in the 2000 study for the 1974 event noted the following "Due to extensive dredging and shifting of the river bed in the Brisbane and Bremer Rivers it was appropriate to compare surveyed cross sections taken directly after the 1974 flood with more recent survey and contour plans. A number of cross-sections were compared at various locations and although each set of the compared sections were not at an exact location, the general trend suggested that the river system had a lower bed level (up to 1.5m)." Modelling for the Council flood study and the Cardno flood study was therefore necessarily based on the cross sections surveyed for the flood study ultimately adopted by Council.

In the case of the flood study, a section of the original Council model was provided to Cardno by Council. To provide additional detail in the area being considered, additional cross-sections were added to the existing case model. The channel widths for the new cross-sections were comparable to the channel widths used in the 2000 flood study (which were surveyed in 1995).

As the analysis was relative in nature (to confirm that the earthworks would not produce an adverse impact compared to existing conditions), the use of additional cross sections in the manner used for the flood study is considered to be entirely reasonable. The flood study determined that the proposed development would not have an adverse impact compared to the flood levels calculated for the adopted flood model of the Bremer River.

3. ***The instability of the proposed Site Area referred to in the Flood Study is of great concern. For example, the planned earthworks to build a 19.5m platform requires up to eight metres of fill to be contained with a 1 in 2 reinforced batter. And this is on top of a substrate of railway fill (fly ash, etc) and loose sandy loams. The 2008 Cardno Flood Study has not adequately addressed likely flood scenarios. The report fails to consider the stability of various levels of site substrate. (Also, there have been several past instances of subterranean fires in ash fill on this site – this is another threat to the stability of the site that has not been addressed in any earthworks plan). If the Site Area were to collapse in the future due to a flood or fire event, it would be catastrophic for the site, for us (the property owner) and other properties downstream and the Bremer River.'***

Cardno completed a flood study of the Bremer River. The scope of the flood study did not include a geotechnical investigation in relation to the stability of the proposed bank slope as this is necessarily work appropriate to qualified geotechnical engineers.

The property owner is referred to the detailed geotechnical investigation that was undertaken in relation to the proposed earthworks. Further, the flood study did not include consideration of subterranean fires in ash fill.

‘4. The Flood Study does not take into consideration the swirling nature of flood events and lateral flows.’

The Cardno flood study was conducted using the one-dimensional Mike-11 hydraulic model to be consistent with the modelling software used by Council. While it is acknowledged that the model is one-dimensional in nature, as the site is located on a relatively straight stretch of the Bremer River it is considered that eddy flows will be minimal and do not need to be modelled in this case.

‘5. The Flood Study does not take into consideration increased erosion of properties on the western bank as a result of flood waters being directed from the proposed steep reinforced 1:2 or 1:3 walls.’

Since the dumping of spoil on the Riverlink North Site (Lot 54) there has been considerable erosion and bank slumping on the western (Woodend) side of the river. The characteristics of a minor flood changed markedly since 2007 causing increased velocities and eddying across the river. In the minor flood event of 2008 some properties on the western side lost many cubic metres of their land as a result.’

The impact of the development on peak velocities for a minor flood event (10 year ARI event) was shown to be from -0.08 to 0.09 m/s in the area of development, with negligible impact upstream or downstream. This change in velocity is not considered sufficient to result in changes to the natural bank erosion and deposition behaviour. The proposed development will widen the flow width in the northern part of the development which will result in reduced velocities in this area.

‘6. The report suggests Manning roughness coefficient for the developed site is 0.08 (Cardno Flood Study 2008, p2). However, this is approximately half the targeted value in the Council's 2008 Riparian Corridor Rehabilitation Guideline which is aimed at reducing flood velocities, sediment loads and streambank erosion. The development plans should be revised to ensure Manning roughness coefficient is more in line with Council's targets.’

In order to satisfy common law requirements, it is necessary to demonstrate as part of a development application, that a proposed development will not adversely impact on flooding and cause an actionable nuisance. The basis for the determination of this impact is relative to the current condition of the site. While Council may have a desire to increase the level of vegetation within the corridor, such an increase in vegetation will impact on flood levels to some degree. This increase would impact both the existing and developed cases and is the responsibility of Council.

3502/70
12 November 2010

4



We trust that this response is of assistance. If you have any queries in relation to this letter, please do not hesitate to contact us.

Yours faithfully



Senior Principal
for Cardno

3262/10 AK: SJ
Aaron Kaiti
3810 6837

Lipoma Pty Ltd
c/- Michel Group Services
PO Box 2695
NERANG BC QLD 4211

15 July 2010

SUSTAINABLE PLANNING ACT 2009
DEVELOPMENT APPLICATION DECISION NOTICE

Application Details

Application No: 3262/10

Real Property Description: Lot 51, 52, 53, 54 and 55 on SP 222487 Par Chuwar

Property Location: 2 W M Hughes Street North Ipswich Qld 4305
22 W M Hughes Street North Ipswich Qld 4305
48 W M Hughes Street North Ipswich Qld 4305
3b North Street North Ipswich Qld 4305
21a North Street North Ipswich Qld 4305

Decision Date: 13 July 2010

Decision: This application is approved subject to the conditions listed below.

Deemed Approval Under s.331 This application is not a Deemed Approval under Section 331 of the *Sustainable Planning Act 2009*.

Decision Authority: Senior Engineering Officer

Decision Details:

Development	Approval Type	Decision	Relevant Period
Operational Works Bulk Earthworks	Development Permit	Approved subject to the conditions set out in Attachment A – Assessment Manager Conditions	Two (2) years

1. Approved Plans

(a) The approved plans for this development approval are:

- (i) the plans referred to in the table of approved plans (including any amendments that are required to be made to those plans); and
- (ii) where the amended versions of the plans referred to in the table of approved plans have been approved by the assessment manager, the amended versions of those plans.

(b) The approved plans are attached to this decision notice.

Table of Approved Plans:

Plan Number	Revision Number
YC0175-BE00	B
YC0175-BE02 to YC0175-BE06	B
YC0175-BE08 to YC0175-BE12	B
YC0175-BE15	B
YC0175-BE16-1	A
YC0175-BE16-2 to YC0175-BE16-3	B
YC0175-BE17-1 to YC0175-BE17-3	A
YC0175-BE18 to YC0175-BE23	B
YC0176-BE00 to YC0176-BE03	B
YC0176-BE04-1 to YC0176-BE04-3	B
YC0176-BE05-1 to YC0176-BE05-4	A
YC0176-BE06 to YC0176-BE15	B
QC003754:03-C000	B
C003754:03-SK03 to C003754:03-SK04	G F
C003754:03-SK05 to C003754:SK13	A
C003754:03-SK30 to C003754:03-SK31	- -
C003754:03-SK32	A
C003754:03-SK092 to C003754:03-SK95	- A
C003754:03-SK100 to C003754:03-SK101	- C
C003754:03-SK102 to C003754:03-SK105	B A

QC003754:04-C000 C003754:04-SK03 C003754:04-SK021 C003754:04-SK022 to C003754:04-SK26 C003754:04-SK030 C003754:04-SK100 to C003754:04-SK102	
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2. Referral Agencies

Referral Agency	Referral Role
Transport and Main Roads PO Box 70 SPRING HILL QLD 4004	Concurrence
Energex GPO Box 1461 BRISBANE QLD 4001	Concurrence

3. Conditions of Assessment Manager (Ipswich City Council)

Refer to Attachment A.

4. Appeal Rights

Attachment B is an extract from the *Sustainable Planning Act 2009* which details the applicant's appeal rights and the appeal rights of any submitters regarding this decision.

Yours faithfully

Aaron Katt
SENIOR ENGINEERING OFFICER

cc: Transport and Main Roads
PO Box 70
SPRING HILL QLD 4004

Energex
GPO Box 1461
BRISBANE QLD 4001

Enc.

a. Assessment Manager Conditions (Attachment A)

- b. *Sustainable Planning Act 2009* extract on appeal rights (Attachment B)
- c. Approved Plans
- d. Referral Agency Responses

Attachment A
Assessment Manager (Ipswich City Council) Conditions
Conditions applicable to this approval under Sustainable Planning Act:

1. Basis of Approval

The facts and circumstances set out in the application and all relevant Council Local Laws and Planning Scheme Policies must be adhered to, except as amended in these conditions. Future road alignments, location of bio-retention basin and building layouts as shown on YC0175-BE06 Revision B to YC0175-BE12; YC0175-BE18 Revision B; YC0175-BE22 Revision B and YC0175-BE23 Revision B dated 29 January 2010, prepared by Yeats Consulting Engineers are excluded from this approval.

2. Minor Alterations

Notwithstanding the requirements detailed in this approval, any other minor alterations and/or modifications must be subject to the prior written approval of the Senior Development Engineer.

3. Hours of Construction

Unless otherwise approved in writing by the Engineering and Environment Manager hours of construction must be:

Monday to Saturday 6.30 a.m. to 6.30 p.m.

Work or business must not be conducted from or on the premises outside the above hours or on Sundays or public holidays.

4. Terms

- (a) RPEQ - A Registered Professional Engineer of Queensland, suitably qualified and experienced in the particular area of expertise required. Furthermore, the RPEQ required for the analysis and reporting for mining must be experienced in the analysis of underground and surface mining within the Ipswich area.
- (b) QUDM - The Queensland Urban Drainage Manual, produced by the Queensland Department of Primary Industries.
- (c) QDMR - Queensland Department of Main Road.
- (d) MUTCD - The Manual of Uniform Traffic Control Devices, published by DMR.
- (e) Queensland Urban Utilities - Water and Wastewater service provider.

5. Municipal Works Pre-Start Requirements

- (a) The requirements of Council's Planning Scheme Policy 3 - General Works apply to all municipal works.
- (b) The Developer must nominate a suitable date and time for a pre-start meeting to be attended by the Developer or representatives, including the nominated Principal Contractor, Consulting Engineer and Council Officers, in accordance with Planning Scheme Policy 3 Clause 7.2.9.
- (c) The following information is required by Planning Scheme Policy 3 to be submitted prior to or at the pre-start meeting:-
 - (i) Copies of the relevant contract documents for all Municipal Works, including a schedule of quantities and prices;
 - (ii) Business and after hours contact phone numbers of the Developer, Consulting Engineer and Contractor;
 - (iii) Date of commencement of works and expected duration.
- (d) The Developer must submit evidence of possession of the following insurances as required by Planning Scheme Policy 3 Part 7.2.5 prior to the pre-start meeting:
 - (i) Public Liability insurance to a minimum value of \$10M, with a notation nominating the Local Government as an Interested Party; and
 - (ii) Worker's Compensation Insurance

No work may commence on the site unless the Developer has the necessary insurances in place.
- (e) Prior to the pre start meeting and the commencement of any construction works the developer must submit to Council, and obtain approval for, amended drawings signed by a RPEQ demonstrating compliance with Council standards and any requirements in the Decision Notice or specified by the Senior Development Engineer.
- (f) The amended drawings must be accompanied by a Certificate of Design signed by a RPEQ, certifying that the design is in accordance with all relevant engineering standards, Council's requirements and standards, relevant development conditions of approval, and sound engineering practice.
- (g) Prior to the Pre-Start meeting, the Developer must submit to Council a Development Performance Bond of not less than 10% of the value of the municipal works (minimum \$5,000.00), as security for the performance of the various construction and certification obligations (including provision of "As Constructed" information).

- (h) Municipal works must be accepted "On Maintenance" prior to commencement of use. Upon formal acceptance of the works "On Maintenance", the Development Performance Bond shall be reduced to an amount not less than 5% of the value of the works or \$1,000.00 whichever is greater, and shall be retained by Council during the maintenance period as a Maintenance Security Bond for the performance of the maintenance obligations. Alternatively the Developer may submit a separate Maintenance Security Bond of equivalent value. This Bond shall be retained by Council in accordance with *Planning Scheme Policy 3*, until the works are accepted "Off Maintenance" by Council.
- (i) **No construction works, including building activities, must commence on the subject sites until such time as all necessary performance and silt and erosion bonds are submitted to Council prior to pre-start meeting.**
- (j) Queensland Urban Utilities has implemented a **Permit to Work** System. The purpose of the Permit to Work System is to reduce risk to Queensland Urban Utilities employees, external contractors, assets and the environment. All planned works conducted on or near Queensland Urban Utilities assets come under the control of the Queensland Urban Utilities and must be authorised. The Developer or representative must contact the Queensland Urban Utilities on telephone 136257 to obtain a **Permit to Work** form, which must be completed and submitted to Queensland Urban Utilities, prior to the pre-start meeting.
- (k) The Developer must obtain a Water Use Authority (WUA) from Queensland Urban Utilities if, over the approval relevant period, the potable water restriction level at the time of commencement of, and during, construction prohibits potable water use for construction or associated development purposes. The WUA can be obtained by completing a Water Use Declaration and forwarding it to Queensland Urban Utilities for approval. Evidence of possession of a current WUA, where applicable, must be provided to the Senior Development Engineer prior to the pre-start meeting.
- (l) All works required for this development must take due regard of any and all existing services and, if considered necessary by the relevant authority or the Senior Development Engineer, such works must be altered at the cost of the Developer.
- (m) The Developer is responsible to ensure that all kerbside traffic control signs and any other warning signs are protected from obstruction, damage or removal at all times during the works. No kerbside traffic control or warning signs may be removed, permanently or temporarily, during the works without written authority from the Senior Development Engineer. Any signs that are damaged or removed must be replaced within 24 hours of Council notification, at the cost of the Developer.

6. Engineering Certifications

- (a) Engineering drawings must be marked as confirmation that they have been checked and approved by a RPEQ.
- (b) Engineering certification (by RPEQ or other competent person accepted by the Senior Development Engineer) must be submitted to Council for the construction of all civil works associated with the development. This certification must state that all works undertaken on the site are in accordance with the documents as listed in Condition 8(e) below and all conditions of this approval.
- (c) The developer must demonstrate and provide certification from an RPEQ that in the 20 year, 10 year and 5 year ARI Bremer River Flood event, as defined in Section 3.2 of Riverlinks Central Flood Study prepared by Cardno (Qld) Pty Ltd dated 23 July 2008 that the proposed earthworks profile will not increase flood levels on adjacent properties upstream or downstream of the development site.
- (d) The certifying authority (or his/her representative) is expected to undertake inspections as necessary to ensure the finished product conforms to the required standards, and is appropriate for its intended use.

7. Water Use Declaration

The use of potable or recycled water on any development site must be approved by Queensland Urban Utilities. The Developer must obtain and maintain current, an approved Water Use Declaration (WUD), by completing a Water Use Declaration form and submitting it to Queensland Urban Utilities for approval. Evidence of possession of an approved WUD must be submitted to the Senior Development Engineer prior to the pre-start meeting.

8. Earthworks

- (a) Retaining walls, including footings and drainage systems, must be constructed entirely within the boundaries of the lot and in accordance with the requirements of the Planning Scheme Policy 3. Should the nature or materials of a retaining wall be such that future maintenance will be required, provision must be made in placement of the wall to ensure that such maintenance can be completed without intrusion onto the adjacent lot.
- (b) The developer must submit for approval detailed design drawings of all proposed retaining walls constructed as part of this approval prior to construction.
- (c) Any allotment or other filling creating a soil depth of 500mm or more must be conducted in accordance with Australian Standard 3798. Test results as required by Australian Standard 3798 at Responsibility Level 1, and a certificate of quality and uniformity of fill must be provided by a RPEQ.

- (d) Where batters resulting from cut and fill on the site produce slopes greater than 1:4, the Developer must provide RPEQ certification that the slopes are stable and properly drained.
- (e) All works to be completed on site must be undertaken in accordance with the following documents:-
 - (i) Assessment of Fill Batter prepared by Morrison Geotechnic Pty Ltd dated 21 November 2007.
 - (ii) Riverlinks Central Flood Study prepared by Cardno (Qld) Pty Ltd dated 7 October 2009.
 - (iii) Environmental Management Plan – Ipswich Riverlink Shopping Centre Riverside – Stage 2 Earthworks prepared by VDM Consulting dated March 2010.
 - (iv) Remediation Plan for the Riverlink Project North Ipswich prepared by GeoEnvironmental Consultants dated 9 February 2010.
 - (v) Third Party Review of Remediation Plan – Ipswich Riverlink prepared by WSP Environmental Pty Ltd dated 9 February 2010.
 - (vi) Comprehensive Health and Safety Plan prepared by VDM Consulting.
 - (vii) Riverlinks Central Flood Study prepared by Cardno (Qld) Pty Ltd dated 23 July 2008.
 - (viii) Riverlinks Central Flood Study Version 1 prepared by Cardno (Qld) Pty Ltd dated 23 July 2008.
 - (ix) Riverlinks Central Flood Study Version 1 prepared by Cardno (Qld) Pty Ltd dated 28 August 2009.
- (f) Prior to the prestart meeting a RPEQ must provide certification that the amended drawings have been prepared in accordance with the documents listed in the above condition 8(e).
- (g) Top of batters must be located 0.5m offset to all road and adjacent property boundaries.
- (h) The developer must provide fencing along the road frontage of W.M Hughes Street adjacent to the temporary 1 in 2 batter to prevent pedestrian access to the batter.
- (i) Property owners permission from Lot 35 on SP175172 accepting the concentration of stormwater as a result of the construction of the proposed berm along the common property boundary must be submitted to Council prior to the prestart meeting. If this consent is not forthcoming

the berm must be amended so that ponding of stormwater on the adjacent property does not occur.

- (j) Prior to construction commencing the developer must undertake a dilapidation survey via CCTV of the 300mm dia private sewer main. Once the Bulk Earthworks are completed a second CCTV survey of the main must be undertaken. Both surveys (including summary reports) must be submitted to Council. Any additional damage identified as being caused by these development works must be rectified by the developer.
- (k) All disturbed areas must be satisfactorily treated to ensure stability and to eliminate all scour and erosion.

9. Stormwater & Drainage

- (a) Easements must be placed over all stormwater infrastructure with a pipe diameter greater than or equal to 375mm.
- (b) Spacing of access chambers on municipal stormwater infrastructure must not exceed 90.0m. The developer must construct additional access chambers as required.
- (c) Turf must be staked in place 10.0m wide on both sides of the existing concrete low flow channel shown on drawing YC0175-BE18 Revision B.
- (d) The developer must demonstrate prior to construction that stormwater flows from outlets 1/2 and 1/1 are managed satisfactory in relation to limiting erosion from the end of the batter chute to the water line of the Bremer River.
- (e) The developer must construct the rock batter drains to the waterline of the Bremer River. The developer must ensure that all relevant approvals from State Agencies in relation to this work within the riverbank areas must be obtained prior to the construction commencing. Additionally the developer must demonstrate that the batter drains have the capacity to contain all flows from these outlets.
- (f) Stormwater Lines 4 and 5 must be upgraded to 375mm dia pipes.
- (g) All stormwater headwall structures shall be constructed in accordance with the relevant Main Roads Department's standard drawings for reinforced concrete headwalls and aprons. This construction shall include a cut off wall on each structure.

10. Municipal Works Completion Requirements

- (a) Upon completion of the Municipal Works the Developer must submit RPEQ certification that the work has been constructed in accordance with Council construction standards, and in compliance with the approved plans and specifications. All work must be supervised by a RPEQ

competent in the construction of municipal works and must be undertaken by a nominated principal contractor experienced in the construction of municipal works. Council may request evidence of the principal contractor's competency. It is expected that the RPEQ will undertake all the necessary inspections to validate the certification.

- (b) "As Constructed" information for municipal works, including all supporting certifications and test results and the Developer's audits of them, must be submitted to Council for approval prior to any "On Maintenance" inspections.
- (c) Council may, at its sole discretion, backdate "On Maintenance" acceptance to the date of Practical Completion, provided that all necessary "As-Constructed" information and supporting documentation are submitted and have gained approval within twenty (20) business days of the date of Practical Completion.
- (d) Should the Developer fail to supply all the necessary "As Constructed" information and supporting documentation to Council (to the satisfaction of the Senior Development Engineer) within twenty (20) business days of the date of Practical Completion, the acceptance date will revert to the date when all the required inspections, bonds and other documentation have been received by Council.
- (e) Notwithstanding the acceptance of the works "Off Maintenance", the certifying RPEQ remains liable for defects in design and construction of all certified work. Council retains the right to call upon the RPEQ to rectify any works which fail to comply with the submitted documentation.

11. Internal Works

- (a) Engineering certification (by RPEQ or other competent person accepted by the Senior Development Engineer) must be submitted to Council for the construction of all internal civil works associated with the development.
- (b) The certifying authority (or his/her representative) is expected to undertake inspections as necessary to ensure the finished product conforms to standards, and is appropriate for its intended use.
- (c) If any of the proposed works associated with this development within or adjacent to existing waterway triggers the Department of Natural Resources and Mines (DNRM) concurrence under the Water Resources Act 1989 or Water Act 2000, governing works within a watercourse and or water containment, the Developer shall provide Council with evidence of the DNRM licence or otherwise for these works prior to any construction commencing within the affected areas.

12. Silt Management

- (a) The Developer is responsible for the installation and maintenance of silt management facilities and truck shake down facilities from the time of commencement of construction until the works have been accepted "Off Maintenance". All silt management facilities must be designed, installed and maintained in accordance with "*Best Practice Erosion and Sediment Control*" published by the International Erosion and Sediment Control Association Australasia, or equivalent. Silt and erosion control and truck shake down facilities must be installed and available for inspection prior to the pre-start meeting.
- (b) Prior to the prestart meeting the developer must provide RPEQ certification that the sediment and erosion control plans are in accordance with "*Best Practice Erosion and Sediment Control*" published by the International Erosion and Sediment Control Association Australasia, or equivalent.
- (c) The proposed sedimentation and erosion control plans and all proposed stormwater devices including proposed outlets are accepted subject to performance and may be subject to on-site direction from the Senior Development Engineer to the developer to change the design.
- (d) If the Senior Development Engineer determines that erosion and sediment originating from the site has caused siltation and/or erosion on other property, the Developer shall be responsible to restore any damage. Such restoration works must be completed in the time and to a standard determined by the Senior Development Engineer.
- (e) Should the Developer fail to complete the restoration works determined by the Senior Development Engineer within the specified time or to a satisfactory standard, Council may complete the work and recover all costs from the Developer associated with that work. For this purpose, the Developer must lodge a \$20,000.00 silt and erosion bond with Council, prior to the Pre-Start meeting, which shall only be released by Council at the termination of the maintenance period. Where Council determines that a drawdown of the bond is required, the Developer must restore the bond to its full amount within ten (10) business days of a notice from Council to that effect.
- (f) A 1.8m high chain wire fence must be provided around the perimeter of all sediment basins constructed as part of this approval.
- (g) The rock lined overflow channels from each sediment basin must be constructed to the waterline of the Bremer River. The developer must ensure that all relevant approvals from State Agencies in relation to this work within the riverbank areas must be obtained prior to the construction commencing.

- (h) All proposed swale drains not rock lined must be lined with turf for the full width of the swale drain if velocities of flows contained within the swales are 2.0m/s or less. Swales

with flows greater than 2.0m/s must not be lined with turf however must be suitable protected to limit scour and erosion.

13. Transport of Soil, Fill or Excavated Material

During the transportation of soil and other fill/excavated material:

- (a) All trucks hauling soil, fill or excavated material external to the site must have their loads secure and covered;
- (b) Any spillage that falls from the trucks or their wheels external to the site must be collected and removed from the site and streets along which the trucks travel, on a daily basis; and
- (c) Measures must be taken to remove soil from the wheels of vehicles prior to the vehicles exiting the site, to prevent soil and mud being deposited on public roads.

14. Approved Plans

The following is a list of the plans upon which this determination is forwarded:-

Plan Number	Revision Number
YC0175-BE00	B
YC0175-BE02 to YC0175-BE06	B
YC0175-BE08 to YC0175-BE12	B
YC0175-BE15	B
YC0175-BE16-1	A
YC0175-BE16-2 to YC0175-BE16-3	B
YC0175-BE17-1 to YC0175-BE17-3	A
YC0175-BE18 to YC0175-BE23	B
YC0176-BE00 to YC0176-BE03	B
YC0176-BE04-1 to YC0176-BE04-3	B
YC0176-BE05-1 to YC0176-BE05-4	A
YC0176-BE06 to YC0176-BE15	B
QC003754:03-C000	B
C003754:03-SK03 to C003754:03-SK04	G F
C003754:03-SK05 to C003754:SK13	A
C003754:03-SK30 to C003754:03-SK31	- -
C003754:03-SK32	A
C003754:03-SK092 to C003754:03-SK95	- A
C003754:03-SK100 to C003754:03-SK101	- C
C003754:03-SK102 to C003754:03-SK105	B A

QC003754:04-C000 C003754:04-SK03 C003754:04-SK021 C003754:04-SK022 to C003754:04- SK26 C003754:04-SK030 C003754:04-SK100 to C003754:04- SK102	
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15. When Approval Takes Effect

This approval has effect in accordance with the provisions of section 339 of the *Sustainable Planning Act 2009* as follows:

- (a) If the Developer does not appeal the decision to the court - from the time the decision notice is given (or if a negotiated decision notice is given, from the time the negotiated decision notice is given); or
- (b) If an appeal is made to the court - subject to the decision of the court, when the appeal is finally decided.

16. When Approval Lapses

- (a) This approval lapses at the end of the relevant period, unless the development happens before the end of the relevant period. The relevant period for this approval is two (2) calendar years commencing on the day the approval takes effect.
- (b) An extended relevant period may be agreed upon, pursuant to section 380 of the *Sustainable Planning Act 2009*, provided that a written notice to Council is submitted before the end of the relevant period. Such written notice must be submitted on Council's approved form, accompanied by the owner's consent and the prescribed fee listed in Council's Register of Fees and Charges.

17. Conditions of Concurrence Agencies

1. The Department of Transport and Main Roads is a concurrence agency with regard to this development approval. The attached concurrence agency response, dated 7 June 2010, forms part of this Decision Notice.
2. Energex Limited is an advice agency with regard to this development approval. The attached advice agency response, dated 7 July 2010, forms part of this Decision Notice

Advice

The following advices are offered for your information only and should not be viewed as mandatory conditions of this approval.

Assessment Manager (Ipswich City Council)

1. Council has reviewed the Operational Works drawings in relation to the proposed works (Date). A detailed check of the calculations and drawings has not been undertaken, as they must be certified by a RPEQ. Council reserves the right to require further amendments and/or additions at a later date should design errors or omissions become apparent in regard to the works relevant to this Operational Works approval

2. Fire Ants Restricted Area

In accordance with the *Plant Protection Act 1989* and the *Plant Protection Regulation 1990*, a quarantine notice has been issued for the State of Queensland to prevent the spread of the Red Imported Fire Ant (ant species *Solenopsis invicta*) and to eradicate it from the State.

It is the legal obligation of the land owner or any consultant or contractor employed by the land owner to report the presence or suspicion of Fire Ants to the Queensland Department of Primary Industries on 132523 within 24 hours of becoming aware of the presence or suspicion, and to advise in writing within seven days to:

Director General
Department of Primary Industries
GPO Box 46, Brisbane QLD 4001

It should be noted that the movement of Fire Ants is prohibited, unless under the conditions of an Inspectors Approval. More information can be obtained from the Queensland Department of Primary Industries website www.dpi.qld.gov.au.

The land over which you have made a development application is within a suburb known to have Fire Ants and as such is within a "Restricted Area". The presence of Fire Ants on the site may affect the nature, form and extent of works permitted on the site. In view of this it will be necessary for you to contact the Department of Primary Industries to investigate the site and for you to implement any necessary matters required by that Department prior to the commencement of any works.

Attachment B

Appeal Rights

The following is an extract from the *Sustainable Planning Act 2009*

Chapter 6, Part 8 Division 1

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

360 Application of div 1

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

361 Applicant may make representations about decision

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

362 Assessment manager to consider representations

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

363 Decision about representations

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

366 Applicant may suspend applicant's appeal period

- (1) If the applicant needs more time to make the representations, the applicant may, by written notice given to the assessment manager, suspend the applicant's appeal period.
- (2) The applicant may act under subsection (1) only once.
- (3) If the representations are not made within 20 business days after the day written notice was given to the assessment manager, the balance of the applicant's appeal period restarts.

- (4) If the representations are made within 20 business days after the day written notice was given to the assessment manager—
 - (a) if the applicant gives the assessment manager a notice withdrawing the notice under subsection (1)—the balance of the applicant's appeal period restarts the day after the assessment manager receives the notice of withdrawal; or
 - (b) if the assessment manager gives the applicant a notice under section 363(5)—the balance of the applicant's appeal period restarts the day after the applicant receives the notice; or
 - (c) if the assessment manager gives the applicant a negotiated decision notice—the applicant's appeal period starts again the day after the applicant receives the negotiated decision notice.

Chapter 7, Part 1, Division 8

Division 8 Appeals to court relating to development applications and approvals

461 Appeals by applicants

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

462 Appeals by submitters—general

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

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

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

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

464 Appeals by advice agency submitters

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

465 Appeals about decisions relating to extensions for approvals

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

466 Appeals about decisions relating to permissible changes

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

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

- (1) A person to whom a notice under section 378(9)(b) giving a decision to change or cancel a condition of a development approval has been given may appeal to the court against the decision in the notice.

- (2) The appeal must be started within 20 business days after the day the notice of the decision is given to the person.

Your reference
Our reference 6293/09 B10:RH
Contact Officer Brett Dawey
Telephone 3810 6258



Ipswich City Council

45 Roderick St
PO Box 191
Ipswich QLD 4305
Australia

Tel (07) 3810 6666
Fax (07) 3810 6731
Email council@ipswich.qld.gov.au
Web www.ipswich.qld.gov.au

Lipoma Pty Ltd
C/- Michel Group Services
PO Box 2695
NERANG QLD 4211

1 November 2010

INTEGRATED PLANNING ACT 1997

DEVELOPMENT APPLICATION DECISION NOTICE

Application Details

Application No: 6293/09

Real Property Description: Lot 55 on SP222487

Property Location: 21A North Street, North Ipswich

Names and Addresses of all Referral Agencies: Department of Environment and Resource Management
South East Region
PO Box 1164
BEENLEIGH QLD 4207

Energex
GPO Box 1461
BRISBANE QLD 4001

Decision Date: 1 November 2010

Decision: Approved subject to the conditions detailed below.

Decision Authority: Team Co-ordinator - Central West

Approval Details:

Proposal	Development	Decision	Approval Type
Multiple Residential (100 Units)	Making a Material Change of Use of Premises	Approved	Development Permit.

Further Development Permits Required

Further Development Permits, as required by the *Integrated Planning Act 1997*, shall be obtained in respect of any Operational Works, Building Works and Plumbing Works in relation to this approval before any such works are commenced.

Conditions**Assessment Manager (Ipswich City Council)*****Conditions applicable to this approval under Integrated Planning Act:***1. Basis of Approval

This approval is subject to these conditions, the facts and circumstances set out in the application and adherence to all relevant Council Local Laws and/or Planning Scheme Policies.

2. Minor Alterations

Notwithstanding the requirements detailed in this approval, any other minor alterations and/or modifications accepted in writing by the assessment manager will suffice.

3. Development Plans

The development of the site must be undertaken generally in accordance with the approved plans outlined in part 3 of the decision notice.

Plan Number and Revision	Title	Date	Prepared By
2009.12 DA01B	Development Details	April 2010	Bristow Architects Pty Ltd
2009.12 DA02D	Site Plan	April 2010	Bristow Architects Pty Ltd
2009.12 DA03D	Site Layout	April 2010	Bristow Architects Pty Ltd
2009.12 DA04B	Unit Floor Plans 'A' and 'B'	April 2010	Bristow Architects Pty Ltd
2009.12 DA05A	Unit Floor Plans 'C', 'D' & 'E'	August 2009	Bristow Architects Pty Ltd

2009.12 DA06A	Block 1 Plan and Typical 4 unit layout	August 2009	Bristow Architects Pty Ltd
2009.12 DA07A	Block 1 Elevations & Typical 4 Unit	August 2009	Bristow Architects Pty Ltd
2009.12 DA08A	Block 2 Plans and typical 6 unit	August 2009	Bristow Architects Pty Ltd
2009.12 DA09A	Block 2 Elevations and Typical 6 Unit	August 2009	Bristow Architects Pty Ltd
2009.1 DA10B	Site Entry Areas & Part East Elevation	October 2009	Bristow Architects Pty Ltd
2009.1 DA11C	Pedestrian Network	April 2010	Bristow Architects Pty Ltd
2009.1 DA12	Elevations / Colour Palette	7 August 2009	Bristow Architects Pty Ltd
2009.1 DA14	Block 19 Units (North St Frontage)	1 October 2009	Bristow Architects Pty Ltd
2009.1 DA15A	Development Staging Plan	April 2010	Bristow Architects Pty Ltd

4. Proposed Stages

The staging of the proposal shall be in accordance with Plan Number 2009.12 DA15A prepared by Bristow Architects Pty Ltd and dated 11 March 2010. The staging must be sequenced in the order identified on the approved plans. Where a terminating road is proposed to be extended as part of a later stage, a temporary turnaround area must be provided to the satisfaction of the Senior Development Engineer.

5. Drainage reserve

Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use for Stage 3, whichever comes first, the proposed drainage reserve (proposed Lot 551 of Reconfiguring a Lot Approval 2727/10) must be dedicated as drainage reserve in favour of Council and not included within parkland dedication.

6. Visual Privacy

The private open spaces and living rooms of adjacent dwelling units are to be protected from direct overlooking by dwelling unit layout, screening devices, distance or landscaping. At minimum, windows of one dwelling are not to be located opposite the windows of another dwelling unless direct views are controlled by blinds or other screening devices, or by sufficient distance or height to discourage overlooking, to the satisfaction of the assessment manager.

7. Fencing

Unless otherwise approved in writing by the assessment manager, front fences and walls must have a maximum height of:

- (a) Where the boundary is a common boundary to a road or drainage reserve, the fence shall comprise solid fencing to a maximum height of 1200 mm with a panel of minimum 50% transparency between the top of the solid fencing and maximum height of 1800 mm.
- (b) Where the boundary is between a common area and a road or a drainage reserve, the fence must be powder coated aluminium pool style fencing.

Details of the proposed fencing must be submitted in conjunction with the landscaping plan required by Condition 23.

Note: Where a boundary fence shares a common boundary with private land, the consent of the relevant land owner must be sought pursuant to the *Dividing Fences Act 1991*.

- (c) Fences to roads and drainage reserves must not exceed 10m in length without some form of articulation or detailing to provide visual interest.

8. Letter Boxes, Laundering and Storage Facilities

- (a) Unless otherwise approved by the assessment manager, one letter box must be provided per unit plus one letter box for use by the body corporate or management. Such letter boxes must form an integral part of the design of the development and must be located on the road frontage boundary to which the site has been allocated its street address, unless otherwise approved by the assessment manager.
- (b) Each dwelling unit within the development must be provided with individual laundry and clothes drying facilities screened and located to the satisfaction of the assessment manager.
- (c) Alternatively, communal facilities must be provided, screened and located not more than 100 metres from any dwelling unit, to the satisfaction of the assessment manager.

9. Colour Scheme

The colour scheme must include textures and / or colours which will blend aesthetically with the surrounding environment. Extensive use of very bright colours or dark colours externally should be avoided unless they are unlikely to detract from the amenity and character of adjacent development or public or semi-public spaces.

10. Streetscape Works

- (a) The Developer shall plant street trees for the length of the North Street frontage of the development. A streetscape plan must be submitted for the written approval of Council, in conjunction with the lodgement of an operational works application. The plan must be in accordance with Council's Street Tree Strategy and Council's Standard Drawings and must achieve the following:
 - (i) Identify all new and existing trees within the dedicated road, including those to be retained and those to be removed;

- (ii) Identify the location/ proximity of services within the road reserve; and
 - (iii) Provide details of proposed planting including common and botanical names and height and spread at maturity.
- (b) Such streetscaping must be completed in accordance with the approved streetscape plan to the satisfaction of the Chief Operating Officer (Health Parks and Recreation) and must be completed prior to the signing of any plan of survey.
 - (c) The developer must maintain street trees for a period of eighteen (18) months after an 'On Maintenance' inspection by the Chief Operating Officer (Health Parks and Recreation).

Note:

Species must be in accordance with the Ipswich City Council Street Tree Strategy. Root intrusive trees must not be planted in the road reserve. The developer or agent must liaise with Council's Health, Parks and Recreation Department prior to any planting for determination of species selection.

11. Carparking - Use and Maintenance

- (a) Car parking spaces shall be provided on site for the proposed development generally in accordance with the development plans referenced in Condition 3 (a). To this end, parking must be provided at the following rates:
 - (i) A minimum of one (1) covered carparking space per dwelling for exclusive resident use
 - (ii) A minimum of 0.5 spaces per dwelling for visitor parking
 - (iii) A minimum of 0.5 spaces per dwelling for use by both residents and visitors.
- (b) Unless otherwise indicated on the approved plan of development or approved by the assessment manager, parking areas must not be:
 - (i) Exclusively used for visitor parking at the expense of resident parking; or
 - (ii) Exclusively used for resident parking at the expense of visitor parking, or
- (c) All parking areas must be:
 - (i) Kept exclusively for parking;
 - (ii) Used exclusively for parking;
 - (iii) Appropriately signposted at the entry/entries to the car park, to the satisfaction of the assessment manager in accordance with AS1742; and
 - (iv) Maintained to the satisfaction of the assessment manager.

12. Carparking - Landscaping

Unless approved by the assessment manager, the equivalent of one (1) car parking bay for every eight contiguous (8) bays should be fully landscaped to provide shading to the carparks unless otherwise approved by the assessment manager. Such landscaped areas are required in addition to the number of car parking bays required under this approval and/or indicated on the approved plan of development. These areas should be landscaped with at least one shade tree centrally located and groundcovers as a minimum requirement. Details shall be included in the Landscaping Plan required by this Development Permit.

13. Hours of Construction

Unless otherwise determined in writing by the assessment manager, hours of construction must not exceed:

Monday to Saturday 6:30am to 6:30pm

Construction work must not be conducted from or on the premises outside the above hours or on Sundays or public holidays.

14. Particular Use

This approval is for the particular use stated, and does not imply approval for other similar uses. The use of any of the structures associated with the Multiple Residential Use inclusive of car parking and any associated outdoor areas on the site, are not permitted to be used for any other purpose, unless, in the written opinion of the assessment manager, such use is ancillary and incidental to the predominant use of the site for a Multiple Residential Use.

15. Contributions

In accordance with the relevant Council Policies, the Developer shall pay, prior to the issue of Form 21 – 'Final Inspection Certificate for Building Works' or prior to the commencement of the use for each stage, whichever comes first, the following monies to Council:-

Stage 1:

Contribution	Sector	Rate	Proposal	Calculation
Community Facilities Infrastructure	SIC 7 – North Ipswich	\$ 338.62 Index: 1.1724	21 x 2 bedroom units @ 1.58 EP = 33.18 EP 33 x 3 bedroom units @ 2.34 EP = 77.22 EP TOTAL: 110.4 EP No Credits Applicable	110.4 EP x \$338.62 x 1.1724 = \$43,828.58892 = \$43,829.00

Parks Infrastructure	PKC7 – North Ipswich	\$ 2,506.99 Index: 1.1724	21 x 2 bedroom units @ 1.58 EP = 33.18 EP 33 x 3 bedroom units @ 2.34 EP = 77.22 EP TOTAL: 110.4 EP No Credits Applicable	110.4 EP x \$2,506.99 x 1.1724 = \$324,487.1364 = \$324,487.00
Water Supply	WT4 – Brassall Low Level	\$ 1,120.00 Index: 1.1724	21 x 2 bedroom units @ 1.5 EP = 31.5 EP 33 x 3 bedroom units @ 1.75 EP = 57.75 EP TOTAL= 89.25 EP No Credits Applicable	89.25 EP x \$ 1,120.00 x 1.1724 = \$ 117,193.104 = \$ 117,193.00
Sewerage	SW25 – SP49	\$ 923.00 1.1724	21 x 2 bedroom units @ 1.5 EP = 31.5 EP 33 x 3 bedroom units @ 1.75 EP = 57.75 EP No Credits Applicable TOTAL= 89.25 EP	89.25 EP x \$ 923.00 x 1.1724 = \$ 96,579.6741 = \$ 96,580.00
Road Contributions	RD39 – North Ipswich (South)	\$ 725.00 Index: 1.1281	21 x 2 bedroom units @ 3.8 VT = 79.8 VT 33 x 3 bedroom units @ 5.6 VT = 184.8 VT TOTAL: 264.6 VT No Credits Applicable	264.6 VT x \$ 725.00 x 1.1281 = \$ 216,409.0635 = \$ 216,409.00
Footpath*	n/a	\$260/m	Works Required, Contributions Not Applicable	Works Required, Contributions Not Applicable
Kerb and Channel	n/a	\$540/m	Works Required, Contributions Not Applicable	Works Required, Contributions Not Applicable
Total				\$ 798,498.00

Stage 2:

Contribution	Sector	Rate	Proposal	Calculation
Community Facilities Infrastructure	SIC 7 – North Ipswich	\$ 338.62 Index: 1.1724	6 x 2 bedroom units @ 1.58 EP = 9.48 EP 10 x 3 bedroom units @ 2.34 EP = 23.4 EP TOTAL: 32.88 EP No Credits Applicable	32.88 EP x \$338.62 x 1.1724 = \$13,053.29713 = \$13,053.00
Parks Infrastructure	PKC7 – North Ipswich	\$ 2,506.99 Index: 1.1724	6 x 2 bedroom units @ 1.58 EP = 9.48 EP 10 x 3 bedroom units @ 2.34 EP = 23.4 EP TOTAL: 110.4 EP No Credits Applicable	32.88 EP x \$2506.99 x 1.1724 = \$96,640.7341 = \$96,641.00
Water Supply	WT4 – Brassall Low Level	\$ 1,120.00 Index: 1.1724	6 x 2 bedroom units @ 1.5 EP = 9 EP 10 x 3 bedroom units @ 1.75 EP = 17.5 EP No Credits Applicable TOTAL= 26.5 EP	26.5 EP x \$ 1,120.00 x 1.1724 = \$ 34,796.832 = \$ 34,797.00
Sewerage	SW25 – SP49	\$ 923.00 Index 1.1724	6 x 2 bedroom units @ 1.5 EP = 9 EP 10 x 3 bedroom units @ 1.75 EP = 17.5 EP No Credits Applicable TOTAL= 26.5 EP	26.5 EP x \$ 923.00 x 1.1724 = \$ 28,676.3178 = \$ 28,676.00

Road Contributions	RD39 – North Ipswich (South)	\$ 725.00 Index: 1.1281	6 x 2 bedroom units @ 3.8 VT = 22.8 VT 10 x 3 bedroom units @ 5.6 VT = 56 VT TOTAL: 78.8 VT No Credits Applicable	78.8 VT x \$ 725.00 x 1.1281 = \$ 64,448.353 = \$ 64,448.00
Footpath*	n/a	\$260/m	Works Required, Contributions Not Applicable	Works Required, Contributions Not Applicable
Kerb and Channel	n/a	\$540/m	Works Required, Contributions Not Applicable	Works Required, Contributions Not Applicable
Total				\$ 237,615.00

Stage 3:

Contribution	Sector	Rate	Proposal	Calculation
Community Facilities Infrastructure	SIC 7 – North Ipswich	\$ 338.62 Index: 1.1724	10 x 2 bedroom units @ 1.58 EP = 15.8 EP 20 x 3 bedroom units @ 2.34 EP = 46.8 EP TOTAL: 62.6 EP No Credits Applicable	62.6 EP x \$338.62 x 1.1724 = \$24,852.08031 = \$24,852.00
Parks Infrastructure	PKC7 – North Ipswich	\$ 2,506.99 Index: 1.1724	10 x 2 bedroom units @ 1.58 EP = 15.8 EP 20 x 3 bedroom units @ 2.34 EP = 46.8 EP TOTAL: 62.6 EP No Credits Applicable	62.6 EP x \$2506.99 x 1.1724 = \$183,993.6118 = \$183,994.00
Water Supply	WT4 – Brassall Low Level	\$ 1,120.00 Index: 1.1724	10 x 2 bedroom units @ 1.5 EP = 15 EP 20 x 3 bedroom units @ 1.75 EP = 35 EP No Credits Applicable TOTAL= 50 EP	50 EP x \$ 1,120.00 x 1.1724 = \$ 65,654.40 = \$ 65,654.00

Sewerage	SW25 -- SP49	\$ 923.00 Index: 1.1724	10 x 2 bedroom units @ 1.5 EP = 15 EP 20 x 3 bedroom units @ 1.75 EP = 35 EP No Credits Applicable TOTAL= 50 EP	50 EP x \$ 923.00 x 1.1724 = \$ 54,106.26 = \$ 54,106.00
Road Contributions	RD39 -- North Ipswich (South)	\$ 725.00 Index: 1.1281	10 x 2 bedroom units @ 3.8 VT = 38 VT 20 x 3 bedroom units @ 5.6 VT = 112 VT TOTAL: 150 VT No Credits Applicable	150 VT x \$ 725.00 x 1.1281 = \$ 122,680.875 = \$ 122,681.00
Footpath*	n/a	\$260/m	Works Required, Contributions Not Applicable	Works Required, Contributions Not Applicable
Kerb and Channel	n/a	\$540/m	Works Required, Contributions Not Applicable	Works Required, Contributions Not Applicable
Total				\$ 451,287.00

The contributions above must be applicable for a period of twelve (12) months from the date of the development approval, and thereafter must be based on the Infrastructure contribution policies and rates applicable at the date when payment is made.

Note * Contributions are towards the establishment of a footpath system in the general location of the development.

The developer is advised that direct debit, personal and/or company cheques cannot be accepted as payment for the above contributions. The only acceptable forms of payments are cash (EFT payments included) or bank cheques.

16. Locality References

- (a) Any place name or estate name used by the developer (excluding a reference to a building, structure or the like and excluding minor, subsidiary signage within a development) must make reference to the relevant, approved place name under the Place Names Act 1994 in a contrasting colour to the background, in lettering no less than 50% of the estate name and in the same orientation as the estate name.
- (b) Any reference to the regional location of the site or the development must not refer to the place or estate as being located in Brisbane or a Brisbane suburb or in the metropolitan area or in the western suburbs (excluding the western suburbs of Ipswich as determined by Council in writing from time to time).

17. Engineering Requirements

The following engineering requirements, detailed in Conditions 18 – 34, shall be completed to the satisfaction of the Senior Development Engineer.

Terms

- (a) RPEQ - A Registered Professional Engineer of Queensland, suitably qualified and experienced in the particular area of expertise required. Furthermore, the RPEQ required for the analysis and reporting for mining shall be experienced in the analysis of underground and surface mining within the Ipswich area.
- (b) QUDM – The *Queensland Urban Drainage Manual (2007 Edition)*, produced by the Queensland Department of Environment and Natural Resources.
- (c) MUTCD - *The Manual of Uniform Traffic Control Devices*, published by DTMR.
- (d) QUU – Queensland Urban Utilities – trading name of the Central SEQ Distributor-Retailer Authority, providing water and wastewater services to Ipswich City under the South-East Queensland Water (Distribution and Retail Restructuring) Act 2009.
- (e) DTMR - Department of Transport and Main Roads.
- (f) DERM - Department of Environment and Resource Management.
- (g) DIP – Department of Infrastructure and Planning.
- (h) ARI – Average Return Interval - used to define flood frequency and severity.

18. Roadworks

- (a) All roadworks must be designed and constructed in accordance with Council's Policies and Standards, the *DMR Road Planning & Design Manual*, Austroads Publications and any other documentation accepted as best practice by Council. The design and construction of each road or street must ensure that the speed environment, geometry, sight distances, carriageway widths, lighting, facilities for bus stops, refuse collection vehicle movements, pedestrians and cyclists, and on-street parking and other physical attributes are consistent with the function and role of the road or street in the transportation network.
- (b) Road pavements must be designed and constructed in accordance with the Ipswich City Council's Planning Scheme Policy 3 - General Works, Chapter 5 - Roadworks. All roads must have two way cross-falls in accordance with Council's adopted standards.
- (c) Kerb ramps must be constructed in accordance with Council's Standard Drawing SR.18 at all intersections and at additional locations where they are required to connect concrete pathways and cycleways. Generally at "T" intersections, four (4) kerb ramps are required.

- (d) Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 1, whichever comes first, the Developer must upgrade / reconfigure North Street across the frontage of the development site between Ferguson Street and the site's access point in accordance with Council's Standards for a collector street (refer Standard Drawing SR.02). Additionally, the developer must upgrade / reconfigure North Street across the frontage of the development site between the site's access point and the Telegraph Street road reserve in accordance with Council's Standards for an access street (refer Standard Drawing SR.02). Works must include the following:-
- (i) Kerb and channel and associated stormwater drainage. Works must occur on both sides of North Street and extend to the tangent point into Fitzgibbon Street;
 - (ii) Reconstructed pavement;
 - (iii) Concrete footpaths as per conditions below;
 - (iv) Timber bollards and railings along the drainage corridor;
- (l) Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 1, whichever comes first, the intersection of North Street / Fitzgibbon Street/ Site Access Point must be reconfigured as recommended in the Traffic Impact Assessment Report prepared by Bitzios Consulting dated September 2009. The site access point leg of the intersection must be designed as if for a public roadway including all necessary traffic control devices and Intersection geometric design requirements in accordance with Queensland Department of Main Roads "Roads Planning and Design Manual - Chapter 13 'Intersections At Grade'". The site access point must be configured with kerb and channelling that is clearly recognised by road users and pedestrians and with a finished level that matches with the existing road surface in North Street. The existing culverts at this crossing must be extended to a minimum width of 20.0m to allow for all proposed road and verge works to be accommodated. Approved pedestrian safety railings located at the headwalls must be provided.
- (e) Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 1, whichever comes first, a concrete path for shared use by pedestrians and cyclists (minimum 2.5m wide) must be constructed between the site, the existing community facilities on Downs Street (at the intersection of Downs and Lawrence Street) and the future extension of the "Brassall Bikeway Phase 1". The shared path must be constructed:
- (i) In accordance with Council standards;
 - (ii) With lighting in open space areas in accordance with the AS1158 series;
 - (iii) Generally in accordance with the relevant Disability Standards (including ramps, stairs, railings and tactile indicators where necessary);
 - (iv) With an alignment generally in accordance with that outlined on either Attachment A or Attachment B;

- (v) To integrate with Council's planning for the Brassall Bikeway;
- (vi) With route markers/direction signs;
- (f) Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 1, whichever comes first, a concrete footpath (minimum 1.5m wide) must be constructed between the site and Downs Street (via Colvin Street and Canning Street). The footpath must be constructed:
 - (i) In accordance with Council standards;
 - (ii) With lighting in open space areas in accordance with the AS1158 series;
 - (iii) Be constructed generally in accordance with the relevant Disability Standards (including ramps, stairs, railings and tactile indicators where necessary);
 - (iv) With an alignment generally in accordance with that outlined on Attachment B;
 - (v) With route markers/direction signs;
 - (vi) In accordance with Council's Standard Drawing SR.19
- (g) Prior to the Issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 1, whichever comes first, a concrete footpath (minimum 1.5m wide) must be constructed between the site entry roadway and extend north to join to the existing concrete footpath located along the western side of North Street.
- (h) Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 1, whichever comes first, a monetary contribution of AUD\$25,000 must be paid to Council for future bus stop Infrastructure. This amount must be fixed for 12 months from the date of the Decision Notice and then must be adjusted in accordance with Road & Bridge Construction Cost Index applicable to Queensland at the time of payment.

This contribution is applicable once only for the entire development (comprising of Development Application 6293/09 and 2727/10). The payment of this contribution is required once to satisfy the relevant conditions of each development approval.

- (i) The road pavement widths and geometric layouts, internal and external to the development must make adequate provision for Council's refuse collection vehicles and public transport movements where appropriate.
- (j) Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 2, whichever comes first, a vehicle turning area must be provided at the southern end of the works in North Street. Circular cul-de-sac turning heads, based on a minimum turning circle of 9.0 m radius, must be provided.

- (k) Access to existing driveways for properties affected by all extended works associated with this development must be maintained between 6:30pm and 6:30 am Monday to Saturday.
- (l) Prior to the Issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 2, whichever comes first, an emergency driveway and access at the secondary culvert crossing adjacent to Unit Block 17 must be provided. This access way must consist of min. 3.0m wide concrete driveway extending from a layback in the kerb and channel in North Street, through to connect to the proposed internal road. Lockable removable bollards and approved pedestrian safety railings located at the headwalls must be provided at this location.
- (m) "No Through Road" signs must be erected at the entries to all culs-de-sac and terminating roads.

19. Access and Parking

- (a) All access and parking must be designed and constructed in accordance with the provisions of the Planning Scheme Parking Code and Australian Standards (2890 Series).
- (b) Parking and manoeuvring areas must accommodate the largest anticipated vehicle to use the site.
- (c) Adequate facilities for servicing the development must be provided on site to ensure loading and/or unloading activities do not occur on-street.
- (d) Provision must be made for all vehicles to enter and exit the site in forward gear.
- (e) All parking, access and manoeuvring areas must be constructed of concrete, bitumen or equivalent materials approved by the Senior Development Engineer, and must be line-marked in accordance with the relevant Australian Standard. Associated signage in accordance with MUTCD internal to the site must also be provided as required.
- (f) Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 1, whichever comes first, a concrete layback and driveway slab 7.5 m wide, must be constructed from the layback in North Street to the property boundary for access to the proposed unit development in accordance with Council's Standard Drawing SR.13.
- (h) The Developer must provide concrete footpaths of minimum width 1.5 m on one side of all internal roads within the development. Footpaths must be external to the road widths nominated on the approved drawings.
- (i) Any internal roads within the unit development that may be extended as a part of a later stage must be provided with a minimum 18m diameter gravel turn around area with a two-coat bitumen seal. Hazard markers and delineator posts must be erected to define the turnarounds.
- (j) Garage doors to all units must be a minimum 2.7m wide to facilitate effective manoeuvring of vehicles.

20. Stormwater Quantity

- (a) The Developer must provide all necessary internal and external stormwater drainage to service the development. Such drainage works (except for building gutters and downpipes) must be designed and constructed in accordance with QUDM such that the overall drainage system caters for a storm event with an ARI of 100 years.

In the case where the piped system is carrying part of the flow, the overland flow paths must be designed to cater for that volume which is represented by the difference between the predicted volume from the storm event with an ARI of 100 years and the capacity of the pipe system.

- (b) Registered drainage easements, if related to piped drainage (generally 375mm diameter or greater), must be centrally located over such underground pipe system and must be not less than 4.0m wide. In addition, the easements must be of suitable width to contain the predicted overland flow from the storm event with an ARI of 100 years in that location.
- (c) No ponding, concentration or redirection of stormwater may occur onto adjoining land unless specifically approved by Council in consultation with the owner of the adjoining land.
- (d) All stormwater headwall structures must be constructed in accordance with the relevant DMR standard drawings for reinforced concrete headwalls and aprons.
- (e) Stormwater drainage plans and calculations must be submitted for approval by the Senior Development Engineer, as part of the Operational Works application.
- (f) Appropriate works must be carried out to ensure that stormwater drainage from the new kerb and channel discharges suitably into the existing drainage system.
- (g) Construction of buildings or other structures is not permitted below the flood level associated with an ARI of 100 years. Additionally, as stated in the approved Site Based Stormwater Management Plan within Table 3.3, the minimum pad level for any of the units on this site must be 19.2m AHD.
- (h) Prior to the Issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, whichever comes first, the finished surface profile approved under the bulk earthworks approval for operational works application no. 3262/2010 west of the existing railway line must be achieved.
- (i) The developer must provide a coarse sediment forebay, suitable sized for the upstream contributing catchment designed generally in accordance with WSUD TDG to ensure particles equal to or greater than 1mm in diameter are removed for flows up to the 3 month ARI storm event at the existing stormwater outlet adjacent to the North and Telegraph Street intersection. The sediment forebay must be designed to allow cleaning by a skid steer bobcat or equivalent. Calculations must be provided to demonstrate appropriate sizing of any pre-treatment measure, including sediment forebay, and that flows comply with the velocity requirements of the WSUDTDG. The sediment forebay must include provision for all weather maintenance access.

- (j) The existing concrete lined stormwater drain through the site must be reconstructed as a Rock and Vegetation Low-Flow Channel, generally in accordance with Fig. 9.13 of QUDM 2007. The channel must be designed and constructed in accordance with the following criteria:-
- (i) Rock channel must be sized to cater for a Q10 ARI storm event from the upstream contributing catchment;
 - (ii) A 3.0m wide minimum access driveway culvert must be provided midway to allow maintenance access to either side of the overland flowpath;
 - (iii) The rock lined channel must extend from the existing outlet headwall adjacent to the western end of Telegraph Street through to the existing culvert underneath the railway embankment at the western side of the site;
 - (iv) Landscaping must be provided along the entire length of this channel firstly to provided a "mowing edge" (Iomandras or equivalent can be used in this instance), secondly, to provide appropriate planting in accordance with WSUD TDG within the rock channel itself, and thirdly, appropriate planting provided to ensure partial shading of the rock lined portion of the overland flowpath to limit weed growth. Plans detailing required landscaping must be submitted to Council for approval.
- (k) For stormwater management purposes the development must be designed and constructed in accordance with the Site Based Stormwater Management Plan prepared by Yeats Consulting Engineers (Revision 2 dated 1 March 2010), subject to the following amendments and/or clarifications:
- (i) All flows between Q3 month and Q10 must be piped directly to the invert of the overland flow path in proposed lot 51 and must bypass the bioretention basins.
 - (ii) As part of the operational works application the developer must demonstrate satisfactory management of overland flows in terms of erosion and scour protection for storm events that are between Q10 and Q100 ARI from the building pad and internal road level within the unit development down the batters through the proposed drainage reserve and into the invert of the existing stormwater overland flowpath.
 - (iii) Construction of the bio retention basins in close proximity to the top of the proposed batters must incorporate the recommendations made by Morrison Geotechnic Pty Ltd in correspondence to Leda Developments Pty Ltd dated 5 March 2010.

21. Stormwater Quality

- (a) Stormwater quality for the development must achieve a reduction in the average annual pollutant load as follows prior to discharge from the site:
- 80% for total suspended solids;
 - 60% for total phosphorus;
 - 45% for total nitrogen; and
 - 90% for gross pollutants.

- (b) The water quality objectives listed at (a) must be achieved through the implementation of the treatment train outlined in the Site Based Stormwater Management Plan prepared by Yeats Consulting Engineers (Revision 2 dated 1 March 2010) subject to the amendments outlined in this Condition and Condition 4 above relating to Stormwater Quantity.
- (c) In conjunction with an application for Operational Works, the Developer must provide to Council, for approval by the Engineering and Environment Manager, amended Stormwater Quality Management drawings prepared by a RPEQ in accordance with the Water Sensitive Urban Design Technical Design Guidelines (WSUD TDG) for South East Queensland, the Approved Site Based Stormwater Management Plan and the requirements of this Condition. The Operational Works drawings must detail, amongst other necessary items, the following:
- (i) Plans and cross sections showing the final locations for rainwater tanks, bioretention basins and stormwater infrastructure required by this Condition, consistent with Council's Standard Drawings and the WSUD TDG (version current at the time of detailed design). The areas required for stormwater management are to be denoted on the plans as drainage and not communal open space;
- (ii) The bioretention basin(s) parameters represented in Table 1;

Table 1

	Catchment A	Catchment C
<i>Surface Area (m²)</i>	240	25
<i>Filter Media Area (m²)</i>	75	25
<i>Filter Media Median Particle Size (mm)</i>	0.45	0.45
<i>Filter Media material</i>	<i>Sandy loam</i>	<i>Sandy loam</i>
<i>Filter Media Depth (m)</i>	0.6	0.5
<i>Hydraulic conductivity (mm/hr)</i>	180	180
<i>Transition layer depth (mm)</i>	0.1	0.1
<i>Minimum drainage layer depth (mm)[#]</i>	0.2	0.2
<i>Extended detention depth (m)</i>	0.3	0.3
<i>Pre-treatment method</i>	<i>Sediment forebay</i> ##	<i>Sediment forebay</i> ##
<i>Maximum batter slope</i>	1:4	1:4

[#] The length of the bioretention basin will dictate the depth of the drainage layer, in order to maintain a minimum fall of 0.5% within the drainage pipes.

^{##} The area required for sediment forebay must be confirmed during detailed design, in accordance with Condition (iii).

- (iii) A suitable fore-bay or pre-treatment area designed generally in accordance with WSUD TDG to ensure particles equal to or greater than 1mm in diameter are removed for flows up to the 3 month ARI storm event . Calculations must be provided to demonstrate appropriate sizing of any pre-treatment measure, including sediment forebay, and that flows comply with the velocity requirements of the WSUDTDG. The pre-treatment area is to be located external to the area required for the bioretention basin filter media and is to include provision for all weather maintenance access.
- (iv) The area required for scour protection, in accordance with the design principles outlined in the WSUD TDG. The area required for scour protection must be in addition to that required for the bioretention basin filter area.
- (v) The plans must detail the overflow weir/outlet that has been positioned at the height of the extended detention specified at item (ii). Calculations must be provided to demonstrate that the velocities across the bioretention basin comply with those listed in Section 5.2.2 of the WSUD TDG and that any temporary flood storage can drain rapidly following storm events;
- (vi) Drainage and transitional layers that have been designed in accordance with Section 5.3.4 of the WSUD TDG and an underdrain design in accordance with Section 5.3.5 of the WSUD TDG;
- (vii) The slotted 100mm uPVC pipes placed within the drainage layer of the bioretention basin. The drawings must specify that these are not to be substituted with aggr pipes nor wrapped in geofabric;
- (viii) Detail the grade at which drainage pipes must be laid, the relevant density and size of slots in the drainage pipes . A minimum fall of 0.5% is required for the drainage pipes and depending on the length of the bioretention this may impact significantly on the depth of the drainage layer specified at (ii). The length of all 100mm slotted drainage pipes must not exceed 25m. For longer lengths the pipe diameter must be increased or duplicated to increase conveyance;
- (ix) A uPVC inspection riser with screw cap lid at the head of each slotted pipe, for maintenance flushing. The risers are to be generally in accordance with BCC drawing UMS153, however, must extend a minimum of 150mm above the surface of the filter media. The drawings must contain a note that states that risers are not to be slotted;
- (x) A level (flat) surface of the bioretention basin filter media in order to allow even absorption through the filter media;
- (xi) Soil specifications for the various bioretention basin filter media layers, which are provided in accordance with the current version of the Guidelines For Soil Filter Media In Bioretention Systems, Facility for Advancing Water Biofiltration (FAWB);
- (xii) Provide geofabric around the base of the drainage layer, walls and batters of the basins. Geofabric must not be laid between any of the filter layers or used to wrap the slotted uPVC drainage pipes;

- (xiii) Landscaping to the bioretention basin, including filter media and batters, in accordance with plant species and densities outlined in Appendix A of the WSUD TDG. Detailed planting schedules (plant species, number and planting densities) for each of the bioretention basin filter area, bioretention basin batter areas and other landscaped and embankment areas as shown on the Stormwater Management Plan (YC0175-SW01 Revision B dated 5 March 2010) must be shown on the operational works drawings. A minimum species variety of 3 different species must be utilised within the bioretention basin filter area; and.
- (xiv) Include a note which refers to the Healthy Waterways Bioretention Basin Construction and Establishment Sign Off Forms (including Forms A-G) for use throughout construction. The Operational Works drawings must include notes referring to the staging and timing of the commissioning of the bioretention basins and measures to protect the filter media during development within the contributing catchment.
- (d) An amended catchment plan that demonstrates how all flows up to the 3 month ARI event from the site will enter and be treated through the bioretention basins. The plan must include surface levels and invert levels for all piped stormwater infrastructure.
- (e) A copy of the calculations used to size the drainage, as required by Condition (c), must be provided at the time of lodging the Operational Works application. Similarly, calculations must be provided to demonstrate that the pipes connected downstream of the drainage pipes are suitably sized to avoid becoming the hydraulic control and the filter media is free draining.
- (f) A staged implementation approach must be employed for the bioretention areas ensuring that filter media is either laid after, or the filter is protected until, 90% of the construction and building works have been completed for the area contributing to the bioretention basin. The staging and timing of the commissioning of the bioretention basin must be outlined as part of the Operational Works application and notes must be included on the plans accordingly.
- (g) Prior to lodgement of detailed Operational Works drawings the Developer must receive certification from a RPEQ that the detailed drawings are in accordance with the approved Stormwater Management Plan, these Conditions of Approval and the WSUD TDG. A copy of the certification must be lodged in conjunction with an Operational Works application along with completed copies of the WSUD TDG Design Assessment Checklists and Calculation Summary Checklists.

22. Water Supply

- (a) The Developer must provide a reticulated water supply system within the development which connects into Council's existing reticulation system, together with valves and fire hydrants, in accordance with the *Guidelines for Planning and Design of Urban Water Supply Systems*.
- (b) All works on live water mains must be carried out by QUU in accordance with *Planning Scheme Policy 3 Section 11.1.2*, and at the Developer's expense.
- (c) The Developer must lodge a private works request for QUU to:

- (i) Supply and install suitable metered water connections to each segment of the proposed development, generally in accordance with Figure 1 below;
- (ii) Amend the existing connection if necessary; and
- (iii) Seal off any existing water connections if necessary.

The relevant fees must be paid and evidence of payment submitted to Council in conjunction with any application for signing of plan of survey.

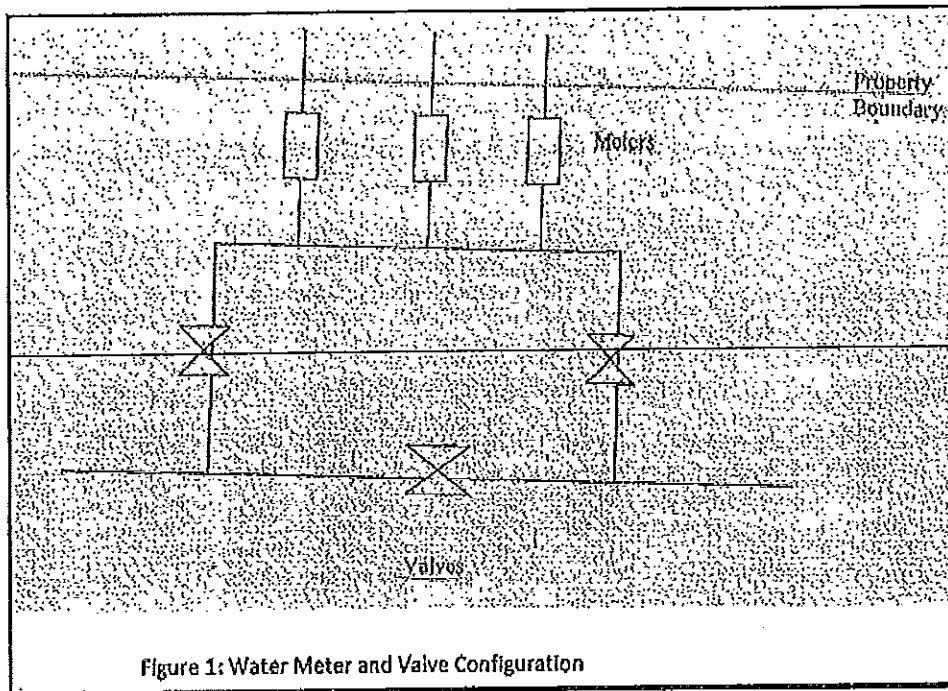


Figure 1: Water Meter and Valve Configuration

- (d) Wherever possible, the water main must be constructed on the opposite side of the road to the concrete footpaths.
- (e) Where the Developer is required to supply a water connection to the development, the connections must be installed in accordance with Standard Drawings SW.14 and SW.15.
- (f) Where the water main is under a concrete footpath, the Developer must provide a water connection to each allotment, excluding the provision of meters, but including the provision of approved pre-cast concrete or cast iron path boxes over the stop cock, in accordance with *Standard Drawing SW.08*. The boxes must be placed flush with the finished turf surface level.
- (g) The QUU water supply system has been designed to achieve the target levels of service as outlined in Planning Scheme Policy 3 Section 4.1.2 *Standard of Service*. It is the responsibility of the Developer to provide any fire fighting requirements over and above QUU's target levels of service, at their expense, internally and without adverse impact to the water supply system.

23. Sewerage

- (a) Structures constructed on the Colvin Street side of the development site (Stage 1) must be positioned to comply with one of the following in order of preference:
 - (i) No part of a structure, including footings, must be located within 1.5m of the outer edge of the sewer main, or within 2.0m of the access chamber respectively;
 - (ii) If any structure cannot be positioned outside these limits, the sewer must be located, removed and re-laid around the proposed structure(s);
 - (iii) Should (i) and (ii) above be deemed impractical by the Senior Development Engineer, then the Developer must submit to Council for approval, an Application to Build Over Infrastructure.
- (b) The Developer must pay the full cost for QUU to provide suitable connections into the existing sewerage reticulation system. All works on live sewers must be carried out by QUU at the Developer's expense in accordance with *Planning Scheme Policy 3 Section 10.1.2*, unless arranged otherwise with QUU.
- (c) The connection for the development fronting must be into the existing sewerage reticulation system at the connection point, which is at the existing sewer manhole adjacent to the North / Telegraph Street intersection (Gasset 706,066).
- (d) Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, for Stage 1, whichever comes first, any existing sewerage or sanitary drainage that crosses proposed lot boundaries (other than the 300mm dia. private main from the existing Railways Museum and Workshops) must be located, disconnected and removed to the satisfaction of the Senior Development Engineer.
- (e) The existing private sewer underneath Unit Blocks 13 and 14 must be sufficiently protected against damage due to construction activities associated with this development. Any damage sustained during this construction period must be repaired by the developer.
- (f) No work on the sewerage reticulation system may commence prior to the approval of the Operational Works application.

24. Noise

- (a) Prior to the issue of Form 21 - 'Final Inspection Certificate for Building Works' or prior to the commencement of the use, whichever comes first, the Developer must implement all the recommendations as stated in Section 7.1 of the Environmental Noise Impact Report, prepared by TTM Consulting (report no. 874206 dated 19 August 2009), relevant to the "Ipswich Workshops Scenarios 1 and 2". The Developer must submit certification from an appropriately qualified and experienced practicing acoustics professional that demonstrates compliance with this condition and that the development has been constructed to achieve compliance with the internal rail and aircraft noise limits specified within the approved acoustic report.

- (b) All stormwater grates within trafficable areas must be secured, or otherwise treated, to ensure that these grates do not rattle when vehicles pass over them.

25. Landscaping

- (a) Landscape Master Plan must utilise non-invasive natives to replace:
- Poinciana (Delonix regia)
 - Leopardwood (Caesalpinnea ferra)
 - European Olive (Olea Europaea)
- (b) In conjunction with the Operational Works application a Landscape Plan, which conforms to the approved Development Plan and the Residential Medium Density and Commercial and Industrial Zone Codes, must be submitted to Council for Approval by the Engineering and Environment Manager. Such plan must include, amongst other necessary items:
- (i) Clear delineation of areas required for stormwater management, landscaping and public and private open space areas. The areas required for stormwater management are to be denoted on the plans as drainage and not communal open space;
- (ii) Planting to bioretention basin filter areas and batter slopes, required by Conditions 20 and 21 of this approval, in accordance with the Water Sensitive Urban Design Technical Design Guidelines for South East Queensland;
- (iii) Planting within landscaped areas must exclude the use of exotics and environmental weeds. Consideration shall be given to utilising Council's Vegetation Communities Rehabilitation Guide 4 Open Forests and Woodlands.
- (c) The Developer must complete landscaping and fencing works in accordance with the approved landscape plans to the satisfaction of the Engineering and Environment Manager prior to the commencement of the use of the land unless Council determines otherwise. Such landscaping and fencing shall be maintained in perpetuity to Council's satisfaction by the existing or future owners and occupiers of the property.

26. Waste Storage and Collection

- (a) An adequate domestic waste service must be provided that includes waste and recyclable storage equivalent to the following:
- (i) A minimum of one (1) 240L general waste wheelie bin for every two (2) dwellings;
- (ii) A minimum of one (1) 240L recyclables wheelie bin for every two (3) dwellings
- (b) Where dedicated communal waste storage areas are provided these areas must be level, concreted and constructed in conjunction with the driveway surface with no intervening step, ledge, kerb or other obstruction and must be enclosed with a suitable screen fence;

- (c) The waste storage and collection areas must allow for forward motion entry to the waste containers and forward motion entry and exit to and from the site. Further, any proposed bin service area must be of sufficient proportions that it does not require the vehicle to reverse any further than two vehicle lengths or breach any Workplace Health and Safety requirements.
- (d) Vehicle manoeuvring templates must be provided to Council demonstrating compliance with this condition as part of the operational works submission.
- (e) In conjunction with the application for Operational Works, the Developer must provide to Council, for approval by the Engineering and Environment Manager, detailed plans and certification from a Civil Engineer (RPEQ) which demonstrate that the requirements of this condition have been incorporated into the development.

27. Lighting

- (a) All lighting, including security and flood lighting, must be designed, constructed, located and maintained so as not to cause nuisance to the occupants of nearby properties (existing or proposed) or passing traffic.
- (b) Carparks and pedestrian walkways shall be illuminated where night use parking is anticipated. Illumination levels shall be 15 lux for open surface carparks.
- (c) All car park lighting shall comply with the requirements outlined in Australian Standard for Off-Street Carparking (AS 2890.1:2004) or any Australian Standard in substitution for this standard.
- (d) Consideration shall be given to light spillage onto adjoining land and roadways. Illumination levels outside the boundaries of the site shall not exceed 8 lux when measured 1.5 metres outside the boundary of the site at any level upwards from the ground. Footpath crossings shall be illuminated to 50 lux.

28. Earthworks and Retaining Walls

- (a) In conjunction with any application for Operational Works the Developer must provide details of the proposed earthworks for the development including cut/fill depths, batter slopes, retaining wall heights, typical cross-sections etc. Earthworks and any retaining structures must comply with the requirements of Ipswich Planning Scheme Part 12, Division 15 – Earthworks Code. Notably, cut/fill should not exceed a maximum height of 2.0 metres. Retaining walls should not exceed a maximum height of 1.2 metres with 1 in 4 batters from the top and toe of the wall.
- (b) Where earthworks are proposed within three metres of the property boundary or are likely to affect adjoining property owners, the Developer must notify the affected property owners in writing, and obtain written comments from them, as detailed in Part 12, Div 15 - Specific Outcome 19 and Note 12.15.4K. Written comments from the affected owners (or at least the supporting documentation of notification and consultation with the adjoining property owners to the Council's satisfaction) must be submitted to Council for consideration, in conjunction with any Operational Works application.

- (c) Retaining walls, including footings and drainage systems, must be constructed entirely within the boundaries of the lot and in accordance with the requirements of Planning Scheme Policy 3 – General Works. All retaining walls greater than 1.0m in height must be RPEQ certified to be structurally sound. Retaining walls greater than 1.0 m in public places must be provided with railings or other barriers to provide pedestrian safety
- (d) Any fill within a Building Location Envelope must be compacted in accordance with Section 5 (Compaction Criteria) of AS 3798 – 1996 *"Guidelines on Earthworks for Commercial and Residential Developments"*.
- (e) 3.0m minimum clearance must be maintained from the toe of the 1 in 2 batters internal to both unit development sites to the common boundary with the proposed drainage reserve.
- (f) Once all bulk earthworks and associated rehabilitation are completed on Lot 55 on SP222487, the maximum batter slope contained within any disturbed area of the proposed drainage reserve must not exceed 1 in 6.

29. Erosion & Silt Management

- (a) As part of the application for Operational Works, the Developer must submit with the Operational Works application, an Erosion and Silt Management Plan designed in accordance with *"Best Practice Erosion and Sediment Control"* published by the International Erosion Control Association (Australasia) November 2008, or equivalent. Plans must be certified by a suitable qualified professional.
- (b) The Developer must install silt management facilities at commencement of construction and maintain these facilities until the development has been released off maintenance by Council.
- (c) Silt traps must be sited upstream from any park or reserve area discharge point such that no silt impinges on the park or reserve areas. The silt trap areas may be phased out after the development work is complete and adequate grass cover is obtained.
- (d) Diversion drains and ponds, as necessary, must be installed on the site before any other work is undertaken on site to ensure that water containing silt, clay, solids or contaminants is contained and/or isolated.
- (e) Prior to the Pre-Start meeting for Operational Works, the Developer must lodge a \$10,000.00 Siltation and Erosion Performance Bond with Council. This bond shall only be released by Council at the termination of the maintenance period.
- (f) If the Senior Development Engineer determines that silt damage has occurred as a result of this development, the Developer shall be responsible for restoration of any damage. Such restoration must be completed within a time to be advised by the Senior Development Engineer. Should the Developer fail to complete the works determined by the Senior Development Engineer within the specified time, Council may elect to complete the works and recover all costs associated with that work from the Developer.

- (g) Where Council determines that a draw-down of the bond is required, the Developer must restore the bond to its full amount within ten (10) business days of a notice from Council to that effect.

30. Public Utilities

- (a) Adequate provision must be made in all proposed dedicated roads, access strips and access easements, to cater for the public utility services that would normally serve the development.
- (b) The Developer must provide appropriate road crossing conduits in accordance with Council's Standard Drawings SR.22 and SR.23. Where concrete footpaths are to be constructed, the conduits must be extended to the property boundaries.
- (c) The Developer must provide an RPEQ certified electrical reticulation layout plan with the Operational Works application.
- (d) The Developer must provide underground electricity and telecommunications externally where necessary and within the development, constructed in the approved allocation as detailed in Council's Standard Drawings SR.22 and SR.23. Electricity and telecommunication drawings must be co-ordinated with the civil engineering design documents, to ensure that service conflicts are avoided. Where allotments front an existing overhead electricity or telecommunication service, these allotments may connect to such service subject to the approval and requirements of the service provider.
- (e) The Developer must provide Council with a copy of a Certificate for Electricity Supply to the development from a registered energy service provider, prior to the signing of the Plan of Survey.
- (f) Street lighting must be installed by the Developer within the upgraded sections of North and Colvin Streets in accordance with the Australian Standard 1158.3.1 Series for Pedestrians and Vehicles and installed in accordance with Energex Rate 2. All street lighting associated with the development must be certified by an RPEQ. Street lighting must be installed on the same side as concrete footpaths (where applicable).
- (g) The Developer must make suitable arrangements for the provision of electricity, telephone and (where applicable) cable services to all proposed units within the development. Documentary evidence that electricity, telephone and/or cable services will be provided, must be submitted to Council prior to the signing of the plan of survey.
- (h) Telephone and cable services may be laid in a combined trench with electricity cables, subject to the approval of the relevant energy service provider and the authorised telephone or cable service provider.

31. Operational Works – Municipal Works
(ie Works being handed over to Council)

External Municipal Works relates to those works external to the subject site and located in dedicated public areas, for example existing road or drainage reserve, or private property not subject to Developer ownership.

- (a) Municipal works must be completed in accordance with a detailed design certified by an RPEQ and approved by Council Engineers with appropriate fees payable, a works pre-start meeting on-site and various detailed construction and audit inspections by Council Officers. In accordance with Planning Scheme Policy 3, a maintenance period applies for the works and a maintenance security deposit is required.
- (b) The requirements of Council's Planning Scheme Policy 3 - General Works and Council's Standard Drawings shall apply to the municipal works. Where inconsistencies between any documents occur, Planning Scheme Policy 3 has precedence and must prevail to the extent of the inconsistency.
- (c) All engineering drawings must be submitted in accordance with *Planning Scheme Policy 2 - Information Local Government May Request* and include as a minimum the following:
 - (i) Engineering drawings must be marked as confirmation that they have been checked and approved by an RPEQ;
 - (ii) The drawings must be submitted as four (4) hardcopy, A3 size sets. Reports and supporting information must be submitted as two (2) hardcopy sets.

The submission must also include a compact disk containing electronic data as follows:

- (a) One (1) full set of all engineering drawings contained in one file;
- (b) Separate individual files containing layout plans for sewerage, water supply and drainage;
- (c) Any reports submitted in support of the application. Each report must be included as a separate file; and
- (d) An index of all files on the compact disk including descriptions of contents of each file.

All files must be submitted in PDF format.

- (d) The Developer must submit a Certificate of Design signed by an RPEQ, certifying that the design is in accordance with all conditions of the development approval, relevant engineering standards, Council's requirements and standards, and sound engineering practice.
- (e) All works must be supervised by an RPEQ competent in civil works and must be undertaken by a nominated principal contractor experienced in the construction of municipal works. Council reserves the right to request evidence of the principal contractor's competency. Should the contractor not be able to demonstrate the necessary competency to the satisfaction of the Senior Development Engineer or if the contractor has constructed substandard works for Council in the past, Council reserves the right to reject the nominated contractor.
- (f) Prior to the Pre-Start meeting, the Developer must submit to Council a Development Performance Bond of not less than 10% of the value of external municipal works (minimum \$5,000.00), as security for the performance of the various construction and certification obligations (including provision of "As Constructed" information).

- (g) Municipal works must be accepted "On Maintenance" prior to commencement of use. On completion of the works an "On Maintenance" acceptance inspection may be arranged by submission of a certificate signed by an RPEQ certifying that the works have been constructed in accordance with the approved plans and specifications and in compliance with Council's construction standards. It is expected that the RPEQ will undertake the necessary inspections to make this certification.
 - (h) Upon formal acceptance of the works "On Maintenance", the Development Performance Bond shall be reduced to an amount not less than 5% of the value of the works or \$5,000.00 whichever is greater, and shall be retained by Council during the maintenance period as a Maintenance Security Bond for the performance of the maintenance obligations. Alternatively the Developer may submit a separate Maintenance Security Bond of equivalent value. This Bond shall be retained by Council in accordance with *Planning Scheme Policy 3*, until the works are accepted "Off Maintenance" by Council.
 - (i) "As Constructed" information and final construction issue engineering design drawings, compiled in accordance with *Planning Scheme Policy 2 for Municipal Works*, with a Contributed Assets Financial Apportionment Form, must be submitted to Council and approved prior to the formal acceptance of the works "On Maintenance". This data must be submitted electronically on a compact disk labelled appropriately to indicate the contents.
 - (j) Council reserves the right to require further amendments and/or additions at a later date, should design errors or omissions become apparent in regard to the works relevant to the Operational Works approval.
32. Operational Works – Internal Works
(ie Works not being handed over to Council)

Internal Works refers to engineering works performed within private property and includes but is not limited to, earthworks, retaining walls, driveways and stormwater management systems.

- (a) Engineering plans must be submitted to Council prior to the commencement of construction on site and must show full construction details, layout dimensions, and finished surface levels.
- (b) Engineering drawings must be marked as confirmation that they have been checked and approved by an RPEQ.
- (c) The drawings must be submitted as four (4) hardcopy A3 size sets and one (1) full size set with two (2) hardcopy sets of any reports and supporting information. One set of drawings will be returned to the applicant with the Decision Notice. The submission must also include a compact disk containing electronic data as follows:
 - (i) A full set of all engineering drawings contained in one file;
 - (ii) Separate individual files containing layouts for sewerage, water supply and drainage;
 - (iii) Any reports submitted in support of the application. Each report must be included as a separate file; and

- (iv) An index of all files on the Compact Disc including descriptions of contents of each file.
All files must be submitted in PDF format.

Where municipal works are also being undertaken, it is usually appropriate to make a combined submission.

- (d) The Developer must submit a Certificate of Design signed by an RPEQ, certifying that the design is in accordance with all conditions of the development approval, relevant engineering standards, Council's requirements and standards, and sound engineering practice.
- (e) On completion of the works a certificate signed by an RPEQ must be submitted to Council, certifying that the works have been constructed in compliance with the approved plans and specifications and in accordance with Council's construction standards. The RPEQ must personally undertake the necessary inspections to make this certification.
- (f) Council reserves the right to require further amendments and/or additions at a later date, should design errors or omissions become apparent.

33. Easements

- (a) The developer must grant, free of cost to or compensation payable by Council, minimum 4.0 m wide easements located centrally over proposed stormwater drains (375mm diameter or greater), where they are located within private property and cross into adjoining properties.

The documentation associated with these easements may be prepared by the developer in a form satisfactory to Council's City Solicitor, or the developer may submit easement plans, only where Council is party to the easements, to Council for the preparation of easement documents at the developer's expense.

- (b) Where easements are required for discharge of stormwater over adjacent land, the developer must submit signed agreements to this effect from the affected land owners as part of the operational works application.
- (c) Easements must be centrally located over the alignment of stormwater paths and be of sufficient width to encompass the overland flow from a storm event with an ARI of 100 years where necessary.
- (d) Easements must be of sufficient width to contain any fitting, access chamber etc located on stormwater drains.
- (e) All pre-existing easements crossing the site must be pegged where they cross each property boundary and at every change of direction.
- (f) Adequate number of permanent survey marks must be installed to ensure clear definition of the development.

34 General

- (a) All works required for this development must take due regard of any and all existing services and, if considered necessary by the relevant authority or the Senior Development Engineer, such works must be altered at the cost of the Developer.
- (b) Any fill intended to be placed over Council's underground services must be approved in advance by the Senior Development Engineer.
- (c) Should any works be proposed on land under other private ownership, written permission for the works must be obtained and forwarded to Council as part of the Operational Works application. Similarly, written clearances must be obtained after the works are completed, unless otherwise accepted by the Senior Development Engineer.
- (d) Any allotment or other filling creating a soil depth greater than 500mm must be conducted in accordance with *Australian Standard 3798* at Responsibility Level 1. Test results as required by *Australian Standard 3798*, and a certificate of quality and uniformity of fill, must be provided by an RPEQ.
- (e) Batters and slopes greater than 1:4 resulting from cutting and filling of the site must be certified by an RPEQ as stable and properly drained.
- (f) All imported and exported materials may be transported only on routes approved by the Senior Development Engineer.
- (g) All disturbed verge, park, allotment and other grassed areas must be rehabilitated and revegetated (including provision of topsoil to a minimum depth of 50mm) and turfed or seeded to the satisfaction of the Senior Development Engineer and in accordance with Planning Scheme Policy 3 - General Works (specifically part 6.1.6). Grass cover must be achieved as early as possible during the development and a minimum grass coverage of 80% must be achieved before the development can be accepted "Off Maintenance".
- (h) If, after the preparation of detailed design plans for the various roads, it is found necessary to provide any additional dedicated road area, or modify the proposed dedicated roads to enable the full requirements of Council's standards and Austroads documents to be incorporated in any way (but particularly in the production of the required speed environment or because of longitudinal and cross sectional constraints) then the development layout plan must be altered accordingly and approved in writing by the Senior Development Engineer.

35. Compliance with Conditions

- (a) All conditions must be completed prior to the issue of Form-21 'Final Inspection Certificate for Building Works', or prior to the commencement of the approved use, whichever happens first, unless otherwise approved in writing by the assessment manager.
- (b) Unless otherwise stated, all other conditions must be completed prior to the commencement of the change of use of the site or as determined in writing by the assessment manager.

36. When Approval Takes Effect

This approval has effect in accordance with the provisions of Section 3.5.19 of the *Integrated Planning Act 1997* as follows:

- (a) If the applicant does not appeal the decision to the court - from the time the decision notice is given (or if a negotiated decision notice is given, from the time the negotiated decision notice is given); or
- (b) If an appeal is made to the court - subject to the decision of the court, when the appeal is finally decided.

37. When Approval Lapses

- (a) This approval lapses at the end of the relevant period, unless the change of use happens before the end of the relevant period. The relevant period for this approval is 4 years starting the day the approval takes effect.
- (b) An extended relevant period may be agreed upon, pursuant to Section 3.5.22 of the *Integrated Planning Act 1997*, provided a written notice to Council is made before the end of the relevant period. Such written notice is to be on Council's approved form, accompanied by the owner's consent and the prescribed fee in Council's Register of General Charges.
- (c) All of the development the subject of this approval shall be completed within the periods stated in Condition (a)(i) above. This approval shall lapse for any part of the development of the site that has not commenced within the relevant period stated in Condition (a)(i) above.

Concurrence Agency

Conditions applicable to this approval imposed by the following Concurrence Agencies:

- 1. The Department of Environment and Resource Management is a concurrence agency and advice agency with regard to this development approval. The attached concurrence agency response, dated 28 September 2010, forms part of this Decision Notice.
- 2. Energex is a advice agency with regard to this development approval. The attached concurrence agency response, dated 4 June 2010, forms part of this Decision Notice.

Advice

The following advices are offered for your information only and should not be viewed as mandatory conditions of this approval.

Assessment Manager (Ipswich City Council)

1. Further Subdivision

Where the land and/or buildings are to be subdivided in accordance with the *Body Corporate and Community Management Act 1997* all buildings must be substantially completed prior to the release of survey plans.

2. Signage

Signage should generally provide for identification rather than advertisement and should contribute to an attractive streetscape and integrate with the overall design and layout of a development. Emphasis should be placed upon:

- (a) Visual attractiveness
- (b) Fewer and more easily interpreted signs
- (c) Scales and proportions for signage which reflect and reinforce the architectural design of individual buildings or the streetscape in terms of location and dimension
- (d) The removal of undesirable signs
- (e) Compatibility with the scale of development and the amenity of surrounding land uses - sky/tower signs, revolving signs, signs projecting from building facades and bunting are discouraged
- (f) Maintaining views to key building features such as pediments and fenestration to ensure that they are not obscured, and
- (g) Grouping multiple tenancy signage into one structure.

3. Fire Ants

In accordance with the *Plant Protection Act 1989* and the *Plant Protection Regulation 1990*, a quarantine notice has been issued for the State of Queensland to prevent the spread of the Red Imported Fire Ant (ant species *Solenopsis invicta*) and to eradicate it from the State.

It is the legal obligation of the land owner or any consultant or contractor employed by the land owner to report the presence or suspicion of Fire Ants to the Queensland Department of Primary Industries on 132523 within 24 hours of becoming aware of the presence or suspicion, and to advise in writing within seven days to:

Director General
Department of Primary Industries
GPO Box 46, Brisbane QLD 4001

It should be noted that the movement of Fire Ants is prohibited, unless under the conditions of a Department of Primary Industries Inspectors Approval. More information can be obtained from the Queensland Department of Primary Industries website www.dpi.qld.gov.au.

The development approved herein, by its very nature, includes activities considered to be "high risk" in respect of controlling the spread of Fire Ants. The following lists show high risk activities and some precautions should be considered for implementation.

- (a) High risk activities can include:
 - (i) Earthworks of a minor or major scale;
 - (ii) Revegetation or rehabilitation;
 - (iii) Import of fill onto a site;
 - (iv) Export of fill or other materials such as soils, gravel, mulch and plants; and
 - (v) Export off or import on to a site of construction and demolition waste and materials or green waste.
- (b) Precautions for Implementation
 - (i) Checking for ants regularly;
 - (ii) Checking all soil, fill and waste materials (construction and green waste) for ants;
 - (iii) Asking questions about the quality and source of soil, fill and waste materials (construction and green waste);
 - (iv) Keeping records of all movements of soil, fill and waste materials (construction and green waste);
 - (v) Cleaning of all earthmoving or other soiled vehicles prior to exit from the site; and
 - (vi) Informing staff and contractors about these precautions.

4. Portable Long Service Leave

From 1 January 2001, the Building and Construction Industry (Portable Long Service Leave) Levy must be paid prior to the issue of a development permit where one is required for the 'Building and Construction Industry'. This applies to Building Works, operational works and Plumbing and Drainage Works applications, as defined under the *Sustainable Planning Act 2009*, where the works are \$80 000 or more and matching the definition of 'Building and Construction Industry' under the *Building and Construction Industry (Portable Long Service Leave) Act 1991*.

Council will not be able to issue a decision notice without receipt of details that the levy has been paid. Should you require clarification in regard to the amendments to the *Building and Construction Industry (Portable Long Service Leave) Act 1991*, you should contact QLeave on 1800 803 481 (free call) or (07) 3212 6855.

5. Vehicle and Bin Washdown Facilities

The use of vehicle and bin washdown facilities are subject to any water restrictions that are current at the time of the requirement for the use of potable water.

6. Water Meter

All new commercial, industrial or large multi-residential property connections with a projected annual consumption greater than or equal to 20,000kL must have installed, at the customer's expense, an electronic water meter with a data logger and an approved back-to-base communication system as specified by QUU.

Properties with electronic water meters are subject to billing on a monthly basis in accordance with the metered monthly consumption.

If the proposed development is likely to have an annual water consumption equal to or greater than 20,000kL, the developer will be required to contact QUU on telephone 13 26 57 to arrange installation of an electronic flow meter.

7. Bonding of Incomplete Works Associated with Reconfiguring a Lot

Council may approve the signing of the Plan of Survey prior to the acceptance of works "On Maintenance", subject to compliance with the conditions listed in Planning Scheme Policy 3 Clause 14.1.4.

8. Submission of Drawings

Any engineering drawings submitted for Council review and approval in conjunction with an operational works application should be arranged to leave a blank space with minimum dimensions 6 cm wide and 14 cm high near the right border for a Council Stamp of Approval, so that any existing notes are not over-written by the stamp.

9. Water Reticulation Plans

The developer must submit hydraulic plans that comply with the requirements of the *Water Supply (Safety and Reliability) Act* for scrutiny by Council.

10. Plumbing and Drainage Approval

Scrutiny fees in accordance with the Council's Schedule of Fees and Charges must be paid at the time of lodgement of plans. No work on the plumbing and drainage may commence prior to the approval of the plan and the issuing of a permit, by this Council, to a Licensed Plumber/Drainer.

Tests and inspections must be arranged with the Plumbing Section upon payment of the appropriate current fee.

11. Drainage Reserve

The land nominated on the proposal plans as drainage reserve may not be dedicated as drainage reserve until the development works associated with this drainage reserve are completed in accordance with the Material Change of Use Approval and to the satisfaction of the assessment manager.

12. Further Development Infrastructure Contributions

The Applicant is advised that infrastructure contributions, footpath, and kerb and channelling contributions were not required as part of the Reconfiguring a Lot approval. Additionally, it is advised that there are no existing credits available for sewer, water, roadworks, parks and social infrastructure pursuant to Planning Scheme Policy 5 'Infrastructure', or for footpath, and kerb and channel for the site, therefore infrastructure contributions or requirements for construction may be applied accordingly as a condition of any future development approval over the sites, pursuant to the Ipswich Planning Scheme applicable at the time of determination of any relevant development application.

13. Connection to Services

The Applicant is advised that connection to sewer, water and stormwater infrastructure are not required as part of the Reconfiguring a Lot development approval, therefore connection to sewer, water and stormwater infrastructure may be a condition of any future development approval over the sites, pursuant to the Ipswich Planning Scheme applicable at the time of determination of any relevant development application.

14. Protected Fauna Species

It is strongly suggested that the developer confirm that there are no fauna species which are protected under the *Environmental Protection and Biodiversity 1999*. Specifically, the developer should confirm the presence of protection status of bats which may be nesting in the culvert of the proposed drainage reserve.

Pursuant to the provisions of the *Sustainable Planning Act 2009*, I also enclose herewith a copy of the relevant sections concerning:

Pursuant to the provisions of the *Integrated Planning Act 1997*, I also enclose herewith a copy of the relevant sections concerning:

- Making representations about conditions during the applicant's appeal period (i.e. Negotiated Decision Notice); and
- The institution of an appeal.

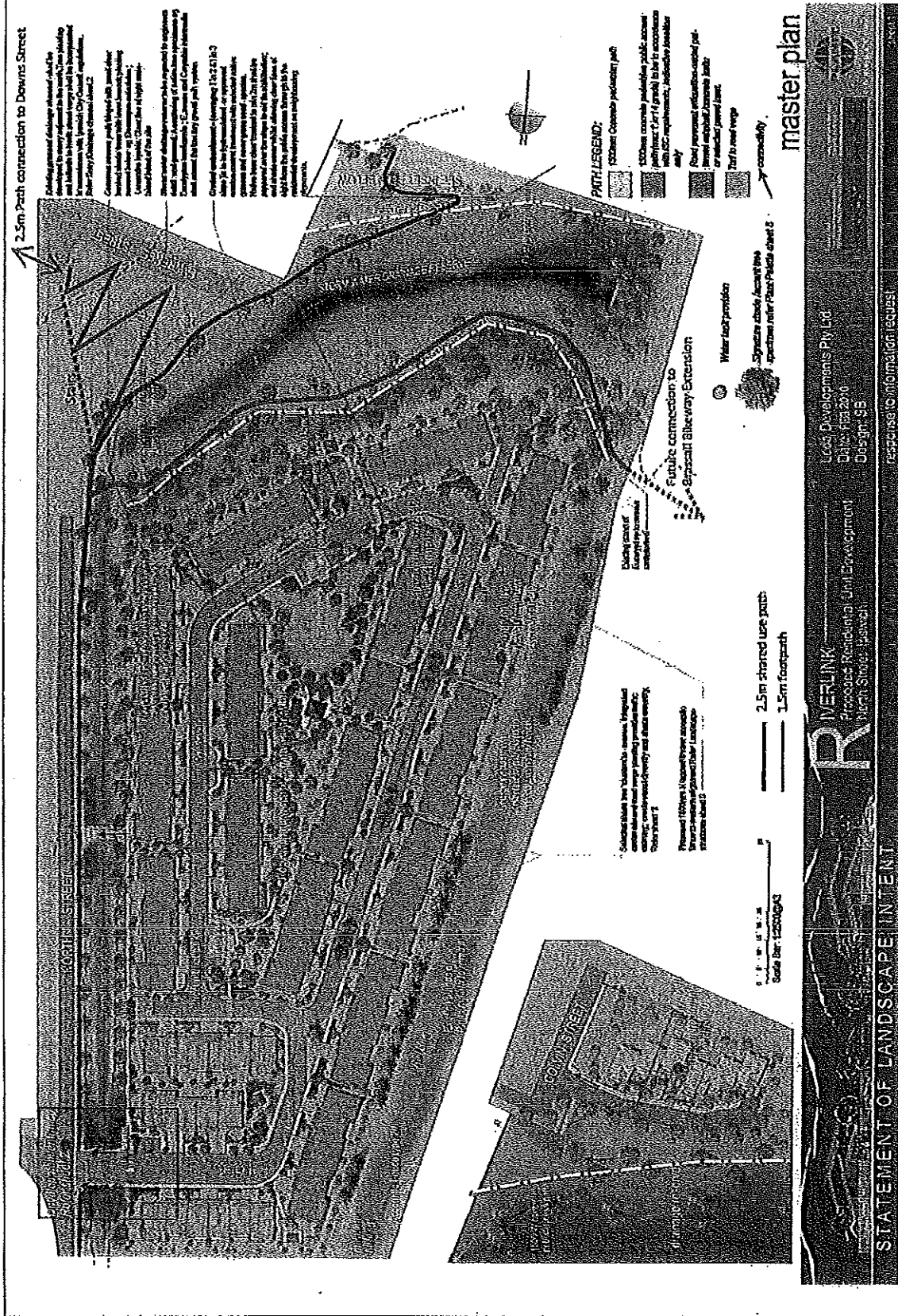
Yours faithfully



Jo Pocock

TEAM COORDINATOR (CENTRAL/WEST)

Attachment B



Extract from the Integrated Planning Act

Division 4 – Representations about conditions and other matters

Application of div 4

3.5.16 This division applies only during the applicants appeal period.

Changing conditions and other matters during the applicant's appeal period

- 3.5.17 (1) This section applies if the applicant makes representations to the assessment manager about a matter stated in the decision notice, other than a refusal or a matter about which a concurrence agency told the assessment manager under section 3.3.18(1).
- (2) If the assessment manager agrees with any of the representations, the assessment manager must give a new decision notice (the *negotiated decision notice*) to –
- (a) the applicant; and
 - (b) each principal submitter; and
 - (c) each referral agency; and
 - (d) if the assessment manager is not the local government and the development is in a local government area – the local government.
- (3) Only 1 negotiated decision notice may be given.
- (4) The negotiated decision notice –
- (a) must be given within 5 business days after the day the assessment manager agrees with the representations; and
 - (b) must be in the same form as the decision notice previously given; and
 - (c) must state the nature of the changes; and
 - (d) replaces the decision notice previously given.
- (5) If the assessment manager does not agree with any of the representations, the assessment manager must, within 5 business days after the day the assessment manager decides not to agree with any of the representations, give a written notice to the applicant stating the decision about the representations.
- (6) Before the assessment manager agrees to a change under this section, the assessment manager must reconsider the matters considered when the original decision was made, to the extent the matters are relevant.
- (7) If the development approved by the negotiated decision notice is different from the development approved in the decision notice in a way that affects the amount of an infrastructure charge or regulated infrastructure charge, the local government may give the applicant a new infrastructure charges notice under 5.1.8 or regulated infrastructure charges notice under section 5.1.18 to replace the original notice.
- (8) If the development approved by the negotiated decision notice is different from the development approved in the decision notice in a way that affects the amount of a regulated State infrastructure charge, the relevant State infrastructure provider may give the applicant a new regulated State infrastructure charges notice under section 5.3.4 to replace the original notice.

Applicant may suspend applicant's appeal period

- 3.5.18 (1) If the applicant needs more time to make the written representations, the applicant may, by written notice given to the assessment manager, suspend the applicants appeal period.
- (2) The applicant may act under subsection (1) only once.
- (3) If the written representations are not made within 20 business days after the day written notice was given to the assessment manager, the balance of the applicants appeal period restarts.
- (4) If the written representations are made within 20 business days after the day written notice was given to the assessment manager –
- (a) if the applicant gives the assessment manager a notice withdrawing the notice under subsection (1) – the balance of the applicants appeal period restarts the day after the assessment manager receives the notice of withdrawal; or
 - (b) if the assessment manager gives the applicant a notice under section 3.5.17(5) – the balance of the applicant's appeal period restarts the day after the applicant receives the notice; or
 - (c) if the assessment manager gives the applicant a negotiated decision notice – the applicant's appeal period starts again the day after the applicant receives the negotiated decision notice.

Division 8—Appeals to court relating to development applications**Appeals by applicants**

- 4.1.27. (1) An applicant for a development application may appeal to the court against any of the following—
- (a) the refusal, or the refusal in part, of a development application;
 - (b) a matter stated in a development approval, including any condition applying to the development, and the identification of a code under Section 3.1.6;
 - (c) the decision to give a preliminary approval when a development permit was applied for;
 - (d) the length of a period mentioned in 3.5.21;
 - (e) a deemed refusal.
- (2) An appeal under subsection (1)(a) to (d) must be started within 20 business days (the “applicant’s appeal period”) after the day the decision notice or negotiated decision notice is given to the applicant.
- (3) An appeal under subsection (1)(e) may be started at any time after the last day a decision on the matter should have been made.

Appeals by submitters

- 4.1.28. (1) A submitter for a development application may appeal to the court only against—
- (a) the part of the approval relating to the assessment manager’s decision under section 3.5.14 or 3.5.14A; or
 - (b) for an application processed under section 6.1.28(2) the part of the approval about the aspects of the development that would have required public notification under the repealed Act.
- (2) To the extent an appeal may be made under subsection (1), the appeal may be against 1 or more of the following—
- (a) the giving of development approval;
 - (b) any provision of the approval including —
 - (i) a condition of, or lack of condition for, the approval; or
 - (ii) the length of a period mentioned in section 3.5.21 for the approval.
- (3) However, a submitter may not appeal if the submitter—
- (a) withdraws the submission before the application is decided; or
 - (b) has given the assessment manager a notice under section 3.5.19(1)(b)(ii)
- (4) The appeal must be started within 20 business days (the *submitter’s appeal period*) after the decision notice or negotiated decision notice is given to the submitter.

Appeals for matters arising after approval given (co-respondents)

- 4.1.30. (1) For a development approval given for a development application, a person to whom any of the following notices have been given may appeal to the court against the decision in the notice—
- (a) a notice giving a decision on a request for an extension of a period mentioned in section 3.5.21;
 - (b) a notice giving a decision on a request to make a minor change to an approval
- (2) The appeal must be started within 20 business days after the day the notice of the decision is given to the person.
- (3) Subsection (1)(a) does not apply if the approval resulted from a development application (superseded planning scheme) that was assessed as if it were an application made under a superseded planning scheme.
- (4) Also, a person who has made a request mentioned in subsection (1) may appeal to the court against a deemed refusal of the request.
- (5) An appeal under subsection (4) may be started at any time after the last day the decision on the matter should have been made.

Appeals for matters arising after approval given (no co-respondents)

- 4.1.31. (1) A person to whom any of the following notices have been given may appeal to the court against the decision in the notice—
- (a) a notice giving a decision on a request to change or cancel a condition of a development approval;
 - (b) a notice under section 3.5.33A(9)(b) or 6.1.44 giving a decision to change or cancel a condition of a development approval.
- (2) The appeal must be started within 20 business days after the day the notice of the decision is given to the person.
- (3) Also, a person who has made a request mentioned in subsection (1)(a) may appeal to the court against a deemed refusal of the request.
- (4) An appeal under subsection (3) may be started at any time after the last day the decision on the matter should have been made.

Appeals on matters relating to the Building Act 1975 the following also applies: -

Jurisdiction of tribunals

- 4.2.7. (1) A tribunal has jurisdiction to decide any matter that under this or another Act may be appealed to it.
- (2) However, an appeal to a tribunal under this Act may only be about—
- (a) a matter under this Act that relates to the *Building Act 1975* (other than a matter under that Act that may or must be decided by the Building Services Authority) or the *Plumbing and Drainage Act 2002*; or
 - (b) a matter prescribed under a regulation.

Appeals by applicants

- 4.2.9. (1) An applicant for a development application may appeal to a tribunal against any of the following—
- (a) the refusal, or the refusal in part, of a development application;
 - (b) a matter stated in a development approval, including any condition applying to the development, but not including the identification of a code under section 3.1.6;
 - (c) the decision to give a preliminary approval when a development permit was applied for;
 - (d) the length of a period mentioned in section 3.5.21;
 - (e) a deemed refusal.
- (2) An appeal under subsection (1)(a) to (d) must be started within 20 business days (the “applicant’s appeal period”) after the day the decision notice or negotiated decision notice is given to the applicant.
- (3) An appeal under subsection (1)(e) may be started at any time after the last day a decision on the matter should have been made.

Assessment Manager Ref: 6283/09
Applicant Reference: 874206
DERM Reference: IC0610BEE0005_IPS7658_342590



**Queensland
Government**

28 September 2010

Department of
Environment and Resource
Management

Michel Group Services Pty Ltd
PO Box 2695
NERANG QLD 4211

Attention [REDACTED]

Dear Sir / Madam

**DEVELOPMENT PERMIT FOR MCU MULTIPLE RESIDENTIAL 100 UNITS LOT 55
SP222487 (21A NORTH STREET, NORTH IPSWICH) - IPSWICH CITY COUNCIL -
REFERRAL AGENCY RESPONSE**

The Chief Executive of the Department of Environment and Resource Management (DERM) advises that the Referral Agency Response for the abovementioned application, prepared pursuant to section 3.3.16 of the *Integrated Planning Act 1997*, has been forwarded to the Assessment Manager. A copy of the Referral Agency Response is enclosed for your reference.

We further advise that section 3.5.9 of the *Integrated Planning Act 1997* makes provision for you to give written notice to the Assessment Manager to stop the decision-making period (for not more than 3 months) at any time before the decision is made, to enable you to make representations to the Chief Executive of DERM about the Referral Agency Response.

Should you have any questions about the above, please contact [REDACTED] in the Planning and Development Unit (Beenleigh) on [REDACTED], quoting reference number IC0610BEE0005.

Yours sincerely

[REDACTED]
[REDACTED]
**Principal Biodiversity Planning Officer (Planning and Assessment)
Woolloongabba - South East Region**

Encl.

DERM European Heritage Advice Agency Response Permit no. 34590 QHR601526 SPAR00534110

DERM Contaminated Land Concurrence Agency Response Permit Number: IPCL0226910

Department of
Environment and Resource Management
SE Region
32 Tansley Street
PO Box 1164
BEENLEIGH QLD 4207

Telephone + 61 7 3884 8001
Facsimile + 61 7 3884 8024
Website www.derm.qld.gov.au
ABN 83 705 637 586

Assessment Manager Ref: 6293/09
Applicant Reference: 874206
DERM Reference: IC0610BEE0005_IPS7668_342590



**Queensland
Government**

28 September 2010

Department of
Environment and Resource
Management

Chief Executive Officer
Ipswich City Council
PO Box 191
IPSWICH QLD 4305

Attention: [REDACTED]

Dear Sir / Madam

**DEVELOPMENT PERMIT FOR MCU MULTIPLE RESIDENTIAL 100 UNITS LOT 55
SP222487 (21A NORTH STREET, NORTH IPSWICH) - IPSWICH CITY COUNCIL -
REFERRAL AGENCY RESPONSE**

The Chief Executive of the Department of Environment and Resource Management (DERM) advises that the Referral Agency Response for the above mentioned application, prepared pursuant to section 3.3.16 of the *Integrated Planning Act 1997* (IPA), is enclosed. A copy of the Referral Agency Response has been sent to the applicant.

DERM looks forward to receiving a copy of the Decision Notice for the application in due course.

Should you have any questions about the above, please contact [REDACTED] in the Planning and Development Unit (Beenleigh) on [REDACTED] quoting reference number IC0610BEE0005.

Yours sincerely

[REDACTED]

Principal Biodiversity Planning Officer (Planning and Assessment)
Woolloongabba – South East Region

Encl.

DERM European Heritage Advice Agency Response Permit no. 34590 QHR601526 SPAR00534410

DERM Contaminated Land Concurrence Agency Response Permit Number: IPCL0226910

Department of
Environment and Resource Management
SE Region
32 Tansey Street
PO Box 1164
BEENLEIGH QLD 4207

Telephone + 61 7 3884 8001
Facsimile + 61 7 3884 8024
Website www.derm.qld.gov.au
ABN 03 705 637 586

Notice

Department of Environment and Resource Management (DERM) Contaminated Land Unit (CLU) Concurrence Agency Response

Concurrence agency response

Sections 3.3.16 and 3.3.18 Integrated Planning Act 1997

Applicant:	Lipoma Pty Ltd C/ Leda Developments
Application Number:	6293/09
EPA Permit Numbers:	IPCL0226910
Date application received by EPA:	8 June 2010
Relevant Laws and Policies:	<i>Environmental Protection Act 1994</i>
Jurisdiction:	Chapter 7, Part 8 <i>Environmental Protection Act 1994</i>

Development Description:

Material Change of Use (100 Multiple Residential Units)

where:

- the land is on the Environmental Management Register or Contaminated Land Register under the *Environmental Protection Act 1994*.

at the following place(s):

21A North Street, NORTH IPSWICH
(Lot 65 on SP222487)

Response to Development Application

Department of Environment and Resource Management (DERM) – Contaminated Land Unit (CLU), acting as a concurrence agency under the *Integrated Planning Act 1997*, provides its response to the application detailed above.

The concurrence agency response is that

- there are no concurrence agency requirements

**Department of Environment and Resource Management (DERM)
Contaminated Land Unit (CLU) Concurrence Agency Response**

Conditions of the development approval

n/a

Additional comments or advice about the application

At all times while the use continues and the subject land is on the Environmental Management Register (EMR) the applicant must comply with the approved Site Management Plan (SMP) for Lot 55 on SP222487 issued under the *Environmental Protection Act 1994* by the Department of Environment and Resource Management (Contaminated Land Unit).

The SMP has specific requirements which apply to excavation during site construction works and for the removal of soil from the site.

Reasons for inclusion of development conditions or refusal

In accordance with section 3.3.18 of the *Integrated Planning Act 1997* and section 27B of the *Acts Interpretation Act 1954*, a concurrence response must include reasons for a refusal or for the inclusion of development conditions.

Department of Environment and Resource Management is recognised as a concurrence agency under the *Integrated Planning Regulation 1998* for the protection of the environment by the management of contaminated land. Department of Environment and Resource Management concurrence agency conditions for this proposed development that are contained within this response are required to prevent or mitigate any potential risk to human health or the environment from possible hazardous contaminants present on the site.

Additional information for applicants

This concurrence response pursuant to Chapter 7, Part 8 of the *Environmental Protection Act 1994* applies only to contaminated land issues and does not remove the need to obtain any further approval for this development which may be required by this or other legislation, State and/or Commonwealth. Applicants are advised to check with all relevant statutory authorities for such approvals as may be required. Should you require any further information please do not hesitate to contact Allen Johns on 3330 5694.

..... 

Signed

Delegate of Administering Authority
Environmental Protection Act 1994.

..... 27/9/10

Date

~ End of Concurrence Agency Response ~

Notice

Advice Agency Response — Heritage Place (Common boundary)

This notice is issued by the Department of Environment and Resource Management pursuant to section 3.3.19 of the *Integrated Planning Act 1997*.

Ipswich City Council
PO Box 191
IPSWICH QLD 4305

CC: Lipoma Pty Ltd
C/- Leda Developments
PO Box 1914
SURFERS PARADISE QLD 4217

Your reference : 6293/09.

Our reference : 342590:601526:SPAR00534410

Dear Sir/Madam:

Advice concerning application for development at 21A North Street, North Ipswich QLD 4305 (Lot 55 SP222487). Please treat this response as a properly made submission

DERM referral number: SPAR00534410

Response type: Advice Agency Response

Date application received by DERM: 18 May 2010

ADVICE AGENCY JURISDICTION:	Item 22 of Table 3 of Schedule 2 of the <i>Integrated Planning Regulation 1998</i> .
ASSESSMENT MANAGER REFERENCE NUMBER:	6293/09
APPLICANT:	Lipoma Pty Ltd
ACTIVITY DESCRIPTION:	Material Change of Use (multiple residential units) on land that shares a common boundary with a Registered Place under the Queensland Heritage Act 1992
DESCRIPTION OF SUBJECT LAND:	21A North Street, North Ipswich QLD 4305
	Lot: 55 Plan: SP222487

Response to Development Application

The DERM, acting as an advice agency under the *Integrated Planning Act 1997*, provides the following advice to the application as detailed above.

DERM advice

The proposal, as stated in the application, will have no impact on the cultural heritage values of the North Ipswich Railway Workshops Complex and consequently no advice agency recommendations are provided.

Additional information for applicants

It is a requirement of the *Environmental Protection Act 1994* that if the owner or occupier of this site becomes aware that a Notifiable Activity (as defined under Schedule 2 of the *Environmental Protection Act 1994*) is being carried out on this land or that the land has been affected by a hazardous contaminant, they must, within thirty (30) days after becoming aware the activity is being carried out, give notice to the Department of Environment and Resource Management. A list of Notifiable Activities is provided within Schedule 2 of the *Environmental Protection Act 1994*.

Yours sincerely

[Redacted Signature]

Signature

30/09/10

Date

[Redacted]
Principal Heritage Officer
Delegate for
Department of Environment and Resource
Management

Enquiries:

[Redacted]
Cultural Heritage
South East Regional Office, Land Services
GPO Box 2771
BRISBANE Q 4001
Telephone: [Redacted]
Email: [Redacted]

4 June 2010

Ipswich City Council
PO Box 191
IPSWICH QLD 4305

Attention: Brett Davey

RECEIVED	
07 JUN 2010	
Doc. No.	
Applic. No.	6293/09
Action Off.	B. Davey

cc Michel Group Services Pty Ltd. *cc Cr Bromage*
PO Box 2695
NERANG QLD 4211
Attention: Tim Riches



Dear Brett,

Development Application – Material Change of Use (Multiple Residential 100 Units) located at 21A North Street, described as Lot 55 on SP 222487.

Applicant Ref: 874206

Council Ref: 6293/09

Our Ref: HBD 1456272 236537

We refer to your correspondence regarding the above application. ENERGEX Limited acting as an Advice Agency has **no objection** to the proposed Material Change of Use, subject to the following conditions:

1. All easement conditions must be maintained
2. All previous conditions must be adhered to and ENERGEX may, at its discretion, audit the finished development to check that it conforms to the conditions of the development.
3. Detailed civil design drawings showing any proposed cut and fill levels on the easement and the location of the ENERGEX assets in relation to the proposed development must be approved by ENERGEX before any works can commence on site.
4. Any proposal for landscaping on the easement must have prior approval from ENERGEX. Please submit the relevant landscaping design to Principal Mains Design Engineer for approval. When considering landscape designs the planting of trees must be kept to the edges of the easement and not under any overhead conductors. When mature, plants or trees must not grow in excess of 3.5 metres in height. If



INTERNATIONAL
QUALITY
MANAGEMENT
SYSTEMS

Enquiries
Kirsten Sellers
Telephone
(07) 3407 4815
Facsimile
(07) 3407 4144
Email
kirstensellers
@energex.com.au

Corporate Office
150 Charlotte Street
Brisbane Qld 4000
GPO Box 1481
Brisbane Qld 4001
Telephone (07) 3407 4000
Facsimile (07) 3407 4609
www.energex.com.au

Reference: HBD 1456272 236537

ENERGEX Limited
ABN 40 078 849 055

pertinent the ENERGEX Guide to "Powerline Friendly Plants" will be enclosed, please refer to this Guide for recommended species.

5. Satisfactory clearance from your proposed structure to the existing (and/or future) electricity wires must be maintained in accordance with the Electrical Safety Regulations 2002.

When considering the construction of a subdivision, either on ENERGEX easements or in the vicinity of ENERGEX assets, please be aware of the following general conditions:

- No civil works are to occur within 5 metres of any part of an ENERGEX Structure (e.g. tower base, pole or stay) without ENERGEX approval.
- If the minimum 5m horizontal separation to the ENERGEX structure cannot be achieved, the Developer must consult ENERGEX with regards to allowable construction methods. This may include full depth shoring of the excavation sides for a minimum of 5 metres either side of the structure.
- Any excavations deeper than 5m must have a minimum horizontal separation from the excavation to any tower, base or pole at least equal to the excavation depth. The excavation is not to be left open overnight and backfill is to be compacted in 150mm layers in the immediate vicinity of the structure.
- 10 metres clear access must be provided around all towers and pole structures after the completion of any works on the easement.
- Natural ground level on the easement should not be disturbed without ENERGEX approval.
- Final ground levels should slope gently to the edge of the easement, surrounding area or kerb such that pooling of water on the easement is avoided and conductor ground clearances are not decreased.
- Stockpiling of spoil on the easement is prohibited.
- Lighting structures are not permitted in the easement without prior written consent of ENERGEX. Lighting designs for proposed developments (e.g. road, carparks etc) on the easement are likely to require reduced height structures. Please submit detailed design to ENERGEX for approval. These drawings must clearly show the following:
 - Proposed height of the lighting structures and the ground level at the structure base,
 - Relative (to lighting structures) ground levels at ENERGEX structures (towers, pole etc) either side of the lighting structures, and
 - The location of the ENERGEX structures in relation to the proposed lighting
- Proposed underground services such as stormwater, sewerage, water and the like are to be kept to the outer edge of the easement. Services crossing the easement should be as near as practicable to right angles to the overhead conductor direction and not within 10 metres of any tower, pole or stay. Pipelines and crossings are to be clearly marked. Please submit the relevant design drawings to the Principal Mains Design Engineer for review.

The identification, assessment and mitigation of any possible hazards in the service due to electromagnetically induced voltages, is the responsibility of the Developer.

- Any cut in the vicinity of a structure or between a structure and the road kerb will need to be stabilised by a retaining wall. The retaining wall design and location is to be submitted to ENERGEX for approval.
- Any costs incurred by ENERGEX as a result of the works on the easement are to be met by the property Developer / owner.
- Access to the easement and access along the easement must be available to ENERGEX personnel and heavy equipment at all times. ENERGEX will require the Developer / owner to supply and install gates where fencing prohibits access to and along the easement area. To enable travel along the easement at anytime the gates must be series locked with an ENERGEX padlock. Both the padlock and a design drawing of an acceptable gate will be provided by ENERGEX.
- At all times the following clearance must be maintained from the top of any machinery moving in the vicinity of energised conductors:
 - 132kV and 110kV conductors – 4.5m minimum clearance
 - 33kV and 11kV conductors – 3m minimum clearance
 - Should it be necessary to transport equipment or extend any equipment, such that these clearances cannot be confidently maintained, you are required to contact our office to ascertain whether a Safety Officer is required on-site. All operators of machinery are to be made aware of the presence of high voltage conductors.

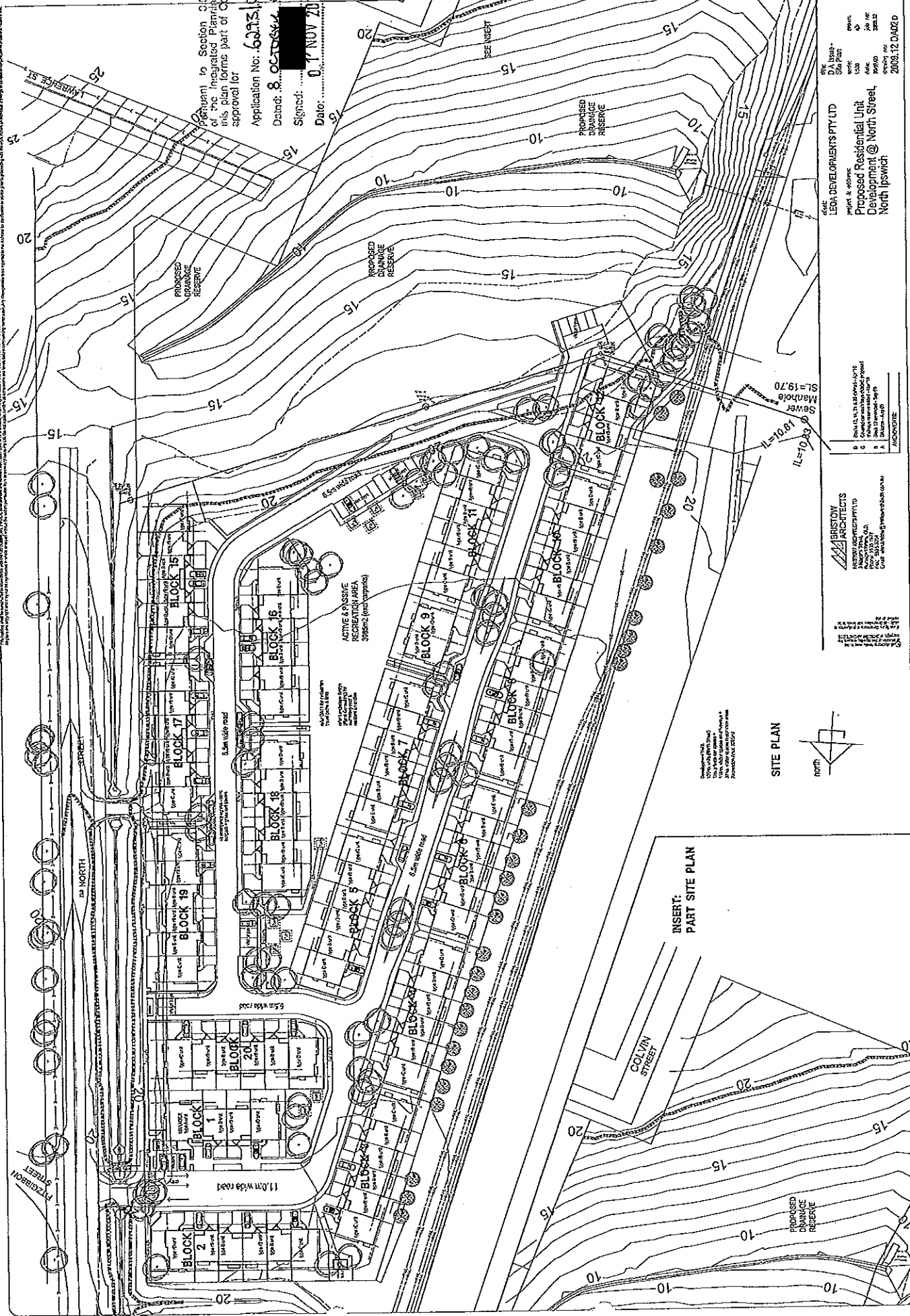
Should you require any further information on the above matter, please contact [REDACTED]

[REDACTED]
Yours faithfully,
[REDACTED]

Town Planner
Network Development and Property Department
ENERGEX Limited

The information contained in this document is confidential and intended only for the use of the person or organization to whom it is addressed. If you have received this document in error, please notify the sender immediately. The sender is not responsible for any loss or damage arising from the use of this information.

Pursuant to Section 215(5)
 of the Integrated Planning Act
 this plan forms part of Council's
 approval for
 Application No. **6273/07**
 Dated: **8 OCTOBER 2007**
 Signed: **[Signature]**
 Date: **07 NOV 2010**



LEGA DEVELOPMENTS PTY LTD
 D.A. 15040 -
 STA Plan
 project & address
 Proposed Residential Unit
 Development @ North Street,
 North Ipswich

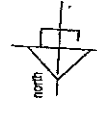
ARCHITECTS
 ARCHITECTS PTY LTD
 1/11 North Street
 North Ipswich QLD 4750
 Phone: 07 5432 1111
 Fax: 07 5432 1112
 Email: info@architects.com.au
 URL: www.architects.com.au

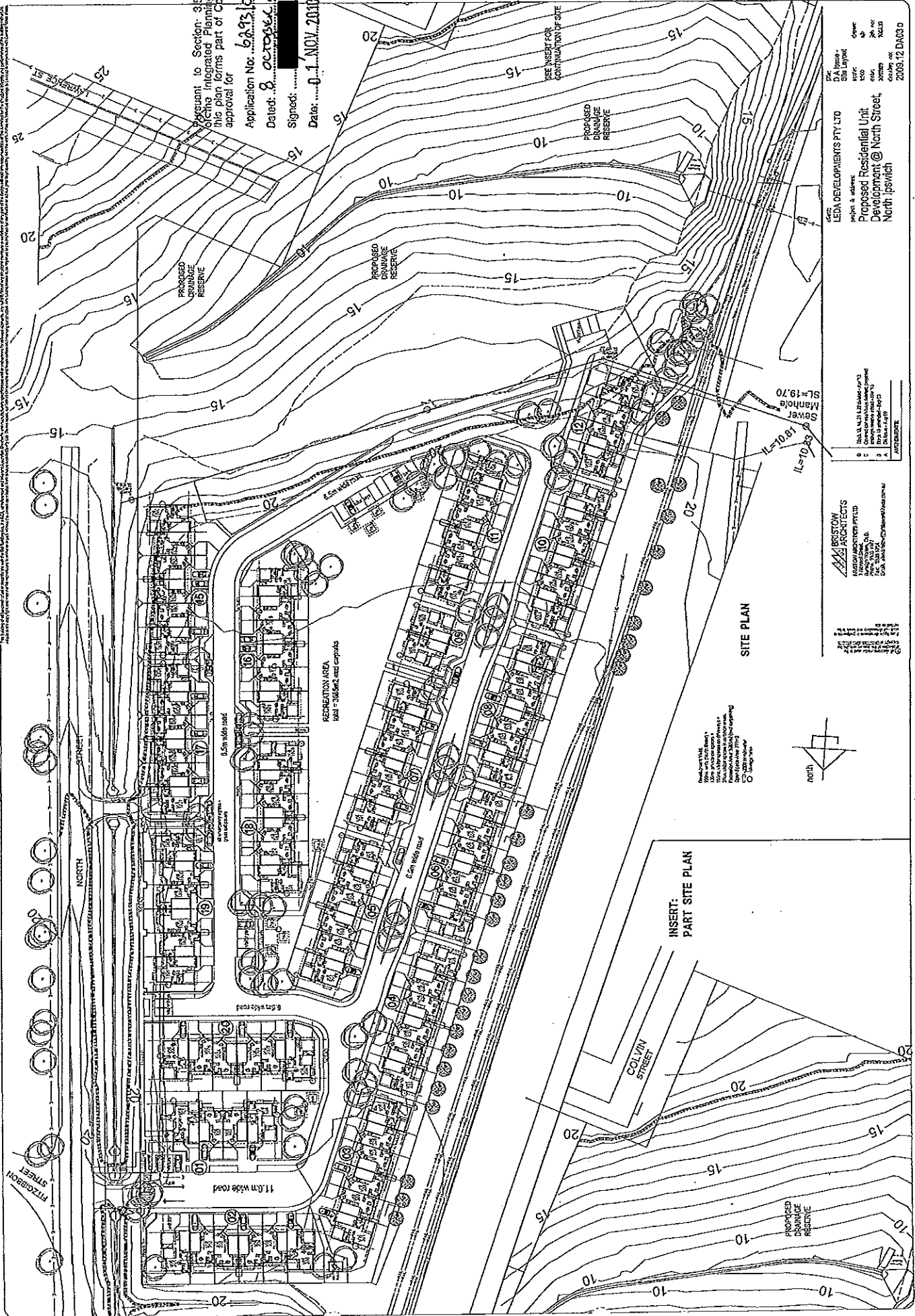
DEVELOPER
 LEGA DEVELOPMENTS PTY LTD
 1/11 North Street
 North Ipswich QLD 4750
 Phone: 07 5432 1111
 Fax: 07 5432 1112
 Email: info@lega.com.au
 URL: www.lega.com.au

DATE: 07 NOV 2010
 SCALE: 1:500
 DRAWING NO: 2009.12.DA02.D
 SHEET NO: 1 OF 1

INSERT:
 PART SITE PLAN

SITE PLAN





Regulant to Section 35.15(5)
of the Integrated Planning Act,
this plan forms part of Council's
approval for

Application No. **6293/09**
Dated: **8 October 2009**
Signed: **[Redacted]**
Date: **01 NOV 2010**

Doc No: [Redacted]
Project & address:
LEDA DEVELOPMENTS PTY LTD
Proposed Residential Unit
Development @ North Street,
North Ipswich

Project & address:
LEDA DEVELOPMENTS PTY LTD
Proposed Residential Unit
Development @ North Street,
North Ipswich

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Development @ North Street,
North Ipswich

Project & address:
LEDA DEVELOPMENTS PTY LTD
Proposed Residential Unit
Development @ North Street,
North Ipswich

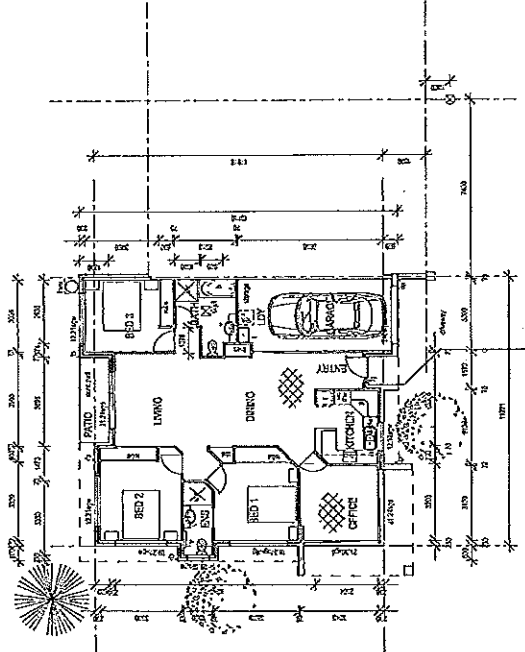
Project & address:
LEDA DEVELOPMENTS PTY LTD
Proposed Residential Unit
Development @ North Street,
North Ipswich

Project & address:
LEDA DEVELOPMENTS PTY LTD
Proposed Residential Unit
Development @ North Street,
North Ipswich

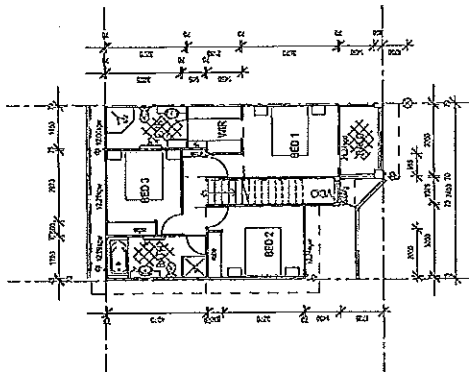
Project & address:
LEDA DEVELOPMENTS PTY LTD
Proposed Residential Unit
Development @ North Street,
North Ipswich

Project & address:
LEDA DEVELOPMENTS PTY LTD
Proposed Residential Unit
Development @ North Street,
North Ipswich

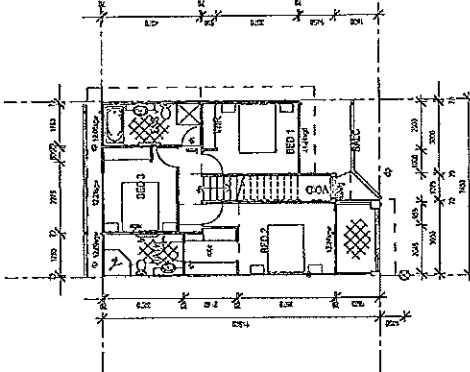
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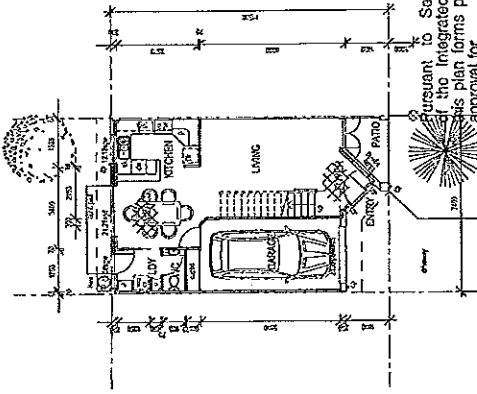
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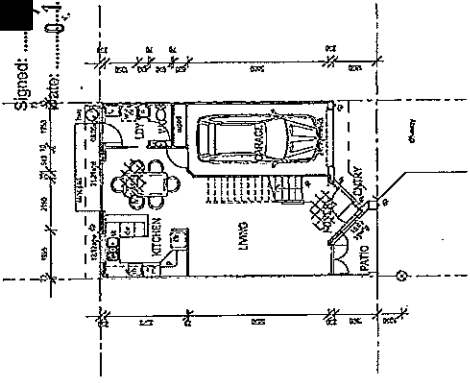
UNIT 'B' PLAN: FFL
SCALE 1:50



UNIT 'B' PLAN: FFL
SCALE 1:50



UNIT 'B' PLAN: GFL
SCALE 1:50



UNIT 'B' PLAN: GFL
SCALE 1:50

Pursuant to Section 3.515(5)
 of the Integrated Planning Act,
 this plan forms part of Council's
 approval for

Application No: **6293/18**
 Date: **02 OCT 2018**
 Signed: **[Signature]**
 Date: **01 NOV 2018**

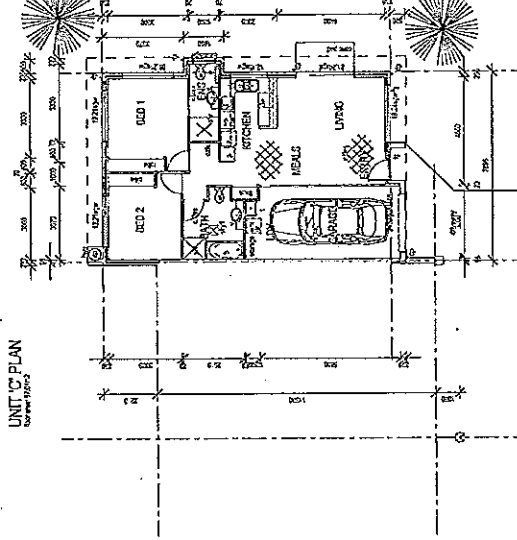
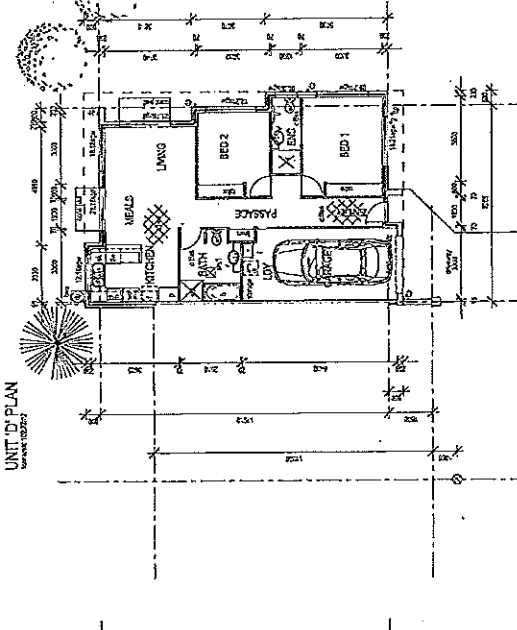
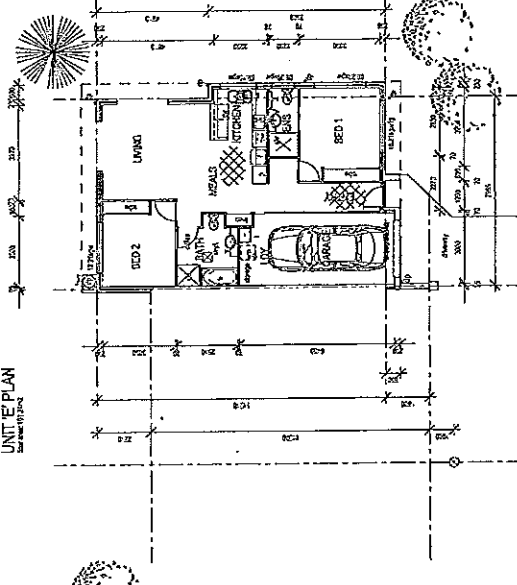
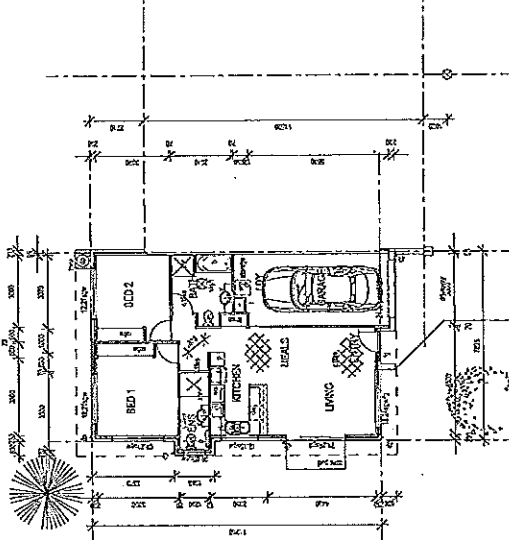
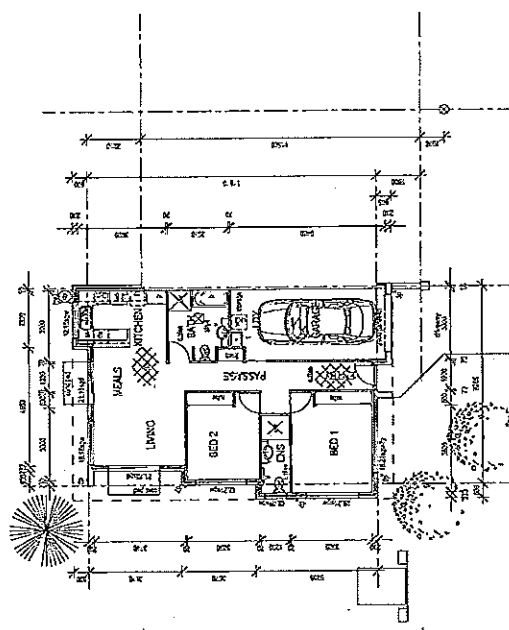
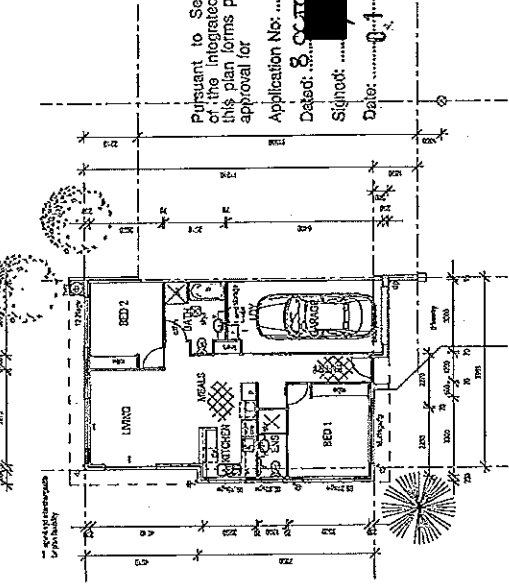
Leda Developments Pty Ltd
 Proposed Residential Unit
 Development @ North Street,
 North Ipswich
 2008.12.DM048

BRISTOW ARCHITECTS
 ARCHITECTS
 10/11 BRISTOL STREET
 NORTH IPSWICH QLD 4702
 PH: 07 552 2222
 FAX: 07 552 2223
 WWW.BRISTOWARCHITECTS.COM.AU

I hereby certify that the above
 information is true and correct
 to the best of my knowledge
 and belief.

Pursuant to Section 3.51(5)(5) of the Integrated Planning Act, this plan forms part of Council's approval for Application No. 6893/09.

Pursuant to Section 3.51(5)(5) of the Integrated Planning Act, this plan forms part of Council's approval for Application No. 6893/09.
 Date: 01 NOV 2010
 Signature: [Redacted]
 Date: 01 NOV 2010



BRISTOL ARCHITECTS
 100/102 BRISTOL STREET
 BRISTOL AVON BS1 2JG
 TEL: 01273 314444
 FAX: 01273 314445
 EMAIL: info@bristolarchitects.co.uk

LEDA DEVELOPMENTS PTY LTD
 Proposed Residential Unit
 Development @ North Street,
 North Ipswich

Unit Floor Plans 'C' 'D' & 'E'
 DRAWN: [Redacted]
 CHECKED: [Redacted]
 DATE: 01 NOV 2010

A. SALMER AND
 ARCHITECTS

2008.12.04/05A

UNIT 'C' PLAN
 Scale 1:100

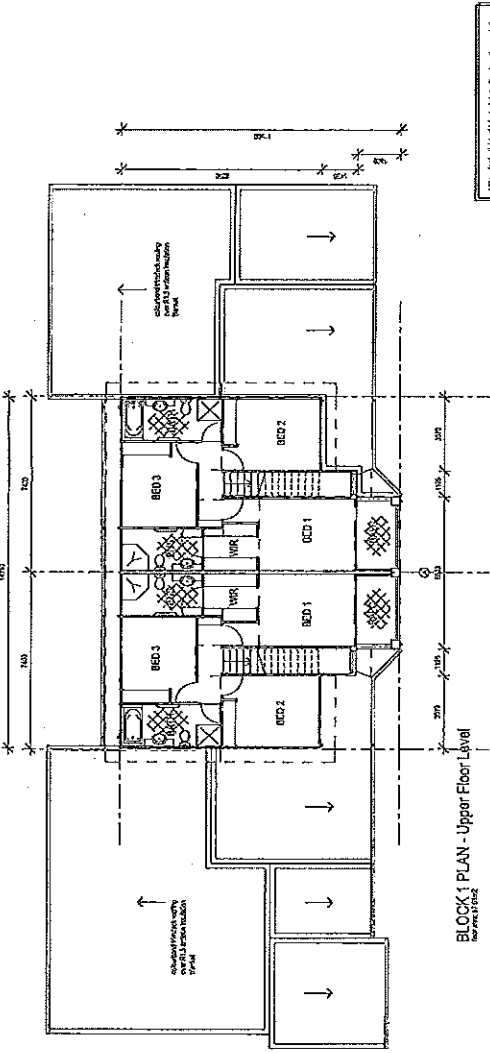
UNIT 'D' PLAN
 Scale 1:100

UNIT 'E' PLAN
 Scale 1:100

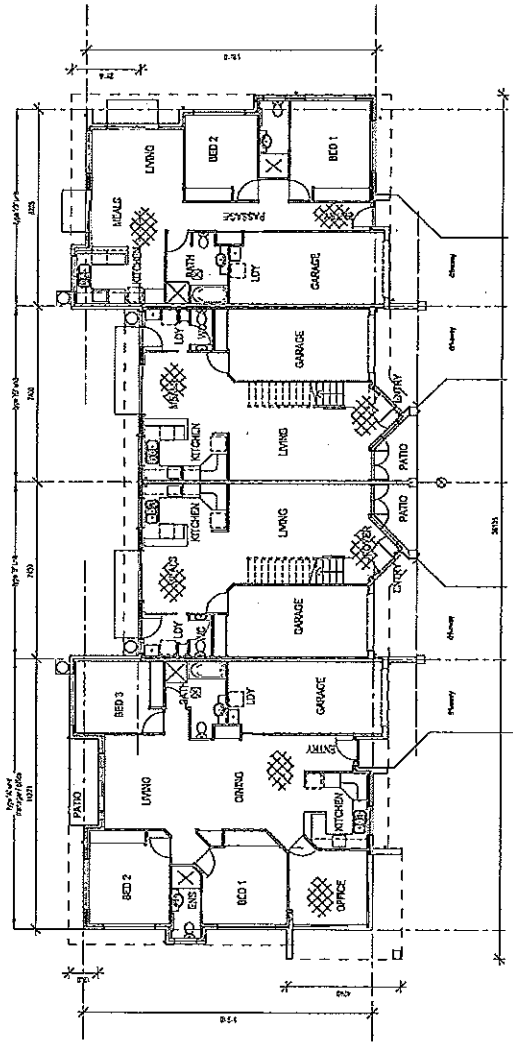
This plan and the proposed development are shown on the site plan and are subject to the conditions of the planning permission granted by the Council. The Council does not accept any liability for the accuracy of the information shown on this plan and does not warrant or guarantee the accuracy of the information shown on this plan. The Council does not accept any liability for the accuracy of the information shown on this plan and does not warrant or guarantee the accuracy of the information shown on this plan.

Pursuant to Section 2.5.15(5)
 of the Integrated Planning Act,
 this plan forms part of Council's
 approval for

Application No: **6293/09**
 Dated: **8 OCTOBER 2009**
 Signed: **[Signature]**
 Date: **01 NOV 2010**



This plan is for a typical unit. The actual layout of the unit may vary.

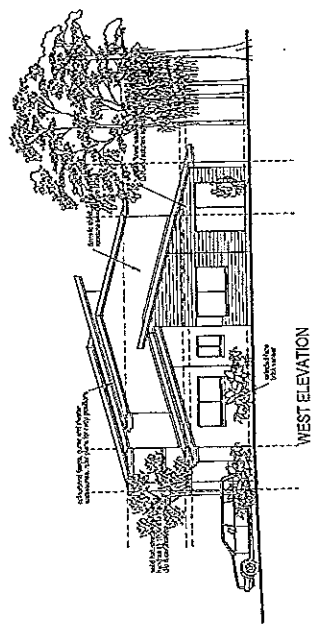


LEIDA DEVELOPMENTS PTY LTD
 Proposed Residential Unit
 Development @ North Street,
 North Ipswich

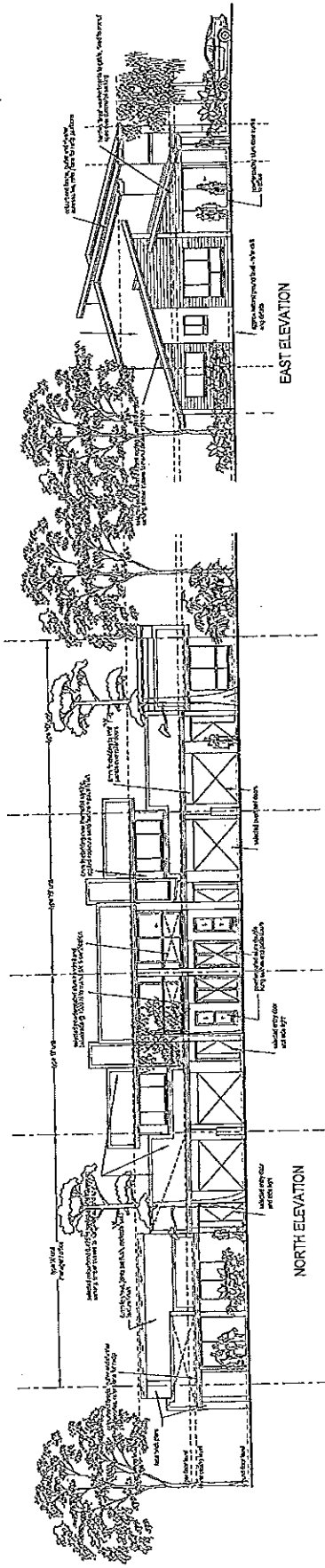
BRISTOW ARCHITECTS
 BRISTOW ARCHITECTS PTY LTD
 15 BARRACK STREET
 SOUTH BRISBANE QLD 4000
 PH: 07 3847 1000
 FAX: 07 3847 1001
 WWW.BRISTOWARCHITECTS.COM.AU

2010/12/DA06A

Pursuant to Section 3.5.14(5) of the Incorporated Planning Act, this plan forms part of Council's approval for
 Application No: **6893/07**
 Dated: **8 OCTOBER 2007**
 Signed: **[Redacted Signature]**
 Date: **01 NOV 2010**



WEST ELEVATION



NORTH ELEVATION

EAST ELEVATION

Architectural drawings shall be in accordance with the Australian Standards AS 15700 and AS 15701 for architectural drawings.

BRISTOL ARCHITECTS
 BRISTOL ARCHITECTS PTY LTD
 1/110 NORTH STREET
 BRISTOL, QLD 4207
 Phone: 07 5522 2222
 Fax: 07 5522 2222

A. [Redacted]
 ARCHITECT

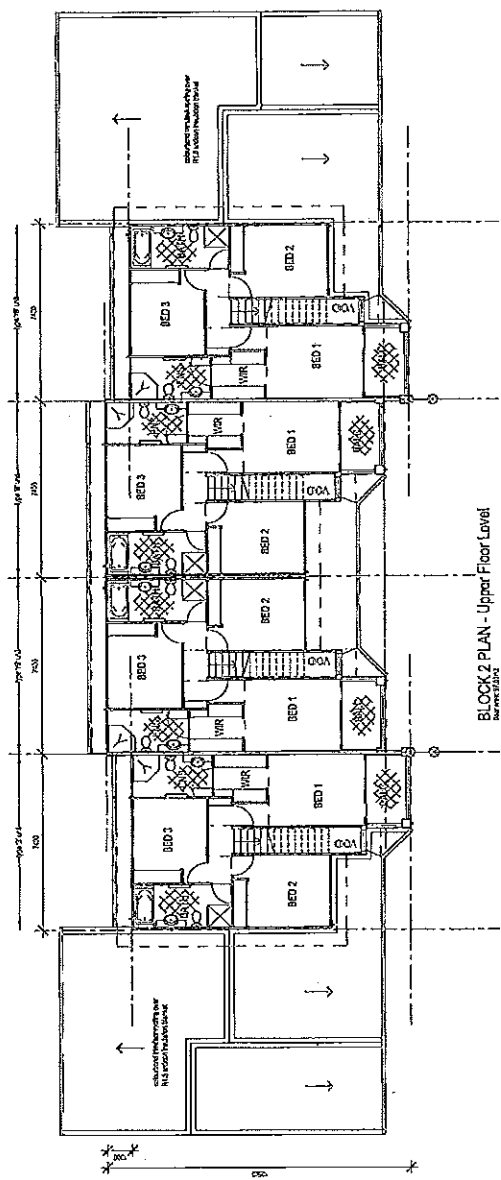
Client: **LEDA DEVELOPMENTS PTY LTD**
 Project & site: **Proposed Residential Unit Development @ North Street, North Ipswich**
 Date: **2008.12.DA07A**

As per the conditions of the contract of appointment, the client is responsible for obtaining all necessary approvals from the relevant authorities.

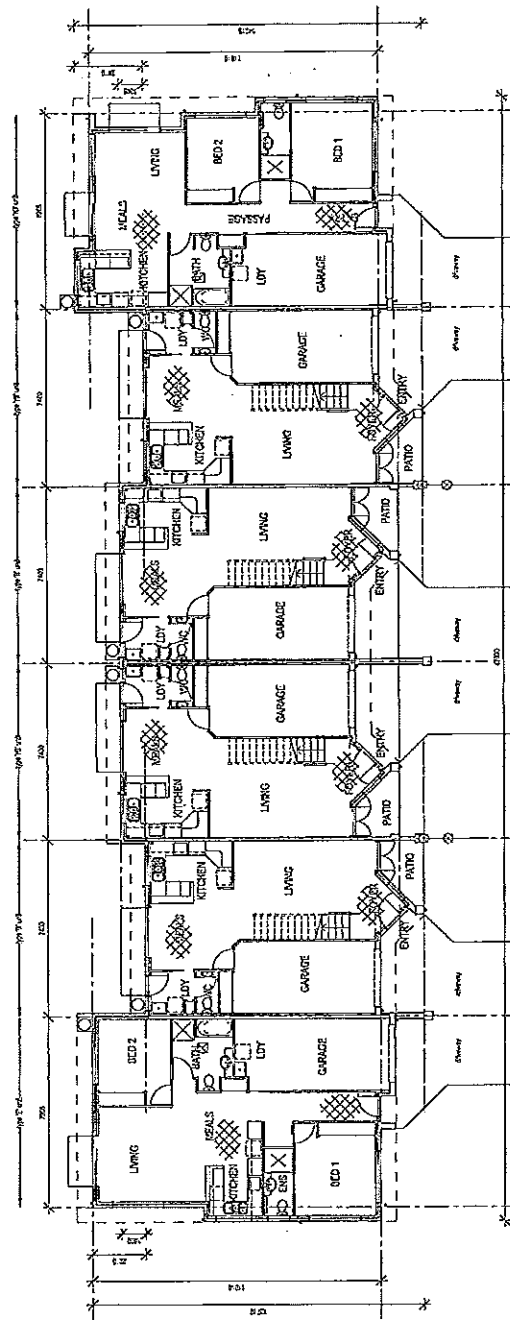
Pursuant to Section 2.5.1(5) of the Integrated Planning Act 2003, this plan forms part of Council's approval for

Application No: **6213/109**
 Dated: **8 OCTOBER 2009**
 Signed: **[Redacted]**
 Date: **0 NOV 2010**

Worked to all standards and specifications of the New Zealand Building Code



BLOCK 2 PLAN - Upper Floor Level



BLOCK 2 PLAN - Ground Floor Level

LEDA DEVELOPMENTS PTY LTD
 Proposed Residential Unit
 Development @ North Street,
 North Ipswich
 2009.12.DA08A

BRISTOW ARCHITECTS
 ARCHITECTS PTY LTD
 BRISTOW ARCHITECTS
 10/11 BRISTOL STREET
 IPSWICH QLD 4703
 PH: 07 5441 1111
 FAX: 07 5441 1112
 WWW.BRISTOWARCHITECTS.COM.AU

DATE: 08 OCT 2009
 DRAWING NO: 101
 SHEET NO: 1/1

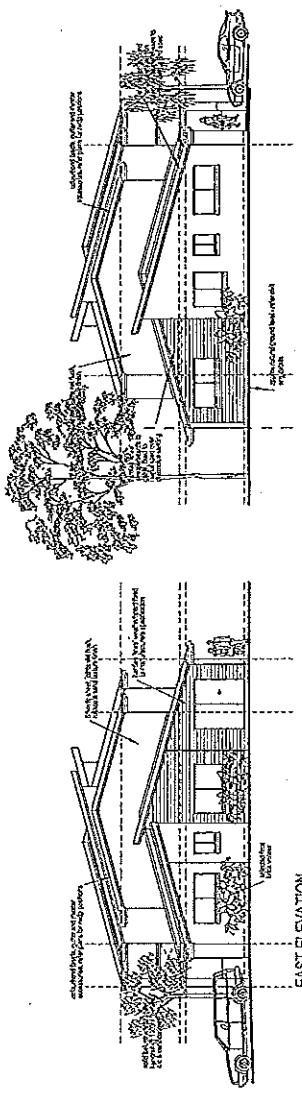
Presented in Section 4.5.14(6) of the Municipal Planning Act, the plan forms part of Council's approval for

Application No: **6293/09**

Dated: **8 OCTOBER 2009**

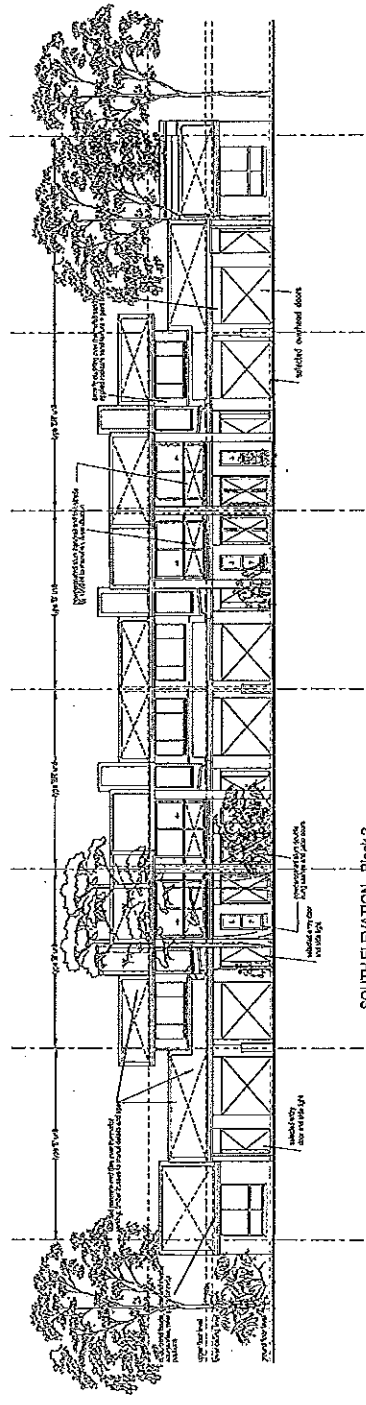
Signed: **[Redacted Signature]**

Date: **04 NOV 2010**



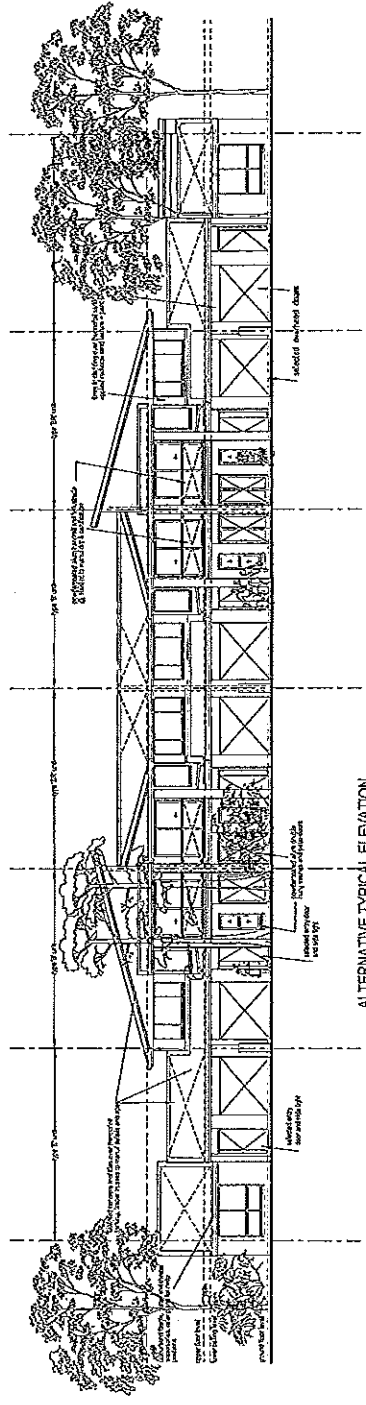
WEST ELEVATION

EAST ELEVATION



SOUTH ELEVATION - Block 2

Do not remove locations for foundations or layout for excavations



ALTERNATIVE TYPICAL ELEVATION

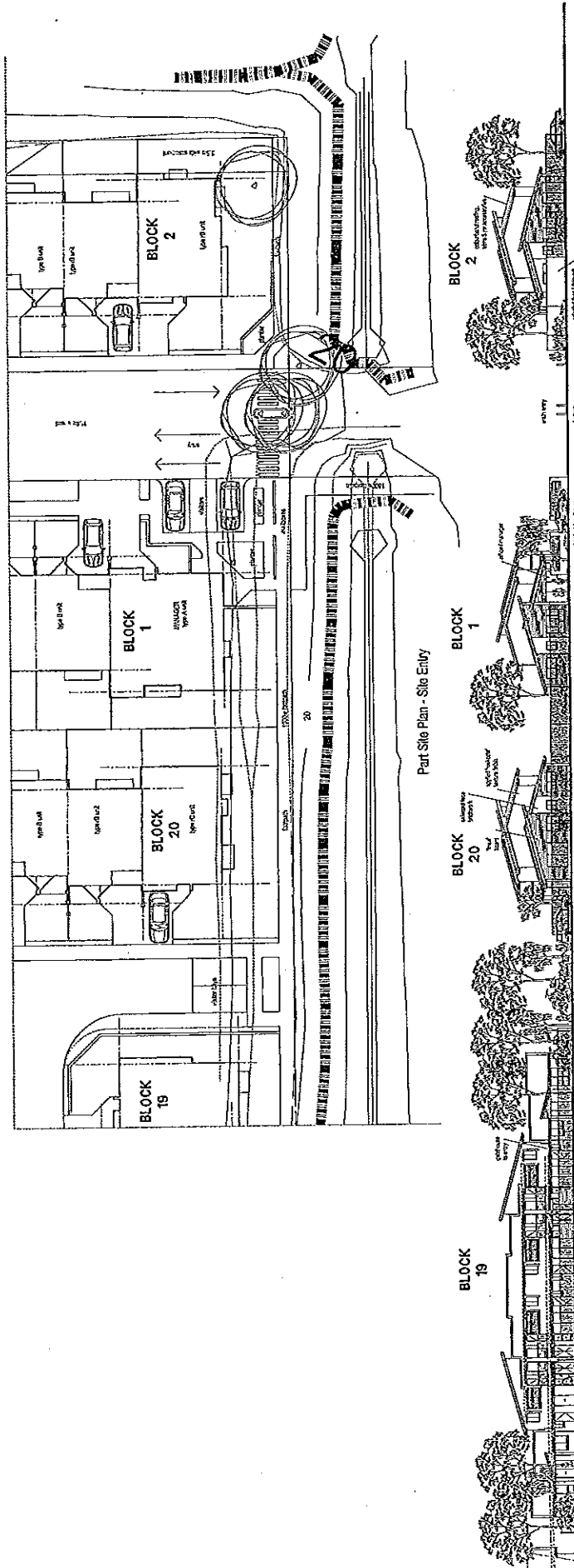
BRISTOW ARCHITECTS
 BRISTOW ARCHITECTS PTY LTD
 10/110 WILSON STREET
 SOUTH BRISBANE QLD
 4008
 Ph: 07 3838 2222
 Fax: 07 3838 2222
 Email: info@bristowarchitects.com.au

LEDA DEVELOPMENTS PTY LTD
 Block 2, Eaves & Typical Unit
 Proposed Residential Unit
 Development @ North Street
 North Ipswich

DATE: 2009.12.04 09 A

A 14 NOV 2010 12:30
 JAWOJ/LEDA

This drawing is the property of Bristow Architects Pty Ltd. It is to be used only for the project and site for which it was prepared. It is not to be used for any other project or site without the written consent of Bristow Architects Pty Ltd. It is to be kept confidential and not to be disclosed to any third party without the written consent of Bristow Architects Pty Ltd.



Pursuant to Section 223 of the Integrated Planning Act 2003, the Council is invited to consider this application for

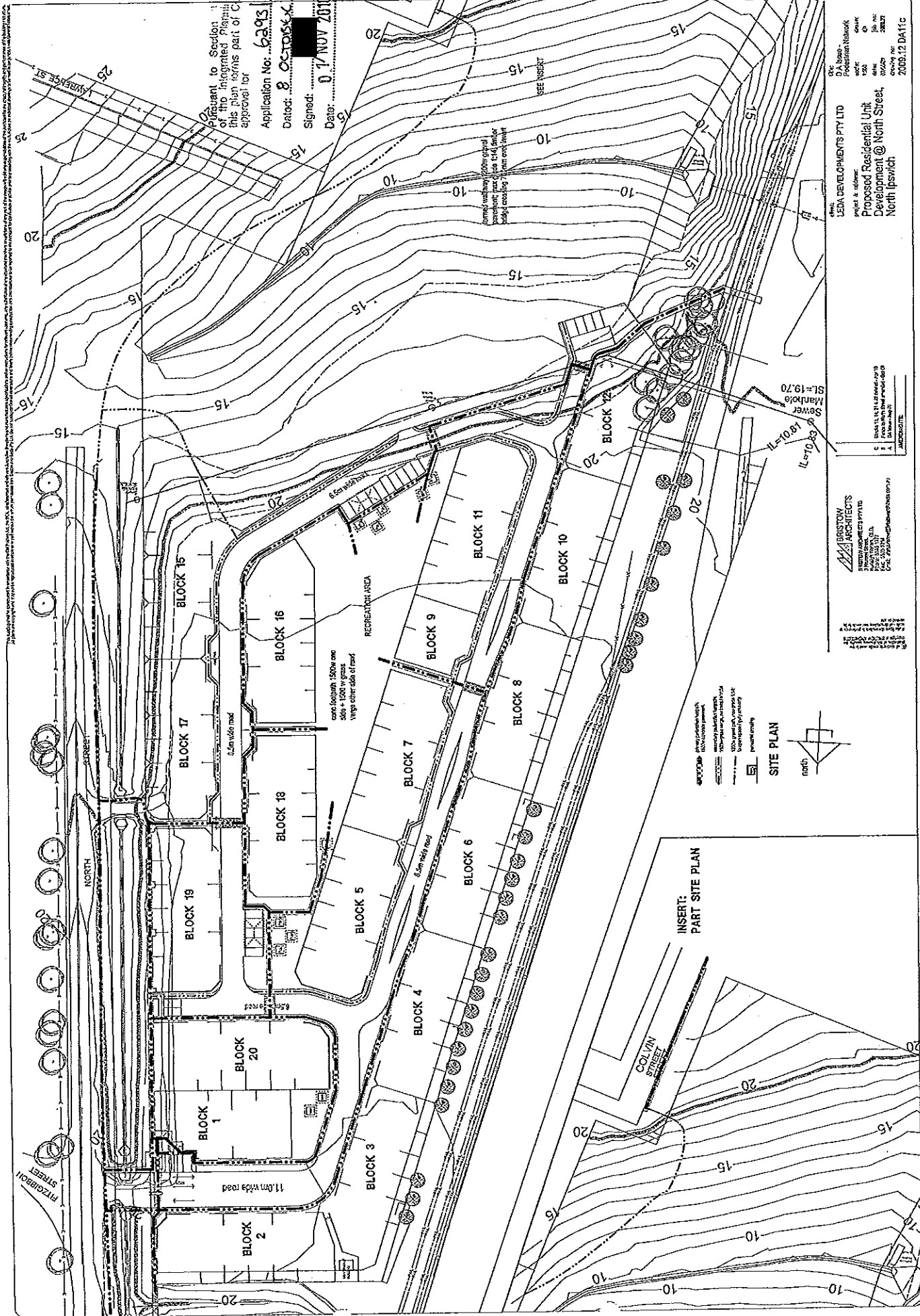
Application No: **6293/09**
 Dated: **8 October 2009**
 Signed: **[Signature]**
 Date: **10 NOV 2010**

LBA DEVELOPMENTS PTY LTD
 Proposed Residential Unit Development @ North Street, North Ipswich

D.A. Jean - Site Entry Area
 Project & address:
 Block: 1200
 Lot: 49
 Suburb: 20070
 County: 20023
 Date: 2009/12/DA1019

BRISTOW ARCHITECTS
 BRISTOW ARCHITECTS PTY LTD
 10/11 BRISTOL STREET
 NORTH IPSWICH, QLD 4702
 TEL: (07) 5531 1111
 FAX: (07) 5531 1112
 EMAIL: info@bristowarchitects.com.au

A. [Signature]
 B. [Signature]
 C. [Signature]



Placant to Section 227(1)(b) of the Integrated Planning Act, this plan forms part of Chathams approval for

Application No: 6293 09

Dated: 8 October 2009

Signed: [Signature]

Date: 01 NOV 2010

Client: LISA DEVELOPMENTS PTY LTD

Project & address: Proposed Residential Unit Development @ North Street, North Ipswich

Site No: 6293 09

Scale: 1:500

Date: 08 OCT 2009

Drawn by: [Name]

Checked by: [Name]

2009.12 DA11C

Architects: BRISTON ARCHITECTS

2 BRISTON PLACE, SOUTH BRISBANE, QLD 4000

Phone: (07) 5531 1111

Fax: (07) 5531 1112

www.bristonarchitects.com.au

INSERT: PART SITE PLAN

SITE PLAN

North

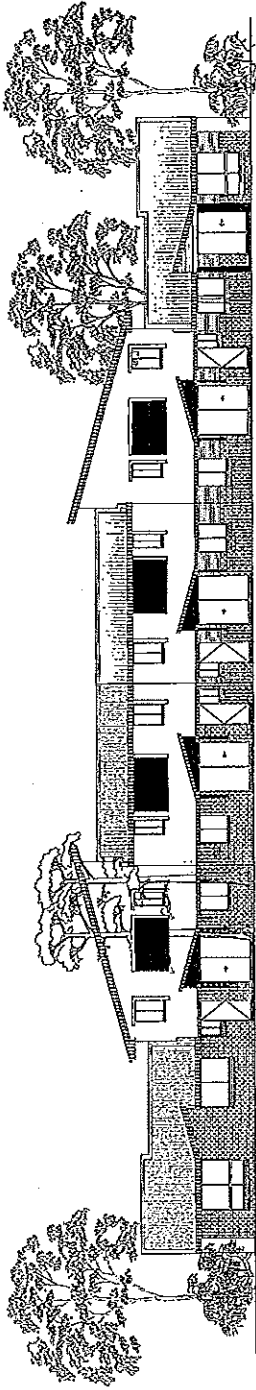
Pursuant to Section 3.5.15(5) of the Integrated Planning Act this plan forms part of Council's approval for

Application No: 6993/09

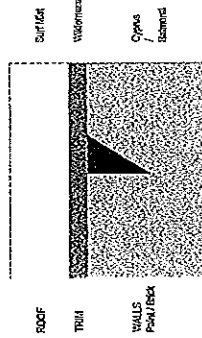
Dated: 8 OCTOBER 2009

Signed: [Redacted]

Date: 04 NOV 2010

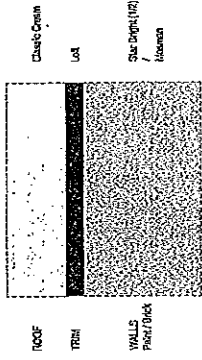


#1 COLOUR SELECTION

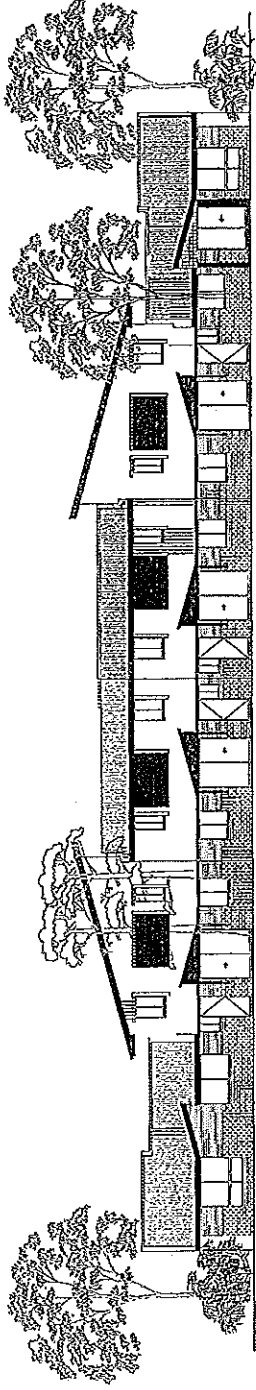


Note: Roof & Trim colours are selected from the manufacturer's colour chart.

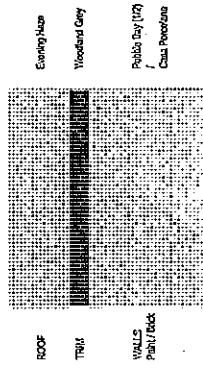
#2 COLOUR SELECTION



Note: Roof & Trim colours are selected from the manufacturer's colour chart.

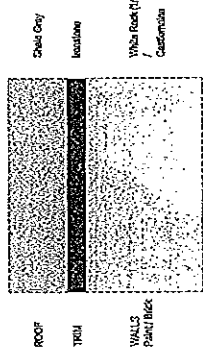


#3 COLOUR SELECTION



Note: Roof & Trim colours are selected from the manufacturer's colour chart.

#4 COLOUR SELECTION



Note: Roof & Trim colours are selected from the manufacturer's colour chart.

BRISTOL ARCHITECTS
BRISTOL ARCHITECTS PTY LTD
100/102 BRISTOL STREET
MELBOURNE VIC 3000
TEL: 03 9412 1234
WWW.BRISTOLARCHITECTS.COM

LEDA DEVELOPMENTS PTY LTD
D.A. Liddell - Chairman / Colour-Pedia
100/102 BRISTOL STREET
MELBOURNE VIC 3000
TEL: 03 9412 1234
WWW.LEDADEVELOPMENTS.COM

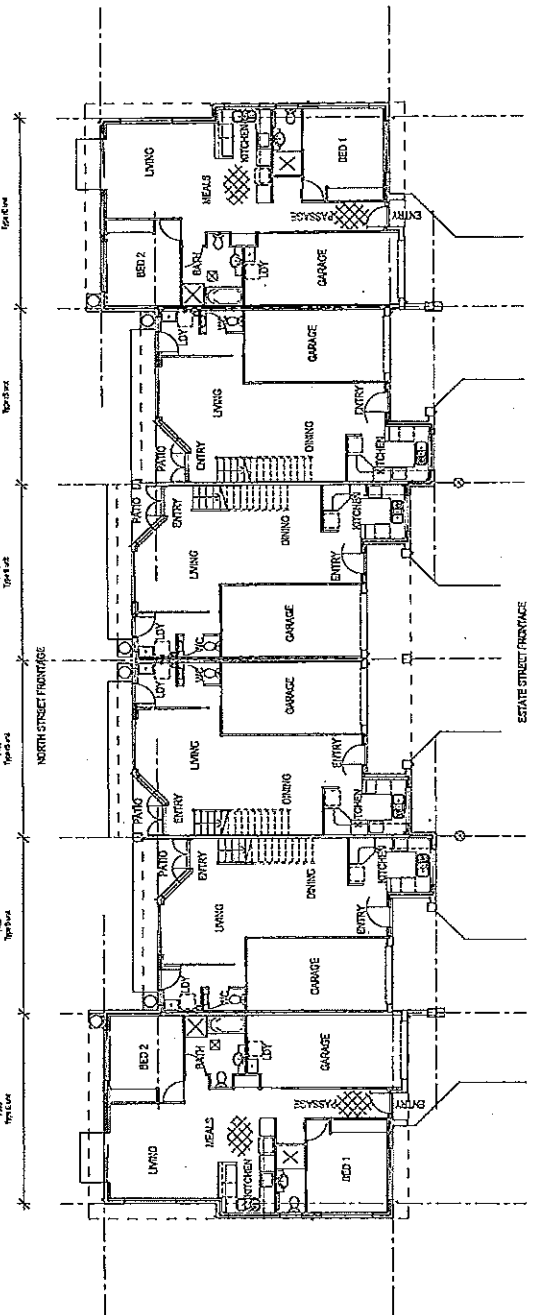
APPROVED

Pursuant to Section 3.5.15(5) of the Integrated Planning Act, this plan forms part of Councils approval for
 Application No: 6293/07
 Dated: 8 October 2007
 Signed: [Redacted]
 Date: 11 NOV 2010

Site: 100-110, Block 19 Units (Road Side Fringe)
 Project & address:
 Proposed Residential Unit Development @ North Street, North Ipswich
 Date: 2008.12 DA14

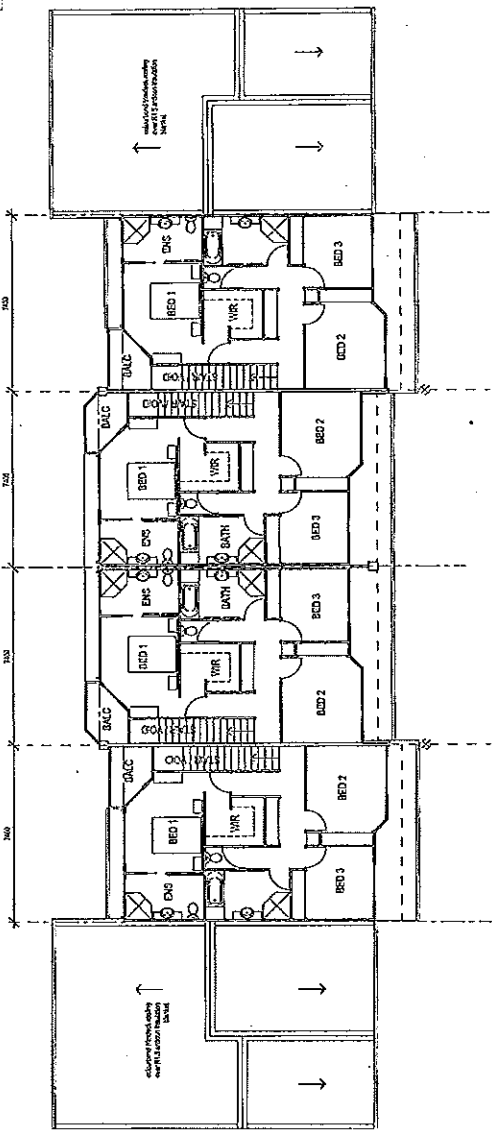
BRISTON ARCHITECTS
 BRISTON ARCHITECTS PTY LTD
 1/100-110 North Street, Ipswich QLD 4701
 Phone: 07 5431 1111
 Email: briston@bristonarchitects.com.au

APPROVED
 11 NOV 2010

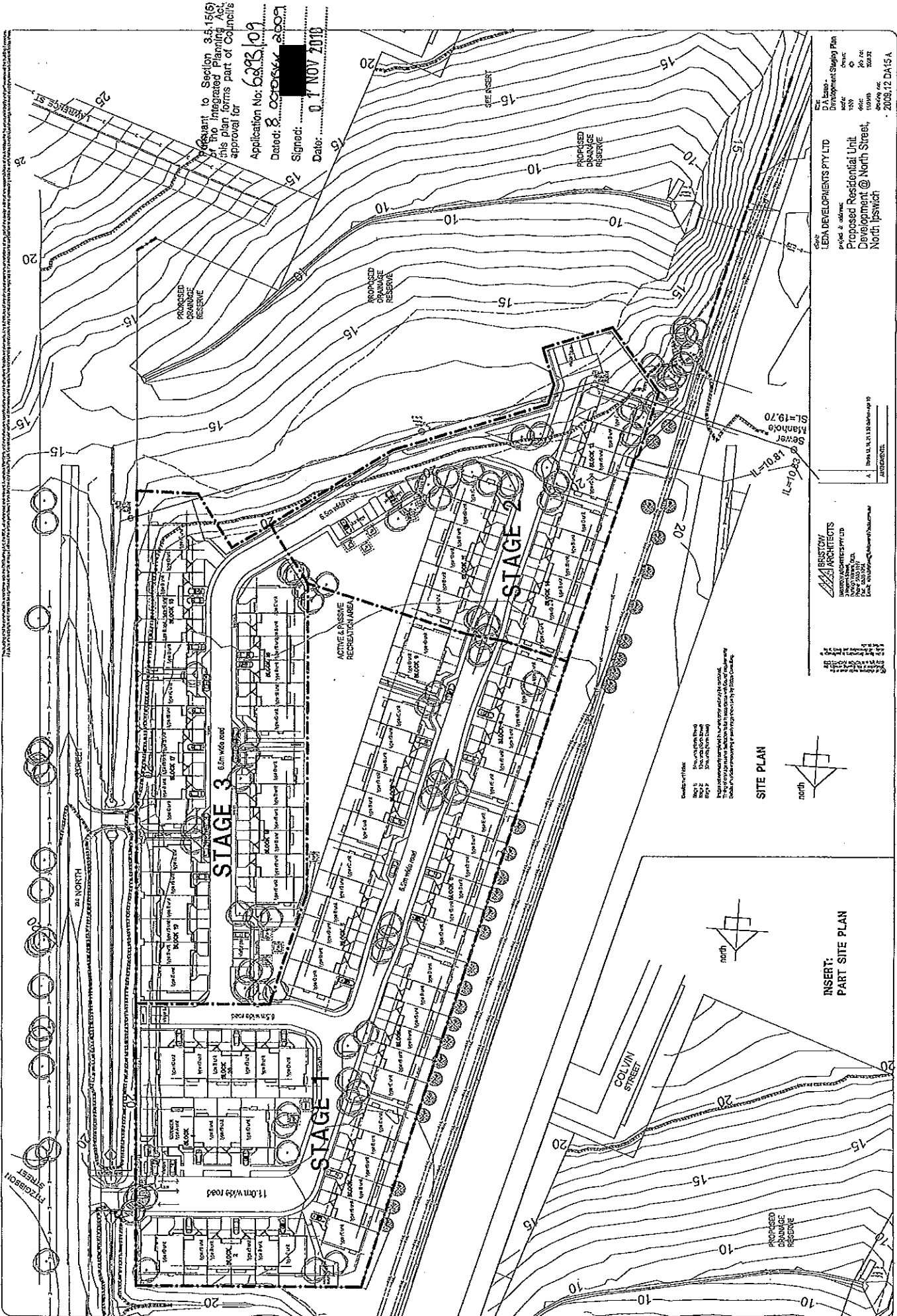


BLOCK 19 PLAN - Ground Floor Level

100-110 North Street, Ipswich QLD 4701
 100-110 North Street, Ipswich QLD 4701



BLOCK 19 PLAN - Upper Floor Level



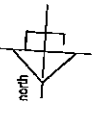
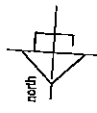
pursuant to Section 3.4.15(6) of the Integrated Planning Act, this plan forms part of Council's approval for
Application No: 6283/109
Dated: 8 October 2007
Signed: [Redacted]
Date: 07 NOV 2010

D'A Leese -
Development Staging Plan
LEDA DEVELOPMENTS PTY LTD
Proposed Residential Unit
Development @ North Street,
North Ipswich
2005.12 DA15A

BRISTOW ARCHITECTS
BRISTOW ARCHITECTS PTY LTD
1100 SOUTH BRISBANE
QUEENSLAND 4001
AUSTRALIA
Phone: (07) 5591 4444
Fax: (07) 5591 4445
www.bristow.com.au

CLIENT: LEDA DEVELOPMENTS PTY LTD
PROJECT: PROPOSED RESIDENTIAL UNIT DEVELOPMENT @ NORTH STREET, NORTH IPSWICH
DATE: 07 NOV 2010
SCALE: AS SHOWN
PROJECT NO: 2005.12 DA15A
DESIGNER: BRISTOW ARCHITECTS PTY LTD
CHECKED: [Redacted]
APPROVED: [Redacted]

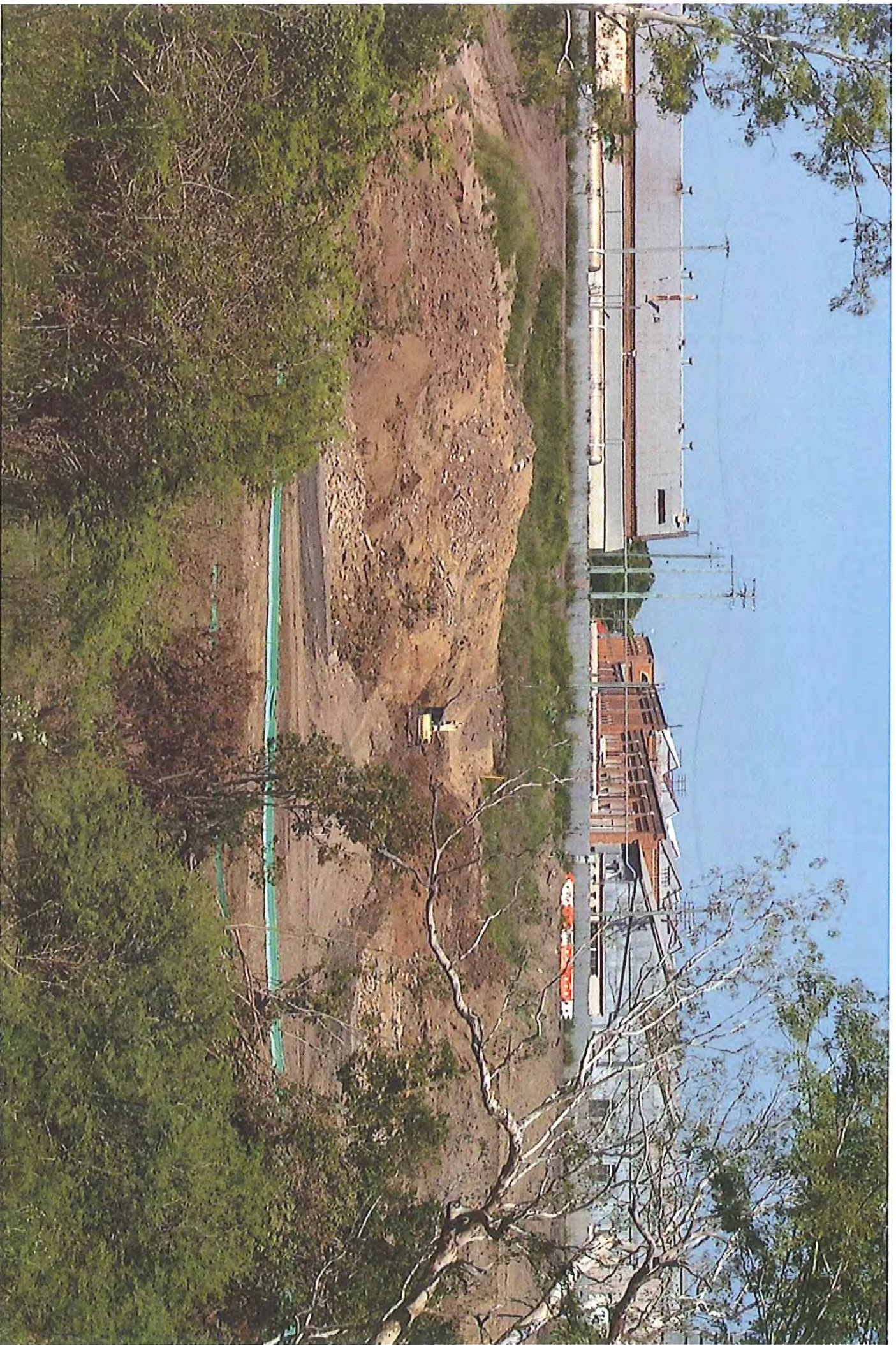
SITE PLAN



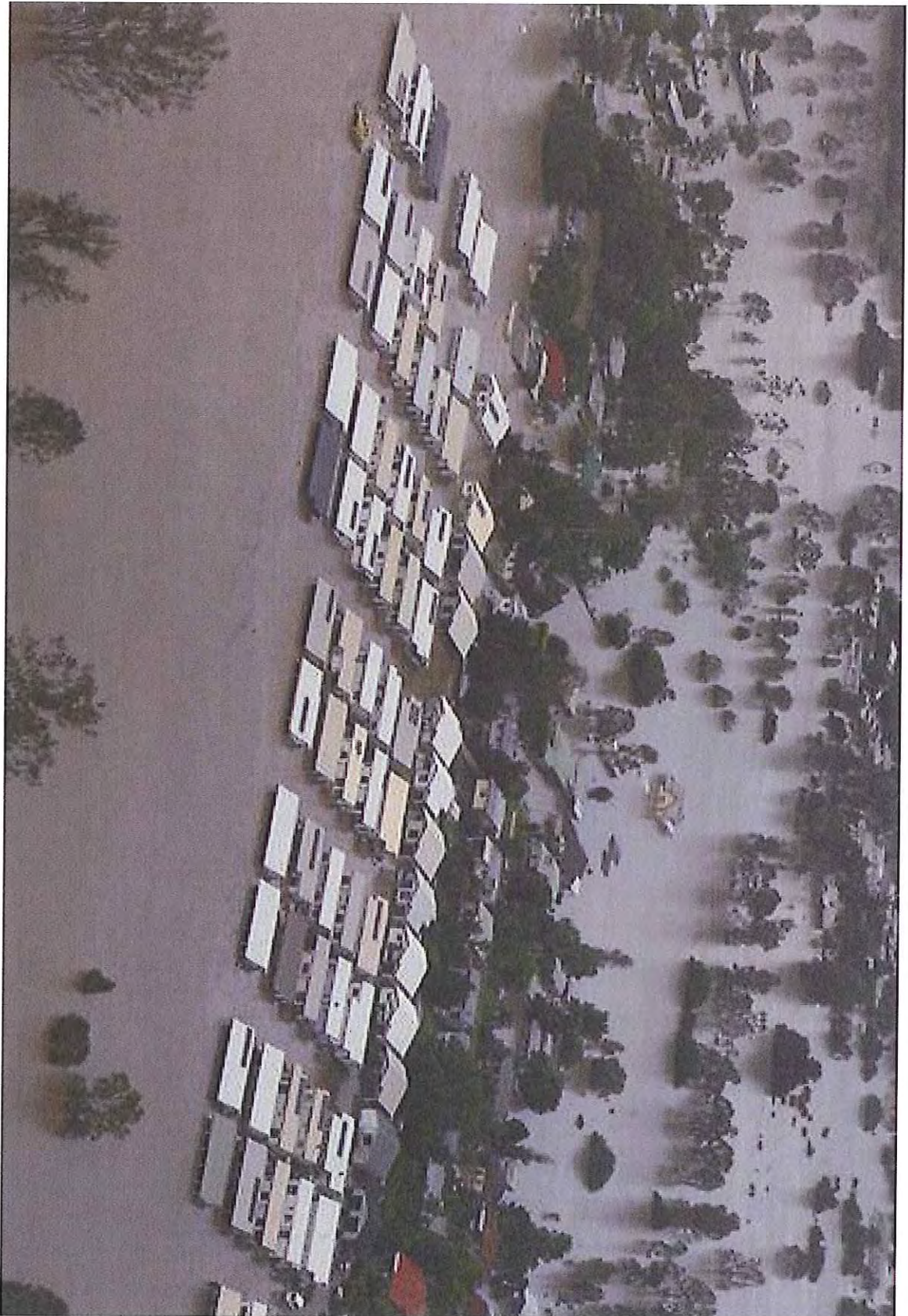
**INSERT:
PART SITE PLAN**

2011 Floods at Woodend

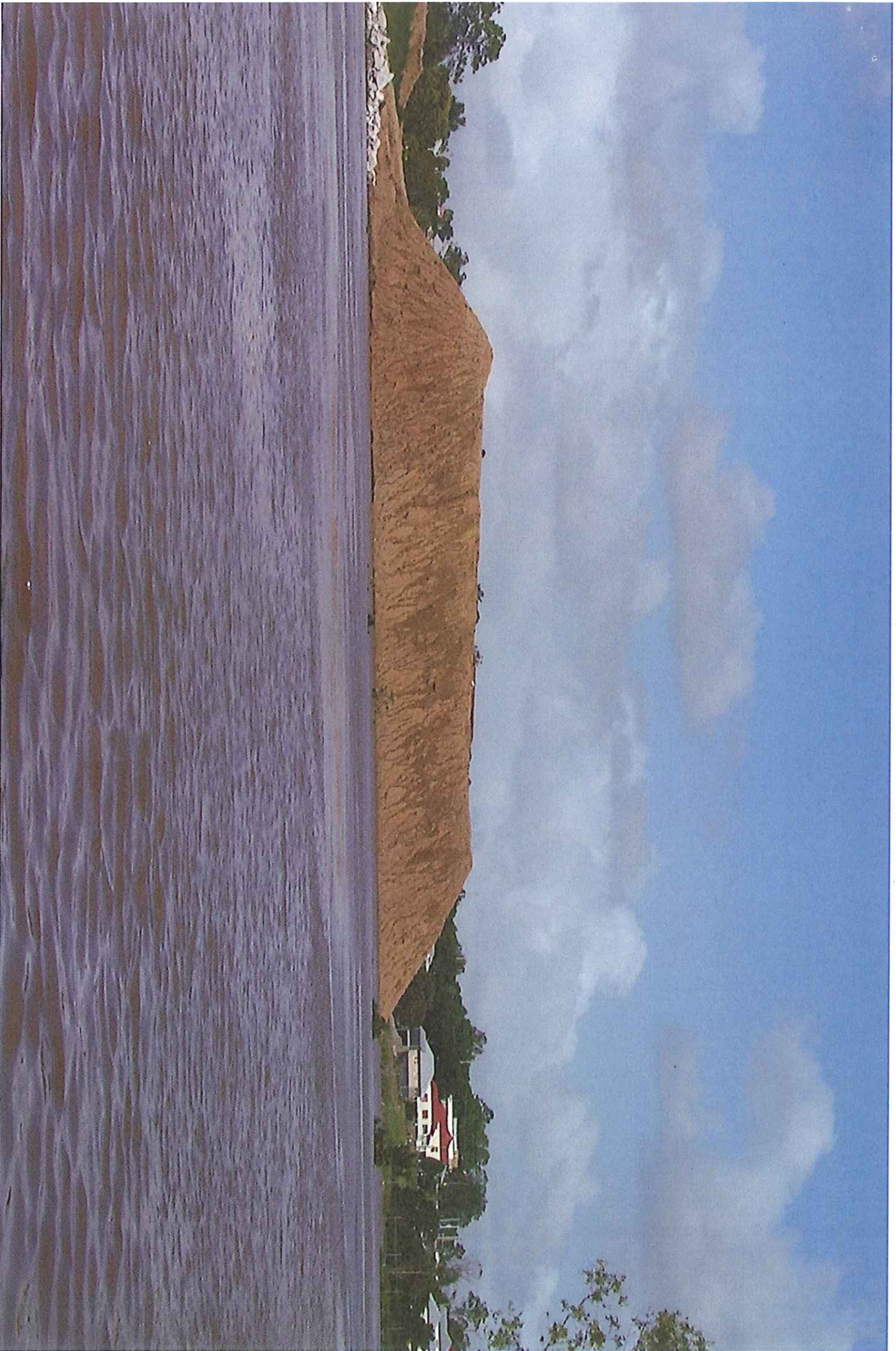




Attempted cosmetics after minor flood erosion



Bremer Waters?



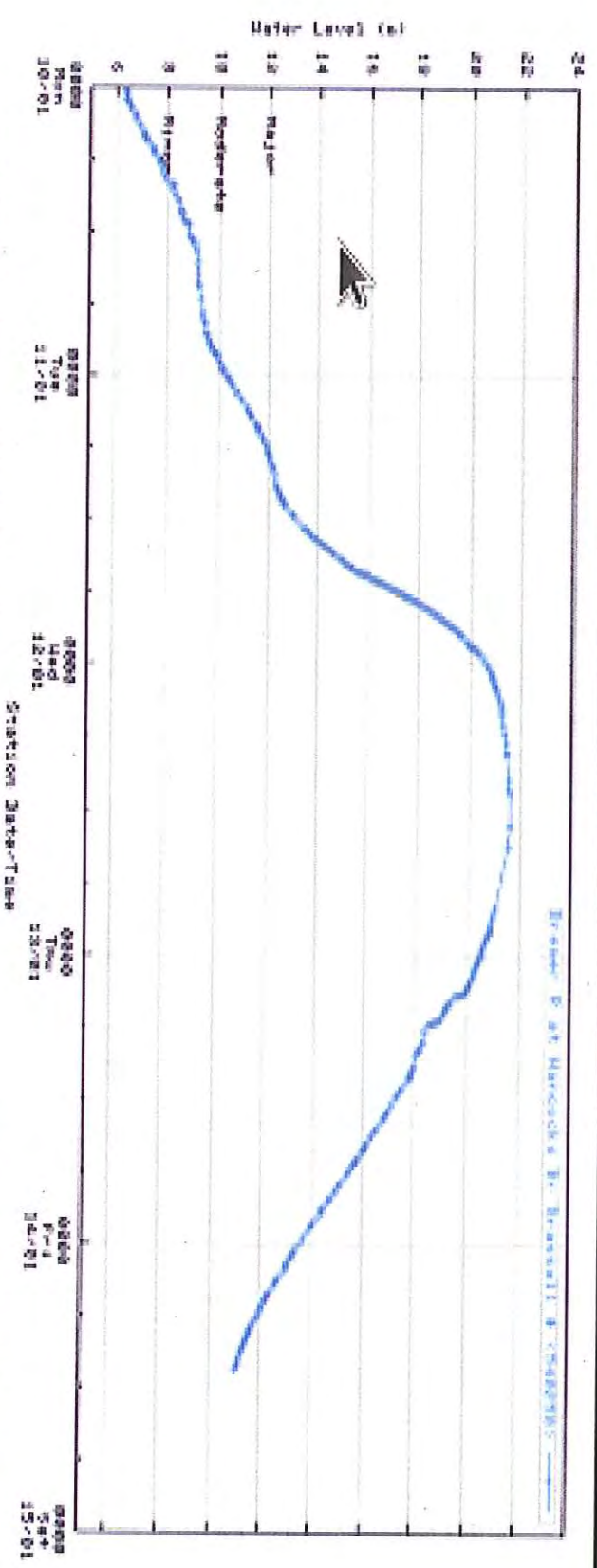
Local Flood peak at least 19.5RL



Floodwaters scouring contaminated fill



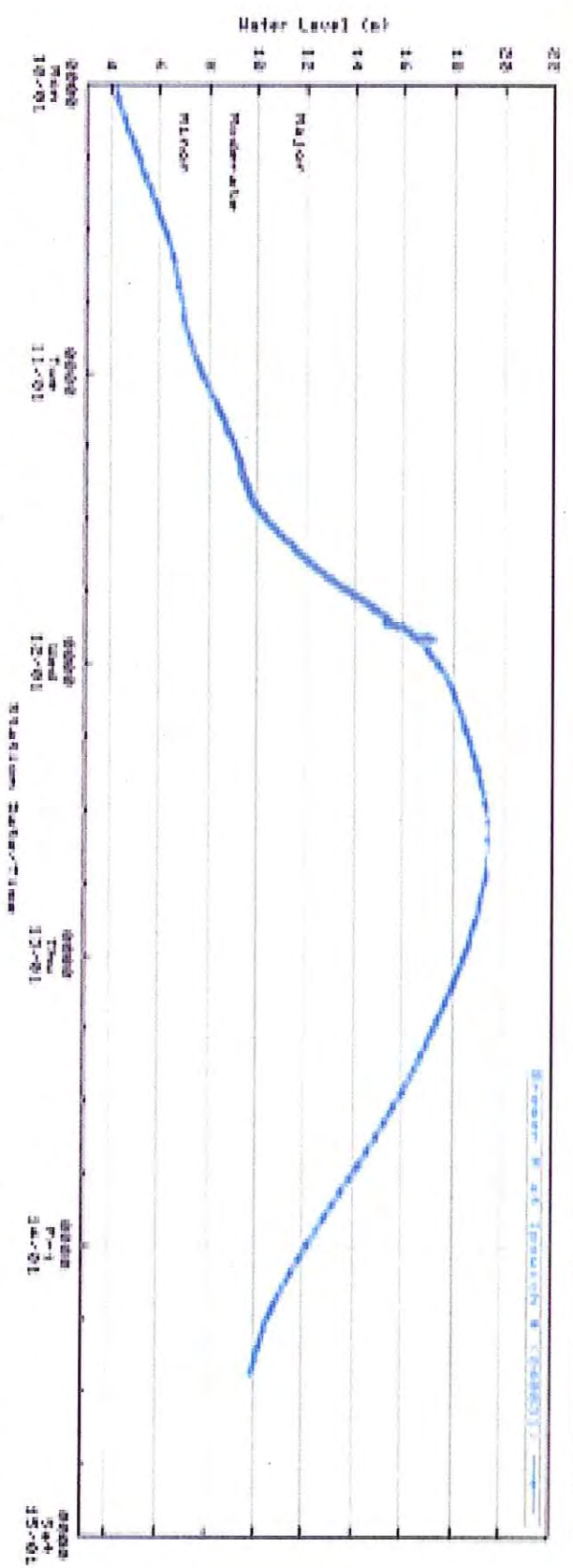
Work continuing as of Mon Feb 21



[Dallas, Texas](#) | [Previous Station](#) | [Next Station](#) | [Back to Bureau](#)

About this plot

1. The river height data is the best available operational data provided for flood warning purposes and has not been quality controlled.
2. Stations marked with * or # indicate that the data is provided from automatic equipment.
3. Stations marked with * are Telemetry Devices and are normally polled once a day and more often during floods.
4. Stations marked with # are ALERT Radio Telemetry and report every 3 hours and more often when the water level changes.
5. All river height reports are in meters and are shown in local time.
6. Heights or depths above/below roads, bridges, dam spillways and weirs are given as a gauge only. For road opened/closed information, see the [RAOD](#) website.
7. This product includes data made available to the Bureau by other agencies. Separate approval may be required to use the data for other purposes. Refer to [Listing of Operating Agencies for Station Ownership](#).
8. Where data is supplied from a Department of Environment and Resource Management (DERM) Monitoring Site, please

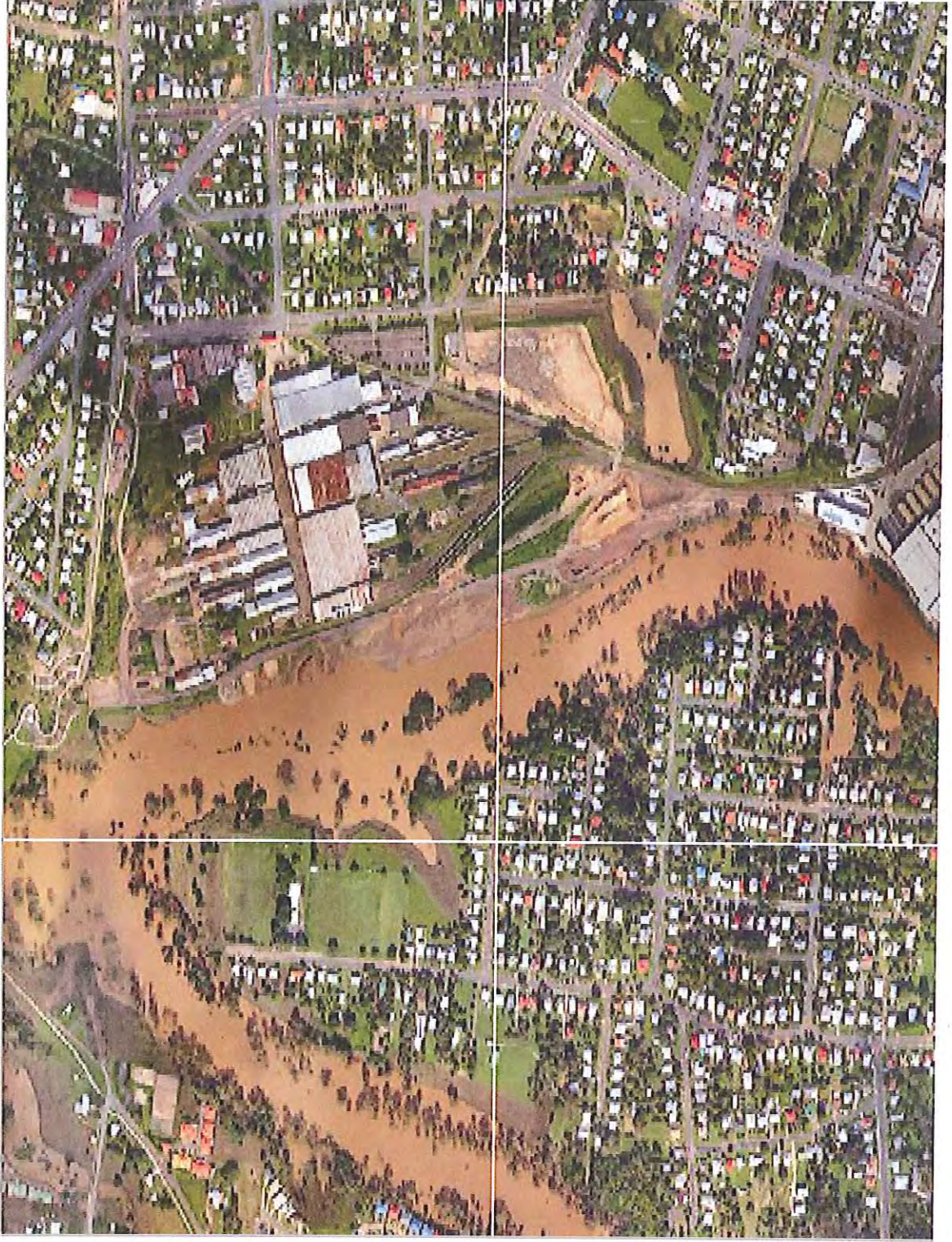


[Data as Table](#) | [Previous Station](#) | [Next Station](#) | [Back to Bulletin](#)

About this plot

1. The river height data is the latest available operational data provided for flood warning purposes and has not been quality controlled.
2. Stations marked with * or # indicate that the data is provided from automatic equipment.
3. Stations marked with ~ are Telemetry Telemetry Devices and are normally polled once a day and more often during floods.
4. Stations marked with # are ALERT! Radio Telemetry and report every 3 hours and more often when the water level changes.
5. All river height reports are in meters and are shown in local time.
6. Heights or depths above/below roads, bridges, dam spillways and weirs are given as a guide only. For road operational information, see the [RACQ](#) website.
7. This product includes data made available to the Bureau by other agencies. Separate approval may be required to use the data for other purposes. Refer to [Listings of Operating Agencies for Station Charting](#).
8. Where data is supplied from a Department of Environment and Resource Management (DERM) Monitoring Site, please

Captured on: Thursday, 13 January 2011





Neemap image showing "extended platform" (blue) and altered river flow (red)

for
LATA DEVELOPMENTS LTD

VDM
CONSULTING

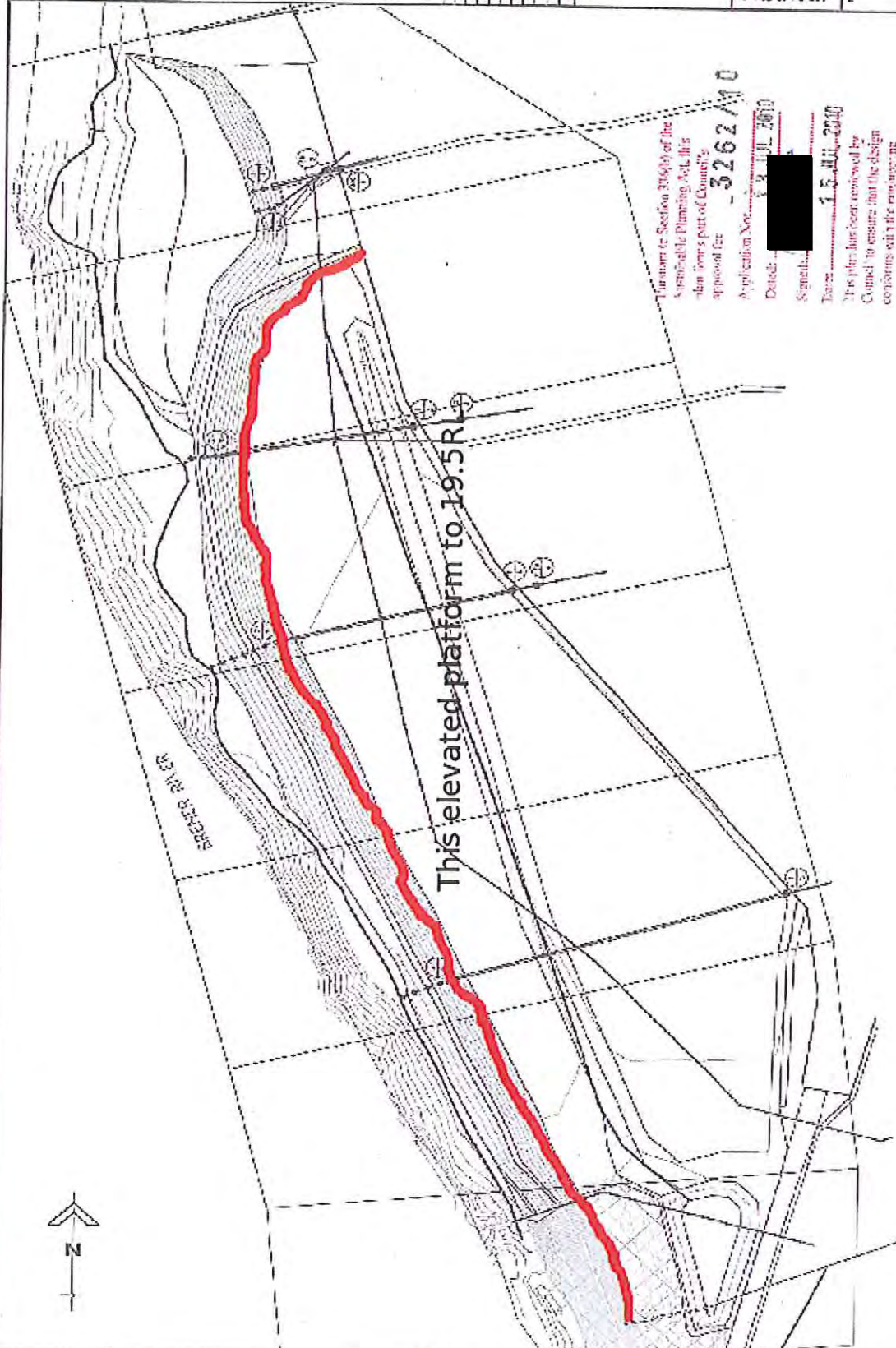
BURCHILL
Consulting Engineers & Surveyors
15, Church Lane, Colchester, Essex, CO1 1JN
Tel: 0206 200941
Fax: 0206 200942
Email: info@vdm.co.uk

PROJECT
RIVERSIDE CENTRAL
NORTHERN
BULK EARTHWORKS

PROJECT
EROSION AND SEDIMENT
CONTROL SHEET 6
PHASE 4

(COMPLETION OF
CONSTRUCTION)
PRIOR TO ESTABLISHMENT

SCALE: 1:500	DATE: 08/01/2010	PROJECT NO: 100000000
DRAWN BY: [Redacted]	CHECKED BY: [Redacted]	DATE: 08/01/2010
PROJECT NO: 100000000 DATE: 08/01/2010		



FOR THE PURPOSES OF SECTION 31(6)(b) OF THE
ENVIRONMENTAL PLANNING ACT, THIS
PLAN FORMS PART OF COUNCIL'S
APPROVAL FOR
APPLICATION NO. 3262/MO
DATE: 15 JUL 2010
SCALE: 1:500

This plan has been revised by [Redacted] to ensure that the design conforms with the engineering conditions of the Development Consent F.A Contract as governing standards. A detailed check of calculations and all drawing details has not been undertaken.

SEE THE
REPORT TO COUNCIL FILED WITH COUNCIL'S SITE PLAN
FOR NOTES LEGEND AND DETAILS.

From: Liz Tilbrook <[REDACTED]>
To: Ipswich Electorate Office <ipswich@parliament.qld.gov.au>
Subject: Nth Ipswich floodplain development
Date: 15/02/11 11:35:47

Dear Rachel,

Thank you for taking the time to listen to our concerns yesterday. You asked us for an email including photos and a precis of our observations.

The Leda Developments project to build many units on the old North Ipswich Railway Workshops site is inappropriate in its current format because:

1. The majority of the development would have been flood effected. (see Fig 1)
2. The approved bulk earthworks will substantially interfere with the flow regime of the Bremer River in the Woodend vicinity. This has already been observed in the recent floods (both minor and major) (see fig 2)
3. There has been extensive sediment and contaminant loss from the site into the riversystem causing gross environmental pollution - in an attempt to fill in the bank creating an 'elevated platform' so that it is high enough to build many more multiple blocks of units.

The January flooding is a reminder that the Bremer River is flood prone and current and future development in the Bremer flood plain needs to be urgently reviewed.

Our major concerns are:

- That the proposed development should now be considered "at risk": as planned,
- That there should be an *immediate* cessation of all work on the site until a comprehensive review, either by the Queensland Floods Commission of Enquiry and/or the Queensland Reconstruction Authority determines the most suitable use and profile for the land in question
- That the current approval systems for floodplain lands be reviewed.

The bulk earthworks are continuing apace as I write this: already the "Extended Platform" is taking shape and is putting existing properties at greater risk of scouring and subsidence. The current wet season is by no means over, and we have already observed altered flow regimes caused by the development (see fig 3, 3a: taken today).

We are available at any time to answer any questions that you or your colleagues may have. Urgent action will be needed to prevent further environmental disasters from happening.

Regards,
Liz

Liz Tilbrook, Nick White
[REDACTED] Hume St
Woodend Qld 4305
[REDACTED]

[JPEG image attachment (fig 1.jpg)]
[JPEG image attachment (fig2.jpg)]
[JPEG image attachment (fig 3.JPG)]
[JPEG image attachment (fig 3a.JPG)]

From: Nick White [REDACTED]
To: info@qldra.org.au
Subject: Inappropriate development Nth Ipswich
Date: 01/03/11 10:36:59

Dear Richard,

Thank you for your time on the phone yesterday when I brought to your attention the 'Riverlinks Central' development at the old North Ipswich Railway Workshops.

The Council has approved earthworks on the river at North Ipswich to build units on a site listed on the Contaminated Land Register (ICC Approval 3262/10, 6293/09). The 35 hectare site has heavy metals (cadmium, arsenic, lead, selenium, etc) and other contaminants buried in the riverbank. The development concept is to rearrange the river bank to bury some of the most contaminated fill in a 'bund' or 'borrow pit' below moderate flood level and the rest of the material will be used to build an extended platform on which an extra hundred or so units will be constructed.

Observations of the recent floods in this part of the river have indicated that the swiftest flow occurs close to the northern bank (Nearmap3). With the proposal continuing this swiftly flowing water will be directed towards the opposite bank.

The most recent floods happened when Wivenhoe was releasing close to the maximum amount of water without the fusible spillway coming into play. This had the effect of slowing the flow in the Bremer. Prudent risk analysis should take into consideration a scenario where the majority of the rain falls in the Bremer Catchment, and the gates at Wivenhoe are partially or fully closed to prevent flooding in Brisbane. The differing relative heights would increase the destructive energy of the flood.

The Council's response to date has been disappointing. After the Boxing Day minor flood, I was assured through Council that "overall, installed control measures appear to have effectively handled stormwater and sediment runoff" and "there was no evidence of significant scouring or removal of the original contaminated fill" We have evidence that contradicts this.

There are many concerned residents and Council people who see this project as an environmental catastrophe. It should never have been permitted to impact so heavily on the river flood plain. However, at this stage, it appears that the ICC decision makers want to ignore local residents' reservations and push ahead with their support for Riverlinks Central in its current format.

The approvals granted for this site are appalling on three grounds:

- (a) the unit sites will be largely flood prone
- (b) contaminated material has been permitted to leave site and will continue to be at risk of contaminating waterways in future flood events
- (c) the narrowing of the river profile increases the flood effects on neighboring suburbs (despite Leda's contestable claims to the contrary)

The site plan references are lots 50-55 SP222487 or 48 WM Hughes St North Ipswich

An immediate injunction is necessary so that a dispassionate risk analysis can be conducted and more suitable plan be negotiated for this particular flood plain. Could you please keep me informed of your actions? I believe this matter needs the speediest resolution, and am only too happy to assist with any information you may require.

Regards,
Nick

Nick White
Conrad Blocks
[REDACTED] Hume St

Woodend Qld 4305

Australia

Ph:

Intl:

Mob:

info@conradblocks.com

Web: www.conradblocks.com

JPEG Image attachment (platform1a.jpg)

JPEG Image attachment (fig 3a.JPG)

PNG Image attachment (finishedbulk.png)

JPEG Image attachment (Nearmap3.jpg)

Hume St,
Woodend 4305
5th August 2011

Anna Bligh MP
Premier of Queensland
Minister for Reconstruction

QldRA/AH – TF/11/8009 – DOC/11/49037

Dear Premier,

Thank you for your letter 12 April 2011 responding to a request forwarded to us by Rachel Nolan MP.

In your letter you state that the works approved by Ipswich City Council undertaken by Leda Holdings should be carried out in such a manner "that there should be no impact on *upstream* properties as prescribed in the Ipswich City Council's planning scheme."

Does this mean that the Integrated Planning Act does not take **into** consideration properties on the opposite bank ie neither upstream or downstream? If this is the case, then I would suggest that a development at South Bank could legally divert the Brisbane River through the Executive Building.

No Officer from the Queensland Reconstruction Authority has visited the Leda site and observed first-hand the immense reprofiling of the riverbank, or listened to the concerns of the residents who had just experienced a flood which, if repeated in the future, will be made many times worse by the activities of Leda Holdings.

The Ipswich City Council Planning Department have shown themselves wilfully blind to the consequences of these earthworks, which in effect are a land grab to maximise the area for possible building. Almost the entire area will be below the '74 flood, and would be inundated if a similar event to the 1893 flood occurred.

The fact that the material used to construct this "extended river platform" comes from storages that were never approved by Council, and that Council ordered that Leda not deposit any more waste on the site seems to have been forgotten.

Woodend residents who have experienced the '74 and the 2011 floods have remarked on the changed flows in the river since this development started. In Woodend, downstream of the current earthworks and opposite the completed shopping centre landholders have lost land because of these flows.

The Queensland Government was responsible for "calling in" this project at its inception, and so the local council has felt constrained by this action. Both parties have used this excuse to blame the other and wash their hands of the consequences.

The upshot of allowing this project to continue will be jeopardising the existing residents' land and property and putting at risk many thousands of people's lives in the future.

Your urgent attention is required to obtain a cessation of earthworks on the site until a 3rd party review is carried out on the flood impact of this development on all surrounding residents.

Yours sincerely ,

Nick White

Hume St
Woodend 4305
15th September 2011

Your ref: ERP/JC-- TF/11/23815 – DOC/11/150600
Anna Bligh MP
Premier of Queensland
Minister for Reconstruction

Dear Premier,

Thank you for your letter dated 7th of September 2011. Your response raises more questions than it answers.

Firstly, in my original correspondence I asked by implication whether an officer from the Queensland Reconstruction Authority had visited the site in question. Your reply appears to confirm that no one from the Authority has visited the site, and that your only communication about this development has been with the Council. If an Officer from your department had visited the site, and observed first-hand the immensity of the earthworks, it is unlikely that they would have so easily been fobbed off by the council.

Secondly, in correspondence with the Ipswich City Council (ICC) Planning Department I asked whether any future applications on this land would be code assessable or impact assessable. Their reply suggests that the developer would have two avenues to continue the development on the site. I quote:

“...the first would be to make an application under the preliminary approval issued as part of the State Government Minister for State Development and Innovation's 'ministerial call in' decision. This preliminary approval has a number of different precincts identified over the subject land, with each precinct having an attended development table which prescribes the level of assessment required different types of development and uses. Depending on the use applied for and the precinct that the land is included in, it will determine whether the application is code assessable or impact assessable.”

This implies that the State Government is still a controlling party to the development on this land. The developer has made it quite clear that the land in question is to be used for medium/high-density dwellings, all to be constructed below the 1974 flood line. This would surely make the State Government liable for any damage in the event of another flood.

Please advise the government's attitude to the developer requesting a code assessable justification for the next phase of this development (hundreds of residential units on Lot 54).

Thirdly, in my email of 8th August, I made the point that there had never been any 3rd party review of the development proposal for this site. I and other local residents have serious concerns about the adequacy of the developer's hydrology study justifying the earthworks on the site because it uses parameters that are inconsistent with appropriate risk analysis for a stretch of the river like this.

The one-dimensional Mike 11 study used to support this development, and the number of cross-sections used in it are completely inadequate to arrive at velocity distributions and to ascertain flood hazard vectors. A Mike 21 study, used as a matter of course by other councils, has been the industry standard for some years.

The Honourable Justice Catherine Holmes

Dear Commissioner,

Submission to Queensland Floods Commission of Inquiry

Our submission relates to land use planning through local and regional planning systems. Ipswich City Council (ICC) had advice in the 1990s that Wivenhoe Dam would act as a flood mitigator for the Ipswich flood plain and as a result amended the Q100 reference point to permit development in low lying areas. These areas were all adversely affected by the January 2011 floods.

Now, ICC seems conflicted between promoting development and imposing a moratorium on further development in the flood risk zones. Currently, it is approving developments in these low lying areas just above the existing Q100.

Also, ICC has advised that it is powerless to revoke approvals already granted.

A development that is of deep concern to us and our neighbours is the Leda Development project at the old North Ipswich Railway Yards (Lots 51-55 SP222487 North Ipswich). The reasons for concern are:

1. The project involves the filling of the flood plain to establish a platform which is 60 cm above the Q100 level to build hundreds of units and aged person homes.
2. The project puts the future residents, including aged persons, in a high flood risk zone
3. The project puts existing houses opposite at increased risk of flood damage because the Flood Study justifying the development did not adequately address local flow changes
4. The project involves burying contaminated waste in the flood plain – the ongoing earthworks during this current wet season have exposed contaminated material

Long term residents in the Woodend area are already noticing changes in flow patterns as a result of the development – a marked increase in bank slumping on the bank opposite the development (these residents had experience 1974 flood).

This project may indeed be legal, as the developer and ICC have assured us. The building of Bremer Waters, an 'over 50's lifestyle village' at Moores Pocket inundated with the recent flood was also legal. But things have changed. With the knowledge that Ipswich is a city located on a river delta, it should never again be permissible to:

- undertake earthworks on a contaminated site on a flood plain in a wet season
- build up a flood plain because the diversion and flow changes will affect others
- build hundreds of medium density units in a high flood risk zone

We call for:

1. Raising of the Q100 or declaration of a flood risk zone that recognises a high risk of flooding
2. A moratorium against the further housing development in this zone, especially for medium/high density housing
3. Prohibition against reclaiming land for development within flood plains
4. Mandatory RL declarations with flood risk ratings for all property transfers and new rental agreements from this point forward, with Real Estate Agents being an important agent for

- reminding residents not to be complacent about the possibility of floods into the future
decades ensure that people can make informed decisions about flood risk
5. Flood level maps freely available to the public in perpetuity

The fact that this clearly inappropriate development has not been stopped already but allowed to proceed is an indication that State Government and ICC are reluctant to change the status quo in the light of the January flood event. .

We emphatically condemn expansion of development into the Bremer River flood plain. Good catchment management practices would have riparian revegetation on river banks – not encroaching development. Citizens and the Bremer River would benefit enormously from the Council following it's own Waterways Health Strategy.

We call upon the Commission to do whatever it can to prevent this and other inappropriate developments in the Bremer River flood plain. We are available to answer any queries from the Commission.



Yours sincerely,
Nick White and Elizabeth Tilbrook



Woodend Qld 4305
1st April 2011

■ Hume St
Woodend Qld 4305
15th September 2011

The Honourable Justice Catherine Holmes
Commissioner
Queensland Floods Commission

Dear Commissioner,

Re: Inappropriate development in Bremer River floodplain – North Ipswich Railway Workshops Site

Further to our submission to the Commission we make the following additional points:

1. State Government authority for approvals in flood-prone zones

In correspondence with the Ipswich City Council (ICC) Planning Department I asked whether any future applications on this land would be code assessable or impact assessable. The reply suggests that the developer would have two avenues to continue the development on the site. I quote:

“...the first would be to make an application under the preliminary approval issued as part of the State Government Minister for State Development and Innovation's 'ministerial call in' decision. This preliminary approval has a number of different precincts identified over the subject land, with each precinct having an attended development table which prescribes the level of assessment required different types of development and uses. Depending on the use applied for and the precinct that the land is included in, it will determine whether the application is code assessable or impact assessable.”

This implies that the State Government is still a controlling party to the development on this land. The developer has made it quite clear that the land in question is to be used for medium/high-density dwellings, all to be constructed **below of the 1974 flood line** (21-22m). This would surely make the State government liable in the event of another flood.

In the event of the State Government being asked by Leda to approve building development below the 1974 flood line on the site, (ie planned hundreds of residential units for Lot 54) we call for the Commission to recommend that the Government to decline approval. This should apply to any marginal floodplain development proposals.

2. Mandatory 3rd party review of complex sites

There has never been any 3rd party review of the development proposal for this site. I and other local residents have serious concerns about the adequacy of the developer's hydrology study justifying the earthworks on the site because it uses parameters that are inconsistent with appropriate risk analysis for a stretch of the river like this.

The one-dimensional Mike 11 study used to support this development, and the number of cross-sections used in it are completely inadequate to arrive at velocity distributions and to ascertain flood hazard vectors. A Mike 21 study, used as a matter of course by other councils, has been the industry standard for some years.

In the 2011 flood, the flow patterns observed were strongest on the eastern bank of the river. The effect of the earthworks will redirect these strong flows onto the western bank (Figure 1).

The fact that a number of post '74 developments were inundated in the 2011 flood demonstrates that the criteria that the ICC planning department used **and continues to use** for floodplain developments are inadequate.

Third party reviews of development proposals for complex sites such as the North Ipswich Railway Workshops site should be mandatory. Before ICC or State Government decide on any future approvals for this site (ie DA for residential units on Lot 54) they should require the developer to provide 3rd party reviews of contaminated fill containment and flood hazard for the site and surrounding suburbs.

3. Mandatory TLPI adopted level for any future development applications

We have been advised that development approval (or pre-approval?) for the site was granted prior to the January 2011 flood and therefore the Temporary Local Planning Instrument (TLPI) does not apply. Although we can't get a straight answer from ICC, it appears that the developer already has pre-approval for hundreds of residential units on the 'elevated platform' of Lot 54. (There has been frantic haste in the months following the flood to fill Lot 54 to approved level of 19.5m so there is an obvious expectation of being able to proceed with plans).

The developer already has impact assessed approval for 118 units on Lot 55 (RL 19.05-21.2)

We ask that the Flood Commission recommend that the construction of any building on this site (or any other site) below the TLPI adopted level should not proceed.

4. Residents subject to intimidation

On 27th October 2010 we had an uninvited visit by Dennis Hughes, a subcontractor to Leda Developments, two days after we sent a letter about the development to ICC.

Conclusion

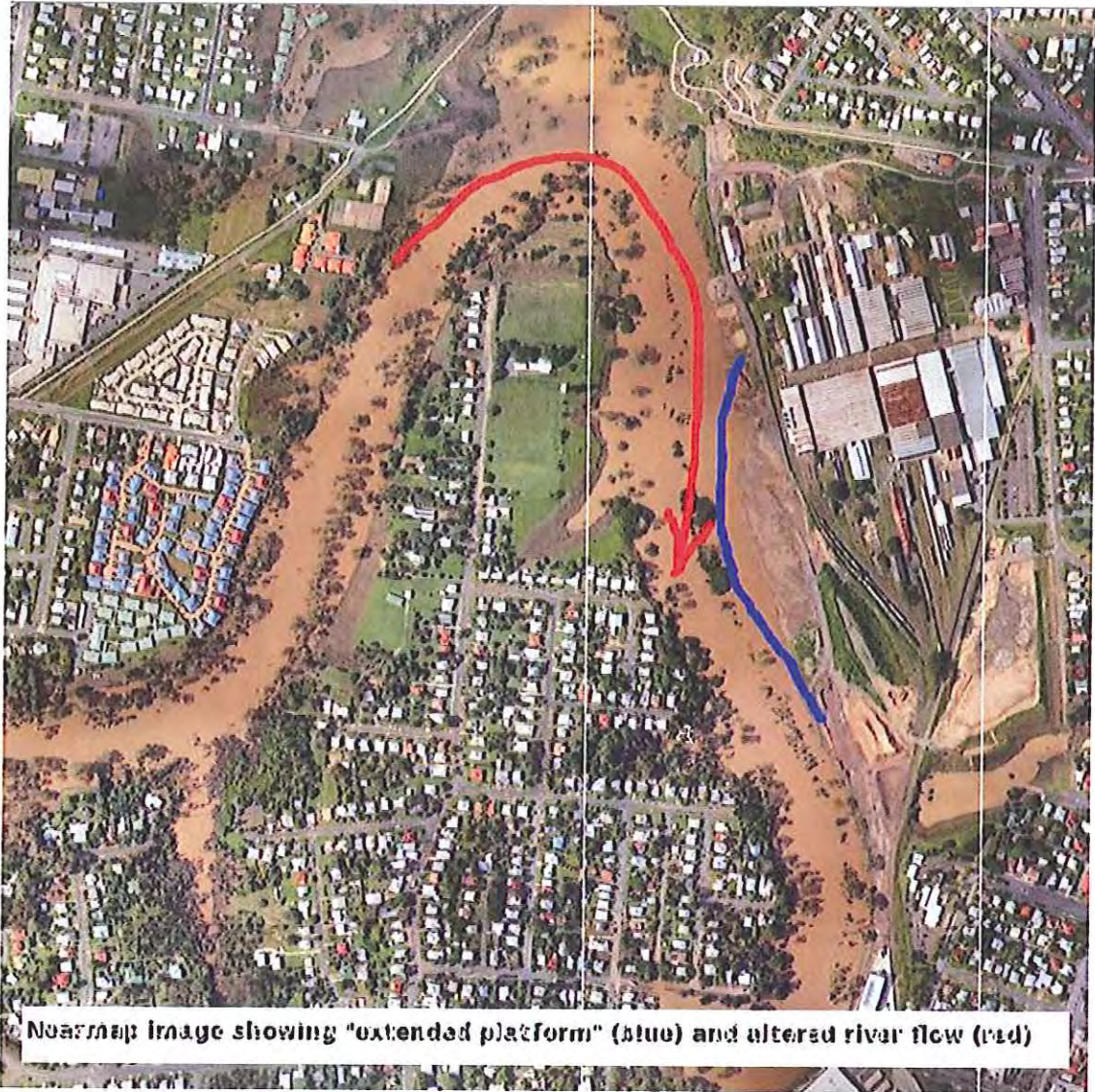
Future flooding is inevitable and an increase in extreme weather events is predicted. I and many other Ipswich residents are very concerned that continuing development on the Bremer floodplain should be permitted. What right has a developer, in collusion with both state and local government to increase flooding and damage from floods to exiting residents. (2008 Cardno Flood Study admits "slight increases to the peak velocities ... for major flood events ...so impact is considered to be minor.")

It is apparent that both state government and local council have a dilemma choosing between encouraging development and avoiding the tragic loss of life and property through inappropriate floodplain development. It is sincerely hoped that the Commission will assist these parties to resolve this dilemma.

Yours sincerely,

A large black rectangular redaction box covering the signature area.

Nick White



Nearmap image showing "extended platform" (blue) and altered river flow (red)

Figure 1. Image showing Leda's North Ipswich Railway Workshops site and planned 'extended platform' for multiple residential units



Figure 2. Page 16 of Cardno's 2008 *Riverlinks Central Flood Study* showing 'elevated platform' for multiple residential units