# **Douglas Partners** Geotechnics • Environment • Groundwater

REPORT on PHASE 1 CONTAMINATION ASSESSMENT AND PRELIMINARY IN-SITU WASTE CLASSIFICATION

13 NORFOLK STREET LIVERPOOL

Prepared for CAPTAIN DEVELOPMENTS PTY LTD

Project No.44224 September 2006

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ntegrated Practical Solutions

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> Douglas Partners Pty Ltd ABN 75 053 980 117

96 Hermitage Road West Ryde NSW 2114 Australia PO Box 472 West Ryde NSW 1685

 Phone
 (02) 9809 0666

 Fax
 (02) 9809 4095

 sydney@douglaspartners.com.au





# **EXECUTIVE SUMMARY**

This report details the methodology and results of a Phase 1 Contamination Assessment (Desktop) undertaken by Douglas Partners Pty Ltd (DP) at 13 Norfolk Street, Liverpool. The investigation also included a provision for a preliminary in-situ waste classification. The investigation was commissioned by Mr Don Macleod of Macleod Consultants Pty Ltd on behalf of Captain Developments Pty Ltd, for submission to Council for development application purposes. This assessment comprised a walkover site inspection conducted on 25 August 2006, a desktop review of the most readily available and relevant site history documentation and a preliminary in-situ waste classification. The analytical results of soil samples collected for the preliminary in-situ waste classification have also been compared to the relevant site assessment criteria to provide an indication of the current site condition.

The site comprises an area of approximately 0.21 ha and bounded by Norfolk Street and Castlereagh Street. The site is currently occupied by Liverpool Baptist church which consists of a single storey fibre cement and tile roof building and a two storey brick and tile roof building and Eagle Homes which consists of a concrete car park and concrete and glass building with a metal roof. It is understood that existing structures are to be demolished and that the site will be redeveloped. The proposed new building will consist of one retail, three commercial and thirteen residential levels with five basements of parking below ground level. Excavation to the lowest basement level will involve excavation to depths to a maximum depth of 16 m below the existing surface levels.

The objective of this assessment was to assess whether the site is suitable for the proposed residential/commercial development (from a contamination standpoint). The current assessment incorporates a review of the findings of a waste classification assessment which was conducted in conjunction with the current assessment. While the intrusive assessment was conducted mainly for waste classification purposes it nevertheless provides relevant information on the subsurface condition/contamination status of the site and thus supplement the current "desktop" assessment.

All laboratory results were within the site assessment criteria (SAC), including both the health based investigation levels for residential land-use with accessible soils and the provisional phytotoxicity based investigation levels with the exception of the TPH ( $C_{10}$ -  $C_{36}$  fraction of 6200 mg/kg) in sample BH4A/0.1.



The overall potential for contamination of the site is assessed to be low, although elevated levels of TPH were identified in test bore BH4A. However, it is anticipated that given the proposed development will involve excavation to a depth of 16 m below the current ground surface that this pocket of contamination, along with any other residual contamination in the filling will be removed from the site. It this event, it is considered that the site will be rendered suitable for the proposed development.

Analytical results of the filling materials (based on both the total and leachable concentrations of contaminants) from Boreholes 1A and 2A were low and within the inert waste guidelines. Therefore the filling materials from these locations described in section 9.1 are provisionally classified as **Inert Waste**. However the filling material in borehole 4A had elevated levels of TPH 6200 mg/kg) which exceed the inert waste criteria. Therefore the filling material in the vicinity of BH4A is provisionally classified as **Solid Waste**. It should be noted however that it these classification are considered provisional and that additional investigation should be conducted to provide a final waste classification.

In terms of the natural clays (encountered at a depth of between 0.2 and 0.7 m below the existing surface), and shale described in section 9.1, this material is classified as **Virgin Excavated Natural Material (VENM)** and may be disposed of as, or reused as such. It is considered no further investigation of the VENM is considered necessary unless signs of concern such as odours or staining are observed during bulk earthworks

It is recommended that following the demolition of the existing buildings that additional investigation be conducted for verification of the provisional waste classification and providing a final waste classification. In the unlikely event that additional signs of concern are observed during earth works additional assessment by environmental consultant may be required.

It should be noted that this investigation did not include a hazardous building materials inspection. As such inspections should be conducted prior to demolition with a view to identify the presence or otherwise of potentially hazardous materials such as asbestos, lead based paints and PCBs in light fixtures.



It is considered that given the proposed development will involve excavation to a depth of 16 m for the construction of basement levels that the site will be rendered suitable for the proposed development and that no additional remediation or site investigation works (for site suitability purposes) is required. However in the unlikely event that deep filling is encountered within the building footprint, additional assessment for site assessment may be required.



# **Glossary of Terms**

As	arsenic							
B(a)P	benzo(a)pyrene (a polycyclic aromatic hydrocarbon compound)							
BTEX	benzene, toluene, ethyl benzene, total xylenes (monocyclic aromatic							
	hydrocarbons)							
Cd	cadmium							
Cr	chromium (total)							
Cr(III)	chromium with oxidation state III (stable in normal environments)							
Cr(VI)	chromium with oxidation state VI (typically not stable in normal environments)							
Cu	copper							
C <sub>6</sub> C <sub>9</sub>	light hydrocarbon chain groups							
$C_{10} - C_{14}$	medium hydrocarbon chain groups							
$C_{15} - C_{28}$	heavy hydrocarbon chain groups							
$C_{29} - C_{36}$	heavy hydrocarbon chain groups							
DEC	Department of Environment and Conservation							
DIPNR	Department of Infrastructure, Planning and Natural Resources							
DNR	Department of Natural Resources							
DP	Douglas Partners Pty Ltd							
EPA	Environmental Protection Authority							
GW	groundwater							
ha	hectares							
HIL	NSW EPA Contaminated Sites: Guidelines for the NSW Site Auditors Scheme,							
	1998. Health-based investigation levels (Columns 1 to 4)							
Hg	mercury							
m	metres							
mg/kg	milligrams per kilogram (or parts per million)							
NATA	National Association of Testing Authorities							
Ni	nickel							
NSW	New South Wales							
OCP	organochlorine pesticides							
PAH	polycyclic aromatic hydrocarbon							
Pb	lead							
PCB	polychlorinated biphenyls							



PID	photoionisation detector
TPH	total petroleum hydrocarbons
TOPIC	total photoionisable compounds
VOC	Volatile Chlorinated Hydrocarbons
Zn	zinc



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KP/RT:jlb Project No.44224 29 September 2006

# REPORT ON PHASE 1 CONTAMINATION ASSESSMENT AND PRELIMINARY IN-SITU WASTE CLASSIFCATION 13 NORFOLK STREET, LIVERPOOL

## 1. INTRODUCTION

This report details the methodology and results of a Phase 1 Contamination Assessment (Desktop) undertaken by Douglas Partners Pty Ltd (DP) at 13 Norfolk Street, Liverpool. The investigation also included a provision for a preliminary in-situ waste classification. The investigation was commissioned by Mr Don Macleod of Macleod Consultants Pty Ltd on behalf of Captain Developments Pty Ltd, for submission to Council for development application purposes. This assessment comprised a walkover site inspection conducted on 25 August 2006, a desktop review of the most readily available and relevant site history documentation and a preliminary in-situ waste classification. The analytical results of soil samples collected for the preliminary in-situ waste classification have also been compared to the relevant site assessment criteria to provide an indication of the current site condition. However, given that the proposed development (detailed in section 5.2)

The site comprises an area of approximately 0.21 ha) and bounded by Norfolk Street and Castlereagh Street. The site is currently occupied by Liverpool Baptist church which consists of a single storey fibre cement and tile roof building and a two storey brick and tile roof building and Eagle Homes which consists of a concrete car park and concrete and glass building with a metal roof. It is understood that existing structures are to be demolished and that the site will be redeveloped. The proposed new building will consist of



one retail, three commercial and thirteen residential levels and five basements of parking below ground level. Excavation to the lowest basement level will involve excavation to a maximum depth of 16 m below the existing surface levels. In this regard, technically all topsoil/filling will be removed as a result of the development.

The current Phase 1 Contamination Assessment was conducted to assess the potential for the contamination of the site based on past and present site usage, and the likely nature of this potential contamination.

The objective of this assessment was to assess whether the site is suitable for the proposed residential/commercial development (from a contamination standpoint). The current assessment incorporates a review of the findings of a waste classification assessment which was conducted in conjunction with the current assessment. While the intrusive assessment was conducted mainly for waste classification purposes it nevertheless provides relevant information on the subsurface condition/contamination status of the site and thus supplement the current "desktop" assessment.

# 2. CURRENT SCOPE OF WORKS

The scope of work as detailed in our proposal dated 28 July 2006 is summarised below:-

- Review site history information (including title deeds records, aerial photographs, heritage documents, available Council records, available EPA and results of groundwater bore searches) for the identification of potential sources of contamination due to past activities;
- Collection of six samples from three test bores constructed to a depth of 1.5 m for waste classification purposes;
- Analysis of six samples for waste classification purposes for a variety of commonly occurring contaminants, including;
  - Priority heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn, 6 samples);



- Total petroleum hydrocarbons (TPH) and Benzene, Toluene, ethyl benzene and xylenes (BTEX) (6 samples);
- Polyaromatic hydrocarbons (PAHs 6 samples);
- Organochlorine pesticides (OCP, 6 samples);
- Polychlorinated biphenyls (PCBs, 6 samples);
- Total phenolics (3 samples);
- Total cyanide (3 samples);
- TCLP were conducted on two samples for waste classification purposes;
- Conduct a site inspection with a view to identifying the types and location of potential sources of contamination due to existing activities;
- If feasible evaluate the likely nature and extent of impacts due to these identified sources; and
- Prepare a Phase 1 Contamination Assessment report to assess the suitability of the site for the proposed re-development which includes a preliminary waste classification.

The current assessment does not constitute a hazardous building material assessment.

It should be noted that the soil/filling samples collected from the three test bores were primarily intended for preliminary waste classification purposes. However, the results of the preliminary waste classification were also relevant in evaluating suitability of the site for the proposed development and were hence referenced in the report. Having noted this however, the proposed development will involve the excavation to a depth of up to 16 m for the construction of basement levels. In this event any surficial contaminants would be removed.

#### 3. SITE IDENTIFICATION AND HISTORY

#### 3.1 Site Identification

The subject site is bounded by Norfolk Street and Castlereagh Street, Liverpool. The site is identified 13 Norfolk Street (Baptist Church), Lots 1 and 2 in DP 7541 and 7-9 Norfolk Street (Eagle Homes), Lot 34 in DP 777411 in the parish of St Luke and the County of Cumberland. The local government authority is Liverpool City Council. The subject site covers an approximate area of 0.21 ha. A locality map is included as Drawing 1, **Appendix A**.

#### 3.2 Site History

A site historical information review was conducted, comprising a review of historical aerial photographs, review of the Liverpool Baptist Church Centenary Publication, a historical title deed search for approximately the past 100 years by Peter S. Hopley Pty Limited, Legal Searchers and a review of available council, and EPA. The full site history search information is presented in **Appendix C**.

#### 3.2.1 Historical Title Deeds Search

According to title deeds the Baptist church portion of the site appears to have been residential between 1912 and 1936. After 1936 13 Norfolk Street has been owned by the Liverpool Baptist Church.

With regards to 7 to 9 Norfolk Street both lots were residential (including the premises of the Baptist Minister from 1970 to 1988) until at least 1988 at which point it was purchased by Property Dynamics Pty Ltd. It is unclear from the title deed record at what point the site was redeveloped into its current form, which now houses the Eagle Homes building. However, presumably this was no later then 1994 when the site was purchased by Eagle Homes.

Summaries of the title deeds records are included in Tables 1 and 2 and the complete records included in **Appendix C**.



Owner	Occupation	D 11 1 1 1 1 1
	Occupation	Possible Land Use
urphy <i>(Land &amp; Estate</i>	Land and Estate	
Agent)	Agent	Residential
arch continued as regard	ls Lot 1 D.P. 7541	
as Wright <i>(School Teacher)</i>	School Teacher	Residential
tewart Wright <i>(Clerk)</i>	Clerk	Residential
rston Wright <i>(Clerk)</i>	Clerk	
Bass Tite Biddle (Butcher)	Butcher	Residential
t Union of New South		
Wales		
st Churches of New South		
s Property Trust)		Baptist Church
arch continued as regard	ls Lot 2 D.P. 7541	
ght <i>(Married Woman)</i>	Married Woman	Residential
tewart Wright <i>(Clerk)</i>	Clerk	Residential
Bass Tite Biddle (Butcher)	Butcher	Residential
t Union of New South		
Wales		
st Churches of New South		
s Property Trust)		Baptist Church
	Turphy (Land & Estate Agent) arch continued as regarce as Wright (School Teacher) tewart Wright (Clerk) tewart Wright (Clerk) Bass Tite Biddle (Butcher) st Union of New South Wales <i>st Churches of New South</i> <i>s Property Trust</i> ) arch continued as regarce ght (Married Woman) tewart Wright (Clerk) Bass Tite Biddle (Butcher) st Union of New South Wales <i>ist Churches of New South</i> <i>wales</i> <i>ist Churches of New South</i> <i>wales</i> <i>ist Churches of New South</i> <i>s Property Trust</i> )	Turphy (Land & Estate       Agent         Agent)       Agent         arch continued as regards Lot 1 D.P. 7541         as Wright (School Teacher)       School Teacher         tewart Wright (Clerk)       Clerk         tewart Wright (Clerk)       Clerk         Bass Tite Biddle (Butcher)       Butcher         st Union of New South       Wales         st Churches of New South       Seroperty Trust)         arch continued as regards Lot 2 D.P. 7541         ght (Married Woman)       Married Woman         tewart Wright (Clerk)       Clerk         Bass Tite Biddle (Butcher)       Butcher         st Churches of New South       Karried Woman         tewart Wright (Clerk)       Clerk         Bass Tite Biddle (Butcher)       Butcher         st Union of New South       Warried Woman         tewart Wright (Clerk)       Clerk         Bass Tite Biddle (Butcher)       Butcher         st Union of New South       Wales         st Churches of New South       Server of New South         s Property Trust)       Server of New South         st Churches of New South       Server of New South         s Property Trust)       Server of New South

Table 1 - Sumn	nary of Title	Deeds 11-13	<b>Norfolk Street</b>
----------------	---------------	-------------	-----------------------

#Denotes the current registered proprietor

# Table 2 - Summary of Title Deeds – 7-9 Norfolk Street

Date of								
Purchase	Owner	Occupation	Possible Land Use					
	Description: - Lot 34 D.P. 777411							
	As regards that part formerly comp	prised in lot 4 D.P. 754	1					
11.07.1914	Margaret McManus	Spinster	Residential					
07.01.1921	Agnes McManus	Spinster	Residential					
05.05.1939	Robert Reuben Hindmarsh	Fettler	Residential					
06.05.1954	Ivy Matilda Hindmarsh	Widow	Residential					
	Ronald Robert Hindmarsh	Pay Master						
13.11.1969	Bruce Gordon Hindmarsh	Electrician	Residential					
11.04.1970	The Baptist Union of New South Wales	Baptist Minister	Residential					
03.03.1988	Property Dynamics Pty Limited		Commercial					
	As regards that part formerly comp	prised in lot 3 D.P. 754	-1					
11.07.1914	Sarah Sheehy	Married Woman	Residential					
07.01.1921	Otto Woodward	Wool Classer	Residential					
01.07.1950			Residential					
	James Stanislaus Garard	Woolen Mills						

Date of			
Purchase	Owner	Occupation	Possible Land Use
		Fireman	
	Una Maud Garard	Married Woman	
18.12.1974	Una Maud Garard	Widow	Residential
			Commercial/real
03.03.1988	Property Dynamics Pty Limited		estate builders
	Search continued as to the who	le of the subject land	
	Patricia Emlyn Robson		
20.02.1989	Murray Leslie Robson		unknown
	# Eagle Developments Australia Pty		
13.05.1994	Ltd		commercial

#Denotes the current registered proprietor

# 3.2.2 Liverpool Baptist Church Centenary Publication

The Liverpool Baptist Church Centenary, October 2005, publication was reviewed as part of this investigation. The church was opened on Saturday April 3 1937 which is consistent with the title deed records. According to the report in 1968 the church purchased 7 Norfolk Road (now Eagle Homes) to accommodate the large family of the new pastor and at about the same time a bus shelter was moved to the rear of this building from another property owned by the church. The report does not indicate as what point this part of the site was sold to Eagle Homes, although based on the title deeds, the property sale appears to have occurred in 1988. In 1973 plans were drawn up for the final stage of development which included the erection of a church sanctuary above the youth hall which had been previously constructed in 1962 (the larger brick and tile building currently on the Baptist Church portion of the site), it was officially opened in 1972

# 3.2.4 Council Records

The subject site is located within Liverpool City Council and is zoned business. The subject site is not reported to be affected by matters arising under the Contaminated Land Management Act, 1997. The 149 Certificates are included in **Appendix C**.

# 3.2.5 Aerial Photographs

Aerial photographs from 1930, 1951, 1970, 1986, 1998 and 2002 were obtained from the NSW Department of Lands Office. The aerial photographs are presented in **Appendix C**.



These aerial photos were reviewed to determine the likely past uses of the site. The findings are summarised below.

<u>1930 Aerial Photograph:</u> The 1930 aerial photo shows that the current local infrastructure (i.e. the surrounding streets) has been constructed. 11- 13 Norfolk Street appears to be vacant, however given the poor quality of the photograph it is difficult to be certain. 9 Norfolk Street appears to have a single storey residential building and 7 Norfolk Street appears to be vacant or possibly a small laneway between the blocks. The surrounding area consists of low to medium density residential housing.

<u>1951 Aerial Photograph:</u> The 1951 aerial photograph shows what appears to be a residential development at 11 - 13 Norfolk Street, however given the poor quality of the photo this is difficult to ascertain. 9 Norfolk Street does not appear to have undergone any significant change but 7 Norfolk Street appears to have been redeveloped as a residential dwelling. The surrounding area is residential, as in the 1930 aerial photograph, however the density of housing has increased with most blocks occupied.

<u>1970 Aerial Photograph</u>: The 1970 aerial photograph shows that 11-13 Norfolk Street has been redeveloped. At the corner of Norfolk and Castlereagh Streets there is a rectangular structure which is consistent with the building that currently exists at that corner. A second new rectangular building is present at 11 Norfolk Street, however, this is not consistent with the current building. The residential properties at 7-9 Norfolk Street do not appear to have undergone any significant change. Furthermore the surrounding properties do not appear to have been significantly altered.

<u>1986 Aerial Photograph:</u> The 1986 aerial photograph indicates further redevelopment at 11 Norfolk Street. The rectangular building appears to have been renovated and extended or possibly demolished and rebuilt. There do not appear to have been any further redevelopments on the remaining parts of the site. However the surrounding areas appears to have undergone a phase of redevelopment. Many of the residential properties to the west of the site have been redeveloped as 3 - 4 storey residential units and the area south of the site has been redeveloped for commercial use. In addition there is evidence of a new suburban shopping complex and service station along Memorial Avenue which is located approximately 100 m north of the site.

<u>1998 Aerial Photograph:</u> The 1998 aerial photograph shows extensive redevelopment to 7-9 Norfolk Street. The residential building that previously occupied the site have been demolished and redeveloped with a ground level concrete car park in the north western corner of the site and a commercial development in the north eastern portion of the site. The area north east of the site has been redeveloped as commercial space and the lots immediately north of the site have been redeveloped as 3 - 4 storey residential units.

<u>2002 Aerial Photograph:</u> The 2002 aerial photograph shows no change from the previous aerial photograph. Furthermore the site is consistent with its current configuration with two buildings within the church boundary and a small yard and a larger commercial building and paved car parking area which is currently occupied by Eagle Homes.

#### 3.2.6 Regulatory Notices Search

A search of the NSW EPA website on 15 July 2006 indicates that:

- no licences or notices have been issued for the site under the Protection of the Environment Operations Act, 1997; and
- no notices or orders to investigate or remediate the site are reported to have been issued for the site under the Contaminated Land Management Act, 1997.

# 3.2.7 Other Records

It was considered, based on the nature of the site that a WorkCover search for underground tanks or chemical storage facilities was unnecessary. This would only be conducted in the event the other site history information sources or the site inspection raised concerns about the presence of chemical storage on the site.

# 4. GEOLOGY, HYDROGEOLOGY AND TOPOGRAPHY

Reference to the Sydney 1:100 000 Geological Series Sheet indicated that the site is underlain by Bringelly Shale, of the Wianamatta Group which weathers to form highly plastic clays. Bringelly Shale consists of shale, carbonaceous claystone, laminite, fine to mediumgrained lithic sandstone with rare coal. Bringelly Shale typically weathers to form clays of high plasticity and low permeability, which impede the migration of contaminants. This was consistent with the materials encountered during drilling operations at the site.

A groundwater bore search from the Department of Natural Resources (DNR) [previously Department of Infrastructure, Planning and Natural Resources] database was conducted. The search extended to 1 km radius and identified the presence of 11 registered bores. Based on the locations the bores can be segregated into two groups. The first group is located approximately 1 km north west of the site, just north west of Brickmakers Creek (7 bores GW 103799 to GW103805). The work summaries indicate that these bores were 3 m deep monitoring bores that do not include any details about groundwater depth. The second group of bores were located approximately 900 m east of the site and just east of the Georges River (GW103715-GW103717 and GW130723). The work summaries indicate that these bores were for monitoring purposes only and that groundwater was at 8 m. It should be noted that these bores were located on the other (eastern) side of the river and were much closer to the river/creek then the subject site and therefore groundwater levels may not be representative of the subject site itself. There were no bores between the subject site and the nearest receiving bodies (within the 1 km radius) and those that were indicated were at a considerable distance, and therefore it is considered unlikely that these bores will be affected by contamination (if any) from the site.

Local topography was relatively flat with some minor undulations with a slight dip in a south the south easterly direction. Stormwater runoff is expected to flow into street drains. Groundwater is anticipated to flow towards the Georges River which is about 800 m east of the site and at the time of the field investigation free groundwater was encountered at a depth of 16.2 m.

#### 5. SITE DESCRIPTION

#### 5.1 Site Observations

The subject site, described as 7-13 Norfolk Street is occupied by two principal properties. 7-9 Norfolk Street is occupied by Eagle Homes and 11-13 Norfolk Street is occupied by Liverpool Baptist Church.

The Eagle Homes property is occupied by a two storey concrete and steel structure which is used as an office and storage unit and a ground level concrete car park (Photos 4-6). The entire Eagle Homes property is sealed in concrete which is in good condition with no cracks or staining of concern. There was no evidence of chemical storage either above or below ground.

The Baptist church portion of the site was occupied by two buildings. The larger building on the site was a 2 storey hall which was constructed of concrete and tile roofing (Photo2-3). The second building was a single storey weatherboard and fibre cement building with tile roofing (photo 1) with a small garden area. As with the Eagle Homes portion of the site there were no signs of chemical storage either above or below ground level and there were no signs of chemical staining.

No signs of gross contamination or extensive filling were noted on either the Eagle Homes or the Baptist Church portions of the site indicating a low probability of contamination.

#### 5.2 **Proposed Development**

The current assessment has been undertaken for development application purposes. It is understood that existing structures are to be demolished and that redevelopment will involve the construction of one retail, three commercial and thirteen residential levels above ground and five basements for car parking which is approximately 16 m below current ground level.



#### 5.3 Adjacent Site Use

The surrounding land usage is mainly light commercial and residential. The adjacent site uses can be described as the following;

- North three to four storey residential apartment blocks (Photo 7, Plate 3). A service station is present approximately 80 m north of the site (Photos 15 and 16, Plate 6), however, given the distance from the site it is considered that it is beyond the zone of influence for the subject site.
- West three to four storey residential blocks
- South Commercial space including a gymnasium
- East Commercial space including office space, a restaurant and real estate agent

It is therefore considered that there are no significant sources of contaminant migration form the adjacent site uses.

#### 6. POTENTIAL FOR CONTAMINATION

Based on site history review and site observations, it is generally considered that there is a low potential for contamination at the subject site.

Therefore, given that the site inspection and site history do not indicate any site specific contaminants of concern the following suite of commonly occurring contaminants in urban areas were adopted to provide a general indication of the contamination status, and the provisional waste classification of the subsoils;

- Heavy metals
- TRH/BTEX
- PAHs
- OCP/PCB
- Phenolics
- Cyanide; and
- Asbestos.

#### 7. FIELD WORK

#### 7.1 Sampling Procedures

The field investigation, conducted primarily for preliminary waste classification purposes involved the drilling of three test bores, advanced 1 m into natural material (nominally 1.5 m).

Environmental sampling was performed according to standard operating procedures outlined in the DP *Field Procedures Manual*. All sampling data was recorded on DP chain of custody sheets. Soil samples were collected on 25 August 2006. The general soil sampling procedure comprised:-

- Decontamination of sampling equipment using a 3% phosphate free detergent (Decon 90) and demineralised water prior to collection of each sample;
- Transfer of samples into laboratory-prepared glass jars, and capping immediately with teflon lined lids;
- Collection of 10% replicate samples for QA/QC purposes;
- Labelling of sample containers with individual and unique identification, including project number, sample location and sample depth;
- Placement of the sample jars into a cooled, insulated and sealed container for transport to the laboratory; and
- Collection of a sub-sample at each location into a zip-lock plastic bag for photoionisation detection.

A laboratory certified by the NATA, was employed to conduct the sample analysis. The laboratory is required to carry out routine in-house QC procedures.

#### 7.2 Sampling and Analytical Rationale

A total three test bores were placed over the 0.21 ha site. This sampling density is considered appropriate given the objective of the current assessment is to provide a

preliminary assessment of the likely subsurface conditions and contaminant levels at the site.

# 8. ASSESSMENT CRITERIA

#### 8.1 Site Assessment Criteria

The levels of contaminants in soil were assessed against the relevant site assessment criteria, viz. the Health based Investigation levels (HIL) for residential with minimal access to soils including high rise apartments. As the surface of the entire development will be sealed the Provisional Phytotoxicity Investigation Levels are not considered relevant. The threshold concentrations for soil/ filling and their source/ adoption rationale are detailed in Table 3.

A contaminant concentration in soil/ filling material is considered to be significant if:

- The concentration of the contaminant is more than 2.5 times the site assessment criteria (SAC). Any location more than 2.5 times the SAC is classified as a 'hotspot', requiring further assessment/ management.
- 2. The calculated 95% Upper Confidence Limit average (excluding any 'hotspot' concentrations) of the data set for the contaminant exceeds the SAC.
- 3. Standard deviation of greater than 50% of the HIL.

Providing that the 95% UCL average is within the SAC, and no concentrations of the contaminants are at hotspot level, minor exceedances of the SAC may be considered to pose insignificant human health risk under the proposed land-use.

Contaminant	HIL	Rationale
TPH		NSW EPA Contaminated Sites Guidelines for
$C_{6} - C_{9}$	65 mg/kg	Assessing Service Station Sites (1994) threshold
$C_{10} - C_{36}$	1000 mg/kg	concentrations for sensitive land use-soils.
BTEX		Currently there are no other comprehensive EPA
Benzene	1 mg/kg	endorsed investigation levels for petroleum
Toluene	1.4 mg/kg	hydrocarbons.
Ethylbenzene	3.1 mg/kg	
Xylene	14 mg/kg	
Metals		NSW EPA Contaminated Sites Guidelines for the
Arsenic (total)	400 mg/kg	NSW Site Auditor Scheme (1998) Soil
Cadmium	80 mg/kg	Investigation Levels for Urban Redevelopment
Chromium	48000 mg/kg	Sites in NSW: Lowest of Heath-based
Copper	4000 mg/kg	investigation levels for Residential sites with
Lead	1200 mg/kg	minimal access to soil (HIL Column 2)
Mercury	60 mg/kg	
Nickel	2400 mg/kg	
Zinc	28000 mg/kg	
PAH		
Total	80 mg/kg	
Benzo(a)Pyrene	4 mg/kg	
PCB	40 mg/kg	
Total Bhanala	34000	
Total Flienois	mg/kg	
OCP		
aldrin + dieldrin	40 mg/kg	
chlordane	40 mg/kg 200 mg/kg	
DDT (including	200 mg/kg	
DDD, DDE,	ooo mg/kg	
DDT)	40 mg/kg	
Heptachlor	+0 mg/kg	
	No asbestos	Correspondence from NSW EPA Director of
Ashestos	present in	Contaminated Sites to Accredited Site Auditors
A3063103	soil at the	
	surface	

#### Table 3 – Site Assessment Criteria and Rationale for Soil/ Filling

### 8.2 Waste Classification Criteria

For the purpose of Waste Classification of the filling material, the analytical results have been compared with guidelines given in the NSW EPA publication *Environmental Guidelines:* Assessment Classification and Management of Liquid and Non-Liquid Wastes (1999) for off-site disposal purposes.

Currently there are no DEC endorsed waste guidelines for natural materials. In this regard a number of assessment criteria were referenced, including the NSW EPA Contaminated Sites: *Guidelines for the NSW Site Auditors Scheme, 1998.* Lowest of Health-based guidelines for residential with gardens and accessible soils (Column 1), Provisional phytotoxicity-based investigation levels for sandy loams (Column 5); and the *NEPC (1999).* 

National Environmental Protection (Assessment of Site Contamination) Measure Schedule *B*(1) Guidelines on the Investigation Levels for Soil and Groundwater, Background Ranges. The waste guidelines and VENM assessment criteria are included in the results tables, Tables 4 to 6.

## 9. RESULTS

## 9.1 Field Observations

Details of the sub-surface conditions encountered during the course of the investigation are included in the Test bore Report Sheets (Appendix D).

The test bores encountered the following conditions over the site:

- FILLING The filling soils varied across the site in depth and nature but generally comprised material of natural origin. The filling observed in test bore 1A consisted of brown gravely sandy clay filling with railway ballast of diameter up to 5 -15 cm from a depth of 0.16 m to 0.7m (below of concrete pavement). The filling in test bore 2A consisted of brown to yellow brown gravely sandy clay to from a depth of 0.16 m to 0.4 m (beneath a concrete pavement). The filling observed in test bore 4A consisted of brown silty clay topsoil filling with trace sand and gravel.
- It should be noted that there were no obvious signs of concern noted in the filling such as chemical odours or staining or building rubble

#### • NATURAL SOILS -.

- Natural Clays Natural clay was encountered at a depth of between 0.2 m and 0.7 below the surface extending to a depth of approximately 3.0 m. The clay consisted of very stiff grey silty clay with some ironstone bands and gravels. The clay material encountered was consistent throughout the site
- Natural Shale Typically encountered at a depth of approximately 3 m below the current ground surface. The shale consisting of low to medium strength shale, grey brown shale. This was underlain by intermittent bands of siltstone, shale, sandstone and laminate.



#### 9.2 Field Testing Results

Replicate soil samples collected in plastic bags were allowed to equilibrate under ambient temperatures before screening for Total Photoionisable Compounds (TOPIC) using a calibrated Photoionisation Detector (PID). All PID readings were below 1 ppm and do not indicate signs of the presence of significant volatile contaminants.

#### 9.3 Analytical Results for Soil Samples

The results of laboratory analysis (Appendix E) for contaminants in the soil and filling samples are summarised in Tables 4 - 6.

Sample ID	Α	S	Cd	0	r	Cu	Pb	)	N	Ji	Zn	Hg
	SCC*	TCLP**	SCC	SCC	TCLP	SCC	SCC	TCLP	SCC	TCLP	SCC	SCC
	(mg/kg)	( <b>mg</b> /L)	(mg/kg)	(mg/kg)	(mg/L)	(mg/kg)	(mg/kg)	(mg/L)	(mg/kg)	(mg/L)	(mg/kg)	(mg/kg)
				-	Filling	Material						
BH1A/0.5	<4	-	1.9	23	< 0.01	63	14	-	60	0.06	46	< 0.1
BH2A/0.3	<4	< 0.05	<1	11	-	67	49	< 0.03	64	0.06	33	< 0.1
BH4A/0.1	5.5	< 0.05	<1	13	-	14	75	< 0.03	6.4	< 0.02	92	0.12
					Natural	Material						
BH1A/1.0	8.5	-	<1	14	-	12	14	-	3.6	-	10	< 0.1
BH2A/1.5	4.9	-	<1	9.4	-	10	12	-	1	-	6	< 0.1
BH4A/1.0	4.5	-	<1	9.3	-	9.3	11	-	<1	-	5.5	<1
					Site Assess	nent Criteria						
HIL <sup>3</sup>	400	-	80	480	000	4000	1200	-	2400	-	28000	60
			I	Vaste Classifi	cation Thresh	old Criteria (	without TCLP)					
Inert Waste (CT1)	10	-	2	10	-	-	10	-	4	-	-	0.4
Solid Waste (CT2)	100	-	20	100	-	-	100	-	40	-	-	4
Industrial Waste (CT3)	400	-	80	400	-	-	400	-	160	-	-	16
				Waste Classi	fication Thres	shold Criteria	$(\text{with TCLP})^2$					
Inert Waste	500	0.5	NA	1900	0.5	NA	1500	0.5	1050	0.2	NA	NA
Solid Waste	500	5.0	NA	1900	5	NA	1500	5	1050	2	NA	NA
Industrial Waste	2000	20	NA	7600	20	NA	6000	20	4200	8	NA	NA
HIL/PPIL <sup>4</sup>	20		3	400%	-	100	300		60		200	1
	1		100			2	2		5		10	
NEPC <sup>5</sup>			-	5-1000	-	-	-		-		-	0.03
	-00		300			100	200		500		300	

#### Table 4 - Results of Laboratory Analysis for Heavy Metals

Notes for Table 1:

NA Not applicable (inert waste criteria without TCLP not exceeded)

BOLD Exceeds Site Assessment Criteria

SHADING Exceeds Inert waste Criteria

1. NSW EPA (1999) Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes. Table A3: Contaminant Threshold Values for Waste Classification of Non-Liquid wastes without doing the Leaching Test

2. NSW EPA (1999) Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes. Table A4: Leachable Concentration (TCLP) and Total Concentration (SCC) Values for Non-Liquid Waste Classification



- 3. Health Based Investigation Level for Residential sites with minimal access to soils including high rise apartments and flats
- 4. NSW EPA Contaminated Sites: Guidelines for the NSW Site Auditors Scheme, 1998. Lowest of Health-based guidelines for residential with gardens and accessible soils (Column 1) and Provisional phytotoxicity-based investigation levels for sandy loams (Column 5);
- 5. NEPC (1999). National Environmental Protection (Assessment of Site Contamination) Measure Schedule B(1) Guidelines on the Investigation Levels for Soil and Groundwater, Background Ranges



	T	RH					]	PAH
Sample ID	C6-C9	C10-C40	Benzene	Toluene	Ethyl Benzene	Xylene	Total PAH	Total B(a)P
			Fillin	g Material				
BH1A/0.5	<25	<250	<1	<1	<1	<3	0	< 0.05
BH2A/0.3	<25	<250	<1	<1	<1	<3	0	< 0.05
BH4A/0.1	<25	6200	<1	<1	<1	<3	0	< 0.05
			Natur	al Material				
BH1A/1.0	<25	<250	<1	<1	<1	<3	0	< 0.05
BH2A/1.5	<25	<250	<1	<1	<1	<3	0	< 0.05
BH4A/1.0	<25	<250	<1	<1	<1	<3	0	< 0.04
			VENM re	ference criteria			-	
HIL/PPIL <sup>2</sup>	6	1000	1	1.4	3.1	14	20	1
Background Range <sup>3</sup>	-	-	-	-	-	-	0.95- 5	-
			Site Asse	ssment Criteria				
$HIL^4$	65	1000	1	1.4	3.1	14	80	4
		Waste Clas	sification Thres	hold Criteria (w	ithout TCLP**)	$)^1$		
Inert Waste	650	5000	1	28.8	60	100	N/A	1
Solid Waste	650	10000	10	288	600	1000	N/A	10
Industrial Waste	2600	40000	40	1152	2400	4000	N/A	23

#### Table 5 - Results of Laboratory Analysis for TRH/BTEX and PAH (mg/kg)

1. NSW EPA (1999) Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes. Table A3: Contaminant Threshold Values for Waste Classification of Non-Liquid wastes without doing the Leaching Test and Table A4: Leachable Concentration (TCLP) and Total Concentration (SCC) Values for Non-Liquid Waste Classification

 NSW EPA Contaminated Sites: Guidelines for the NSW Site Auditors Scheme, 1998. Lowest of Health-based guidelines for residential with gardens and accessible soils (Column 1) and Provisional phytotoxicity-based investigation levels for sandy loams (Column 5);

3. NEPC (1999). National Environmental Protection (Assessment of Site Contamination) Measure Schedule B(1) Guidelines on the Investigation Levels for Soil and Groundwater, Background

4. Health Based Investigation Level for Residential sites with minimal access to soils including high rise apartments and flats **BOLD** Exceeds Site Assessment Criteria

SHADING Exceeds Inert waste Criteria

Sample ID	Total OCPs	<b>Total PCBs</b>	<b>Total Phenols</b>	Cyanide	Asbestos			
Filling Material								
BH1A/0.5	<2	<0.6	<5	< 0.5	Nil detected			
BH2A/0.3	<2	<0.6	<5	< 0.5	Nil detected			
BH4A/0.1	<2	<0.6	<5	< 0.5	-			
		Natu	ral Material					
BH1A/1.0	<2	<0.6	-	-	-			
BH2A/1.5	<2	<0.6	-	-	-			
BH4A/1.0	<2	<0.6	-	-	-			
VENM <sup>1</sup>	10/50/ 200/10	10	70	500	Nil			
HIL <sup>2</sup>	$\begin{array}{r} 40+200+800\\+40\end{array}$	40	34000	2000	Nil			
Inert Waste	NA	2	28.8	32	Nil			
Solid Waste	-	<50	288	320				
Industrial Waste	-	<50	1152	1280				

#### Table 6 – Results of Laboratory Analysis of OCPs, PCBs and Phenols Cyanide Asbestos

Notes:

- NSW EPA Contaminated Sites: Guidelines for the NSW Site Auditors Scheme, 1998. Lowest of Health-based guidelines for residential with gardens and accessible soils (Column 1) and Provisional phytotoxicity-based investigation levels for sandy loams (Column 5);
- 2. Health Based Investigation Level for Residential sites with minimal access to soils including high rise apartments and flats (refer to Section 8)
- NSW EPA (1999) Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes. Table A3: Contaminant Threshold Values for Waste Classification of Non-Liquid wastes without doing the Leaching Test and Table A4: Leachable Concentration (TCLP) and Total Concentration (SCC) Values for Non-Liquid Waste Classification
- BOLDExceeds Site Assessment CriteriaSHADINGExceeds Inert waste Criteria

#### 9.4 QA/QC Procedures

The data quality objectives (DQO) of the Phase 1 Contamination Assessment works have been developed to define the type and quality of the data to achieve the project objectives and were based broadly in accordance with the seven step data quality objective process, as defined in Australian Standard (AS) "*Guide to the Sampling and Investigation of Potentially Contaminated Soil Part 1: Non-volatile and Semi-volatile Compounds* (AS 4482.1 – 1997). The DQO process is outlined in the AS.

The DQO's have been addressed within the report as detailed in Table 7.

Data Quality Objective	Report section where addressed
State the Problem	S1 Introduction
Identify the Decision	S11 Conclusions and Recommendations
Identify Inputs to the Decision	S3 Site History
	S4 Geology and Hydrogeology
	S5 Site Informatoion
	S6 Potential Contaminants
	S8 Site Assessment Criteria
	S9 Results
Define the Boundary of the Assessment	S3.1 Site Identification
	Appendix A
Develop a Decision Rule	S8 Site Assessment Criteria
Specify Acceptable Limits on Decision Errors	9.4 QA/QC Procedures and Results
	Appendix F
Optimise the Design for Obtaining Data.	S7 Field Work
	9.4 QA/QC Procedures and Results

Table 7 – Data Quality Objectives

Quality Assurance and Quality Control (QA/QC) procedures formed an integral part of this assessment and are summarised in Table 8. The results of laboratory QA/QC are provided in Appendix F.

Objective	Evaluation Procedure		
Documentation completeness	Completion of field and laboratory documentation including		
	chain of custody, test pit log reports.		
Data completeness	Appropriate sampling density for preliminary investigation,		
	analysis of appropriate contaminants, analysis of		
	appropriate soil horizons, analysis of appropriate QA		
	samples etc		
Data comparability	Use of NATA accredited analytical methods, use of		
	consistent sampling technique, commitment to equipment		
	decontamination, field sample storage techniques etc.		
Data representativeness	Sampling from targeted areas and a broad grid pattern		
	across the site in order to obtain samples representative of		
	contamination present.		
Precision and accuracy for	Use of NATA accredited analytical methods, and		
sampling and analysis	achievement of laboratory QC criteria.		

Table 8 – 0	QA/QC	Objectives	and	Procedures
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The full laboratory results are attached in Appendix E.

#### 9.5 Assessment of Results

Laboratory analysis was conducted on selected samples for the following potential contaminants:

- Heavy metals;
- Total Recoverable Hydrocarbons (TRH);
- Benzene, Toluene, Ethyl Benzene and Total Xylenes (BTEX);
- Polycyclic Aromatic Hydrocarbons (PAH);
- Phenols;
- Polychlorinated biphenyls (PCB);
- Organochlorine pesticides (OCP);
- cyanide; and
- Asbestos.



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All laboratory results were within the site assessment criteria (SAC), including both the health based investigation levels for residential land-use with accessible soils and the provisional phytotoxicity based investigation levels with the exception of the TPH ( $C_{10}$ -  $C_{36}$  fraction of 6200 mg/kg) in sample BH4A/0.1. The deeper sample collected at 1.0 m depth in the same bore (BH4A/1.0) suggested no detectable TPH.

#### 10. DISCUSSION AND CONCLUSIONS

#### **10.1 General Comments**

The subject site is located at Norfolk Street in Liverpool. The subject site is designated for development of a mixed residential and commercial development with up to 5 levels of basement. The current assessment was requested for development application purposes.

Desktop review of historical information indicated that southern portion of the site (The Baptist Church, 11-13 Norfolk Street) was residential until the 1930's and since that time has been a Baptist church. The northern portion of the site (Eagle Homes 7-9 Norfolk Street) was residential until 1988 at which it was bought by commercial interest and redeveloped into a office and loading bay/storage area.

Based on site observations and the site history information reviewed it is assessed that the site has a low potential for contamination. Furthermore, given the shallow shale formation observed in the test bores it is envisaged that any contamination present would be limited in extent.

The potential for contaminant migration via groundwater is considered to be unlikely as the groundwater table was not encountered during augering of the soil overburden (i.e. in the upper 2-3 m).



#### 10.2 Preliminary Waste Classification

Analytical results of the filling materials (based on both the total and leachable concentrations of contaminants) from Boreholes 1A and 2A were low and within the inert waste guidelines. Therefore the filling materials from these locations described in section 9.1 are provisionally classified as **Inert Waste**. However the filling material in borehole 4A had elevated levels of TPH 6200 mg/kg) which exceed the inert waste criteria. Therefore the filling material in the vicinity of BH4A is provisionally classified as **Solid Waste**. It should be noted however that it these classification are considered provisional and that additional investigation should be conducted to provide a final waste classification.

In terms of the natural clays (encountered at a depth of between 0.2 and 0.7 m below the existing surface), and shale described in section 9.1, this material is classified as **Virgin Excavated Natural Material (VENM)** and may be disposed of as, or reused as such. It is considered no further investigation of the VENM is considered necessary unless signs of concern such as odours or staining are observed during bulk earthworks

#### **10.3** Contamination Assessment

All laboratory results were within the site assessment criteria (SAC), including both the health based investigation levels for residential land-use with accessible soils and the provisional phytotoxicity based investigation levels with the exception of the TPH ( $C_{10}$ -  $C_{36}$  fraction of 6200 mg/kg) in sample BH4A/0.1.

Discussions held with the NATA laboratory confirmed that the chromatograph of the sample (Appendix E) is consistent with that of mineral oil (chromatograph also in Appendix E), as apposed to a petroleum fuel product. Additionally the filling in this area is relatively shallow (0.2 m). This would appear to indicate that the contaminant is not widespread.



Furthermore, in view of the proposed development which will involve the exaction of the site to a depth of 16 m (or five levels of basement) it is anticipated that any surficial contaminants would be removed form the site. In this event the site would be rendered suitable for the proposed development.

#### **10.4** Summary of Findings and Recommendations

The overall potential for contamination of the site is assessed to be low, although elevated levels of TPH were identified in test bore BH4A. However it is anticipated that given the proposed development will involve excavation to a depth of 16 m below the current ground surface that this pocket of contamination, along with any other residual contamination in the filling will be removed from the site. It this event, it is considered that the site will be rendered suitable for the proposed development.

It is recommended that following the demolition of the existing buildings that additional investigation be conducted for the purposes of confirming the final waste classification

It should be noted that this investigation did not include a hazardous building materials inspection. As such inspections should be conducted prior to demolition with a view to identify the presence or otherwise of potentially hazardous materials such as asbestos, lead based paints and PCBs in light fixtures.

It is considered that given the proposed development will involve excavation to a depth of 16 m for the construction of basement levels that the site will be rendered suitable for the proposed development and that no additional remediation or site investigation works (for site suitability purposes) is required. However in the unlikely event that deep filling is encountered within the building footprint, additional assessment for site assessment may be required.



#### 11. LIMITATIONS OF THIS REPORT

The scope of the site assessment activities and consulting services undertaken by DP were limited to those detailed in our proposal dated 28 July 2006 and accepted by Macleod Consultants on behalf of Captain Developments.

DP's assessment is necessarily based upon the result of a site history search and site walkover inspection and limited subsurface investigation. The inspection was conducted with a view to assess the potential for subsoil contamination at the site for its proposed re-development. DP cannot provide unqualified warranties nor assumes any liability for site conditions not observed, or accessible, during the time of the investigations.

This report, its associated documentation and the information herein have been prepared solely for the use of Captain Developments. Any reliance assumed by third parties on this report shall be at such parties' own risk. Any ensuing liability resulting from use of the report by third parties cannot be transferred to DP.

#### DOUGLAS PARTNERS PTY LTD

Reviewed by:

Kurt Plambeck Environmental Scientist Ronnie Tong Principal

APPENDIX A Notes Relating to this Report Site Locality Map


## NOTES RELATING TO THIS REPORT

#### Introduction

These notes have been provided to amplify the geotechnical report in regard to classification methods, specialist field procedures and certain matters relating to the Discussion and Comments section. Not all, of course, are necessarily relevant to all reports.

Geotechnical reports are based on information gained from limited subsurface test boring and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

#### **Description and Classification Methods**

The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726, Geotechnical Site Investigations Code. In general, descriptions cover the following properties strength or density, colour, structure, soil or rock type and inclusions.

Soil types are described according to the predominating particle size, qualified by the grading of other particles present (eg. sandy clay) on the following bases:

Soil Classification	Particle Size
Clay	less than 0.002 mm
Silt	0.002 to 0.06 mm
Sand	0.06 to 2.00 mm
Gravel	2.00 to 60.00 mm

Cohesive soils are classified on the basis of strength either by laboratory testing or engineering examination. The strength terms are defined as follows.

	Undrained
Classification	Shear Strength kPa
Very soft	less than 12
Soft	12—25
Firm	25—50
Stiff	50—100
Very stiff	100—200
Hard	Greater than 200

Non-cohesive soils are classified on the basis of relative density, generally from the results of standard penetration tests (SPT) or Dutch cone penetrometer tests (CPT) as below:

Relative Density	SPT "N" Value (blows/300 mm)	CPT Cone Value (q <sub>c</sub> — MPa)
Very loose	less than 5	less than 2
Loose	5—10	2—5
Medium dense	10—30	5—15
Dense	30—50	15—25
Very dense	greater than 50	greater than 25

Rock types are classified by their geological names. Where relevant, further information regarding rock classification is given on the following sheet.

#### Sampling

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

Disturbed samples taken during drilling provide information on colour, type, inclusions and, depending upon the degree of disturbance, some information on strength and structure.

Undisturbed samples are taken by pushing a thin-walled sample tube into the soil and withdrawing with a sample of the soil in a relatively undisturbed state. Such samples yield information on structure and strength, and are necessary for laboratory determination of shear strength and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

Details of the type and method of sampling are given in the report.

#### **Drilling Methods.**

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

**Test Pits** — these are excavated with a backhoe or a tracked excavator, allowing close examination of the in-situ soils if it is safe to descent into the pit. The depth of penetration is limited to about 3 m for a backhoe and up to 6 m for an excavator. A potential disadvantage is the disturbance caused by the excavation.

Large Diameter Auger (eg. Pengo) — the hole is advanced by a rotating plate or short spiral auger, generally 300 mm or larger in diameter. The cuttings are returned to the surface at intervals (generally of not more than 0.5 m) and are disturbed but usually unchanged in moisture content. Identification of soil strata is generally much more reliable than with continuous spiral flight augers, and is usually supplemented by occasional undisturbed tube sampling.

**Continuous Sample Drilling** — the hole is advanced by pushing a 100 mm diameter socket into the ground and withdrawing it at intervals to extrude the sample. This is the most reliable method of drilling in soils, since moisture content is unchanged and soil structure, strength, etc. is only marginally affected.

**Continuous Spiral Flight Augers** — the hole is advanced using 90—115 mm diameter continuous spiral flight augers which are withdrawn at intervals to allow sampling or in-situ testing. This is a relatively economical means of drilling in clays and in sands above the water



table. Samples are returned to the surface, or may be collected after withdrawal of the auger flights, but they are very disturbed and may be contaminated. Information from the drilling (as distinct from specific sampling by SPTs or undisturbed samples) is of relatively lower reliability, due to remoulding, contamination or softening of samples by ground water.

**Non-core Rotary Drilling** — the hole is advanced by a rotary bit, with water being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be determined from the cuttings, together with some information from 'feel' and rate of penetration.

**Rotary Mud Drilling** — similar to rotary drilling, but using drilling mud as a circulating fluid. The mud tends to mask the cuttings and reliable identification is again only possible from separate intact sampling (eg. from SPT).

**Continuous Core Drilling** — a continuous core sample is obtained using a diamond-tipped core barrel, usually 50 mm internal diameter. Provided full core recovery is achieved (which is not always possible in very weak rocks and granular soils), this technique provides a very reliable (but relatively expensive) method of investigation.

#### **Standard Penetration Tests**

Standard penetration tests (abbreviated as SPT) are used mainly in non-cohesive soils, but occasionally also in cohesive soils as a means of determining density or strength and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289, "Methods of Testing Soils for Engineering Purposes" — Test 6.3.1.

The test is carried out in a borehole by driving a 50 mm diameter split sample tube under the impact of a 63 kg hammer with a free fall of 760 mm. It is normal for the tube to be driven in three successive 150 mm increments and the 'N' value is taken as the number of blows for the last 300 mm. In dense sands, very hard clays or weak rock, the full 450 mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form.

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

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

as 15, 30/40 mm.

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

Occasionally, the test method is used to obtain samples in 50 mm diameter thin walled sample tubes in clays. In such circumstances, the test results are shown on the borelogs in brackets.

#### **Cone Penetrometer Testing and Interpretation**

Cone penetrometer testing (sometimes referred to as Dutch cone — abbreviated as CPT) described in this report has been carried out using an electrical friction cone penetrometer. The test is described in Australian Standard 1289, Test 6.4.1.

In the tests, a 35 mm diameter rod with a cone-tipped end is pushed continuously into the soil, the reaction being provided by a specially designed truck or rig which is fitted with an hydraulic ram system. Measurements are made of the end bearing resistance on the cone and the friction resistance on a separate 130 mm long sleeve, immediately behind the cone. Transducers in the tip of the assembly are connected by electrical wires passing through the centre of the push rods to an amplifier and recorder unit mounted on the control truck.

As penetration occurs (at a rate of approximately 20 mm per second) the information is plotted on a computer screen and at the end of the test is stored on the computer for later plotting of the results.

The information provided on the plotted results comprises: —

- Cone resistance the actual end bearing force divided by the cross sectional area of the cone expressed in MPa.
- Sleeve friction the frictional force on the sleeve divided by the surface area expressed in kPa.
- Friction ratio the ratio of sleeve friction to cone resistance, expressed in percent.

There are two scales available for measurement of cone resistance. The lower scale (0-5 MPa) is used in very soft soils where increased sensitivity is required and is shown in the graphs as a dotted line. The main scale (0-50 MPa) is less sensitive and is shown as a full line.

The ratios of the sleeve friction to cone resistance will vary with the type of soil encountered, with higher relative friction in clays than in sands. Friction ratios of 1%—2% are commonly encountered in sands and very soft clays rising to 4%—10% in stiff clays.

In sands, the relationship between cone resistance and SPT value is commonly in the range:—

 $q_c$  (MPa) = (0.4 to 0.6) N (blows per 300 mm)

In clays, the relationship between undrained shear strength and cone resistance is commonly in the range:—

$$q_c = (12 \text{ to } 18) c_u$$

Interpretation of CPT values can also be made to allow estimation of modulus or compressibility values to allow calculation of foundation settlements.

Inferred stratification as shown on the attached reports is assessed from the cone and friction traces and from experience and information from nearby boreholes, etc. This information is presented for general guidance, but must be regarded as being to some extent interpretive. The test method provides a continuous profile of engineering properties, and where precise information on soil classification is required, direct drilling and sampling may be preferable.



#### **Hand Penetrometers**

Hand penetrometer tests are carried out by driving a rod into the ground with a falling weight hammer and measuring the blows for successive 150 mm increments of penetration. Normally, there is a depth limitation of 1.2 m but this may be extended in certain conditions by the use of extension rods.

Two relatively similar tests are used.

- Perth sand penetrometer a 16 mm diameter flatended rod is driven with a 9 kg hammer, dropping 600 mm (AS 1289, Test 6.3.3). This test was developed for testing the density of sands (originating in Perth) and is mainly used in granular soils and filling.
- Cone penetrometer (sometimes known as the Scala Penetrometer) — a 16 mm rod with a 20 mm diameter cone end is driven with a 9 kg hammer dropping 510 mm (AS 1289, Test 6.3.2). The test was developed initially for pavement subgrade investigations, and published correlations of the test results with California bearing ratio have been published by various Road Authorities.

#### Laboratory Testing

Laboratory testing is carried out in accordance with Australian Standard 1289 "Methods of Testing Soil for Engineering Purposes". Details of the test procedure used are given on the individual report forms.

#### **Bore Logs**

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

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes, the frequency of sampling and the possibility of other than 'straight line' variations between the boreholes.

#### **Ground Water**

Where ground water levels are measured in boreholes, there are several potential problems;

- In low permeability soils, ground water although present, may enter the hole slowly or perhaps not at all during the time it is left open.
- A localised perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be

the same at the time of construction as are indicated in the report.

• The use of water or mud as a drilling fluid will mask any ground water inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water observations are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

#### **Engineering Reports**

Engineering reports are prepared by qualified personnel and are based on the information obtained and on current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal (eg. a three storey building), the information and interpretation may not be relevant if the design proposal is changed (eg. to a twenty storey building). If this happens, the Company will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface condition, discussion of geotechnical aspects and recommendations or suggestions for design and construction. However, the Company cannot always anticipate or assume responsibility for:

- unexpected variations in ground conditions the potential for this will depend partly on bore spacing and sampling frequency
- changes in policy or interpretation of policy by statutory authorities
- the actions of contractors responding to commercial pressures.

If these occur, the Company will be pleased to assist with investigation or advice to resolve the matter.

#### **Site Anomalies**

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

#### Reproduction of Information for Contractual Purposes

Attention is drawn to the document "Guidelines for the Provision of Geotechnical Information in Tender Documents", published by the Institution of Engineers, Australia. Where information obtained from this investigation is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section



is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. The Company would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

#### **Site Inspection**

The Company will always be pleased to provide engineering inspection services for geotechnical aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

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9:47:22 AM 80 P:\44224 LIVERF



LOCALITY PLAN

Douglas Partners Geotechnics, Environment, Groundwater

Sydney, Newcastle, Brisbane, Melbourne, Wyong, Canberra, Campbelltown, Townsville, Perth, Cairns, Wollongong, Darwin

Proposed Commercial & Residential Development

nts		
: As shown	PROJECT No: 44224	OFFICE: SYDNEY
	DATE: 29.9.2006	DRAWING No: 1

## APPENDIX B Site Photos



Photo 1 Single storey church building at corner of Norfolf and Castlereagh



Photo 2 Two storey brick chucrh building



Photo 3 Entrance to two storey church building

Preliminary Contamination Assessment	Project	September	Plate
Project Address: 13 Norfolk Street	44224	2006	1
Project Suburb/Location: Liverpool			











Photo 6 Eagle Homes (Norfolk Street entrance)

Photo 2

Preliminary Contamination Assessment	Project	September	Plate
Project Address: 13 Norfolk Street	44224	2006	2
Project Suburb/Location: Liverpool			





Photo 7 Residential Appartment blocks north of site



Preliminary Contamination AssessmentProjectSeptemberPlateProject Address: 13 Norfolk Street4422420063Project Suburb/Location: Liverpool20063





Preliminary Contamination Assessment	Project	September	Plate
Project Address: 13 Norfolk Street	44224	2006	4
Project Suburb/Location: Liverpool			





Preliminary Contamination Assessment	Project	September	Plate
Project Address: 13 Norfolk Street	44224	2006	5
Project Suburb/Location: Liverpool			





Preliminary Contamination Assessment	Project	September	Plate
Project Address: 13 Norfolk Street	44224	2006	6
Project Suburb/Location: Liverpool			



APPENDIX C Site History Search Information Baptist Church Centenary Publication Council 149 Certificates Aerial Photographs EPA Notice Search Groundwater Bore Information ACN: 093 398 611 ABN: 61 093 412 474

.

Peter S. Hopley Pty Limited Legal Searchers

1 Boronia Avenue Mount Annan , NSW , 2567 Mobile: 0412 199 304 Fax 9233 4590 (Attn Box 29)

#### SUMMARY AS TO OWNERS.

#### Property: - 7 - 9 Norfolk Street, Liverpool

#### Description: - Lot 34 D.P. 777411

#### As regards that part formerly comprised in lot 4 D.P. 7541

11.07.1914	Margaret McManus (Spinster)	Vol 2491 Fol 106
07.01.1921	Agnes McManus <i>(Spinster)</i>	Vol 2491 Fol 106
05.05.1939	Robert Reuben Hindmarsh (Fettler)	Vol 2491 Fol 106
06.05.1954	Ivy Matilda Hindmarsh (Widow) (We have not investigated the Transmission Application)	Vol 2491 Fol 106
13.11.1969	Ronald Robert Hindmarsh <i>(Pay Master)</i> Bruce Gordon Hindmarsh <i>(Electrician)</i> <i>(We have not investigated the Section 94 Application)</i>	Vol 2491 Fol 106
11.04.1970	The Baptist Union of New South Wales	Vol 2491 Fol 106
03.03.1988	Property Dynamics Pty Limited	34/777411

#### For search continued as to this part, See Page No. 2

ACN: 093 398 611 ABN: 61 093 412 474

,

Peter S. Hopley Pty Limited Legal Searchers

1 Boronia Avenue Mount Annan , NSW , 2567 Mobile: 0412 199 304 Fax 9233 4590 (Attn Box 29)

#### As regards that part formerly comprised in lot 3 D.P. 7541

11.07.1914	Sarah Sheehy (Married Woman)	Vol 2491 Fol 107
07.01.1921	Otto Woodward (Wool Classer)	Vol 2491 Fol 107
01.07.1950	James Stanislaus Garard <i>(Woollen Mills Fireman)</i> Una Maud Garard <i>(Married Woman)</i>	Vol 2491 Fol 107
18.12.1974	Una Maud Garard (Widow)	Vol 2491 Fol 107
03.03.1988	Property Dynamics Pty Limited	34/777411

For search continued as to this part, See Below

#### Search continued as to the whole of the subject land

20.02.1989	Patricia Emlyn Robson	34/777411
	Murray Leslie Robson	
13.05.1994	# Eagle Developments Australia Pty Ltd	34/777411

#### # Current Registered Proprietor



Ret : 29



Ref:PIAMAGTS49 /Doc:DP 0777411 P /Rev:29-Jun-1992 /Sts:0X.0K /Prt:18-Sap-2006 14:04 /Pgs:ALL /Seg1 of 1 Ref:PIAMAGTK /Src:B

ABN: 80 002 801 498 Level 10, 135 King Street, SYDNEY NSW 2000, AUSTRALIA \* DX654, SYDNEY Tel: (02) 9231 0122 Fax: (02) 9233 6411 www.legalstream.com.au An Approved LPI NSW Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE -----18/9/2006 2:00PM

FOLIO: 34/777411

-----

First Title(s): OLD SYSTEM
Prior Title(s): VOL 2491 FOLS 106-107

Recorded	Number	Type of Instrument	C.T. Issue
6/9/1988	DP777411	DEPOSITED PLAN	FOLIO CREATED EDITION 1
20/2/1989 20/2/1989 20/2/1989	X916587 X916586 X916588	DISCHARGE OF MORTGAGE LEASE TRANSFER	
20/2/1989	X916589	MORTGAGE	EDITION 2
5/7/1990	Z100357	MORTGAGE	EDITION 3
3/1/1992	E168835	VARIATION OF MORTGAGE	EDITION 4
11/5/1993	I320011	VARIATION OF MORTGAGE	EDITION 5
13/5/1994	U258945	DISCHARGE OF MORTGAGE	
13/5/1994	U258946	DISCHARGE OF MORTGAGE	
13/5/1994	U258947	TRANSFER	EDITION 6
3/3/1998	3831648	MORTGAGE	EDITION 7
18/2/2000 18/2/2000	6577716 6577717	DISCHARGE OF MORTGAGE MORTGAGE	EDITION 8

\*\*\* END OF SEARCH \*\*\*

plambeck

PRINTED ON 18/9/2006

Req:R609551 /Doc:DL I320011 /Rev:05-Sep-1997 /Sts:OK.OK /Prt:18-Sep-2006 14:04 /Pgs:ALL /Seq:1 of 5 Ref:PLAMBECK /Src:B

	RP27		VARIATION OF MORTG Real Property Act, 1900 Office	AGE	I 320011 H
(A)	TITLES AFFECTED Show no more than twenty.	Fello Identif 34/777411 B/108202	lerø		
(B)	REGISTERED DEALING AFFECTED If applicable.				
(C)	LODGED BY	L.T.O. Вол 61С	Name, Address or DX and Telephone L - Rebecch REFERENCE (max. 15 characters):	Abbott Tout Russell Kennedy Solicitors Level 50, MLC Centre 19-29 Martin Piece SYDNEY NSW 2000 DX: 129 TEL: 231 6555 NJC.348856	VM
(D)	MORTGAGOR	PATRICIA EM	l yn robson and Murray L <del>es</del>	LIE ROBSON	
(E)	Mortgage varied	<b>Z100367</b>	5307 OP	r.	
(F)	MORTGAGEE	N.R.M.A. INSU	RANCE LIMITED (ACN 000 018 7	>2)	
(G) ( (18) (18) (18)	<ol> <li>The rate of interest payment within5.</li> <li>The principal sum</li> <li>The term or curren</li> <li>The provisions of the provisions of the provisions of the provision of the prov</li></ol>	is increased/redu analogne days of th is increased/reduc cy is shortoned/re he mortgage are v	ced to	(subject to reduction to 9.9	5 per annum on
L.S	• INSTRUCTIONS FOR FILLING LET \285805 5 AM	OUT THIS FORM AR	E AVAILABLE FROM THE LAND TITLES	OFFICE CRECKED BY OFFICE	UN S

Req:R609551 /Doc:DL I320011 /Rev:05-Sep-1997 /Sts:0K.0K /Prt:18-Sep-2006 14:04 /Pgs:ALL /Seq:2 of 5 Ref:PLAMBECK /Src:B

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900

DATE OF EXECUTION

ALL LAECUTIVE

Signed in my presence by the mortgagor who is personally known to me

Signature of Witness

JAMES AN WOUSTACAS LETTERS) 1a Bronte Road BONDI JUNCTION NSW 2022 \*\*\*\*\*\*\*\*\*\* Address of Witness

\*\*\*\*\*\*\*\*\* Signature of Mortgagor

M Robson

Signed in my presence by the mortgagee who is personally known to me

Signature of Witness JACOB MAMUTIL Name of Witness (BLOCK LETTERS) Annalisanii Manaalisan ASSISTANT COMPANY ۲ SECRETARY OF THE CI-NRMA Sydney. Address of Witness \*\*\*\* Signature of Mortgagee . . . . . . . . . . . .

	ANNEXURE "A" TO VAR	LATION OF MORTGAGE	
BETWEEN AND	<u>PATRICIA EMLVN ROBSON</u> N.R.M.A. INSURANCE LIMI	AND IAN MURRAY LESLIE (AS M TED (ACN 000 016 722)	<u>: ROBSON</u> IORTGAGOR)
DATED	2nd	March.	1993

Mortgage Z100357 is further varied as follows:

١

- 1. The Mortgagor will observe the provisions set forth in Memorandum filed in the Registrar General's Office as No. 2054615 which provisions are deemed to be incorporated herein in substitution for Memorandum V300574.
- 2. The provisions of filed Memorandum 2054615 shall be deemed to be incorporated in the said Mortgage and to the extent that any of these are inconsistent with any of the provisions of the said Mortgage the provisions of the filed Memorandum shall take precedence.
- 3. All the provisions set forth in filed Memorandum Number Z054615 are deemed to be set out at length in this dealing and as such are fully binding and enforceable upon the parties whether or not any such provisions constitutes a covenant and whether or not it satisfies the requirements of Section 80A(1) of the Real Property Act 1900 as amended.
- 4. Clause Fourthly of Variation of Mortgage 2100357 is deleted and the following clause is substituted therefor:

"Fourthly - That after the expiration of twelve (12) months from 2 March 1993 the Mortgagor shall have the right to repay the whole (but not part) of the principal sum prior to the due date for repayment provided that the Mortgagor gives to the Mortgagee one (1) month prior written notice of its desire to discharge the Mortgage (specifying the precise date) and in consideration of the Mortgagee granting to the Mortgagor the right to repay the loan prior to the expiry of the term and as compensation to the Mortgagee for the loss of the net return to the Mortgagee from the loan for the remainder of the term calculated from the date of early repayment, the Mortgagor shall pay to the Mortgagee an early repayment fee being the greater of the following:

(a) One month's additional interest at the applicable rate; or

M Robson

NJC\285805 4 IM/SM

.Req:R609551 /Doc:DL I320011 /Rev:05-Sep-1997 /Sts:OK.OK /Prt:18-Sep-2006 14:04 /Pgs:ALL /Seq:4 of 5 Ref:PLAMBECK /Src:B



(b) An amount calculated in accordance with the following formula:

Early Repayment Fee = 
$$\underline{S} \times 0.5n$$
  
(l + i)

Where S is calculated in accordance with the following formula -

$$S = (e - i) x (yn)$$

Where:

i

- e = the interest rate applicable to the Mortgage at the date when early repayment is requested by the Mortgagor, expressed quarterly.
  - the rate of interest currently being charged by the Mortgagee (based upon the SWAP Rate plus a margin of two (2%) percent) on loans of the same or similar amounts at the date when the Mortgagor requests early repayment, expressed quarterly.
- y = the amount of the advance.
- n = the remaining term of the Mortgage expressed in quarters (which shall include parts thereof)."

We hereby certify this dealing to be correct for the purposes of the Real Property Act 1900.

SIGNED SEALED and DELIVERED by <u>PATRICIA EMLYN ROBSON</u> in the presence of:

PE Kohn

Witness

NUC1285805 5 IM/SM

Req:R60%551 /Doc:DL I320011 /Rev:05-Sep-1997 /Sts:OK.OK /Prt:18-Sep-2006 14:04 /Pgs:ALL /Seq:5 of 5 Ref:PLAMBECK /Src:B 

SIGNED SEALED and DELIVERED

.

by MURRAY LESLIE ROBSON in the presence of: m Robson JACOB MAMUTIL WIII : 9-NRMA, Sydney San franklinger ABSISTANT COMPANY SECRETARY OF THE CHIEF EXECUTIVE 1 , NAMA GINUP

}

NJC\285805 6 IM/SM

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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 34/777411

SEARCH DATE	TIME	EDITION NO	DATE
18/9/2006	2:00 PM	8	18/2/2000

LAND

LOT 34 IN DEPOSITED PLAN 777411 AT LIVERPOOL LOCAL GOVERNMENT AREA: LIVERPOOL PARISH OF ST LUKE COUNTY OF CUMBERLAND TITLE DIAGRAM: DP777411

FIRST SCHEDULE

EAGLE DEVELOPMENTS AUSTRALIA PTY LTD

(T U258947)

SECOND SCHEDULE (2 NOTIFICATIONS)

------

1. RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

2. 6577717 MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA

NOTATIONS

UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*

plambeck



**Ref:** 29



ACN: 093 398 611 ABN: 61 093 412 474

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Peter S. Hopley Pty Limited Legal Searchers

1 Boronia Avenue Mount Annan , NSW , 2567 Mobile: 0412 199 304 Fax 9233 4590 (Attn Box 29)

#### SUMMARY AS TO OWNERS.

Property: 13 Norfolk Street, Liverpool

Description: - Lots 1 & 2 D.P. 7541

24.10.1912 Lawrence Murphy (Land & Estate Agent)

Vol 2307 Fol 89

#### Search continued as regards Lot 1 D.P. 7541

28.04.1919	Andrew Douglas Wright (School Teacher)	Vol 2937 Fol 239
21.02.1922	Reginald Stewart Wright <i>(Clerk)</i> John Thurston Wright <i>(Clerk)</i> (We have not investiagted the Transmission Application)	Vol 2937 Fol 239
31.08.1928	Henry Oliver Bass Tite Biddle (Butcher)	Vol 2937 Fol 239
13.11.1936	# The Baptist Union of New South Wales # (Now Baptist Churches of New South Wales Property Trust)	F/I 1/7541

#### # Current Registered Proprietor

#### Search continued as regards Lot 2 D.P. 7541

28.04.1919	Mary Wright (Married Woman)	Vol 2937 Fol 238
22.04.1926	Reginald Stewart Wright (Clerk)	Vol 2937 Fol 238
31.08.1928	Henry Oliver Bass Tite Biddle (Butcher)	Vol 2937 Fol 238

ACN: 093 398 611 ABN: 61 093 412 474 Peter S. Hopley Pty Limited Legal Searchers

1 Boronia Avenue Mount Annan , NSW , 2567 Mobile: 0412 199 304 Fax 9233 4590 (Attn Box 29)

F/I 2/7541

13.11.1936

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•

# The Baptist Union of New South Wales # (Now Baptist Churches of New South Wales Property Trust)

#### # Current Registered Proprietor

email: grolly1@bigpond.net.au

ABN: 80 002 801 498 Level 10, 135 King Street, SYDNEY NSW 2000, AUSTRALIA \* DX654, SYDNEY Tel: (02) 9231 0122 Fax: (02) 9233 6411 www.legalstream.com.au An Approved LPI NSW Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE ------21/8/2006 4:50PM

FOLIO: 1/7541

-----

First Title(s): SEE PRIOR TITLE(S) Prior Title(s): VOL 2937 FOL 239

Recorded	Number	Type of Instrument	C.T. Issue
3/3/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
4/3/1992		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED

\*\*\* END OF SEARCH \*\*\*

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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 1/7541

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SEARCH DATE	TIME	EDITION NO	DATE
21/8/2006	4:50 PM	-	-

VOL 2937 FOL 239 IS THE CURRENT CERTIFICATE OF TITLE

### LAND

LOT 1 IN DEPOSITED PLAN 7541 LOCAL GOVERNMENT AREA: LIVERPOOL PARISH OF ST LUKE COUNTY OF CUMBERLAND TITLE DIAGRAM: DP7541

FIRST SCHEDULE

-----

BAPTIST CHURCHES OF NEW SOUTH WALES PROPERTY TRUST (R X474373)

SECOND SCHEDULE (1 NOTIFICATION)

1. RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

NOTATIONS

UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*

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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE -----21/8/2006 4:50PM

FOLIO: 2/7541

-----

First Title(s): SEE PRIOR TITLE(S) Prior Title(s): VOL 2937 FOL 238

Recorded	Number	Type of Instrument	C.T. Issue
3/3/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
4/3/1992		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED

\*\*\* END OF SEARCH \*\*\*

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ABN: 80 002 801 498 Level 10, 135 King Street, SYDNEY NSW 2000, AUSTRALIA \* DX654, SYDNEY Tel: (02) 9231 0122 Fax: (02) 9233 6411 www.legalstream.com.au An Approved LPI NSW Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 2/7541

-----

SEARCH DATE	TIME	EDITION NO	DATE
21/8/2006	4:50 PM	-	-

VOL 2937 FOL 238 IS THE CURRENT CERTIFICATE OF TITLE

### LAND

LOT 2 IN DEPOSITED PLAN 7541 LOCAL GOVERNMENT AREA: LIVERPOOL PARISH OF ST LUKE COUNTY OF CUMBERLAND TITLE DIAGRAM: DP7541

FIRST SCHEDULE

-----

BAPTIST CHURCHES OF NEW SOUTH WALES PROPERTY TRUST (R X474373)

SECOND SCHEDULE (1 NOTIFICATION)

1. RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

NOTATIONS ------UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*

plambeck



# Líverpool Baptíst Church

# Centenary

# October , 2005.

"Looking back with thanksgiving, Looking forward in confidence."

### THE LIVERPOOL BAPTIST CHURCH STORY.

"So you come from Liverpool Baptist, eh? They're a pretty rough mob over there!" I had just finished conducting a Sunday morning worship service at a church some 10 kilometres from Liverpool, and was shaking hands with people at the door. The small, wizened, elderly man who made the comment had stood back waiting until other members of the congregation had dispersed so he could speak with me uninterrupted. He certainly had my attention!

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"Why do you say that?" I asked.

He then told me his story. His grandfather had been a deacon at Liverpool Baptist Church "many years ago".

One Saturday afternoon they were having a church picnic down by the Georges River. Some of the ladies decided to take a walk along the river bank. Inside the fence of a farm, they noticed some flowers growing and decided to pick some. Careful not to damage their long dresses, they climbed through the fence, picked the flowers and had just climbed back through the fence when the farmer appeared on the scene. He did not appreciate the ladies picking his flowers and proceeded to tell them so, unleashing some very colourful language.

These genteel ladies were shocked, and with flushed faces hurried back to report the incident and the unseemly behaviour of the farmer to the menfolk. A hastily convened "deacon's meeting" was conducted and the men decided to pay the farmer a visit to advise him as to how he should conduct himself in the presence of ladies.

The farmer, however, was not in a mood to be lectured and unleashed the same colourful language on the men, who decided the farmer needed to be taught a lesson. Picking him up, they carried him bodily to the river's edge and threw him into the water!

The story didn't end there, however, for about a week later the deacons were served a summons to appear in court to answer for the "justice" they had meted out to the farmer! "It's all true," said the man before me, "and I still have a copy of that summons!"

Well, you might say that those early deacons were rather impetuous, and they may have acted rather hastily without due consideration for the consequences of their actions, but you have to admit, **they were men of action**!

In looking back over the church records, this word epitomises the last 100 years of the work and ministry of the Liverpool Baptist Church. **Action!** Not content to just sit within the four walls of their church each Sunday for private worship services, the members of the church have been active in using every means and every opportunity to reach out into the community with the life-giving message of the Gospel of the Lord Jesus Christ.

But the history of the Liverpool Baptist Church is also one of overcoming immense difficulties and obstacles. It is one of being knocked down only to rise again. It has been a fascinating experience for me, over many months, to read of our predecessors and of their experiences. It is the story of commitment by people who were "sold out" to God, people who were faithful to Him when numbers were large and when numbers were small. It is the story of how people came to know Christ as their Saviour, were baptised and then became an integral part of the life and ministry of the church, serving Christ with all they had to offer.

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There have been times when my eyes became moistened with tears and I got a "lump in my throat" as I read of the hardships these people went through, and there are times when I have laughed out loud, for Christians have their own unique sense of humour and the members of the Liverpool Baptist Church were not lacking in this commodity as they shared fun and fellowship together.

In presenting this story, I have not approached it as a scholarly work (obviously), but as a contemporary history, just letting the story flow without undue emphasis on names and dates, although these are well documented, so that the story of God's people and God's faithfulness shine through.

Obviously, there have at times been discrepancies in the different records. No two people see an event in the same way. I have recorded what seemed to me the most likely.

It is now a little over 21 years since Rita and I first came to Liverpool Baptist Church. Moving into the area with our small family, we were searching for a church where the Word of God was faithfully proclaimed, where there were opportunities for good fellowship, where there were activities where our children could be nurtured, and where there were opportunities for service. I had already visited two other churches that did not contain what I was looking for. Then, one Sunday night I came to Liverpool Baptist. Ron Briggs that night preached a fine sermon, and after the service invited me to the manse for supper, with his wife Pam, Duncan Ross and Ted Penney (who I had known previously because of our interest in missions). I asked a lot of questions about the church and received answers that convinced me that this church would become our new spiritual home. What I discovered has been the experience of many people over the past 100 years, and this booklet tells some of that story.

But it is also the story of God's great faithfulness to His people over the past 100 years. **To-day we look back with thanksgiving and we look forward in confidence!** 

> John Keane. October, 2005.



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It was in the late Spring of November 1810 that Governor Lachlan Macquarie rode his horse through the dense bushland beside the Georges River to select the site for a new town. That town, Liverpool, became the first of the Macquarie towns founded as a regional centre for farming and convict administration and the fourth oldest proclaimed town in Australia.

Its Aboriginal owners, the members of the Cabrogal clan of the Darug Tribe, tried unsuccessfully to resist these intrusions into the heartland of the Cumberland Plain. The settlement of the district rolled inexorably onward, with thousands of convict men and women labouring on the roads and public buildings that were planned to tame this pioneer settlement.

By 1828 Liverpool was the premier agricultural area in the colony, with its ex-convict farmers producing crops on their small river flat blocks and the colonial blue bloods with their large grazing properties.

In the early 1830's Joseph Hoskins and his wife arrived in the colony and set up a shop in the now thriving town of Liverpool. They instigated regular worship services for a Baptist congregation of some 40 to 80 people in the courthouse under the leadership of Samuel Hewlett and John Walters. It appears, however, that when these two men moved on in 1844, the congregation disbanded.

Sixty years passed, and then in 1904, services began again, this time in the home of a Mr. and Mrs. Sindel who lived above their drapery shop in Macquarie Street, Liverpool.

As the congregation increased, the meetings were relocated to the Liverpool Town Hall. One of the foundation members, Mrs. Rouse recalled the first baptismal service of three young men at the Town Hall. A tank was built by one of the church members and placed at the front of the platform, water to fill the tank being brought from the nearby Georges River. The Town Hall was filled to capacity as people crowded in to witness this strange new ritual of these "Baptists". Four burly policemen stood at the rear of the hall, as this was something quite new to the town and they were ready for any trouble that may occur.

The foundation stone for a church was laid in December, 1905, 100 years ago this year.

The Liverpool Herald records the official opening of the church, built by local people, in March, 1906, only three months later. How they must have worked! A "tea meeting and social" were included in the opening celebrations.

The next ten years were a period of much blessing and saw quick growth of the church. Many came to know Christ as their Saviour and were then baptised. Some of these people were well known identities in the district, and this resulted in publicity in the local press. The regular morning congregation numbered between 70 and 80 and the evening congregation between 200 and 250.

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There was also wide outreach into the community. Mr. Sindel, together with a Mr. Wearne, who had a wood and coal yard next to the church, conducted a meeting at the Old Men's Home each Sunday afternoon for up to 200 men.

Members also rode their bicycles to the outlying areas to conduct services at Canley Vale, in the school building at Hoxton Park and the West Hoxton Union Church, to-day an outreach ministry of the Liverpool Baptist Church.

In the years prior to World War 1, the population of Liverpool had remained constant at around 4000, but the coming of the war changed all that. On 4<sup>th</sup>. August, 1914, England declared war on Germany, and Australia was included. One of the main military camps was established at Liverpool, and the population increased rapidly. Liverpool Council was overjoyed to host a visit from Lord Kitchener, and entertainment celebrations were as lavish as Liverpool could manage.

The newcomers, however were not of the same nature as the existing residents. Many of the soldiers went overseas to fight and became heroes, bringing credit to Australia, however, this period saw many young men in uniform, walking the streets on leave, seeking a "good time" before embarking on overseas duty. Some sought solace by attending local churches, but local history records drunken soldiers running riot through the town. This left an indelible mark on the town and contributed, to a certain extent, to the decline of the church.

Unfortunately, internal dissentions arose within the church and after efforts to resolve the issues proved in vain, services ceased in 1920. With the church building falling into a state of disrepair through lack of use and as there was money owing to the Trust Funds, the Home Mission Society sold the building for three hundred and sixty pounds.

A number of attempts were made over the ensuing years to recommence the work, but they were unsuccessful.

It was nine years before the work was recommenced. On 7<sup>th</sup>. July, 1929, a group of Baptists working with the "Flying Squadron", an outreach arm of the Christian Endeavour Movement, commenced a Sunday School in what was now known as the "Protestant Hall", which had been the former Baptist Church.

During the period from 1909 to 1914, members of the former Liverpool Baptist Church had provided speakers and had assisted in the formation of the Ingleburn Baptist Church. Now the Ingleburn Baptist Church, that had had a burden for Liverpool for some time, reciprocated by forming the **Liverpool Baptist Mission**, an outreach ministry of the Ingleburn Baptist Church.

Then at a meeting convened on 19<sup>th</sup>. July, 1931, assistance was provided by Auburn Baptist Church, with two young men being appointed "Honorary Co-Joint Evangelists of the Mission". The minister of the Auburn Baptist Church presented a recommended program for Liverpool which provided a busy time for these young men. Christian Endeavour at 10.00 a.m. on Sunday morning was followed by Morning Worship at 11.00 a.m. Open Air Meetings around the streets during the afternoon were preceded by a 15 minute prayer meeting. The Evening Service would commence with a Praise Service at 7.00 p.m.

One day a week would be spent providing "Religious Instruction" at the local Public Schools, followed by visitation of the parents of the Sunday School "scholars" and then a mid-week meeting for Prayer and Bible Study concluded the day.

A "Back to Christ Revival" would be organised for the month of August.

In September a fire broke out in the kitchen of the Protestant Hall, rendering the Hall unfit for worship and the following Sunday the Baptists combined with the Methodists in their church for the Morning Worship service and for Sunday School. The evening service was held in the local "Picture Theatre".

The Liverpool Baptist Mission then met with the Secretary of the Seventh Day Adventist Church, resulting in renting their property at Campbelltown Road (now the Hume Highway) near the Ice Works, at a cost of seven shillings and sixpence per week.

These events seemed to have had no detrimental effect on the work and ministry of the church. Baptisms were held at the Auburn Baptist Church, a Ladies Dorcas Society was formed in 1932 (later to become the Ladies' Guild, then "Homemakers" and known to-day as "L.E.F." – Ladies' Evening Fellowship), Baptist Hymnals were purchased for use by the congregation in June, 1933 and the congregation began to regard itself as a **Baptist Church**.

A building fund was launched, and the congregation began to seriously look for a suitable block of land upon which to build a church. A Men's Meeting was commenced in November, 1933. Then on 14<sup>th</sup>. May, 1934 the church began meeting once again in the rebuilt Protestant Hall. With renewed optimism, on 23<sup>rd</sup>, May, 1935, the church decided to investigate the possibility of obtaining a loan for their new church. In December 1935, the church once again began to send members to conduct church services at West Hoxton Union Church, at Hoxton Park and at Hillview in 1936, commencing with a Mother's Day service.

Over the past few years the work of the Liverpool Baptist Mission had grown stronger and at a special meeting held in the Protestant Hall on 16<sup>th</sup>. August, 1936, **the Liverpool Baptist Church was reformed.** 

It was also decided to purchase land known as lots 1 and 2 on the corner of Norfolk and Castlereagh Streets for seventy pounds. Work began on the new church building and it was officially opened on Saturday 3<sup>rd</sup>. April, 1937 at 3,30 p.m. the dedicatory address being brought by Rev. R.S. Pickup. This was followed by a fellowship tea and the speaker at the evening service was Rev. G.H. Morling – both of these men are legends in the history of Baptist work in Sydney. Such was the enthusiasm to attend the new church that a service was held every evening during the next week with a different speaker each night. This enthusiasm, however, was short lived. Over the next year student pastors filled the pulpit, together with visiting speakers. Some were good, some were not and sometimes the appointed speaker didn't arrive at all and a prayer meeting was held instead.

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For the second time in the history of the Liverpool Baptist Church, the church began to really struggle. Loss of leadership through families moving out of the district and a general falling off in attendance placed the church under extreme pressure. Attendance was sometimes only three members and on several occasions, no one at all. With no further appointments from the Home Mission Society being possible, in 1938 Mr. Fred Rames was appointed honorary pastor. Fred and his wife, Ethel, provided valuable leadership over the next thirty years, serving at various times as Pastor, Secretary, Treasurer, Deacon and Sunday School Superintendent. Mr. Rames would pick children up for Sunday School, cramming them into his "Essex" sedan, and Sunday School numbers increased to between 60 and 70 children.

September 3<sup>rd</sup>. 1939. Prime Minister Robert Menzies : "Fellow Australians, it is my melancholy duty to inform you officially that, in consequence of a persistence by Germany in her invasion of Poland, Great Britain has declared war upon her, and that, as a result, Australia is also at war".

Once again the youth of the land were asked to fight for their country. The camp this time was not only at Liverpool, but also at Ingleburn, and again young soldiers spent their leave nights in Liverpool. Pastor Rames was called up for active service and the next honorary pastor hardly had time to settle in before he too was called up to join the Air Force. Lay preachers filled the pulpit during these dark days in our country's history. Each day brought news of more of our young men and women being killed on far flung battle fields of the world, far from home, to keep our country free. Pastors came and left in quick succession during the next few years, adding to the instability of the church. The church was not exempt from the general cloud of gloom that hung over our country and our city.

The war ended and the country, and the church, began to reconstruct itself and try to discover its identity once again. There is no record of church business meetings from late 1944 to mid 1948, however we do know that Liverpool Baptist continued to conduct a service once a month at the West Hoxton Union Church, and that during that time another church asked to be taken off the roster so Liverpool Baptist agreed to conduct two services a month.

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In 1948, Mr. Colin Wilson was appointed Church Secretary and held that position for the next 15 years. In 1957, on the occasion of the  $21^{st}$ . Anniversary of the re-formation of the Liverpool Baptist Church he published what is fondly referred to as "The Blue Book" – a History of the Liverpool Baptist Church, a source of some of the information in this booklet.

In October 1948 Mrs. Sindell, who with her husband, had began the Baptist work in Liverpool back in 1904, passed away. She is just one example of the dedication of many of God's people down through the years. It is recorded of her this way "Mrs. Sindell was always devoted in her attendance at the church, and in various times occupied the positions of organist, leader of the Ladies' Guild, Secretary and Superintendent of the Sunday School. In the period when she and her husband moved away from Liverpool (before returning at a later date) she commenced a Sunday School at Macquarie Fields which developed into the Macquarie Fields Baptist Church". The history of the Liverpool Baptist Church contains the story of many such people like Mrs. Sindell – people who loved the Lord and were committed to serving Him unstintingly in whatever capacity they could, dedicating to Him the talents and abilities that He had given them. A communion table was dedicated in her honour.

The first annual report appears in the minute book in 1949. It records 31 members on the roll and the church debts were slowly being reduced. The local Methodist minister had contacted the church and asked if he could take one of the services at the West Hoxton Union Church. The minister was referred to the trustees of the West Hoxton Church, who declined his offer, stating that "the Baptist Church had carried on the work when other churches wouldn't help, and they did not think a change would benefit".

1950 arrived, and was again an unsettling period for the church. Some church members had moved away, some passed away, pastors stayed for very short times and monthly appointments by first year students as determined by the Department of Home Mission resulted in some difficulties in stability and growth, with some members becoming very irregular in church attendance.

During this time the following letter was sent out. I enclose it in its entirety as it gives an insightful picture of the church at that time

### "Dear Member,

We as a church thought we would drop you a line and let you know how much we miss you from our meetings. We often think of the past years when we had happy fellowship one with the other in the Lord's House. David at one time in his life said "I was glad when they said unto me, let us go into the House of the Lord". If this spirit of worship would only permeate all of us, I do believe that we would be much happier in our Christian life as in our Church life.

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We do miss you and would love to have you back with us so as together we may prosper in the Lord's work at Liverpool. On the social side of the work, we have already commenced in the School Hall a Social Evening on the second Saturday evening at 7.45 each month and with games and jollity during the evening and over a cup of tea at the end, we often renew again fellowship of

yesteryears and would gladly ask you to these evenings and help us in this way to stimulate interest in the young people.

I think that you will agree that much can be done to strengthen the Lord's work in this place by a united effort, but nothing can be done with empty seats. We therefore appeal to you to come again and occupy that seat and join in the grand offensive for the Saviour and we will be sure that God will bless our united efforts. Yours in Christ Jesus."

Perhaps the letter bore fruit, for in 1951, it is recorded that as a good number of young people were now attending the church, a Christian Endeavour Society would be formed. This resulted in a greater number of the young people attending the evening services. The annual report for 1952 records fourteen young people becoming Christians and seven of these being baptised during the year.

Prayer meetings are noted as being well attended and "inspired".

In 1953, a student pastor, Mr. D. Moore was appointed and he and Fred Rames began a Men's Meeting which was highly effective in reaching men outside the church for Christ. It was not uncommon for men arrested that week by the local police to be present at these meetings at the invitation of Fred Rames who had charged them. At its first annual meeting held in 1954, the legendary Baptist evangelist Rev. John G. Ridley addressed 120 men in the afternoon and a congregation of 130 in the evening. "At these meetings many openly confessed the Lord Jesus Christ as their own personal Saviour".

Things were starting to really happen, and the church was entering a new period of growth.

In 1954 it was decided to purchase a second hand bus for the use of the Sunday School at a cost of three hundred and fifty pounds. The events surrounding this purchase are interesting. A church member was prepared to give the church three hundred pounds in bonds which he possessed and the church was to repay him on a regular basis. However, after the bus was purchased it was discovered that the bonds were not as valuable as at first thought and there was a short fall. A former member of the church, upon hearing about the church's predicament, sold his car for which he had no further use, and gave the proceeds to the church towards the purchase of the bus. The Christian Endeavourers "ducoed" (painted) the bus, the signwriting was carried out by another church member, and seats were purchased and installed. The man who had given the church undertook to "have him decently buried and to undertake all arrangements at his decease". The Sunday School Superintendent became first the bus driver, and so the bus was put into service.



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The Sunday School grew rapidly as a result of the purchase of the bus, so much so that the church couldn't accommodate the numbers and nearby church member's homes had to be used for classes for the over-flow.

More people, however, resulted in more noise around the church.

It is duly recorded at this time, that "owing to unnecessary noise after our evening services, which was giving great concern, the pastor recommended that after the benediction, the whole congregation resume their seats for a moment of quiet prayer and meditation and then proceed quietly out of the building". This apparently achieved the desired result.

Church numbers exceeded the available seating, so chairs had to be transported from the Town Hall (free of charge) to accommodate the swelling numbers.

The church now gave consideration to extensions for the hall and the purchase of an unfinished house on the corner of Bourke and Castlereagh Streets for use as a manse. A Youth Council was formed to co-ordinate the youth work of the church which now included Christian Endeavour, Sunday School, Senior Girls' Missionary Union and Young Men's Missionary League.

Student pastor, R. Burton, pastored the church in 1955. It is recorded that at his farewell, as he was a bachelor and would need to maintain a manse at his next appointment, the Ladies Auxiliary presented him with "a griddle iron, a common sense cook book and a bottle of indigestion powder". Church humour comes through again!

The appointment of a married student in 1956 to pastor the church was anticipated with great excitement, and the church members set about completing the unfinished house across the street (where the flats are now) as a manse for their new pastor, Mr. Mike Dennis, who recalls "Liverpool was a vibrant caring church with a great vision, gained, I think, from the lay leadership of those days."

Mr. Colin Wilson records "It was a thrill to commence this work, and the men entered into the project with great enthusiasm. In the summer months we commenced at 6.00 a.m. perhaps to the annoyance of those who wanted a "sleep in" and sometimes finished many of the little jobs at about 7.45 p.m. by the aid of car headlights. The work went on steadily each Saturday without a break. We were wonderfully led of God in this project. The work progressed in all sorts of weather and if the men had belonged to any other union than the Baptist Union, they may well have gone on strike".

The work took eleven months to complete.

Whilst the manse was under construction, and before the new pastor had arrived, Mr. & Mrs. Dennis called by to have a look at the church one Saturday. Seeing the men working on the building across the street, Mike went over to introduce himself. Col Wilson, working inside the house, overheard. During the previous night, some homeless men had spent the night inside the unfinished building. They had left behind some empty wine bottles and some full unopened ones as well. Col Wilson, with a twinkle in his eye walked outside with the bottles of wine, pretending to be unaware of the presence of the new pastor. "Look what I've found, boys. This is really good stuff. I reckon we should raffle it off and the proceeds go to the church building fund. What do you fellows reckon?" Everybody readily agreed. Mr. Dennis wondered just what he was walking into at Liverpool Baptist Church.

Mr. Dennis also recalls the official opening of the manse this way: "The opening of the manse was filled with joy and laughter. The laughter, in part, coming from the fact that, on throwing open the door, Rev. Clatworthy was confronted by a large Mobil gas sign secretly placed there by Nic Bocking, a church member who owned the Crossroads Garage at that time, and who for some weeks had promised to "get a word in" for his business at the official opening. Hon. E. G. Whitlam, M.H.R. (later to become Prime Minister) spoke at the opening and surprised the 300 strong crowd with his knowledge of the early history of the Baptist Church. Mr. Whitlam had expedited the connection of a phone at the manse (Phone No. UB 8432).

A steel framed garage was also erected on the site to garage the church bus, the pastor's car, and to provide a small workshop. To ensure the garage was the correct height for the bus, Colin Wilson asked the driver to measure the overall height. He did so, then added 2'-0" to it for "clearance" and passed in on to another worker. He looked at the measurement, assumed it was the height of the bus and added on another 2'-0" "for clearance" and passed the measurement on to Colin Wilson. Colin looked at the measurement, assumed it was the height of the bus and once again added on another 2'-0" "for clearance". Believe it or not! Gordon Shaw commented that the garage was so high that you could have stood two buses on top of each other inside it, or used it to house a giraffe from Taronga Park Zoo!

When the garage was almost finished, one of the men was working on the roof. The fibro could not hold his weight and he came crashing through to the floor beneath. Fortunately he wasn't injured, but he always maintained that he was the first to officially open the garage – he opened the roof up and let the sunlight in.

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Colin Wilson also recalls an interesting challenge put before the people at this time. A missionary had spoken at the evening service and the entire offering for the day was given to him for his work in Pakistan. The church decided that the entire offering on the last Sunday in June each year would henceforth be given to missionary work. However one year the church's funds were low and so the deacons moved a motion that "for this year we cannot give our offering as usual". This motion was almost voted on, when one deacon asked why they were changing something previously agreed to and asked the question "has <u>God</u> changed?" The deacons took up the challenge to give the offering to missions as previously done, in faith, and the motion did not proceed. The offering the following week was more than doubled! Colin comments "God is always true to His Word".

There were some interesting events relating to church services at about this time.

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An kindly gentleman in his eighties, who walked to church every week from his home at The Crossroads, came across a mouse "on its last legs" one Sunday morning before church. He took pity on the little rodent, and stated "it is still one of God's creatures" so placed it in the pocket of his suit coat. The warmth obviously revived the little fellow, who climbed out of the gentleman's pocket, ran up his sleeve, and began running across the back of his shoulders, stopping every now and then to look around, while the gentleman was quite oblivious to its presence (probably engrossed in the sermon). In the row behind him were a number of girls and ladies. Need I say more?

Then there was the church member who objected to the "noise" in the sanctuary before services, as people greeted each other and caught up on the week's events. He placed an alarm clock with an exceedingly loud alarm bell behind the pulpit, set to go off 3 minutes before the service began. The alarm obviously stunned everybody, who stopped their talking....for about one minute after the alarm went off....then continued as previously.

Then there was the madam of a brothel in Warwick Farm who, together with her husband, was wonderfully converted. These were totally "unchurched" people at a time when people "dressed up" to go to church. No lady would be seen in church without her best dress, shoes, hat, and gloves, nor any man without his suit and tie. The first Sunday this couple arrived at church caused quite a stir, as he came in shorts, t-shirt and sandals, and she, similarly dressed. Mr. Dennis paid pastoral visits on this lady, who, although she had closed her brothel, still had a "reputation" attached to her. Pastor Dennis was reluctant to visit without another lady from the church, but most were not too keen to be seen visiting this lady, and as Mrs. Dennis was very pregnant at the time, Mr. Dennis, when he paid pastoral visits, would sit on a chair wedged in the open doorway so he could be seen from the street at all times. Nevertheless, he had a wonderful pastoral ministry to this couple.

of the LIVERPOOL BAPTIST CHURCH cordially invite to the Official Opening and Dedication of the CHILDREN'S REST AND PLAY CENTRE 117 Castlereagh Street, Liverpool on Saturday, 28th February, 1959 at 3.15 p.m. The Nursery  $\bigcirc$ will be officially opened by Miss Du'cie Oldfield, L.th., M.R.E. Assistant Youth Director (If wet, the Service will be held in the Church) \* COMBINED THANKSGIVING AND ORDER OF SERVICE FAMILY FELLOWSHIP EVENING

THE PASTOR, OFFICERS AND MEMBERS

(Bring the Family) Welcome to Visitors: Conducted and arranged by Hymn: Rev. B. H. THITCHENER Bible Reading .... Mr. B. A. KING, Secretary Baptist Union of N.S.W. (Youth Director, Baptist Christian Education Council) Statement by Church Treasurer .... .... .... Mr. A. WILSON. . . Commencing at 7.15 p.m. Greatings: Hon. A. G. WHITLAM, M.H.R. FILM: "This Way to Heaven" Hon. J. MANNIX, M.L.A. His Worship the Mayor, Ald R. DUNBIER Thanksgiving Offering for Nursery Rev. C. H. GRAY, President Elect, Baptist Union of N.S.W. Local Churches: Rev. J. A. ROSS, C. of E. Mr. WINSTON MUSCIO, Musical Director of B.Y.C., will be rendering Hymn: a Musical Interlude between Tea and the Service Dedication Address-Rev. A. J. L. NEATE, Director Religious Education, Ashfield Male Quartette. Presentation of Key .... .... .... .... .... Mr. F. RAMES Prayer of Dedication .... ... ... .... .... Rev. C. H. GRAY SUNDAY, 1st MARCH IS THE COMMENCEMENT OF OUR Doxology. ALL AGE SUNDAY SCHOOL . Q NATIONAL ANTHEM - YOU ARE WELCOME -BUFFET TEA: 5.16 p.m.

"DON'T SEND YOUR 'KIDS' TO SUNDAY SCHOOL - GET OUT OF BED AND TAKE THEM!" -----

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Mr. and Mrs. Dennis pastored the church for a period of two years, during which the congregation increased significantly. Mr. Dennis recalls conducting services at West Hoxton Union Church 3 out of 4 weeks each month on a Sunday afternoon with many of the congregation then coming in to the evening service at Liverpool Baptist.

Colin Wilson once wrote in a letter "In the early years of the work at West Hoxton, the ministers and pastors of Liverpool Baptist were loyal to the work at West Hoxton, as that church met in the afternoon. As it was a Union Church, there wasn't an over emphasis on denominations, but through the brighter services of the Baptists, many of the people told me that if they ever moved from the district, they would find a Baptist church to attend. This was borne out in later years as my wife and I traced people moving from the district, who had attended the church, and found that they <u>did</u> find their way to Baptist churches, many becoming members. In fact we could find 45 people who became Baptists while we were there."

Now the church was ready to seek out an ordained pastor.

After careful consideration, an invitation was extended to Rev. Max Wynn, who accepted and commenced his ministry 1<sup>st</sup>. February, 1958. The church continued to grow under this man's ministry. An open air Sunday School at Hargrave Park (now Warwick Farm) had an average of 90 children attending each week. An approach was made to the Housing Commission for consideration of a block of land upon which to build a church hall in the area, but nothing eventuated.

In May, 1958 the Boys' Brigade was commenced (86<sup>th</sup>. N.S.W. Liverpool) and shortly thereafter, a Girls' Brigade (85<sup>th</sup>. N.S.W. Liverpool). Mrs. Wynn's "Homemakers" group (now L.E.F.) regularly had 49 ladies in attendance.

In November, 1958, a Nursery Building was commenced at the rear of the Manse. Its purpose was to provide a centre capable of caring for children aged from birth to 3 years of age to enable the parents to attend the All Age Sunday School and church service. Mrs. Wynn would be in charge, and a double certificate nurse as well as a trained kindergarten worker would be on duty. The "Children's Rest and Play Area" was officially opened on Saturday 28<sup>th</sup>. February, 1959. At the bottom of the official Order of Service was printed "Don't send your kids to Sunday School – get out of bed and take them". This message obviously worked, for when the All Age Sunday School commenced on the next Sunday, a total of 121 adults were in attendance.

A "Deeper Life" mission was conducted with an average of 56 people attending each night. The church was alive and growing, and ready to be fully involved in the 1959 Billy Graham Crusade at Sydney Showground. Members caught the vision that this was something to be wholehearted about in their support. There were Prayer Meetings and Counselling Classes held in preparation. This was something Sydney had never seen before. There was excited anticipation at Liverpool Baptist Church. The church became involved in providing accommodation for country visitors and buses were hired to take people to the meetings. AN INVITATION IS EXTENDED TO YOU

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from the

# LIVERPOOL BAPTIST CHURCH

to the

# OFFICIAL OPENING

of the

(First Stage of Religious Education Centre)

# GRACE BEARD WAR MEMORIAL HALL

on

Saturday, 26th May, 1962

at 3.00 p.m.

The Hall will be officially opened by Rev. J. B. WILSON, L.Th. President Baptist Union of New South Wales

Remember thy Creator in the days of thy youth-Ecc. 12:1

Order of Service

Chairman	 Rev.	Α.	м.	WYNN
Inspection of G.L.B., B.B. and L.B.				

Welcome to Visitors.

Hymn	"Praise My Soul"
Praver	Chairman
Presentation of Key	Mr. A. GALL
Official Opening	Rev. J. B. WILSON
Unveiling of Plaque	. Mrs. E. CLIFFORD

IN THE HALL:

bairman		Rev	, J. B	WILSON
cripture Reading	1	Dr. E. ROE	ERTS-1	HOMSON,
		(Principa	itqe8	st College)
Purpose of Hall Mr.	F. RAIMES	, (A.A.S.S.	Supe	rintendent)
Sola			Mrs	. A. SMITH
Statement by Church Treas	urer		. Mr. 4	A. WILSON

Greetings:

- The Hon. E. G. WHITLAM, M.H.R. (Deputy Leader of the Opposition).
- The Hon. J. MANNIX, M.L.A. (Minister of Justice).
- His Worship, The Mayor, Ald. R. A. DUNBIER.
- Baptist Union of New South Wales. Rev. J. B. WILSON. Local Churches.
- Hymn and Thanksgiving Offering.
- Dedication Address: Rev. A. C. PRIOR (Australian Vice President Baptist World Alliance).
- Prayer of Dedication: Rev. K. EVANS (Director of Religious Education----Ashfield Baptist Church).
- Doxology.

BUFFET TEA: 5.15 p.m.

## SATURDAY EVENING:

# Combined Thanksgiving Service and 26th Church Anniversary

.15 p.m. FILM.
.00 p.m.
Programme arranged by:
"THE VOICE OF THE BAPTIST CHOIR"
Conductor
Organist Mr. GORDON COLLIDGE
Pianist Miss JUDY JAMIESON
(Duplicated copies of the Secretary's and Treasurer's Annual Reports will be available at this meeting)
SUNDAY
11 a.m.:
Guest Speaker Dr. E. ROBERTS-THOMSON. (Principal Baptist Theological College).
7 p.m.:

Guest Speaker ..... Rev. N. B. KERSLAKE, A.A.S.A. (Director Christian Education)

All gifts of £1 and upwards to the Hall Fund are deductable for Income Tax purposes).

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Many came to know Christ as their Saviour, and the church received 49 contacts to follow

up. A mission later in the year resulted in more coming to Christ and the church had a huge number of new Christians to nurture.

The church entered the 1960's with high expectations. Serious consideration was given to the erection of a Youth Hall. Finance was raised from a bank loan, but was insufficient so it was deemed that it was not the Lord's time just yet. The 23<sup>rd</sup>. Annual Report of April 1960 reported 15 baptisms for the year, and another evangelistic mission, conducted this time by Dr. E.H. Watson (who compared the weekly Sydney radio program "The Voice of the Baptists") was the speaker. There were 171 people who responded to the invitation to become Christians!

All of the church organizations were in an extremely healthy condition. A second bus, donated by the Ashfield Baptist Church, had begun to run out of Mount Pritchard which increased the Sunday School numbers to over 300. There were 60 boys in Section two of the Boys' Brigade and 76 girls attending Girls' Brigade. Now a church hall was desperately needed. Stage 1 of the project ("The Christian Education Centre") saw the official opening of the "Grace Beard War Memorial Hall" opened on 26<sup>th</sup>. May, 1962. This coincided with the Church's 26<sup>th</sup> Anniversary, and a Combined Thanksgiving Service was held on the Saturday evening, following a buffet tea.

The plaque on the wall reads that Mrs. Beard's son was killed in action in World War 1 and reads in part that it is dedicated to "the men who passed through this church during World Wars 1 and 2 and who paid the supreme sacrifice".

Just who was Grace Beard? She was another of the many faithful servants of God and prayer warriors who have left an indelible impression on the work and ministry of the Liverpool Baptist Church. She came into membership in late 1935, later became slightly deaf and then blind and at that time the church prayer meetings were transferred to her home. It is recorded of her in this way:

"Mrs. Beard was truly a saint of God, and her example in attending the House of God, Whom she loved dearly, was one that a greater number could emulate. She was busy in the work until sickness prevented her from attending as much as she desired. Her prayer interest in the church never waned. A remarkable thing about her, even in her blindness, was that she got to know the voices of the young people as they spoke to her over her "mike". Though not seeing them, if a person was missing from the prayer meeting she would immediately enquire about them. She prayed for the church, the pastor, and each person of the church, and, I believe, as the fervent effectual prayer of a righteous man availeth much, much of the progress of our church is the answer God has given to this praying and believing person. In June 1954 God graciously released her from this life at the grand old age of 93. Many will remember her and their influence throughout their life." (Colin Wilson). In 1962 the Housing Commission approached the Baptist Union regarding the provision of land in the Green Valley Housing Development for the establishment of a church in the area. Pastor Wynn was asked to visit the area to confirm a suitable location for a church. This eventually became the Miller Baptist Church over which the Liverpool Baptist Church had oversight for many years. In addition to this, the Milperra Bridge Baptist mission sought assistance from Mr. Wynn to service their pulpit and give them guidance in their work. This request was declined by the deacons, who by this time were quite overwhelmed by the rapid growth and expansion of the Baptist work in the whole area, centred in the Liverpool Baptist Church, however several years later they took up the challenge.

It is unclear whether the immense task contributed to the declining health of the pastor or not, but Mr. Wynn experienced deterioration of his health which reduced his ministry to a part time ministry, owing to considerable time out for hospital treatment. Eventually Mr. Wynn submitted his resignation, to take effect on the last Sunday in April, 1963. The next month a call was issued to Rev. A. Neate, who was at that time the pastor of the Broken Hill Baptist Church, and he commenced on 1<sup>st</sup>. September, 1963.

Mr. Neate was immediately thrust into the development and co-ordination of the Green Valley Project. Rev. Ian Spencer was appointed as the pastor of the Green Valley Church when it was ready to commence, but in the meanwhile would be seconded to Liverpool Baptist to use the Liverpool church as a base. The two congregations met at Liverpool Baptist. The Green Valley Church was completed in 1965 and the congregation moved in, leaving Liverpool to concentrate on other areas of need.

The membership of the church now stood at 135, and the church appointed a full time deaconess, Miss Wendy Townsend (later to become Mrs. Wendy Smith), whose ministry included two days a week assisting in the Green Valley work. The church began to reach out further into the surrounding areas, and began conducting services twice a month at Catherine Fields. Another approach was made by the Milperra Bridge Baptist Mission, resulting in Liverpool Baptist Church accepting oversight and providing a young man, Ray Case, to assist in the pastoral visitation at Milperra. The church began to take an interest in the Moorebank area, and by the end of 1967 had agreed to purchase three allotments in Renton Avenue, Moorebank, this, however, did not eventuate.

After a ministry of five years, in 1968 Mr. Neate submitted his resignation and the pastoral search committee began reviewing forty names before them as a suitable replacement. Mr. Terry Willersdorf was appointed as an interim pastor for 1969, and then a call was issued to Rev. Bill Britza, at that time in Western Australia, who accepted and commenced in 1970.

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Mr. and Mrs Britza had six children, so, because of the need to do extensive renovations to the manse, it was agreed to sell the corner site to a developer and to purchase a house in Norfolk Street close to the church (where Eagle Homes are now located). This was accomplished before the Britza family arrived, so they were able to move straight in to No. 7 Norfolk Street. The bus shed was dismantled and removed from the Bourke Street site and re-positioned (after being reduced in height) at the rear of the new manse property. The membership had fallen to 89, but the youth work was vibrant and healthy, reaching to over 80 in numbers during Bill's ministry.

The church had always had a strong evangelistic emphasis, having been involved in the 1964 Missouri Australia Crusade, the 1967 Pan Australia Crusade, and others mentioned elsewhere. Then in 1970, after Mr. Britza arrived, a crusade was held that was to be long remembered. The original speaker took ill and Norm Harris, another legendary Sydney evangelist, became the speaker. Gordon Shaw recalls it as "being something you only read about in books. The church experienced a mini revival." On the final night of the crusade Mr. Harris made an appeal for Christians to "get right with God". The next 1½ hours saw people in tears confessing their sin and being counselled. One lady counselled another, then with a role reversal, the one who had been the counsellor was counselled by the one she had just counselled. The Spirit of God was at work among God's people as they truly did get right with God. The result was that the church grew, not by transfers, but by people coming to know Christ, being baptised and then being received into membership.

Three sisters gave the church a two acre property located at Old Glenfield Road, the Crossroads, their desire being to see some Christian work developed there. In 1970 the church agreed to use the property for either a church, a hall or a manse, but after due consideration it was deemed unsuitable for any of these purposes.

In 1972 discussions were held with the Baptist Homes Trust concerning the lease of the property, which was known as "Gulistan" to be used as a "half-way house" for prisoners. This project was commenced by the Social Service Committee of the trust, as a new venture, renamed "Aratoro" and continued until June 1985 when the church ceased to use the property. In February 1986, the property was sold for \$130,000.00, some of the proceeds being used to clear the debt on the church property in Liverpool.

In 1973 it had been decided to draw up plans for the final stage of the development of the church property on the corner of Norfolk and Castlereagh Streets. The plans included the erection of a church sanctuary above the youth hall built in 1962 which was now being used for church services, and rooms at the rear of the hall. The work began in May 1974, and obviously caused some disruption to the normal activities of the church, however, it was with great rejoicing that the completed building was officially opened on 24<sup>th</sup>. May, 1975. The plaque at the top of the first landing on the stairs states : "Opened to the glory of God by Rev. A. C. LeClaire (Superintendant of the Home Work Council of the N.S.W. Baptist Union) 24<sup>th</sup>. May, 1975. Rev. W. A. Britza, Minister, J. D. (Duncan) Ross Junior, Secretary.



Seven months later, however, the joy would be turned to grief. Rev. Bill Britza died suddenly following a minor operation in Liverpool Hospital. The congregation was plunged into deep sorrow for their pastor was much loved. The loss deeply affected the fellowship, and was not any easier to bear as the sudden death of the church secretary had occurred only a short time before.

For the next twelve months, one of the deacons, Mr. Eric Graham, an ordained man but not currently in the care of a church, was appointed as a full-time moderator and Duncan Ross at this time was appointed an Elder. The church began to reorganise itself and to rise again out of the depths of its grief. Rev. Stan Wright was called as pastor the following year, and then moved on within two years. A student pastor, Bill Vanzutphen and his wife Joy followed, and stayed on for the initial period of the pastorate of the next pastor.

On a cold, rainy mid-Winter morning in 1976, Play Group began. How many children and parents have been helped by this group over the ensuing years is impossible to tell. But it has been an enduring and vital ministry of the Liverpool Baptist Church.

Rev. Ron Briggs was called in 1979 and he commenced his ministry on 1<sup>st</sup>. September. Ron stayed at Liverpool Baptist Church for 14 years, longer than any pastor before him. He exercised an effective pastoral ministry and had a necessary stabilising effect on the church. Ron himself recalls that the earlier years were "a difficult time of adjustment and seeking to rediscover the ministry and place of the church in the community. There had been a loss of many experienced leaders and by 1979 most of the organizations were at a low ebb".

Ron was a brilliant administrator. Sunday morning services were well planned, and included involvement by many of the church members. As well as Pastor, he took on the role of Church Secretary and Bulletin Editor. Each Monday morning he would post copies of the bulletin to those who had been absent from church on Sunday and follow it up later in the week with a phone call. He had a regular visitation program to all church members. He established a small but dedicated group of ladies to provide Scripture Classes at local schools, and took one class himself every Wednesday morning.

Ron began a visitation program to the folk at Hammondville Nursing Home. His love of music and books saw the establishment of a church choir under the leadership of Duncan Ross, and an expansion of the Church Library.

Hamilton Smith, on the occasion of Ron's farewell recalled "the early year's of Ron's ministry at Liverpool were years of consolidation", and this is just what the church needed at that time.

Boys' Brigade began to grow once again and the Girls' Brigade, which had been closed for some time, was recommenced in 1988 by Katrina McCloskey and Rita Keane.

There were few teenagers at the church at that time. In 1986 a Youth Group was commenced with three high school boys, Geoff Low, Christopher Ronnie and Andrew Searle, who had just entered high school.





........ The church quarterly business meeting will on Sunday 8th, at 2 p.m.

be held on Wednesday 18th, 7.30 p.m.

..... The Cumberland District Baptist

- ALLER sing the praise of Jesus

on the FOURTH THURSLAY of Next session Feb.24th.... opportunity to learn new each month. This is your hymns and chorouses with the musical team at the church 7.30 p.m.

anything about music,really. But I know what I like.' "(Beerbohm). and such is the force of habit that 'I don't,' she added, 'know 



Congratulations boys ...... one Saturday. L/pool 3 for 111 & team rides high having defeated Cabramatta Baptist outright in The Liverpool Baptist Cricket 1 for 4. Cabramatta 68 & 43. \*\*\*\*\*\*\*\*\*\*\*

" If all the year were playing To sport would be as tedious as to work." (Henry1V, holidays, ъ -).

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As it was difficult to run a youth program with only three boys, the group was opened up to those who would be going to high school the next year, Naomi Penney, Alison Ross, Angela Smith, Johnny Keane, David Low and Thomas Tepania.

The Sunday School began to grow, and an annual Sunday School Picnic was instigated, a Sunday School Examination, a Sunday School Anniversary where the theme was announced in luminous letters across the front of the church and the children sat out the front on the platform to sing, recite and do mini dramas, and the year concluded with the Sunday School Christmas Pageant, where the kindergarten children acted out the Christmas story while the older members took part in a full scale Christmas drama play. As the teenagers grew in number, they were eventually separated from the younger members, and the "Y.P. Group" met in the now unused bus shed at the front of the manse. What fun that was. Eventually they would get down to Bible Study after the boys had duly impressed the girls by swinging from the rafters.

There were plenty of opportunities within the church for fellowship. A "Family Fellowship" program provided a variety of activities and outings which included car trials, progressive suppers, movie nights and picnics to the beach.

Church Socials brought out the "talent" in everyone, with hilarious plays and skits. Then there were the church camps. At one of the church camps, held while having a Texas Partnership Mission, just after the America's Cup win by Australia, we presented a "home made" trophy out of a jam tin and silver paper to one of the elderly visiting Americans, with our condolences for their loss. Not sure whether we were serious or not, the gentleman made a short speech whereby he promised to "treasure it forever" while we almost rolled on the floor with laughter.

We had morning and evening Sunday services at that time, and when the numbers at the evening service decreased, we sat on chairs in a circle at the rear of the church.

Another elderly lady should be mentioned. Another Grace. Not Grace Beard, this time, but Grace Cutuli, or as we all knew her, Mrs, Cutuli. She, too, was a prayer warrior and a great encourager. Almost blind, she took a keen interest in every church activity and prayed for them. When you shook her hand after church she recognised your voice and would ask how your particular ministry was going, ending by saying "I was praying for you" (just at the time that activity was taking place). On Saturday mornings a prayer meeting was held in her home. When numbers reduced to only her and Ron Briggs, Ron suggested that they should discontinue. She replied "Well, whether you're here or not, pastor, I'll be here praying every Saturday morning at 7 o'clock". So was Ron!



4th, SUNDAY OF ADVENT.

SUNDAY 22nd DECEMBER 1985.

Pastor. Rev.R.C.Briggs (6020131).

HAPPY



We thank you all for the many cards received and the messages and thoughts which each contain. Received on one card from overseas were the words "Lamplight on the sparking snow, And friendship every where you go - It's Christmas." How would we say it "Sunshine on the brown dry earth" not quite true this stormy month of December.

DON'T FORGET THE CHRISTMAS DAY SERVICE AT 9 A.M. When we celebrate the birthday of our King.

GREETINGS RECEIVED FROM FAR AND WIDE. Shem & Raj send their

love and a letter for the congregation (see it on the mission- CHRISTMAS!



ary table). Bill & Olive Morrison send christmas and new year greetings. Joan Gray at Stroud and Alan & Christine Bowen with their two children send their love to all.

BLITZED BY BRITZAS. We welcome back Mrs.Beryl Britza, in the service this morning, staying with son Ian. Stephen & Joy Evans will be staying in Casula for a few weeks before taking up a new position. Robyn and Les Fussell will make a quick trip through Liverpool on New Years Eve. Anyone wishing to make contact with any of these folk might check with Jack Smith re their movements.

CHRISTMAS TREE -CHRISTMAS TREE. Empty no more, filled with lovely good gifts for some of the many needy families in the district. Thank you for the response. Remember for this project to be effective, to-day is the last opportunity for you to place a fift under the tree for another.

LADIES FELLOWSHIP PROVIDES. Over the past six years the Ladies fellowship has provided the money for food parcels distributed by the pastor. This expression of love is very much appreciated. In addition special





gifts are prepared by the Ladies for distribution to our contacts in the Nursing homes and Retirement villages in the community. Val Smith has been at the forefront of this service for many years.

THE PASTOR AND PAM back from holidays, touring across to Adelaide. Travelled just on 4,000 Kms some wet weather but plenty of opportunity to rest, read and relax. Others have travelled further Loretta Dann relaxed on the India Pacific Express all the way to

Perth. Some are just leaving for beachside holidays, hoping for fine hot days, others are resting around home, hoping to hear some good cricket scores. Whatever be your lot LIFT UP YOUR VOICE IN PRAISE TO THE KING OF KINGS, GIVE THANKS TO GOD FOR YOUR LIFE AND FAMILY.

STEWARDSHIP RESPONSIBILITY. We are reminded of our responsibility to the work of the Kingdom of God. After 21 weeks ( to the end of November) the average weekly income 3 5647. This is alittle short of our expenditure in budget of 5723. ( not counting matter costs and church debt, building). Remember your tithing that overtime amount and even the holiday leading.

DON'T FORGET THE CHRISTMAS DAY OFFERING FOR WORLD RELIEF. Put your mane and address on the envelope if you wish to claim your gift as



a tax deductible item. ( needed for official receipt purposes).

LAST BULLETIN FOR 1985. "Christmas is not only the milestone of another year - It is a season suggesting thoughts of joy." Dickens.

1986 will feature the celebration of <u>FIFTY YEARS</u> of continuous witness for Jesus Christ by the Liverpool Baptist Church. Look out for the outline of the JUBILEE PROGRAMME which will be featured in the first bulletin for 86.

# LiverpooL 50<sub>reas in 600's</sub> Bagtist Church

SUNDAY 26th, JANUARY 1986.

Pastor. Rev.R.C.Briggs (6020131).

<u>AVICES.</u> 9.00 a.m. Sunday School (All Ages). 10.00 a.m. Morning Worship. 6.30 p.m. Evening Worship.

ONE TWELTH OF YEAR 1986 almost gone. One senses the excitement mounting as children prepare to return to school. May be a new school, extra travel, new uniform, new classes, new books, no buses ????.

FIRST ACTIVITY TO RECOMMENCE Sunday School for all grades next Sunday 9 a.m. a great experience. Then on Monday 3rd February 10 a.m. the Ladies Bible Class resumes. Also on Monday 3rd, 7 p.m. Boys Brigade will be on parade. - The first Tuesday of each month 7.30 p.m. the Men's Fellowship meets, the first meeting will be Tuesday 4th February, play trains with the big models directed by Doug Middleton. - Wednesday 5th, The mid week Bible Study Groups commence ( one at Mrs.Cutuli's and one at Hamilton& Carol 's ). If you would like to consider a group meeting in your home speak to the Pastor. - The Play group resumes on Thursday 6th,at 10 a.m. to 12 noon, joining fee \$1. and 40 cents weekly. - The Deacons meet on the second Tuesday of the month ( Feb.

11th.) - The Ladies Evening Fellowship meet on the HEBREWS 12:1-2 third Tuesday of each month. February 18th, 7.45 p.m. the speaker will be Mrs.Rooza who will speak on her experiences as a resident in South Africa.

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DENOMINATIONAL DAY OF PRAYER . The President Rev.R.F.Pope has called a day of prayer & fasting for Saturday 15th February. The Liverpool church has been chosen as a regional centre for prayer and will be open from 10 a.m. to 4 p.m. with sessions of prayer led by ministers of the district.

WOMEN'S WORLD DAY OF PRAYER for people of all communions will be held on Friday 7th March

11a.m. in the Liverpool Baptist Church. We are the host church for this special day and will be providing the lunch. Your held and support in attending the meeting and catering will be greatly appreciated.

Ladies Planning Meeting. Ladies are invited to assist in the organising of their activities and are invited to attend the next planning meeting on Monday 3rd March, 7.30 pm.



Peter & Sandra would like to thank all their friends for their kind thoughts and prayers during Stephen's time spent in hospital.

CONTINUE TO REMEMBER Brenda Deadman recovering at home, following her extended stay in hospital. - Win Lewis is in Liverpool Hospital undergoing tests. - Laura Hughes has been allocated'a unit in the Campbelltown area for the convenience of the fa mily in caring for her. - Jack & Val Smith will be away for three weeks on a well earned holiday. - We welcome the Evans family back to Liverpool ( temporarily residing at Casula).

JUBILEE YEAR. Some dates to book in your diary. The Annual Church Dinner Saturday 31st May. This weekend will feature the church in the 1950's & 60's.

The fiftieth birthday of the church will be held on Saturday 16th August. This is the actual date of the church formation and the weekend will feature the church in the 30's & 40 's. Saturday 27th, September the Sunday School are organising a GRAND PICNIC. This will be another back to Liverpool weekend and will have various features to attract both the old and young. TO ATTEND THE **STORED** <u>BIRTHDAY OF THE LIVERPOOL BAPTIST</u> <u>CHURCH ON SATURDAY 16 th AUGUST</u> <u>1986, 7 p.m. BIRTHDAY CONCERT IN THE</u> <u>CHURCH HALL</u> (cutting of the birthday cake with supper to follow.)

invitation

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SUNDAY 17th AUGUST, 10 a.m. AND

6.30 p.m. ANNIVERSARY SERVICES.

SPEAKER. REV.S.M. BROOK.

(pastor of the church in 1936.)

Mr.Brook was appointed in 1931 as an honorary evangelist to the Liverpool Baptist Mission. When he was accepted for training in the ministry in 1936, Liverpool was his first student pastorate. Now living in retirement at Gerringong, he is the honorary pastor of a new church to be formed at Gerringong in November 1986.

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Macquarie Street, Liverpool 1910.

In late1989, Ron Briggs, and the Liverpool congregation, had the honour of hearing that Ron was to be the President of the Baptist Union of N.S.W. For the next twelve months he would be visiting Baptist churches around the state. Hamilton Smith stated at Ron's farewell "On the Sunday evening prior to Ron's induction as president, we as a fellowship laid hands on both Ron and Pam and committed them to the Lord's service for the coming year. This simple act set the scene for that year. Many within the fellowship during that year were able to exercise talents in preaching, leadership and pastoral care. The year saw a growth in the unity and spiritual muscle of the church and has led in recent years to a real harmony within the fellowship and a willingness to care and share with one another which has brought much blessing and challenge to the folk at Liverpool. I suppose it seems strange to say that perhaps one of the most effective years of Ron's ministry here at Liverpool occurred when he wasn't around for much of it. The truth is that Ron had effectively laid the foundation for the events of that year over the preceding years of his ministry at Liverpool".

The one Sunday night in the month when the church was packed was "Youth Night". Ron had readily agreed to turn one Sunday night over to the young people each month. It began with a "Teen Tea', then a Youth Service, followed by after-church fellowship at someone's home. The Norfolk Street manse had by then been sold and a new manse at Tyalla Close, Casula, purchased which had a large in-ground swimming pool. Ron and Pam, during the Summer months, regularly were invaded by the young people for afterchurch fellowship.

At the Youth Services, the young people were tutored in giving "semonettes", a little like Christian Endeavour in the earlier years. There may have been 3 young people speaking, on a theme, their theology was checked beforehand, and they were trained in how to present a sermon. They also led the service, thereby growing in leadership and presentation skills and becoming more and more confident in public speaking. Once when we had a Bible College student speak at a youth service, he admitted it was his first sermon. One of the young people was overheard saying "we've preached more sermons than him!"

A band was formed to lead the music – five boys each with a guitar, trying to play in harmony. Their first ever song? "It's No Longer I That Liveth, but Christ That Liveth In Me". Many of those boys are accomplished musicians to-day.

Some memorable events were held during that period. Like the Passover Feast on Easter Thursday, when we emulated what may have transpired at the Last Supper. Unleavened bread, bitter herbs, roast lamb, grape juice from goblets and candle-lit tables all added to the significance of the evening.

Then there was the Jubilee Celebrations in August 1986. Based on Leviticus 25 : 8-17, the desired result being. to bring about "a new beginning, a new start for a new generation".

Ron and Pam were farewelled on Saturday 24th. April, 1993

# Liverpool Baptist Church pastor, Geoff Case and wife Denise ... at the church ground

# From pioneer family

THE Reverend Geoff Case, who has close family connections with Liverpool, is the new pastor of Liverpool Baptist Church.

Mr Case was welcomed at a well attended service at the church on February 12. The service was led by a long time church member. Jack Smith.

Mr Case's maternal great grandparents. William and Virginia Heckenberg, took up residence in the Green Valley area in the 1860s.

Mr Case's grandfather, Ernest Heckenberg, was one of eight brothers known as the Heckenberg Giants because of their height. The brothers were champion woodchoppers.

Mr. Case studied social work at university, and worked in child welfare. He was in New Zealand for four years and also served in Thailand for 13 years. He and his wife Denise have three children. They can be contacted on 602 1183 or 602 1131. February 1994 saw the arrival of the next pastor, Rev. Geoff Case. Geoff and Denise had served as missionaries in Thailand for thirteen years and Geoff came with a focus on outreach and missionary emphasis, Sunday services were less formal and there was a strong emphasis on prayer and Bible Study.

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Sunday morning before church several groups had met at the same time as the Sunday School and Y.P. Group for Bible Study.. Geoff saw possibilities there, and expanded the program to incorporate what he called a L.A.M.P. classes.

The letters stood for Life And Ministry Program, and covered a progression of topics, beginning with the Gospel, salvation and baptism, growing as a disciple, church membership, discovering and using ministry gifts in service, getting involved in mission, and then going on to study books of the Bible. With the proliferation of so many groups meeting within the church building at the same time, and the "Y.P. Group" growing, it was decided to investigate another location for the young people.

Across the road was the bowling alley, and they had conference rooms. While they opened at 9.00 a.m. on a Sunday morning, bowling didn't really get under way till 10.00 a.m. and they were quite happy for us to use their premises. So, each Sunday the Y.P. Group met at the Liverpool Bowl. Numbers had grown to 35 young people by this time, and after a combined time together, the group was split into three, Junior Highs (led by Sharon Case), Senior Highs (led by Debbie Palazzi) and Young Adults (led by John Keane).

Geoff paid regular overseas visits to India, Thailand and Myanmar, and as the church was used to "looking after itself" without a pastor, things ran smoothly in his absence. A highlight of a Sunday morning service, when Geoff was away, was when he would phone from overseas in the middle of a service and we were able to hear from him over the amplifiers, and be given up-to-date news and prayer points.

Paul and Christine French, missionary candidates with O.M.F. also came to our church during this time. They became part of the church family and became involved in ministry at the church while being tutored by Geoff for overseas service. Paul and Christine, together with their children, Stephen and Matthew now serve the Lord in Chiang Mai, Thailand, where they care for 14 teenagers in a hostel situation.

While Geoff was pastor, he encouraged us to open our church premises for the use of two other congregations, The Thai and Cambodian fellowships. Many years later they continue to meet at different times on a Sunday, and there is warm fellowship between all three congregations.



Geoff was innovative in his endeavours to attract the unchurched. He began S.N.A.C. (Sunday Night At Church) where the Sunday evening service was held in the downstairs hall. He maintained that aussies were used to a club atmosphere, so we would sit around informally at tables and chairs while being served food and drinks while the program would unfold in segments on the stage. The program was advertised in the local papers, the first one being on sport, when we had a Christian Rugby League player come and share his testimony, then there was one on how to deal with grief, and a trained Social Worker shared with us.

Geoff organised training others in personal evangelism, and he formed teams to share the Gospel through door-to-door visitation, distributing the "Jesus" video, open air meetings in local shopping centres, "Carols by Candlelight and "Lifeworks" home meetings.

Then Geoff came to us with a suggestion that Paul Mosiejczuk become part of the pastoral team, as an Associate Pastor, as Geoff was wanting to move away from pastoral ministry to Church Planting. Paul and Nancy were welcomed in February, 1999. Geoff and Paul became a good team. As Geoff slowly relinquished his role as pastor, Paul took on more of the responsibility at Liverpool, while the church supported Geoff in his Church Planting ministry.

Geoff began doing outreach in the Casula area and then moved on to Carnes Hill. Various means of outreach were utilised from Kid's Clubs, distribution of the Jesus Video, a Christmas Carol Service and barbecue by the lake, parenting classes and "How to Drug Proof Your Children" course, all topical subjects for people of to-day.

When Geoff left Liverpool to take on other ministries (now the Principal of Tahlee Bible College), another pastor, Phil Wilson took over from where Geoff had left off at Carnes Hill. He ministered there for 18 months before moving on.

Paul was now the sole pastor and under his guidance the church has moved forward and he has steered the church through a further time of re-focusing and change. Morning Services are now more contemporary, with a music ministry team made up of a number of young people (while still retaining some of the more mature) from the church who have been encouraged to use their talents and abilities to God's glory. Paul's clear preaching of the Word of God is appreciated by all, and many have asked for transcripts of his sermons for personal use. He has a real affinity with the young people of the church and is always available to meet with and talk with them.

He has taken an active role as chaplain of the Boys' Brigade, regularly speaks at Brigade Church Parade Services, as well as other special speaking occasions.

The Food Care ministry has been set up under his encouragement and guidance. People from other nationalities have been welcomed into the church family, Polish and Italian people, with an Arabic congregation now meeting on Sunday evenings. Paul has been instrumental in steering the church into thinking ahead with regards to its future ministry plans and location.

# News

# **Narking 110 years of sermons**

# By Jen Reid

THE congregation of West Hoxton Union Church will need to draw a deep breath this Sunday in order to blow out the 110 candles on the historic church's birthday cake.

The ''Little Church on the Hill'', as it's fondly referred to, is heritage listed with its first sermon taking place in 1895.

Pastor John Keane said the church's hilltop setting gave it its distinctive character.

"We have given it the name 'Little Church on the Hill' and it has got that rustic feel," Pastor Keane said.

"The rabbits all come up to the lawn at night, it's very much like a country church."

Pastor Keane has only been pastor at the church for the past 12 months, taking on the role when previous chairperson Coral Wells fell ill after 30 years of service.

The new pastor is a busy man having to juggle a commitment to serving God with a commitment to servicing trucks as manager of a truck building company.

Pastor Keane, his wife Ruta and their friend Christine Ronnie, who will shortly be official trustees of the church, are keen to keep the informal ambience of the West Hoxton church alive.

Even the traditional organ is being substituted for a guitar playing pastor as they search for an organist in the Liverpool area.

"I play the guitar because we don't have an organ player at the moment," Pastor Keane said. "It's very relaxed, we feel that it's import-



Pictures: Angelo Velardo Turning 110: The Little Church on the Hill pastor John Keane. Below: The church from the outside.

ant to have a church for the people in this community because God loves everybody." It was ironic that in 2005. West Hoxton

It was ironic that in 2005, West Hoxton Church would be missing an organist because in 1898, it was missing an organ, which they eventually brought after holding a successful fund-raising concert at Liverpool Town Hall.

Everyone is welcome to join the March 6 anniversary celebrations with a special thanksgiving sermon conducted from 10.30am to 11.30am followed by a birthday barbecue.



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In 2003, a new church constitution was adopted, resulting in a whole new way of church government. The diaconate gave way to the Church Board, with members having areas of church ministry oversight ("portfolios").

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Also in 2003, the West Hoxton Union Church, a heritage listed 110 year old building, was offered to Liverpool Baptist for use as an outreach ministry. John and Rita Keane offered and were duly appointed to pastor the church. On the day they were commissioned an interesting sign of confirmation was received. Rita is one for "putting out a fleece", like Joshua of old. After they had been prayed over, John and Rita resumed their seats. Rita had already given consideration to the fact that to reach the adults, we would need to reach the children. As she sat there, she prayed "Lord, if you want me to start a Sunday School at West Hoxton, give me a sign" then she put the thought aside to concentrate on Paul's message. However, her last thought was, "I'll need cups and cordial for the children". As soon as the service had concluded, an elderly lady walked over to Rita, put some money in her hand and said "You'll need this to buy cups and cordial for the children."

Visitation of the village has resulted in a good number of contacts, special Easter and Christmas services have been held and slowly the church is building up.

God has blessed the work at West Hoxton and over the past two years the congregation has grown from 4 to between 15 and 20 people each Sunday and there can be up to 10 children in Sunday School. Holiday Fun Clubs are always well attended. The church, being part of the 40 Days of Purpose with Liverpool Baptist Church, has established a Thursday night Small Group Bible Study.

Liverpool Baptist, as a result of the 40 Days of Purpose Campaign, has seen many people being challenged to a closer walk with God and a desire to use the talents and abilities he has given them, for His service. A number of Small Group Bible Studies, begun during the campaign, have decided to continue on a permanent basis. The Celebration Sunday and Ministry and Missions Fair were well attended and people were both encouraged and challenged.

Seven years ago the Liverpool church began to search for a large block of land upon which to build a new Worship and Ministry Centre. This is still the plan, but in order to finance this project it has been decided to re-develop the current site, retaining part of the re-development for future ministries. What does the future hold? Who can say? But to-day as we look back over the past 100 years, we thank God for all that has passed and trust Him for all that's to come.

Truly, we can look back with thanksgiving and look forward in confidence.



FUNDRAISER: Pastor Saveth Uy with some members of the Liverpool Baptist Church.

# Cambodian crusade

FROM their Liverpool base, Pastor Saveth Uy and wife Savi are raising money to help send Bibles and rebuild a church in Cambodia.

The couple met in a refugee camp in Thailand after surviving the Killing Fields during the years of the Khmer Rouge.

Now they lead a Cambodian congregation at Liverpool Baptist Church. With the help of singersongwriter Wendy Ford, who is co-ordinating a fundraiser, they hope to raise money to help churchgoers in the Cambodian province of Battambang..

The church started four years ago and numbers have swelled to between 80 and 100 people.

A fundraiser, featuring music from Christian youth band Noah, a Cambodian dance troupe and an auction with autographed CDs by Guy Sebastian and Colin Buchanan, will be held at Liverpool Baptist Church, Castlereagh and Norfolk Sts, on November 13 between 3pm and 6pm. Tickets are \$12 for adults and \$7 for kids under 15. Details: 4658 1286 or 0419 614 208. Donations: 9826 8374. In his report for the 21<sup>st</sup>. Anniversary, in 1957, Colin Wilson concludes in this way:

"Sometimes it is good to look back into the past. But let us remember that the past is gone and we cannot recall it, neither do we want to live in it, but we should be able to profit by it. The present is here and this is our responsibility, to do our best for our Master, for truly we can say "the night cometh when no man can work". We have planned for the future and are still planning, but let our plans be in His Will, as the future is entirely in God's Hands, but let our earnest prayer be, that, if the Lord tarry, we may be found faithful to Him, as a church and as individuals while He gives us breath. May we leave our future to our Heavenly Father."

Amen!

# Liverpool Baptist Church

# **Our Purpose Statement**

### Why we exist

To glorify God by providing opportunities for worship and teaching, to bring people to Jesus and into the fellowship of His family, leading them to Christlike maturity, equipping them for service in the church and effective witness in the world.

# **Our Vision / Mission Statement**

### What we intend to do

- To help people of all nations become devoted followers of the Lord Jesus Christ.
- To be friendly people who seek to help others to know God.

# **Our Object Statement**

### How we aim to implement it -

The Church adopts the following for its aims and functions, which it believes to be in harmony with the purposes of Christ's church as declared in the New Testament.

- To assemble regularly for the worship of God.
- To proclaim the Gospel of the Lord Jesus Christ to all people.
- To encourage believers to be more Christlike.
- To show Gods' love in friendship and practical ways to all people.
- To proclaim the Lordship of Christ in our local community, our nation and the wider world through evangelistic, missionary, educational and social programs.
- To provide supportive ministries to meet specific needs within The Church and local community in accordance with the New Testament pattern.

# LIVERPOOL BAPTIST CHURCH CENTENARY 1905 – 2005

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On October 22<sup>nd</sup> & 23<sup>rd</sup> the Liverpool Baptist Church will celebrate 100 years of Baptist work in Liverpool, including 68 years on our present site. Whilst meetings were held in the home of Mr Arthur Sindel in 1904 the Church was formed in 1905 and land was purchased for 75 pounds at the corner of Macquarie and Bathurst Sts.

Meetings were held in the Liverpool Town Hall until the new church building was erected, the foundation stone being laid in December 1905 and completed in March 1906. The following years proved to be fruitful and numbers of 200 people attending the evening services have been recorded, unfortunately over the ensuing years, difficulties arose and the church ceased to meet, the property being sold in 1923 for 365 pounds and renamed the Protestant Hall. In 1929 the Flying Squadron of the N.S.W. Christian

Endeavour recommenced the work on July 7<sup>th</sup> of that year in the same building, this work being assisted by the Ingleburn Baptist church.

So these new beginnings continued faithfully, new land was purchased and a new building erected in 1937, this same building continues to be part of our complex today. Through the following 68 years many changes have happened, new extensions have been added, including hall and kitchen in 1962, and in 1975 a second storey, giving us a larger sanctuary, internal toilets and a number of smaller rooms.

Over these years this church has touched hundreds of people through it's services, ministries, outreach programmes. Many lives have been changed by being introduced to Jesus Christ through the faithful preaching of God's word. Today we seek to continue to serve God in this community, having various programmes for all ages. Our Sunday services include, English speaking - 9-30 am, Thai – 10-30am, Cambodian – 1-30pm and Arabic 6-30pm. All are invited to be part of our Family, so they might find God's purpose for their lives.

Press Release by Duncan Ross.
MINISTRIES AND LEADERS FOODCARE - KEN & YVONNE HARVEY **BOY'S BRIGADE - JOHN KEANE GIRL'S BRIGADE - RITA KEANE** PLAYGROUP - JOY ROSS / MARGARET PARKER **SCHOOL SCRIPTURE** - MARGARET PARKER L.E.F. - JUNE MURRAY / JOY ROSS **PRIME - TIME - DUNCAN ROSS** Y.P. GROUP - DAVID/LETICIA LOW STEPHEN MC KAY - STEPHEN / AMANDA LOW **MUSIC TEAM - GORDON SHAW / DAVID LOW SMALL GROUPS - GORDON SHAW - JOY ROSS -**MARTY / ROSLYN SMITHERS - DUNCAN ROSS -**DAVID / LETICIA LOW PROPERTY MAINTENANCE** - DUNCAN ROSS **CHURCH SECURITY** - PETER ALLEN **CHILDRENS CHURCH** - EVA STEPASIUK **CHURCH AUDIO TEAM - GORDON SHAW** 

2005

LIVERPOOL BAPTIST CHURCH

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# Anecdotes from past and present members.

# Our Memories of Liverpool Baptist Church by Peter & Gwen Allen

Liverpool Baptist Church has been a part of our lives for many years. We used to commute back to our old church and family when we first moved to Casula when we were married 32 years ago, but soon found we needed a local church as our young family arrived.

One of the things I remember very fondly is taking our first born son, Matthew to **Playgroup** on the way home from hospital - so from that time Playgroup became a very important part of our association with L.B.C. We made some very special friends that we still have to this day.

The **Boys Brigade** has had the biggest impact on our family. Having three sons, it was the *only* organisation to be involved in. Matthew, Shannon and Brendan were in Boys Brigade from Anchor Boys to Section 2 - with Brendan obtaining his Queens Award. I was the leader of the Anchor Boys for around 8 years and saw many boys grow into wonderful young men. Peter has been a helper in Section 2 for many years too.

The Boys Brigade has played a very important part in our family and has helped shape our boys into responsible young men too. We really appreciate the dedication of the Captain - John Keane - and his team over many, many years.

Also some of the most memorable times were when we billetted some Texans for **Church Partnerships** on two occasions. They were truly wonderful times and impacted on us personally and our church. We had such a great time and made many friends that have made a lasting impression on us.

Some of our church members still have contact with our American friends. We went on street missions, into the schools, and I'm sure what they did is still ongoing.

# Chris Chmielewski.

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Every emigrant knows that finding their place in a new country, among strange people speaking a different language, is not an easy task.

As for me and my family, church has always been a place where you go to find helpful people and a spiritual family.

Here in Liverpool Baptist Church we found God's healing for our wounded souls during a grievous illness and our church support channelled God's healing grace.

Here we are growing, being challenged by God's Word faithfully proclaimed, and witnessing members of our families being born into God's family, as well as passing to their eternal home to be with their Father and Saviour.

What else may we want? Truly God looks after His church and our future is bright. May God bless us richly for His glory.

# Lynette and Julian Eggleston.

This is not so much an anecdote as a testimonial to the people of Liverpool Baptist church, and the ministry they have, just by being the kinds of people they are-loving, caring, nononsense. accepting, encouraging people. We came to Australia in July 1991, having moved from New Zealand in 1986, to England, then to Canada in 1988. We didn't know anyone, and we had just moved into units in Liverpool (selected as being close to Julian's work in Milperra). That was really divine intervention, because on our first Sunday in Australia, we came to Liverpool Baptist, and were invited to lunch that day by the very warm and gracious Mr and Mrs Briggs. From an emotional and spiritual point of view, I feel we were picked up by the Liverpool people, and have had our greatest growth over the next 12 or so years. Hamilton and Carol Smith, and the house group we joined with them. have had a key role in our spiritual development, and later, Jack Smith then Duncan Ross (for Julian) and Jeff Searle then Ted Penney (for Lynette) challenged us in Sunday School. A special mention for poor Duncan, who had to suffer Lynette and Michelle Tepania at choir practice, as we inevitably got fits of giggling during practices. Another special mention for the ever-cheeky Mr Ron Ord, who is missed by many for his spirit and kindness.

In order to reflect the importance of Liverpool Baptist Church from 1991-2003 for us, we would have to name and thank almost every member, as each person has played such an enormous part in our ability to serve and worship, to move on from times of depression, to step out and try things we didn't think we could do--and we thank God for the Body of Christ at Liverpool.

Lola and Norm Wall. (Missionaries with Australian Indigenous Ministries at Alice Springs).

The time we spent at Liverpool Baptist church (1962 – 1968) was a special time for us. The people were so caring. I especially remember Gordon Shaw, who later visited us in Darwin, and Duncan Ross.

Norm wasn't a Christian in our early time at Liverpool Baptist, but still attended church, where the people showed real care for him. He was asked to help out at Boys' Brigade and came under the influence of the other leaders.

When the Billy graham Crusade came to Sydney, we went out in the bus with all the other people from Liverpool Baptist Church. Norm became a Christian that night.

The All Age Sunday School was a real blessing to me. I learned Childrens' Ministry skills that helped me when we served the Lord as missionaries at the Retta Dixon Abopriginal Children's Home at Darwin.

Some of the songs from that time I teach to my grand children and to the Aboriginal children here at the Alice.

# A REMINISCENCE FROM REV. R.C.BRIGGS PASTOR FROM 1979 – 1993

When asked to provide something of significance from the period of my ministry, my mind began to recall many situations that had important impact on people, relationships, clearing of debt and outreach programmes to the community.

I have chosen one action which brings great joy whenever it is recalled. It relates to the mother of Brenda Deadman, Win Lewis, who in her 80s expressed the desire to be baptised. In the time of preparation she indicated her wish to be baptised in the ocean, definitely not in the church's baptistry. Two problems faced us over this request -1) Liverpool is not the best place from which to make contact with the ocean and 2) How to overcome the difficulty of moving an aged body with restricted movement into the water. Win saw no problem. She would walk backwards into the waves and then walk up the beach a new person in Christ!

We eventually overcame the problem when Pauline Vallarino offered the use of her swimming pool (at that time the only person we knew who had one). The Pastor talked through with Win all the details and procedures which Win approved. Subsequently one summer Sunday afternoon the congregation assembled in Pauline's back garden and a service of baptism was held. The Pastor and Richard Ronnie formed a human arm chair whilst Mrs. Lewis sat by the side of the pool. At the appropriate time the two men moved the candidate into the water and returned her to the poolside.

Following the close of the service a lovely afternoon tea was served while some took the opportunity to enjoy a swim. The joy of the Lord was evident in the congregation and God's presence transformed the garden into a spiritual sanctuary.

# Geoff and Denise Case.

We have very fond memories of our time at Liverpool Baptist Church.... mostly of people. I had heard of and seen other churches where there was often a strain in relationships with Deacons, but I enjoyed all my interactions with the Deacons. They sometimes agreed with my suggestions, such as Sunday evening SNAC style of service. At other times they had the wisdom to suggest an alternative. Our Deacon's Saturday morning workshops were very beneficial, and Hamilton's sandwiches were delicious! I learned not to be too surprised, when working in the church office during the week, to see Gordon come in in his shorts and singlet, perspiring and dirty after crawling around under the floor of the church building. We often said that the building would never fall down because Gordon had it held together with miles of wires and cables! Gordon could have been the subject of a whole RPA series by himself. He's had most illnesses and operations in the medical Encyclopaedia, but he never complained and always had a cheerful smile. He often reminded me of his assurance that "Only the good die young!" I could never complain of being bored... from Amy doing cartwheels down the aisle, to our Elder turning up at the Playgroup Christmas party dressed as Santal We enjoyed the choir practices and presentations, were impressed by the dedication of the Boys and Girls Brigade leaders, and the effort that Brian and Isobel put into the Sunday School. I could always be sure that the pulpit, communion table and flowers would be in perfect symmetry, and that my tie would be straight, after a little fixing up by Duncan. We enjoyed the good hearty congregational singing, and the fellowship over a cup of tea, so faithfully served by the Penneys. It was always encouraging to see people come to faith in the Lord and indicate their commitment to Christ through baptism, even though, in spite of the fisherman's waders, I still managed to get water up my sleeves and sometimes down inside my shirt when baptising people.

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It was good to be able to join others as a team in sharing the Gospel through door-to-door visitation, distributing the "Jesus"video, open air meetings in the shopping centre, the Carols by Candlelight programmes, the "Lifeworks" home meetings. We appreciated being able to meet for prayer many mornings with a few people. We saw babies born, people get married, and people pass into the presence of the Lord. It was good to have missionaries go out from our church, and see the church supporting other missionaries. I enjoyed going with teams from the church to Myanmar and am glad to see that is continuing. I was pleased when the church welcomed the Thai and cambodian congregations into our fellowship. I've been impressed by the practical caring love that various people have shown to each other in the church. I count it a privilege and blessing to have been the Pastor of Liverpool Baptist Church. I have the continuing sense that, although we were Pastor and congregation, we were also simply friends and brothers and sisters in Christ. As you celebrate 100 years of the ministry of the Gospel through the Baptist Church in Liverpool, I pray that God would continue to produce in and through you the kind of fruit that will bring glory to Him.

# Michelle Graham.

I have been a part of Liverpool Baptist Church since my birth – eighteen years ago this week!!! However, my connection with Liverpool Baptist stretches back further than this, both sets of my grandparents attended the church along with my aunties, uncles and cousins. As such, I have many memories of church and church activities such as Play Group, Sunday School, Girls' Brigade, Family Fellowship and Youth Group.

As a young child I enjoyed listening to the weekly children's talk in church. I learned about the many different people in the Bible and the God they loved and served. One particular Sunday when I was aged about three, my grandmother Wendy was giving the talk. Not long after she had commenced I walked up to her and held my arms up in the air indicating that I wanted her to pick me up. She did so and continued on with the rest of her talk with me located on her hip!

I began attending Girls' Brigade when I was in year one at school. I loved going to sing, play games and do crafts with all the other girls. Especially exciting for me was going on the annual Girls' Brigade Camp. I learnt about all the standard acts performed at the Talent Show such as the play "Banana Custard" and the "Song that never ends" and how to do my own washing up after meals. Unfortunately for Mrs Ross and Mrs Wladysiuk I got sick at my first ever camp with a severe cough. I remember spending the night on a lounge chair, while Mrs Ross slept in a chair opposite me to try and limit my coughing and let the other girls in my room go to sleep.

I also attended Primary Sunday School with Mr and Mrs McKay. We did a lot of singing – one particular song that I remember began "One way God said to get to Heaven/Jesus is the only way." The song ended with the words "No other way to go," however the word go was meant to be held so Mr McKay had spelled it "Goooooooooo!" The result was that we liked to sing the song "No other way to Goo" rather than "Go!" We also learnt how to sing really fast to fit the books of the Bible into a song which I can still remember!

When I entered high school, I was also welcomed into the youth group at the church known at that time as 7up. We had fun going to Jamberoo, holding progressive dinners that started with dessert and running up and down Bill and Debbie Palazzi's street looking for solutions to a quiz. One particular night we watched a Jackie Chan movie using the church's projector while we sat on lounges in Bill and Debbie's backyard. It was actually really cold and Debbie had to go and get us all blankets and doonas so that we didn't freeze! While the movie was not my favourite, I thought it was really cool that we got to have our own private screening in the backyard where we could look at the stars while watching the movie!

These are only a few memories from my time at Liverpool Baptist so far! I look forward to seeing how the church continues to grow and develop as we seek to share Christ's love with those in Liverpool and the surrounding districts.

# Pauline Valerino.

I came to the Liverpool Baptist Church well over 20 years ago – and very much under protest!

Mrs. Cutuli was a near neighbour and friend, also a member of the church.

Under her gentle persuasion, I came back to the church after experiencing quite a few ups and downs in my life.

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It was the best thing I could have done. Pamela and Ron Briggs in their ministry of love and friendship were a joy and I quickly felt at home. My life was back on track.

Now, Sunday morning at my church, or occasionally at "the little church on the hill" when I can organise a lift – nothing is better for my spiritual, mental and physical well-being – than to be there, enjoying the challenge, the fellowship and very dear friends I have made over the years.

May we continue for many years to come!

# Gwenda Kerley.

I am very happy to be a member of Liverpool Baptist Church.

My family first came to this church in January, 1968.

I have some very happy memories; my baptism, and my daughters' baptism and marriage, and I have enjoyed belonging to a Bible Study group that meets before church on Sundays.

I really appreciate the friends I have here and their prayers and help through some difficult times.

# Wendy Smith (nee Townsend).

I was employed by the Liverpool Baptist Church as a full time Deaconess/Pastoral Assistant (after completing a course at the Baptist College) fromm 1966 to 1970. I did Scripture teaching, visitation, office work, Sunday School and youth work.

<u>Strangest Moment:</u> When arriving on my first day as Deaconess to be greeted by Rev. Alan neate who said "Quick, we're going to the Cemetary. I think someone's buried in the wrong grave!" I spent the next two hours wandering the Catholic section, looking for a renegade Baptist. He was duly found where he was meant to be, in the Orthodox section. Rev. Neate, having omitted to tell me he had conducted the funeral as a favour for a migrant family newly arrived in the district.

<u>Funniest Moment</u>: Driving two of the young people home one Sunday night after the afterchurch fellowship, and wondering why other drivers were bipping their car horns and laughing at me. When I stopped and investigated, I discocvered that one of the young people had written on the back of my Volkswagon Beetle " Just married, mother-in-law in the front.

<u>Happiest Moment</u>: Coming back for a visit and meeting up with Don Smith again. We were married in 1984 and I returned to Liverpool as a member of the congregation from 1984 to 1994. It was like coming home !

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As churches do, LBC changed during our 30 years of worship & service at LBC. The pulpit moved (an "X File"?), neck ties and coats became a thing of the past, clothing became more & more casual, we started church later & then we apparently started earlier.

Bill Britza, Eric Graham, Walter Anderson, Stan Wright, Ron Briggs, Geoff Case, Paul Mosiejczuk – some of the names of a wonderful group of men who served as pastors during our time with LBC. Memories alone of these faithful servants, their wonderful wives & families always bring joy to us.

Early memories were of young families living in Liverpool, becoming part of our church family but all too soon moving to their 'permanent' homes in the rapidly growing Campbelltown region. Liverpool seemed to be only a 'temporary holding area' while homes were built and prepared elsewhere. We also saw many folk associated with Ingleburn Army Camp also being a brief but enriching part of the church family.

Sunday school in the bus shed, swinging from the metal supports in the old hall, Boys Brigade, sleepovers, hide'n'seek in the dark, basketball, injuries & bruises, watching the rats scurry around on the rafters during the night at the woolshed camp at Black Springs near Oberon, watching the boys running over hills & having snow fights – it was just so warm! Does life get any better?

Family Fellowship had some great outings and yes, fellowship. Going to the new cinema at Liverpool was an adventure especially when we went to see 'The Horse Whisperer', if only the horse talked a little louder the film could have finished two hours earlier!

Church picnics were where we ate well, fellowshipped well & ran around with the kids all day. It was a place that I discovered (over the years) that your sons became faster than you, taller than you & ate more than you. Other memories included anniversary concerts and the plays, the small start of the play time group on a cold & raining June morning in 1976. Church camps where saw the 'trum-pot' played.

Our main memory is of our four boys, Geoff, David, Mike & Steve growing up here and going on to married life and service. We watched as they were accepted & loved. There was 'Boanerges', there were friendships, baptisms, weddings, soccer & Boys Brigade. Their development as they were able to use their gifts as they became active in the services. The moment quite some years ago when they & the rest of the worship band became, as someone described them, "singalongableto". We always appreciated how the folk at LBC were willing & available to nurture our boys and the rest of the many kids who were in any way associated with LBC.

Throughout our time at LBC, the church was faithful in seeking to honour and worship the Lord Jesus Christ in spirit & truth. Salvation in Christ Jesus was always preached and we were always exhorted to cast all our cares upon Him. We had great teaching & preaching, we had brothers & sisters-in-Christ surrounding us in love. Wonderfully, we saw boys & girls, men & women coming to know the Lord Jesus as their Saviour. We saw these folk growing in Christian maturity

Sometimes things happened that we did not understand. While there were times of deep sadness, these were overwhelmingly out weighed by great times of joy and through it all, God has been His usual faithful, gracious and loving self.

As churches are, LBC was & is not a perfect church but we look forward to being a part of the 'perfect' church in heaven as the bride for the groom having been cared for and loved in Christ Jesus at LBC. We were privileged to be a part of the fellowship of Liverpool Baptist Church.

Our memories of Liverpool Baptists Church 1980 to 1990.

Some of our fondest memories of our time at Liverpool Baptist Church were during the 1980's, being part of the youth group. We enjoyed many activities such as weekends away at youth camps, car rallies and Church socials. Our regular youth group events were Wednesday night Bible studies at Carol & Hamilton Smith's and each week after church fellowship, which was held on Sunday evenings. The after church fellowship was held at different church members homes on a roster basis. This gave the young people a chance to interact with families within the church from all different backgrounds and age ranges, and gave the youth an opportunity to interact with other church members they may not have had the chance to get to know.

The activities of the after church fellowship group included a bible study time, games and activities and of course supper. Some of the suppers were terrific, depending on whose home we were at (ha ha) but Dawn Caswell (now Smith) alway faithfully brought along the supper box, which included tea, coffee cordial and biscuits so we didn't eat our hosts out of house and home. Dawn's supper box also included our own coffee mugs and spoons (plus our own washing up detergent), which Victor Smith faithfully carried along for Dawn.

Often part of the fun of After-church fellowship was getting a lift there. None of the girls seemed to have their own transport and of course all the boys did. So whom you went with depended on who was interested in whom and if they wanted others in the car or not. Of course if a boy was keen on a girl, he may not have always taken the most direct route there or home.

On a serious note, the Bible studies at after church fellowship were an opportunity for the youth to grow and develop a deeper faith in Christ. The bible studies and devotions were led by different people within the youth group and this gave the youth the opportunity not just to grow in Christ, but develop leadership skills and talents that have assisted them in their Christian service at other churches since.

Some of the most memorable bible studies at after church fellowship were held at Mrs Grace Cutuli's home. During this time she was one of the more senior members of the church (approximately in her nineties during this time). Her contribution to the church in her later years was prayer. She prayed consistently for every member of the church, and during the youth bible studies contributed with wisdom and knowledge, which was an inspiration to the youth. After church fellowship gave the members of the youth group the opportunity to meet older members of the church family, like Mrs Cutuli, who they may otherwise not had the opportunity to interact with.

We fondly look back on our time at Liverpool Baptist Church where we learnt to love the Lord and developed relationships with others who love the Lord also.

Bill and I arrived at Liverpool Baptist Church in March 1994 as a young married couple only 6 months after our wedding. We were looking for a church to call home, and settled on Liverpool Baptist because the people were friendly, the Bible was preached clearly and accurately, and there were some other people our age (post school) with whom we could to join in fellowship. We had the privilege of serving God in a variety of ministries during our time at Liverpool Baptist. An activity of the church during our time was the SNAC (Sunday Night at Church) outreach services, where we attempted to have coffee shop style services of an evening in the downstairs hall. We brought in speakers and tried to run interesting programmes around a theme such as football or suffering. These evening servicess then morphed into SNAC (Sunday Night After Church) where various members of the church took turns at providing dinner for us to share for a small cost and the "profits" went back into the church (instead of filling the coffers of Maccas and Hungry Jacks!). The 7-up Youth group started during the time we were at Liverpool Baptist and a memorable experience was the first camp. We went to Wombarra near Bulli, where we camped in the front yard of Geoff Case's parents house . We spent the weekend trying to teach the Year 7-9 kids the Gospel through 2 Ways to Live and spent the rest of our time going down to the beach, even though it was too cold to swim! We also went to the Royal National Park to play a game which basically involved 2 teams running around in the bush and trying to steal ribbons from each others "castle", but in the end no one worried too much about the castles and we just had fun running around in the scrub. We all had a great time over the weekend and hopefully somebody learned something! Each week we looked forward to the Young Adults Bible Study group meeting at our home to read the Word and pray together. This time was always a great blessing from God. The Bible study often inspired long and interesting conversations. Over the years the group saw many members come and go and it grew in size from the original 5 (Bill & Debbie, Sharon Case, Naomi Penney and Andrew Parrott) to about 17 at one stage, and we even tried to split into 2 groups a couple of times, although most of the time it averaged one group with 8-10 members. The young adults group also went on camps to places like KYC (where we knew that it would rain if we camped and Naomi Penney was with us!) and Sunny Corner and ran some social and prayer nights. One of the best social nights was the Ice Cream Night. Everyone had to bring a tub of Ice Cream in their favourite flavour. We had everything from Hokey Pokey to Pistachio and the most "interesting" contribution was brought by Sharon Case who mixed a bag of jelly lollies into a tub of vanilla ice cream and then re-froze it! Needless to say no-one left hungry that night, rather I think most people went home feeling sick and our freezer was full of leftovers for weeks! In contrast to this, we also had a fasting and prayer evening where everyone in the group was encouraged to fast for the day and then meet for prayer and enjoy supper together afterwards. This group was a great source of fellowship and in everything we did we sought to glorify God and build His people up to know and love HIm better. In October 2001 we left Liverpool Baptist to go to live in the UK. In the seven and a half years we were part of Liverpool Baptist Church, God changed us and challenged us in many ways. We thank God for the blessings we received from Him through His people at Liverpool Baptist Church during this time.

At West Hoxton for some thirty years we have heard many speakers, quality and quantity from Liverpool Baptist.

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I have it on good authority that we have shared together since the early 1900's.

At our 100 years Celebration 1995, John Keane, now our Pastor, and his son had a 'Special' Part on Our Program .

We received invitations to all the celebrations and meetings at Liverpool Baptist Church, these were usually accepted but always received with pleasure.

Therefore Norman and I send our apology and disappointment at not being there this 'Special Day' due to other commitments.

Boys Brigade from Liverpool have often used the grounds at West Hoxton for games as an extra extension from their usual venue. Some began their B.B. Days with us.

Reverend Ron Briggs brought many interesting stories and Bible teachings to enlighten our little group.

Ian Britza gave us organ recitals to delight and inspire, he chose the organ that is still being used in the little church.

Pastor Geoff Case brought people from the 'Doulos Christian Book Ship' to work with children in the school holidays. We also had a guided tour of the ship in the harbour.

Geoff used the hall and grounds to train young folk to travel to Thailand. We hosted some in our home for a couple of nights and barbecue evening.

Pastor Paul Mosiejczuk has become a close friend, attending the Combined Churches breakfast at 'The Little Church on the Hill with a Big heart.'

And then there's Duncan, with a Scottish lilt to the voice

Who shared over many years, and we should all rejoice

'Have to hear a Violin with Duncan

'Cause Duncan's our mate.'

Ted came to preach on James, to delve and analyse

But we could scarce take it in, there's so much in that Name

And 'Have to wear a hat with Ted

'Cause Ted's our mate.'

Thank you for many years of sharing, thank you for Rita and John. GOD bless you richly Now and Always....If you have not been mentioned you are still in our hearts.

# Wendy Jonas.

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My involvement with Liverpool Baptist Church began at the beginning of 1961, when my parents returned from Cabramurra to take up teaching at Chipping Norton Public, and we began attending Church in the little building which is now the hall. Needless to say I don't remember very much of this period! My memories really begin with the youth group in my teenage years, although I do remember the crusade which preceded my conversion in 1968. The youth group was ably led by "Uncle Jack" Smith and we spent many happy times at camps, after Church fellowship, and later in in-depth Bible studies, which continued right up to the time we moved away to Port Macquarie in 1989. I particularly enjoyed our 2 year studies in Hebrews (a "rest" for the people of God) and also in Isaiah (the remnant).

Even when I went away to Bathurst to study I managed to spend nearly every second weekend at home and continue my connection with the people at Liverpool. Following my marriage to David in 1978 and our appointment to local schools in 1979, we became a new family in the Church! We led a junior teen social group for a time until our children started to make their appearances, and were also involved in the men's and ladies' meetings. Playgroup became a regular part of our week, as did leading and playing for the chorus session each Sunday morning. A weekly Bible study for mums with children was also an important part of our routine.

Some of our happiest memories involve the Family Fellowship outings which used to happen on the final Saturday of each month. We participated in walking tours of Sydney and Parramatta, mini Olympics, progressive dinners, car rallies, bush dances, fancy dress evenings, nights at the movies and lots of others. All these things added valued friendships to our weekly worship with God's people who make up the Church at Liverpool Baptist.

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# Liverpool Baptist Church.

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# Missionary Family – 2005.

Steve and Liz Groves – S.I.M. Mozambique.

Selwyn and Christine Sexton – Sowers Int. Zambia.

> Margaret Neate – S.F.I. South East Asia.

Paul and Christine French – O.M.F. Thailand.

Geoff and Denise Case – Tahlee Bible College. Karuah.

> Johnno and Grace Wright – A.I.M. Camooweal.

> > Galilee Family Orphanage. Myanmar.

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Video prepared by Gordon Shaw on the occasion of the Church's Diamond Jubilee "Reflections on the Past 40 Years"

Memorabilia from the collection of Rev. R. Briggs.

Liverpool City Library Archives.

Liverpool Baptist Church Archives.

Interviews with Rev. Ron Briggs. Gordon Shaw. Duncan Ross.

Thanks to Duncan Ross, Gordon Shaw and Rita Keane for reading the manuscript and making helpful comments and corrections.



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#### PLANNING CERTIFICATE UNDER SECTION 149 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Ref.: ATT: KURT/POST Ppty: 19525

Applicant: DOUGLAS PARTNERS PO BOX 472 WEST RYDE NSW 1685 
 Cert. No.:
 879

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 Receipt No.:
 859723

 Receipt Amt.:
 40.00

 Date:
 24-Aug-2006

Owner: (as recorded by Council): BAPTIST UNION NSW PO BOX 191 LIVERPOOL NSW 2170

Property Desc: 13 NORFOLK STREET, LIVERPOOL NSW 2170 LOT 1 DP 7541

PART A PRESCRIBED INFORMATION PROVIDED PURSUANT TO SECTION 149(2) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

NOTE: The following information is provided pursuant to Section 149(2) of the Environmental Planning and Assessment Act (EP&A Act) 1979 as prescribed by Schedule 4 of the Environmental Planning and Assessment Regulation (EP&A Regulation) 2000 and is applicable to the subject land as of the date of this certificate.

The Environmental Planning and Assessment Amendment Act 1997 commenced operation on the 1 July 1998. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Amendment) Regulation 1998, Environmental Planning and Assessment (Further Amendment) Regulation 1998 and Environmental Planning and Assessment (Savings and Transitional) Regulation, 1998.

 Administration Centre 1 Hoxton Park Road, Liverpool NSW 2170, DX 5030 Liverpool
 CBD Office 193 Macquarie Street, Liverpool NSW 2170

 All correspondence to The General Manager, Locked Bag 7064 Liverpool BC NSW 1871
 Call Centre 1300 36 2170

 Fax 9821 9333
 Email Icc@liverpool.nsw.gov.au
 Web www.liverpool.nsw.gov.au



#### 1. Names of Relevant LEP's, DCP's, REPs, and SEPPs

(1)(a) The names of each local environment plan and deemed environmental planning instrument applying to the land is/are listed below:-

Name of Instrument: Liverpool Local Environmental Plan 1997 Name of Zone: 3(a) Business 5(d) Special Uses - Local Road

#### (1)(b) Draft Local Environmental Plan(s)

The names of each draft Local Environmental Plan applying to the land that has been placed on exhibition under section 66(1)(b) of the Act, is/are listed below:-

Name of Draft Instrument: Nil Name of Zone: Nil

#### (1)(c) Development Control Plan(s) under Section 72

The names of each Development Control Plan applying to the land has been prepared by the council under section 72 of the Act is/are listed below:-

Liverpool Development Control Plan No. 3 – Car Parking Liverpool Development Control Plan No. 8 – Natural Assets Liverpool Development Control Plan No. 16 – Child Care Centres Liverpool Development Control Plan No. 30 – City Centre Liverpool Development Control Plan No. 32 – Exempt Development Liverpool Development Control Plan No. 33 – Complying Development Liverpool Development Control Plan No. 35 – Outdoor Advertising Liverpool Development Control Plan No. 37 – Notification and Advertising of Development Applications Liverpool Development Control Plan No. 39 – Places of Public Worship Liverpool Development Control Plan No. 40 – Intensive Livestock Agriculture (Poultry Farming) and Intensive Plant Agriculture (Greenhouse / Igloos / Market Gardening) Liverpool Development Control Plan No. 42 – Energy Smart Homes Liverpool Development Control Plan No. 45 – Outdoor Cafes Liverpool Development Control Plan No. 45 – Outdoor Cafes

#### (2)(a) Draft Development Control Plan(s)

The names of each Draft Development Control Plan applying to the land has been prepared by the council is/are listed below:-

Draft Development Control Plan No. 41 – Landfill and Earth Dams (All areas in LGA with exception of 7(b) Zoning)

#### (2)(b) Regional Environmental Plan(s)

The names of each Regional Environmental Plan applying to the land is/are listed below:

Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment This plan aims to preserve and protect and to encourage the restoration or

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rehabilitation of regionally significant sensitive natural environments, to preserve, enhance and protect the freshwater and estuarine ecosystems within the Catchment and to ensure that development achieves the environmental objectives for the Catchment.

#### (2)(c) Draft Regional Environmental Plan(s) The names of each draft Regional Environmental Plan applying to the land that has been placed on exhibition under section 47(b) of the Act is/are listed below:

Nil

#### (2)(d) Development Control Plan(s) under Section 51A

The names of each Development Control Plan applying to the land that has been prepared by the Director-General under section 51A of the Act are listed as follows:-

Nil

#### (3)(a) State Environmental Planning Policy(s) The names of each State Environmental Planning Policy appl

The names of each State Environmental Planning Policy applying to the land are listed below:-

State Environmental Planning Policy No. 60 – Exempt and Complying Development State Environmental Planning Policy No. 1 - Development Standards State Environmental Planning Policy No. 4 - Development without Consent and Miscellaneous Exempt and Complying Development State Environmental Planning Policy (Seniors Living) 2004 (Replaces State Environmental Policy Plan No. 5 - Housing for Older People or People with Disability) State Environmental Planning Policy No. 8 - Surplus Public Land State Environmental Planning Policy No. 9 - Group Homes State Environmental Planning Policy No. 10 - Retention of Low-Cost Rental Accommodation State Environmental Planning Policy No. 11 - Traffic Generating Developments State Environmental Planning Policy No. 16 - Tertiary Institutions State Environmental Planning Policy No. 19 - Bushland in Urban Areas State Environmental Planning Policy No. 21 - Caravan Parks State Environmental Planning Policy No. 22 - Shop and Commercial Premises State Environmental Planning Policy No. 30 - Intensive Agriculture State Environmental Planning Policy No. 32 - Urban Consolidation (Redevelopment of Urban Land) State Environmental Planning Policy No. 33 - Hazardous and Offensive Development State Environmental Planning Policy No. 35 - Maintenance Dredging of Tidal Waterways State Environmental Planning Policy No. 37 - Continued Mines and Extractive Industries State Environmental Planning Policy No. 44 - Koala Habitat State Environmental Planning Policy No. 45 – Permissibility of Mining State Environmental Planning Policy No. 48 - Major Putrescible Landfill Sites

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State Environmental Planning Policy No. 50 – Canal Estate Development State Environmental Planning Policy No. 55 – Remediation of Land State Environmental Planning Policy No. 64 – Advertising and Signage State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development

State Environmental Planning Policy Major Projects 2005 State Environmental Planning Policy Building Sustainability Index: BASIX 2004 State Environmental Planning Policy (ARTC Rail Infrastructure) 2004 State Environmental Planning Policy (Sydney Metropolitan Water Supply) 2004

# 3(b) Draft State Environmental Planning Policy(s)

The names of each draft State Environmental Planning Policy applying to the land that has been publicised as referred to in section 39(2) of the Act are listed below:-

Draft State Environmental Planning Policy No. 66 – Integration of Land Use and Transport

#### 2. ZONING AND LANDUSE UNDER RELEVANT LOCAL ENIVIRONMENTAL PLANS

(a) The purposes for which the plan or instrument provides that development may be carried out within the zone without the need for development consent are detailed in the attachments to this certificate.

(See Part 2 (Zoning Tables), Part 3 and Schedule 4 of LLEP 1997)

(b) The purposes for which the plan or instrument provides that development may not be carried out within the zone except with development consent are detailed in the attachments to this certificate.

(See Part 2 (Zoning Tables), Part 3 and Schedule 4 of LLEP 1997)

(c) The purposes to which this plan or instrument provides that development is prohibited within the zone are detailed in the attachments to this certificate.

#### (See Parts 2 and 3 of LLEP 1997)

Should you require further information about development standards and restrictions on development for any particular purpose or any purpose that may have an effect of prohibiting development, it is recommended that you consult a full copy of Liverpool Local Environmental Plan 1997 or other instrument or draft instrument if applicable.

#### (d) Dwelling House

The land's dimensions (when considered in isolation) are such as to permit the erection of a dwelling house on the land

# (e) Critical Habitat

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PLANNING CERTIFICATE UNDER SECTION 149 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The land does not include or comprises critical habitat.

(f) Conservation Area

Land is not located in a Conservation Area.

(g) Environmental Heritage

An item of Environmental Heritage is not situated on the land.

# 3. DECLARED STATE SIGNIFICANT DEVELOPMENT

This Clause was repealed in Government Gazette No. 96 on 29 July 2005.

# 4. Coastal Protection Act 1979

There has been no notification from the Department of Public Works that the land is subject to the operation of Section 38 or 39 of the Coastal Protection Act, 1979.

# 5. Mine Subsidence

The land is not within an area proclaimed to be a mine subsidence district within the meaning of the Mine Subsidence Compensation Act, 1961.

# 6. Road Widening and Road Realignment

The land is affected by road widening or road alignment proposal under an environmental planning instrument.

# 7. Council and Other Public Authority Policies on Hazard Risk Restrictions

# (a) Council Policy – Flooding

The land is not affected by a policy which restricts the development of the land because of the likelihood of flooding.

# (b) Council Policy – Other Risks

The land is not affected by a policy adopted by Council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk.

# (c) Public Authority Policies

The land is not affected by a policy adopted by any other public authority and notified to the Council for the express purpose of its adoption by that authority being referred to in the planning certificates issued by the Council, that restricts the development of the land because of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence, acid sulphate soils or any other risk.

# 8. Land Reserved for Acquisition by Corporation

Nil

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#### Land Reserved for Acquisition by Public Authority

Liverpool Local Environmental Plan 1997 applies to the land and provides for the acquisition of the land by a public authority, as referred to in Section 27 of the Act.

#### 9. CONTRIBUTION PLANS

The names of each contribution plan applying to the land are as follows:

Liverpool Contributions Plan 2001 applies to the land.

10. Matters Arising Under the Contaminated Land Management Act 1997 Nil

#### 11. Bushfire Prone Land

None of the land subject to this certificate is bush fire prone land as defined in the Environmental Planning and Assessment Act 1979.

For further information, please contact.. CALL CENTRE – 9821 9222

PHIL TOLHURST City Development Manager

Administration Centre 1 Hoxton Park Road, Liverpool NSW 2170, DX 5030 Liverpool CBD Office 193 Macquarie Street, Liverpool NSW 2170 All correspondence to The General Manager, Locked Bag 7064 Liverpool BC NSW 1871 Call Centre 1300 36 2170 Fax 9821 9333 Email lcc@liverpool.nsw.gov.au Web www.liverpool.nsw.gov.au TTY 9821 8800



# ATTACHMENTS TO SECTION 149(2) & (5) CERTIFICATES

Each Section 149(2) or 149(2) & (5) Certificate has attached **Parts 1, 2 and 3** of Liverpool Local Environmental Plan 1997.

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The following LEP extracts have also been attached:

Part 5 pages 3,4 and 5;

Schedule 7 page 1; and

Part 6 pages 3, 4 and 5

# Liverpool Local Environmental Plan 1997

# Part 1 Preliminary

# 1 Name of plan

This plan is Liverpool Local Environmental Plan 1997.

# 2 Objectives of this plan

The general objectives of this plan are:

- (a) to maintain and improve accessibility by identifying major transport corridors and concentrating intensive trip-generating activities in locations most accessible to public transport, and
- (b) to ensure that development is carried out in such a way as to allow the efficient and equitable provision of public services, infrastructure and amenities, and
- (c) to facilitate economic activity within the City of Liverpool without adverse social, economic or environmental impacts, and
- (d) to provide open space and to facilitate the development of community and recreation facilities which are needed for a high quality of lifestyle within the City of Liverpool, and
- (e) to protect and improve the amenity of the City of Liverpool, and
- (f) to conserve, protect and enhance the environmental and cultural heritage of the City of Liverpool, and
- (g) to protect personal safety and to minimise the risk of damage to areas subject to environmental hazards, particularly flooding, and
- (h) to encourage a diversity of housing to meet the needs of the residents of the City of Liverpool, and
- (i) to protect and improve the natural environment in the City of Liverpool, and
- (j) to facilitate development which is environmentally sustainable, and
- (k) to provide a basis for development control plans to supplement the broad controls in this plan with more detailed provisions for regulating the carrying out of development, and
- (I) to promote a high standard of urban and environmental design, and
- (m) to adopt and promote objectives for the development of land in smart growth precincts to provide for the location of appropriate land uses, supported by physical and social infrastructure.

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#### Land where this plan applies

- (1) This plan applies to all land within the City of Liverpool except for land marked "*deferred matter*" on the map.
- (2) However, this plan does not apply to the following land:

Land to which Sydney Regional Environmental Plan No 31 – Regional Parkland applies.

# 4 Effect of this plan on other environmental planning instruments

- (1) This plan:
  - (a) repeals all deemed environmental planning instruments and local environmental plans applying to land within the City of Liverpool immediately before the appointed day (including those specified in Schedule 1), except to the extent they apply to land shown as "deferred matter" on the map, and
  - (b) amends State Environmental Planning Policy No 25 Residential Allotment Sizes:
    - by inserting at the end of Schedule 1 the following words:
       Liverpool
       Land to which Liverpool Local Environmental Plan 1997 applies.
    - (ii) by omitting from Part 1 of Schedule 2 the matter relating to the City of Liverpool, and
  - (c) amends Sydney Regional Environmental Plan No 12 Dual Occupancy:
    - (i) by omitting clauses 8A, 8B and 8C, and
    - (ii) by inserting at the end of Schedule 1 the following words:
       Liverpool
       Land to which *Liverpool Local Environmental Plan 1997* applies.
    - (iii) by omitting from Schedule 3 the matter relating to the City of Liverpool, and
  - (d) amends Sydney Regional Environmental Plan No 18:
    - (i) by omitting the words City of Liverpool" from Schedule 1,
    - (ii) by omitting clauses 12 and 14 from Schedule 2.

- (2) Environmental planning instruments as in force immediately before the appointed day continue to apply to a development application if:
  - (a) the application was made but had not been finally determined before the appointed day, and
  - (b) the proposed development is prohibited by provisions of this plan but could, with consent, have been carried out in accordance with those instruments as so in force.

# 5 Consent authority

The Council is consent authority for the purposes of this plan.

#### 6 Definitions

(1) In this plan:

*Abattoir* means a building or place used for the commercial slaughter of animals, whether or not animal by-products are processed, manufactured or distributed there, and includes a knackery.

Act of prostitution includes sexual activity between persons of different sexes or of the same sex, comprising:

- (a) sexual intercourse as defined in section 61H of the Crimes Act 1900, or
- (b) masturbation committed by one person on another, for payment.

Advertisement means the display of symbols, messages or other devices for promotional purposes or for conveying information, instructions, directions or the like, whether or not the display includes the erection of a structure, or the carrying out of a work.

Agriculture means the keeping of breeding livestock on improved pastures, or the keeping of bees or birds, for commercial purposes but, in the Table to clause 9, does not include intensive livestock agriculture or intensive plant agriculture.

*Alter*, in relation to a heritage item or to a building, work or relic within a heritage conservation area, means:

- (a) make structural changes to its exterior, or
- (b) make non-structural changes to the detail, fabric, finish or appearance of its exterior, except changes resulting from any maintenance necessary for its ongoing protective care which does not adversely affect its heritage significance.

Animal boarding or training establishment means a building or place used for the breeding, boarding, training or keeping of, or for caring for, animals for commercial purposes, and includes a riding school and veterinary clinic. Appointed day means the day on which this plan takes effect.

**Aquaculture** means cultivating (including propagating and rearing) the living resources of the sea or inland waters, whether or not that cultivation is carried out in a farm established for that purpose using an artificially created body of water.

Area of an advertisement in the form of a sign means:

- (a) for a sign with only one side occupied by the matter displayed, the area within the outline of that sign, or
- (b) for a sign with two sides occupied by the matter displayed, the area within the outline of that sign or, where one side is larger than the other, the area within the outline of the larger side, or
- (c) for any other sign, one third of the total surface area of the sign.

Archaeological assessment report means a study undertaken to establish the archaeological potential (research potential) of a particular site and to identify appropriate management actions, in accordance with the guidelines for the time being notified to Council by the Heritage Council.

#### Arterial road means:

- (a) a road shown on the map as being within the 5(c) zone, or
- (b) a road declared to be a main road, controlled access road, secondary road or a tollway under the *Roads Act 1993*, or
- (c) a road shown on the Council's adopted Road Hierarchy (a copy of which is available from the office of the Council) as an arterial road or a sub-arterial road.

Assisted accommodation means a building or place, not being a group home, used for the purpose of:

- (a) temporary or permanent accommodation for socially disadvantaged people and incorporating facilities for their rehabilitation or relief, or
- (b) temporary or permanent accommodation for incurable or convalescing people.

*Attic* means a floor located in the roof space where the angle or pitch of the roof is not greater than 36°, and the roof pitches from the ceiling level of the uppermost floor immediately below that floor.

**Badgery's Creek proposed airport site** means land at Badgery's Creek shown as being within the proposed airport site boundary on the map comprising Appendix U to the draft Environmental Impact Statement entitled "Second Sydney Airport Site Selection Programme" prepared for the Commonwealth Department of Aviation by Kinhill Stearns and dated April 1985. **Bed and breakfast premises** means a dwelling where its permanent residents provide short term accommodation, which may include meals, for commercial purposes.

Boarding house means a building or place:

- (a) where accommodation, meals and laundry facilities are provided to residents of the building or place, and
- (b) which is not licensed to sell liquor within the meaning of the *Liquor Act* 1982.

**Brothel** means premises habitually used for the purpose of prostitution. Premises may constitute a brothel even though used by only one prostitute for the purpose of prostitution.

**Bulky goods salesroom or showroom** means a building or place used for the sale by retail or auction, or the hire or display, of any of the following:

- (a) furniture, or
- (b) electrical goods, or
- (c) toy and sporting equipment, or
- (d) office furniture, or
- (e) hardware, or
- (f) outdoor products, or
- (g) floor coverings, or
- (h) automotive parts and accessories, or
- (i) lighting, or
- (j) antiques and second-hand goods, or
- (k) kitchen or bathroom showrooms, or
- (I) tiles (floor, ceiling or wall).

*Bush fire hazard reduction* means a reduction or modification (by controlled burning or by mechanical, chemical or manual means) of material that constitutes a bush fire hazard.

**Bushland** means land on which there is vegetation which is either a remainder of the native plants of the land or, if altered, is still representative of the structure and floristics of the natural vegetation.

**Business identification sign** means an advertisement that displays any or all of the following information relating to the place or premises to which it is fixed:

- (a) the identity or a description of the place or the premises,
- (b) the identity or a description of any person residing or carrying on an occupation at the place or premises,
- (c) particulars of any occupation carried on at the place or premises,
- (d) such directions or cautions as are usual or necessary relating to the place or premises or any occupation carried on there,
- (e) particulars or notifications required or permitted to be displayed by or under any State or Commonwealth Act,
- (f) particulars relating to the goods, commodities or services dealt with or provided at the place or premises,
- (g) particulars of any activities held or to be held at the place or premises,
- (h) a reference to an affiliation with a trade, professional or other association relevant to the business conducted at the place or premises.

**Business premises** means a building or place in which there is carried on an occupation, profession, service, light industry or trade which provides a service directly and regularly to the public but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

*Caravan park* means land (including a camping ground) on which caravans (or caravans and other moveable dwellings) are, or are to be, placed or erected.

*Car park* means a building or place used for parking vehicles, and any manoeuvring space and access to it, whether operated for gain or not.

**Child care centre** means a building or place which is used (whether or not for profit) for the purpose of educating, minding or caring for children (whether or not any of the children are related to the owner or operator), but only if the following conditions are satisfied:

- (a) the children number 6 or more, are under 6 years of age, and do not attend a government school, or a registered non-government school, within the meaning of the *Education Reform Act 1990*, and
- (b) the children (other than those related to the owner or operator) do not reside at the building or place (unless it is exempt premises under the *Children (Care and Protection) Act 1987*).

*Clear*, in relation to land, means the destruction of, or removal in any manner, of native plants growing on the land, but does not include:

- (a) the destruction or removal of plants declared to be noxious by order pursuant to section 7 of the *Noxious Weeds Act 1993*, by means not likely to be significantly detrimental to the native eco-system, or
- (b) the incidental destruction or removal of native plants growing adjacent to any such noxious plants occurring unavoidably during the process of destroying or removing those noxious plants, or
- (c) forestry operations, or
- (d) bushfire hazard reduction.

**Communications facility** means a building, structure, work or place used primarily for transmitting or receiving signals for the purpose of communication, including radio masts, transmission towers, satellite discs and the like.

**Community facility** means a building or place owned or controlled by a public authority or a body of persons which provides for the physical, social, cultural, or intellectual development or welfare of the local community but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

**Conservation plan** means a document establishing the heritage significance of a heritage item or heritage conservation area and describing policies and management mechanisms that are appropriate to enable that significance to be retained in its future use and development.

**Contaminated land** means land identified in a register kept by the Council which contains soil that has in it a concentration of chemical substances (including substances listed in the *Australian Dangerous Goods Code*) that is likely to pose an immediate or long term hazard to human health or the environment by making the land:

- (a) unsafe or unfit for habitation or occupation by people or animals, or
- (b) degraded in its capacity to support plant life, or
- (c) otherwise environmentally degraded.

**Convenience store** means a shop selling a variety of small grocery goods, whether or not goods are available for hire there.

Corporation means the corporation constituted by section 8(1) of the Act.

*Council* means the Council of the City of Liverpool.

**Dam** means all works or activities, including stormwater retention basins, the placement of fill or the excavation of land, involved in the permanent or temporary storage of water on land which significantly alters the shape, natural form or drainage of land.

**Demolish** a heritage item or a building, work, relic, tree or place within a heritage conservation area means wholly or partly destroy or dismantle the heritage item, building, work, relic, tree or place.

**Depot** means a building or place used for the storage (but not sale) of plant, machinery, goods or materials used or intended to be used by the owner or occupier of the building or place but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

**Development for the purpose of public transport** includes the construction, reconstruction, realignment, relocation and widening of any road and any other development carried out in relation to a road.

**Dual occupancy housing** means two dwellings (whether attached or detached) on a single allotment of land (or which would be on a single allotment were it not for the fact that the allotment is to be subdivided when the development is carried out resulting in erection of the dwellings).

**Dwelling** means a room or number of rooms occupied or used, or so constructed or adapted as to be capable of being occupied or used, as a separate domicile.

**Dwelling house** means a dwelling (whether attached to another dwelling or not) which is the only dwelling erected on an allotment of land.

**Ecologically sustainable development** means development which uses, conserves and enhances the community's resources so that ecological processes on which life depends are maintained, and the total quality of life, now and in the future, can be increased.

*Edmondson Park Smart Growth Precinct* means the land edged heavy black on Sheet 1 of the map marked "Liverpool Local Environmental Plan 1997 (Amendment No 83)".

*Educational establishment* means a building or place used for education (including teaching) and includes:

- (a) a government school or non-government school within the meaning of the *Education Reform Act 1990*, and
- (b) a tertiary institution, including a university, and TAFE college, providing formal education which is constituted by or under an Act, and
- (c) an art gallery or museum, not used to sell the items displayed in it, whether or not accommodation for staff or students is provided there and whether or not it is used for the purpose of gain.

*Entertainment establishment* means a building or place used for the purpose of theatres or cinemas.

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*Entertainment facility* means a building or place used for the purpose of entertainment, exhibitions, displays or cultural events and includes:

- (a) sports stadiums, showgrounds, race courses and the like, and
- (b) music halls, concert halls, open air theatres, drive-in theatres and the like, and
- (c) entertainment centres, convention centres, exhibition centres and the like.

#### Environmental conservation activities means:

- (a) the carrying out of bushland regeneration and rehabilitation, or
- (b) weed or pest control, or
- (c) the construction of walking tracks and fencing and the carrying out of any other such work for the purposes of passive recreation activities.

**Exhibition home** means a dwelling built for the purposes of public exhibition and marketing which is intended to be sold as a private dwelling after it has been used for those purposes and may include a sales office, and a place used for providing home financing and a materials display, and the like.

**Exhibition village** means a contiguous group of exhibition homes and other buildings or works used for the purpose of promoting house sales including sales offices, and places used for providing home financing, a materials display and the sale of take-away food, and the like.

#### Extractive industry means:

- (a) winning extractive material, or
- (b) an undertaking, not being a mine, which depends for its operation on the winning of extractive material from the land on which it is carried out and includes any washing, crushing, grinding, milling, sawing or separating into different sizes of that extractive material on that land.

*Extractive material* means sand, gravel, turf, soil, rock, stone, sandstone or similar substances.

**Family day care centre** means a room or a number of rooms forming part of, attached to, or within the curtilage of, a dwelling where a care giving service (within the meaning of the *Family Day Care and Home Based Child Care Services Regulation 1996*) is provided and organised or arranged by a sponsoring body (for example, the Council) and which caters for up to 7 children under 12 years of age (including the care givers' children), but with a maximum of 5 children under 6 years of age.

**Flood liable land** means land identified by the Council as being inundated by the 1% probability flood event for the catchment in which the land is situated and indicated as flood liable land on a map marked "Flood Liable Land Map".

*Floor* means that space within a building which is situated between one floor level and the floor level next above or, if there is no floor above, the ceiling or roof above.

*Forestry* includes arboriculture, silviculture and the harvesting of trees and shrubs for the purpose of:

- (a) afforestation, forest protection, the cutting, dressing and preparing (otherwise than in a sawmill) of wood and other forest products, or
- (b) establishing roads necessary for the removal of wood and forest products and for forest protection.

*Generating works* means a building or place used for the purpose of making or generating gas, electricity or other forms of energy.

*Gross floor area* means the sum of the areas of each floor of a building where the area of each floor is taken to be the area within the outer face of the external enclosing walls as measured at a height of 1,400 millimetres above each floor level, excluding:

- (a) columns, fin walls, sun control devices, awnings and any other elements, projections or works outside the general lines of the outer face of the external wall, and
- (b) lift towers, cooling towers, machinery and plant rooms, ancillary storage space and air-conditioning ducts, and
- (c) car parking needed to meet any requirements of the Council and any internal designated vehicular or pedestrian access to it, and
- (d) space for the loading and unloading of goods, and
- (e) internal public arcades and thoroughfares, terraces, balconies with outer walls less than 1,400 millimetres high and the like.

*Ground level* means the level of a site as if no development has taken place, other than any filling of the site to meet a requirement of the Council.

*Hazardous industry* means a development for the purposes of an industry which, when the development is in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including measures to isolate the development from existing or likely future development on other land in the locality), would pose a significant risk in relation to the locality:

- (a) to human health, life or property, or
- (b) to the biophysical environment.

Hazardous storage establishment means any establishment where goods, materials or products are stored which, when in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including measures to isolate the establishment from existing or likely future development on the other land in the locality), would pose a significant risk in relation to the locality:

- (a) to human health, life or property, or
- (b) to the biophysical environment.

*Health consulting rooms* means a room or a number of rooms within a dwelling house used by not more than three persons to provide professional medical treatment or health care services (including dental, veterinary and optical services) to members of the public and who employ not more than 3 employees in connection with the practice.

*Heavy vehicle* means a vehicle with an unladen weight exceeding 3 tonnes but does not include fire engines, ambulances and other emergency vehicles.

*Heavy equipment* means equipment used in conjunction with heavy vehicles including, but not limited to, items such as trailers, container prime-movers and refrigerated vans or containers.

*Height*, in relation to a building, means the vertical distance measured between ground level at any point at which the building is sited, and the ceiling of the topmost floor of the building above that point.

*Helicopter landing site* means a place not open to the public used for the taking off and landing of helicopters.

*Heliport* means a place open to the public used for the taking off and landing of helicopters, whether or not it includes:

- (a) a terminal building, or
- (b) facilities for the parking, storage or repair of helicopters.

*Heritage conservation area* means an area identified on the map as a heritage conservation area by a dotted and dashed line.

*Heritage item* means a building, work, relic, tree or place specified in Schedule 2 and shown on the map by diagonal hatching or, in the case of trees, shown by a dotted line.

*Heritage significance* means historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance.

*Highway service centre* means a place which has direct access to a freeway or controlled access road and provides petrol and diesel fuel outlets, toilets, restaurant facilities (for either sit-down or take-away meals, or both), parking for cars, buses and trucks and emergency repair facilities.

*Home-based child care service* means any service, provided at the premises where the person providing the service resides, for the purpose of educating, minding or caring for one or more children (disregarding any children who are related to the person providing the service), but only if the following conditions are satisfied:

- (a) the children (other than those related to the person providing the service) do not reside at the premises, and
- (b) the service is licensed within the meaning of the Family Day Care and Home Based Child Care Services Regulation 1996.

*Home business* means the use of a dwelling or the land on which a dwelling is located, or of another building on any such land, for the purpose of an office, light industry or business, but only if:

- (a) that use is undertaken by the permanent residents of the dwelling, whether or not others are employed, and
- (b) the use does not interfere unreasonably in any way with the amenity of adjoining properties or the locality in which the dwelling is situated, and
- (c) the use does not involve public display or retail sale of any goods from the premises, and does not include a land use elsewhere defined in this clause, and
- (d) when it is carried out on land in the 2(a), 2(b), 2(c) or 2(d) zone, the use does not employ more than 6 employees or have a floor space exceeding 50 sqm, and
- (e) the use does not involve a brothel.

*Home occupation* means the use of a dwelling or the land on which a dwelling is located, or another building on any such land, for the purpose of an office or business, but only if:

- (a) that use is undertaken by the permanent residents of the dwelling, and
- (b) the use does not interfere unreasonably in any way with the amenity of adjoining properties or the locality in which the dwelling is situated, and
- (c) the use does not involve public display or retail sale of any goods from the premises, and
- (d) the use does not involve a brothel, and
- (e) the use does not involve the registration of the building under the Factories, Shops and Industries Act 1962, and
- (f) the use does not involve the exhibition of any notice, advertisement or sign (other than a notice advertisement or sign exhibited on that dwelling to indicate the name and occupation of the resident).

**Hospital** means a building or place used for the purpose of providing professional health care services (such as preventative or rehabilitative care, diagnosis, medical or surgical treatment, care for people with disabilities, psychiatric care or counselling and services provided by health care professionals) to people who are admitted as in-patients, including any:

- (a) ancillary facilities for the accommodation of nurses or other health care workers, ancillary shops or restaurants and ancillary accommodation for persons receiving health care or for their visitors, and
- (b) facilities situated in the building or at the place and used for educational or research purposes, whether or not they are used only by hospital staff or health care workers and whether or not any such use is a commercial use,

and includes a building or place that is used exclusively as a day surgery or day procedure centre.

*Hotel* means premises specified or proposed to be specified in a hotelier's licence granted under the *Liquor Act 1982*.

*Housing for aged or disabled persons* means residential accommodation which may take any building form, which is or is intended to be used as housing for the permanent accommodation of aged persons or disabled persons.

*Industry* means the manufacturing, assembling, altering, repairing, renovating, ornamenting, finishing, cleaning, washing, dismantling, processing or adapting of any goods, articles, materials, liquids or gases for commercial purposes but, in the Table to clause 9, does not include a land use elsewhere defined in this clause.

Integrated housing means development that consists of:

- (a) the subdivision of land into three or more allotments, and
- (b) the erection of a dwelling house on each of the allotments created by that subdivision.

*Intensive livestock agriculture* means a building or place used for the keeping or breeding of livestock or poultry or other birds, which are fed wholly or substantially on prepared or manufactured feed, and includes cattle feed lots, piggeries, poultry farms and worm farms, but excludes a building or place used only for drought or similar emergency relief.

*Intensive plant agriculture* means land used for the cultivation of crops, including cereals, fruit, flowers, nuts, vegetables, mushrooms, turf, irrigated rice, irrigated cotton, wholesale plant nurseries or hydroponics.

**Landfill** means all works or activities involved in the placement of fill on land, or an excavation of land, which significantly alters the shape, natural form or drainage of land but does not include dams.

*Light industry* means an industry in which the processes carried on, or the transportation involved or the machinery or materials used, do not interfere unreasonably with the amenity of the neighbourhood but, in the Table to clause 9, does not include an industry elsewhere defined in this clause.

# Local shop means a shop that:

- (a) operates primarily to service the surrounding residential area, and
- (b) trades principally in groceries, small goods and associated convenience items, but that may also offer a post office facility or a newsagency facility, and
- (c) does not exceed 75 square metres in gross floor area.

*Maintenance* means the continuous protective care of the fabric of a heritage item and its setting.

*Maintenance dredging* means the removal of alluvial material from:

- (a) the bed of a tidal water body:
  - (i) to enable the waterway to continue to function as a tidal waterway, or
  - (ii) to resume its function as a tidal waterway, or
- (b) deltas formed at stormwater outlets, drains or the junction of creeks with rivers, or
- (c) sediment ponds or dams or artificial wetlands, or
- (d) oyster leases,

to restore productivity.

Map means a map deposited in the office of the Council.

Marina means shoreside facilities for mooring or servicing boats providing:

- (a) facilities, including pontoons, jetties, piers, berths or moorings, and
- (b) facilities for dry or rack storage of vessels, repair, maintenance or refuelling of vessels, pumping out of sewage, sail lofts, spillways, hoists, and facilities for the provision of accessories or parts for boats or food for boating operations.

*Materials recycling yard* means a building or place used for collecting, dismantling, storing, or recycling of second-hand or scrap materials for the purpose of resale.

*Medical centre* means a building or place used for the purpose of providing professional health services (including preventative care, diagnosis, medical or surgical treatment or counselling) to out-patients only.

*Mine* means the obtaining (by methods including excavating, quarrying, dredging, tunnelling or drilling) or removal of minerals, petroleum or natural gas and includes the storage and processing of the material obtained.

*Mineral* has the same meaning as in the *Mining Act 1992*.

*Motel* means premises, not being a hotel, bed and breakfast premises or serviced apartments, used for the temporary or short term accommodation of travellers.
*Motor showroom* means a building or place used for the display or sale of motor vehicles, caravans, or boats, whether or not motor vehicle accessories, caravan accessories or boat accessories are sold or displayed there.

*Multiple dwellings* means three or more dwellings (whether or not attached) on one allotment of land, each with private open space at or near ground level.

*Native plants* means plants indigenous to the State of New South Wales, including trees, shrubs, ferns, vines, herbs and grasses indigenous to the State.

*Nuclear activities* includes any procedure or operation involved in the exploration for, or in the quarrying or mining, milling, conversion, enrichment, fabrication, reprocessing or disposal of, nuclear material.

*Nuclear facility* includes a nuclear reactor, a nuclear power plant, a critical facility, a conversion plant, a fabrication plant, a reprocessing plant, an isotope separation plant or an installation for the storage of nuclear material.

*Nuclear material* means any radioactive substance associated with the nuclear fuel cycle, including:

- (a) any substance which is capable of being transformed into fissile material, and
- (b) a substance capable of undergoing nuclear fission, and
- (c) spent fuel, and
- (d) waste,

but does not include isotopes or materials used for medical purposes.

**Offensive industry** means a development for the purposes of an industry which, when the development is in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including measures to isolate the development from existing or likely future development on other land in the locality), would emit a polluting discharge (including noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land in the locality.

Offensive storage establishment means any establishment where goods, materials or products are stored which, when in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including measures to isolate the establishment from existing or likely future development on other land in the locality), would emit a polluting discharge (including noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land in the locality.

**Office premises** means a building or place used for the purpose of administration, clerical, technical, professional or like activities, where dealings with members of the public are not on a direct and regular basis or otherwise than by appointment, but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

**Passenger transport terminal** means any building or place used for the assembly and dispersal of passengers travelling by any form of passenger transport, including any facilities required for parking, manoeuvring, storing or routine servicing of any vehicle forming part of that undertaking.

Permanent group home means a dwelling:

- (a) which is used to provide a household environment for disabled persons or socially disadvantaged persons, whether or not those persons are related, and
- (b) which is occupied by the persons referred to in paragraph (a) as a single household, with or without paid or unpaid supervision or care and with or without payment for board and lodging being required, but does not include a transitional group home or a building to which State Environmental Planning Policy No. 5 - Housing for Aged or Disabled Persons applies.

*Place of public worship* means a building or place used for the purpose of religious worship, whether or not the building or place is also used for counselling, social events or religious training by a congregation or religious group.

**Plant hire** means a building or place used to hire out tools, plant and equipment used by builders and do-it-yourselfers and for the service and maintenance of the tools, plant and equipment.

**Potential archaeological site** means a site specified in Schedule 3 and shown on the map by a dashed line and includes a site known to the Council to have archaeological potential even if it is not so identified.

**Precinct map** means: for the Southern Hoxton Park Aerodrome Smart Growth Precinct, Sheet 2 of the map marked "Liverpool Local Environmental Plan 1997 (Amendment No 71)" for the Edmondson Park Smart Growth Precinct, Sheet 1 of the map marked "Liverpool Local Environmental Plan 1997 (Amendment No 83)".

**Public building** means a building or place used as a business or office by a public authority or an organisation established for public purposes.

**Real estate sign** means an advertisement that contains only a notice that the place or premises to which it is fixed is or are for sale or letting (together with particulars of the sale or letting) and that is not displayed for more than 14 days after the letting or completion of the sale.

Recreation area means:

- (a) a children's playground, or
- (b) an area used for sporting activities or sporting facilities, or
- (c) an area used by the Council to provide recreational facilities for the physical, cultural or intellectual welfare of the community, or
- (d) an area used by a body of persons associated for the purpose of the physical, cultural or intellectual welfare of the community to provide recreational facilities for that purpose,

but does not include race-courses and showgrounds.

**Recreation facility** means a building or place used for sporting activities, recreation or leisure activities, or a shop selling take-away food or tourist related items, whether or not operated for the purpose of gain, and may consist of or include:

- (a) a swimming pool, golf course, tennis court, bowling green or playing field, and
- (b) a paint ball park or gun club, and
- (c) a go-kart track, skating rink, skateboard and rollerblade ramp or mini-golf course, and
- (d) a bowling alley, pinball and video parlour or pool hall, and
- (e) boating facilities, such as marinas, boat sheds, boat ramps or landing facilities.

**Registered club** means a building or place which is used by persons associated, or by a body incorporated, for social, literary, political, sporting, athletic or other lawful purposes and which is, or is intended to be, registered under the *Registered Clubs Act* 1976.

Relic means any deposit, object or material evidence relating to:

- (a) the use or settlement of the area of the City of Liverpool, not being Aboriginal habitation, which is more than 50 years old, or
- (b) Aboriginal habitation of that area, before or after its occupation by persons of European extraction, including human remains.

**Research establishment** means a building or place used for the testing of any industrial goods or any articles for commercial purposes.

**Research facility** means a building or place used for the design, research or development of any industrial goods or any articles for commercial purposes but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

**Residential flat building** means a building containing three or more dwellings but, in the Table to clause 9, does not include a building elsewhere defined in this clause.

**Restaurant** means a building or place, the principal purpose of which is the provision of food to people for consumption on the premises or to provide take-away meals.

**Retail plant nursery** means a building or place used for growing plants and selling plants by retail, whether or not landscape supplies (including earth products) or other landscape and horticultural products are also sold there.

Road means a public thoroughfare used for the passage of vehicles or animals.

**Roadside stall** means a place or temporary structure used for the selling by retail of agricultural produce produced on the allotment of land on which the place or temporary structure is located.

**Road transport terminal** means a building or place used for the bulk handling of goods for transport by road, and includes:

- (a) the facilities for the loading and unloading of the vehicles that transport those goods and for the parking, servicing and repair of those vehicles, and
- (b) a building or place used for the loading and unloading of containers,

but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

Rural industry means a business activity involving:

- (a) the handling, treating, processing or packing of primary products, or
- (b) regular servicing or repairing of plant, equipment or motor vehicles used for the purpose of agriculture, aquaculture or a business activity referred to in paragraph (a)

**Sanctuary** means a building or place used for the preservation of native flora or fauna, or both, but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

*Sawmill* means a mill used for handling, cutting and processing timber from logs or baulks.

Sector – see clause 8 (5).

Serviced apartments means a building containing two or more dwellings which are cleaned and otherwise serviced or maintained by the owner or manager of the building or the owner's or manager's agent.

Service station means a building or place used for the sale by retail of motor vehicle fuels and lubricants.

**Shop** means a building or place used for selling items, whether by retail or auction, or for hiring or displaying items for the purpose of selling or hiring them (whether the items are goods or materials).

*Site area*, in relation to development, means the area of land to which an application for consent to carry out the development relates, excluding it from any land on which the development is not permitted by this plan.

Smart growth precinct - See clause 8 (4).

Southern Hoxton Park Aerodrome Smart Growth Precinct means the land shown edged heavy black on Sheet 1 of the map marked "Liverpool Local Environmental Plan 1997 (Amendment No 71)".

**Statement of heritage impact** means a document which contains an assessment of the extent to which an application for development may affect the heritage significance of a heritage item or heritage conservation area.

Stock and sale yard means a building or place used for the purpose of offering livestock or poultry for sale.

## The Act means the Environmental Planning and Assessment Act 1979.

*The Map* means the series of maps marked "Liverpool Local Environmental Plan 1997", as amended by the maps (or specified sheets of the maps) marked as follows:

Liverpool Local Environmental Plan 1997 (Amendment No. 4) (gaz 67-9/4/98) Liverpool Local Environmental Plan 1997 (Amendment No. 5) (gaz 71-24/4/98) Liverpool Local Environmental Plan 1997 (Amendment No. 2) (gaz 87-29/5/98) Liverpool Local Environmental Plan 1997 (Amendment No. 6) - Sheet 2 (gaz 90-5/6/98) Liverpool Local Environmental Plan 1997 (Amendment No. 11) (gaz 115-31/7/98) Liverpool Local Environmental Plan 1997 (Amendment No. 12) (gaz 115-31/7/98) Liverpool Local Environmental Plan 1997 (Amendment No. 8) (gaz 135-18/9/98) Liverpool Local Environmental Plan 1997 (Amendment No. 10) (gaz 148-16/10/98) Liverpool Local Environmental Plan 1997 (Amendment No. 1) (gaz 176-18/12/98) Liverpool Local Environmental Plan 1997 (Amendment No. 9) (gaz 22-19/2/99) Liverpool Local Environmental Plan 1997 (Amendment No. 15) (gaz 22-19/2/99) Liverpool Local Environmental Plan 1997 (Amendment No. 14) (gaz 61-21/5/99) Liverpool Local Environmental Plan 1997 (Amendment No. 19) (gaz 141-17/12/99) Liverpool Local Environmental Plan 1997 (Amendment No. 36) (gaz 57-12/05/00) Liverpool Local Environmental Plan 1997 (Amendment No. 23) (gaz 59-19/05/00) Liverpool Local Environmental Plan 1997 (Amendment No. 25) (gaz 73-23/06/00) Liverpool Local Environmental Plan 1997 (Amendment No. 16) (gaz 88 -14/07/00) Liverpool Local Environmental Plan 1997 (Amendment No. 37) (gaz 88 -14/07/00) Liverpool Local Environmental Plan 1997 (Amendment No. 38) (gaz 117 -08/09/00) Liverpool Local Environmental Plan 1997 (Amendment No. 43) (gaz 121 - 15/09/00) Liverpool Local Environmental Plan 1997 (Amendment No. 29) (gaz 146 -10/11/00) Liverpool Local Environmental Plan 1997 (Amendment No. 45) (gaz 5-05/01/01) Liverpool Local Environmental Plan 1997 (Amendment No. 49) (gaz 41 -23/02/01) Liverpool Local Environmental Plan 1997 (Amendment No. 46) (gaz 86 -18/05/01) Liverpool Local Environmental Plan 1997 (Amendment No. 52) (gaz 95 -08/06/01) Liverpool Local Environmental Plan 1997 (Amendment No. 30) (gaz 111 -13/07/01) Liverpool Local Environmental Plan 1997 (Amendment No. 63) (gaz 143 -17/09/01) Liverpool Local Environmental Plan 1997 (Amendment No. 54) (gaz 190 -14/12/01) Liverpool Local Environmental Plan 1997 (Amendment No. 48) (gaz 190 -14/12/01) Liverpool Local Environmental Plan 1997 (Amendment No. 73) (gaz 38 -08/02/02) Liverpool Local Environmental Plan 1997 (Amendment No. 60) (gaz 65 - 22/03/02) Liverpool Local Environmental Plan 1997 (Amendment No. 65) (gaz 106 -28/06/02) Liverpool Local Environmental Plan 1997 (Amendment No. 68) (gaz 142 -06/09/02) Liverpool Local Environmental Plan 1997 (Amendment No. 61) (gaz 149 - 20/09/02) Liverpool Local Environmental Plan 1997 (Amendment No. 67) (gaz 237 - 29/11/02) Liverpool Local Environmental Plan 1997 (Amendment No. 44) (gaz 68 -04/04/03) Liverpool Local Environmental Plan 1997 (Amendment No. 82) (gaz 83 -09/05/03) Liverpool Local Environmental Plan 1997 (Amendment No. 57) (gaz 97-13/06/03) Liverpool Local Environmental Plan 1997 (Amendment No. 58) (gaz 97 -13/06/03) Liverpool Local Environmental Plan 1997 (Amendment No. 79) (gaz 126 - 15/08/03) Liverpool Local Environmental Plan 1997 (Amendment No. 53) (gaz 137 -05/09/03) Liverpool Local Environmental Plan 1997 (Amendment No. 55) (gaz 179 -14/11/03) Liverpool Local Environmental Plan 1997 (Amendment No. 78) (gaz 47 - 27/02/04) Liverpool Local Environmental Plan 1997 (Amendment No. 71) - Sheet 1 (gaz 98-18/06/04) Liverpool Local Environmental Plan 1997 (Amendment No. 75) (gez 117-09/07/04) Liverpool Local Environmental Plan 1997 (Amendment No. 95) (gaz 149-24/09/04) Liverpool Local Environmental Plan 1997 (Amendment No. 84) (gaz 38-01/04/05) Liverpool Local Environmental Plan 1997 (Amendment No. 76) (gaz 118-23/09/05) Liverpool Local Environmental Plan 1997 (Amendment No. 83) - Sheets 1-3 and, subject to clause 32D, Sheet 4 (gaz 40--31/03/06) Temporary sign means an advertisement of a temporary nature that:

- (a) announces any local event of a religious, educational, cultural, political, social, or recreational character or relates to any temporary matter in connection with such an event, and
- (b) does not include advertising of a commercial nature except the name of an event's sponsor.

Temporary signs may consist of advertisements in the form of banners, bunting, posters, inflatable structures and similar things.

## Transitional group home means a dwelling:

- (a) which is used to provide temporary accommodation, for the purpose of relief or rehabilitation, for disabled persons or socially disadvantaged persons, whether or not those persons are related, and
- (b) which is occupied by the persons referred to in paragraph (a) as a single household, with or without paid or unpaid supervision or care and with or without payment for board and lodging being required,

but does not include a permanent group home or a building to which State Environmental Planning Policy No 5-Housing for Aged or Disabled Persons applies.

*Transport depot* means a building or place used for the parking or storage of motor powered or motor drawn vehicles used in connection with a passenger transport undertaking, business, industry or shop.

*Tree* means a living perennial plant not less than 2 metres high which, if permitted to grow to maturity, would have a height in excess of 3 metres.

Definition added, Amendment No. 30 (gaz 111 – 13/7/01)

Utility installation means a building or work used for a utility undertaking.

*Utility undertaking* means any undertaking carried on by, or by authority of, a public authority or in pursuance of any Commonwealth or State Act, for the purpose of:

(a) railway, road, water or air transport, or wharf or river undertakings, or

- (b) the provision of sewerage or drainage services, or
- (c) the supply of water, hydraulic power, electricity or gas, or
- (d) telecommunications.

*Vacant land* means land on which, immediately before the day on which a notice requiring its acquisition is given under this plan, there were no buildings other than fences, green houses, conservatories, garages, summer houses, private boat houses, fuel sheds, tool houses, cycle sheds, aviaries, milking bails, hay sheds, stables, fowl houses, pig sties, barns or the like.

Vehicle body repair workshop means a building or place used for the repair of vehicles or agricultural machinery, involving body building, panel beating or spray painting. **Vehicle repair station** means a building or place used for the purpose of carrying out repairs or selling and fitting of accessories to vehicles or agricultural machinery.

**Veterinary hospital** means a building or place used for diagnosing or surgically or medically treating animals, whether or not animals are kept on the premises for the purposes of treatment.

Warehouse or distribution centre means a building or place used for storing, handling or displaying items (whether goods or materials) which have been produced or manufactured for sale, other than retail sale to the public from the building or place.

Waste disposal means landfill which involves the filling of land with:

- (a) sludge, or
- (b) putrescible waste, or
- (c) waste that includes any substance classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste.

Water body means:

- (a) a natural water body, including:
  - (i) a lake or lagoon either naturally formed or artificially modified, or
  - a river or stream, whether perennial or intermittent, flowing in a natural channel with an established bed or in a natural channel artificially modifying the course of the river or stream, or
  - (iii) tidal waters, including any bay, estuary or inlet, or
- (b) an artificial water body, including any constructed waterway, canal, inlet, bay, channel, dam, pond or lake,

but does not include a dry detention basin or other construction that is only intended to hold water intermittently.

#### Wetland means:

- (a) natural wetland which includes marshes, mangroves, backwaters, billabongs, swamps, sedgelands, wet meadows, or wet heathlands that form a shallow water body (up to 2 metres in depth) when inundated cyclically, intermittently or permanently with fresh, brackish or salt water, and where the inundation determines the type and productivity of the soils and the plant and animal communities, or
- (b) artificial wetland, which includes marshes, swamps, wet meadows, sedgelands or wet heathlands that form a shallow water body (up to 2 metres in depth) when inundated cyclically, intermittently or permanently with water, and that are constructed from and vegetated with wetland plant communities.

- (2) In this plan:
  - (a) a reference to a building, work or place used for a purpose includes a reference to a building, work or place proposed to be used for the purpose, and
  - (b) a reference to a map is a reference to a map kept in the office of the Council.
- (3) The list of contents of this plan and notes to this plan do not form part of this plan.

Clause amended, Amendment No. 26 (gaz 46 – 14/04/00)

Zone – See clause 8 (3).

## 6A What is Exempt Development?

- (1) Development listed as exempt development in *Liverpool City Council Development Control Plan No. 32 – Exempt Development*, as adopted by the Council on 3 September 1999, is exempt development (except as provided by subclause (2) and (3) and may be carried out without development consent.
- (2) Development is exempt development only if:
  - (a) it does not cause interference with the amenity of the neighbourhood because of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil or otherwise, and
  - (b) it complies with any deemed-to-satisfy provisions of the *Building Code of Australia* relevant to the development, and;
  - (c) it complies with any relevant standards set for the development by this plan and by *Liverpool City Council Development Control Plan No. 32 – Exempt Development* as adopted by the Council on 3 September 1999, and
  - (d) it does not contravene any condition of a development consent applying to the land, and
  - (e) it does not obstruct drainage of the site on which it is carried out, and
  - (f) it does not restrict any vehicular or pedestrian access to or from the site, and
  - (g) it is not carried out within any easement or public sewer main and complies with the building over sewer requirements of the Sydney Water Corporation applying to the land, and
  - (h) it does not require a tree to be removed, and
  - (i) it does not contravene any restriction on the land, imposes by or for the benefit of the Council in a section 88B instrument under the Conveyancing Act 1919.

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- (3) Development is not exempt development if it is carried out on the land that:
  - (a) is a heritage item or the site of a heritage item, or
  - (b) is an Aboriginal place under the National Parks and Wildlife Act 1974, or
  - (c) is identified as:
    - (i) land to which this plan does not apply (being land shown as "deferred matter" on the Map); or
    - (ii) land within the 5(b) Special Uses Railways zone, or
    - (iii) land within the 5(c) Special Uses Arterial Road zone, or
    - (iv) land within the 5(c) Special Users Local Road zone, or
    - (v) land within the 6(b) Recreation Private zone, or
    - (vi) land within the 6(c) Recreation Corridor zone, or
    - (vii) land within the 7(b) Environmental Protection Waterway zone, or
    - (viii) land within the 7(b) Environmental Protection Bushland zone, or
    - (ix) land within the 7(c) Environmental Protection Conservation zone, or
    - (x) land on which there is significant vegetation (being land shown with crosshatching on the Map), or
    - (xi) a potential archaeological site (being land specified in Schedule 3), or
  - (d) is reserved or dedicated under the Crown Lands Act 1989 for the preservation of flora, fauna or geological formations or for other environmental protection purposes, or
  - (e) is an aquatic reserve declared under the Fisheries Management Act 1994, or
  - (f) is flood liable land, or
  - (g) is within 40 metres of a waterway.

Section 76(3) of the EP&A Act states that exempt development cannot be carried out on the land that is: (a) critical habitat (within the meaning of the Threatened Species Conservation Act 1995); or

within a wilderness area (within the meaning of the Wildness Act 1987).

(6)

Note

## 6B What is Complying Development?

- (1) Development listed as complying development in *Liverpool City Council* Development Control Plan No. 33 – Complying Development, as adopted by the Council on 3 September 1999, is complying development if:
  - (a) it is local development of a kind that can be carried out with consent on the land on which it is proposed, and
  - (b) it is not an existing use, as defined in section 106 of the Act,

except as provided by subclauses (2) and (3).

- (2) Development is complying development only if:
  - (a) it complies with any deemed-to-satisfy provisions of *the Building Code of Australia* relevant to the development, and
  - (b) it will achieve the outcomes for the development listed in *Liverpool City Council Development Control Plan No.* 33 – *Complying Development*, as adopted by the Council on 3 September 1999, and
  - (c) it complies with the relevant development standards set for the development by this plan and *Liverpool City Council Development Control Plan No.* 33 *Complying Development*, as adopted by the Council on 3 September 1999, and
  - (d) no environmental planning instrument states that the adequacy of an acid sulfate soils management plan for the proposed development must be considered before consent can be granted for it, and
  - (e) it is consistent with any plan for management approved under *State Environmental Planning Policy No.* 44 – Koala Habitat Protection, and with any recovery plan or threat abatement plan in force under the Threatened Species Conservation Act 1995 that apply to the land, and
  - (f) it does not contravene any condition of development consent applying to the land, and
  - (g) it is not carried out within any easement or public sewer main and complies with the building over sewer requirements of the Sydney Water Corporation applying to the land, and
  - (h) it does not require a tree to be removed, and
  - (i) it does not contravene any restriction on the land, imposed by or for the benefit of the Council is a section 88B instrument under the Conveyancing Act 1919.

Section 76A(6) of the EP&A Act states that the following development can not be complying development:

- State significant development.
- designated development,

Note:

(a)

(b)

(c) any development, if consent for it requires the concurrence of a person other than the consent authority or the Director-General of National Parks and Wildlife, as referred to in section 79B(3) of the EP&A Act.

- (3) Development is not complying development if it is carried out on land that:
  - (a) is identified in this or any other environmental planning instrument, as bushfire prone, flood liable, or contaminated land, or land subject to subsidence, slip or erosion, or land within 40 metres of a waterway, or
  - (b) is a site that has previously been used as a service station or a sheep or cattle dip, for intensive agriculture, mining or extractive industry, for waste storage or waste treatment or for the manufacture of chemicals, asbestos or asbestos products, and a notice of completion of remediation work for the proposes use has not been given to the Council in accordance with State Environmental Planning Policy No, 55 – Remediation of Land, or
  - (c) is an Aboriginal place under the National Parks and Wildlife Act 1974, or
  - (d) is identified as:
    - (i) land to which this plan does not apply (being land shown as "deferred matter" on the Map); or
    - (ii) land within the 5(b) Special Uses Railways zone, or
    - (iii) land within the 5(c) Special Uses Arterial Road zone, or
    - (iv) land within the 5(c) Special Uses Local Road zone, or
    - (v) land within the 6(b) Recreation Private zone, or
    - (vi) land within the 6(c) Recreation Corridor zone, or
    - (vii) land within the 7(a) Environmental Protection Waterway zone, or
    - (viii) land within the 7(b) Environmental Protection Bushland zone, or
    - (ix) land within the 7 (c) Environment Protection Conservation zone, or
    - (x) land on which there is significant vegetation (being land shown with cross-hatching on the Map), or
    - (xi) a potential archaeological site (being land specified in Schedule 3), or
  - (e) is reserved or dedicated under the Crown Lands Act 1989 for the preservation of flora, fauna or geological formations or for other environmental protection purposes, or

- (f) is an aquatic reserve declared under the Fisheries Management Act 1994, or
- (g) is a special area or outer catchment area within the meaning of the Sydney Catchment Management Act 1998, or
- (h) is within 200 metres of a poultry farm.

Note: Section 76A(6) of the EP&A Act states that development can not be complying development if it is carried out on land: that is critical habitat (within meaning of the Threatened Species (a) Conservation Act 1995), or that is within a wilderness area (within the meaning of the Wilderness (b) Act 1987), or that comprises, or on which there is, an item of the environmental (c) heritage to which an order under the Heritage Act 1977 applies or that is identified as such an item in an environmental planning instrument. or that is identified as an environmentally sensitive area in the (d) environmental planning instrument providing for the complying development

Clauses 6A and 6B added, Amendment No. 25 (gaz 46 – 14/04/00)

## 7 Covenants

- (1) Any agreement, covenant or similar instrument which controls development permitted by this plan does not apply to the extent necessary to permit that development.
- (2) Nothing in subclause (1) affects the rights or interests of any public authority under any registered instrument.
- (3) In accordance with section 28 of the Act, the Governor approved of subclauses (1) and (2) before this plan was made.

- (6) The objectives of the 1(f) zone are:
  - (a) to permit the continuation of existing rural residential development, and
  - (b) to permit a limited range of compatible development on land within the zone where it can be shown that the development will not:
    - (i) compromise the extent, quality or integrity of the ecological attributes of the land, and
    - (ii) compromise the extent, quality or integrity of any identified Aboriginal heritage values of the land, and
    - (iii) compromise the potential for restoration and enhancement of the scenic landscape and vegetation communities within the locality, and
    - (iv) cause or increase soil salinity or compromise water quality or quantity, or riparian corridors or vegetation communities, within the locality, and
  - (c) to provide opportunities for the provision of vegetated biological linkages and the revegetation of the scenic landscape, riparian corridors and vegetation communities located on land within, and adjacent to, the zone.

## 34 Minimum allotment sizes

- Land in the 1(a), 1(b), 1(c), 1(d) or 1(f) zone may, subject to subclauses (2) and
   (3), be subdivided only if each allotment created has an area not less than the area specified for each zone as follows:
  - 1(a) 40 ha 1(b) 2 ha 1(c) 2 ha
  - 1(d) 1 ha
  - 1(f) 0.5ha
- (2) The following land may be subdivided only if each allotment created has an area of not less than 5 ha:

Lots 5 and 6, DP 791971 Lots 7 and 8, DP 791971 Lots 24, 25 and 38, DP 803008

- (3) Land in the 1(a), 1(b), 1(c), 1(d), 1(e) or 1(f) zone may be subdivided to create allotments of any size for the purpose of:
  - (a) widening a public road, or
  - (b) making an adjustment to a boundary between allotments, being an adjustment that does not involve the creation of any additional allotment, or
  - (c) rectifying an encroachment upon an allotment, or

- (d) creating a public reserve, or
- (e) consolidating allotments, or
- (f) excising from an allotment land which is, or is intended to be, used for public purposes, including drainage purposes, bush fire brigade or other rescue service purposes or public conveniences.
- (4) Land in the 1(e) zone may, subject to subclause (3), be subdivided only by excising an aliotment around an existing dwelling to enable the residue of the allotment to be consolidated with another allotment.

## 35 Minimum allotment sizes for dual occupancy housing

- (1) Dual occupancy housing involving detached dwellings may, subject to subclause (2), be carried out with consent in the 1(a), 1(b), 1(c), 1(d) or 1(e) zone only if the area of the allotment to which the application relates is not less than the area specified for each zone as follows:
  - 1(a) 2 ha
  - 1(b) 1.2 ha
  - 1(c) 4 ha
  - 1(d) 2 ha
  - 1(e) 2 ha
- (2) Dual occupancy housing involving detached dwellings may be erected with consent on the following land only if the land has an area not less than 10 ha:

Lots 5 and 6, DP 791971 Lots 7 and 8, DP 791971 Lots 24, 25 and 38, DP 803008

## 36 Minimum allotment size for a dwelling house

- (1) A dwelling house may be erected with consent in the 1(e) zone only if the area of the allotment to which the application relates is 2 ha or more.
- (2) A dwelling-house may be erected with consent on a parcel specified in Schedule 7 if that parcel has been consolidated into one allotment.

## 37 General restrictions on development

Consent for development on land in the 1(a), 1(b), 1(c), 1(d), 1(e) or 1(f) zone may be granted only if each building or work resulting from carrying out the development would, in the opinion of the Council, be compatible with the character and amenity of nearby areas (both existing and likely future) in terms of:

- (a) its scale, bulk, design, height, siting and landscaping, and
- (b) its operation, and
- (c) traffic generation and car parking, and

- (d) noise, dust, light and odour nuisance, and
- (e) privacy, and
- (f) stormwater drainage, and
- (g) hours of operation, and
- (h) overshadowing.

## 38 Restrictions on development near arterial roads

Notwithstanding any other provision of this plan, land in the 1(a), 1(b), 1(c), 1(d) or 1(e) zone shall not be subdivided or used for the purpose of any of the following:

educational establishments,

entertainment facilities,

extractive industries,

generating works,

hazardous industries,

heliports,

hospitals,

mines,

offensive industries,

places of public worship,

public buildings,

recreation facilities,

registered clubs,

retail plant nurseries,

roadside stalls,

rural industries,

sawmills,

stock and sale yards,

veterinary hospitals,

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Item No	Property Description	Address
1	Lots 1 - 4 (inclusive) DP 18891	Greendale Rd, Greendale
2	Lots 13 - 16 (inclusive), DP 18891	Greendale Rd, Greendale
3	Lots 17 - 20 (inclusive), DP 18891	Greendale Rd, Greendale
4	Lots 38 - 48 (inclusive), DP 18891	Greendale Rd, Greendale
5	Lots 50 - 51 (inclusive), DP 18891	Greendale Rd, Greendale
6	Lots 4 - 9 (inclusive), Sec B, DP 1443	Church Rd, Denham Court
7	Lots 10 - 11 and Lots 17-21 (inclusive), · Sec B, D P 1443	Church Rd and Campbeiltown Rd, Denham Court
8	Lots 12 - 16 (inclusive), Sec B, DP 1443	Campbelltown Rd, Denham Court
9.	Lots 27 - 28 (inclusive), Sec B, DP 1443	Campbeiltown Rd, Denham Court
10	Lots 29 - 31 (inclusive), Sec B, DP 1443	Campbelltown Rd, Denham Court
11	Lots 32 - 39 (inclusive), Sec B, DP 1443	Campbelltown Rd, Denham Court
12	Lots 35 - 37 (inclusive), Sec B, DP 1443	Campbelitown Rd, Denham Court

## Schedule 7 Minimum allotment sizes

(Clause 36 (2))

## 40 General restrictions on development

Consent may be granted for a building on land in the 2(a), 2(b), 2(c), 2(d), 2(e) or 2(f) zone only if it would be compatible with the character and amenity of both the existing and likely future nearby residential areas in terms of:

- (a) its scale, bulk, design, height, siting and landscaping, and
- (b) its operation, and
- (c) traffic generation and car parking, and
- (d) noise, dust, light and odour nuisance, and
- (e) privacy, and
- (f) stormwater drainage, and
- (g) hours of operation, and
- (h) overshadowing.

## 41 General considerations for residential development

Before determining an application for consent to carry out development on land in the 2 (a), 2 (b), 2 (c), 2(d), 2(e) or 2(f) zone for the purpose of dual occupancy housing, multiple dwellings, integrated housing, housing for aged or disabled persons or residential flat buildings, the Council must consider the following:

- (a) whether adequate arrangements have been made for the removal and the disposal of waste from each proposed dwelling,
- (b) whether adequate provision has been made for the supply of water to and the disposal of sewage and stormwater from each proposed dwelling,
- (c) whether adequate provision is made for the privacy of the occupants of each proposed dwelling and of any adjacent buildings,
- (d) whether adequate provision is made in respect of access to natural light for each proposed dwelling and for any adjacent buildings,
- (e) whether there is a demonstrated need for access for the purpose of maintaining services and buildings and, if so, whether adequate arrangements have been made for such access,
- (f) whether there is a demonstrated need for off street car parking and, if so, whether adequate arrangements have been made for such parking.

Clause amended, Amendment No. 1 (gaz 176 - 18/12/98)

## 41A Minimum allotment sizes and widths

- (1) **Subdivision** Land in the 2(a), 2(c), 2(d), 2(e) or 2(f) zone may, subject to this clause, be subdivided only if each allotment created has:
  - (a) an area of not less than 450sqm, not including the area of any access way in the case of a hatchet shaped allotment, and
  - (b) a minimum width of not less than 15m, not including the width of any access way in the case of a hatchet shaped allotment.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

- (1A) **Subdivision** Land in the 2(b) zone may, subject to this clause, be subdivided only if each allotment created has:
  - (a) an area of not less than 600sqm, not including the area of any access way in the case of a hatchet shaped allotment, and
  - (b) a minimum width of not less than 20m, not including the width of any access way in the case of a hatchet shaped allotment.

Clause added, Amendment No. 18 (gaz 128 - 12/11/99)

- (2) **Small lot housing subdivision** Land in the 2(a) or 2(c) zone may, subject to subclause (7), be subdivided for the purpose of small lot housing only if each allotment created and on which a dwelling will be situated has:
  - (a) an area of not less than 270sqm, not including that area of any access way in the case of a hatchet shaped allotment, and
  - (b) a minimum width of not less than 12m, not including the width of any access way in the case of a hatchet shaped allotment, unless paragraph (c) applies, and
  - (c) a minimum width of not less than 9m, not including the width of any access way in the case of a hatchet shaped allotment, if the average of all the minimum widths of lots created by the subdivision will not be less than 12m, and
  - (d) a restriction placed on its use restricting the location of the dwelling to be situated on the land in the case of land having an area of less than 450sqm.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

(3) Dual occupancy housing-minimum width and site area Consent may be granted for dual occupancy housing, other than where one of the dwellings has a floor area not greater than 60sqm, in the 2(a), 2(b) or 2(c) zone if the allotment has an area of not less than 600sqm, not including the area of any access way in the case of a hatchet shaped allotment, and:

- (a) the minimum width of the allotment is not less than 24m, not including the width of any access way in the case of a hatchet shaped allotment, or
- (b) in the case of a corner allotment, the width of at least one frontage to a street is not less than 24m.
- (4) **Dual occupancy and integrated housing subdivision** Land in the 2(a) or 2(c) zone may be subdivided for the purpose of dual occupancy housing or integrated housing only if:
  - (a) each allotment created has an area of not less than 270sqm, and
  - (b) the average of the areas of all allotments is not less than 300sgm, and
  - (c) each allotment has a minimum width of not less than 9m, not including the width of an access way in the case of a hatchet shaped allotment, and the average of the minimum widths of lots created by the subdivision is not less than 12m.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

(4A) **Dual occupancy and integrated housing subdivision** Land in the 2(b) zone must not be subdivided for the purpose of dual occupancy housing or integrated housing.

Clause added, Amendment No. 18 (gaz 128 - 12/11/99)

- (5) **Multiple dwellings minimum width and site area** Consent may be granted for multiple dwellings in the 2(a) or 2(d) zone if:
  - (a) the minimum width of the allotment on which they will be is not less than 24m, not including the width of an access way in the case of a hatchet shaped allotment, and
  - (b) the allotment size is not less than 1000sqm, not including the width of an access way in the case of a hatchet shaped allotment.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

- (6) **Residential flat buildings minimum width and site area** Consent may be granted for residential flat buildings in the 2(c) or 2(d) zone only if:
  - (a) the minimum width of the allotment is not less than 24m, not including the width of an access way in the case of a hatchet shaped allotment, and
  - (b) the allotment size is not less than 1000sqm, not including the width of an access way in the case of a hatchet shaped allotment.

- (7) **Other subdivision** Land in the 2(a), 2(b), 2(c) or 2(d) zone may be subdivided to create allotments of any size for the purpose of:
  - (a) widening a public road: or
  - (b) making an adjustment to a boundary between allotments, being an adjustment that does not involve the creation of any additional allotment; or
  - (c) rectifying an encroachment upon an allotment; or
  - (d) creating a public reserve; or
  - (e) consolidating allotments; or
  - (f) excising from an allotment land which is, or is intended to be, used for public purposes, including drainage purposes, bush fire brigade or other rescue service purposes or public conveniences.

Clause added, Amendment No. 1 (gaz 176 - 18/12/98)

## 42 Moteis

Consent may be granted for a motel within the 2 (a) or 2 (b) zone only if the land on which it is to be built has frontage to an arterial road, across which frontage vehicular access is permitted, or to another road connecting to an arterial road, where vehicular access to the land is within 90m (measured along the connecting road) of the arterial road.

#### 43 Exhibition homes or land sales offices

Consent may be granted for an exhibition home, exhibition village or land sales office on land within the 2 (a), 2 (c), 2(d), 2(e) or 2(f) zone only if:

- (a) it is designed in such a way that it will not adversely affect the character and amenity of the existing and likely future nearby residential areas, even after the buildings concerned cease to be used for exhibition or sales, and
- (b) it is designed in such a way that it will accommodate the demand for car parking and will not adversely affect traffic movement on nearby existing or future residential areas, and
- (c) it will not generate a demand for car parking, or adversely affect traffic movement, on an arterial road, and
- (d) its use for exhibition or sales is restricted by a condition of development consent to a limited period.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

# Part 2 General controls for land in zones or in sectors in smart growth precincts

## 8 Zones and sectors

- (1) Land to which this plan applies may be within a zone or, if the land is in a smart growth precinct, within a sector.
- (2) The numbers and names of zones and the names of sectors are as follows:

## Zones

- 1 (a) Rural
- 1 (b) Rural Small Holdings
- 1 (c) Rural Environment Protection
- 1 (d) Rural Residential
- 1 (e) Rural Future Urban
- 1 (f) Rural Landscape Protection
- 2 (a) Residential
- 2 (b) Residential Race Course
- 2 (c) Residential Flat Buildings
- 2 (d) Residential -- City Centre
- 2 (e) Residential Developing Communities
- 2 (f) Residential Mixed Development
- 3 (a) Business
- 3 (b) Business Highway
- 3 (c) Business Town Support
- 3 (d) Business Town Centre
- 4 (a) Industrial
- 4 (b) Industrial Special
- 4 (c) Industrial Business Park
- 4 (d) Industrial Business Enterprise
- 5 (a) Special Uses
- 5 (b) Special Uses Railways
- 5 (c) Special Uses Arterial Road
- 5 (d) Special Uses Local Road
- 6 (a) Recreation Public
- 6 (b) Recreation Private
- 6 (c) Recreation Corridor
- 7 (a) Environment Protection Waterway
- 7 (b) Environment Protection Bushland
- 7 (c) Environment Protection Conservation
- 8 (b) National Parks and Nature Reserves

New 3(c) zone added, Amendment No. 10 (gaz 148 - 16/10/98) New 7(c) zone added, Amendment No. 75 (gaz 117-09/07/04) New 1(f) 2(e) 2(f) 3(d) 8(b) zones added, Amendment No. 83 (gaz 40-31/03/06)

## Sectors in smart growth precincts

Neighbourhood Centre Small Lot Residential School Water Management Environmental Corridor Medium Density Residential Standard Residential Community Purposes Open Space

- (3) Land is within a zone if it is indicated on the map by the number of the zone.
- (4) Land is within a smart growth precinct if it is indicated on the map by the name of the smart growth precinct. Schedule 10 includes provisions for each named smart growth precinct.
- (5) Land is within a sector if it is indicated on the precinct map for the smart growth precinct within which it is situated by the colour corresponding to the sector.

## 9 Development which is allowed or prohibited within a zone or sector

- (1) Unless otherwise provided by this plan, the Table to this clause specifies for each zone and sector:
  - (a) development which may be carried out without consent, where " < \*" is shown corresponding to that development, and
  - (b) development which may be carried out only with consent, where " ✓ " is shown corresponding to that development.
- (2) Development referred to in the Table to this clause is prohibited in a zone if " ✓ \*" or " ✓ " is not shown corresponding to that development.
- (3) Development which is not referred to in the Table to this clause may be carried out only with consent (except within the 6(c) zone, in which any such development is prohibited).
- (4) The Council may grant consent to development only if the Council has had regard to the following:
  - (a) the general objectives and other objectives of this plan,
  - (b) the objectives of the zone or smart growth precinct in which it is proposed to be carried out, and
  - (c) in the case of land within a smart growth precinct, any relevant recommendations for the design and other features of the proposed development that are indicated on the precinct map for the precinct, and
  - (d) the other provisions of this plan.

			ZONE				
DEVELOPMENT for the purpose of:	RURAL	RESIDENTIAL	BUSINESS	INDUSTRIAL	SPECIAL USES	RECREATION	ENVIRONMENT PROTECTION
	1 1 1 1 1 1 (a) (b) (c) (d)(e) (f)	2 2 2 2 2 2 2 (a)(b)(c) (d)(e)(f)	3333 (a)(b) (c) (d)	4 4 4 4 (a) (b) (c) (d)	55555 (a) (b) (c) (d)	6 6 6 (a) (b) (c)	777 (a)(b)(c)
Abattoirs	\$ \$			<b>v</b> v			
Advertisements		•		¥	· · ·	~ ~	
Agriculture	U+U-V+U+ U	~ ~ ~ ~	~ ~ ~	~ ~ ~		~ ~ ~	
Animal boarding or training establishments	• •	v _	• •	· · · ·		~ ~	
Aquaculture	~ ~ ~ ~ ~	~ ~ ~ ~	* *	~ ~ ~		~ ~	
Assisted accommodation			~ ~ ~				
Bed and breakfast premises						~	
Boarding houses		~ ~ ~ ~ ~					·
Brothels		·.		U			
Bulky goods salesrooms or showrooms			~ ~ ~				
Business premises			~ ~ ~		~		
Caravan parks						· ·	
Car parks			~ ~ ~ ~				
Child care centres	~ ~ ~ ~ ~ ~ ~ ~		~ ~ ~ ~		~ ~	~ ~	
Cinemas							
Communication facilities			~ ~ ~				
Community facilities	• • • •		~ ~ ~ ~ ~		~ ~		
Convenience stores		~	~ ~ ~ ~ ~				
Dams							
Depots			~ ~			 	
Dual occupancy housing			~ ~				~
Dwelling houses		~ ~ ~ ~ ~ ~ ~			<u> </u>	~	
Educational establishments			~ ~ ~ ~ ~	~ ~ ~ ~			
Entertainment facilities	••	· · · · · · · · · · · · · · · · · · ·				~ ~	
Exhibition homes			~ ~				

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DEVELOPMENT for the purpose of:	RURAL	RESIDENTIAL	BUSINESS	INDUSTRIAL	SPECIAL USES	RECREATION	PROTECTION
	1 1 1 1 1 1 (a) (b) (c) (d)(e) (f)	2 2 2 2 2 2 2 (a)(b)(c) (d)(e)(f)	3333 (a)(b) (c) (d)	4 4 4 4 (a) (b) (c) (d)	5 5 5 5 (a) (b) (c) (d)	6 6 6 (a) (b) (c)	777 (a)(b)(c)
Exhibition villages		~ ~ ~ ~ ~ ~	~ ~				ļ
Extractive industries	J J			~ ~	~	~ ~ <u>~</u>	· ·
Family day care centres	v * v * v * v * v * v *	~±~*~*~*	v + v + v + v +	*			 
Forestry		~ ~ ~ ~	U U		~	J J	
Generating works	~ ~			~ ~ ~		Ļ	<u> </u>
Hazardous industries	*			. <b>.</b> .			
Hazardous storage establishments	~			<b>~</b> ~			
Health consulting rooms			~ ~ ~ ~		U U		
Helicopter landing sites	~ ~ ~ ~		~ ~	~ ~ ~ ~	~	<b>.</b>	
Heliports			~	~ ~ ~ ~	<u>_</u>	ļ	
Highway service centres					~		
Home-based child care services	v+v+ v+v+v+v+	~*~~*~~*~*		+ ب + ب			
Home businesses			~ ~ ~ ~	~ ~ ~			. •
Home occupations	J+J+ J+J+J+J+J+	v*v*v*v*v*v*	v*v*v*v*	v * v * v *	v*		**
Hospitals	~~~~	~ ~ ~ ~ ~ ~			· ·	· •	_
Hotels		1	~ ~ ~ ~	~ ~ ~	-	~	
Housing for aged or disabled persons			~ ~ ~ ~				
Industries				~ ~ ~			
Integrated housing		~ ~ ~ ~					
Intensive livestock agriculture	~ ~			~ ~ ~		~	
Intensive plant agriculture			~~	~ ~ ~	~	~ ~ ~	
Landfill		~~~~~	~ ~ ~ ~	~ ~ ~ ~	~ ~ ~ ~		
Light industries			~ ~ ~	~ ~ ~ ~			
Local shops		~ ~~	~				
Maintenance dredging		v+v+v+v+			v+ v+ v+v+		v*v*v

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	<u> </u>		ZONE				
DEVELOPMENT for the purpose of:	RURAL	RESIDENTIAL	BUSINESS	INDUSTRIAL	SPECIAL USES	RECREATION	ENVIRONMENT PROTECTION
	1 1 1 1 1 1 1 (a) (b) (c) (d)(e) (f)	2 2 2 2 2 2 2 (a)(b)(c) (d)(e)(f)	3333 (a)(b) (c) (d)	4 4 4 4 (a) (b) (c) (d)	5 5 5 5 (a) (b) (c) (d)	6 6 6 (a) (b) (c)	7 7 7 (a)(b)(c)
Marinas			<b>v</b> v	~ ~ ~		~ ~	<b>~</b>
Materials recycling yards		· · ·		<b>.</b> .	<u>,</u>		
Medical centres		~	~ ~ ~ ~		<u>.</u>		· · · · · · · · · · · · · · · · · · ·
Mines	~ ~	``````````````````````````````````````					
Motels		** * *	~ ~ ~ ~	~ ~ ~ ~	~	~	ļ
Motor showrooms			~ ~ ~	~ ~			
Multiple dwellings			~ ~ ~			ļ	
Nuclear activities							
Nuclear facilities							
Offensive industries	~	,		~ ~			
Offensive storage establishments				~ ~			
Office premises		~	~ ~ ~ ~	·		<u></u>	
Passenger transport terminals				~ ~ ~		-	
Permanent group homes		~ ~ ~ ~ ~ ~ ~	~ ~ ~				
Places of public worship			~ ~ ~ ~		-	<b>√</b> .	
Plant hire			~ ~ ~	~ ~ ~			
Public buildings				÷	~ ~	<u> </u>	
Recreation areas		~ ~ ~ ~ ~			<u>ت</u> ت		~
Recreation facilities	~~~~~	- v v	~ ~ ~ ~	~ ~ ~ ~	~ ~	~ ~ ~	~
Registered clubs			U U U U	~ ~ ~		v	
Research establishments	v .		~ ~ ~				
Research facilities			~ ~ ~	V V			
Residential flat buildings		~ ~ ~ ~					
Restaurants		~	~ ~ ~ ~		~ ~	. 🗸	

Explanation of Symbols:- \*\*

permitted without consent

permitted with consent

Development is prohibited where there is no symbol

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DEVELOPMENT for the purpose of:	RURAL	RESIDENTIAL	BUSINESS	INDUSTRIAL	SPECIAL USES	RECREATION	ENVIRONMENT PROTECTION
	1 1 1 1 1 1 (a) (b) (c) (d)(e) (f)	2 2 2 2 2 2 2 (a)(b)(c) (d)(e)(f)	3333 (a)(b) (c) (d)	4 4 4 4 (a) (b) (c) (d)	5 5 5 5 (a) (b) (c) (d)	6 6 6 (a) (b) (c)	7 7 7 (a)(b)(c)
Retail plant nurseries	v v		ي ي تي تي 	~ ~ ~	•	V V	
Roads	~ ~ ~ ~ ~ ~	~ ~ ~ ~ ~ ~ ~	~ ~ ~ ~	~ ~ ~ ~	• • • •	~ ~ ~	·
Roadside stalls	~ ~				<u>_</u>		 
Road transport terminals			~ ~	~~~	*		
Rural industries	~ ~	· · · · ·		~ ~ ~			
Sanctuaries	~ ~ ~ ~ ~	~ ~ ~ ~	~ ~	~ ~ ~	v		
Sawmills	v v			~ ~			
Serviced apartments		~ ~ ~		~ ~	~		]
Service stations			~ ~	~ ~ ~	<b>~</b>		
Shops		~	~ ~ ~		, , , , , , , , , , , , , , , , , , ,		
Stock and sale yards	~			~ ~		-	- / # ·
Transitional group homes	~ ~ ~ ~ ~	~ ~ ~ ~ ~	••••				т
Transport depots				~ ~ ~			
Utility installations	~ ~ ~ ~ ~ ~ ~		~ ~ ~ ~	~ ~ ~ ~	· · · · ·	~ ~ ~	
Utility undertakings				• • • • <u> </u>		~ ~ ~	
Vehicle body repair workshops							
Vehicle repair stations					-		
Veterinary hospitals	~ ~ ~ ~ ~	<b>v v</b>	~ ~ ~	~ ~ ~	· ·		_
Warehouse or distribution centres				~ ~ ~ ~	~		
Waste depots							

Explanation of Symbols:-4

permitted without consent

permitted with consent

Development is prohibited where there is no symbol

NOTE:

Amend land use table (new 3(c) zone and symbols added, land use amended), Amendment No. 10(gaz 148 - 16/10/98) Amend land use table (Transport depots), Amendment No. 1(gaz 176 - 18/12/98) Amend land use table (Transport depols), Amendment No. 1(gaz 110 - 1617236) Amend land use table (prohibit 7 land uses in 2(b) zone), Amendment No. 18 (gaz 128 - 12/11/99) Amend land use table (Dwelling houses in 2(a),2(b),2(c),2(d) zones), Amendment No. 26 (gaz 46 - 14/04/00) Amend land use table (new 4(d) zone and symbols added, land use amended), Amendment No. 58(gaz 97 - 13/06/03) Amend land use table (new 1(f) 2(e) 2(f) 3(d) zones and symbols added, land use amended), Amendment No. 83(gaz 40 - 31/03/06)

				Smart gr	owth precine	cts				
					sectors					
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	.Community Purposes	Water Management	Open Space	Environmental Corridor	
Abattoirs										
Advertisements										
Agriculture			-							
Animal boarding or training establishments			<u> </u>							
Aquaculture					- 3	i				
Assisted accommodation	*	>	>	>	i i					
Bed and breakfast premises	>	3	>	•						,
Boarding houses										
Brothels					-					
Bulky goods salesrooms or showrooms			•							
Business premises										
Caravan parks										
Car parks	>				3					
Child care centres	>	>		>	>	>				
Cinemas										
Explanation of Symbols:	<ul> <li> <ul> <li></li></ul></li></ul>	without consent with consent nent is prohibited when	te there is no syn	lodn			-			I
Liverpool Local Environ	mental Plan 1997			Pag	89				Part 2	
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					sectors				
EVELOPMENT or the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
mmunication	>	>	>	>	>	>	>	>	
mmunity facilities	>				3	>		>	
nvenience stores	>			-					
SE							>	>	,
pots									
al occupancy using	\$	>	>						
relling houses	>	>	>	<b>)</b>					
ucational ablishments	3	>		>	>	-			
tertainment ilities	>								
hibition homes	,	>	>	>			•		
hibition villages		>	>	3					
tractive industries									
mily day care ntres	* >	* >	\$	* >		* >			
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anation of Symbols:-	<ul> <li>* permitted</li> <li>* permitted</li> <li>Oevelopm</li> </ul>	without consent with consent ent is prohibited wher	e there is no sy	nbol	·				
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				Smart gi	rowth precin	cts			ſ
•					Sectors	•			
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Smali Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Generating works								-	
Hazardous industries									
Hazardous storage establishments									
Health consulting rooms	>	>	>	2		>			
Helicopter landing sites							-		
Heliports									
Highway service centres									
Home-based child care services		* >	* >	\$					
Home businesses	3	>	>	>					
Home occupations	*	*	* >	* >					
Hospitals									
Hotels			-		ľ	-			
Explanation of Symbols:	+ permitted	without consent with consent lent is prohibited whe	re there is no sy	lodn			~		
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				Smart gr	owth precin	cts			
					Sectors				
DEVELOPMENT for the purpose	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Housing for aged or disabled persons	3		>	>				•	
Industries		-							
Integrated housing		>	>	>					
Intensive livestock agriculture					1				
Intensive plant agriculture									
Landfill	>	>	>	>	>	>	>	3	3
Light industries									
Local shops		>	>	>				-	
Maintenance dredging							* 3	*	* >
Marinas		-			+			•	
Materials recycling yards									
Medical centres	>	>	>	3					
Mines		5							
Explanation of Symbols:-	<ul> <li>* permitted</li> <li>* permitted</li> <li>Oeveloorr</li> </ul>	without consent with consent nent is prohibited whe	re there is no sy	mbol		·			
Liverpool Local Environ	mental Plan 1997					age 11			Part 2

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				Smart gr	owth precin	cts			
					Sactore				
			~						Environmental
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residentiaf	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Corridor
Motels									
Motor showrooms							•		
Multiple dwellings	>	>	>						
Nuclear activities									
Nuclear facilities									
Offensive industries						,			
Offensive storage establishments								-	
Office premises	3							C	-
Passenger transport terminals								,	
Permanent group homes		>		>					
Places of public worship	>	>	•	>					
Plant hire		-							
Public buildings	>		-			>			
Explanation of Symbols:-	<ul> <li>* * permitted</li> <li>* permitted</li> </ul>	without consent with consent lent is prohibited whe	re there is no sy	lodn				-	
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					Sectors				
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Recreation areas	`	>	>	>	>		•	>	>
Recreation facilities	>	``	\$	3	>	-	>	>	
Registered clubs				-					
Research establishments		•							
Research facilities									
Residential flat buildings									
Restaurants	``				e e				
Retail plant nurseries									
Roads	>	>	>	>	>	3	3	>	>
Roadside stalls				-					
Road transport terminals						-	7		
Rural industries		_		-			~		
Sanctuaries	•					-	-		
Explanation of Symbols:	-	without consent with consent ant is prohibited wher	re there is no syr	lođ					
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	-			Smart gr	owth precine	cts				
				0,	sectors					
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor	
Sawmills										
Serviced apartments	3					1 1 1 1				
Service stations				· •						
Shops	3									<u></u>
Stock and sale yards										
Transitional group homes		>	>	>			•			
Transport depots										
Utility installations	>	>	>	>	>	>	>	>	>	
Utility undertakings		>	>	>	3	3	3	>	3	
Vehicle body repair workshops										
Vehicle repair stations									•	
Veterinary hospitals	>	>	>	>			-			
Warehouse or distribution centres										
Waste depots										-1
Explanation of Symbols:-	<ul> <li>permitted</li> <li>permitted</li> <li>Developm</li> </ul>	without consent with consent ent is prohibited whe	re there is no sy	, iodn		-				
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## Part 3 Special Provisions

## 10 Development that also needs consent

- (1) **Subdivision** Land to which this plan applies may be subdivided, but only with consent. However, except as provided by subclause (12) (e), consent is not required for a subdivision for the purpose of:
  - (a) widening a public road, or
  - (b) making an adjustment to a boundary between allotments, being an adjustment that does not involve the creation of any additional allotment, or
  - (c) rectifying an encroachment on an allotment, or
  - (d) creating a public reserve, or
  - (e) consolidating allotments, or
  - (f) excising from an allotment land which is, or is intended to be, used for public purposes, including drainage purposes, bushfire brigade or other rescue service purposes or public conveniences.
- (2) **Flood liable land** Development may be carried out on flood liable land only with consent.
- (3) **Buildings over two floors** Buildings which contain more than two floors are allowed only with consent.
- (4) **Water bodies, wetlands and foreshore areas** Development may be carried out only with consent on land which:
  - (a) forms part of a wetland, or
  - (b) is located between a foreshore building line shown on the map as a dotted line and the adjacent water body, or
  - (c) forms part of a water body, other than in the 7(a) zone.
- (5) Advertisements Development for the purpose of a business identification sign or a real estate sign may be carried out on any premises within the 1(a), 1(b), 1(c), 1(d), 1(e), 1(f), 2(a), 2(b), 2(c), 2(d), 2(e), 2(f), 4(a), 4(b), 4(c), 4(d), 5(c), 5(d), 6(a) or 7(b) zone, or a smart growth precinct Neighbourhood Centre, Open Space or Water Management sector, only with consent and only if the Council is satisfied that the advertisement will not interfere with the amenity of the locality.
- (6) **Tourism advertisements** An advertisement directing the travelling public to tourist areas or tourist facilities may be erected on land within the 1(a), 1(b), 1(c), 1(d), 4(a), 4(b), 4(c) or 4(d) zone only with consent.

- (7) **Temporary and intermittent development** Any development, not being designated development, may, despite any other provision of this plan (except clause 27), be carried out with consent, for a maximum period of 52 days, whether consecutive or not, in any one year.
- (8) **Development over or under a road** Development other than for the purpose of roads may be carried out over or under a road on land within the 5(c) or 5(d) zone only with consent.
- (9) Special use zone Development may be carried out only with consent on land within the 5(a) zone for the particular purpose indicated for the land by black lettering on the map and for purposes normally associated with and ancillary to that purpose. However, this subclause does not require consent for development for the purpose of public transport on land in the 5(a) Public Transport Corridor zone. Clause 9 allows development within the 5(a) zone with or without consent even if there is no lettering shown on the map.

## Clause amended, Amendment No. 9 (gaz 22 - 19/2/99)

- (10) **Shops in the 4(a), 4(b), 4(c) and 4(d) zones** Development for the purpose of a shop may be carried out only with consent on land within the 4(a), 4(b), 4(c) or 4(d) zone if the shop serves the daily convenience needs of the local workforce.
- (11) Land identified for acquisition Development may be carried out for any purpose, with consent, on land which may be required by this plan to be acquired by a public authority, if development of that land would not render the land unfit for the land use for which it may be required to be acquired. This subclause does not apply to development of land within the 5(c) zone, which may be carried out in accordance with clause 59 before or after its acquisition.
- (12) Heritage items and heritage conservation area The following may be carried out only with consent:
  - (a) demolishing, defacing, damaging or moving a heritage item or a building, work, relic, tree or place within a heritage conservation area, or
  - (b) altering a heritage item or a building, work or relic within a heritage conservation area by making structural changes to its exterior, or
  - (c) altering a heritage item or a building, work or relic within a heritage conservation area by making non-structural changes to the detail, fabric, finish or appearance of its exterior, except changes resulting from any maintenance necessary for its ongoing protective care which does not adversely affect its heritage significance, or
  - (d) moving a relic, or excavating land for the purpose of discovering, exposing or moving a relic, or

- (e) erecting a building on, or subdividing:
  - (i) land on which a heritage item is located or which is within a heritage conservation area, or
  - (ii) land comprising, or on which is situated, an item described in this plan as a heritage item or a known or potential archaeological site.
- (13) Additional uses Despite any other provision of this plan, with the consent of the Council:
  - (a) development may be carried out on land specified in Schedule
     4 for the purpose of a building, work, place or land use
     specified in that Schedule in relation to that land, and
  - (b) land specified in Schedule 5 may be subdivided, if subdivision is specified in Schedule 5 in relation to that land,

subject to such conditions, if any, as may be so specified.

- (14) **Contaminated land** Development or demolition of a building may be carried out on contaminated land only with consent.
- (15) Land sales offices Development for the purpose of a land sales office may be carried out on land in the 2(a), 2(c), 2(d) or 2(e) zone, or a smart growth precinct Small Lot Residential, Medium Density Residential or Standard Residential sector but only with consent.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

- (16) Bushland clearance Bushland may be cleared only with consent.
- (17) **Parking of heavy vehicles** The parking of heavy vehicles and the stationing of heavy equipment in the 2(a), 2(b), 2(c) or 2(d) zone (otherwise than on roads) may be carried out only with consent.
- (18) **Highway service centres** Development for the purpose of a highway service centre may be carried out on the land adjoining land in the 5(c) zone which is a freeway, but only with consent.
- (19) Service stations, restaurants and convenience stores Development for the purpose of one service station, one restaurant or one convenience store (or any combination of not more than one of each of them) may be carried out, but only with consent, on land:
  - (a) identified on the map by a solid square, or
- (b) which is in the 2(a) zone, which has frontage to Camden Valley Way, Cowpasture Road or Kurrajong Road and which is on a corner allotment or is likely to be on a corner allotment as shown by a development control plan, or Clause amended, Amendment No. 1 (gaz 176 - 18/12/98)
(c) which is in the 3(d) zone, has frontage to Campbelltown Road and is on a corner allotment or a proposed corner allotment as shown in a development control plan referred to in clause 70H.

Clause amended, Amendment No. 83 (gaz 40 - 31/03/06)

- (20) Wharves Development for the purpose of pontoons, jetties, piers, berths or moorings may be carried out on land in the 1(a), 1(b), 1(c), 1(d), 1(e), 2(a), 2(b), 2(c), 2(d) or 7(b) zone, or a smart growth precinct Open Space, Water Management or Environmental Corridor sector, only with consent.
- (21) **Bushland** Development may be carried out on land shown on the map with heavy diagonal hatching only with consent. *Clause amended, Amendment No. 1 (gaz 176 - 18/12/98)*
- (22) **Restaurants in industrial areas** Development for the purpose of a restaurant may be carried out on the land in the 4(a), 4(b), 4(c) or 4(d) zone if it is primarily for the purpose of selling take-away food. *Clause added, Amendment No. 1 (gaz 176 18/12/98)*
- (23) Office premises and dwellings in Community Purposes sector of SHPA Smart Growth Precinct Development for the purpose of office premises and dwellings may be carried out on land in the Community Purposes sector of the Southern Hoxton Park Aerodrome Smart Growth Precinct, but only with consent and only if:
  - (a) the ground floor of any building erected on the land before or after this subclause commenced will be used for a community purpose, and
  - (b) the Council is not liable to pay for acquisition of so much of the buildings on the land as will not be used for a community purpose.
- (24) **Environmental conservation activities** Development for the purpose of environmental conservation activities may be carried out in the 7(c) zone, but only with consent.

# 11 Development that does not require consent

- (1) **Development by public authorities** The following are allowed on land without consent:
  - (a) the use of existing buildings of the Crown by the Crown, and
  - (b) development or activities specified in Schedule 5.
- (2) **Railway sidings** Development for the purpose of a railway siding servicing land in the 4(a), 4(b), 4(c) or 4(d) zone may be carried out without consent.
- (3) **Bushfire hazard reduction** Bushfire hazard reduction may be carried out without consent, but only if it is carried out in accordance with a plan of operations, within the meaning of section 41A of the *Bush Fires Act 1949*, that applies to the locality.

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**Shops, business premises and office premises** A building may be used for the purpose of a shop, business premises or office premises without consent if:

- (a) the building is within the 3(a) zone, or a smart growth precinct Neighbourhood Centre sector and
- (b) the building is lawfully used or has been lawfully constructed to be used for a shop of a particular kind, business premises of a particular kind or office premises of a particular kind, and
- (c) at least 14 days' written notice has been given to the Council of the proposed use by:
  - (i) the owner of the building, or
  - (ii) the occupier of the building, with the consent of the owner of the building,

and contains a statement that it is so given executed by that owner, and

- (d) the written notice contains a description of the building sufficient to identify the building and a statement of the particular purpose for which the building will be used after the notice has been given, and
- (e) the use does not include the display, exhibition or sale of publications classified Category 1 restricted, Category 2 restricted or RC under the *Classification (Publications, Films and Computer Games) Act 1995* of the Commonwealth, and
- (f) the building is not used for the purpose of a business to which section 578E of the *Crimes Act 1900* applies, and
- (g) the use does not include a business which is primarily concerned with the display or exhibition of any article that is primarily concerned with sexual behaviour, and
- (h) where a building is used for the purpose of a shop, business premises or office premises in pursuance of this clause:
  - the curtilage of the shop, business premises or office premises is not used for storage or display purposes, and
  - (ii) the hours of operation of the shop, business premises or office premises do not, in the case of a building used for the purpose of a shop, business premises or office premises immediately before the commencement of the use authorised by this clause, extend outside the hours during which the shop, business premises, or office premises were so used at that time, and

(i) where, immediately before commencement of the use of the building under this subclause, a condition relating to maintenance of landscaping, the parking of vehicles or the provision of space for loading and unloading of goods or vehicles was imposed on the use of the building or the land on which it is erected, that condition is observed.

- (5) **Light industry** A building may be used for the purpose of light industry without consent if:
  - (a) the building is within the 4(a), 4(b), 4(c) or 4(d) zone, and
  - (c) the building is lawfully used or has been lawfully constructed to be used for an industry of a particular kind or a light industry of a particular kind, and
  - (c) at least 14 days' written notice has been given to the Council of the proposed use by:
    - (i) the owner of the building, or
    - (ii) the occupier of the building, with the consent of the owner of the building,

and contains a statement that it is so given executed by that owner, and

- (d) the written notice contains a description of the building sufficient to identify the building and a statement of the particular purpose for which the building will be used after the notice has been given, and
- (e) the gross floor area of the part of the building to be used for the purpose of light industry does not exceed 500 square metres, and
- (f) the building has rear service access or access to off-street loading facilities, and
- (g) where, immediately before commencement of the use of the building under this subclause, a condition relating to maintenance of landscaping, the parking of vehicles or the provision of space for loading and unloading of goods or vehicles was imposed on the use of the building or the land on which it is erected, that condition is observed, and
- (h) the curtilage of the building is not used for storage or display purposes, and
- (i) the hours of operation of the light industry do not:

- (j) in the case of a building used for the purpose of an industry immediately before the commencement of the use authorised by this clause, extend outside the hours
- (k) during which the building was so used at that time, or
  - (ii) in any other case, extend outside the hours between 6 am and 6 pm.
- (6) **Economic incubator** A building may be used for the purpose of light industry, business premises or office premises without consent if:
  - (a) the building is within Lot 13, DP 39417 and part Lot 1, DP 996631, as shown by diagonal cross hatching on the map, and
  - (b) the building is lawfully used or has been lawfully constructed to be used for a light industry of a particular kind, business premises of a particular kind or office premises of a particular kind, and
  - (c) at least 14 days' written notice has been given to the Council of the proposed use by:
    - (i) the owner of the building, or
    - (ii) the occupier of the building, with the consent of the owner of the building,

and contains a statement that it is so given executed by that owner, and

- (d) the written notice contains a description of the particular purpose for which the building will be used after the notice has been given, and
- (e) the use does not include the display, exhibition or sale of publications classified Category 1 restricted, Category 2 restricted or RC under the *Classification (Publications, Films and Computer Games) Act 1995* of the Commonwealth, and
- (f) the building is not used for the purpose of a business to which section 578E of the *Crimes Act 1900* applies, and
- (g) the use does not include a business which is primarily concerned with the display or exhibition of any article that is primarily concerned with sexual behaviour, and
- (h) where the building is used for the purpose of a light industry, business or office in pursuance of this clause:
  - (i) the curtilage of the light industry, business premises or office premises is not used for storage or display purposes, and

- (ii) the hours of operation of the light industry, business or office do not, in the case of a building used for the purpose of a light industry, business or office immediately before the commencement of the use authorised by this clause, extend outside the hours during which the light industry, business premises or office premises were so used at that time
- (i) where, immediately before commencement of the use of the building under this subclause, a condition relating to maintenance of landscaping, the parking of vehicles or the provision of space for loading and unloading of goods or vehicles was imposed on the use of the building or the land on which it is erected, that condition is observed.

Property description amended, Amendment No. 4 (gaz67-9/4/98)

- (7) Advertisements not visible outside the land Development may be carried out on land without consent for the purpose of an advertisement, otherwise than on a brothel or heritage item or in a heritage conservation area, which is not visible from outside the land on which it is displayed.
- (8) **Business identification sign** Development may be carried out on land without consent for the purpose of a business identification sign, not including a moving sign or flashing sign and otherwise than on a brothel or heritage item or in a heritage conservation area, but:
  - (a) which is in the 1(a), 1(b), 1(c), 1(d), 1(e) or 1(f) zone and would result in not more than:
    - (i) one pole or pylon sign having an area not more than 2 sqm and a height not more than 2 m above ground level, and
    - (ii) one flush wall sign having an area not more than 0.75 sq m and not projecting above or beyond the wall to which it is attached, and
    - (iii) relates to other development, or an activity, carried out on the land, or
  - (b) which is in the 2(a), 2(b), 2(c), 2(d), 2(e) or 2(f) zone, relates to other development, or an activity, carried out on the land.
    - a pole or pylon sign having an area not more than
       0.75 sqm and a height not more than 2m above ground level, or
    - (ii) a sign having an area of more than 0.75 sq m and attached to a solid masonry fence, or

- (c) which is in the 3(a), 3(b), 3(c) or 3(d) zone and which for each premises would result in not more than:
  - (i) one under awning sign having a size not exceeding 2.5 m in length and 0.5 m in height, and
  - (ii) one top hamper sign, extending not more than 0.2 m into a setback from a road and not extending below the head of the doorway or window above which it is attached, and
  - (iii) one fascia sign, not projecting above or below the fascia or return end of the awning to which it is attached and not extending more than 0.3m from the face of the fascia or return end of the awning, or
- (d) which is in the 4(a), 4(b), 4(c) or 4(d) zone and would result in not more than:
  - (i) one pole or pylon sign (including any directory board for multiple occupancies) not exceeding 5 sqm in area and 5 m in height from ground level for each premises. Such sign is to be located within an area of 5 m by 3 m on either side of the ingress or combined ingress/egress for the premises and subject to compliance with sight distance requirements, if any, and
  - (ii) for multiple occupancy premises, one additional company identification sign not exceeding 2 m by 0.6 m at the entrance to each occupied unit, and
  - (iii) for premises with a single occupant, one additional company identification sign at the rate of not more than 1 sqm of advertising area per 3 m of street frontage or 50 sqm, whichever is the less.
- (9) Other signs Development may be carried out on land without consent for the purpose of an advertisement, other than a flashing sign or moving sign, being:
  - (a) a public notice for public information displayed by a public authority giving information or directions about services provided, or
  - (b) a real estate sign, except where erected on an awning, but only if:
    - (i) in the case of land in the 1(a), 1(b), 1(c), 1(d), 1(e), 2(a), 2(b), 2(c), 2(d), 2(e), 2(f), 5(a), 5(b), 5(c), 5(d) or 7(b) zone, the sign does not exceed 2.5 sqm in area and does not have any returns exceeding 180 mm, and
    - (ii) in the case of land in the 3(a), 3(b), 3(d), 4(a), 4(b), 4(c) or 4(d) zone, the sign does not exceed 4.5 sqm in area, or

- (c) a temporary sign that:
  - announces any local event of a religious, educational, cultural, political, social or recreational character or relates to any temporary matter in connection with such an event, but does not include advertising of a commercial nature, other than the name of an event's sponsor, and
  - (ii) is not displayed earlier than 28 days before the event to which it relates is to take place and is removed within 14 days after that event, or
- (d) a sign behind the glass line of a window of a building in the 3(a), 3(b), 4(a), 4(b) or 4(c) zone other than a sign advertising a brothel, if it does not occupy more than 50% of the area of the window or 25% of the area of the window in the case of a heritage item, or
- (e) an advertisement on a public seat or bus shelter, or
- (f) an advertisement on a motor vehicle used principally for the conveyance of goods or passengers.

Clause amended, Amendment No. 1 (gaz 176 - 18/12/98)

- (10) Street signs Development may be carried out on land without consent for the purpose of a street name sign or a sign under Australian Standard AS1742.1-1991 Manual of Uniform Traffic Control Services, being a:
  - (a) guide sign, or
  - (b) warning sign, or
  - (c) temporary warning sign, or
  - (d) regulatory sign, or
  - (e) parking sign, or
  - (f) hazardous marker, or
  - (g) service symbol, or

which is on a public road.

(11) **Public Transport Corridor** Development may be carried out on land in the 5(a) Public Transport Corridor zone without consent for the purpose of public transport.

(12) **Dual occupancy housing** Development involving two dwellings may be carried out on land in the 2(a), 2(b) or 2(c) zone without consent if one of the dwellings has a gross floor area not exceeding 60 sqm and the development does not involve subdivision of the land to create separate land titles for each dwelling.



DOUGLA	S PARTI	IERS
23	SEP 2006	

Ref.: POST Ppty: 19522

Applicant: K PLAMBECK PO BOX 472 WEST RYDE NSW 1685 
 Cert. No.:
 1275

 Page No.:
 1

 Receipt No.:
 893158

 Receipt Amt.:
 40.00

 Date:
 21-Sep-2006

Owner: (as recorded by Council): EAGLE DEVELOPMENTS AUSTRALIA PTY LTD 7-9 NORFOLK ST LIVERPOOL NSW 2170

#### Property Desc: 7 NORFOLK STREET, LIVERPOOL NSW 2170 LOT 34 DP 777411

#### PART A PRESCRIBED INFORMATION PROVIDED PURSUANT TO SECTION 149(2) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

NOTE: The following information is provided pursuant to Section 149(2) of the Environmental Planning and Assessment Act (EP&A Act) 1979 as prescribed by Schedule 4 of the Environmental Planning and Assessment Regulation (EP&A Regulation) 2000 and is applicable to the subject land as of the date of this certificate.

The Environmental Planning and Assessment Amendment Act 1997 commenced operation on the 1 July 1998. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Amendment) Regulation 1998, Environmental Planning and Assessment (Further Amendment) Regulation 1998 and Environmental Planning and Assessment (Savings and Transitional) Regulation, 1998.

Administration Centre 1 Hoxton Park Road, Liverpool NSW 2170, DX 5030 LiverpoolCBD Office 193 Macquarie Street, Liverpool NSW 2170All correspondence to The General Manager, Locked Bag 7064 Liverpool BC NSW 1871Call Centre 1300 36 2170Fax 9821 9333Email Icc@liverpool.nsw.gov.auWeb www.liverpool.nsw.gov.auTTY 9821 8800







#### 1. Names of Relevant LEP's, DCP's, REPs, and SEPPs

(1)(a) The names of each local environment plan and deemed environmental planning instrument applying to the land is/are listed below:-

Name of Instrument: Liverpool Local Environmental Plan 1997 Name of Zone: 3(a) Business

(1)(b) Draft Local Environmental Plan(s)

The names of each draft Local Environmental Plan applying to the land that has been placed on exhibition under section 66(1)(b) of the Act, is/are listed below:-

Name of Draft Instrument: Nil Name of Zone: Nil

#### (1)(c) Development Control Plan(s) under Section 72

The names of each Development Control Plan applying to the land has been prepared by the council under section 72 of the Act is/are listed below:-

Liverpool Development Control Plan No. 3 – Car Parking Liverpool Development Control Plan No. 8 – Natural Assets Liverpool Development Control Plan No. 16 – Child Care Centres Liverpool Development Control Plan No. 30 – City Centre Liverpool Development Control Plan No. 32 – Exempt Development Liverpool Development Control Plan No. 33 – Complying Development Liverpool Development Control Plan No. 35 – Outdoor Advertising Liverpool Development Control Plan No. 37 – Notification and Advertising of Development Applications Liverpool Development Control Plan No. 39 – Places of Public Worship Liverpool Development Control Plan No. 40 – Intensive Livestock Agriculture (Poultry Farming) and Intensive Plant Agriculture (Greenhouse / Igloos / Market Gardening) Liverpool Development Control Plan No. 42 – Energy Smart Homes Liverpool Development Control Plan No. 45 – Outdoor Cafes Liverpool Development Control Plan No. 46 – Waste Not

# (2)(a) Draft Development Control Plan(s)

The names of each Draft Development Control Plan applying to the land has been prepared by the council is/are listed below:-

Draft Development Control Plan No. 41 – Landfill and Earth Dams (All areas in LGA with exception of 7(b) Zoning)

#### (2)(b) Regional Environmental Plan(s)

The names of each Regional Environmental Plan applying to the land is/are listed below:

Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment This plan aims to preserve and protect and to encourage the restoration or rehabilitation of regionally significant sensitive natural environments, to preserve,

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enhance and protect the freshwater and estuarine ecosystems within the Catchment and to ensure that development achieves the environmental objectives for the Catchment.

# (2)(c) Draft Regional Environmental Plan(s)

The names of each draft Regional Environmental Plan applying to the land that has been placed on exhibition under section 47(b) of the Act is/are listed below:

Nil

# (2)(d) Development Control Plan(s) under Section 51A

The names of each Development Control Plan applying to the land that has been prepared by the Director-General under section 51A of the Act are listed as follows: -

Nil

#### (3)(a) State Environmental Planning Policy(s) The names of each State Environmental Planning Policy applying to the land are

The names of each State Environmental Planning Policy applying to the land are listed below: -

State Environmental Planning Policy No. 60 - Exempt and Complying Development State Environmental Planning Policy No. 1 - Development Standards State Environmental Planning Policy No. 4 - Development without Consent and Miscellaneous Exempt and Complying Development State Environmental Planning Policy (Seniors Living) 2004 (Replaces State Environmental Policy Plan No. 5 - Housing for Older People or People with Disability) State Environmental Planning Policy No. 8 - Surplus Public Land State Environmental Planning Policy No. 9 - Group Homes State Environmental Planning Policy No. 10 - Retention of Low-Cost Rental Accommodation State Environmental Planning Policy No. 11 - Traffic Generating Developments State Environmental Planning Policy No. 16 - Tertiary Institutions State Environmental Planning Policy No. 19 - Bushland in Urban Areas State Environmental Planning Policy No. 21 - Caravan Parks State Environmental Planning Policy No. 22 - Shop and Commercial Premises State Environmental Planning Policy No. 30 - Intensive Agriculture State Environmental Planning Policy No. 32 - Urban Consolidation (Redevelopment of Urban Land) State Environmental Planning Policy No. 33 – Hazardous and Offensive Development State Environmental Planning Policy No. 35 – Maintenance Dredging of Tidal Waterways State Environmental Planning Policy No. 37 – Continued Mines and Extractive Industries State Environmental Planning Policy No. 44 - Koala Habitat State Environmental Planning Policy No. 45 - Permissibility of Mining State Environmental Planning Policy No. 48 - Major Putrescible Landfill Sites State Environmental Planning Policy No. 50 - Canal Estate Development Administration Centre 1 Hoxton Park Road, Liverpool NSW 2170, DX 5030 Liverpool CBD Office 193 Macquarie Street, Liverpool NSW 2170

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State Environmental Planning Policy No. 55 – Remediation of Land State Environmental Planning Policy No. 64 – Advertising and Signage State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development

State Environmental Planning Policy Major Projects 2005 State Environmental Planning Policy Building Sustainability Index: BASIX 2004 State Environmental Planning Policy (ARTC Rail Infrastructure) 2004 State Environmental Planning Policy (Sydney Metropolitan Water Supply) 2004

#### 3(b) Draft State Environmental Planning Policy(s)

The names of each draft State Environmental Planning Policy applying to the land that has been publicised as referred to in section 39(2) of the Act are listed below:-

Draft State Environmental Planning Policy No. 66 – Integration of Land Use and Transport

#### 2. ZONING AND LANDUSE UNDER RELEVANT LOCAL ENIVIRONMENTAL PLANS

(a) The purposes for which the plan or instrument provides that development may be carried out within the zone without the need for development consent are detailed in the attachments to this certificate.

(See Part 2 (Zoning Tables), Part 3 and Schedule 4 of LLEP 1997)

(b) The purposes for which the plan or instrument provides that development may not be carried out within the zone except with development consent are detailed in the attachments to this certificate.

(See Part 2 (Zoning Tables), Part 3 and Schedule 4 of LLEP 1997)

(c) The purposes to which this plan or instrument provides that development is prohibited within the zone are detailed in the attachments to this certificate.

#### (See Parts 2 and 3 of LLEP 1997)

Should you require further information about development standards and restrictions on development for any particular purpose or any purpose that may have an effect of prohibiting development, it is recommended that you consult a full copy of Liverpool Local Environmental Plan 1997 or other instrument or draft instrument if applicable.

# (d) Dwelling House

The land's dimensions (when considered in isolation) are such as to permit the erection of a dwelling house on the land

# (e) Critical Habitat

#### The land does not include or comprises critical habitat.

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# (f) Conservation Area

Land is not located in a Conservation Area.

#### (g) Environmental Heritage

An item of Environmental Heritage is not situated on the land.

#### 3. DECLARED STATE SIGNIFICANT DEVELOPMENT

This Clause was repealed in Government Gazette No. 96 on 29 July 2005.

#### 4. Coastal Protection Act 1979

There has been no notification from the Department of Public Works that the land is subject to the operation of Section 38 or 39 of the Coastal Protection Act, 1979.

#### 5. Mine Subsidence

The land is not within an area proclaimed to be a mine subsidence district within the meaning of the Mine Subsidence Compensation Act, 1961.

#### 6. Road Widening and Road Realignment

The land is not affected by any road widening or road realignment under Division 2 of Part 3 of the Roads Act 1993, any environmental planning instrument or any resolution of the Council.

#### 7. Council and Other Public Authority Policies on Hazard Risk Restrictions

#### (a) Council Policy – Flooding

The land is not affected by a policy which restricts the development of the land because of the likelihood of flooding.

#### (b) Council Policy -- Other Risks

The land is not affected by a policy adopted by Council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk.

#### (c) Public Authority Policies

The land is not affected by a policy adopted by any other public authority and notified to the Council for the express purpose of its adoption by that authority being referred to in the planning certificates issued by the Council, that restricts the development of the land because of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence, acid sulphate soils or any other risk.

# 8. Land Reserved for Acquisition by Corporation

Nil

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Land Reserved for Acquisition by Public Authority Liverpool Local Environmental Plan 1997 applies to the land and does not provide for the acquisition of the land by a public authority, as referred to in Section 27 of the Act.

# 9. CONTRIBUTION PLANS

The names of each contribution plan applying to the land are as follows:

Liverpool Contributions Plan 2001 applies to the land.

- 10. Matters Arising Under the Contaminated Land Management Act 1997 Nil
- 11. Bushfire Prone Land

None of the land subject to this certificate is bush fire prone land as defined in the Environmental Planning and Assessment Act 1979.

#### 12. Native Vegetation Plans

The land subject to this certificate is not affected by the Native Vegetation Act 2003 as defined in the Environmental Planning and Assessment Act 1979.

For further information, please contact.. CALL CENTRE – 9821 9222

PHIL TOLHURST City Development Manager

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 CBD Office 193 Macquarie Street, Liverpool NSW 2170

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# ATTACHMENTS TO SECTION 149(2) & (5) CERTIFICATES

Each Section 149(2) or 149(2) & (5) Certificate has attached **Parts 1, 2 and 3** of Liverpool Local Environmental Plan 1997.

The following LEP extracts have also been attached:

Part 5 pages 3,4 and 5;

Schedule 7 page 1; and

Part 6 pages 3, 4 and 5

# **Liverpool Local Environmental Plan 1997**

# Part 1 Preliminary

1 Name of plan This plan is *Liverpool Local Environmental Plan 1997*.

# 2 Objectives of this plan

The general objectives of this plan are:

- (a) to maintain and improve accessibility by identifying major transport corridors and concentrating intensive trip-generating activities in locations most accessible to public transport, and
- (b) to ensure that development is carried out in such a way as to allow the efficient and equitable provision of public services, infrastructure and amenities, and
- (c) to facilitate economic activity within the City of Liverpool without adverse social, economic or environmental impacts, and
- (d) to provide open space and to facilitate the development of community and recreation facilities which are needed for a high quality of lifestyle within the City of Liverpool, and
- (e) to protect and improve the amenity of the City of Liverpool, and
- (f) to conserve, protect and enhance the environmental and cultural heritage of the City of Liverpool, and
- (g) to protect personal safety and to minimise the risk of damage to areas subject to environmental hazards, particularly flooding, and
- (h) to encourage a diversity of housing to meet the needs of the residents of the City of Liverpool, and
- (i) to protect and improve the natural environment in the City of Liverpool, and
- (j) to facilitate development which is environmentally sustainable, and
- (k) to provide a basis for development control plans to supplement the broad controls in this plan with more detailed provisions for regulating the carrying out of development, and
- (I) to promote a high standard of urban and environmental design, and
- (m) to adopt and promote objectives for the development of land in smart growth precincts to provide for the location of appropriate land uses, supported by physical and social infrastructure.

# 3 Land where this plan applies

- (1) This plan applies to all land within the City of Liverpool except for land marked "*deferred matter*" on the map.
- (2) However, this plan does not apply to the following land:

Land to which Sydney Regional Environmental Plan No 31 – Regional Parkland applies.

#### 4 Effect of this plan on other environmental planning instruments

- (1) This plan:
  - (a) repeals all deemed environmental planning instruments and local environmental plans applying to land within the City of Liverpool immediately before the appointed day (including those specified in Schedule 1), except to the extent they apply to land shown as "deferred matter" on the map, and
  - (b) amends State Environmental Planning Policy No 25 Residential Allotment Sizes:
    - by inserting at the end of Schedule 1 the following words:
       Liverpool
       Land to which *Liverpool Local Environmental Plan 1997* applies.
    - (ii) by omitting from Part 1 of Schedule 2 the matter relating to the City of Liverpool, and
  - (c) amends Sydney Regional Environmental Plan No 12 Dual Occupancy:
    - (i) by omitting clauses 8A, 8B and 8C, and
    - (ii) by inserting at the end of Schedule 1 the following words:
       Liverpool
       Land to which Liverpool Local Environmental Plan 1997 applies.
    - (iii) by omitting from Schedule 3 the matter relating to the City of Liverpool, and
  - (d) amends Sydney Regional Environmental Plan No 18:
    - (i) by omitting the words City of Liverpool" from Schedule 1,
    - (ii) by omitting clauses 12 and 14 from Schedule 2.

- (2) Environmental planning instruments as in force immediately before the appointed day continue to apply to a development application if:
  - (a) the application was made but had not been finally determined before the appointed day, and
  - (b) the proposed development is prohibited by provisions of this plan but could, with consent, have been carried out in accordance with those instruments as so in force.

#### 5 Consent authority

The Council is consent authority for the purposes of this plan.

#### 6 Definitions

(1) In this plan:

*Abattoir* means a building or place used for the commercial slaughter of animals, whether or not animal by-products are processed, manufactured or distributed there, and includes a knackery.

Act of prostitution includes sexual activity between persons of different sexes or of the same sex, comprising:

- (a) sexual intercourse as defined in section 61H of the Crimes Act 1900, or
- (b) masturbation committed by one person on another, for payment.

Advertisement means the display of symbols, messages or other devices for promotional purposes or for conveying information, instructions, directions or the like, whether or not the display includes the erection of a structure, or the carrying out of a work.

**Agriculture** means the keeping of breeding livestock on improved pastures, or the keeping of bees or birds, for commercial purposes but, in the Table to clause 9, does not include intensive livestock agriculture or intensive plant agriculture.

*Alter*, in relation to a heritage item or to a building, work or relic within a heritage conservation area, means:

- (a) make structural changes to its exterior, or
- (b) make non-structural changes to the detail, fabric, finish or appearance of its exterior, except changes resulting from any maintenance necessary for its ongoing protective care which does not adversely affect its heritage significance.

Animal boarding or training establishment means a building or place used for the breeding, boarding, training or keeping of, or for caring for, animals for commercial purposes, and includes a riding school and veterinary clinic. Appointed day means the day on which this plan takes effect.

Aquaculture means cultivating (including propagating and rearing) the living resources of the sea or inland waters, whether or not that cultivation is carried out in a farm established for that purpose using an artificially created body of water.

Area of an advertisement in the form of a sign means:

- (a) for a sign with only one side occupied by the matter displayed, the area within the outline of that sign, or
- (b) for a sign with two sides occupied by the matter displayed, the area within the outline of that sign or, where one side is larger than the other, the area within the outline of the larger side, or
- (c) for any other sign, one third of the total surface area of the sign.

Archaeological assessment report means a study undertaken to establish the archaeological potential (research potential) of a particular site and to identify appropriate management actions, in accordance with the guidelines for the time being notified to Council by the Heritage Council.

#### Arterial road means:

- (a) a road shown on the map as being within the 5(c) zone, or
- (b) a road declared to be a main road, controlled access road, secondary road or a tollway under the *Roads Act 1993*, or
- (c) a road shown on the Council's adopted Road Hierarchy (a copy of which is available from the office of the Council) as an arterial road or a sub-arterial road.

Assisted accommodation means a building or place, not being a group home, used for the purpose of:

- (a) temporary or permanent accommodation for socially disadvantaged people and incorporating facilities for their rehabilitation or relief, or
- (b) temporary or permanent accommodation for incurable or convalescing people.

*Attic* means a floor located in the roof space where the angle or pitch of the roof is not greater than 36°, and the roof pitches from the ceiling level of the uppermost floor immediately below that floor.

**Badgery's Creek proposed airport site** means land at Badgery's Creek shown as being within the proposed airport site boundary on the map comprising Appendix U to the draft Environmental Impact Statement entitled "Second Sydney Airport Site Selection Programme" prepared for the Commonwealth Department of Aviation by Kinhill Stearns and dated April 1985. **Bed and breakfast premises** means a dwelling where its permanent residents provide short term accommodation, which may include meals, for commercial purposes.

Boarding house means a building or place:

- (a) where accommodation, meals and laundry facilities are provided to residents of the building or place, and
- (b) which is not licensed to sell liquor within the meaning of the *Liquor Act* 1982.

**Brothel** means premises habitually used for the purpose of prostitution. Premises may constitute a brothel even though used by only one prostitute for the purpose of prostitution.

*Bulky goods salesroom or showroom* means a building or place used for the sale by retail or auction, or the hire or display, of any of the following:

- (a) furniture, or
- (b) electrical goods, or
- (c) toy and sporting equipment, or
- (d) office furniture, or
- (e) hardware, or
- (f) outdoor products, or
- (g) floor coverings, or
- (h) automotive parts and accessories, or
- (i) lighting, or
- (j) antiques and second-hand goods, or
- (k) kitchen or bathroom showrooms, or
- (I) tiles (floor, ceiling or wall).

*Bush fire hazard reduction* means a reduction or modification (by controlled burning or by mechanical, chemical or manual means) of material that constitutes a bush fire hazard.

**Bushland** means land on which there is vegetation which is either a remainder of the native plants of the land or, if altered, is still representative of the structure and floristics of the natural vegetation.

**Business identification sign** means an advertisement that displays any or all of the following information relating to the place or premises to which it is fixed:

- (a) the identity or a description of the place or the premises,
- (b) the identity or a description of any person residing or carrying on an occupation at the place or premises,
- (c) particulars of any occupation carried on at the place or premises,
- (d) such directions or cautions as are usual or necessary relating to the place or premises or any occupation carried on there,
- (e) particulars or notifications required or permitted to be displayed by or under any State or Commonwealth Act,
- (f) particulars relating to the goods, commodities or services dealt with or provided at the place or premises,
- (g) particulars of any activities held or to be held at the place or premises,
- (h) a reference to an affiliation with a trade, professional or other association relevant to the business conducted at the place or premises.

**Business premises** means a building or place in which there is carried on an occupation, profession, service, light industry or trade which provides a service directly and regularly to the public but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

*Caravan park* means land (including a camping ground) on which caravans (or caravans and other moveable dwellings) are, or are to be, placed or erected.

*Car park* means a building or place used for parking vehicles, and any manoeuvring space and access to it, whether operated for gain or not.

**Child care centre** means a building or place which is used (whether or not for profit) for the purpose of educating, minding or caring for children (whether or not any of the children are related to the owner or operator), but only if the following conditions are satisfied:

- (a) the children number 6 or more, are under 6 years of age, and do not attend a government school, or a registered non-government school, within the meaning of the *Education Reform Act 1990*, and
- (b) the children (other than those related to the owner or operator) do not reside at the building or place (unless it is exempt premises under the *Children (Care and Protection) Act 1987*).

*Clear*, in relation to land, means the destruction of, or removal in any manner, of native plants growing on the land, but does not include:

- (a) the destruction or removal of plants declared to be noxious by order pursuant to section 7 of the *Noxious Weeds Act 1993*, by means not likely to be significantly detrimental to the native eco-system, or
- (b) the incidental destruction or removal of native plants growing adjacent to any such noxious plants occurring unavoidably during the process of destroying or removing those noxious plants, or
- (c) forestry operations, or
- (d) bushfire hazard reduction.

**Communications facility** means a building, structure, work or place used primarily for transmitting or receiving signals for the purpose of communication, including radio masts, transmission towers, satellite discs and the like.

**Community facility** means a building or place owned or controlled by a public authority or a body of persons which provides for the physical, social, cultural, or intellectual development or welfare of the local community but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

**Conservation plan** means a document establishing the heritage significance of a heritage item or heritage conservation area and describing policies and management mechanisms that are appropriate to enable that significance to be retained in its future use and development.

**Contaminated land** means land identified in a register kept by the Council which contains soil that has in it a concentration of chemical substances (including substances listed in the *Australian Dangerous Goods Code*) that is likely to pose an immediate or long term hazard to human health or the environment by making the land:

- (a) unsafe or unfit for habitation or occupation by people or animals, or
- (b) degraded in its capacity to support plant life, or
- (c) otherwise environmentally degraded.

**Convenience store** means a shop selling a variety of small grocery goods, whether or not goods are available for hire there.

*Corporation* means the corporation constituted by section 8(1) of the Act.

Council means the Council of the City of Liverpool.

**Dam** means all works or activities, including stormwater retention basins, the placement of fill or the excavation of land, involved in the permanent or temporary storage of water on land which significantly alters the shape, natural form or drainage of land.

**Demolish** a heritage item or a building, work, relic, tree or place within a heritage conservation area means wholly or partly destroy or dismantle the heritage item, building, work, relic, tree or place.

**Depot** means a building or place used for the storage (but not sale) of plant, machinery, goods or materials used or intended to be used by the owner or occupier of the building or place but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

**Development for the purpose of public transport** includes the construction, reconstruction, realignment, relocation and widening of any road and any other development carried out in relation to a road.

**Dual occupancy housing** means two dwellings (whether attached or detached) on a single allotment of land (or which would be on a single allotment were it not for the fact that the allotment is to be subdivided when the development is carried out resulting in erection of the dwellings).

**Dwelling** means a room or number of rooms occupied or used, or so constructed or adapted as to be capable of being occupied or used, as a separate domicile.

**Dwelling house** means a dwelling (whether attached to another dwelling or not) which is the only dwelling erected on an allotment of land.

*Ecologically sustainable development* means development which uses, conserves and enhances the community's resources so that ecological processes on which life depends are maintained, and the total quality of life, now and in the future, can be increased.

*Edmondson Park Smart Growth Precinct* means the land edged heavy black on Sheet 1 of the map marked "Liverpool Local Environmental Plan 1997 (Amendment No 83)".

*Educational establishment* means a building or place used for education (including teaching) and includes:

- (a) a government school or non-government school within the meaning of the *Education Reform Act 1990*, and
- (b) a tertiary institution, including a university, and TAFE college, providing formal education which is constituted by or under an Act, and
- (c) an art gallery or museum, not used to sell the items displayed in it, whether or not accommodation for staff or students is provided there and whether or not it is used for the purpose of gain.

*Entertainment establishment* means a building or place used for the purpose of theatres or cinemas.

10

*Entertainment facility* means a building or place used for the purpose of entertainment, exhibitions, displays or cultural events and includes:

- (a) sports stadiums, showgrounds, race courses and the like, and
- (b) music halls, concert halls, open air theatres, drive-in theatres and the like, and
- (c) entertainment centres, convention centres, exhibition centres and the like.

#### Environmental conservation activities means:

- (a) the carrying out of bushland regeneration and rehabilitation, or
- (b) weed or pest control, or
- (c) the construction of walking tracks and fencing and the carrying out of any other such work for the purposes of passive recreation activities.

**Exhibition home** means a dwelling built for the purposes of public exhibition and marketing which is intended to be sold as a private dwelling after it has been used for those purposes and may include a sales office, and a place used for providing home financing and a materials display, and the like.

**Exhibition village** means a contiguous group of exhibition homes and other buildings or works used for the purpose of promoting house sales including sales offices, and places used for providing home financing, a materials display and the sale of take-away food, and the like.

#### Extractive industry means:

- (a) winning extractive material, or
- (b) an undertaking, not being a mine, which depends for its operation on the winning of extractive material from the land on which it is carried out and includes any washing, crushing, grinding, milling, sawing or separating into different sizes of that extractive material on that land.

*Extractive material* means sand, gravel, turf, soil, rock, stone, sandstone or similar substances.

*Family day care centre* means a room or a number of rooms forming part of, attached to, or within the curtilage of, a dwelling where a care giving service (within the meaning of the *Family Day Care and Home Based Child Care Services Regulation 1996*) is provided and organised or arranged by a sponsoring body (for example, the Council) and which caters for up to 7 children under 12 years of age (including the care givers' children), but with a maximum of 5 children under 6 years of age.

**Flood liable land** means land identified by the Council as being inundated by the 1% probability flood event for the catchment in which the land is situated and indicated as flood liable land on a map marked "*Flood Liable Land Map*".

*Floor* means that space within a building which is situated between one floor level and the floor level next above or, if there is no floor above, the ceiling or roof above.

*Forestry* includes arboriculture, silviculture and the harvesting of trees and shrubs for the purpose of:

- (a) afforestation, forest protection, the cutting, dressing and preparing (otherwise than in a sawmili) of wood and other forest products, or
- (b) establishing roads necessary for the removal of wood and forest products and for forest protection.

*Generating works* means a building or place used for the purpose of making or generating gas, electricity or other forms of energy.

**Gross floor area** means the sum of the areas of each floor of a building where the area of each floor is taken to be the area within the outer face of the external enclosing walls as measured at a height of 1,400 millimetres above each floor level, excluding:

- (a) columns, fin walls, sun control devices, awnings and any other elements, projections or works outside the general lines of the outer face of the external wall, and
- (b) lift towers, cooling towers, machinery and plant rooms, ancillary storage space and air-conditioning ducts, and
- (c) car parking needed to meet any requirements of the Council and any internal designated vehicular or pedestrian access to it, and
- (d) space for the loading and unloading of goods, and
- (e) internal public arcades and thoroughfares, terraces, balconies with outer walls less than 1,400 millimetres high and the like.

*Ground level* means the level of a site as if no development has taken place, other than any filling of the site to meet a requirement of the Council.

*Hazardous industry* means a development for the purposes of an industry which, when the development is in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including measures to isolate the development from existing or likely future development on other land in the locality), would pose a significant risk in relation to the locality:

- (a) to human health, life or property, or
- (b) to the biophysical environment.

Hazardous storage establishment means any establishment where goods, materials or products are stored which, when in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including measures to isolate the establishment from existing or likely future development on the other land in the locality), would pose a significant risk in relation to the locality:

- (a) to human health, life or property, or
- (b) to the biophysical environment.

*Health consulting rooms* means a room or a number of rooms within a dwelling house used by not more than three persons to provide professional medical treatment or health care services (including dental, veterinary and optical services) to members of the public and who employ not more than 3 employees in connection with the practice.

*Heavy vehicle* means a vehicle with an unladen weight exceeding 3 tonnes but does not include fire engines, ambulances and other emergency vehicles.

*Heavy equipment* means equipment used in conjunction with heavy vehicles including, but not limited to, items such as trailers, container prime-movers and refrigerated vans or containers.

*Height*, in relation to a building, means the vertical distance measured between ground level at any point at which the building is sited, and the ceiling of the topmost floor of the building above that point.

*Helicopter landing site* means a place not open to the public used for the taking off and landing of helicopters.

*Heliport* means a place open to the public used for the taking off and landing of helicopters, whether or not it includes:

- (a) a terminal building, or
- (b) facilities for the parking, storage or repair of helicopters.

*Heritage conservation area* means an area identified on the map as a heritage conservation area by a dotted and dashed line.

*Heritage item* means a building, work, relic, tree or place specified in Schedule 2 and shown on the map by diagonal hatching or, in the case of trees, shown by a dotted line.

*Heritage significance* means historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance.

*Highway service centre* means a place which has direct access to a freeway or controlled access road and provides petrol and diesel fuel outlets, toilets, restaurant facilities (for either sit-down or take-away meals, or both), parking for cars, buses and trucks and emergency repair facilities.

*Home-based child care service* means any service, provided at the premises where the person providing the service resides, for the purpose of educating, minding or caring for one or more children (disregarding any children who are related to the person providing the service), but only if the following conditions are satisfied:

- (a) the children (other than those related to the person providing the service) do not reside at the premises, and
- (b) the service is licensed within the meaning of the Family Day Care and Home Based Child Care Services Regulation 1996.

*Home business* means the use of a dwelling or the land on which a dwelling is located, or of another building on any such land, for the purpose of an office, light industry or business, but only if:

- (a) that use is undertaken by the permanent residents of the dwelling, whether or not others are employed, and
- (b) the use does not interfere unreasonably in any way with the amenity of adjoining properties or the locality in which the dwelling is situated, and
- (c) the use does not involve public display or retail sale of any goods from the premises, and does not include a land use elsewhere defined in this clause, and
- (d) when it is carried out on land in the 2(a), 2(b), 2(c) or 2(d) zone, the use does not employ more than 6 employees or have a floor space exceeding 50 sqm, and
- (e) the use does not involve a brothel.

*Home occupation* means the use of a dwelling or the land on which a dwelling is located, or another building on any such land, for the purpose of an office or business, but only if:

- (a) that use is undertaken by the permanent residents of the dwelling, and
- (b) the use does not interfere unreasonably in any way with the amenity of adjoining properties or the locality in which the dwelling is situated, and
- (c) the use does not involve public display or retail sale of any goods from the premises, and
- (d) the use does not involve a brothel, and
- (e) the use does not involve the registration of the building under the Factories, Shops and Industries Act 1962, and
- (f) the use does not involve the exhibition of any notice, advertisement or sign (other than a notice advertisement or sign exhibited on that dwelling to indicate the name and occupation of the resident).

*Hospital* means a building or place used for the purpose of providing professional health care services (such as preventative or rehabilitative care, diagnosis, medical or surgical treatment, care for people with disabilities, psychiatric care or counselling and services provided by health care professionals) to people who are admitted as in-patients, including any:

- (a) ancillary facilities for the accommodation of nurses or other health care workers, ancillary shops or restaurants and ancillary accommodation for persons receiving health care or for their visitors, and
- (b) facilities situated in the building or at the place and used for educational or research purposes, whether or not they are used only by hospital staff or health care workers and whether or not any such use is a commercial use,

and includes a building or place that is used exclusively as a day surgery or day procedure centre.

*Hotel* means premises specified or proposed to be specified in a hotelier's licence granted under the *Liquor Act 1982*.

*Housing for aged or disabled persons* means residential accommodation which may take any building form, which is or is intended to be used as housing for the permanent accommodation of aged persons or disabled persons.

*Industry* means the manufacturing, assembling, altering, repairing, renovating, ornamenting, finishing, cleaning, washing, dismantling, processing or adapting of any goods, articles, materials, liquids or gases for commercial purposes but, in the Table to clause 9, does not include a land use elsewhere defined in this clause.

Integrated housing means development that consists of:

- (a) the subdivision of land into three or more allotments, and
- (b) the erection of a dwelling house on each of the allotments created by that subdivision.

*Intensive livestock agriculture* means a building or place used for the keeping or breeding of livestock or poultry or other birds, which are fed wholly or substantially on prepared or manufactured feed, and includes cattle feed lots, piggeries, poultry farms and worm farms, but excludes a building or place used only for drought or similar emergency relief.

*Intensive plant agriculture* means land used for the cultivation of crops, including cereals, fruit, flowers, nuts, vegetables, mushrooms, turf, irrigated rice, irrigated cotton, wholesale plant nurseries or hydroponics.

**Landfill** means all works or activities involved in the placement of fill on land, or an excavation of land, which significantly alters the shape, natural form or drainage of land but does not include dams.

*Light industry* means an industry in which the processes carried on, or the transportation involved or the machinery or materials used, do not interfere unreasonably with the amenity of the neighbourhood but, in the Table to clause 9, does not include an industry elsewhere defined in this clause.

# Local shop means a shop that:

- (a) operates primarily to service the surrounding residential area, and
- (b) trades principally in groceries, small goods and associated convenience items, but that may also offer a post office facility or a newsagency facility, and
- (c) does not exceed 75 square metres in gross floor area.

*Maintenance* means the continuous protective care of the fabric of a heritage item and its setting.

*Maintenance dredging* means the removal of alluvial material from:

- (a) the bed of a tidal water body:
  - (i) to enable the waterway to continue to function as a tidal waterway, or
  - (ii) to resume its function as a tidal waterway, or
- (b) deltas formed at stormwater outlets, drains or the junction of creeks with rivers, or
- (c) sediment ponds or dams or artificial wetlands, or
- (d) oyster leases,

to restore productivity.

Map means a map deposited in the office of the Council.

*Marina* means shoreside facilities for mooring or servicing boats providing:

- (a) facilities, including pontoons, jetties, piers, berths or moorings, and
- (b) facilities for dry or rack storage of vessels, repair, maintenance or refuelling of vessels, pumping out of sewage, sail lofts, spillways, hoists, and facilities for the provision of accessories or parts for boats or food for boating operations.

*Materials recycling yard* means a building or place used for collecting, dismantling, storing, or recycling of second-hand or scrap materials for the purpose of resale.

*Medical centre* means a building or place used for the purpose of providing professional health services (including preventative care, diagnosis, medical or surgical treatment or counselling) to out-patients only.

*Mine* means the obtaining (by methods including excavating, quarrying, dredging, tunnelling or drilling) or removal of minerals, petroleum or natural gas and includes the storage and processing of the material obtained.

Mineral has the same meaning as in the Mining Act 1992.

*Motel* means premises, not being a hotel, bed and breakfast premises or serviced apartments, used for the temporary or short term accommodation of travellers.

*Motor showroom* means a building or place used for the display or sale of motor vehicles, caravans, or boats, whether or not motor vehicle accessories, caravan accessories or boat accessories are sold or displayed there.

*Multiple dwellings* means three or more dwellings (whether or not attached) on one allotment of land, each with private open space at or near ground level.

*Native plants* means plants indigenous to the State of New South Wales, including trees, shrubs, ferns, vines, herbs and grasses indigenous to the State.

*Nuclear activities* includes any procedure or operation involved in the exploration for, or in the quarrying or mining, milling, conversion, enrichment, fabrication, reprocessing or disposal of, nuclear material.

*Nuclear facility* includes a nuclear reactor, a nuclear power plant, a critical facility, a conversion plant, a fabrication plant, a reprocessing plant, an isotope separation plant or an installation for the storage of nuclear material.

*Nuclear material* means any radioactive substance associated with the nuclear fuel cycle, including:

- (a) any substance which is capable of being transformed into fissile material, and
- (b) a substance capable of undergoing nuclear fission, and
- (c) spent fuel, and
- (d) waste,

but does not include isotopes or materials used for medical purposes.

**Offensive industry** means a development for the purposes of an industry which, when the development is in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including measures to isolate the development from existing or likely future development on other land in the locality), would emit a polluting discharge (including noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land in the locality.

**Offensive storage establishment** means any establishment where goods, materials or products are stored which, when in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including measures to isolate the establishment from existing or likely future development on other land in the locality), would emit a polluting discharge (including noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land in the locality.

**Office premises** means a building or place used for the purpose of administration, clerical, technical, professional or like activities, where dealings with members of the public are not on a direct and regular basis or otherwise than by appointment, but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

**Passenger transport terminal** means any building or place used for the assembly and dispersal of passengers travelling by any form of passenger transport, including any facilities required for parking, manoeuvring, storing or routine servicing of any vehicle forming part of that undertaking.

#### Permanent group home means a dwelling:

- (a) which is used to provide a household environment for disabled persons or socially disadvantaged persons, whether or not those persons are related, and
- (b) which is occupied by the persons referred to in paragraph (a) as a single household, with or without paid or unpaid supervision or care and with or without payment for board and lodging being required, but does not include a transitional group home or a building to which State Environmental Planning Policy No. 5 - Housing for Aged or Disabled Persons applies.

*Place of public worship* means a building or place used for the purpose of religious worship, whether or not the building or place is also used for counselling, social events or religious training by a congregation or religious group.

**Plant hire** means a building or place used to hire out tools, plant and equipment used by builders and do-it-yourselfers and for the service and maintenance of the tools, plant and equipment.

**Potential archaeological site** means a site specified in Schedule 3 and shown on the map by a dashed line and includes a site known to the Council to have archaeological potential even if it is not so identified.

**Precinct map** means: for the Southern Hoxton Park Aerodrome Smart Growth Precinct, Sheet 2 of the map marked "Liverpool Local Environmental Plan 1997 (Amendment No 71)" for the Edmondson Park Smart Growth Precinct, Sheet 1 of the map marked "Liverpool Local Environmental Plan 1997 (Amendment No 83)".

*Public building* means a building or place used as a business or office by a public authority or an organisation established for public purposes.

**Real estate sign** means an advertisement that contains only a notice that the place or premises to which it is fixed is or are for sale or letting (together with particulars of the sale or letting) and that is not displayed for more than 14 days after the letting or completion of the sale.

#### Recreation area means:

- (a) a children's playground, or
- (b) an area used for sporting activities or sporting facilities, or
- (c) an area used by the Council to provide recreational facilities for the physical, cultural or intellectual welfare of the community, or
- (d) an area used by a body of persons associated for the purpose of the physical, cultural or intellectual welfare of the community to provide recreational facilities for that purpose,

but does not include race-courses and showgrounds.

**Recreation facility** means a building or place used for sporting activities, recreation or leisure activities, or a shop selling take-away food or tourist related items, whether or not operated for the purpose of gain, and may consist of or include:

- (a) a swimming pool, golf course, tennis court, bowling green or playing field, and
- (b) a paint ball park or gun club, and
- (c) a go-kart track, skating rink, skateboard and rollerblade ramp or mini-golf course, and
- (d) a bowling alley, pinball and video parlour or pool hall, and
- (e) boating facilities, such as marinas, boat sheds, boat ramps or landing facilities.

**Registered club** means a building or place which is used by persons associated, or by a body incorporated, for social, literary, political, sporting, athletic or other lawful purposes and which is, or is intended to be, registered under the *Registered Clubs Act 1976*.

Relic means any deposit, object or material evidence relating to:

- (a) the use or settlement of the area of the City of Liverpool, not being Aboriginal habitation, which is more than 50 years old, or
- (b) Aboriginal habitation of that area, before or after its occupation by persons of European extraction, including human remains.

*Research establishment* means a building or place used for the testing of any industrial goods or any articles for commercial purposes.

**Research facility** means a building or place used for the design, research or development of any industrial goods or any articles for commercial purposes but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

**Residential flat building** means a building containing three or more dwellings but, in the Table to clause 9, does not include a building elsewhere defined in this clause.

**Restaurant** means a building or place, the principal purpose of which is the provision of food to people for consumption on the premises or to provide take-away meals.

**Retail plant nursery** means a building or place used for growing plants and selling plants by retail, whether or not landscape supplies (including earth products) or other landscape and horticultural products are also sold there.

*Road* means a public thoroughfare used for the passage of vehicles or animals.

**Roadside stall** means a place or temporary structure used for the selling by retail of agricultural produce produced on the allotment of land on which the place or temporary structure is located.

*Road transport terminal* means a building or place used for the bulk handling of goods for transport by road, and includes:

- (a) the facilities for the loading and unloading of the vehicles that transport those goods and for the parking, servicing and repair of those vehicles, and
- (b) a building or place used for the loading and unloading of containers,

but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

Rural industry means a business activity involving:

- (a) the handling, treating, processing or packing of primary products, or
- (b) regular servicing or repairing of plant, equipment or motor vehicles used for the purpose of agriculture, aquaculture or a business activity referred to in paragraph (a)

**Sanctuary** means a building or place used for the preservation of native flora or fauna, or both, but, in the Table to clause 9, does not include a building or place elsewhere defined in this clause.

*Sawmill* means a mill used for handling, cutting and processing timber from logs or baulks.

Sector – see clause 8 (5).

Serviced apartments means a building containing two or more dwellings which are cleaned and otherwise serviced or maintained by the owner or manager of the building or the owner's or manager's agent.

Service station means a building or place used for the sale by retail of motor vehicle fuels and lubricants.

**Shop** means a building or place used for selling items, whether by retail or auction, or for hiring or displaying items for the purpose of selling or hiring them (whether the items are goods or materials).

*Site area*, in relation to development, means the area of land to which an application for consent to carry out the development relates, excluding it from any land on which the development is not permitted by this plan.

Smart growth precinct – See clause 8 (4):

Southern Hoxton Park Aerodrome Smart Growth Precinct means the land shown edged heavy black on Sheet 1 of the map marked "Liverpool Local Environmental Plan 1997 (Amendment No 71)".

**Statement of heritage impact** means a document which contains an assessment of the extent to which an application for development may affect the heritage significance of a heritage item or heritage conservation area.

*Stock and sale yard* means a building or place used for the purpose of offering livestock or poultry for sale.

#### The Act means the Environmental Planning and Assessment Act 1979.

*The Map* means the series of maps marked "Liverpool Local Environmental Plan 1997", as amended by the maps (or specified sheets of the maps) marked as follows:

Liverpool Local Environmental Plan 1997 (Amendment No. 4) (gaz 67-9/4/98) Liverpool Local Environmental Plan 1997 (Amendment No. 5) (gaz 71-24/4/98) Liverpool Local Environmental Plan 1997 (Amendment No. 2) (gaz 87-29/5/98) Liverpool Local Environmental Plan 1997 (Amendment No. 6) - Sheet 2 (gaz 90-5/6/98) Liverpool Local Environmental Plan 1997 (Amendment No. 11) (gaz 115-31/7/98) Liverpool Local Environmental Plan 1997 (Amendment No. 12) (gaz 115-31/7/98) Liverpool Local Environmental Plan 1997 (Amendment No. 8) (gaz 135-18/9/98) Liverpool Local Environmental Plan 1997 (Amendment No. 10) (gaz 148-16/10/98) Liverpool Local Environmental Plan 1997 (Amendment No. 1) (gaz 176-18/12/98) Liverpool Local Environmental Plan 1997 (Amendment No. 9) (gaz 22-19/2/99) Liverpool Local Environmental Plan 1997 (Amendment No. 15) (gaz 22-19/2/99) Liverpool Local Environmental Plan 1997 (Amendment No. 14) (gaz 61-21/5/99) Liverpool Local Environmental Plan 1997 (Amendment No. 19) (gaz 141-17/12/99) Liverpool Local Environmental Plan 1997 (Amendment No. 36) (gaz 57-12/05/00) Liverpool Local Environmental Plan 1997 (Amendment No. 23) (gaz 59-19/05/00). Liverpool Local Environmental Plan 1997 (Amendment No. 25) (gaz 73-23/06/00) Liverpool Local Environmental Plan 1997 (Amendment No. 16) (gaz 88 -14/07/00) Liverpool Local Environmental Plan 1997 (Amendment No. 37) (gaz 88 -14/07/00) Liverpool Local Environmental Plan 1997 (Amendment No. 38) (gaz 117 -08/09/00) Liverpool Local Environmental Plan 1997 (Amendment No. 43) (gaz 121 - 15/09/00) Liverpool Local Environmental Plan 1997 (Amendment No. 29) (gaz 146 -10/11/00) Liverpool Local Environmental Plan 1997 (Amendment No. 45) (gaz 5 -05/01/01) Liverpool Local Environmental Plan 1997 (Amendment No. 49) (gaz 41 -23/02/01) Liverpool Local Environmental Plan 1997 (Amendment No. 46) (gaz 86 -18/05/01) Liverpool Local Environmental Plan 1997 (Amendment No. 52) (gaz 95 -08/06/01) Liverpool Local Environmental Plan 1997 (Amendment No. 30) (gaz 111 -13/07/01) Liverpool Local Environmental Plan 1997 (Amendment No. 63) (gaz 143 -17/09/01) Liverpool Local Environmental Plan 1997 (Amendment No. 54) (gaz 190 -14/12/01) Liverpool Local Environmental Plan 1997 (Amendment No. 48) (gaz 190 -14/12/01) Liverpool Local Environmental Plan 1997 (Amendment No. 73) (gaz 38 -08/02/02) Liverpool Local Environmental Plan 1997 (Amendment No. 60) (gaz 65 -22/03/02) Liverpool Local Environmental Plan 1997 (Amendment No. 65) (gaz 106 -28/06/02) Liverpool Local Environmental Plan 1997 (Amendment No. 68) (gaz 142 -06/09/02) Liverpool Local Environmental Plan 1997 (Amendment No. 61) (gaz 149 -20/09/02) Liverpool Local Environmental Plan 1997 (Amendment No. 67) (gaz 237 - 29/11/02) Liverpool Local Environmental Plan 1997 (Amendment No. 44) (gaz 68 -04/04/03) Liverpool Local Environmental Plan 1997 (Amendment No. 82) (gaz 83 -09/05/03) Liverpool Local Environmental Plan 1997 (Amendment No. 57) (gaz 97-13/06/03) Liverpool Local Environmental Plan 1997 (Amendment No. 58) (gaz 97 - 13/06/03) Liverpool Local Environmental Plan 1997 (Amendment No. 79) (gaz 126 -15/08/03) Liverpool Local Environmental Plan 1997 (Amendment No. 53) (gaz 137 -05/09/03) Liverpool Local Environmental Plan 1997 (Amendment No. 55) (gaz 179 -14/11/03) Liverpool Local Environmental Plan 1997 (Amendment No. 78) (gaz 47-27/02/04) Liverpool Local Environmental Plan 1997 (Amendment No. 71) - Sheet 1 (gaz 98-18/06/04) Liverpool Local Environmental Plan 1997 (Amendment No. 75) (gaz 117-09/07/04) Liverpool Local Environmental Plan 1997 (Amendment No. 95) (gaz 149-24/09/04) Liverpool Local Environmental Plan 1997 (Amendment No. 84) (gaz 38-01/04/05) Liverpool Local Environmental Plan 1997 (Amendment No. 76) (gaz 118-23/09/05) Liverpool Local Environmental Plan 1997 (Amendment No. 83) - Sheets 1-3 and, subject to clause 32D, Sheet 4 (gaz 40-31/03/06) Temporary sign means an advertisement of a temporary nature that:

- (a) announces any local event of a religious, educational, cultural, political, social, or recreational character or relates to any temporary matter in connection with such an event, and
- (b) does not include advertising of a commercial nature except the name of an event's sponsor.

Temporary signs may consist of advertisements in the form of banners, bunting, posters, inflatable structures and similar things.

Transitional group home means a dwelling:

- (a) which is used to provide temporary accommodation, for the purpose of relief or rehabilitation, for disabled persons or socially disadvantaged persons, whether or not those persons are related, and
- (b) which is occupied by the persons referred to in paragraph (a) as a single household, with or without paid or unpaid supervision or care and with or without payment for board and lodging being required,

but does not include a permanent group home or a building to which State Environmental Planning Policy No 5-Housing for Aged or Disabled Persons applies.

*Transport depot* means a building or place used for the parking or storage of motor powered or motor drawn vehicles used in connection with a passenger transport undertaking, business, industry or shop.

*Tree* means a living perennial plant not less than 2 metres high which, if permitted to grow to maturity, would have a height in excess of 3 metres.

Definition added, Amendment No. 30 (gaz 111 – 13/7/01)

Utility installation means a building or work used for a utility undertaking.

*Utility undertaking* means any undertaking carried on by, or by authority of, a public authority or in pursuance of any Commonwealth or State Act, for the purpose of:

- (a) railway, road, water or air transport, or wharf or river undertakings, or
- (b) the provision of sewerage or drainage services, or
- (c) the supply of water, hydraulic power, electricity or gas, or
- (d) telecommunications.

**Vacant land** means land on which, immediately before the day on which a notice requiring its acquisition is given under this plan, there were no buildings other than fences, green houses, conservatories, garages, summer houses, private boat houses, fuel sheds, tool houses, cycle sheds, aviaries, milking bails, hay sheds, stables, fowl houses, pig sties, barns or the like.

Vehicle body repair workshop means a building or place used for the repair of vehicles or agricultural machinery, involving body building, panel beating or spray painting.

Vehicle repair station means a building or place used for the purpose of carrying out repairs or selling and fitting of accessories to vehicles or agricultural machinery.

Veterinary hospital means a building or place used for diagnosing or surgically or medically treating animals, whether or not animals are kept on the premises for the purposes of treatment.

Warehouse or distribution centre means a building or place used for storing, handling or displaying items (whether goods or materials) which have been produced or manufactured for sale, other than retail sale to the public from the building or place.

Waste disposal means landfill which involves the filling of land with:

- (a) sludge, or
- (b) putrescible waste, or
- (c) waste that includes any substance classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste.

#### Water body means:

- (a) a natural water body, including:
  - (i) a lake or lagoon either naturally formed or artificially modified, or
  - (ii) a river or stream, whether perennial or intermittent, flowing in a natural channel with an established bed or in a natural channel artificially modifying the course of the river or stream, or
  - (iii) tidal waters, including any bay, estuary or inlet, or
- (b) an artificial water body, including any constructed waterway, canal, inlet, bay, channel, dam, pond or lake,

but does not include a dry detention basin or other construction that is only intended to hold water intermittently.

#### Wetland means:

- (a) natural wetland which includes marshes, mangroves, backwaters, billabongs, swamps, sedgelands, wet meadows, or wet heathlands that form a shallow water body (up to 2 metres in depth) when inundated cyclically, intermittently or permanently with fresh, brackish or salt water, and where the inundation determines the type and productivity of the soils and the plant and animal communities, or
- (b) artificial wetland, which includes marshes, swamps, wet meadows, sedgelands or wet heathlands that form a shallow water body (up to 2 metres in depth) when inundated cyclically, intermittently or permanently with water, and that are constructed from and vegetated with wetland plant communities.
- (2) In this plan:
  - (a) a reference to a building, work or place used for a purpose includes a reference to a building, work or place proposed to be used for the purpose, and
  - (b) a reference to a map is a reference to a map kept in the office of the Council.
- (3) The list of contents of this plan and notes to this plan do not form part of this plan.

Clause amended, Amendment No. 26 (gaz 46 – 14/04/00)

Zone – See clause 8 (3).

#### 6A What is Exempt Development?

- (1) Development listed as exempt development in *Liverpool City Council Development Control Plan No. 32 – Exempt Development*, as adopted by the Council on 3 September 1999, is exempt development (except as provided by subclause (2) and (3) and may be carried out without development consent.
- (2) Development is exempt development only if:
  - (a) it does not cause interference with the amenity of the neighbourhood because of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil or otherwise, and
  - (b) it complies with any deemed-to-satisfy provisions of the *Building Code of Australia* relevant to the development, and;
  - (c) it complies with any relevant standards set for the development by this plan and by *Liverpool City Council Development Control Plan No. 32 – Exempt Development* as adopted by the Council on 3 September 1999, and
  - (d) it does not contravene any condition of a development consent applying to the land, and
  - (e) it does not obstruct drainage of the site on which it is carried out, and
  - (f) it does not restrict any vehicular or pedestrian access to or from the site, and
  - (g) it is not carried out within any easement or public sewer main and complies with the building over sewer requirements of the Sydney Water Corporation applying to the land, and
  - (h) it does not require a tree to be removed, and
  - (i) it does not contravene any restriction on the land, imposes by or for the benefit of the Council in a section 88B instrument under the Conveyancing Act 1919.

(3) Development is not exempt development if it is carried out on the land that:

- (a) is a heritage item or the site of a heritage item, or
- (b) is an Aboriginal place under the National Parks and Wildlife Act 1974, or
- (c) is identified as:
  - (i) land to which this plan does not apply (being land shown as "deferred matter" on the Map); or
  - (ii) land within the 5(b) Special Uses Railways zone, or
  - (iii) land within the 5(c) Special Uses Arterial Road zone, or
  - (iv) land within the 5(c) Special Users Local Road zone, or
  - (v) land within the 6(b) Recreation Private zone, or
  - (vi) land within the 6(c) Recreation Corridor zone, or
  - (vii) land within the 7(b) Environmental Protection Waterway zone, or
  - (viii) land within the 7(b) Environmental Protection Bushland zone, or
  - (ix) land within the 7(c) Environmental Protection Conservation zone, or
  - (x) land on which there is significant vegetation (being land shown with crosshatching on the Map), or
  - (xi) a potential archaeological site (being land specified in Schedule 3), or
- (d) is reserved or dedicated under the Crown Lands Act 1989 for the preservation of flora, fauna or geological formations or for other environmental protection purposes, or
- (e) is an aquatic reserve declared under the Fisheries Management Act 1994, or
- (f) is flood liable land, or
- (g) is within 40 metres of a waterway.

Section 76(3) of the EP&A Act states that exempt development cannot be carried out on the land that is:

 (a) critical habitat (within the meaning of the Threatened Species Conservation Act 1995); or

(b) within a wilderness area (within the meaning of the Wildness Act 1987).

Note:

#### 6B What is Complying Development?

- (1) Development listed as complying development in *Liverpool City Council* Development Control Plan No. 33 – Complying Development, as adopted by the Council on 3 September 1999, is complying development if:
  - (a) it is local development of a kind that can be carried out with consent on the land on which it is proposed, and
  - (b) it is not an existing use, as defined in section 106 of the Act,

except as provided by subclauses (2) and (3).

- (2) Development is complying development only if:
  - (a) it complies with any deemed-to-satisfy provisions of *the Building Code of Australia* relevant to the development, and
  - (b) it will achieve the outcomes for the development listed in *Liverpool City Council Development Control Plan No.* 33 – *Complying Development*, as adopted by the Council on 3 September 1999, and
  - (c) it complies with the relevant development standards set for the development by this plan and *Liverpool City Council Development Control Plan No. 33 Complying Development*, as adopted by the Council on 3 September 1999, and
  - (d) no environmental planning instrument states that the adequacy of an acid sulfate soils management plan for the proposed development must be considered before consent can be granted for it, and
  - (e) it is consistent with any plan for management approved under *State Environmental Planning Policy No. 44 – Koala Habitat Protection*, and with any recovery plan or threat abatement plan in force under the Threatened Species Conservation Act 1995 that apply to the land, and
  - (f) it does not contravene any condition of development consent applying to the land, and
  - (g) it is not carried out within any easement or public sewer main and complies with the building over sewer requirements of the Sydney Water Corporation applying to the land, and
  - (h) it does not require a tree to be removed, and
  - (i) it does not contravene any restriction on the land, imposed by or for the benefit of the Council is a section 88B instrument under the Conveyancing Act 1919.

Section 76A(6) of the EP&A Act states that the following development can not be complying development (a)

- State significant development
- (b) designated development,

Note:

(c) -

- any development, if consent for it requires the concurrence of a person other than the consent authority or the Director-General of National Parks and Wildlife, as referred to in section 79B(3) of the EP&A Act.
- (3)Development is not complying development if it is carried out on land that:
  - (a) is identified in this or any other environmental planning instrument, as bushfire prone, flood liable, or contaminated land, or land subject to subsidence, slip or erosion, or land within 40 metres of a waterway, or
  - is a site that has previously been used as a service station or a sheep or (b) cattle dip, for intensive agriculture, mining or extractive industry, for waste storage or waste treatment or for the manufacture of chemicals, asbestos or asbestos products, and a notice of completion of remediation work for the proposes use has not been given to the Council in accordance with State Environmental Planning Policy No, 55 - Remediation of Land, or
  - is an Aboriginal place under the National Parks and Wildlife Act 1974, or (c)
  - (d) is identified as:
    - (i) land to which this plan does not apply (being land shown as "deferred matter" on the Map); or
    - (ii) land within the 5(b) Special Uses - Railways zone, or
    - (iii) land within the 5(c) Special Uses - Arterial Road zone, or
    - (iv) land within the 5(c) Special Uses - Local Road zone, or
    - (v) land within the 6(b) Recreation - Private zone, or
    - (vi) land within the 6(c) Recreation – Corridor zone, or
    - (vii) land within the 7(a) Environmental Protection – Waterway zone, or
    - (viii) land within the 7(b) Environmental Protection - Bushland zone. or
    - (ix)land within the 7 (c) Environment Protection – Conservation zone, or
    - land on which there is significant vegetation (being land shown (x) with cross-hatching on the Map), or
    - (xi) <sup>.</sup> a potential archaeological site (being land specified in Schedule 3), or
  - is reserved or dedicated under the Crown Lands Act 1989 for the (e) preservation of flora, fauna or geological formations or for other environmental protection purposes, or

- (f) is an aquatic reserve declared under the Fisheries Management Act 1994, or
- (g) is a special area or outer catchment area within the meaning of the Sydney Catchment Management Act 1998, or
- (h) is within 200 metres of a poultry farm.

Section 76A(6) of the EP&A Act states that development can not be complying development if it is carried out on land.

- (a) that is critical habitat (within meaning of the Threatened Species Conservation Act 1995), or
- (b) that is within a wilderness area (within the meaning of the Wilderness Act 1987); or:
- (c) that comprises, or on which there is, an item of the environmental heritage to which an order under the Heritage Act 1977 applies or that is identified as such an item in an environmental planning instrument, or
- (d) that is identified as an environmentally sensitive area in the environmental planning instrument providing for the complying development.

Clauses 6A and 6B added, Amendment No. 26 (gaz 46 - 14/04/00)

#### 7 Covenants

Note:

- (1) Any agreement, covenant or similar instrument which controls development permitted by this plan does not apply to the extent necessary to permit that development.
- (2) Nothing in subclause (1) affects the rights or interests of any public authority under any registered instrument.
- (3) In accordance with section 28 of the Act, the Governor approved of subclauses (1) and (2) before this plan was made.

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- (6) The objectives of the 1(f) zone are:
  - (a) to permit the continuation of existing rural residential development, and
  - (b) to permit a limited range of compatible development on land within the zone where it can be shown that the development will not:
    - (i) compromise the extent, quality or integrity of the ecological attributes of the land, and
    - (ii) compromise the extent, quality or integrity of any identified Aboriginal heritage values of the land, and
    - (iii) compromise the potential for restoration and enhancement of the scenic landscape and vegetation communities within the locality, and
    - (iv) cause or increase soil salinity or compromise water quality or quantity, or riparian corridors or vegetation communities, within the locality, and
  - (c) to provide opportunities for the provision of vegetated biological linkages and the revegetation of the scenic landscape, riparian corridors and vegetation communities located on land within, and adjacent to, the zone.

#### 34 Minimum allotment sizes

- Land in the 1(a), 1(b), 1(c), 1(d) or 1(f) zone may, subject to subclauses (2) and
   (3), be subdivided only if each allotment created has an area not less than the area specified for each zone as follows:
  - 1(a) 40 ha
  - 1(b) 2 ha
  - 1(c) 2 ha
  - 1(d) 1 ha
  - 1(f) 0.5ha
- (2) The following land may be subdivided only if each allotment created has an area of not less than 5 ha:

Lots 5 and 6, DP 791971 Lots 7 and 8, DP 791971 Lots 24, 25 and 38, DP 803008

- (3) Land in the 1(a), 1(b), 1(c), 1(d), 1(e) or 1(f) zone may be subdivided to create allotments of any size for the purpose of:
  - (a) widening a public road, or
  - (b) making an adjustment to a boundary between allotments, being an adjustment that does not involve the creation of any additional allotment, or
  - (c) rectifying an encroachment upon an allotment, or

- (d) creating a public reserve, or
- (e) consolidating allotments, or
- (f) excising from an allotment land which is, or is intended to be, used for public purposes, including drainage purposes, bush fire brigade or other rescue service purposes or public conveniences.
- (4) Land in the 1(e) zone may, subject to subclause (3), be subdivided only by excising an allotment around an existing dwelling to enable the residue of the allotment to be consolidated with another allotment.

#### 35 Minimum allotment sizes for dual occupancy housing

- (1) Dual occupancy housing involving detached dwellings may, subject to subclause (2), be carried out with consent in the 1(a), 1(b), 1(c), 1(d) or 1(e) zone only if the area of the allotment to which the application relates is not less than the area specified for each zone as follows:
  - 1(a) 2 ha
  - 1(b) 1.2 ha
  - 1(c) 4 ha
  - 1(d) 2 ha
  - 1(e) 2 ha
- (2) Dual occupancy housing involving detached dwellings may be erected with consent on the following land only if the land has an area not less than 10 ha:

Lots 5 and 6, DP 791971 Lots 7 and 8, DP 791971 Lots 24, 25 and 38, DP 803008

#### 36 Minimum allotment size for a dwelling house

- (1) A dwelling house may be erected with consent in the 1(e) zone only if the area of the allotment to which the application relates is 2 ha or more.
- (2) A dwelling-house may be erected with consent on a parcel specified in Schedule 7 if that parcel has been consolidated into one allotment.

#### 37 General restrictions on development

Consent for development on land in the 1(a), 1(b), 1(c), 1(d), 1(e) or 1(f) zone may be granted only if each building or work resulting from carrying out the development would, in the opinion of the Council, be compatible with the character and amenity of nearby areas (both existing and likely future) in terms of:

- (a) its scale, bulk, design, height, siting and landscaping, and
- (b) its operation, and
- (c) traffic generation and car parking, and

- (d) noise, dust, light and odour nuisance, and
- (e) privacy, and
- (f) stormwater drainage, and
- (g) hours of operation, and
- (h) overshadowing.

#### 38 Restrictions on development near arterial roads

Notwithstanding any other provision of this plan, land in the 1(a), 1(b), 1(c), 1(d) or 1(e) zone shall not be subdivided or used for the purpose of any of the following:

educational establishments,

entertainment facilities,

extractive industries,

generating works,

hazardous industries,

heliports,

hospitals,

mines,

offensive industries,

places of public worship,

public buildings,

recreation facilities,

registered clubs,

retail plant nurseries,

roadside stalls,

rural industries,

sawmills,

stock and sale yards,

veterinary hospitals,

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Item No	Property Description	Address
1	Lots 1 - 4 (inclusive) DP 18891	Greendale Rd, Greendale
2	Lots 13 - 16 (inclusive), DP 18891	Greendale Rd, Greendale
3	Lots 17 - 20 (inclusive), DP 18891	Greendale Rd, Greendale
4	Lots 38 - 48 (inclusive), DP 18891	Greendale Rd, Greendale
5	Lots 50 - 51 (inclusive), DP 18891	Greendale Rd, Greendale
6	Lots 4 - 9 (inclusive), Sec B, DP 1443	Church Rd, Denham Court
7	Lots 10 - 11 and Lots 17-21 (inclusive), Sec B, D P 1443	Church Rd and Campbelltown Rd, Denham Court
8	Lots 12 - 16 (inclusive), Sec B, DP 1443	Campbelltown Rd, Denham Court
9	Lots 27 - 28 (inclusive), Sec B, DP 1443	Campbelltown Rd, Denham Court
.10	Lots 29 - 31 (inclusive), Sec B, DP 1443	Campbelltown Rd, Denham Court
11	Lots 32 - 39 (inclusive), Sec B, DP 1443	Campbelltown Rd, Denham Court
12	Lots 35 - 37 (inclusive), Sec B, DP 1443	Campbelltown Rd, Denham Court

## Schedule 7

Minimum allotment sizes

(Clause 36 (2))

#### 40 General restrictions on development

Consent may be granted for a building on land in the 2(a), 2(b), 2(c), 2(d), 2(e) or 2(f) zone only if it would be compatible with the character and amenity of both the existing and likely future nearby residential areas in terms of:

- (a) its scale, bulk, design, height, siting and landscaping, and
- (b) its operation, and
- (c) traffic generation and car parking, and
- (d) noise, dust, light and odour nuisance, and
- (e) privacy, and
- (f) stormwater drainage, and
- (g) hours of operation, and
- (h) overshadowing.

#### 41 General considerations for residential development

Before determining an application for consent to carry out development on land in the 2 (a), 2 (b), 2 (c), 2(d), 2(e) or 2(f) zone for the purpose of dual occupancy housing, multiple dwellings, integrated housing, housing for aged or disabled persons or residential flat buildings, the Council must consider the following:

- (a) whether adequate arrangements have been made for the removal and the disposal of waste from each proposed dwelling,
- (b) whether adequate provision has been made for the supply of water to and the disposal of sewage and stormwater from each proposed dwelling,
- (c) whether adequate provision is made for the privacy of the occupants of each proposed dwelling and of any adjacent buildings,
- (d) whether adequate provision is made in respect of access to natural light for each proposed dwelling and for any adjacent buildings,
- (e) whether there is a demonstrated need for access for the purpose of maintaining services and buildings and, if so, whether adequate arrangements have been made for such access,
- (f) whether there is a demonstrated need for off street car parking and, if so, whether adequate arrangements have been made for such parking.

Clause amended, Amendment No. 1 (gaz 176 - 18/12/98)

#### 41A Minimum allotment sizes and widths

- (1) **Subdivision** Land in the 2(a), 2(c), 2(d), 2(e) or 2(f) zone may, subject to this clause, be subdivided only if each allotment created has:
  - (a) an area of not less than 450sqm, not including the area of any access way in the case of a hatchet shaped allotment, and
  - (b) a minimum width of not less than 15m, not including the width of any access way in the case of a hatchet shaped allotment.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

- (1A) **Subdivision** Land in the 2(b) zone may, subject to this clause, be subdivided only if each allotment created has:
  - (a) an area of not less than 600sqm, not including the area of any access way in the case of a hatchet shaped allotment, and
  - (b) a minimum width of not less than 20m, not including the width of any access way in the case of a hatchet shaped allotment.

Clause added, Amendment No. 18 (gaz 128 - 12/11/99)

- (2) **Small lot housing subdivision** Land in the 2(a) or 2(c) zone may, subject to subclause (7), be subdivided for the purpose of small lot housing only if each allotment created and on which a dwelling will be situated has:
  - (a) an area of not less than 270sqm, not including that area of any access way in the case of a hatchet shaped allotment, and
  - (b) a minimum width of not less than 12m, not including the width of any access way in the case of a hatchet shaped allotment, unless paragraph (c) applies, and
  - (c) a minimum width of not less than 9m, not including the width of any access way in the case of a hatchet shaped allotment, if the average of all the minimum widths of lots created by the subdivision will not be less than 12m, and
  - (d) a restriction placed on its use restricting the location of the dwelling to be situated on the land in the case of land having an area of less than 450sqm.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

(3) Dual occupancy housing-minimum width and site area Consent may be granted for dual occupancy housing, other than where one of the dwellings has a floor area not greater than 60sqm, in the 2(a), 2(b) or 2(c) zone if the allotment has an area of not less than 600sqm, not including the area of any access way in the case of a hatchet shaped allotment, and:

- (a) the minimum width of the allotment is not less than 24m, not including the width of any access way in the case of a hatchet shaped allotment, or
- (b) in the case of a corner allotment, the width of at least one frontage to a street is not less than 24m.
- (4) **Dual occupancy and integrated housing subdivision** Land in the 2(a) or 2(c) zone may be subdivided for the purpose of dual occupancy housing or integrated housing only if:
  - (a) each allotment created has an area of not less than 270sqm, and
  - (b) the average of the areas of all allotments is not less than 300sqm, and
  - (c) each allotment has a minimum width of not less than 9m, not including the width of an access way in the case of a hatchet shaped allotment, and the average of the minimum widths of lots created by the subdivision is not less than 12m.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

(4A) **Dual occupancy and integrated housing subdivision** Land in the 2(b) zone must not be subdivided for the purpose of dual occupancy housing or integrated housing.

Clause added, Amendment No. 18 (gaz 128 - 12/11/99)

- (5) **Multiple dwellings minimum width and site area** Consent may be granted for multiple dwellings in the 2(a) or 2(d) zone if:
  - (a) the minimum width of the allotment on which they will be is not less than 24m, not including the width of an access way in the case of a hatchet shaped allotment, and
  - (b) the allotment size is not less than 1000sqm, not including the width of an access way in the case of a hatchet shaped allotment.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

- (6) **Residential flat buildings minimum width and site area** Consent may be granted for residential flat buildings in the 2(c) or 2(d) zone only if:
  - (a) the minimum width of the allotment is not less than 24m, not including the width of an access way in the case of a hatchet shaped allotment, and
  - (b) the allotment size is not less than 1000sqm, not including the width of an access way in the case of a hatchet shaped allotment.

- (7) **Other subdivision** Land in the 2(a), 2(b), 2(c) or 2(d) zone may be subdivided to create allotments of any size for the purpose of:
  - (a) widening a public road: or
  - (b) making an adjustment to a boundary between allotments, being an adjustment that does not involve the creation of any additional allotment; or
  - (c) rectifying an encroachment upon an allotment; or
  - (d) creating a public reserve; or
  - (e) consolidating allotments; or
  - (f) excising from an allotment land which is, or is intended to be, used for public purposes, including drainage purposes, bush fire brigade or other rescue service purposes or public conveniences.

Clause added, Amendment No. 1 (gaz 176 - 18/12/98)

#### 42 Motels

Consent may be granted for a motel within the 2 (a) or 2 (b) zone only if the land on which it is to be built has frontage to an arterial road, across which frontage vehicular access is permitted, or to another road connecting to an arterial road, where vehicular access to the land is within 90m (measured along the connecting road) of the arterial road.

#### 43 Exhibition homes or land sales offices

Consent may be granted for an exhibition home, exhibition village or land sales office on land within the 2 (a), 2 (c), 2(d), 2(e) or 2(f) zone only if:

- (a) it is designed in such a way that it will not adversely affect the character and amenity of the existing and likely future nearby residential areas, even after the buildings concerned cease to be used for exhibition or sales, and
- (b) it is designed in such a way that it will accommodate the demand for car parking and will not adversely affect traffic movement on nearby existing or future residential areas, and
- (c) it will not generate a demand for car parking, or adversely affect traffic movement, on an arterial road, and
- (d) its use for exhibition or sales is restricted by a condition of development consent to a limited period.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

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# Part 2 General controls for land in zones or in sectors in smart growth precincts

#### 8 Zones and sectors

- (1) Land to which this plan applies may be within a zone or, if the land is in a smart growth precinct, within a sector.
- (2) The numbers and names of zones and the names of sectors are as follows:

#### Zones

- 1 (a) Rural
- 1 (b) Rural Small Holdings
- 1 (c) Rural Environment Protection
- 1 (d) Rural Residential
- 1 (e) Rural Future Urban
- 1 (f) Rural Landscape Protection
- 2 (a) Residential
- 2 (b) Residential Race Course
- 2 (c) Residential Flat Buildings
- 2 (d) Residential City Centre
- 2 (e) Residential Developing Communities
- 2 (f) Residential Mixed Development
- 3 (a) Business
- 3 (b) Business Highway
- 3 (c) Business Town Support
- 3 (d) Business Town Centre
- 4 (a) Industrial
- 4 (b) Industrial Special
- 4 (c) Industrial Business Park
- 4 (d) Industrial Business Enterprise
- 5 (a) Special Uses
- 5 (b) Special Uses Railways
- 5 (c) Special Uses Arterial Road
- 5 (d) Special Uses Local Road
- 6 (a) Recreation Public
- 6 (b) Recreation Private
- 6 (c) Recreation Corridor
- 7 (a) Environment Protection Waterway
- 7 (b) Environment Protection Bushland
- 7 (c) Environment Protection Conservation
- 8 (b) National Parks and Nature Reserves

New 3(c) zone added, Amendment No. 10 (gaz 148 - 16/10/98) New 7(c) zone added, Amendment No. 75 (gaz 117-09/07/04) New 1(f) 2(e) 2(f) 3(d) 8(b) zones added, Amendment No. 83 (gaz 40-31/03/06)

#### Sectors in smart growth precincts

Neighbourhood Centre Small Lot Residential School Water Management Environmental Corridor Medium Density Residential Standard Residential Community Purposes Open Space

- (3) Land is within a zone if it is indicated on the map by the number of the zone.
- (4) Land is within a smart growth precinct if it is indicated on the map by the name of the smart growth precinct. Schedule 10 includes provisions for each named smart growth precinct.
- (5) Land is within a sector if it is indicated on the precinct map for the smart growth precinct within which it is situated by the colour corresponding to the sector.

#### 9 Development which is allowed or prohibited within a zone or sector

- (1) Unless otherwise provided by this plan, the Table to this clause specifies for each zone and sector:
  - (a) development which may be carried out without consent, where " ✓ \*" is shown corresponding to that development, and
  - (b) development which may be carried out only with consent, where " < " is shown corresponding to that development.
- (2) Development referred to in the Table to this clause is prohibited in a zone if " ✓ \*" or " ✓ " is not shown corresponding to that development.
- (3) Development which is not referred to in the Table to this clause may be carried out only with consent (except within the 6(c) zone, in which any such development is prohibited).
- (4) The Council may grant consent to development only if the Council has had regard to the following:
  - (a) the general objectives and other objectives of this plan,
  - (b) the objectives of the zone or smart growth precinct in which it is proposed to be carried out, and
  - (c) in the case of land within a smart growth precinct, any relevant recommendations for the design and other features of the proposed development that are indicated on the precinct map for the precinct, and
  - (d) the other provisions of this plan.

······································			ZONE				
DEVELOPMENT for the purpose of:	RURAL	RESIDENTIAL	BUSINESS	INDUSTRIAL	SPECIAL USES	RECREATION	ENVIRONMENT PROTECTION
	1 1 1 1 1 1 (a) (b) (c) (d)(e) (f)	2 2 2 2 2 2 2 (a)(b)(c) (d)(e)(f)	3333 (a)(b) (c) (d)	4 4 4 4 (a) (b) (c) (d)	5 5 5 5 (a) (b) (c) (d)	6 6 6 (a) (b) (c)	7 7 7 (a)(b)(c)
Abattoirs	· ·			<b>v</b> · <b>v</b>	· · · · · · · · · · · · · · · · · · ·		
Advertisements		~	~ ~ ~ ~		· · ·	~ ~	
Agriculture	v * v * v * v * v	~ ~ ~ ~	~ ~ ~ <sup>-</sup>		•		
Animal boarding or training establishments	v v	~	~ ~	~ ~ ~		~ ~	
Aquaculture		~ ~ ~ ~	~ ~	~ ~ ~		~ ~	L •
Assisted accommodation		· · · · · ·	~ ~ ~				
Bed and breakfast premises	~ ~ ~ ~ ~ ~ ~ ~ ~		****			-	
Boarding houses		~ ~ ~ ~ ~				<u></u>	<u></u>
Brothels				~			· ·
Bulky goods salesrooms or showrooms			~ ~ ~	Ç.			
Business premises					~		<u> </u>
Caravan parks							<u> </u>
Car parks		· · · · ·	~ ~ ~ ~ ~	~ ~ ~ ~			<u> </u>
Child care centres	~~~~~	· · · · · ·			~ ~		· ·
Cinemas			<u> </u>	l 		<u> </u>	<u> </u>
Communication facilities			~ ~ ~			<b></b>	
Community facilities	~ ~ ~ ~				~ ~	<b>···</b>	
Convenience stores		· ·					
Dams	~~~~						
Depots					· ·	<u> </u>	
Dual occupancy housing							-
Dwelling houses							
Educational establishments							
Entertainment facilities		~	~ ~ ~ ~			• •	
Exhibition homes			~ ~			1	

Explanation of Symbols:-

permitted without consent

permitted with consent

Development is prohibited where there is no symbol

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			ZONE				
DEVELOPMENT for the purpose of:	RURAL	RESIDENTIAL	BUSINESS	INDUSTRIAL	SPECIAL USES	RECREATION	ENVIRONMENT PROTECTION
	1 1 1 1 1 1 (a) (b) (c) (d)(e) (f)	2 2 2 2 2 2 2 (a)(b)(c) (d)(e)(f)	3333 (a)(b) (c) (d)	4 4 4 4 (a) (b) (c) (d)	5 5 5 5 (a) (b) (c) (d)	6 6 6 (a) (b) (c)	7 7 7 (a)(b)(c)
Exhibition villages		~ ~ ~ ~ ~ ~	~ ~				
Extractive industries	~ ~		-		<b>,</b>		
Family day care centres	v * v * v * v * v * v * v *		· • • • • • • • • • •	~			
Forestry	~ ~ ~ ~	~ ~ ~ ~	~ ~	~ ~ ~	<b>~</b>	U U .	·
Generating works	· · ·			~ ~ ~			
Hazardous industries	*			• •		 	``````````````````````````````````````
Hazardous storage establishments	~			• •			
Health consulting rooms	~ ~ ~ ~ ~				~ ~		×
Helicopter landing sites	~ ~ ~ ~		~ ~		~	· • •	· · · · · · · · · · · · · · · · · · ·
Heliports	~ ~		~	~ ~ ~ ~ ~			
Highway service centres			-		,		
Home-based child care services					v*	·.	
Home businesses		~ ~ ~ ~ ~ ~ ~	~ ~ ~ ~	· · · ·	· ·		
Home occupations	v*v* v*v*v*v*	y*y*y*y*y*y*	v*v*v*v*	· · · · · ·	*		··
Hospitals	~ ~ ~ ~ ~	~ ~ ~ ~ ~ ~			<u> </u>	~	
Hotels				~ ~ ~	-		
Housing for aged or disabled persons			~ ~ ~ ~				
Industries				<u> </u>	· · · ·		
Integrated housing		~ ~ ~ ~		· .			
Intensive livestock agriculture				~ ~ ~			·
Intensive plant agriculture	~ ~ ~ ~ ~	~ ~ ~ ~	~ ~	~ ~ ~	~	~ ~ ~	
Landfill			~ ~ ~ ~				
Light industries			~ ~ ~	~ ~ ~ ~ ~		·	
Local shops		v vv	~				
Maintenance dredging		· · · · · · · · · · ·	· • • • + • +			v* v* v+	V=V=V

Explanation of Symbols:**v** \* permitted without consent

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permitted with consent

Development is prohibited where there is no symbol
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			ZONE		7		
DEVELOPMENT for the purpose of:	RURAL	RESIDENTIAL	BUSINESS	INDUSTRIAL	SPECIAL USES	RECREATION	ENVIRONMENT PROTECTION
	1	2 2 2 2 2 2 2 (a)(b)(c) (d)(e)(f)	3333 (a)(b) (c) (d)	4 4 4 4 (a) (b) (c) (d)	5 5 5 5 (a) (b) (c) (d)	6 6 6 (a) (b) (c)	7 7 7 (a)(b)(c)
Marinas	×		<b>v v</b>	~ ~ ~		v. v	·
Materials recycling yards				<b>v</b> . <b>v</b>			
Medical centres		~	~ ~ ~ ~				
Mines	U U						
Motels		~ ~ ~ ~	> > > >	~ ~ ~ ~	~	•	
Motor showrooms			~~ ~	<b>v</b> v			
Multiple dwellings		~ ~ ~ ~ ~			<u>`</u>		ļ
Nuclear activities							
Nuclear facilities							
Offensive industries	v			~ ~	· .		
Offensive storage establishments	v .			~ ~		· ·	
Office premises		·	~ ~ ~ ~	,			
Passenger transport terminals				~ ~ ~	~ ~ ~	, , , , , , , , , , , , , , , , , , ,	-
Permanent group homes	~ ~ ~ ~ ~	~ ~ ~ ~ ~ ~ ~	~ ~ ~				ļ
Places of public worship				~ ~ ~	v		
Plant hire			~ ~ ~	~ ~ ~			
Public buildings				•		· ·	
Recreation areas		~~~~	~ ~ ~ ~	~ ~ ~ ~	· · ·	<b>~</b> ~ ~	
Recreation facilities	~ ~ ~ ~ ~ ~ ~	. • •	• • • • •	~ ~ ~ ~ ~ .	• •	~ ~ ~	
Registered clubs	~ ~		~ ~ ~ ~	~ ~ ~		· ·	
Research establishments	~		~ ~ ~	ù u u u			
Research facilities			~ ~ ~	~ ~	ļ		
Residential flat buildings		~ ~ ~ ~	~ ~ ~ ~			· -	
Restaurants		~	~ ~ ~ ~ ~		~ ~	~	

Explanation of Symbols:-

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permitted with consent

Development is prohibited where there is no symbol

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			ZONE				
DEVELOPMENT for the purpose of:	RURAL	RESIDENTIAL	BUSINESS	INDUSTRIAL	SPECIAL USES	RECREATION	ENVIRONMENT PROTECTION
	1 1 1 1 1 1 (a) (b) (c) (d)(e) (f)	2 2 2 2 2 2 2 (a)(b)(c) (d)(e)(f)	3333 (a)(b) (c) (d)	4 4 4 4 (a) (b) (c) (d)	5 5 5 5 (a) (b) (c) (d)	6 6 6 (a) (b) (c)	777 (a)(b)(c)
Retail plant nurseries	~ ~		~ ~ ~	• • •	¥	• •	
Roads		~ ~ ~ ~ ~ ~ ~ ~ ~	~ ~ ~ ~	~ ~ ~ ~	~ ~ ~ ~	~ ~ <u>~</u>	<b>~</b>
Roadside stalls	~ ~						ļ!
Road transport terminals		•	<i></i>	~ ~ ~	<b>~</b>		
Rural industries	~ ~					ļ	
Sanctuaries			~ ~		·		~ ~ ~
Sawmills	~ ~					<u> </u>	l 
Serviced apartments		~ ~ ~	~ ~ ~ ~	~ ~	~		
Service stations			~~	~ ~ ~	, , , , , , , , , , , , , , , , , , ,		
Shops		~	~ ~ ~	<u> </u>	· ·		- 6
Stock and sale yards	~			~ ~			
Transitional group homes		~ ~ ~ ~ ~ ~	••••				
Transport depots		·-		v v v *	-	:	
Utility installations	• • • • • • •	~~~~~		~ ~ ~ ~		~ ~ ~	~ ~
Utility undertakings	~ ~ ~ ~ ~ ~ ~		~ ~ ~ ~	~ ~ ~ ~		~ ~ ~	<u> </u>
Vehicle body repair workshops							
Vehicle repair stations			~ ~		-		
Veterinary hospitals	~ ~ ~ ~ ~ ~	~ ~	~ ~ ~	~ ~ ~	~	¥	_
Warehouse or distribution centres			~ ~	~ ~ ~ ~	~		
Waste depots							

Explanation of Symbols:-

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permitted without consent

permitted with consent

Development is prohibited where there is no symbol

#### NOTE:

NOTE: Amend land use table (new 3(c) zone and symbols added, land use amended), Amendment No. 10(gaz 148 - 16/10/98) Amend land use table (Transport depots), Amendment No. 1(gaz 176 - 18/12/98) Amend land use table (prohibit 7 land uses in 2(b) zone), Amendment No. 18 (gaz 128 - 12/11/99) Amend land use table (Dwelling houses in 2(a),2(b),2(c),2(d) zones), Amendment No. 26 (gaz 46 - 14/04/00) Amend land use table (new 4(d) zone and symbols added, land use amended), Amendment No. 58(gaz 97 - 13/06/03) Amend land use table (new 1(f) 2(e) 2(f) 3(d) zones and symbols added, land use amended), Amendment No. 83(gaz 40 - 31/03/06)

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Sectors       Sectors       Devt.DoPkErtr     Nagito-introd     Mature framing     Stratute     Stratute     Stratute     Other     Other       Devt.DoPkErtr     Nagito-introd     Mature framing     Stratute     Stratute     Stratute     Other     Other       Abelieve     Corror     Period     Stratute     Stratute     Stratute     Other     Other     Other       Abelieve     International     Mature framing     International       Abelieve     International     International     International     International     International     International       Abelieve     International     International     International     International <td< th=""><th></th><th></th><th></th><th></th><th>Smart gr</th><th>owth precin</th><th>cts</th><th>с </th><th></th><th></th></td<>					Smart gr	owth precin	cts	с 		
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Attribution	DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Accontinements         Image	Abattoirs									
Applications         Applications<	Advertisements		-							
Animal bounding of beaching setting beaching setting additioners       Image: Setting additioners       Ima	Agriculture									
Accounting     Accounting       Accounting     •       Accounting     •       Accounting     •       Accounting     •       Accounting     •       Accounting     •       Bed architediation     •       Carrier     •       Bed architediation     •       Carrier     •	Animal boarding or training establishments					-				
Assetted accommodation         ·	Aquaculture							~		
Bed and breaktest     · </td <td>Assisted accommodation</td> <td>3</td> <td>&gt;</td> <td>3</td> <td>&gt;</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Assisted accommodation	3	>	3	>					
Bearding houses         Event in the state of the s	Bed and breakfast premises	>	>	>	,					
Biothelss Billy groods Bulky poods Bulky poods eatastrooms of eatastrooms of Bulky poods eatastrooms of Bulky poods Bulaness premises Dualness premises Caravan perks Caravan perks Cara	Boarding houses									
Bulky goods Bulky goods exercionns or selectionns or Business premises Business premises Business premises Business premises Business premises Business premises Business premises Business premises Caravan parkie Caravan parkie Cara	Brothels									
Business premises Caravan parks Caravan parks Caravan parks Caravan parks Caravan parks Caravan parks Caravan parks Caravan parks Chinan Chinan	Bulky goods salesrooms or showrooms									
Caravan parks         Caravan	Business premises	>						1		
Car parks	Caravan parks		-		-		-			
Child care centres <ul> <li>Child care centres</li> <li>Cinemas</li> <li>Cinemas</li></ul>	Car parks	3	-			,				
Clnemas       Clnemas         xplanation of Symbols:- **       permitted without consent         xplanation of Symbols:- **       permitted without consent         Development is prohibited where there is no symbol       Page 7         verpool Local Environmental Plan 1997       Page 7	Child care centres	>	>	\$	>	>	•			
xplanation of Symbols: V permitted with consent Development is prohibited where there is no symbol Page 7 Page 7	Cinemas						ı			
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				Smart gr	owth precin	cts			
					Sectors				
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Communication facilities	<b>&gt;</b>	\$	>	>	>	`	\$	>	
Community facilities	•			-	>	>		,	
Convenience stores		-							
Dams							3	•	3
Depots									
Dual occupancy housing	>	>	>						
Dwelling houses	3	>	>	•					
Educational establishments	>	>	>	3	>				
Entertainment facilities	>								
Exhibition homes	>	>	>	>	E				
Exhibition villages		>		>					
Extractive industries		7							
Family day care centres	* >	*	* *	* >		* >			
Forestry									
Explanation of Symbols:-	<ul> <li>* permitted i</li> <li>* permitted i</li> </ul>	without consent with consent ant is prohibited whe	re there is no syn	lodi					

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Part 2

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					Sectors				
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Generating works					-				
Hazardous Industries				, ,					
Hazardous storage establishments			ï						
Health consulting rooms	*	3	>	\$		3			
Helicopter landing sites									
Heliports									
Highway service centres				,					
Home-based child care services		* >	* >	* >			-		
Home businesses	~	>	>	>	,				
Home occupations	*	* >	* >	* >					
Hospitals									
Hotels			`						
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				Smart gi	rowth precin	cts			
					Sectors		•		
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Housing for aged or disabled persons	\$	•	>	>					
Industries									
Integrated housing	-	3	>	•					-
intensive livestock agriculture					Ň				
Intensive plant agriculture			-						
Landfill	>	\$	3	.>	``	>	>	>	>
Light Industries									
Local shops		>	>	>					
Maintenance dredging							*	*	* 3
Marinas									
Materials recycling yards									
Medical centres	3	>		3,					
Mines									
Explanation of Symbols:-	<ul> <li>* permitted v</li> <li>* permitted v</li> <li>Developme</li> </ul>	vithout consent vith consent ent is prohibited wher	e there is no syn	lodn					
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					Sectors				
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Motels									
Motor showrooms					-				
Multiple dwellings		>	>						
Nuclear activities				-					
Nuclear facilities						-			
Offensive industries									
Offensive storage establishments									
Office premises	>	-							
Passenger transport terminals									
Permanent group homes		>	>	>					
Places of public worship	>	>	>	>					
Plant hire			-						
Public buildings	3					>			
Explanation of Symbols:	- * * permitted * permitted Developm	without consent with consent tent is prohibited wher	re there Is no syr	lodn	-				
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	/			Smart gr	owth precin	cts			
					Sectors				
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Recreation areas	3	>		>	>		>	>	>
Recreation facilities	>	>	>	>	>		3	>	
Registered clubs									
Research establishments			-						
Research facilities									
Residential flat buildings							-		
Restaurants	>								
Retall plant nurseries									
Roads	>	>	>	>	>	>	3	>	2
Roadside stalls									
Road transport terminals									
Rural industries	-			,					
Sanctuaries									
Explanation of Symbols:	-	vithout consent vith consent int is prohibited wher	e there is no sym	ibal					
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				Smart gr	owth precin	cts			
					Sectors				
DEVELOPMENT for the purpose of:	Neighbourhood Centre	Medium Density Residential	Small Lot Residential	Standard Residential	School	Community Purposes	Water Management	Open Space	Environmental Corridor
Sawmills									
Serviced apartments	\$								
Service stations									
Shops	>								
Stock and sale yards									
Transitional group homes	>	>	>	``			-		
Transport depots							r		
Utility Installations	>	>	>	>	>	>	>	>	>
Utility undertakings	>	>	>	>	>	>	>	3	>
Vehicle body repair workshops					·				
Vehicle repair stations									
Veterinary hospitals	>	>	>	>					
Warehouse or distribution centres									
Waste depots									
Explanation of Symbols:-	<ul> <li>* permitted v</li> <li>V permitted v</li> <li>Developme</li> </ul>	without consent with consent ent is prohibited wher	e there is no sym	lođ					
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#### 9A Development within the 8(b) zone

#### (1) **Objectives of the 8(b) zone**

The objectives of the 8(b) zone are:

- (a) to identify land that is or is to be reserved under the *National Parks and Wildlife Act 1974*, and
- (b) to permit development for a purpose authorised under that Act to be carried out on the land without consent.

#### (2) Development allowed without consent

Development for any purpose authorised under the *National Parks and Wildlife Act 1974* may be carried out on the land within the 8(b) zone without consent.

#### (3) **Prohibited development**

Any development not included in subclause (2) is prohibited on land within this zone.

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### Part 3 Special Provisions

#### 10 Development that also needs consent

- (1) **Subdivision** Land to which this plan applies may be subdivided, but only with consent. However, except as provided by subclause (12) (e), consent is not required for a subdivision for the purpose of:
  - (a) widening a public road, or
  - (b) making an adjustment to a boundary between allotments, being an adjustment that does not involve the creation of any additional allotment, or
  - (c) rectifying an encroachment on an allotment, or
  - (d) creating a public reserve, or
  - (e) consolidating allotments, or
  - (f) excising from an allotment land which is, or is intended to be, used for public purposes, including drainage purposes, bushfire brigade or other rescue service purposes or public conveniences.
- (2) **Flood liable land** Development may be carried out on flood liable land only with consent.
- (3) **Buildings over two floors** Buildings which contain more than two floors are allowed only with consent.
- (4) **Water bodies, wetlands and foreshore areas** Development may be carried out only with consent on land which:
  - (a) forms part of a wetland, or
  - (b) is located between a foreshore building line shown on the map as a dotted line and the adjacent water body, or
  - (c) forms part of a water body, other than in the 7(a) zone.
- (5) Advertisements Development for the purpose of a business identification sign or a real estate sign may be carried out on any premises within the 1(a), 1(b), 1(c), 1(d), 1(e), 1(f), 2(a), 2(b), 2(c), 2(d), 2(e), 2(f), 4(a), 4(b), 4(c), 4(d), 5(c), 5(d), 6(a) or 7(b) zone, or a smart growth precinct Neighbourhood Centre, Open Space or Water Management sector, only with consent and only if the Council is satisfied that the advertisement will not interfere with the amenity of the locality.
- (6) **Tourism advertisements** An advertisement directing the travelling public to tourist areas or tourist facilities may be erected on land within the 1(a), 1(b), 1(c), 1(d), 4(a), 4(b), 4(c) or 4(d) zone only with consent.

- (7) **Temporary and intermittent development** Any development, not being designated development, may, despite any other provision of this plan (except clause 27), be carried out with consent, for a maximum period of 52 days, whether consecutive or not, in any one year.
- (8) **Development over or under a road** Development other than for the purpose of roads may be carried out over or under a road on land within the 5(c) or 5(d) zone only with consent.
- (9) Special use zone Development may be carried out only with consent on land within the 5(a) zone for the particular purpose indicated for the land by black lettering on the map and for purposes normally associated with and ancillary to that purpose. However, this subclause does not require consent for development for the purpose of public transport on land in the 5(a) Public Transport Corridor zone. Clause 9 allows development within the 5(a) zone with or without consent even if there is no lettering shown on the map.

#### Clause amended, Amendment No. 9 (gaz 22 - 19/2/99)

- (10) **Shops in the 4(a), 4(b), 4(c) and 4(d) zones** Development for the purpose of a shop may be carried out only with consent on land within the 4(a), 4(b), 4(c) or 4(d) zone if the shop serves the daily convenience needs of the local workforce.
- (11) Land identified for acquisition Development may be carried out for any purpose, with consent, on land which may be required by this plan to be acquired by a public authority, if development of that land would not render the land unfit for the land use for which it may be required to be acquired. This subclause does not apply to development of land within the 5(c) zone, which may be carried out in accordance with clause 59 before or after its acquisition.
- (12) Heritage items and heritage conservation area The following may be carried out only with consent:
  - (a) demolishing, defacing, damaging or moving a heritage item or a building, work, relic, tree or place within a heritage conservation area, or
  - (b) altering a heritage item or a building, work or relic within a heritage conservation area by making structural changes to its exterior, or
  - (c) altering a heritage item or a building, work or relic within a heritage conservation area by making non-structural changes to the detail, fabric, finish or appearance of its exterior, except changes resulting from any maintenance necessary for its ongoing protective care which does not adversely affect its heritage significance, or
  - (d) moving a relic, or excavating land for the purpose of discovering, exposing or moving a relic, or

- (e) erecting a building on, or subdividing:
  - (i) land on which a heritage item is located or which is within a heritage conservation area, or
  - (ii) land comprising, or on which is situated, an item described in this plan as a heritage item or a known or potential archaeological site.
- (13) Additional uses Despite any other provision of this plan, with the consent of the Council:
  - (a) development may be carried out on land specified in Schedule 4 for the purpose of a building, work, place or land use specified in that Schedule in relation to that land, and
  - (b) land specified in Schedule 5 may be subdivided, if subdivision is specified in Schedule 5 in relation to that land,

subject to such conditions, if any, as may be so specified.

- (14) **Contaminated land** Development or demolition of a building may be carried out on contaminated land only with consent.
- (15) Land sales offices Development for the purpose of a land sales office may be carried out on land in the 2(a), 2(c), 2(d) or 2(e) zone, or a smart growth precinct Small Lot Residential, Medium Density Residential or Standard Residential sector but only with consent.

Clause amended, Amendment No. 18 (gaz 128 - 12/11/99)

- (16) Bushland clearance Bushland may be cleared only with consent.
- (17) **Parking of heavy vehicles** The parking of heavy vehicles and the stationing of heavy equipment in the 2(a), 2(b), 2(c) or 2(d) zone (otherwise than on roads) may be carried out only with consent.
- (18) **Highway service centres** Development for the purpose of a highway service centre may be carried out on the land adjoining land in the 5(c) zone which is a freeway, but only with consent.
- (19) Service stations, restaurants and convenience stores Development for the purpose of one service station, one restaurant or one convenience store (or any combination of not more than one of each of them) may be carried out, but only with consent, on land:
  - (a) identified on the map by a solid square, or
- (b) which is in the 2(a) zone, which has frontage to Camden Valley Way, Cowpasture Road or Kurrajong Road and which is on a corner allotment or is likely to be on a corner allotment as shown by a development control plan, or *Clause amended, Amendment No. 1 (gaz 176 - 18/12/98)*

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(c) which is in the 3(d) zone, has frontage to Campbelltown Road and is on a corner allotment or a proposed corner allotment as shown in a development control plan referred to in clause 70H.

Clause amended, Amendment No. 83 (gaz 40 - 31/03/06)

- (20) Wharves Development for the purpose of pontoons, jetties, piers, berths or moorings may be carried out on land in the 1(a), 1(b), 1(c), 1(d), 1(e), 2(a), 2(b), 2(c), 2(d) or 7(b) zone, or a smart growth precinct Open Space, Water Management or Environmental Corridor sector, only with consent.
- (21) **Bushland** Development may be carried out on land shown on the map with heavy diagonal hatching only with consent. *Clause amended, Amendment No. 1 (gaz 176 - 18/12/98)*

(22) **Restaurants in industrial areas** Development for the purpose of a restaurant may be carried out on the land in the 4(a), 4(b), 4(c) or 4(d) zone if it is primarily for the purpose of selling take-away food. *Clause added, Amendment No. 1 (gaz 176 - 18/12/98)* 

- (23) Office premises and dwellings in Community Purposes sector of SHPA Smart Growth Precinct Development for the purpose of office premises and dwellings may be carried out on land in the Community Purposes sector of the Southern Hoxton Park Aerodrome Smart Growth Precinct, but only with consent and only if:
  - (a) the ground floor of any building erected on the land before or after this subclause commenced will be used for a community purpose, and
  - (b) the Council is not liable to pay for acquisition of so much of the buildings on the land as will not be used for a community purpose.
- (24) Environmental conservation activities Development for the purpose of environmental conservation activities may be carried out in the 7(c) zone, but only with consent.

#### 11 Development that does not require consent

- (1) **Development by public authorities** The following are allowed on land without consent:
  - (a) the use of existing buildings of the Crown by the Crown, and
  - (b) development or activities specified in Schedule 5.
- (2) **Railway sidings** Development for the purpose of a railway siding servicing land in the 4(a), 4(b), 4(c) or 4(d) zone may be carried out without consent.
- (3) **Bushfire hazard reduction** Bushfire hazard reduction may be carried out without consent, but only if it is carried out in accordance with a plan of operations, within the meaning of section 41A of the *Bush Fires Act 1949*, that applies to the locality.

(4)

- Shops, business premises and office premises A building may be used for the purpose of a shop, business premises or office premises without consent if:
  - the building is within the 3(a) zone, or a smart growth precinct (a) Neighbourhood Centre sector and
  - the building is lawfully used or has been lawfully constructed to (b) be used for a shop of a particular kind, business premises of a particular kind or office premises of a particular kind, and
  - at least 14 days' written notice has been given to the Council of (c) the proposed use by:
    - the owner of the building, or (i)
    - the occupier of the building, with the consent of the (ii) owner of the building,

and contains a statement that it is so given executed by that owner, and

- the written notice contains a description of the building sufficient (d) to identify the building and a statement of the particular purpose for which the building will be used after the notice has been given, and
- the use does not include the display, exhibition or sale of . (e) publications classified Category 1 restricted, Category 2 restricted or RC under the Classification (Publications, Films and Computer Games) Act 1995 of the Commonwealth, and
- the building is not used for the purpose of a business to which (f) section 578E of the Crimes Act 1900 applies, and
- the use does not include a business which is primarily (g) concerned with the display or exhibition of any article that is primarily concerned with sexual behaviour, and
- where a building is used for the purpose of a shop, business (h) premises or office premises in pursuance of this clause:
  - the curtilage of the shop, business premises or office (i) premises is not used for storage or display purposes, and
  - the hours of operation of the shop, business premises or (ii) office premises do not, in the case of a building used for the purpose of a shop, business premises or office premises immediately before the commencement of the use authorised by this clause, extend outside the hours during which the shop, business premises, or office premises were so used at that time, and

Part 3

- (i) where, immediately before commencement of the use of the building under this subclause, a condition relating to maintenance of landscaping, the parking of vehicles or the provision of space for loading and unloading of goods or vehicles was imposed on the use of the building or the land on which it is erected, that condition is observed.
- (5) **Light industry** A building may be used for the purpose of light industry without consent if:
  - (a) the building is within the 4(a), 4(b), 4(c) or 4(d) zone, and
  - (c) the building is lawfully used or has been lawfully constructed to be used for an industry of a particular kind or a light industry of a particular kind, and
  - (c) at least 14 days' written notice has been given to the Council of the proposed use by:
    - (i) the owner of the building, or
    - (ii) the occupier of the building, with the consent of the owner of the building,

and contains a statement that it is so given executed by that owner, and

- (d) the written notice contains a description of the building sufficient to identify the building and a statement of the particular purpose for which the building will be used after the notice has been given, and
- (e) the gross floor area of the part of the building to be used for the purpose of light industry does not exceed 500 square metres, and
- (f) the building has rear service access or access to off-street loading facilities, and
- (g) where, immediately before commencement of the use of the building under this subclause, a condition relating to maintenance of landscaping, the parking of vehicles or the provision of space for loading and unloading of goods or vehicles was imposed on the use of the building or the land on which it is erected, that condition is observed, and
- the curtilage of the building is not used for storage or display purposes, and
- (i) the hours of operation of the light industry do not:

- (j) in the case of a building used for the purpose of an industry immediately before the commencement of the use authorised by this clause, extend outside the hours
- (k) during which the building was so used at that time, or
  - (ii) in any other case, extend outside the hours between 6 am and 6 pm.
- (6) **Economic incubator** A building may be used for the purpose of light industry, business premises or office premises without consent if:
  - (a) the building is within Lot 13, DP 39417 and part Lot 1, DP 996631, as shown by diagonal cross hatching on the map, and
  - (b) the building is lawfully used or has been lawfully constructed to be used for a light industry of a particular kind, business premises of a particular kind or office premises of a particular kind, and
  - (c) at least 14 days' written notice has been given to the Council of the proposed use by:
    - (i) the owner of the building, or
    - (ii) the occupier of the building, with the consent of the owner of the building,

and contains a statement that it is so given executed by that owner, and

- (d) the written notice contains a description of the particular purpose for which the building will be used after the notice has been given, and
- (e) the use does not include the display, exhibition or sale of publications classified Category 1 restricted, Category 2 restricted or RC under the *Classification (Publications, Films and Computer Games) Act 1995* of the Commonwealth, and
- (f) the building is not used for the purpose of a business to which section 578E of the *Crimes Act 1900* applies, and
- (g) the use does not include a business which is primarily concerned with the display or exhibition of any article that is primarily concerned with sexual behaviour, and
- (h) where the building is used for the purpose of a light industry, business or office in pursuance of this clause:
  - the curtilage of the light industry, business premises or office premises is not used for storage or display purposes, and

- (ii) the hours of operation of the light industry, business or office do not, in the case of a building used for the purpose of a light industry, business or office immediately before the commencement of the use authorised by this clause, extend outside the hours during which the light industry, business premises or office premises were so used at that time
- (i) where, immediately before commencement of the use of the building under this subclause, a condition relating to maintenance of landscaping, the parking of vehicles or the provision of space for loading and unloading of goods or vehicles was imposed on the use of the building or the land on which it is erected, that condition is observed.

Property description amended, Amendment No. 4 (gaz67-9/4/98)

- (7) Advertisements not visible outside the land Development may be carried out on land without consent for the purpose of an advertisement, otherwise than on a brothel or heritage item or in a heritage conservation area, which is not visible from outside the land on which it is displayed.
- (8) Business identification sign Development may be carried out on land without consent for the purpose of a business identification sign, not including a moving sign or flashing sign and otherwise than on a brothel or heritage item or in a heritage conservation area, but:
  - (a) which is in the 1(a), 1(b), 1(c), 1(d), 1(e) or 1(f) zone and would result in not more than:
    - (i) one pole or pylon sign having an area not more than 2 sqm and a height not more than 2 m above ground level, and
    - (ii) one flush wall sign having an area not more than 0.75 sq m and not projecting above or beyond the wall to which it is attached, and
    - (iii) relates to other development, or an activity, carried out on the land, or
  - (b) which is in the 2(a), 2(b), 2(c), 2(d), 2(e) or 2(f) zone, relates to other development, or an activity, carried out on the land.
    - a pole or pylon sign having an area not more than
       0.75 sqm and a height not more than 2m above ground level, or
    - (ii) a sign having an area of more than 0.75 sq m and attached to a solid masonry fence, or

- (c) which is in the 3(a), 3(b), 3(c) or 3(d) zone and which for each premises would result in not more than:
  - (i) one under awning sign having a size not exceeding 2.5 m in length and 0.5 m in height, and
  - (ii) one top hamper sign, extending not more than 0.2 m into a setback from a road and not extending below the head of the doorway or window above which it is attached, and
  - (iii) one fascia sign, not projecting above or below the fascia or return end of the awning to which it is attached and not extending more than 0.3m from the face of the fascia or return end of the awning, or
- (d) which is in the 4(a), 4(b), 4(c) or 4(d) zone and would result in not more than:
  - (i) one pole or pylon sign (including any directory board for multiple occupancies) not exceeding 5 sqm in area and 5 m in height from ground level for each premises. Such sign is to be located within an area of 5 m by 3 m on either side of the ingress or combined ingress/egress for the premises and subject to compliance with sight distance requirements, if any, and
  - (ii) for multiple occupancy premises, one additional company identification sign not exceeding 2 m by 0.6 m at the entrance to each occupied unit, and
  - (iii) for premises with a single occupant, one additional company identification sign at the rate of not more than 1 sqm of advertising area per 3 m of street frontage or 50 sqm, whichever is the less.
- (9) **Other signs** Development may be carried out on land without consent for the purpose of an advertisement, other than a flashing sign or moving sign, being:
  - (a) a public notice for public information displayed by a public authority giving information or directions about services provided, or
  - (b) a real estate sign, except where erected on an awning, but only if:
    - in the case of land in the 1(a), 1(b), 1(c), 1(d), 1(e), 2(a), 2(b), 2(c), 2(d), 2(e), 2(f), 5(a), 5(b), 5(c), 5(d) or 7(b) zone, the sign does not exceed 2.5 sqm in area and does not have any returns exceeding 180 mm, and
    - (ii) in the case of land in the 3(a), 3(b), 3(d), 4(a), 4(b), 4(c) or 4(d) zone, the sign does not exceed 4.5 sqm in area, or
(c) a temporary sign that:

- announces any local event of a religious, educational, cultural, political, social or recreational character or relates to any temporary matter in connection with such an event, but does not include advertising of a commercial nature, other than the name of an event's sponsor, and
- (ii) is not displayed earlier than 28 days before the event to which it relates is to take place and is removed within 14 days after that event, or
- (d) a sign behind the glass line of a window of a building in the 3(a), 3(b), 4(a), 4(b) or 4(c) zone other than a sign advertising a brothel, if it does not occupy more than 50% of the area of the window or 25% of the area of the window in the case of a heritage item, or
- (e) an advertisement on a public seat or bus shelter, or
- (f) an advertisement on a motor vehicle used principally for the conveyance of goods or passengers.

Clause amended, Amendment No. 1 (gaz 176 - 18/12/98)

- (10) **Street signs** Development may be carried out on land without consent for the purpose of a street name sign or a sign under Australian Standard AS1742.1-1991 Manual of Uniform Traffic Control Services, being a:
  - (a) guide sign, or
  - (b) warning sign, or
  - (c) temporary warning sign, or
  - (d) regulatory sign, or
  - (e) parking sign, or
  - (f) hazardous marker, or
  - (g) service symbol, or

which is on a public road.

(11) **Public Transport Corridor** Development may be carried out on land in the 5(a) Public Transport Corridor zone without consent for the purpose of public transport.

(12)

**Dual occupancy housing** Development involving two dwellings may be carried out on land in the 2(a), 2(b) or 2(c) zone without consent if one of the dwellings has a gross floor area not exceeding 60 sqm and the development does not involve subdivision of the land to create separate land titles for each dwelling.

Part 3



Photo 17 1930 Aerial Photograph



Photo 18 1951 Aerial Photograph



PRELIMINARY CONTAMINATION ASSESSMENT 13 Norfolk Street, Liverpool





Photo 20 1986 Aerial Photograph





Photo 21 1998 Aerial Photograph

Preliminary Contamination Assessment 13 Norfolk Street Liverpool





# **Search results**

Print



Your search for: Name (licence holder, applicant, premises or notice recipient) - 13 norfolk street

Suburb - liverpool

matched

No records match your query.

15 September 2006



# **Search results**

Print

X Close page

Your search for: Name (licence holder, applicant, premises or notice recipient) - castlereagh street

Suburb - liverpool

matched

No records match your query.

15 September 2006

 $\mathbf{N}$ 



Groundwater Bores at a 1km radius at Norfolk Street

Date/Time 21-Aug-2006 12:35 PM User :STANNER Report :RMGW001D.QRP Executable :S:\G\$\PROD32\Ground.exe Exe Date :02-Aug-2006 System :Groundwater Database :Edbp



## **DEPARTMENT OF NATURAL RESOURCES** Work Summary

## GW103715

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								<u> </u>		
Licence :10BL159022 Work Type :Bore Work Status :(Unknown) Construct. Method : Owner Type :			L A N		Licence Status Activ Authorised Purpose(s) MONITORING BORE		Intended Purpose(s) MONITORING BORE		E	
Commenced Date : Completion Date :02-Jul	-1999 I	Final Dept Drilled Dept	հ։ հ:	10.00 r 10.00 r	n n					
Contractor Name :MAC( Driller :1712 Assistant Driller's Name :	QUARIE DRILL HOV	.ING VE, Steve Ro	bert							
Property : - N/A GWMA : - GW Zone : -	4				St	anding Water Le Salin Yio	vel : ity : eld :			
Site Details										
Site Chosen By Geologist		Fo Lic	C rm A :C ensed :C	ounty UMBERLAN UMBERLAN	4D 4D	Parish HOLSW( HOLSW(	ORTHY ORTHY	Portion LOT 10 LOT10	n/Lot DP )1 DP775780 1 DP775780	
Region :10 - 5 River Basin : Area / District :	SYDNEY SOUT	H COAST				CMA Map : Grid Zone :		Scale :		
Elevation : Elevation Source :						Northing : Easting :		Lat Long	itude (S) : itude (E) :	
GS Map :	AMG 2	Zone :			Coc	ordinate Source :		-		
H-Hole;P-Pipe;OD-Outside Diameter; II P Component Type I Hole Hole I I Casing P.V.C. I I Opening Slots-Horizontal Annulus (Unknown) Water Bearing Zo	ID-Inside Diameter; From (m) 0.00 4.00 4.00 0.00 N <b>PCS</b>	C-Cemented;S To (m) OE 10.00 10.00 10.00 0.00	L-Slot Leng (mm) I 200 62 62 62	gth;A-Aperture;( D (mm) Interval -38	SS-Grain I Details Auger Screwee PVC Cl Graded;	Size;Q-Quantity;PL-F d; Seated on Bottom ass 18; Sawn; SL: 6mm; GS: 3-10mm; 2m <sup>3</sup>	Placement of G ; A: 50mm	avel Pack;PC-Press	sure Cemented;S-Sur	p;CE-Centralisers
From (m) To (m) Thick 8.00 10.00	aness (m) WBZ Type 2.00	e		\$.W.1	L. (m) 5.90	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
Brom (m)         To (m)         Thickness(m)           0.00         1.00         1.00           1.00         9.00         8.00           9.00         10.00         1.00	Drillers Description FILL SAND SANDY CLAY					<b>Geolog</b> Fill Sand Sandy	gical Material y Clay	Comme	ents	
Pumping Tests - Pumping Test Type Dat	Summari Duration (br)	<b>es</b> s.w.l. (m) E	p.D.L. (m) (No Pr	Yield (L/s) 1 umping Test S	latake De S <i>ummar</i>	pth (m) Test Method y Details Found)	To Mes	sure Water Level	To Measure Discharg	e Tested By
Pumping Tests - Pumping Test Type Dat	Readings • Time (mins)	S.W.L. (m) E	D.L. (m) (No P	Yield (L/s) I umping Test	intake De <i>Reading</i>	pth (m) Test Method 3 Details Found)	To Mes	sure Water Level	To Measure Discharg	e Tested By
Chemical Treatm	ent	Quantity (L)	(No (	Name Chemical Tre	alment	Details Found)				
Development Method Pumping	Time Taken			Other Developn	nent Meti	ıod				
rtemarks										
Went TOT OF T										

GW103715

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\*\*\* End of GW103715 \*\*\*

Warning To Clients: This raw data has been supplied to the Department of Natural Resources (DNR) by drillers, licensees and other sources. The DNR does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data. 2

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## <u>GW103716</u>

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Licence :10BL159022 Work Type :Bore Work Status :(Unknown) Construct. Method : Owner Type :			Licence Status Activ Authorised Purposc(s) MONITORING BORE	Int MC	Intended Purpose(s) MONITORING BORE		
Commenced Date : Completion Date :02-Jul-1999	Final Depth : Drilled Depth :	10.00 m 10.00 m					
Contractor Name :MACQUARIE DRI Driller :1712 HC Assistant Driller's Name :	LLING DWE, Steve Robert						
Property : - N/A GWMA : - GW Zone : -		:	Standing Water Level : Salinity : Yield :				
Site Details							
Site Chosen By Geologist	Form A : Licensed :	County CUMBERLAND CUMBERLAND	Parish HOLSWORT HOLSWORTI	Portion HY LOT 10 HY LOT10	n/Lot DP 01 DP775780 1 DP775780		
Region :10 - SYDNEY SOU River Basin : Area / District :	JTH COAST		CMA Map : Grid Zone :	Scale :			
Elevation : Elevation Source :			Northing : Easting :	Lat Longi	itude (S) : itude (E) :		
GS Map : AMG	Zone :	C	Coordinate Source :				
H-Hole;P-Pipe;OD-Outside Diameter;ID-Inside Diameter H P Component Type From (n I Hole Hole 0, I Casing P.V.C. 4, I Opening Stots - Horizontal 4, I Annutus (Unknown) 0, Water Bearing Zones From (m) To (m) Thickness (m) WBZ Ty 8,00 1000 2000	er,C-Cemented;SL-Slot Le m) To (m) OD (mm) 00 10.00 200 00 10.00 62 00 10.00 62 00 0.00 00 0.00	ength;A-Aperture;GS-Gr ID (mm) Interval Deta Auge -38 Scree PVC Grad S.W.L. (m)	ain Size;Q-Quantity;PL-Placen ils er wed; Seated on Bottom Class 18; Sawn; SL: 6mm; A: 50; ed; GS: 3-10mm; 2m <sup>3</sup> D.D.L. (m) Yie	ient of Gravel Pack;PC-Press mm id (L/s) Hole Depth (m)	sure Cemented;S-Sump;Ci Duration (hr) Sali	E-Centralisers nity (mg/L)	
From (m)         To (m)         Thickness(m)         Drillers         Description           0.00         1.00         1.00         FILL         1.00         FILL         1.00         5.00         4.00         CLAYEY SAND           5.00         10.00         5.00         SAND         5.00         SAND	n	7.40	Geological M Fill Clayey Sa Sand	laterial Comme	ents		
Pumping Tests - Summai Pumping Test Type Date Duration (hr	<b>ries</b> ) S.W.L. (m) D.D.L. (m <i>(No</i> )	) Vield (L/s) Intake Pumping Test Summ	Depth (m) Test Method ary Details Found)	To Measure Water Level	To Measure Discharge	Tested By	
Pumping Tests - Reading Pumping Test Type Date Time (mins	9 <b>5</b> ) S.W.L. (m) D.D.L. (m <i>(No</i>	) Yield (L/s) Intake Pumping Test Read	Depth (m) Test Method ing Details Found)	To Measure Water Level	To Measure Discharge	Tested By	
Chemical Treatment Treatment Method	Quantity (L) (No	Name D Chemical Treatme	nt Details Found)				
Development Method Time Taken Pumping Remarks		Other Development M	lethod				
		*** End of GW	103716 ***				

### GW103717

Licence :10BL159022 Work Type :Bore Work Status :(Unknown) Construct. Method : Owner Type :			Licence Status Acti Authorised Purpose MONITORING BOI	v :(s) I RE N	ntended Purpose(s) IONITORING BORE	<u></u>
Commenced Date : Completion Date :02-Jul-1999	Final Depth : Drilled Depth :	10.00 m 10.00 m				
Contractor Name :MACQUARIE Driller :1712 Assistant Driller's Name :	DRILLING HOWE, Steve Robert					
Property : - N/A GWMA : - GW Zone : -		:	Standing Water Leve Salinity Yield	1: /: 1:		
Site Details		<u></u>	······································			
Site Chosen By Geologist	Form A : Licensed :	County CUMBERLAND CUMBERLAND	Parish HOLSWOI HOLSWOI	Port RTHY LOT RTHY LOT	on/Lot DP 101 DP775780 101 DP775780	
Region :10 - SYDNEY River Basin : Area / District :	' SOUTH COAST		CMA Map : Grid Zone :	Scale :		
Elevation : Elevation Source :			Northing : Easting :	L Loi	atitude (S) : gitude (E) :	
GS Map :	AMG Zone :	C	Coordinate Source :			
H-Hole,P-Pipe;OD-Outside Diameter;ID-Inside C H P Component Type I Hole Hole I Casing P.V.C. I Opening Slots - Horizontal Annulus (Unknown) Water Bearing Zones From (m) To (m) Thickness (m) Y 8.00 10.00 2.00 Drillers Log From (m) To (m) Thickness(m) Drillers Des 0.00 1.00 5.00 FILL-CLA 6.00 8.00 2.00 SAND 8.00 9.00 1.00 PEATY SA 9.00 10.00 1.00 SAND	Diameter, C-Cemented; SL-Slot Le From (m) To (m) OD (mm) 0.00 10.00 200 4.00 10.00 62 4.00 10.00 62 0.00 0.00 VBZ Type scription Y MD	Ingth;A-Aperture;GS-Gr ID (mm) Interval Deta Aug -38 Scre PVC Grad S.W.L. (m) 8.80	ain Size;Q-Quantity;PL-Pla lik er ved; Seated on Bottom : Class 18; Sawn; SL: 6mm; A led; GS: 3-10mm; 2m <sup>3</sup> D.D.L. (m) Geologic: Topsoi: Fill Sand Peaty Sand	cement of Gravel Pack;PC-Pr : 50mm Yield (L/s) Hole Depth (n al Material Com	essure Cemented;S-Sump;C 1) Duration (hr) Sat ments	E-Centralisers inity (mg/L)
Pumping Test Type Date Durat	ion (hr) S.W.L. (m) D.D.L. (m) (No I	) Yield (L/s) Intake Pumping Test Sumn	Depth (m) Test Method 1ary Details Found)	To Measure Water Level	To Measure Discharge	Tested By
Pumping Tests - Read	lings a (mins) S.W.L. (m) D.D.L. (m) (No .	) Yield (L/s) Intake Pumping Test Read	Depth (m) Test Method ling Details Found)	To Measure Water Level	To Measure Discharge	Tested By
Chemical Treatment Treatment Method	Quantity (L) <i>(No</i>	Name O Chemical Treatme	nt Details Found)			
Development Method Time T Pumping	aken	Other Development M	lethod			
Remarks						
		*** End of GW	103717 ***			

## GW103723

Licence :10BL159022 Work Type :Bore Work Status :(Unknown) - Construct. Method : Owner Type :		Licence Status Authorised Pu MONITORING	Activ rpose(s) I BORE N	ntended Purpose(s) 40NITORING BORE
Commenced Date : Completion Date :02-Jul-1999	Final Depth :1Drilled Depth :1	0.00 m 0.00 m		
Contractor Name :MACQUARIE DRIL: Driller :1712 HO' Assistant Driller's Name :	LING WE, Steve Robert			
Property : - N/A GWMA : - GW Zone : -		Standing Water Sa	Level : linity : Yield :	
Site Details				
Site Chosen By Geologist	County Form A :	Parisl	n Port	ion/Lot DP
Region (10 - SYDNEY SOL)	Licensed :CUMBE	RLAND HOLS	WORTHY LOT	101 DP775780
River Basin : Area / District :	IN COASI	Grid Zon	p : e : Scale :	
Elevation : Elevation Source :		Northin Eastin	g: I g: Lo	atitude (S) : ngitude (E) :
GS Map : AMG	Zone :	Coordinate Sourc	e:	
H-Hole;P-Pipe;OD-Outside Diameter;ID-Inside Diameter; II P Component Type From (m 1 Hole Hole 0.0.0 1 Casing P.V.C. 4.0 1 Casing P.V.C. 4.0 1 Annulus (Unknown) 0.00 Water Bearing Zones From (m) To (m) Thickness (m) WBZ Typ 8.00 10.00 2.00 Drillers Log From (m) To (m) Thickness(m) Drillers Description 0.00 2.00 SANDY SILT	r;C-Cemented;SL-Slot Length;A-Apr ) To (m) OD (mm) ID (mm) I 0 10.00 200 0 10.00 62 -38 0 10.00 62 0 0.00 pe	erture;GS-Grain Size;Q-Quantity;I Interval Details Auger Screwed; Seated on Bottom PVC Class 18; Sawn; SL: 6 Graded; GS: 3-10mm; 2m <sup>3</sup> S.W.L. (m) D.D.L. (m) 6.30 Get Sa	PL-Placement of Gravel Pack;PC-Pr mm; A: 50mm Yield (L/s) Hole Depth (r Pological Material Con undy Clay	essure Cemented;S-Sump;CE-Centralisers n) Duration (hr) Salinity (mg/L) uments
2.00         3.50         1.50 SILTY CLAYEY S           3.50         8.00         4.50 SANDY CLAY           8.00         9.50         1.50 SILTY SAND           9.50         10.00         0.50 GRAVELLY CLAY	AND	Si Sa Si Gr	lty Clay ndy Clay lty Clay avel	
Pumping Tests - Summar	ies			
Aumhing rest type Date Duration (nr)	S.W.L. (m) D.D.L. (m) Yield ( (No Pumping	Lis) Intake Depth (m) Test Meth Test Summary Details Foun	od To Measure Water Leve ad)	To Measure Discharge Tested By
Pumping Tests - Reading Pumping Test Type Date Time (mins)	S S.W.L. (m) D.D.L. (m) Yield ( (No Pumping	(1/s) Intake Depth (m) Test Meth 7 Test Reading Details Foun	od To Measure Water Leve d)	To Measure Discharge Tested By
Chemical Treatment	Quantity (L) Nan (No Chemica)	ne ral Treatment Details Found,	)	
Development Method Time Taken Pumping Remarks	Other D	evelopment Method		
	*** E	ind of GW103723 ***		

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## GW103799

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| Licence :10BL15<br>Work Type :Bore<br>Work Status :(Unknov<br>Construct. Method :Auger<br>Owner Type :                                                                                                             | 6592<br>wn)                                                                                                       |                                                          | Licence Status Activ<br>Authorised Purpose(s)<br>MONITORING BORE | Inte<br>MO                  | Intended Purpose(s)<br>MONITORING BORE |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------|-----------------------------|----------------------------------------|----------------|
| Commenced Date :<br>Completion Date :12-Jun-                                                                                                                                                                       | Final Depth :<br>1991 Drilled Depth :                                                                             | 3.30 m<br>3.30 m                                         |                                                                  |                             |                                        |                |
| Contractor Name :<br>Driller :<br>Assistant Driller's Name :                                                                                                                                                       | Waters, B                                                                                                         |                                                          |                                                                  |                             |                                        |                |
| Property : - MOE<br>GWMA : -<br>GW Zone : -                                                                                                                                                                        | BIL LIVERPOOL                                                                                                     |                                                          | Standing Water Level :<br>Salinity :<br>Yield :                  |                             |                                        |                |
| Site Details                                                                                                                                                                                                       |                                                                                                                   |                                                          |                                                                  |                             |                                        |                |
| Site Chosen By                                                                                                                                                                                                     | Form A<br>Licensed                                                                                                | County<br>COUMBERLAND<br>CUMBERLAND                      | Parish<br>ST LUKE<br>ST LUKE                                     | Portion<br>LOT10<br>10 2503 | /Lot DP<br>DP25032                     |                |
| Region :10 - SY<br>River Basin :<br>Area / District :                                                                                                                                                              | DNEY SOUTH COAST                                                                                                  |                                                          | CMA Map :<br>Grid Zone :                                         | Scale :                     | -                                      |                |
| Elevation :<br>Elevation Source :                                                                                                                                                                                  |                                                                                                                   |                                                          | Northing :<br>Easting :                                          | Lati<br>Longi               | itude (S) :<br>tude (E) :              |                |
| GS Map :                                                                                                                                                                                                           | AMG Zone :                                                                                                        |                                                          | Coordinate Source :                                              |                             |                                        |                |
| Construction Negative d<br>H-Hole;P-Pipe;OD-Outside Diameter;ID<br>H P Component Type<br>I Hole Hole                                                                                                               | epths indicate Above Ground Level;<br>-Inside Diameter;C-Cemented;SL-Slot<br>From (m) To (m) OD (mm)<br>0,00 3.30 | : Length;A-Aperture;GS-G<br>) ID (mm) Interval Dec<br>Au | Grain Size;Q-Quantity;PL-Placeme<br>tails<br>ver                 | ent of Gravel Pack;PC-Press | ure Cemented;S-Sump;C                  | E-Centralisers |
| Water Bearing Zon<br>From (m) To (m) Thickne                                                                                                                                                                       | IES<br>ess (m) WBZ Type<br>(                                                                                      | S.W.L. (m<br>No Water Bearing Z                          | ) D.D.L. (m) Yiel                                                | d (L/s) Hole Depth (m)      | Duration (hr) Sal                      | linity (mg/L)  |
| Drillers         Log           From (m)         To (m)         Thickness(m) Dr           0.00         0.10         0.10 CO           0.10         3.00         2.90 SA           3.00         3.30         0.30 CI | illers Description<br>NCRETE<br>ND/GREY/BROWN MEDIUM<br>AY GREY/BROWN SOFT SILTY                                  |                                                          | Geological M<br>Concretior<br>Sand<br>Clay Bands                 | aterial Comme<br>tary       | nts                                    |                |
| Pumping Tests - S<br>Pumping Test Type Date                                                                                                                                                                        | <b>Durnation (hr)</b> S.W.L. (m) D.D.L. ( <i>N</i> )                                                              | (m) Yield (L/s) Intak<br>O Pumping Test Sum.             | e Depth (m) Test Method<br>mary Details Found)                   | To Measure Water Level      | To Measure Discharge                   | Tested By      |
| Pumping Tests - R<br>Pumping Test Type Date                                                                                                                                                                        | Readings<br>Time (mins) S.W.L. (m) D.D.L. (N<br>(N                                                                | (m) Yield (L/s) Intak<br>lo Pumping Test Rea             | e Depth (m) Test Method<br>ding Details Found)                   | To Measure Water Level      | To Measure Discharge                   | Tested By      |
| Chemical Treatme                                                                                                                                                                                                   | <b>nt</b><br>Quantity (L)<br>(A                                                                                   | Name<br>No Chemical Treatm                               | ent Details Found)                                               |                             |                                        |                |
| Development<br>Method                                                                                                                                                                                              | Time Taken                                                                                                        | Other Development i<br>(No Development                   | Method<br>Details Found)                                         |                             |                                        |                |
| Remarks                                                                                                                                                                                                            |                                                                                                                   |                                                          |                                                                  |                             |                                        |                |
|                                                                                                                                                                                                                    |                                                                                                                   | *** End of GW                                            | ¥103799 ***                                                      |                             |                                        |                |
|                                                                                                                                                                                                                    |                                                                                                                   |                                                          |                                                                  |                             |                                        |                |

## **GW103800**

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| Licence :10BL156592<br>Work Type :Bore<br>Work Status :(Unknown)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                  | Licence Status Activ<br>Authorised Purpose(s<br>MONITORING BORE                                                                  | i) Intended Pu<br>E MONITORI                                                | Irpose(s)<br>NG BORE                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------|
| Owner Type :<br>Commenced Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Final Depth :                                                                                                                    | 3 00 m                                                                                                                           |                                                                             |                                                     |
| Completion Date :11-Mar-1992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Drilled Depth :                                                                                                                  | 3.00 m                                                                                                                           |                                                                             |                                                     |
| Contractor Name :<br>Driller : V<br>Assistant Driller's Name :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | /aters, B                                                                                                                        |                                                                                                                                  |                                                                             |                                                     |
| Property : - MOBIL LIVER<br>GWMA : -<br>GW Zone : -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | POOL                                                                                                                             | Standing Water Level :<br>Salinity :<br>Yield :                                                                                  |                                                                             |                                                     |
| Site Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                  |                                                                                                                                  |                                                                             |                                                     |
| Site Chosen By                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | County<br>Form A :CUMBI                                                                                                          | Parish<br>ERLAND ST LUKE                                                                                                         | Portion/Lot DP<br>LOT10 DP2503                                              | 2                                                   |
| Region :10 - SYDNEY SC<br>River Basin :<br>Area / District :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DUTH COAST                                                                                                                       | CMA Map :<br>Grid Zone :                                                                                                         | 10 25032<br>Scale :                                                         |                                                     |
| Elevation :<br>Elevation Source :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                  | Northing :<br>Easting :                                                                                                          | Latitude (S)<br>Longitude (E)                                               | :                                                   |
| GS Map : AM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | G Zone :                                                                                                                         | <b>Coordinate Source :</b>                                                                                                       | _ 、                                                                         |                                                     |
| H-Hole;P-Pfpe;OD-Outside Diameter;ID-Inside Diamete | ster;C-Cemented;SL-Slot Length;A-Aj<br>(m) To (m) OD (mm) ID (mm)<br>0.00 3.00 100<br>0.00 0.00 50<br>Type<br><i>(No Water</i> ) | perture;GS-Grain Size;Q-Quantity;PL-Place<br>Interval Details<br>Auger<br>S.W.L. (m) D.D.L. (m) Y<br>Bearing Zone Details Found) | ment of Gravel Pack;PC-Pressure Cemer<br>ield (L/s) Hole Depth (m) Duration | nted;S-Sump;CE-Centralisers<br>(hr) Salinity (mg/L) |
| Drillers         Log           'From (m)         To (m)         Thickness(m)         Drillers         Descrip           0.00         0.20         0.20         CONCRETE         0.20         LON         Difference           0.20         1.00         0.80         FILL, SAND, DJ         LON         Difference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ion<br>ARK GREY<br>KOWN, SEMIPLASTIC                                                                                             | Geological<br>Concreti<br>Fill<br>Clay                                                                                           | Material Comments<br>onary                                                  |                                                     |
| Pumping Tests - Summa<br>Pumping Test Type Date Duration (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>NTIES</b><br>br) S.W.L. (m) D.D.L. (m) Yield<br><i>(No Pumpin</i> ş                                                           | (L/s) Intake Depth (m) Test Method<br>g Test Summary Details Found)                                                              | To Measure Water Level To Measu                                             | tre Discharge Tested By                             |
| Pumping Tests - Reading<br>Pumping Test Type Date Time (min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | gs<br>ss) S.W.L. (m) D.D.L. (m) Yield<br>(No Pumpin)                                                                             | (L/s) Intake Depth (π) Test Method<br>g Test Reading Details Found)                                                              | To Measure Water Level To Measu                                             | are Discharge Tested By                             |
| Chemical Treatment<br>Treatment Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Quantity (L) Na<br>(No Chemic                                                                                                    | me<br>cal Treatment Details Found)                                                                                               |                                                                             |                                                     |
| Development<br>Method Time Taken                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Other I<br>(No De                                                                                                                | Development Method<br>velopment Details Found)                                                                                   |                                                                             |                                                     |
| Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                  |                                                                                                                                  |                                                                             |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | *** I                                                                                                                            | End of GW103800 ***                                                                                                              |                                                                             |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                  |                                                                                                                                  | -                                                                           |                                                     |

Warning To Clients: This raw data has been supplied to the Department of Natural Resources (DNR) by drillers, licensees and other sources. The DNR does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data. 7

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## **GW103801**

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| Licence :10BL156592<br>Work Type :Bore<br>Work Status :(Unknown)<br>Construct. Method :Auger<br>Owner Type :                                                                                                 |                                                                                             | <u> </u>                                            | Licence Status Activ<br>Authorised Purpose(s)<br>MONITORING BORE | Inte<br>MO                         | Intended Purpose(s)<br>MONITORING BORE |                |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------|------------------------------------|----------------------------------------|----------------|--|
| Commenced Date :<br>Completion Date :11-Mar-1992                                                                                                                                                             | Final Depth :<br>Drilled Depth :                                                            | 3.00 m<br>3.00 m                                    |                                                                  |                                    |                                        |                |  |
| Contractor Name :<br>Driller :<br>Assistant Driller's Name :                                                                                                                                                 | Waters, B                                                                                   |                                                     |                                                                  |                                    |                                        |                |  |
| Property : - MOBIL L1<br>GWMA : -<br>GW Zone : -                                                                                                                                                             | VERPOOL                                                                                     |                                                     | Standing Water Level :<br>Salinity :<br>Yield :                  |                                    |                                        |                |  |
| Site Details                                                                                                                                                                                                 |                                                                                             |                                                     |                                                                  |                                    |                                        |                |  |
| Site Chosen By                                                                                                                                                                                               | C<br>Form A :C<br>Licensed :C                                                               | County<br>CUMBERLAND<br>CUMBERLAND                  | Parish<br>ST LUKE<br>ST LUKE                                     | <b>Portion</b><br>LOT10<br>10 2503 | h/Lot DP<br>DP25032<br>32              |                |  |
| Region :10 - SYDNE<br>River Basin :<br>Area / District :                                                                                                                                                     | Y SOUTH COAST                                                                               |                                                     | CMA Map :<br>Grid Zone :                                         | Scale :                            |                                        |                |  |
| Elevation :<br>Elevation Source :                                                                                                                                                                            |                                                                                             |                                                     | Northing :<br>Easting :                                          | Lati<br>Longi                      | itude (S) :<br>tude (E) :              |                |  |
| GS Map :                                                                                                                                                                                                     | AMG Zone :                                                                                  | (                                                   | Coordinate Source :                                              |                                    |                                        |                |  |
| H-Hole;P-Pipe;OD-Outside Diameter;ID-Inside<br>H P Component Type<br>I Hole Hole<br>I I Casing PVC Class 18<br>Water Bearing Zones                                                                           | Diameter;C-Cemented;SL-Slot Ler<br>From (m) To (m) OD (mm)<br>0.00 3.00 100<br>0.00 0.00 50 | ngth;A-Aperture;GS-G<br>ID (mm) Intervat Det<br>Aսլ | irain Size;Q-Quantity;PL-Placem<br>ails<br>ger                   | ent of Grave! Pack;PC-Press        | ure Cemented;S-Sump;C                  | E-Centralisers |  |
| From (m) 10 (m) Thickness (m)                                                                                                                                                                                | WBZ Type                                                                                    | S.W.L. (m)<br>Water Bearing 74                      | ) D.D.L. (m) Yiel                                                | ld (L/s) Hole Depth (m)            | Duration (hr) Sa                       | inity (mg/L)   |  |
|                                                                                                                                                                                                              | (110                                                                                        | n aler bearing Ze                                   | me Delaits Found)                                                |                                    |                                        |                |  |
| From (m)         To (m)         Tbickness(m)         Drillers D           0.00         0.10         0.10 CONCRET         0.10 CONCRET           0.10         1.00         0.90 FILL, SA         1.00 CONCRET | escription<br>E<br>ND/GRAVEL, DARK GREY<br>EY BROWN                                         |                                                     | Geological M<br>Concretion<br>Fill<br>Clay                       | aterial Comme<br>nary              | nts                                    |                |  |
| Pumping Tests - Sum<br>Pumping Test Type Date Dura                                                                                                                                                           | <b>Maries</b><br>ntion (hr) S.W.L. (m) D.D.L. (m)<br><i>(No P</i> )                         | Yield (L/s) Intaka<br>umping Test Sumi              | e Depth (m) Test Method<br>mary Details Found)                   | To Mensure Water Level             | To Measure Discharge                   | Tested By      |  |
| Pumping Tests - Read<br>Pumping Test Type Date Tin                                                                                                                                                           | ne (mins) S.W.L. (m) D.D.L. (m)<br>(No F                                                    | Yield (L/s) Intake<br>Sumping Test Read             | e Depth (m) Test Method<br>ding Details Found)                   | To Measure Water Level             | To Measure Discharge                   | Tested By      |  |
| Chemical Treatment<br>Treatment Method                                                                                                                                                                       | Quantity (L)<br>(No                                                                         | Name<br>Chemical Treatmo                            | ent Details Found)                                               |                                    |                                        |                |  |
| Development                                                                                                                                                                                                  |                                                                                             |                                                     |                                                                  |                                    |                                        |                |  |
| Method Time                                                                                                                                                                                                  | Taken<br>(                                                                                  | Other Development I<br>No Development I             | Method<br>Details Found)                                         |                                    |                                        |                |  |
| Remarks                                                                                                                                                                                                      |                                                                                             |                                                     |                                                                  |                                    |                                        |                |  |
|                                                                                                                                                                                                              |                                                                                             | *** End of GW                                       | /103801 ***                                                      |                                    |                                        |                |  |

### GW103802

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| Licence :10BL156592                                                                                                                                                                                                                                                                                                                                  |                                                                                                          | Licence Status Act                                                                                                                       | iv                                                                        |                                                            |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------|--|--|
| Work Type :Bore<br>Work Status :(Unknown)<br>Construct. Method :Auger<br>Owner Type :                                                                                                                                                                                                                                                                |                                                                                                          | Authorised Purpos<br>MONITORING BO                                                                                                       | e(s) Intended<br>RE MONITC                                                | Purpose(s)<br>DRING BORE                                   |  |  |
| Commenced Date :<br>Completion Date :10-Apr-1995                                                                                                                                                                                                                                                                                                     | Final Depth :<br>Drilled Depth :                                                                         | 5.00 m<br>5.00 m                                                                                                                         |                                                                           |                                                            |  |  |
| Contractor Name :<br>Driller :<br>Assistant Driller's Name :                                                                                                                                                                                                                                                                                         | Waters, B                                                                                                |                                                                                                                                          |                                                                           |                                                            |  |  |
| Property : - MOBIL LI<br>GWMA : -<br>GW Zone : -                                                                                                                                                                                                                                                                                                     | VERPOOL                                                                                                  | Standing Water Lev<br>Salinit<br>Yiel                                                                                                    | el :<br>ty :<br>d :                                                       |                                                            |  |  |
| Site Details                                                                                                                                                                                                                                                                                                                                         |                                                                                                          |                                                                                                                                          |                                                                           |                                                            |  |  |
| Site Chosen By                                                                                                                                                                                                                                                                                                                                       | Cour<br>Form A :CUM<br>Licensed :CUM                                                                     | nty Parish<br>IBERLAND ST LUKE<br>IBERLAND ST LUKE                                                                                       | Portion/Lot<br>LOT10 DP25<br>10 25032                                     | <b>DP</b><br>5032                                          |  |  |
| Region :10 - SYDNE<br>River Basin :<br>Area / District :                                                                                                                                                                                                                                                                                             | Y SOUTH COAST                                                                                            | CMA Map :<br>Grid Zone :                                                                                                                 | Scale :                                                                   |                                                            |  |  |
| Elevation :<br>Elevation Source :                                                                                                                                                                                                                                                                                                                    |                                                                                                          | Northing :<br>Easting :                                                                                                                  | Latitude<br>Longitude                                                     | (S):<br>(E):                                               |  |  |
| GS Map :                                                                                                                                                                                                                                                                                                                                             | AMG Zone :                                                                                               | <b>Coordinate Source :</b>                                                                                                               |                                                                           |                                                            |  |  |
| H-Hole;P-Pipe;OD-Outside Diameter;ID-Inside<br>H P Component Type<br>I Hole Hole<br>Water Bearing Zones<br>From (m) To (m) Thickness (m)                                                                                                                                                                                                             | Diameter;C-Cemented;SL-Slot Length;<br>From (m) To (m) OD (mm) ID (n<br>0.00 5.00<br>WBZ Type<br>(No Way | A-Aperture;GS-Grain Size;Q-Quantity;PL-Pla<br>ann) Interval Details<br>Auger<br>S.W.L. (m) D.D.L. (m)<br>ter Bearing Zone Details Found) | acement of Gravel Pack;PC-Pressure Ce<br>Yield (L/s) Hole Depth (m) Durat | mented;S-Sump;CE-Centralisers<br>tion (hr) Satinity (mg/L) |  |  |
| Drillers         Log           From (m)         To (m)         Tbickness(m)         Drillers D           0.00         0.10         0.10 CONCRET           0.10         0.20         0.10 SANDY FL           0.20         1.50         1.30 CLAY BL           1.50         4.10         2.60 CLAY YE           4.10         5.00         0.90 CLAY HI | escription<br>E<br>Ill<br>ACK, Soft, Moist<br>Llo Brown, Soft<br>GRLY WEATHERED, Brown                   | Geologi<br>Concre<br>Sandy<br>Clay E<br>Clay E<br>Clay E<br>Clay E                                                                       | cal Material Comments<br>stionary<br>Clay<br>Bands<br>Jands<br>Bands      |                                                            |  |  |
| Pumping Tests - Sum<br>Pumping Test Type Date Dura                                                                                                                                                                                                                                                                                                   | <b>Maries</b><br>ntion (hr) S.W.L. (m) D.D.L. (m) Y<br><i>(No Pump</i> )                                 | ield (L/s) Intake Depth (m) Test Method<br>ping Test Summary Details Found)                                                              | To Measure Water Level To M                                               | easure Discharge Tested By                                 |  |  |
| Pumping Tests - Reac<br>Pumping Test Type Date Tin                                                                                                                                                                                                                                                                                                   | <b>Jings</b><br>ne (mins) S.W.L. (m) D.D.L. (m) Y<br>(No Pumy                                            | ield (L/s) Intake Depth (m) Test Method<br>ping Test Reading Details Found)                                                              | To Measure Water Level To M                                               | easure Discharge Tested By                                 |  |  |
| Chemical Treatment<br>Treatment Method                                                                                                                                                                                                                                                                                                               | Quantity (L)<br>(No Che                                                                                  | Name<br>mical Treatment Details Found)                                                                                                   |                                                                           |                                                            |  |  |
| Development<br>Method Time                                                                                                                                                                                                                                                                                                                           | Taken Oth<br>(No .                                                                                       | er Development Method<br>Development Details Found)                                                                                      |                                                                           |                                                            |  |  |
| Remarks                                                                                                                                                                                                                                                                                                                                              |                                                                                                          |                                                                                                                                          |                                                                           |                                                            |  |  |
|                                                                                                                                                                                                                                                                                                                                                      | **                                                                                                       | ** End of GW103802 ***                                                                                                                   |                                                                           |                                                            |  |  |

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### GW103803

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| Licence :10BL156592<br>Work Type :Bore<br>Work Status :(Unknown)<br>Construct. Method :Auger<br>Owner Type :                                                                                                                                                                                |                                                                                                            | Licence Status Activ<br>Authorised Purpose(s)<br>MONITORING BORE |                                                    | (s) Int<br>E MC                         | Intended Purpose(s)<br>MONITORING BORE |                |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------|----------------------------------------|----------------|--|
| Commenced Date :<br>Completion Date :10-Apr-1995                                                                                                                                                                                                                                            | Final Depth :<br>Drilled Depth :                                                                           | 3.00 m<br>3.00 m                                                 |                                                    |                                         |                                        |                |  |
| Contractor Name :<br>Driller :<br>Assistant Driller's Name :                                                                                                                                                                                                                                | Waters, B                                                                                                  |                                                                  |                                                    |                                         |                                        |                |  |
| Property : - MOBIL LI<br>GWMA : -<br>GW Zone : -                                                                                                                                                                                                                                            | VERPOOL                                                                                                    |                                                                  | Standing Water Level<br>Salinity<br>Yield          | :                                       |                                        |                |  |
| Site Details                                                                                                                                                                                                                                                                                |                                                                                                            |                                                                  |                                                    |                                         |                                        |                |  |
| Site Chosen By                                                                                                                                                                                                                                                                              | Ca<br>Form A :CU<br>Licensed :CL                                                                           | unty<br>JMBERLAND<br>JMBERLAND                                   | Parish<br>ST LUKE<br>ST LUKE                       | Portion<br>LOT10<br>10 250              | n/Lot DP<br>DP25032<br>32              |                |  |
| Region :10 - SYDNE<br>River Basin :<br>Area / District :                                                                                                                                                                                                                                    | Y SOUTH COAST                                                                                              |                                                                  | CMA Map :<br>Grid Zone :                           | Scale :                                 |                                        |                |  |
| Elevation :<br>Elevation Source :                                                                                                                                                                                                                                                           |                                                                                                            |                                                                  | Northing :<br>Easting :                            | Lat<br>Long                             | itude (S) :<br>itude (E) :             |                |  |
| GS Map :                                                                                                                                                                                                                                                                                    | AMG Zone :                                                                                                 | (                                                                | Coordinate Source :                                |                                         |                                        |                |  |
| Construction Negative depths in<br>H-Hole;P-Pipe;OD-Outside Diameter;ID-Inside<br>H P Component Type<br>I Hole Hole                                                                                                                                                                         | ndicate Above Ground Level;<br>Diameter;C-Cemented;SL-Slot Leng<br>From (m) To (m) OD (mm) II<br>0.00 3.00 | th;A-Aperture;GS-G<br>(mm) Interval Det<br>Aug                   | rain Size;Q-Quantity;PL-Plac<br>ails<br>ser        | ement of Gravel Pack;PC-Pres            | sure Cemented;S-Sump;C                 | E-Centralisers |  |
| VVater Bearing Lones<br>From (m) To (m) Thickness (m)                                                                                                                                                                                                                                       | WBZ Type                                                                                                   | S.W.L. (m)                                                       | ) D.D.L. (m)                                       | Vield (L/s) Hole Depth (m)              | Duration (br) Sal                      | inity (mail)   |  |
|                                                                                                                                                                                                                                                                                             | <br>(No k                                                                                                  | Vater Bearing Zo                                                 | one Details Found)                                 |                                         |                                        | mity (mg/L)    |  |
| <b>m</b>                                                                                                                                                                                                                                                                                    | ·                                                                                                          |                                                                  | ,                                                  |                                         |                                        |                |  |
| Drillers         Log           From (m)         To (m)         Tbickuess(m)         Drillers         D           0.00         0.10         0.10         CONCRET         0.10         CANDY         F           0.20         1.50         1.30         CLAY GR         1.50         CLAY, YE | escription<br>E<br>Ill<br>Ey Yellow Brown<br>Llow Brown Soft Puggy                                         |                                                                  | Geologics<br>Concret<br>Sandy C<br>Clay Ba<br>Clay | l Material Comm<br>Ionary<br>Lay<br>nds | ents                                   |                |  |
| Pumping Tests - Sum<br>Pumping Test Type Date Dura                                                                                                                                                                                                                                          | nmaries<br>stion (hr) S.W.L. (m) D.D.L. (m)<br><i>(No Pu</i> )                                             | Yield (L/s) Intake<br>Imping Test Sumi                           | e Depth (m) Test Method<br>nary Details Found)     | To Measure Water Level                  | To Measure Discharge                   | Tested By      |  |
| Pumping Tests - Read<br>Pumping Test Type Date Time                                                                                                                                                                                                                                         | dings<br>ne (mins) S.W.L. (m) D.D.L. (m)<br>(No Pa                                                         | Yield (L/s) Intake<br>Imping Test Read                           | e Depth (m) Test Method<br>ding Details Found)     | To Measure Water Level                  | To Measure Discharge                   | Tested By      |  |
| Chemical Treatment<br>Trentment Method                                                                                                                                                                                                                                                      | Quantity (L)<br><i>(No</i> C                                                                               | Name<br>'hemical Treatmo                                         | ent Details Found)                                 |                                         |                                        |                |  |
| Development<br>Method Time                                                                                                                                                                                                                                                                  | Taken (A                                                                                                   | Diher Development I<br>To Development I                          | Method<br>Details Found)                           |                                         |                                        |                |  |
| Remarks                                                                                                                                                                                                                                                                                     |                                                                                                            |                                                                  |                                                    |                                         |                                        |                |  |
|                                                                                                                                                                                                                                                                                             |                                                                                                            | *** End of GW                                                    | /103803 ***                                        |                                         |                                        |                |  |

## GW103804

| <u>G 1105004</u>                                                                                                                                                                                                                               |                                                                   |                                              |                                                 |                                  |                             | 1             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------|----------------------------------|-----------------------------|---------------|
| Licence :10BL156592                                                                                                                                                                                                                            |                                                                   |                                              | Licence Status Acti<br>Authorised Purpose       | v<br>(s) Int                     | ended Purpose(s)            |               |
| Work Type :Bore<br>Work Status :(Unknown)<br>Construct. Method :Auger<br>Owner Type :                                                                                                                                                          |                                                                   |                                              | MONITORING BOR                                  | Ě MC                             | DNITORING BORE              |               |
| Commenced Date :<br>Completion Date :10-Apr-1995                                                                                                                                                                                               | Final Depth :<br>Drilled Depth :                                  | 3.00 m<br>3.00 m                             |                                                 |                                  | -                           |               |
| Contractor Name :<br>Driller :<br>Assistant Driller's Name :                                                                                                                                                                                   | WATERS, B                                                         |                                              |                                                 |                                  |                             |               |
| Property : - MOBIL LI<br>GWMA : -<br>GW Zone : -                                                                                                                                                                                               | VERPOOL                                                           |                                              | Standing Water Level<br>Salinity<br>Yield       | :<br>/:<br> :                    |                             |               |
| Site Details                                                                                                                                                                                                                                   |                                                                   | -                                            |                                                 |                                  |                             |               |
| Site Chosen By                                                                                                                                                                                                                                 | Form 4<br>License                                                 | County<br>A :CUMBERLAND<br>d :CUMBERLAND     | Parish<br>ST LUKE<br>ST LUKE                    | Portio<br>LOTIO<br>10 250        | n/Lot DP<br>) DP25032<br>32 |               |
| Region :10 - SYDNE<br>River Basin :<br>Area / District :                                                                                                                                                                                       | Y SOUTH COAST                                                     |                                              | CMA Map :<br>Grid Zone :                        | Scale :                          |                             |               |
| Elevation :<br>Elevation Source :                                                                                                                                                                                                              |                                                                   |                                              | Northing :<br>Easting :                         | Lat<br>Long                      | itude (S) :<br>itude (E) :  |               |
| GS Map :                                                                                                                                                                                                                                       | AMG Zone :                                                        |                                              | Coordinate Source :                             |                                  |                             |               |
| Water Bearing Zones<br>From (m) To (m) Thickness (m)                                                                                                                                                                                           | WBZ Type                                                          | S.W.L. (n<br>No Water Bearing 7              | n) D.D.L. (m)                                   | Yield (L/s) Hole Depth (m)       | Duration (hr) Sa            | linity (mg/L) |
|                                                                                                                                                                                                                                                |                                                                   | ino mater Dearing Z                          | one Delans Founa)                               |                                  |                             |               |
| To (m)         To (m)         Thickaess(m)         Drillers Data           0.00         0.10         0.10         CONCRET           0.10         0.20         0.10         SANDY GE           0.20         3.00         2.80         CLAY, BLJ | escription<br>5<br>Ravelly Fill, Black<br>ACK, Yellow Brown, Soft |                                              | Geologic:<br>Concret<br>Sandy C<br>Clay         | l Material Comm<br>ionary<br>lay | ents                        |               |
| Pumping Tests - Sum<br><sup>Pumping Test Type Date Dura</sup>                                                                                                                                                                                  | maries<br>tiou (hr) S.W.L. (m) D.D.L.<br><i>(</i> A               | (m) Yield (L/s) Intal<br>To Pumping Test Sum | se Depth (m) Test Method<br>mary Details Found) | To Measure Water Level           | To Measure Discharge        | Tested By     |
| Pumping Tests - Read<br>Pumping Test Type Date Time                                                                                                                                                                                            | lings<br>ae (mins) S.W.L. (m) D.D.L.<br>/?                        | (m) Yield (L/s) Intak<br>No Pumping Test Rea | e Depth (m) Test Method<br>ding Details Found)  | To Measure Water Level           | To Measure Discharge        | Tested By     |
| Chemical Treatment                                                                                                                                                                                                                             | Quantity (L)                                                      | Name<br>No Chemical Treatm                   | ent Details Found)                              |                                  |                             |               |
| ,<br>Development<br><sup>Aethod</sup> Time 1                                                                                                                                                                                                   | Faken                                                             | Other Development<br>(No Development         | Method<br>Details Found)                        |                                  |                             |               |
| Remarks                                                                                                                                                                                                                                        |                                                                   |                                              |                                                 |                                  |                             |               |
| :                                                                                                                                                                                                                                              |                                                                   | *** End of CV                                | V103804 ***                                     |                                  |                             |               |
|                                                                                                                                                                                                                                                |                                                                   | 2                                            |                                                 |                                  |                             |               |

## GW103805

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| Licence :10BL156592<br>Work Type :Bore<br>Work Status :(Unknown)<br>Construct. Method :Auger<br>Owner Type :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                        | Licence Status Activ<br>Authorised Purpose(s)<br>MONITORING BORE                     | Intended Purpose(s)<br>MONITORING BORE                  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------|--|--|
| Commenced Date : Final D<br>Completion Date :10-Mar-1995 Drilled D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | pth: 4.00 m<br>pth: 4.00 m                                             |                                                                                      |                                                         |  |  |
| Contractor Name :<br>Driller : WATERS, B<br>Assistant Driller's Name :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                        |                                                                                      |                                                         |  |  |
| Property : - MOBIL LIVERPOOL<br>GWMA : -<br>GW Zone : -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                        | Standing Water Level :<br>Salinity :<br>Yield :                                      |                                                         |  |  |
| Site Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                        |                                                                                      |                                                         |  |  |
| Site Chosen By                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | County<br>Form A :CUMBERLANE                                           | Parish<br>D ST LUKE                                                                  | Portion/Lot DP<br>LOT10 DP25032                         |  |  |
| Region :10 - SYDNEY SOUTH COAS<br>River Basin :<br>Area / District :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | rensed COMBERLAND                                                      | CMA Map :<br>Grid Zone :                                                             | 10 25032<br>Scale :                                     |  |  |
| Elevation :<br>Elevation Source :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                        | Northing :<br>Easting :                                                              | Latitude (S) :<br>Longitude (E) :                       |  |  |
| GS Map : AMG Zone :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                        | Coordinate Source :                                                                  | ~ ` `                                                   |  |  |
| Negative depths indicate Above Groun           H-Hole;P-Pipe;OD-Outside Diameter;ID-Inside Diameter;C-Cement           H         Pipe;OD-Outside Diameter;ID-Inside Diameter;ID-Inside Diameter;C-Cement           H         Pipe;OD-Outside Diameter;ID-Inside Diameter;ID-Insid | Level;<br>d;SL-Slot Length;A-Aperture;GS<br>OD (mm) ID (mm) Interval I | i-Grain Size;Q-Quantity;PL-Placement of<br>Details<br>Auger                          | Gravel Pack;PC-Pressure Cemented;S-Sump;CE-Centralisers |  |  |
| Water Bearing Zones<br>From (m) To (m) Thickness (m) WBZ Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | S.W.L.                                                                 | (m) D.D.L. (m) Yield (L/s                                                            | s) Hole Depth (m) Duration (hr) Salinity (mg/L)         |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | (No Water Bearing                                                      | Zone Details Found)                                                                  |                                                         |  |  |
| To (m)         To (m)         Thickness(m) Drillers Description           0.00         0.20         0.20 CONCRETE GRAVELLY FILL           0.20         1.50         1.30 CLAY ORANGY BROWN           1.50         2.50         1.00 CLAY YELLOW BROWN, PUGGY           2.50         4.00         1.50 SANDY CLAY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                        | <b>Geological Materia</b><br>Concretionary<br>Clay Bands<br>Clay Bands<br>Sandy Clay | l Comments                                              |  |  |
| Pumping Tests - Summaries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ) D.D.L. (m) Yield (L./s) Int<br>(No Pumping Test Su                   | ake Depth (m) Test Method To N<br>mmary Details Found)                               | Measure Water Level To Measure Discharge Tested By      |  |  |
| Pumping Tests - Readings<br>Pumping Test Type Date Time (mins) S.W.L. (n                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | D.D.L. (m) Yield (L/s) Int.<br>(No Pumping Test Re                     | ake Depth (m) Test Method To N<br>cading Details Found)                              | Jeasure Water Level To Measure Discharge Tested By      |  |  |
| Chemical Treatment<br>Treatment Method Quantity (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ) Name<br>(No Chemical Treat                                           | ment Details Found)                                                                  |                                                         |  |  |
| Development<br>Method Time Taken                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Other Developmer                                                       | nt Method                                                                            |                                                         |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | (No Developmen                                                         | nt Details Found)                                                                    |                                                         |  |  |
| Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                        |                                                                                      |                                                         |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | *** End of G<br>*** End of                                             | W103805 ***<br>Report ***                                                            |                                                         |  |  |

APPENDIX D Test Bore logs

# GRAPHIC SYMBOLS FOR SOIL & ROCK



Geotechnics, Environment, Groundwater

Captain Developments C/- MacLeod Consultants ISURFACE LEVEL: 22.2 AHD CLIENT: Proposed Commercial & Residential DevelopmentEASTING: PROJECT:

LOCATION: 13 Norfolk Street, Liverpool

### NORTHING: DIP/AZIMUTH: 90°/--

BORE No: BH1A PROJECT No: 44224 DATE: 25 Aug 06 SHEET 1 OF 1

| Π                |                                                                                                                                                                                                                                                                                                                                           | Description                                                                                    | .e Sampling & In Situ Testing |      | & In Situ Testing |        | Well                  |      |                         |   |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------|------|-------------------|--------|-----------------------|------|-------------------------|---|
| RL               | Depth<br>(m)                                                                                                                                                                                                                                                                                                                              | of<br>Strata                                                                                   | Graph<br>Log                  | Type | Deptin            | Sample | Results &<br>Comments | Wate | Constructior<br>Details | ו |
|                  | -                                                                                                                                                                                                                                                                                                                                         | CONCRETE                                                                                       | 0.0.0.0.0                     |      |                   |        |                       |      |                         |   |
| 22               | 0.18                                                                                                                                                                                                                                                                                                                                      | FILLING - brown gravelly sandy clay filling, with gravel<br>and cobbles 5-15cm in diameter     |                               | A*   | 0.5               |        |                       |      |                         |   |
|                  | - 0.7                                                                                                                                                                                                                                                                                                                                     | SILTY CLAY - mottled red light grey and yellow brown<br>silty clay                             |                               | A    | 1.0               |        |                       |      | -1                      |   |
| 21               | i- 1.2                                                                                                                                                                                                                                                                                                                                    | SILTY CLAY - very stiff, light grey mottled yellow and<br>red silty clay with ironstone gravel |                               |      | 1.5               |        |                       |      |                         |   |
|                  |                                                                                                                                                                                                                                                                                                                                           | Bore discontinued at 1.5m<br>- target depth reached                                            |                               |      |                   |        |                       |      |                         |   |
| R<br>T<br>W<br>R | RIG: Edson 3000       DRILLER: APS       LOGGED: KP       CASING: Uncased         ITYPE OF BORING: Solid flight auger       WATER OBSERVATIONS: No free groundwater observed       CASING: Uncased         REMARKS:       *Denotes field replicate sample BD1 250806 collected       *Denotes field replicate sample BD1 250806 collected |                                                                                                |                               |      |                   |        |                       |      |                         |   |

SAMPL Auger sample Disturbed sample Bulk sample Tube sample (x mm dia.) Water sample Core drilling

ADBU,WC

SAMPLING & IN SITU TESTING LEGEND pp Pocket penetrameter (kPa) PID Photo ionisation detector S Standard penetration test mm dia.) PL Point load strength Is(50) MPa V Shear Vane (kPa) b Water seep ¥ Water level



(/)



 CLIENT:
 Captain Developments C/- MacLeod Consultants RSURFACE LEVEL: 22.2 AHD

 PROJECT:
 Proposed Commercial & Residential DevelopmentEASTING:

 LOCATION:
 13 Norfolk Street, Liverpool

 NORTHING:
 DIP/AZIMUTH: 90°/- 

BORE No: 1 PROJECT No: 44224 DATE: 22 Aug 06 SHEET 1 OF 3

| Γ                     |                                                                                                                                                                                                                                                                                                                                                                                                             | Description                                                                                                                                                                                                                                                     | Degree of         | Rock<br>Strength | Fracture                  | Discontinuities                                                                                    | Sa   | mplir          | 1g & I   | In Situ Testing                                    |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|---------------------------|----------------------------------------------------------------------------------------------------|------|----------------|----------|----------------------------------------------------|
| RL                    | Depti<br>(m)                                                                                                                                                                                                                                                                                                                                                                                                | of .<br>Strata                                                                                                                                                                                                                                                  | Graph & V & V & V |                  | Spacing<br>(m)<br>5 방문 응용 | B - Bedding J - Joint<br>S - Shear D - Drill Break                                                 | Type | Core<br>čec. % | RQD<br>% | Test Results                                       |
| 21 22                 | - 0.<br>- 0                                                                                                                                                                                                                                                                                                                                                                                                 | CONCRETE     FILLING - grey sandy gravel filling     (roadbase)     SILTY CLAY - red-brown and grey     silty clay, with a trace of rootlets     SILTY CLAY - very stiff, grey silty     clay, with some ironstone bands     and gravel and a trace of rootlets |                   |                  |                           |                                                                                                    |      |                |          | Comments                                           |
| 20                    | -2                                                                                                                                                                                                                                                                                                                                                                                                          | 5                                                                                                                                                                                                                                                               |                   |                  |                           |                                                                                                    | S    |                |          | 3,4,6<br>N = 10                                    |
| 19                    | 3.6                                                                                                                                                                                                                                                                                                                                                                                                         | <ul> <li>SHALE - extremely low and very</li> <li>low strength, highly to moderately</li> <li>weathered and fresh stained,</li> <li>fractured and slightly fractured,</li> <li><sup>5</sup> brown and grey brown shale</li> </ul>                                |                   |                  |                           | 3.22m: B5° ironstained<br>& 5mm clay                                                               | с    | 100            | 77       |                                                    |
| 17                    | -4                                                                                                                                                                                                                                                                                                                                                                                                          | <ul> <li>SHALE - low and medium strength, fresh stained, slightly fractured, grey brown shale</li> <li>SILTSTONE - high strength, fresh stained, slightly fractured, light grey, brown and dark grey siltstone</li> <li>5.23-5.5m: low strength band</li> </ul> |                   |                  |                           | 3.63m: J75° rough,<br>ironstained<br>4.5m: J75°<br>5.24-5.50m: numerous<br>healed joints/fractures | с    | 100            | 97       | PL(A) = 0.6MPa<br>PL(A) = 2.1MPa<br>PL(A) = 2.4MPa |
| 14 15 15              | -7 7.                                                                                                                                                                                                                                                                                                                                                                                                       | 3 SHALE - medium and medium to<br>high strength, slightly weathered,<br>slightly fractured, light grey to grey<br>shale                                                                                                                                         |                   |                  |                           | 7.23m: J75° with clay & slickensided                                                               | С    | 100            | 95       | PL(A) = 1.9MPa<br>PL(A) = 0.3MPa<br>PL(A) = 1MPa   |
| 13                    | - 9                                                                                                                                                                                                                                                                                                                                                                                                         | strength, fresh, slightly fractured<br>and unbroken, light grey and grey<br>laminite, approx interbedded<br>sandstone 70% and shale 30%                                                                                                                         |                   |                  |                           |                                                                                                    | С    | 100            | 98       | PL(A) = 3.7MPa<br>PL(A) = 1.2MPa                   |
| RIC<br>TY<br>W/<br>RE | LOGGED:       SI       CASING:       HW to 3.05m         YPE OF BORING:       Solid flight auger to 3.05m;       NMLC-Coring to 23.0m       CASING:       HW to 3.05m         VATER OBSERVATIONS:       No free groundwater observed during augering       CASING:       HW to 3.05m         REMARKS:       Standpipe installed to 18.0m       Standpipe installed to 18.0m       CASING:       HW to 3.05m |                                                                                                                                                                                                                                                                 |                   |                  |                           |                                                                                                    |      |                |          |                                                    |

 SAMPLING & IN SITU TESTING LEGEND
 pp
 Pocket penetrometer (kPa)
 CHECKED

 D Disturbed sample
 PID
 Photo ionisation detector
 Initiats:
 Initiats:

 B Buik sample
 S
 Standard penetration test
 Initiats:
 Initiats:

 U, Tube sample (x mm dia.)
 PL
 Point load strength 16(50) MPa
 Date:100 D\_2

 W Water sample
 V
 Shear Vane (kPa)
 Date:100 D\_2

**Douglas Partners** Geotechnics · Environment · Groundwater

Captain Developments C/- MacLeod Consultants BSURFACE LEVEL: 22.2 AHD CLIENT: Proposed Commercial & Residential DevelopmentEASTING: PROJECT: LOCATION: 13 Norfolk Street, Liverpool NORTHING:

BORE No: 1 PROJECT No: 44224 DATE: 22 Aug 06 SHEET 2 OF 3

## DIP/AZIMUTH: 90°/--

| ſ                                     |                                                                                                                                                                                                                              | Description                                                                                                                                                                                                             | Degree of<br>Weathering                                                                          | ji<br>Li     | Rock<br>Strength | Fracture | Discontinuities                                                                                                                                                                                                                | Sa  | mplir       | ıg & I  | In Situ Testing                                     |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------|------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------|---------|-----------------------------------------------------|
| 물                                     | (m)                                                                                                                                                                                                                          | of<br>Strate                                                                                                                                                                                                            |                                                                                                  | Grapt<br>Log |                  | (m)      | B - Bedding J - Joint<br>S Shaar D Drill Brook                                                                                                                                                                                 | ype | ore<br>80.% | aD<br>% | Test Results<br>&                                   |
| ┝                                     |                                                                                                                                                                                                                              | Strata                                                                                                                                                                                                                  | ₩<br>₩<br>₩<br>₩<br>₩<br>₩<br>%<br>8<br>%<br>8<br>%<br>8<br>%<br>8<br>%<br>8<br>%<br>8<br>%<br>8 |              | <u> </u>         |          | S-Shear D-Dhii Break                                                                                                                                                                                                           |     | ပည္         | R       | Comments                                            |
| 11                                    | - 11                                                                                                                                                                                                                         | strength, fresh, slightly fractured<br>and unbroken, light grey and grey<br>laminite, approx interbedded<br>sandstone 70% and shale 30%<br>(continued)                                                                  |                                                                                                  |              |                  |          | 10.50-10.52m: healed<br>joints .<br>11.07m: J25° smooth                                                                                                                                                                        | с   | 100         | 98      | PL(A) = 1.1MPa                                      |
| Ē                                     | -                                                                                                                                                                                                                            |                                                                                                                                                                                                                         |                                                                                                  |              |                  | ╎╞┽┱┛╎╎  | ղ 11.48m: B0°                                                                                                                                                                                                                  |     |             |         | PL(A) = 2.8MPa                                      |
|                                       | -12 12.0                                                                                                                                                                                                                     | SHALE - high then low to medium<br>strength, fresh then slightly<br>weathered, slightly fractured, grey<br>shale<br>SANDSTONE - very high strength,<br>fresh, slightly fractured, light grey,<br>fine grained sandstone |                                                                                                  |              |                  |          | slickensided<br>11.55m: B0° with 3mm<br>coal seam<br>11.7m: J0°- 5° healed<br>12.63-12.78m:<br>numerous<br>fractures/joints<br>13.5m: J20° 2mm clay<br>13.59m: J30° with clay<br>13.59-14.06m:<br>numerous<br>fractures/joints | С   | 100         | 91      | PL(A) = 1.9MPa<br>PL(A) = 0.4MPa<br>PI (A) = 1 1MPa |
| <u> </u>                              | 15                                                                                                                                                                                                                           | •<br>•                                                                                                                                                                                                                  |                                                                                                  |              |                  |          | 15.06m: J90° healed<br>15.15m: J85° healed                                                                                                                                                                                     |     |             |         | PL(A) = 3.7MPa                                      |
| 9                                     | - 16<br>                                                                                                                                                                                                                     | LAMINITE - high strength, fresh,                                                                                                                                                                                        |                                                                                                  |              |                  |          | 15.85-16.12m: 2 x J45°,<br>90° rough<br>16.18m: J85° healed                                                                                                                                                                    | С   | 100         | 100     | PL(A) = 7.9MPa                                      |
|                                       |                                                                                                                                                                                                                              | slightly fractured, light grey laminite<br>(very thinly interbedded sandstone<br>80%, shale 20%)                                                                                                                        |                                                                                                  |              |                  |          |                                                                                                                                                                                                                                |     |             |         | PL(A) = 1.6MPa                                      |
| · · · · · · · · · · · · · · · · · · · | - 18<br>- 18.5<br>- 19<br>- 19<br>                                                                                                                                                                                           | LAMINITE - high strength, fresh,<br>unbroken, light grey to grey<br>laminite (interbedded sandstone<br>50%, shale 50%)                                                                                                  |                                                                                                  |              |                  |          | 18.42m: J75° healed                                                                                                                                                                                                            | Ċ   | 100         | 100     | PL(A) = 1.7MPa<br>PL(A) = 1.6MPa                    |
| RI<br>TY<br>W                         | IG: Edson 3000       DRILLER: APS       LOGGED: SI       CASING: HW to 3.05m         YPE OF BORING: Solid flight auger to 3.05m; NMLC-Coring to 23.0m       VATER OBSERVATIONS: No free groundwater observed during augering |                                                                                                                                                                                                                         |                                                                                                  |              |                  |          |                                                                                                                                                                                                                                |     |             |         |                                                     |

**REMARKS:** Standpipe installed to 18.0m

| SAMPLING & IN SITU TESTING LEGEND       A     Auger sample     pp     Packet penetrometer (kPa)       D     Disturbed sample     PID     Photo ionisation detector       B     Bulk sample     S     Standard penetration test       U,     Tube sample (x nm dia.)     PL     Point load strength Is(50) MPa       W     Water sample     V     Shear Vane (kPa)       C     Core drilling     D     Water seep | CHECKED<br>Initials: if<br>Date: 3) 1,2 (Jul) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|

CLIENT: Captain Developments C/- Macl e d Consultants BURFACE LEVEL: 22.2 AHD PROJEC LOCATIC **:**:

BORE No: 1 PROJECT No: 44224 DATE: 22 Aug 06 SHEET 3 OF 3

|     | Oaptain Developments OF MacLeou   | Consultants FOURFACE |
|-----|-----------------------------------|----------------------|
| T:  | Proposed Commercial & Residential | DevelopmentEASTING:  |
| DN: | 13 Norfolk Street, Liverpool      | NORTHING             |

DIP/AZIMUTH: 90°/--

|             |                                                                                                                                                                                                                                                                                                                                                          | Description                                                                                                                                                 | Degree of<br>Weathering | <u>i</u>     | Roc<br>Stren     | x<br>gth   | 5    | Fracture  | Discon      | tinuities       | Sa  | mplir       | 1g & I  | n Situ Testing |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------|------------------|------------|------|-----------|-------------|-----------------|-----|-------------|---------|----------------|
| 뉟           | (m)                                                                                                                                                                                                                                                                                                                                                      | of                                                                                                                                                          |                         | Srapt<br>Log |                  | 빌          | Vate | (m)       | B - Bedding | J - Joint       | /pe | ore<br>c. % | 00<br>% | Test Results   |
| L           | 20.18                                                                                                                                                                                                                                                                                                                                                    | Strata                                                                                                                                                      | WH M S S E              | 0            | <sup>집</sup> 등 등 | <u>檀이지</u> |      | 0.10      | S - Shear   | D - Drill Break | Ĥ   | ΰ́́́        | ά,      | Comments       |
|             | 20.38                                                                                                                                                                                                                                                                                                                                                    | LAMINITE - high strength, fresh,<br>unbroken, light grey to grey<br>laminite (interbedded sandstone<br>(50%, shale 50%)<br>LAMINITE - high strength, fresh. |                         |              |                  |            |      |           |             |                 | С   | 100         | 100     | PL(A) = 1.8MPa |
| -           | -21                                                                                                                                                                                                                                                                                                                                                      | slightly fractured, light grey laminite<br>(interbedded sandstone 80%, shale<br>20%)                                                                        |                         |              |                  |            |      |           |             |                 |     |             |         |                |
|             | -<br>-<br>-                                                                                                                                                                                                                                                                                                                                              | LAMINITE - high strength fresh,<br>slightly fractured, unbroken, light<br>grey to grey laminite (interbedded                                                |                         | · · · · ·    |                  |            |      |           |             |                 |     |             |         |                |
|             | -22                                                                                                                                                                                                                                                                                                                                                      | sandstone 50%, shale 50%)                                                                                                                                   |                         | · · · · ·    |                  |            |      |           |             |                 | с   | 100         | 100     | PL(A) = 2.9MPa |
|             | -                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                             |                         | · · · · ·    |                  |            |      |           |             | :               |     |             |         | ·              |
| -           |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                             |                         | · · · ·      |                  |            |      |           |             |                 |     |             |         | PL(A) ≃ 1.2MPa |
| Ė-          | -23 23.0                                                                                                                                                                                                                                                                                                                                                 | Bore discontinued at 23.0m                                                                                                                                  |                         |              |                  |            | ļ    |           |             |                 |     |             |         |                |
|             | -                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
| -<br>- ?    |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                             |                         |              |                  |            | -    |           |             |                 |     |             |         |                |
|             |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
| -<br>-7     | -25                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                             |                         |              |                  |            | ]    |           |             |                 |     |             |         |                |
|             | -                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                             |                         |              |                  |            | ]    |           |             |                 |     |             |         |                |
| -<br>- 7    | -26                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
|             |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
| Γ<br>Γ<br>Γ | -27                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
|             |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         | ~              |
|             | -28                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
| -9          |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
|             | - 29                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
| -r-<br>-    |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
|             |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
| RI          | G: Edso                                                                                                                                                                                                                                                                                                                                                  | on 3000 DRILL                                                                                                                                               | ER: APS                 |              | to 00.0          | L          | .og  | GED: SI   |             | CASI            | NG: | HW          | to 3.0  | )5m            |
| W           | IPE OF BORING: Solid flight auger to 3.05m; INNLC-Coring to 23.0m<br>IATER OBSERVATIONS: No free groundwater observed during augering<br>EMARKS: Standpipe installed to 18.0m                                                                                                                                                                            |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
| A D B U S C | SAMPLING & IN SITU TESTING LEGEND         Auger sample       pp       Pocket penetrometer (kPa)         Disturbed sample       PID       Photo ionisation detector         Bulk sample (x mm dia.)       PL       Point load strength Is(50) MPa         Water sample       V       Stear Vane (kPa)         Water sample       V       Stear Vane (kPa) |                                                                                                                                                             |                         |              |                  |            |      |           |             |                 |     |             |         |                |
|             |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                             |                         | _            |                  | <u> </u>   |      | · · · · · |             |                 |     |             |         | wi vunuwa      |

Captain Developments C/- MacLeod Consultants ISURFACE LEVEL: 22.4 AHD CLIENT: Proposed Commercial & Residential DevelopmentEASTING: PROJECT:

.

LOCATION: 13 Norfolk Street, Liverpool NORTHING: DIP/AZIMUTH: 90°/-- BORE No: 2A PROJECT No: 44224 DATE: 25 Aug 06 SHEET 1 OF 1

|    |       | Description                                                                               | lic          | Sam  |       | ampling & In Situ Testing |                    |      | Well         |   |  |
|----|-------|-------------------------------------------------------------------------------------------|--------------|------|-------|---------------------------|--------------------|------|--------------|---|--|
| Ъ  | (m)   | of<br>Strata                                                                              | Grapl        | lype | Jepth | ample                     | Results & Comments | Wate | Construction | ı |  |
| ╞  |       | CONCRETE                                                                                  | 4.4.         |      |       | Š                         |                    |      | Details      |   |  |
|    | _     |                                                                                           | 0 0<br>0 0   |      |       |                           |                    |      |              |   |  |
|    |       |                                                                                           | D D<br>D D   |      |       |                           |                    | 1    |              |   |  |
|    | 0.18  | FILLING - brown to yellow brown gravelly sandy clay<br>filling, with some sand and gravel |              |      |       |                           |                    |      |              |   |  |
|    |       |                                                                                           |              |      | 0.2   |                           |                    |      |              |   |  |
|    |       |                                                                                           |              | Â    | 0.5   |                           |                    |      |              |   |  |
| -8 | 0.4   | SILTY CLAY - red brown mottled grey and yellow brown                                      | $\mathbb{R}$ |      |       |                           |                    |      | -            |   |  |
|    |       | silty clay                                                                                |              |      |       |                           |                    |      |              |   |  |
|    |       |                                                                                           |              |      | 0.5   |                           |                    |      |              |   |  |
| ŀ  |       |                                                                                           | VI           |      |       |                           |                    |      |              |   |  |
|    |       |                                                                                           | 1/1          | 1    |       |                           |                    |      |              |   |  |
| ľ  |       |                                                                                           |              | 1    |       |                           |                    |      |              |   |  |
| ŀ  |       |                                                                                           |              | 1    |       |                           |                    |      |              |   |  |
|    |       |                                                                                           |              | 1    |       |                           |                    |      |              |   |  |
| Ī  |       |                                                                                           | 1/1          |      |       |                           |                    |      |              |   |  |
| ł  | -1    |                                                                                           | 1/1          | ] A  | 1.0   |                           |                    |      | - 1          |   |  |
|    |       |                                                                                           | 1/V          | ]    |       |                           |                    |      |              |   |  |
| Ì  |       |                                                                                           | VV           |      |       |                           |                    |      |              |   |  |
| ŀ  | ŀ     |                                                                                           |              |      |       |                           |                    |      |              |   |  |
|    |       |                                                                                           |              |      |       |                           |                    |      |              |   |  |
|    | - 1.3 | SILTY CLAY - hard, light grey mottled yellow and red                                      | 1/1          |      |       |                           |                    |      |              |   |  |
| -₽ | i-    |                                                                                           | 1/V          | ]    |       |                           | 1                  |      |              |   |  |
|    |       |                                                                                           |              |      |       |                           |                    |      |              |   |  |
| ŀ  | - 1.5 | Bore discontinued at 1.5m                                                                 | <u> </u>     | -    | 1.5   |                           |                    | +    |              |   |  |
| ŀ  |       | - target depth reached                                                                    |              |      |       |                           |                    |      |              |   |  |
|    |       |                                                                                           |              |      | ļ     |                           |                    |      |              |   |  |
| ŀ  | -     |                                                                                           |              |      |       |                           |                    |      | -            |   |  |
|    | -     |                                                                                           |              |      |       |                           |                    |      |              |   |  |
|    |       |                                                                                           |              |      |       |                           |                    |      |              |   |  |
| ł  |       | 1                                                                                         |              |      |       |                           |                    |      |              |   |  |
|    |       |                                                                                           |              |      |       |                           |                    |      |              |   |  |

RIG: Edson 3000

DRILLER: APS

LOGGED: KP

CASING: Uncased

TYPE OF BORING: Solid flight auger WATER OBSERVATIONS: No free groundwater observed

REMARKS:



CLIENT: Captain Developments C/- MacLeod Consultants FSURFACE LEVEL: 22.4 AHD PROJECT: Proposed Commercial & Residential DevelopmentEASTING:

### LOCATION: 13 Norfolk Street, Liverpool

## iverpool NORTHING:

NORTHING: DIP/AZIMUTH: 90°/-- BORE No: 2 PROJECT No: 44224 DATE: SHEET 1 OF 3

| Γ   |                | Description                                                                                                                                                                        | Degree of<br>Weathering | <u>.</u>                              | Rock<br>Strength | Fracture             | Discontinuities                                                                                                                              | Sa         | mplir      | ng & I  | In Situ Testing    |
|-----|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------|------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|---------|--------------------|
| 뭅   | Depth          | of                                                                                                                                                                                 | Teamering               | Log                                   |                  | Spacing<br>(m)       | B - Bedding J - Joint                                                                                                                        | g          | <u>و</u> % | Q .     | Test Results       |
| L   |                | Strata                                                                                                                                                                             | WH W S S E              | 9                                     |                  | 0.10<br>0.10<br>1.00 | S - Shear D - Drill Break                                                                                                                    | 2          | ပိမ္ဆိ     | R0<br>% | &<br>Comments      |
|     | 0.1            | CONCRETE     FILLING - brown to yellow brown     gravelly sandy clay filing, with     some sand and gravel     SILTY CLAY - red brown mottled     grey and yellow brown silty clay |                         |                                       |                  |                      |                                                                                                                                              | <b>,</b> - |            |         |                    |
| 21  |                | 3 SILTY CLAY - hard, light grey<br>mottled yellow and red brown silty<br>clay, with ironstone gravel                                                                               |                         |                                       |                  |                      |                                                                                                                                              | s          |            |         | 10,16,23<br>N = 39 |
|     | -2             |                                                                                                                                                                                    |                         |                                       |                  |                      | Note: Unless otherwise<br>stated, rock is fractured<br>along rough planar<br>bedding planes or joints<br>dipping at 0°- 10°                  |            |            |         |                    |
| 19  | -3             | SHALE - very low strength, highly<br>and moderately weathered, light<br>grey and red brown (ironstained)<br>shale. Some medium strength<br>ironstone bands                         |                         |                                       |                  |                      | 3.74m: J25° rough                                                                                                                            |            |            |         |                    |
| 19  | -4 4.0:        | 2 SHALE - low strength, highly to<br>moderately weathered, slightly<br>fractured, grey and yellow brown<br>shale                                                                   |                         |                                       |                  |                      | 3.93m: J25° rough, with<br>clay<br>4.07m: J90° ironstained<br>4.5m: J45° (possibly),<br>ironstained<br>4.55m: B0° ironstained<br>4.72m: J45° | С          | 100        | 63      | PL(A) = 0.2MPa     |
| 14  | 51             | LAMINITE - moderately then very<br>high strength, slightly weathered<br>and fresh, slightly fractured, light<br>grey brown laminite (interbedded<br>sandstone 60%, shale 40%)      |                         |                                       |                  |                      | T. / 2111. 0TU                                                                                                                               | -          |            |         | PL(A) = 3.9MPa     |
| 16  | -6<br>6.6      | SHALE - medium strength, slightly<br>weathered, slightly fractured, grey<br>shale                                                                                                  |                         |                                       |                  |                      |                                                                                                                                              |            |            |         | PL(A) = 0.7MPa     |
| 15  | -7             | weathered, slightly fractured, grey<br>laminite (approximately<br>interbedded sandstone 25%, shale<br>75%)                                                                         |                         | · · · · · · · · · · · · · · · · · · · |                  |                      |                                                                                                                                              | с          | 100        | 90      | PL(A) = 1.7MPa     |
|     | -8 8.0<br>8,58 | SHALE - low to medium then<br>medium strength, highly to<br>moderately then slightly weathered,<br>slightly fractured, grey shale<br>8.03-8.10m; calcareous shale band             |                         |                                       |                  |                      | 8.03-8.10m: shear zone<br>(possibly) & calcareous<br>8.35m: J35° smooth                                                                      |            |            |         | PL(A) = 0.5MPa     |
|     | -9             | LAMINITE - high strength, slightly<br>fractured, slightly weathered, light<br>grey laminite (approximately<br>interbedded sandstone 40%, shale<br>60%)                             |                         |                                       |                  |                      |                                                                                                                                              | с          | 100        | 97      | PL(A) = 2.8MPa     |
| RIC | G: Eds         | on 3000 DRILL                                                                                                                                                                      | ER: APS                 |                                       | LOG              | GED: SI              | CASI                                                                                                                                         | NG:        | HW 1       | to 2.7  | ′5m                |

RIG: Edson 3000DRILLER: APSTYPE OF BORING: Solid flight auger to 2.75m; NMLC-Coring to 22.75mWATER OBSERVATIONS: No free groundwater observed during augeringREMARKS:

| SAMPLING & IN SITU TESTING LEGEND           A         Auger sample         pp         Pocket penetrometer (kPa)           D         Disturbed sample         PID         Photo lonisation detector           B         Bulk sample         Standard penetration test           U,         Tube sample (x mm dia.)         PL         Point load strength Is(50) MPa           W         Water sample         V         Shear Vane (kPa)           C         Ore diffling         D         Water seep ¥ Water level | CHECKED<br>Initials://P<br>Date: 1/10/00 Douglas Partners<br>Gentechnics - Environment - Groundwater |
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DIP/AZIMUTH: 90°/--

 CLIENT:
 Captain Developments C/- MacLeod Consultants RSURFACE LEVEL: 22.4 AHD

 PROJECT:
 Proposed Commercial & Residential DevelopmentEASTING:

 LOCATION:
 13 Norfolk Street, Liverpool

 NORTHING:

| BORE No: 2         |       |
|--------------------|-------|
| <b>PROJECT No:</b> | 44224 |
| DATE:              |       |
| SHEET 2 OF         | 3     |

|                                       |                                     | Description                                                                                                                                                                                                                                                                                                  | Degree of Weathering    | Rock<br>Strenath                        | Fracture       | Discontinuities                                                                                                          | Sa   | mplir          | 1g & 1   | n Situ Testing                   |
|---------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------|------|----------------|----------|----------------------------------|
| RL                                    | Depth<br>(m)                        | of<br>Strata                                                                                                                                                                                                                                                                                                 | HW<br>MW<br>FR<br>Graph | Log<br>Low<br>Medium<br>High<br>Ex High | Spacing<br>(m) | B - Bedding J - Joint<br>S - Shear D - Drill Break                                                                       | Type | Core<br>Rec. % | RQD<br>% | Test Results<br>&<br>Comments    |
| 11 12 12 12 12 12 12                  | 10.0<br>10.75<br>- 11               | LAMINITE - medium then high<br>strength, slightly fractured, slightly<br>weathered, grey laminite<br>(approximately interbedded<br>sandstone 40%, shale 60%)<br>SHALE - medium to high strength,<br>slightly weathered, slightly<br>fractured, grey shale                                                    |                         |                                         |                | 10.54m: B10°<br>calcareous band<br>11.33m: B0°- 5°                                                                       | С    | 100            | 97       | PL(A) = 1.2MPa                   |
| 10                                    | - 11.75<br>- 12<br>- 12.2<br>- 13   | SANDSTONE - high strength,<br>slightly weathered, slightly<br>fractured, grey fine grained<br>sandstone<br>SHALE - high then medium<br>strength, slightly weathered,<br>fragmented, fractured and slightly<br>fractured, grey to black shale with<br>low strength coal seams                                 |                         |                                         |                |                                                                                                                          |      |                |          | PL(A) = 1.1MPa<br>PL(A) = 1.1MPa |
| · · · · · · · · · · · · · · · · · · · | - 14<br>- 14.15                     | SANDSTONE - very high strength,<br>fresh, slightly fractured and<br>unbroken, light grey fine grained<br>sandstone                                                                                                                                                                                           |                         |                                         |                | 13.07m: B0°, 5mm clay<br>13.54m: J40° smooth &<br>slickensided<br>13.64-13.70m:<br>calcareous shale band<br>or coal seam | C    | 100            | 81       | PL(A) = 0.6MPa<br>PL(A) = 3MPa   |
| <u></u>                               | - 15<br>15<br>                      | 15.72-15.74m: low strength shale band                                                                                                                                                                                                                                                                        |                         |                                         |                | 15.13m: 2 x J25°, 90°,<br>healed<br>↓15.75m: J20°<br>↓15.77m: J90° healed                                                | c    | 100            | 97       | PL(A) = 4.2MPa                   |
| 9<br>9<br>5                           | -<br>- 17 <sup>16,95</sup>          | LAMINITE - high strength, fresh,<br>slightly fractured, light grey laminite<br>(approximately interbedded<br>sandstone 60%, shale 40%)                                                                                                                                                                       |                         |                                         |                |                                                                                                                          |      |                |          | PL(A) = 5.5MPa<br>PL(A) = 1.6MPa |
| 3 4                                   | 17.8<br>- 18<br>- 18.88<br>- 19<br> | LAMINITE - very high then high<br>strength, fresh, slightly fractured,<br>light grey laminite (approximately<br>interbedded sandstone 80%, shale<br>20%)<br>LAMINITE - high strength, fresh,<br>slightly fractured and unbroken,<br>grey laminite (approximately<br>interbedded sandstone 50%, shale<br>50%) |                         |                                         |                | 18.08-18.11m:<br>calcareous shale band<br>18.51m: J85° healed                                                            | С    | 100            | 99       | PL(A) = 2.1MPa<br>PL(A) = 2.2MPa |

RIG: Edson 3000 DRILLER: APS TYPE OF BORING: Solid flight auger to 2.75m; NMLC-Coring to 22.75m WATER OBSERVATIONS: No free groundwater observed during augering REMARKS:

| <u>ر</u>   | SAMPLING & II                                                                                               | N SITU TESTING LEGEND                                                                                                                                                                 | CHECKED   | 1 |                                                                    |
|------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|--------------------------------------------------------------------|
| ADBU<br>WC | Auger sample<br>Disturbed sample<br>Bulk sample<br>Tube sample (x mm dia.)<br>Water sample<br>Core drilling | pp Pockel penetrometer (kPa)<br>PID Photo ionisation detector<br>S Standard penetration test<br>PL Point load strength Is(50) MPa<br>V Shear Vane (kPa)<br>▷ Water seep ₹ Water level | Initials: | Ø | <b>Douglas Partners</b><br>Geotechnics • Environment • Groundwater |

LOGGED: SI

CASING: HW to 2.75m

| CLIENT:   | C |
|-----------|---|
| PROJECT:  | F |
| LOCATION: | 1 |

### Captain Developments C/- MacLeod Consultants BURFACE LEVEL: 22.4 AHD Proposed Commercial & Residential DevelopmentEASTING: : 13 Norfolk Street, Liverpool NORTHING: DIP/AZIMUTH: 90°/--

BORE No: 2 PROJECT No: 44224 DATE: SHEET 3 OF 3

| Γ  |                                                                                                                                 | Description                                                                                                                                                  | Degree of<br>Weathering | .9                                    | Rock<br>Strenath |      | Fracture       | Discontinuities                                    | Sa   | mpli           | ng &     | In Situ Testing               |
|----|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------|------------------|------|----------------|----------------------------------------------------|------|----------------|----------|-------------------------------|
| ā  | Depth<br>(m)                                                                                                                    | of<br>Strata                                                                                                                                                 | HW<br>MW<br>FS<br>FS    | Graph<br>Log                          |                  | Wate | Spacing<br>(m) | B - Bedding J - Joint<br>S - Shear D - Drill Break | Type | Core<br>Rec. % | RQD<br>% | Test Results<br>&<br>Comments |
|    |                                                                                                                                 | LAMINITE - high strength, fresh,<br>slightly fractured and unbroken,<br>grey laminite (approximately<br>interbedded sandstone 50%, shale<br>50%) (continued) |                         |                                       |                  |      |                |                                                    | с    | 100            | 99       | PL(A) = 1.4MPa                |
|    | 20.85<br>-21                                                                                                                    | LAMINITE - very high strength,<br>fresh, slightly fractured, light grey<br>laminite (approximately<br>interbedded sandstone 80%, shale<br>20%)               |                         |                                       |                  |      |                | 20.78m: J60° rough                                 |      |                |          | PL(A) = 3.3MPa                |
|    | -22                                                                                                                             | LAMINITE - high strength, fresh,<br>slightly fractured, light grey laminite<br>(approximately interbedded<br>sandstone 40%, shale 60%)                       |                         | · · · · · · · · · · · · · · · · · · · |                  |      |                | 21.83m: B0° along<br>calcareous shale band         | C    | 100            | 100      | PL(A) = 1MPa                  |
| Ē  | 22.75                                                                                                                           | Bore discontinued at 22.75m                                                                                                                                  | <u>┤┤</u> ┧┥┥           | <u> </u>                              |                  | ┤┝   |                |                                                    |      |                |          |                               |
|    | -24<br>-25<br>-26<br>-27                                                                                                        | Bore discontinued at 22.75m                                                                                                                                  |                         |                                       |                  |      |                |                                                    |      |                |          |                               |
|    | -<br>- 28<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-                        |                                                                                                                                                              |                         |                                       |                  |      |                |                                                    |      |                |          |                               |
| ŀ  | Ę                                                                                                                               |                                                                                                                                                              |                         |                                       |                  |      |                |                                                    |      |                |          |                               |
| RI | IG: Edson 3000 DRILLER: APS LOGGED: SI CASING: HW to 2.75m<br>YPE OF BORING: Solid flight auger to 2.75m; NMLC-Coring to 22.75m |                                                                                                                                                              |                         |                                       |                  |      |                |                                                    |      |                |          |                               |

WATER OBSERVATIONS: No free groundwater observed during augering REMARKS:

| SAMPLING & IN SITU TESTING LEGEND       A     Auger sample     pp     Pocket penetrometer (kPa)       D     Disturbed sample     PID     Photo ionisation detector       B     Bulk sample     Standard penetration test       U     Tube sample (x mm dia.)     PL     Point load strength is(50) MPa       W     Water sample     V     Shear Vane (kPa)       C     Core drilling     V     Water seep | CHECKED<br>Initials: 12<br>Date: 31 1 01 00 Douglas Partners<br>Geotechnics · Environment · Groundwater |
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CLIENT: Captain Developments C/- MacLeod Consultants FSURFACE LEVEL: 23.2 AHD PROJECT: Proposed Commercial & Residential DevelopmentEASTING:

## LOCATION: 13 Norfolk Street, Liverpool

NORTHING: DIP/AZIMUTH: 90°/-- BORE No: 4A PROJECT No: 44224 DATE: 25 Aug 06 SHEET 1 OF 1

|         | <b>D</b>     | Description                                                                                                      | ji<br>L      |         | Sam   | ipling &  | & In Situ Testing     | Well |                         |  |
|---------|--------------|------------------------------------------------------------------------------------------------------------------|--------------|---------|-------|-----------|-----------------------|------|-------------------------|--|
| RL      | Uepth<br>(m) | of<br>Strata                                                                                                     | Graph<br>Log | Type    | Depth | Sample    | Results &<br>Comments | Wate | Construction<br>Details |  |
| 23      | - 0.2        | TOPSOIL - brown silty clay topsoil with organic matter,<br>rootlets and trace sand and gravel (grass at surface) |              | A       | 0.1   |           |                       |      | -                       |  |
|         |              |                                                                                                                  |              |         | 0.5   |           |                       |      |                         |  |
|         | -            |                                                                                                                  |              |         | 0.0   |           |                       |      |                         |  |
| -       | - 1<br>- 1.1 | SHALY CLAY - very stiff, light grey mottled red brown shaly clay                                                 |              | А       | 1.0   |           |                       |      | -1                      |  |
| -82     |              |                                                                                                                  |              |         |       |           |                       |      |                         |  |
|         | 1.0          | Bore discontinued at 1.5m<br>- target depth reached                                                              |              |         |       |           |                       |      |                         |  |
| RI      | G: Eds       | on 3000 DRILLER: APS                                                                                             |              | <br>L.C | GGE   | <br>D: КF | >                     | CA   | SING: Uncased           |  |
| T)<br>W | PE OF        | BORING: Solid flight auger<br>BSERVATIONS: No free groundwater observed                                          |              |         |       |           |                       |      |                         |  |
| RI      | EMARKS       | S:                                                                                                               |              |         |       |           |                       |      |                         |  |



DIP/AZIMUTH: 90°/--

CLIENT:Captain Developments C/- MacLeod Consultants ISURFACE LEVEL: 23.2 AHDPROJECT:Proposed Commercial & Residential DevelopmentEASTING:LOCATION:13 Norfolk Street, LiverpoolNORTHING:

BORE No: 4 PROJECT No: 44224 DATE: 23 Aug 06 SHEET 1 OF 3

|                                           |                      | Description                                                                                                                                                                                                                                                                                    | Degree of       | Rock<br>Strength | Fracture       | Discontinuities                                                                                                                                     | Sar  | nplin          | g & I    | n Situ Testing                                     |
|-------------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|----------|----------------------------------------------------|
| RL                                        | Depth<br>(m)         | of<br>Strata                                                                                                                                                                                                                                                                                   | Graphi function |                  | Spacing<br>(m) | B - Bedding J - Joint<br>S - Shear D - Drill Break                                                                                                  | Type | Core<br>Rec. % | RQD<br>% | Test Results<br>&<br>Comments                      |
| 22                                        | -1 1.1               | TOPSOIL - brown silty clay topsoil<br>with grass rootlets, and trace of<br><u>sand and gravel (grass at surface)</u><br>SILTY CLAY - red brown mottled<br>grey silty clay<br>SHALY CLAY - very stiff, light grey<br>mottled red brown shaly clay                                               |                 |                  |                | Note: Unless otherwise<br>stated, rock is fractured<br>along smooth planar<br>bedding planes dipping<br>at 0°- 10° & joints                         |      |                |          |                                                    |
| 20 21                                     | 3                    | SHALE - very low strength, highly<br>weathered, light grey shale with<br>medium strength ironstone bands                                                                                                                                                                                       |                 |                  |                | 2.05-7.0m: rock<br>fractured along rough,<br>irregular ironstained<br>planar bedding planes or<br>joints dipping at 0°- 10°                         | С    | 100            | 41       | pp = 340kPa<br>pp = 230kPa<br>pp = 340kPa          |
| 18 19 19 19 19 19 19 19 19 19 19 19 19 19 | - 3.82               | SHALE - very low then low to<br>medium strength, highly then<br>stightly weathered, grey and yellow<br>brown shale                                                                                                                                                                             |                 |                  |                | (*3.64m; J880° rough<br>*3.72m: J85° rough                                                                                                          |      |                |          | pp = 100kPa<br>PL(A) = 1.2MPa                      |
|                                           | -6<br>-6<br>-7       | SILTSTONE - high strength, fresh<br>stained, slightly fractured, grey<br>brown siltstone<br>SHALE - medium and high<br>strength, fresh stained and slightly<br>weathered, fractured to slightly<br>fractured, grey shale                                                                       |                 |                  |                | 6.36m: J25° ironstained,<br>with clay                                                                                                               | с    | 100            | 81       | PL(A) = 0.3MPa<br>PL(A) = 0.7MPa                   |
|                                           | - 8<br>2<br>8.7<br>9 | SHALE - medium strength, slightly<br>weathered, slightly fractured, grey<br>shale with calcareous band at<br><u>8.35m</u><br>LAMINITE - medium to high<br>strength, slightly weathered, slightly<br>fractured and unbroken, grey to<br>grey laminite (interbedded<br>sandstone 40%, shale 60%) |                 |                  |                | 8m: B0° 10mm clay<br>8.19m: J45°<br>Slickensided<br>8.33m: J45°<br>Slickensided<br>8.5m: J45° slickensided<br>9.0-11.0m: drilling<br>induced breaks | c    | 100            | 93       | PL(A) = 2.7MPa<br>PL(A) = 0.4MPa<br>PL(A) = 3.1MPa |

RIG: Edson 3000

DRILLER: APS

LOGGED: SI

CASING: HW to 2.05m

TYPE OF BORING: Solid flight auger to 2.05m; NMLC-Coring to 23.0m WATER OBSERVATIONS: No free groundwater observed during augering REMARKS:

| SAMPLING & IN SITU TESTING LEGEND           A         Auger sample         pp         Pocket penetrometer (kPa)           D         Disturbed sample         PID         Photo ionisation detector           B         Bulk sample         S         Standard penetration test           U,         Tube sample (x mm dia.)         PL         Point load strength Is(50) MPa           W         Water sample         V         Shear Vane (kPa)           C         Core drilling         P         Water seep | CHECKED<br>Initials: R<br>Date: 31 (01 OG) Date: 31 (01 OG) Date: 31 (01 OG) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|

Captain Developments C/- MacLeod Consultants PSURFACE LEVEL: 23.2 AHD Proposed Commercial & Residential DevelopmentEASTING: LOCATION:

BORE No: 4 PROJECT No: 44224 DATE: 23 Aug 06 SHEET 2 OF 3

### 13 Norfolk Street, Liverpool

### NORTHING: DIP/AZIMUTH: 90°/---

|                                       |                        | Description                                                                                                                                                                      | Degree of<br>Weathering | <u>.</u>   | Rock                                       |                  | Fracture       | Discontinuities                                                                                                                                                                              | Sa  | mplin   | ıg & I      | n Situ Testing                 |
|---------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------|--------------------------------------------|------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|-------------|--------------------------------|
| Ъ                                     | Depth<br>(m)           | of                                                                                                                                                                               |                         | apl<br>Log |                                            |                  | Spacing<br>(m) | B - Bedding J - Joint                                                                                                                                                                        | зе  | ы<br>В  | <b>Q</b> ., | Test Results                   |
|                                       |                        | Strata                                                                                                                                                                           | MAN MAR                 | 0<br>0     | (2)에 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 | 10               | 82 98          | S - Shear D - Drill Break                                                                                                                                                                    | Ţ   | ပိမ္ဆို | 5×          | &<br>Comments                  |
| 13                                    | - 11                   | LAMINITE - medium to high<br>strength, slightly weathered, slightly<br>fractured and unbroken, grey to<br>grey laminite (interbedded<br>sandstone 40%, shale 60%)<br>(continued) |                         |            |                                            |                  |                |                                                                                                                                                                                              | с   | 100     | 93          | PL(A) = 1MPa                   |
| 12.                                   | 11.4                   | SANDSTONE - very high strength,<br>fresh, slightly fractured, light grey<br>fine grained sandstone                                                                               |                         |            |                                            |                  |                | 11.18m: J0°- 5° along<br>↓thin coal seam<br>↓11.3m: J45° smooth<br>↓11.46m: J0° along thin<br>coal seam                                                                                      | С   | 100     | 96          | PL(A) = 5.1MPa                 |
|                                       | - 12<br>- 12<br>- 12.6 |                                                                                                                                                                                  |                         |            |                                            |                  |                | 12.23m: J0°- 5°<br>conchoidal along coal<br>seam                                                                                                                                             |     |         |             | PL(A) = 3.7MPa                 |
| 10                                    | - 13                   | LAMINITE - high strength, fresh,<br>slightly fractured, light grey and<br>grey laminite (interbedded sand<br>80%, shale 20%)                                                     |                         |            |                                            |                  |                | 12.64m: J0°- 5°<br>slickensided                                                                                                                                                              | С   | 100     | 87          | PL(A) = 2.3MPa                 |
| 6                                     |                        | SHALE - low to medium then high<br>strength, slightly weathered,<br>fractured to slightly fractured, grey<br>shale.<br>Some very low strength bands                              |                         |            |                                            |                  |                | 14.11m: J5° along coal<br>seam<br>14.25m: J30°<br>slickensided<br>14.27m: J25°<br>slickensided                                                                                               |     |         |             | PL(A) = 0.6MPa                 |
| 4 4                                   | - 15 15.05<br>         | SANDSTONE - very high strength,<br>fresh, slightly fractured and<br>unbroken, light grey, fine grained<br>sandstone.<br>Some shale bands                                         |                         |            |                                            |                  |                | 14.32m; J45°<br>slickensided<br>14.38m; J60° conchoidal<br>& slickensided<br>14.45m; J45°<br>slickensided<br>14.5m; J45°<br>slickensided<br>14.62m; J30°-45°<br>conchoidal &<br>slickensided | С   | 100     | 100         | PL(A) = 4.2MPa                 |
| 9                                     | - 17                   |                                                                                                                                                                                  |                         |            |                                            | 1<br>1<br>1<br>1 |                | 14.89m: J0°- 5°<br>slickensided<br>15.75m: B15°<br>16.26m: J85°- 90°<br>healed<br>16.36m: J85° healed                                                                                        |     |         |             | PL(A) = 3.9MPa                 |
|                                       | - 18                   | LAMINITE - very high then high<br>strength, fresh, slightly fractured,<br>light grey to grey laminite<br>(interbedded sandstone 80%, shale<br>20%)                               |                         |            |                                            |                  |                |                                                                                                                                                                                              |     |         | · · · ·     | PL(A) = 4.8MPa<br>PL(A) = 1MPa |
| * * * * * * * * * * * * * * * * * * * | - 18.85<br>- 19<br>-   | LAMINITE - high strength, fresh,<br>slightly fractured and unbroken,<br>light grey and grey laminite<br>(interbedded sandstone 60%, shale<br>40%)                                |                         |            |                                            |                  |                | 18.86m: J20° smooth                                                                                                                                                                          | C   | 100     | 100         | PL(A) = 1.4MPa                 |
| RI                                    | G: Edso                | on 3000 DRILL                                                                                                                                                                    | ER: APS                 |            | LO                                         | G                | GED: SI        | CASI                                                                                                                                                                                         | NG: | нw      | to 2.0      | 05m                            |

RIG: Edson 3000 DRILLER: APS TYPE OF BORING: Solid flight auger to 2.05m; NMLC-Coring to 23.0m WATER OBSERVATIONS: No free groundwater observed during augering REMARKS:

| SAMPLING & IN SITU TESTING LEGEND           A         Auger sample         pp         Pocket penetrometer (kPa)           D         Disturbed sample         PID         Photo ionisation detector           B         Bulk sample         S         Standard penetration test           U,         Tube sample (x mm dia.)         PL         Point load strength (s(50) MPa           W         Water sample         V         Shear Vane (kPa)           C         Core drilling         D         Water seep | CHECKED       Dittals:       Douglas Partners         Initials:       Douglas Partners         Date:       3 (d o) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|

CLIENT: PROJECT:

CLIENT: Captain Developments C/- MacLeod Consultants RS/URFACE LEVEL: 23.2 AHD PROJECT: Proposed Commercial & Residential DevelopmentEASTING: BORE No: 4 PROJECT No: 44224 DATE: 23 Aug 06 SHEET 3 OF 3

### LOCATION: 13 Norfolk Street, Liverpool

### NORTHING: DIP/AZIMUTH: 90°/--

|               | <b>D</b>                     | Description                                                                                                                                                   | Degree of<br>Weathering        | ņ                                     | Rock<br>Strength | Fracture                    | Discontinuities                                    | Sampling a |                |          | & In Situ Testing             |  |
|---------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------|------------------|-----------------------------|----------------------------------------------------|------------|----------------|----------|-------------------------------|--|
| RL            | Uepth<br>(m)                 | of<br>Strata                                                                                                                                                  | A A A A A A                    | Grapt                                 | Wate             | Spacing<br>(m)<br>ଅଟ୍ଟେମ୍ବର | B - Bedding J - Joint<br>S - Shear D - Drill Break | Type       | Core<br>Rec. % | RQD<br>% | Test Results<br>&<br>Comments |  |
| 1 2 2 2       |                              | LAMINITE - high strength, fresh,<br>slightly fractured and unbroken,<br>light grey and grey laminite<br>(interbedded sandstone 60%, shale<br>40%) (continued) | <u>     </u>                   | ·<br>· · · · ·<br>· · · · ·           |                  |                             |                                                    | с          | 100            | 100      | Comments                      |  |
| 2             | -21                          | · · · · , ( · · · · · · · · · · · · · ·                                                                                                                       |                                | · · · · · · · · · · · · · · · · · · · |                  |                             |                                                    |            |                |          |                               |  |
|               | 21.5<br>-22 <sub>22.02</sub> | SANDSTONE - very high strength,<br>fresh, slightly fractured, light grey,<br>fine grained sandstone. Some thin<br>shale bands                                 |                                |                                       |                  |                             |                                                    | С          | 100            | 100      | PL(A) = 7.1MPa                |  |
|               |                              | LAMINTI E - high strength, tresh,<br>slightly fractured, light grey and<br>grey laminite (interbedded<br>sandstone 50%, shale 50%)                            |                                |                                       |                  |                             |                                                    |            |                |          | PL(A) = 1.7MPa                |  |
| -             | -23 23.0                     | Bore discontinued at 23.0m                                                                                                                                    |                                | · · · ·                               |                  | ! ! ! ! !<br>] ] ] ] ] ] ]  |                                                    |            |                |          |                               |  |
|               |                              |                                                                                                                                                               |                                |                                       |                  |                             |                                                    |            | ţ              |          |                               |  |
|               | - 24                         |                                                                                                                                                               |                                |                                       |                  |                             |                                                    |            |                |          |                               |  |
|               | -25                          | ۲.                                                                                                                                                            |                                |                                       |                  |                             |                                                    |            |                |          |                               |  |
|               | -26                          |                                                                                                                                                               |                                |                                       |                  |                             |                                                    |            |                |          |                               |  |
|               |                              |                                                                                                                                                               |                                |                                       |                  |                             | -                                                  |            |                |          |                               |  |
| **            | -27                          |                                                                                                                                                               |                                |                                       |                  |                             |                                                    |            |                |          |                               |  |
| · · · · · ·   | -28                          |                                                                                                                                                               |                                |                                       |                  |                             |                                                    |            |                |          |                               |  |
|               | -<br>-<br>-<br>- 29          |                                                                                                                                                               |                                |                                       |                  |                             |                                                    |            |                |          |                               |  |
| . g.          | •.<br>-<br>-<br>-<br>-       |                                                                                                                                                               |                                |                                       |                  |                             |                                                    |            | -              |          | 5<br>5                        |  |
| E<br>Ri<br>TY | G: Edso<br>PE OF I           | Don 3000 DRILL<br>BORING: Solid flight auger to 2.05r                                                                                                         | LIIIII<br>ER: APS<br>n; NMLC-C | Coring                                | LUC<br>to 23.0m  | GGED: SI                    | CASI                                               | NG:        | HW             | to 2.0   | l<br>05m                      |  |

REMARKS:

|        | SAMPLING & IN SI                       | <b>TU TE</b> | STING LEGEND                                            |     | CHECKED      | . | _        | _  | _ |                                          |
|--------|----------------------------------------|--------------|---------------------------------------------------------|-----|--------------|---|----------|----|---|------------------------------------------|
| A<br>D | Auger sample<br>Disturbed sample       | PP<br>PIC    | Pocket penetrometer (kPa)<br>Photo inclisation detector |     | ٤A           | 1 | <b>.</b> |    |   |                                          |
| Ĕ      | Bulk sample                            | Ś            | Standard penetration test                               | Į I | Initials: 🎁  |   | I 4      | Iλ | 1 | Develos Devtneve                         |
| u,     | Tube sample (x mm dia.)                | PL           | Point load strength Is(50) MPa                          | ۱ŀ  |              | ł | L V j    |    |   | Douglas Partners                         |
| č      | Core drilling                          | Þ            | Shear Vane (kPa)<br>Water seep ¥ Water level            | 11  | Date: 310106 | ļ |          | 12 |   | Geotechnice - Environment - Groundwater  |
| -      | ······································ |              |                                                         |     |              | 1 |          | -  |   | acoleonnoa · Linvironnient · Groundwaler |

APPENDIX E Laboratory Reports and Chain of Custody Information



# Envirolab Services Pty Ltd

*ABN* 37 112 535 645 54 Frenchs Rd Willoughby NSW 2068 ph 02 9958 5801 fax 02 9958 5803 email: tnotaras@envirolabservices.com.au

## CERTIFICATE OF ANALYSIS 6893

Client: Douglas Partners 96 Hermitage Rd West Ryde NSW 2114

Attention: Kurt Plambeck

### Sample log in details:

Your Reference: No. of samples: Date samples received: Date completed instructions received:

### 44224, Waste Classification Liverpool 6 Soils 25/08/06 25/08/06

### Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices. *Please refer to the last page of this report for any comments relating to the results.* 

 Report Details:
 1/09/06

 Date of Preliminary Report:
 Not Issued

 Issue Date:
 1/09/06

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 Tests not covered by NATA are denoted with \*.

**Results Approved By:** 

Jacinta/Hurst Operations Manager

Joshua Lim Chemist

Giovanni Agosti Senior Inorganic Chemist

Envirolab Reference: 6893 Revision No: R 00



Page 1 of 17

| vTPH & BTEX in Soil            |       |            |            |            |            |            |
|--------------------------------|-------|------------|------------|------------|------------|------------|
| Our Reference:                 | UNITS | 6893-1     | 6893-2     | 6893-3     | 6893-4     | 6893-5     |
| Your Reference                 |       | BH2A/0.3   | BH2A/1.5   | BH1A/0.5   | BH1A/1.0   | BH4A/0.1   |
| Type of sample                 |       | Soil       | Soil       | Soil       | Soil       | Soil       |
| Date extracted                 |       | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 |
| Date analysed                  |       | 30/08/2006 | 30/08/2006 | 30/08/2006 | 30/08/2006 | 30/08/2006 |
| VTPH C6 - C9                   | mg/kg | <25        | <25        | <25        | <25        | <25        |
| Benzene                        | mg/kg | <1.0       | <1.0       | <1.0       | <1.0       | <1.0       |
| Toluene                        | mg/kg | <1.0       | <1.0       | <1.0       | <1.0       | <1.0       |
| Ethylbenzene                   | mg/kg | <1.0       | <1.0       | <1.0       | <1.0       | <1.0       |
| m + p-Xylene                   | mg/kg | <2.0       | <2.0       | <2.0       | <2.0       | <2.0       |
| o-Xylene                       | mg/kg | <1.0       | <1.0       | <1.0       | <1.0       | <1.0       |
| Surrogate aaa-Trifluorotoluene | %     | 90         | 90         | 84         | 90         | 84         |

| vTPH & BTEX in Soil<br>Our Reference:<br>Your Reference<br>Type of sample | UNITS | 6893-6<br>BH4A/1.0<br>Soil |
|---------------------------------------------------------------------------|-------|----------------------------|
| Date extracted                                                            |       | 29/08/2006                 |
| Date analysed                                                             |       | 30/08/2006                 |
| vTPH C6 - C9                                                              | mg/kg | <25                        |
| Benzene                                                                   | mg/kg | <1.0                       |
| Toluene                                                                   | mg/kg | <1.0                       |
| Ethylbenzene                                                              | mg/kg | <1.0                       |
| m + p-Xylene                                                              | mg/kg | <2.0                       |
| o-Xylene                                                                  | mg/kg | <1.0                       |
| Surrogate aaa-Trifluorotoluene                                            | %     | 90                         |

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Envirolab Reference:6893Revision No:R 00

ACCREDITED FOR TECHNICAL COMPETENCE
| sTPH in Soil (C10-C36) |       |            |            |            |            |            |
|------------------------|-------|------------|------------|------------|------------|------------|
| Our Reference:         | UNITS | 6893-1     | 6893-2     | 6893-3     | 6893-4     | 6893-5     |
| Your Reference         |       | BH2A/0.3   | BH2A/1.5   | BH1A/0.5   | BH1A/1.0   | BH4A/0.1   |
| Type of sample         |       | Soil       | Soil       | Soil       | Soil       | Soil       |
| Date extracted         |       | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 |
| Date analysed          |       | 30/08/2006 | 30/08/2006 | 30/08/2006 | 30/08/2006 | 30/08/2006 |
| TPH C10 - C14          | mg/kg | <50        | <50        | <50        | <50        | <50        |
| TPH C15 - C28          | mg/kg | <100       | <100       | <100       | <100       | 2,400      |
| TPH C29 - C36          | mg/kg | <100       | <100       | <100       | <100       | 3,800      |
| Surrogate o-Terphenyl  | %     | 88         | 95         | 85         | 86         | 103        |

| sTPH in Soil (C10-C36) |       |            |
|------------------------|-------|------------|
| Our Reference:         | UNITS | 6893-6     |
| Your Reference         |       | BH4A/1.0   |
| Type of sample         |       | Soil       |
| Date extracted         |       | 29/08/2006 |
| Date analysed          |       | 30/08/2006 |
| TPH C10 - C14          | mg/kg | <50        |
| TPH C15 - C28          | mg/kg | <100       |
| TPH C29 - C35          | mg/kg | <100       |
| Surrogate o-Terphenyl  | %     | 95         |

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Envirolab Reference:6893Revision No:R 00



| PAHs in Soil              |       |            |            |            |            |            |
|---------------------------|-------|------------|------------|------------|------------|------------|
| Our Reference:            | UNITS | 6893-1     | 6893-2     | 6893-3     | 6893-4     | 6893-5     |
| Your Reference            |       | BH2A/0.3   | BH2A/1.5   | BH1A/0.5   | BH1A/1.0   | BH4A/0.1   |
| Type of sample            |       | Soil       | Soil       | Soil       | Soil       | Soil       |
| Date extracted            |       | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 |
| Date analysed             |       | 30/08/2006 | 30/08/2006 | 30/08/2006 | 30/08/2006 | 30/08/2006 |
| Naphthalene               | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Acenaphthylene            | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Acenaphthene              | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Fluorene                  | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Phenanthrene              | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Anthracene                | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Fluoranthene              | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Pyrene                    | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Benzo(a)anthracene        | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Chrysene                  | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Benzo(b,k)fluoranthene    | mg/kg | <0.20      | <0.20      | <0.20      | <0.20      | <0.20      |
| Benzo(a)pyrene            | mg/kg | <0.050     | <0.050     | <0.050     | <0.050     | <0.050     |
| Indeno(1,2,3-c,d)pyrene   | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Dibenzo(a,h)anthracene    | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Benzo(g,h,i)perylene      | mg/kg | <0.10      | <0.10      | <0.10      | <0.10      | <0.10      |
| Surrogate p-Terphenyl-d14 | %     | 127        | 124        | 129        | 132        | 125        |

| PAHs in Soil              |           |            |
|---------------------------|-----------|------------|
| Our Reference:            | UNITS     | 6893-6     |
| Your Reference            |           | BH4A/1.0   |
| Type of sample            | ********* | Soil       |
| Date extracted            |           | 29/08/2006 |
| Date analysed             |           | 30/08/2006 |
| Naphthalene               | mg/kg     | <0.10      |
| Acenaphthylene            | mg/kg     | <0.10      |
| Acenaphthene              | mg/kg     | <0.10      |
| Fluorene                  | mg/kg     | <0.10      |
| Phenanthrene              | mg/kg     | <0.10      |
| Anthracene                | mg/kg     | <0.10      |
| Fluoranthene              | mg/kg     | <0.10      |
| Pyrene                    | mg/kg     | <0.10      |
| Benzo(a)anthracene        | mg/kg     | <0.10      |
| Chrysene                  | mg/kg     | <0.10      |
| Benzo(b,k)fluoranthene    | mg/kg     | <0.20      |
| Benzo(a)pyrene            | mg/kg     | <0.050     |
| Indeno(1,2,3-c,d)pyrene   | mg/kg     | <0.10      |
| Dibenzo(a,h)anthracene    | mg/kg     | <0.10      |
| Benzo(g,h,i)perylene      | mg/kg     | <0.10      |
| Surrogate p-Terphenyl-d14 | %         | 125        |

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| Organochlorine Pesticides in soil |       |            |            |            |            |            |
|-----------------------------------|-------|------------|------------|------------|------------|------------|
| Our Reference:                    | UNITS | 6893-1     | 6893-2     | 6893-3     | 6893-4     | 6893-5     |
| Your Reference                    |       | BH2A/0.3   | BH2A/1.5   | BH1A/0.5   | BH1A/1.0   | BH4A/0.1   |
| Type of sample                    |       | Soil       | Soil       | Soil       | Soil       | Soil       |
| Date extracted                    |       | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 |
| Date analysed                     |       | 31/08/2006 | 31/08/2006 | 31/08/2006 | 31/08/2006 | 31/08/2006 |
| HCB                               | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| alpha-BHC                         | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| gamma-BHC                         | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| beta-BHC                          | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Heptachlor                        | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| delta-BHC                         | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Aldrin                            | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Heptachlor Epoxide                | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| gamma-Chlordane                   | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| alpha-chlordane                   | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Endosulfan I                      | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| pp-DDE                            | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Dieldrin                          | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Endrin                            | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| pp-DDD                            | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Endosulfan II                     | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| pp-DDT                            | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Endrin Aldehyde                   | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Endosulfan Sulphate               | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Methoxychlor                      | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Surrogate TCLMX                   | %     | 116        | 115        | 122        | 115        | 124        |

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| Organochlorine Pesticides in soil |       |            |
|-----------------------------------|-------|------------|
| Our Reference:                    | UNITS | 6893-6     |
| Your Reference                    |       | BH4A/1.0   |
| Type of sample                    |       | Soil       |
| Date extracted                    |       | 29/08/2006 |
| Date analysed                     |       | 31/08/2006 |
| HCB                               | mg/kg | <0.1       |
| alpha-BHC                         | mg/kg | <0.1       |
| gamma-BHC                         | mg/kg | <0.1       |
| beta-BHC                          | mg/kg | <0.1       |
| Heptachlor                        | mg/kg | <0.1       |
| delta-BHC                         | mg/kg | <0.1       |
| Aldrin                            | mg/kg | <0.1       |
| Heptachlor Epoxide                | mg/kg | <0.1       |
| gamma-Chlordane                   | mg/kg | <0.1       |
| alpha-chlordane                   | mg/kg | <0.1       |
| Endosulfan I                      | mg/kg | <0.1       |
| pp-DDE                            | mg/kg | <0.1       |
| Dieldrin                          | mg/kg | <0.1       |
| Endrin                            | mg/kg | <0.1       |
| pp-DDD                            | mg/kg | <0.1       |
| Endosulfan II                     | mg/kg | <0.1       |
| pp-DDT                            | mg/kg | <0.1       |
| Endrin Aldehyde                   | mg/kg | <0.1       |
| Endosulfan Sulphate               | mg/kg | <0.1       |
| Methoxychlor                      | mg/kg | <0.1       |
| Surrogate TCLMX                   | %     | 118        |

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| PCBs in Soil    |       |            |            |            |            |            |
|-----------------|-------|------------|------------|------------|------------|------------|
| Our Reference:  | UNITS | 6893-1     | 6893-2     | 6893-3     | 6893-4     | 6893-5     |
| Your Reference  |       | BH2A/0.3   | BH2A/1.5   | BH1A/0.5   | BH1A/1.0   | BH4A/0.1   |
| Type of sample  |       | Soil       | Soil       | Soit       | Soil       | Soil       |
| Date extracted  |       | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 | 29/08/2006 |
| Date analysed   |       | 31/08/2006 | 31/08/2006 | 31/08/2006 | 31/08/2006 | 31/08/2006 |
| Arochlor 1016   | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Arochlor 1232   | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Arochlor 1242   | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Arochlor 1248   | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Arochlor 1254   | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Arochlor 1260   | mg/kg | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       |
| Surrogate TCLMX | %     | 116        | 115        | 122        | 115        | 124        |

| PCBs in Soil<br>Our Reference:<br>Your Reference<br>Type of sample | UNITS | 6893-6<br>BH4A/1.0<br>Soil |
|--------------------------------------------------------------------|-------|----------------------------|
| Date extracted                                                     |       | 29/08/2006                 |
| Date analysed                                                      |       | 31/08/2006                 |
| Arochior 1016                                                      | mg/kg | <0.1                       |
| Arochlor 1232                                                      | mg/kg | <0.1                       |
| Arochlor 1242                                                      | mg/kg | <0.1                       |
| Arochlor 1248                                                      | mg/kg | <0.1                       |
| Arochlor 1254                                                      | mg/kg | <0.1                       |
| Arochlor 1260                                                      | mg/kg | <0.1                       |
| Surrogate TCLMX                                                    | %     | 118                        |

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| Total Phenolics in Soil     |       |          | :        |          |
|-----------------------------|-------|----------|----------|----------|
| Our Reference:              | UNITS | 6893-1   | 6893-3   | 6893-5   |
| Your Reference              |       | BH2A/0.3 | BH1A/0.5 | BH4A/0.1 |
| Type of sample              |       | Soil     | Soil     | Soil     |
| Total Phenolics (as Phenol) | mg/kg | <5.0     | <5.0     | <5.0     |

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| Acid Extractable metals in soil<br>Our Reference:<br>Your Reference<br>Type of sample | UNITS | 6893-1<br>BH2A/0.3<br>Soil | 6893-2<br>BH2A/1.5<br>Soil | 6893-3<br>BH1A/0.5<br>Soil | 6893-4<br>BH1A/1.0<br>Soil | 6893-5<br>BH4A/0.1<br>Soil |
|---------------------------------------------------------------------------------------|-------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Arsenic                                                                               | mg/kg | <4.0                       | 4.9                        | <4.0                       | 8.5                        | 5.5                        |
| Cadmium                                                                               | mg/kg | <1.0                       | <1.0                       | 1.9                        | <1.0                       | <1.0                       |
| Chromium                                                                              | mg/kg | 11                         | 9.4                        | 23                         | 14                         | 13                         |
| Copper                                                                                | mg/kg | 67                         | 10                         | 63                         | 12                         | 14                         |
| Lead                                                                                  | mg/kg | 49                         | 12                         | 14                         | 14                         | 75                         |
| Mercury                                                                               | mg/kg | <0.10                      | <0.10                      | <0.10                      | <0.10                      | 0.12                       |
| Nickel                                                                                | mg/kg | 64                         | 1.0                        | 60                         | 3.6                        | 6.4                        |
| Zinc                                                                                  | mg/kg | 33                         | 6.0                        | 46                         | 10                         | 92                         |

| UNITS | 6893-6    |
|-------|-----------|
|       | BH4A/1.0  |
|       | Soil      |
| mg/kg | 4.5       |
| mg/kg | <1.0      |
| mg/kg | 9.3       |
| mg/kg | 9.3       |
| mg/kg | 11        |
| mg/kg | <0.10     |
| mg/kg | <1.0      |
| mg/kg | 5.5       |
|       | UNITS<br> |

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| Miscellaneous Inorg - soil |       |          |          |          |
|----------------------------|-------|----------|----------|----------|
| Our Reference:             | UNITS | 6893-1   | 6893-3   | 6893-5   |
| Your Reference             |       | BH2A/0.3 | BH1A/0.5 | BH4A/0.1 |
| Type of sample             |       | Soil     | Soil     | Soil     |
| Total Cyanide              | mg/kg | <0.5     | <0.5     | <0.5     |

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| Moisture       |       |          |          |          |          |          |
|----------------|-------|----------|----------|----------|----------|----------|
| Our Reference: | UNITS | 6893-1   | 6893-2   | 6893-3   | 6893-4   | 6893-5   |
| Your Reference |       | BH2A/0.3 | BH2A/1.5 | BH1A/0.5 | BH1A/1.0 | BH4A/0.1 |
| Type of sample |       | Soil     | Soil     | Soil     | Soil     | Soil     |
| Moisture       | %     | 16       | 20       | 15       | 19       | 22       |

| Moisture       |       |          |
|----------------|-------|----------|
| Our Reference: | UNITS | 6893-6   |
| Your Reference |       | BH4A/1.0 |
| Type of sample |       | Soil     |
| Moisture       | %     | 18       |

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| Asbestos ID - soils |       | <u> </u>                             |                                      |
|---------------------|-------|--------------------------------------|--------------------------------------|
| Our Reference:      | UNITS | 6893-1                               | 6893-3                               |
| Your Reference      |       | BH2A/0.3                             | BH1A/0.5                             |
| Type of sample      |       | Soil                                 | Soil                                 |
| Sample Description  | -     | 40g sand and<br>rocks                | 40g sand and rocks                   |
| Asbestos ID in soil |       | No asbestos<br>detected              | No asbestos<br>detected              |
| Trace Analysis      |       | Respirable<br>fibres not<br>detected | Respirable<br>fibres not<br>detected |

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| Method ID | Methodology Summary                                                                                                                                                     |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GC.16     | Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. |
| GC.14     | Soil samples extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.                                                                  |
| GC.3      | Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.                                                         |
| GC.12     | Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.                                                          |
| GC-5      | Soil samples are extracted with hexane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.                                                      |
| GC-6      | Soil samples are extracted with hexane/acetone and waters with dichloromethane and analysed by GC-ECD.                                                                  |
| LAB.30    | Total Phenolics - determined colorimetrically following disitillation.                                                                                                  |
| Metals.20 | Determination of various metals by ICP-AES.                                                                                                                             |
| Metals.21 | Determination of Mercury by Cold Vapour AAS.                                                                                                                            |
| LAB.13    | Cyanide - determined colourimetrically, following distillation. Based on APHA 20th ED, 4500-CN_C,E.                                                                     |
| LAB.8     | Moisture content determined by heating at 105 deg C for a minimum of 4 hours.                                                                                           |
| ASB.1     | Qualitative identification of asbestos type fibres in bulk using Polarised Light Microscopy and Dispersion Staining Techniques.                                         |
| L         |                                                                                                                                                                         |

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| QUALITY CONTROL              | UNITS | PQL  | METHOD | Blank  | Duplicate Sm# | Duplicate results         | Spike Sm# | Spike %             |
|------------------------------|-------|------|--------|--------|---------------|---------------------------|-----------|---------------------|
| vTPH & BTEX in Soil          |       |      |        |        |               | Base II Duplicate II %RPD |           | Recovery            |
| Date extracted               |       |      |        |        |               | [NT]                      | [NR]      | [NR]                |
| Date analysed                |       |      |        | INTI   |               | [NT]                      | [NR]      | [NR]                |
| VTPH C6 - C9                 | ma/ka | 25   | GC.16  | <25    |               |                           | LCS       | 90%                 |
| Benzene                      | ma/ka | 1    | GC 14  | <1.0   |               | INTI                      |           | 86%                 |
| Toluene                      | ma/ka | 1    | GC 14  | <1.0   |               | [NT]                      | ICS       | 88%                 |
| Ethylbenzene                 | ma/ka | 1    | GC 14  | <1.0   |               | [NT]                      |           | 86%                 |
| m + n-Xvlene                 | ma/ka | 2    | GC 14  | <2.0   |               | [NT]                      | LCS       | 98%                 |
| o-Xvlene                     | ma/ka | - 1  | GC 14  | <1.0   |               | [NT]                      | LCS       | 93%                 |
| Surrogate                    | %     | •    | GC 14  | INTI   | INTI          |                           | LCS       | 97%                 |
| aaa-Trifluorotoluene         | ~     |      |        | [····] |               | []                        | 200       | 01,0                |
| QUALITY CONTROL              | UNITS | PQL  | METHOD | Blank  | Duplicate Sm# | Duplicate results         | Spike Sm# | Spike %<br>Recoverv |
| sTPH in Soil (C10-C36)       |       |      |        |        |               | Base II Duplicate II %RPD |           |                     |
| Date extracted               |       |      |        | [NT]   | [NT]          | [NT]                      | [NR]      | [NR]                |
| Date analysed                |       |      |        | [NT]   | [NT]          | [NT]                      | [NR]      | [NR]                |
| TPH C10 - C14                | mg/kg | 50   | GC.3   | <50    | [NT]          | [NT]                      | LCS       | 98%                 |
| TPH C15 - C28                | mg/kg | 100  | GC.3   | <100   | [NT]          | [NT]                      | LCS       | 85%                 |
| TPH C29 - C36                | mg/kg | 100  | GC.3   | <100   | [NT]          | [NT]                      | LCS       | 103%                |
| QUALITY CONTROL              | UNITS | PQL  | METHOD | Blank  | Duplicate Sm# | Duplicate results         | Spike Sm# | Spike %             |
| PAHs in Soil                 |       |      |        |        |               | Base II Duplicate II %RPD |           | Recovery            |
| Date extracted               |       |      |        | [NT]   | [NT]          | [NT]                      | [NR]      | [NR]                |
| Date analysed                |       |      |        | [NT]   | [NT]          | [NT]                      | [NR]      | [NR]                |
| Naphthalene                  | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | LCS       | 88%                 |
| Acenaphthylene               | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | [NR]      | [NR]                |
| Acenaphthene                 | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | [NR]      | [NR]                |
| Fluorene                     | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | LCS       | 91%                 |
| Phenanthrene                 | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | LCS       | 90%                 |
| Anthracene                   | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | [NR]      | [NR]                |
| Fluoranthene                 | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | LCS       | 93%                 |
| · Pyrene                     | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | LCS       | 91%                 |
| Benzo(a)anthracene           | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | [NR]      | [NR]                |
| Chrysene                     | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | LCS       | 91%                 |
| Benzo(b,k)fluoranthene       | mg/kg | 0.2  | GC.12  | <0.20  | [NT]          | [NT]                      | [NR]      | [NR]                |
| Benzo(a)pyrene               | mg/kg | 0.05 | GC.12  | <0.050 | [NT]          | [NT]                      | LCS       | 88%                 |
| Indeno(1,2,3-c,d)pyrene      | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | [NR]      | [NR]                |
| Dibenzo(a,h)anthracene       | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | [NR]      | [NR]                |
| Benzo(g,h,i)perylene         | mg/kg | 0.1  | GC.12  | <0.10  | [NT]          | [NT]                      | [NR]      | [NR]                |
| Surrogate<br>p-Terphenyl-d14 | %     |      | GC.12  | [NT]   | [TM]          | [17]                      | LCS       | 110%                |

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| QUALITY CONTROL                      | UNITS | PQL | METHOD | Blank | Duplicate | Duplicate results         | Spike Sm# | Spike % |
|--------------------------------------|-------|-----|--------|-------|-----------|---------------------------|-----------|---------|
| Organochlorine<br>Pesticides in soil |       |     |        |       | 511#      | Base II Duplicate II %RPD |           |         |
| Date extracted                       |       |     |        | [NT]  | [NT]      | [NT]                      | [NR]      | [NR]    |
| Date analysed                        |       |     |        | [NT]  | [NT]      | [NT]                      | [NR]      | [NR]    |
| HCB                                  | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | [NR]      | [NR]    |
| alpha-BHC                            | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | LCS       | 124%    |
| gamma-BHC                            | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [דא]                      | [NR]      | [NR]    |
| beta-BHC                             | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | LCS       | 130%    |
| Heptachlor                           | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | LCS       | 124%    |
| delta-BHC                            | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | [NR]      | [NR]    |
| Aldrin                               | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | LCS       | 124%    |
| Heptachlor Epoxide                   | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | LCS       | 118%    |
| gamma-Chlordane                      | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | [NR]      | [NR]    |
| alpha-chlordane                      | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | [NR]      | [NR]    |
| Endosulfan I                         | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | [NR]      | [NR]    |
| pp-DDE                               | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [TN]                      | LCS       | 120%    |
| Dieldrin                             | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | LCS       | 116%    |
| Endrin                               | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | LCS       | 119%    |
| pp-DDD                               | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | LCS       | 129%    |
| Endosulfan II                        | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | [NR]      | [NR]    |
| pp-DDT                               | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | [NR]      | [NR]    |
| Endrin Aldehyde                      | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | [NR]      | [NR]    |
| Endosulfan Sulphate                  | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [TM]                      | LCS       | 115%    |
| Methoxychlor                         | mg/kg | 0.1 | GC-5   | <0.1  | [NT]      | [NT]                      | [NR]      | [NR]    |
| Surrogate TCLMX                      | %     |     | GC-5   | [NT]  | [NT]      | [NT]                      | [NR]      | [NR]    |

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| QUALITY CONTROL                    | UNITS | PQL | METHOD    | Blank | Duplicate     | Duplicate results          | Spike Sm# | Spike %             |
|------------------------------------|-------|-----|-----------|-------|---------------|----------------------------|-----------|---------------------|
| PCBs in Soil                       |       |     |           |       | 5111#         | Base II Duplicate II %RPD  |           | Recovery            |
| Date extracted                     |       |     |           | [NT]  | [NT]          | [NT]                       | [NR]      | [NR]                |
| Date analysed                      |       |     |           | [NT]  | [NT]          | [NT]                       | [NR]      | [NR]                |
| Arochior 1016                      | mg/kg | 0.1 | GC-6      | <0.1  | [TN]          | [NT]                       | [NR]      | [NR]                |
| Arochior 1232                      | mg/kg | 0.1 | GC-6      | <0.1  | [17]          | [NT]                       | [NR]      | [NR]                |
| Arochlor 1242                      | mg/kg | 0.1 | GC-6      | <0.1  | [NT]          | [NT]                       | [NR]      | [NR]                |
| Arochlor 1248                      | mg/kg | 0.1 | GC-6      | <0.1  | [NT]          | [NT]                       | [NR]      | [NR]                |
| Arochlor 1254                      | mg/kg | 0.1 | GC-6      | <0.1  | [NT]          | [NT]                       | LCS       | 85%                 |
| Arochior 1260                      | mg/kg | 0.1 | GC-6      | <0.1  | [NT]          | [NT]                       | [NR]      | [NR]                |
| Surrogate TCLMX                    | %     |     | GC-6      | [NT]  | [NT]          | [NT]                       | [NR]      | [NR]                |
| QUALITY CONTROL                    | UNITS | PQL | METHOD    | Blank | Duplicate Sm# | Duplicate results          | Spike Sm# | Spike %<br>Recovery |
| Total Phenolics in Soil            |       |     |           |       |               | Base II Duplicate II %RPD  |           |                     |
| Total Phenolics (as<br>Phenol)     | mg/kg | 5   | LAB.30    | <5.0  | 6893-1        | <5.0    <5.0               | LCS       | 94%                 |
| QUALITY CONTROL                    | UNITS | PQL | METHOD    | Blank | Duplicate Sm# | Duplicate results          | Spike Sm# | Spike %             |
| Acid Extractable metals<br>in soil |       |     |           |       |               | Base II Duplicate II %RPD  |           | Recovery            |
| Arsenic                            | mg/kg | 4   | Metals.20 | <4.0  | 6893-6        | 4.5    6.1    RPD: 30      | AGAL-10   | 106%                |
| Cadmium                            | mg/kg | 1   | Metals.20 | <1.0  | 6893-6        | <1.0    <1.0               | AGAL-10   | 98%                 |
| Chromium                           | mg/kg | 1   | Metals.20 | <1.0  | 6893-6        | 9.3    11    RPD: 17       | AGAL-10   | 102%                |
| Copper                             | mg/kg | 1   | Metals.20 | <1.0  | 6893-6        | 9.3    11    RPD: 17       | AGAL-10   | 103%                |
| Lead                               | mg/kg | 1   | Metals.20 | <1.0  | 6893-6        | 11    13    RPD: 17        | AGAL-10   | 104%                |
| Mercury                            | mg/kg | 0.1 | Metals.21 | <0.10 | 6893-6        | <0.10    <0.10             | AGAL-10   | 109%                |
| Nickel                             | mg/kg | 1   | Metals.20 | <1.0  | 6893-6        | <1.0    1.2                | AGAL-10   | 107%                |
| Zinc                               | mg/kg | 1   | Metals.20 | <1.0  | 6893-6        | 5.5    6.8    RPD: 21      | AGAL-10   | 97%                 |
| QUALITY CONTROL                    | UNITS | PQL | METHOD    | Blank | Duplicate Sm# | Duplicate results          | Spike Sm# | Spike %<br>Recoverv |
| Miscellaneous Inorg - soil         |       |     |           |       |               | Base II Duplicate II % RPD |           | ,                   |
| Total Cyanide                      | mg/kg | 0.5 | LAB.13    | <0.5  | 6893-1        | <0.5 <b>  </b> <0.5        | LCS       | 77%                 |
| QUALITY CONTROL<br>Moisture        | UNITS | PQL | METHOD    | Blank |               |                            |           |                     |
| Moisture                           | %     | 0.1 | LAB.8     | <0.10 |               |                            |           |                     |

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### Report Comments:

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sub-sample. Envirolab recommends supplying 30-40g of sample in it's own container. Asbestos analysed by: Joshua Lim

| INS: Insufficient sample for this test | NT: Not tested        | PQL: Practical Quanitation Limit |
|----------------------------------------|-----------------------|----------------------------------|
| RPD: Relative Percent Difference       | NA: Test not required | LCS: Laboratory Control Sample   |
| NR: Not requested                      | <: Less than          | >: Greater than                  |

### Quality Control Definitions

**Blank**: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples. **Duplicate**: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist. LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample. Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

### Laboratory Acceptance Criteria:

Duplicates: <5xPQL - any RPD is acceptable;</th>>5xPQL - 0-50% RPD is acceptable.Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 20-140% for<br/>SVOC and speciated phenols is acceptable.Surrogates: Generally 60-140% is acceptable.









| CLA Centechnics                                               | as Par<br>Environment | <b>TINERS</b><br>Groundwater |                 |                     |                   |           |          |          |                        |                      |                     |                   |                                       | CHA                                  | IN OF CUST                                  | ro <i>D</i> Ý1 | DESPI       | ATCH SH    | EET           |   |
|---------------------------------------------------------------|-----------------------|------------------------------|-----------------|---------------------|-------------------|-----------|----------|----------|------------------------|----------------------|---------------------|-------------------|---------------------------------------|--------------------------------------|---------------------------------------------|----------------|-------------|------------|---------------|---|
| Project Name<br>Project No:<br>DP Contact P<br>Prior Storage: | erson:                | Wes Here                     | 12.21<br>19e/st | Juss<br>-<br>Telved | ith.ce<br>(circle | thor<br>) | 77       | رالحدل   | 100                    |                      | ⊢ œ<                |                   | wirolab<br>French<br>LLOUG<br>() 9958 | Services<br>es Roac<br>HBY N<br>5801 | s Pty Ltd<br>I<br>SW 2068<br>Fax: (02) 9956 | 3 5803         |             |            |               |   |
| Sam                                                           | ple                   |                              |                 |                     |                   |           | Inorga   | nics     |                        |                      | <                   |                   | Organic                               |                                      |                                             |                |             |            | =             |   |
| Datupie Type<br>ID S-soil<br>W-wat                            |                       | As                           | Cq              | <u>ہ</u>            | Ö                 | Ъb        | ВН       | Zn       | Z                      | Tota<br>GS/I         | MS T                | TEX/<br>PH        |                                       | PAHs                                 | Other                                       |                |             | Viotes -   |               |   |
| BUZA 10.3                                                     |                       |                              | <i>Г</i>        |                     | 1                 | T         | F        | 1        | Γ                      | 7                    |                     | F                 |                                       | f                                    | HSpestes                                    | L <sup>r</sup> | nide (      | on po      | 69            |   |
| BH 24 /1-                                                     | 2                     |                              |                 | <b> </b>            | <u> </u>          | <u> </u>  |          |          |                        | ₽<br> -              | <br>>               |                   |                                       | Ļ                                    | >                                           |                |             | <u>a</u> ( |               |   |
| BUIAJOS                                                       | 5                     |                              |                 |                     |                   | <u> </u>  | <u> </u> | +        | +                      |                      |                     |                   |                                       |                                      |                                             |                |             | N Ø        |               |   |
| CALA 11.0                                                     | لى ا                  |                              |                 |                     |                   |           | +        | <u>-</u> | <u> </u>               | *≁<br>               | }                   |                   |                                       |                                      | <u> </u>                                    |                |             | 6          |               |   |
| BH44 10.1                                                     | S                     |                              |                 | <br>                | <u> </u>          | <u> </u>  |          | <u> </u> | <u> </u>               | 2                    | 5                   |                   | -                                     |                                      |                                             |                |             | Vø         |               |   |
| BHYA 11.0                                                     | ھ                     | -1                           | 7               | -1                  |                   | Н         | 4        |          | ┝┩<br>│                | ₽ <b>~</b>           | <u> </u>            | -1                |                                       | -1                                   |                                             |                |             | - 1        |               |   |
|                                                               |                       |                              |                 |                     | <br>              |           |          | <u> </u> |                        |                      |                     | - <br>            |                                       |                                      | -                                           |                |             | 2          |               |   |
|                                                               |                       |                              |                 |                     | <br>              |           |          |          |                        |                      |                     | <u>+</u>          |                                       |                                      |                                             | <u> </u>       |             |            |               | ļ |
|                                                               |                       |                              |                 |                     |                   |           |          |          |                        |                      |                     |                   |                                       |                                      |                                             |                |             |            | ξ<br>         |   |
|                                                               |                       |                              |                 |                     |                   |           |          |          |                        |                      |                     |                   |                                       |                                      |                                             |                |             | rolah ĉa   | -             | • |
|                                                               |                       |                              |                 |                     |                   |           |          |          |                        |                      |                     |                   |                                       |                                      |                                             |                |             |            | VICES         |   |
| PQL (S) mg/kg                                                 |                       | 0.05                         | -               | 5                   | 3                 | 5         | 0.01     | 22       |                        | 0.5/*                |                     |                   | *                                     | *                                    |                                             |                | Date 1      | leceiven.  | ,<br>         | - |
| PQL (W) mg/L                                                  |                       | 0.001                        | 0.01            | 0.05                | 0.03              | 0.05      | 0.0005   | 0.01     |                        | 0.05/*               |                     | +                 | *                                     | *                                    |                                             |                |             |            | ন্থ<br>দুৰ্ব  |   |
| PQL = practical qua                                           | ntitation li          | imit, *A.                    | s per La        | boratory            | / Metho           | g         |          | SAM      | PLES R                 | ECEIVE               |                     |                   |                                       | Send re                              | sults to:                                   |                | Recei       | Ved By:    | 74            |   |
| Date relinquished:                                            | Ъ<br>С                | 580                          |                 |                     |                   |           |          | recei    | se sign ;<br>ot of sar | and date<br>noles an | to ackn<br>d return | owledge<br>hv fav |                                       | Dougla:                              | s Partners Pty Ltc                          | -              |             |            | Г             |   |
| Total number of s                                             | amples in             | i çontaine                   | 3r6             | 0                   |                   |           |          |          |                        |                      | ()                  |                   |                                       |                                      | "Yo Box 4                                   | 17             | dob         | No. 680    | 3             |   |
| Results required b                                            | Y                     | N AND                        | evrd.           |                     |                   |           |          | Signa    | ature:                 | 18<br>1              | <b>ع</b> رج         |                   |                                       |                                      | west ry.                                    | える             | =<br>35     | 684        | -<br><u>-</u> |   |
| Relinquished by:                                              |                       | <<br>                        |                 |                     |                   |           |          | Date:    | 25(8                   | š (06 L              | ab Ref.             | (89               | 3                                     | Fax:                                 | 9 809 40°                                   | ц<br>Ф         |             |            |               |   |
| Signature:                                                    | NIN N                 | Nork<br>Seck                 | ¥               |                     |                   |           |          |          | .,                     | ĺ                    |                     |                   |                                       | 161:                                 | 360906                                      | 56 <b>C</b>    |             |            | <u> </u>      |   |
|                                                               | ~                     |                              |                 |                     |                   |           |          |          |                        | 2                    |                     |                   |                                       |                                      |                                             |                |             | :          | ]             | • |
| FPM - ENVID/Forn                                              | n COC 02              |                              |                 |                     |                   |           |          |          |                        |                      |                     |                   |                                       |                                      | -                                           | L              | i<br>i<br>i |            |               |   |

Rev1/November 2003



# Envirolab Services Pty Ltd

ABN 37 112 535 645 54 Frenchs Rd Willoughby NSW 2068 ph 02 9958 5801 fax 02 9958 5803 email: tnotaras@envirolabservices.com.au

## CERTIFICATE OF ANALYSIS 6893A

<u>Client:</u> Douglas Partners 96 Hermitage Rd West Ryde NSW 2114

Attention: Kurt Plambeck

### Sample log in details:

Your Reference: No. of samples: Date samples received: Date completed instructions received:

### 44224, Waste Classification Liverpool

Additional Testing on 2 Soils 25/08/06 05/09/06

### Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices. *Please refer to the last page of this report for any comments relating to the results.* 

### **Report Details:**

 Date results requested by:
 12/09/06

 Date of Preliminary Report:
 Not Issued

 Issue Date:
 7/09/06

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 Accredited for compliance with ISO/IEC 17025.

 Tests not covered by NATA are denoted with \*.

**Results Approved By:** 

Giovanni Agosti Senior Inorganic Chemist

Envirolab Reference: 6893A Revision No: R 00



Page 1 of 5

| Metals in TCLP                        |          |          |          |
|---------------------------------------|----------|----------|----------|
| Our Reference:                        | UNITS    | 6893A-1  | 6893A-5  |
| Your Reference                        |          | BH2A/0.3 | BH4A/0.1 |
| Type of sample                        |          | Soil     | Soil     |
| pH of soil for fluid# determ.         | pH units | 8.00     | 7.70     |
| pH of soil for fluid # determ. (acid) | pH units | 1.10     | 1.10     |
| Extraction fluid used                 | -        | 1        | 1        |
| pH of final Leachate                  | pH units | 4.80     | 4.80     |
| Arsenic in TCLP                       | mg/L     | <0.05    | <0.05    |
| Lead in TCLP                          | mg/L     | <0.03    | <0.03    |
| Nickel in TCLP                        | mg/L     | 0.06     | <0.02    |

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Envirolab Reference: 6893A Revision No: R 00 ACCREDITED FOR TECHNICAL COMPETENCE

Page 2 of 5

| Method ID | Methodology Summary                                |
|-----------|----------------------------------------------------|
| EXTRACT.7 | Toxicity Characteristic Leaching Procedure (TCLP). |
| Metals.20 | Determination of various metals by ICP-AES.        |

Envirolab Reference: 6893A Revision No: R 00

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ACCREDITED FOR TECHNICAL COMPETENCE

Client Reference: 44224, Waste Classification Liverpool

| QUALITY CONTROL | UNITS | PQL       | METHOD    | Blank | Duplicate Sm# | Duplicate results         | Spike Sm# | Spike %<br>Recovery |
|-----------------|-------|-----------|-----------|-------|---------------|---------------------------|-----------|---------------------|
| Metals in TCLP  |       | . <u></u> |           |       |               | Base II Duplicate II %RPD |           |                     |
| Arsenic in TCLP | mg/L  | 0.05      | Metals.20 | <0.05 | [NT]          | [NT]                      | LCS       | 98%                 |
| Lead in TCLP    | mg/L  | 0.03      | Metals.20 | <0.03 | [NT]          | [NT]                      | LCS       | 87%                 |
| Nickel in TCLP  | mg/L  | 0.02      | Metals.20 | <0.02 | [NT]          | [NT]                      | LCS       | 90%                 |

Envirolab Reference: 6893A Revision No: R 00

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Page 4 of 5

### Report Comments:

Asbestos analysed by: Not applicable for this job

| INS: Insufficient sample for this test | NT: Not tested        | PQL: Practical Quanitation Limit |
|----------------------------------------|-----------------------|----------------------------------|
| RPD: Relative Percent Difference       | NA: Test not required | LCS: Laboratory Control Sample   |
| NR: Not requested                      | <: Less than          | >: Greater than                  |

### **Quality Control Definitions**

**Blank**: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples. **Duplicate**: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

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#### Laboratory Acceptance Criteria:

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Envirolab Reference: 6893A Revision No: R 00





# Envirolab Services Pty Ltd

ABN 37 112 535 645 54 Frenchs Rd Willoughby NSW 2068 ph 02 9958 5801 fax 02 9958 5803 email: tnotaras@envirolabservices.com.au

# CERTIFICATE OF ANALYSIS 6893-B

<u>Client:</u> Douglas Partners 96 Hermitage Rd West Ryde NSW 2114

Attention: Kurt Plambeck

### Sample log in details:

Your Reference: No. of samples: Date samples received: Date completed instructions received:

### 44224, Waste Classification Liverpool Additional Testing on 1 Soil 25/08/06 19/09/06

### Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices. Please refer to the last page of this report for any comments relating to the results.

### **Report Details:**

 Date results requested by:
 21/09/06

 Date of Preliminary Report:
 Not Issued

 Issue Date:
 20/09/06

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 Accredited for compliance with ISO/IEC 17025.

 Tests not covered by NATA are denoted with \*.

**Results Approved By:** 

Giovanni Agosti Senior Inorganic Chemist

Envirolab Reference: 6893-B Revision No: R 00 ACCREDITED FOR TECHNICAL COMPETENCE

Page 1 of 5

| Metals in TCLP                        |          |          |
|---------------------------------------|----------|----------|
| Our Reference:                        | UNITS    | 6893-B-3 |
| Your Reference                        |          | BH1A/0.5 |
| Type of sample                        |          | Soil     |
| pH of soil for fluid# determ.         | pH units | 9.10     |
| pH of soil for fluid # determ. (acid) | pH units | 1.50     |
| Extraction fluid used                 | -        | 1        |
| pH of final Leachate                  | pH units | 5.10     |
| Chromium in TCLP                      | mg/L     | <0.01    |
| Nickel in TCLP                        | mg/L     | 0.06     |

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Envirolab Reference: 6893-B Revision No: R 00

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Page 2 of 5

| Method ID | Methodology Summary                                |
|-----------|----------------------------------------------------|
| EXTRACT.7 | Toxicity Characteristic Leaching Procedure (TCLP). |
| Metals.20 | Determination of various metals by ICP-AES.        |

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ACCREDITED FOR TECHNICAL COMPETENCE ,

| Client Reference: | 44224, Waste | Classification     | Liverpool |
|-------------------|--------------|--------------------|-----------|
|                   |              | • Ideo Inio ano II |           |

| QUALITY CONTROL  | UNITS | PQL  | METHOD    | Blank | Duplicate Sm# | Duplicate results         | Spike Sm# | Spike %<br>Recovery |
|------------------|-------|------|-----------|-------|---------------|---------------------------|-----------|---------------------|
| Metals in TCLP   |       |      |           |       |               | Base II Duplicate II %RPD | -         |                     |
| Chromium in TCLP | mg/L  | 0.01 | Metals.20 | <0.01 | [NT]          | [NT]                      | LCS       | 97%                 |
| Nickel in TCLP   | mg/L  | 0.02 | Metals.20 | <0.02 | [NT]          | [NT]                      | LCS       | 94%                 |

Envirolab Reference: 6893-B Revision No: R 00

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### **Report Comments:**

Asbestos analysed by: Not applicable for this job

| INS: Insufficient sample for this test | NT: Not tested        | PQL: Practical Quanitation Limit |
|----------------------------------------|-----------------------|----------------------------------|
| RPD: Relative Percent Difference       | NA: Test not required | LCS: Laboratory Control Sample   |
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Envirolab Reference: 6893-B Revision No: R 00



Page 5 of 5

| SPATCH SHEE     |                                          |         | o Notes                    |      |       |             |   |      |      |   |   |        |        |                                                   | U 1684                   |             |             |            | v1/November 2003 |
|-----------------|------------------------------------------|---------|----------------------------|------|-------|-------------|---|------|------|---|---|--------|--------|---------------------------------------------------|--------------------------|-------------|-------------|------------|------------------|
| JADE            | 8                                        |         | TCL                        |      |       | <br>-       |   |      |      |   |   | Ŀ      | 1      | 6                                                 | 37                       |             |             |            | Re               |
| IN OF CUSTO     | Pty Ltd<br>SW 2068<br>Fax: (02) 9958 58  |         | Other                      |      |       |             |   |      |      | و | - |        |        | sults to:<br>Partners Pty Ltd<br><b>Po Box 47</b> | West Ryde                | 9 804 409 5 | 3 609 0 661 | 14 (ore    |                  |
| CHAI            | Services<br>es Road<br>HBY NC<br>5801    | S       | PAHs                       |      |       |             | - |      |      |   |   | *      | *      | Send re<br>Douglas<br>Address                     |                          | Fax:        | 161:        | c<br>C     | •                |
|                 | virolab<br>H French<br>ILLOUG<br>2) 9958 | Organic | OCs/<br>OPs/<br>PCBs       |      |       |             |   |      |      |   |   | *      | *      | U                                                 |                          | 13.A.       |             | 2 <u>7</u> |                  |
|                 | To: Er<br>Ph: 00<br>Attn: Ail            |         | BTEX/<br>TPH               |      |       |             |   |      |      |   |   | *      | *      | knowledg<br>im by fax                             |                          | ef68°       |             | Due        |                  |
|                 |                                          |         | Total /<br>GS/MS<br>Phenol |      |       | _           |   | <br> | <br> |   |   | 0.5/*  | 0,05/* | EIVED<br>date to ac<br>es and retu                | R IL:                    | 🤄 Lab Ř     |             |            |                  |
|                 |                                          |         | Z                          | 7    | 7     | <br>        |   |      |      |   |   |        |        | LES REC<br>sign and<br>t of sampi                 | ure:                     | 51910       |             |            |                  |
|                 |                                          | ics     | νZ                         |      |       |             |   |      |      |   |   | 5      | 0.01   | SAMP<br>Please<br>receip                          | Signat                   | Date:.      |             |            |                  |
|                 |                                          | Inorgan | Нg                         |      |       | <br>        |   |      |      |   | : | 0.01   | 0.0005 |                                                   |                          |             |             |            |                  |
|                 | 1).<br>(e                                |         | Pp                         | 7    | 7     | <br>        |   |      |      |   |   | 5      | 0.05   | ğ                                                 |                          |             |             |            |                  |
|                 | Å Ca                                     | 3       | Cu                         | ļ    |       | <br>        |   | <br> | <br> |   |   | m      | E0.0   | y Metho<br>t                                      |                          |             |             |            |                  |
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APPENDIX F Quality Assurance/Quality Control Procedures and Results



## **QA/QC PROCEDURES AND RESULTS**

### FIELD QUALITY ASSURANCE AND QUALITY CONTROL

The field QC procedures for sampling as prescribed in Douglas Partners *Field Procedures Manual* were followed at all times during the validation assessment.

Field replicates, including rinsate samples and blanks were not included as part of this assessment given the limited scope of the assessment and the fact that the primary function of sampling was to provide a preliminary waste classification and was not intended for site assessment purposes.

### LABORATORY QA/QC PROCEDURES

The following QA/QC procedures were conducted by the laboratory.

### Reagent Blank

This sample is prepared and analysed at the beginning of every analytical run, following calibration of the analytical apparatus. The laboratory results for reagent blanks for soil analyses indicated concentrations of all analytes to be below laboratory detection limits. These results are included in the laboratory report in Appendix E.

### Spike Recovery

This is a sample replicate prepared by adding a known amount of analyte prior to analysis, and then treated exactly the same as all other samples. The recovery result indicates the proportion of the known concentration of the analyte that is detected during analysis. These results are included in the laboratory report in Appendix E. The spike recovery rates are compared with limits as specified in Envirolab Services Quality Control System, and any exceedances are highlighted in the report.

As no comments were noted on the report, it is considered that the results indicate that the analytical results are not significantly affected by matrix interference.

### Surrogate Recovery

This sample is prepared by adding a known amount of surrogate, which behaves similarly to the analyte, prior to analysis to each sample. The recovery result indicates the proportion of the known concentration



of the surrogate that is detected during analysis. These results are included in the laboratory report in Appendix E and are within acceptance limits as specified in Envirolab Services, indicating that the extraction technique was effective.

### **Duplicates**

These are additional portions of a sample which are analysed in exactly the same manner as all other samples. The duplicate sample results are included in the laboratory results in Appendix E.