

PLANNING PROPOSAL

14-16 Military Road, Neutral Bay

June 2010

urbis



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Executive Summary

This Planning Proposal has been prepared on behalf of Caltex Australia Petroleum Pty Ltd, to allow a site specific provision for the site.

The sole purpose of the proposal is to improve access to the existing service station on the adjacent site at 18-38 Military Road, and reduce congestion on Military Road, which is related to the service station use.

The proposal would also result in secondary benefits to the site and surrounding development, including the following:

- The proposal would result in the provision of additional acoustic buffering to the residential development located behind the subject site.
- The proposed landscaping at the site would result in an improvement in the appearance of the site, which is currently vacant.

The Planning Proposal seeks to allow additional minor uses at the site, rather than rezoning the land.

North Sydney LEP 2001 is proposed to be amended by inserting the following clause at Clause #:

#. 14-16 Military Road, Neutral Bay

(1) Subject land

This clause applies to Lot 1 in DP 191827 and Lot F in DP 441071 (are you sure the vacant site is two lots, 14-16 Military Road, Neutral Bay).

(2) Objective

The specific objective of this clause is to permit ancillary development to a service station, the activities of which are principally carried out on the adjoining allotment of land (Lot 21 in DP 538877) at 18-38 Military Road, Neutral Bay).

- (3)** *Despite the Table to Part 2, development for the purposes of a driveway, incorporating car parking, acoustic treatment and landscaping on the site which are ancillary to a service station is permitted with development consent on the land.*







1 Introduction

Urbis has been requested by Caltex Australia Petroleum Pty Ltd to prepare a Planning Proposal to accompany a request to North Sydney Council to amend North Sydney Local Environmental Plan 2001, with a site specific clause to permit driveway, car parking, landscaping and boundary treatments related to noise mitigation associated with the approved service station use on the site at 14-16 Military Road, Neutral Bay.

The proposed amendment seeks to facilitate the provision of alternate access to the existing service station at 18-38 Military Road, which will mitigate existing congestion on Military Road associated with the existing service station.

It is noted that there will be no net increase in parking. The proposal will have significant public benefits, including improved traffic flows on Military Rd, the provision of pleasant landscaping on a currently unsightly vacant lot, and significantly improved acoustic protection to the residential lots to rear of the site.

This Planning Proposal has been prepared in accordance with Section 55 of the Environmental Planning and Assessment Act 1979, and consideration has been given to the requirements outlined in "A guide to preparing planning proposals", NSW DOP.

1.1 The Site and Surrounding Development

The subject site is located at 14-16 Military Road, Neutral Bay. The site comprises two allotments, Lot 1 in DP 191827 and Lot F in DP 441071. The site has the following characteristics:

- Total site area of 515.1 sqm.
- 20 metre frontage to Military Road.

The site is currently vacant and is located adjacent to the Caltex Service Station at 18-38 Military Road.

The subject site fronts Military Road, which is located to the south. Military Road is a major arterial road connecting the Warringah Freeway to the Spit Bridge.

All surrounding development immediately adjoining the site to the north, south and west is residential, however there is a mix of retail, commercial and other non-residential uses located along parts of Military Road and to the north of the site.

The location of the site, and development surrounding the site, is illustrated in the location and aerial maps below.

The site is currently subject to an approval for a dwelling, however given the low amenity afforded to the site due to the passing traffic, the lot has remained vacant. This has resulted in the residential development located behind the site being affected by this traffic.

The proposal will therefore allow Caltex to improve this situation by providing acoustic screening to residential site to the rear.

It is noted that the subject lot has in the past been used in association with the service station use. Until recently, a gas tank was located at the centre of the site and since removed.

This Planning Proposal seeks to reinstate the service station use on the site, and improve access and reduce congestion on Military Road, which is related to the service station use.

The site plan below illustrates the existing development at the site, and the adjacent service station. This plan show the site currently has 14 car parking spaces.



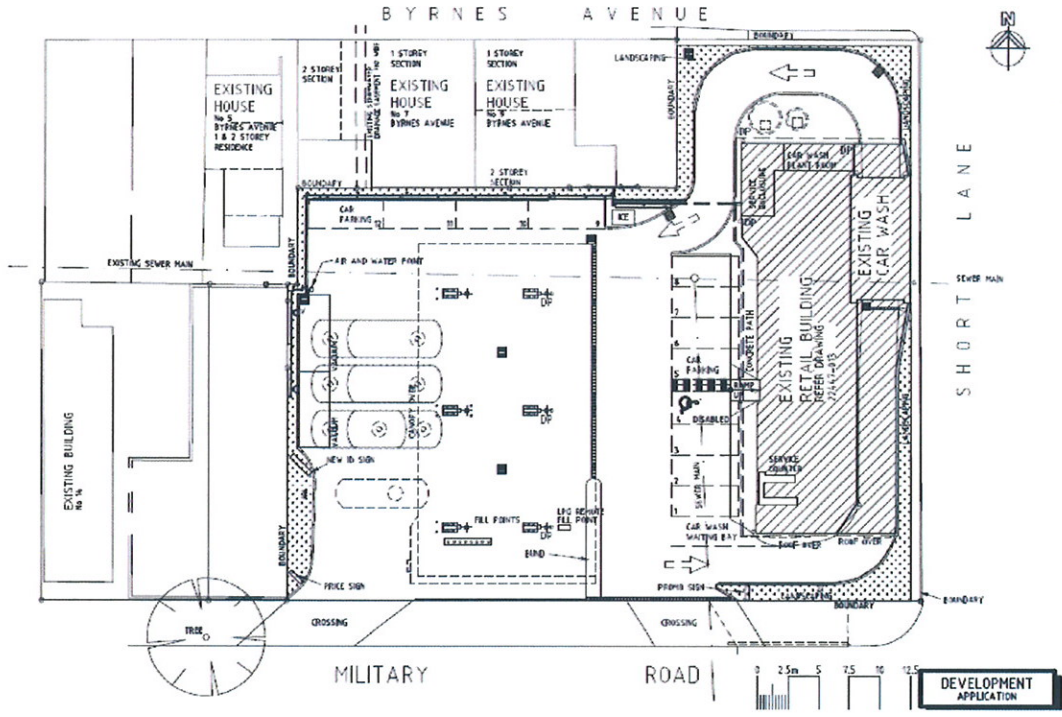


Figure 1 – Existing Site Plan



Figure 2 – Location Map





NEUTRAL BAY NSW

Figure 3 – Aerial Map



2 Objectives or Intended Outcomes

This Planning Proposal seeks to amend North Sydney LEP 2001 by inserting a site specific clause to permit driveway, car parking, landscaping and boundary treatments related to noise mitigation, associated with the approved service station use on adjacent site, rather than seeking a rezoning.

The objectives of the Planning Proposal are to:

- Enable development for the purposes of a driveway, incorporating car parking (already approved at the site), acoustic treatments and substantial landscaping associated with the adjacent approved use at 18-38 Military Road, Neutral Bay.
- The new access to the site will improve vehicle access to the Caltex service station and increase the off-street queuing capacity for the site and hence reduce queuing on Military Rd, particularly during week periods.

It is noted that the proposal will not result in the intensification of the service station but rather reduce congestion along Military Road by increasing off-street queuing capacity on the site.

In addition, it is noted that the net car parking on the site is not proposed to change, and it will involve the provision of pleasant landscaping on a currently unsightly vacant lot, and significantly improved acoustic protection to the residential lots to rear of the site.





3 Explanation of Provisions

The objectives of the proposed instrument shall be achieved through the inclusion of a site specific provision within Part 5 of North Sydney LEP 2001. The site specific provision will allow for the development of the site as a driveway, incorporating car parking, acoustic treatment and substantial landscaping, associated with the adjacent service station use, on the site.

North Sydney LEP 2001 is proposed to be amended by inserting the following clause at Clause #:

#. 14-16 Military Road, Neutral Bay

(1) *Subject land*

This clause applies to Lot 1 in DP 191827 and Lot F in DP 441071, 14-16 Military Road, Neutral Bay.

(4) *Objective*

The specific objective of this clause is to permit ancillary development to a service station, the activities of which are principally carried out on the adjoining allotment of land (Lot 21 in DP 538877) at 18-38 Military Road, Neutral Bay).

(5) *Despite the Table to Part 2, development for the purposes of a driveway, incorporating car parking, acoustic treatment and landscaping on the site which are ancillary to a service station is permitted with development consent on the land.*







4 Justification

4.1 Need for the planning proposal

4.1.1 Is the planning proposal a result of any strategic study or report?

No, but rather a means of addressing a current traffic management issue.

4.1.2 Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

It is considered that the planning proposal is the best means of achieving the intended outcome.

Existing issues with on-street queuing on Military Road have been raised. This queuing is generated by the existing service station at 18-38 Military Road. The proposal provides a solution to this issue, by increasing the off-street queuing capacity for the site. This proposal has been supported by the RTA in their letter included at **Appendix B**. The traffic report included in **Appendix C** confirms:

"In accordance with the RTA Guide to Traffic Generating Developments which provides the best criteria to assess traffic generation of facilities, the proposed new entry will not attract additional patronage to the site in the peak hour as no change is proposed to facilities on site.

The proposed new entry will provide greater lead in space to the pump islands, avoid the congregation of vehicles at the entry and obviate the likelihood of queuing back onto Military Road. Closing of the existing entry to the old house will remove the potential for conflict from vehicles using that access crossing.....

The extra site capacity of 12 extra spaces for vehicles leading to the pumps more than accommodates the maximum queue of vehicles back onto Military Road of 4 vehicles at present."

4.1.3 Is there a net community benefit?

The Proposal will have a significant net community benefit in the following ways:

- It will improve traffic flows and reduce queuing on Military Road.
- Reduce traffic noise associated with impeded traffic flow.
- It will reduce the potential for road accidents.
- The redevelopment of part of the site for non-intensive development, such as landscaping will result in significant visual improvements at the site.
- It will isolate the site from surrounding residential development through the increase in the landscaping buffer mentioned above, and the extension of the acoustic wall.
- This is confirmed in the acoustic report included at **Appendix D**, which confirms that the levels of noise from the centre of the forecourt area would comply with the night-time sleep disturbance criterion with the provision of a 4.5m high noise barrier along the western boundary of the site, adjacent to the neighbouring apartment. This wall will also allow the tanker and truck delivery engine noise to comply with daytime and evening amenity.
- It is consistent with the objectives of the Environmental Planning and Assessment Act 1979, providing for the orderly development of the land.



4.2 Relationship to strategic planning framework

4.2.1 Is the planning proposal consistent with the objectives and actions contained within the applicable regional or sub-regional strategy (including the Sydney Metropolitan Strategy and exhibited draft strategies)?

The planning proposal is consistent with the Metropolitan Strategy and the Draft Inner North Subregional Strategy as outlined in the Table below:

Table 1 – Consistency with Draft Inner North Subregional Strategy

ACTION	RESPONSE
Economy and Employment	The draft Subregional Strategy identifies Neutral Bay as a Town Centre. The site is not identified as a specific area for growth within this section of the Draft Inner North Subregional Strategy.
Centres and Corridors	Neutral Bay is identified as a 'ribbon' shopping centre within the draft Inner North Subregional Strategy, surrounded by Housing. The Strategy encourages the concentration of retail activity along retail strips such as Military Road
Housing	The proposal would not have a direct impact on housing.
Transport	The proposal will assist in reducing the current levels of congestion on Military Road by reducing on-street queuing. The present situation has an adverse impact not only private vehicle movements but also of public buses, as a bus route is located directly adjacent to the site and effects the safe, efficient movement of buses.
Environment, Heritage & Resources	The proposal will not adversely impact the environment or heritage.
Parks and Public Places	The proposal does not have a direct impact on parks and public places.

4.2.2 Is the planning proposal consistent with the local council's Community Strategic Plan, or other local strategic plan?

Council's draft Local Development Strategy has been prepared to inform Council's Draft LEP. The strategy addresses Neutral Bay as follows:

- Neutral Bay is identified as having some potential to accommodate additional commercial floor space in the LGA.
- There is capacity to provide additional high density residential development along Military Road, however given the current traffic congestion along Military Road, careful consideration will need to be given to increased traffic generation derived from additional residents.

In this way, it is considered that the proposal is consistent with Council's local Strategic Plan. As mentioned previously the proposal does not propose further intensification of the use and merely seeks to mitigate congestion by providing queuing space for the service station within the site.

This is supported by the RTA, and a letter confirming this is included at **Appendix B**.



4.2.3 Is the proposal consistent with applicable state environmental planning policies?

The two relevant State Environmental Planning Policies relevant to the site are:

- SEPP (Infrastructure) 2007
- SEPP 55 – Remediation of land.

The proposed LEP is considered to be consistent with these policies.

4.2.4 Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?

It is considered that the Planning Proposal is consistent with those relevant s.117 directions. Refer to the table below.

Table 2 – Statement of Consistency with Section 117 Directions

Statement of Consistency with Section 117 Directions	
1. Employment and Resources	
1.1 Business and Industrial Zones	
The planning proposal is consistent with the objectives of the Direction in that it:	
<i>Gives effect to the objectives of this direction</i>	<ul style="list-style-type: none"> ▪ The proposal does not seek to re-zone any existing business or industrially zoned land.
<i>Retains the areas and locations of existing business and industrial zones</i>	<ul style="list-style-type: none"> ▪ The planning proposal does not propose any change to the area or location of existing business and industrial zones.
<i>Does not reduce the total potential floor space area for employment uses and related public services in business zones.</i>	<ul style="list-style-type: none"> ▪ The planning proposal relates to a parcel of land within Neutral Bay Town Centre. It is not proposed to reduce any potential floor space for employment uses and related public services in business zones, as the site is not currently zoned for this use.
<i>Does not reduce the total potential floor space area for industrial uses in industrial zones.</i>	<ul style="list-style-type: none"> ▪ It is not proposed to reduce any potential floor space for industrial uses in industrial zones, as the site is not currently zoned for this use.
<i>Ensures that proposed new employment areas are in accordance with a strategy that is approved by the Director-General of the Department of Planning.</i>	<ul style="list-style-type: none"> ▪ N/A
1.2 Rural Zones	
The planning proposal is not affected by this Direction.	
1.3 Mining, Petroleum Production and Extractive Industries	
The planning proposal is not affected by this Direction.	
1.4 Oyster Aquaculture	
The planning proposal is not affected by this Direction.	
1.5 Rural Lands	
The planning proposal is not affected by this Direction.	



Statement of Consistency with Section 117 Directions

2. Environment and Heritage

2.1 Environment Protection Zones

The planning proposal is not affected by this Direction.

2.2 Coastal Protection

The planning proposal is not affected by this Direction.

2.3 Heritage Conservation

The planning proposal is not affected by this Direction.

2.4 Recreation Vehicle Areas

The planning proposal is not affected by this Direction.

3. Housing, Infrastructure and Urban Development

3.1 Residential Zones

The planning proposal is consistent with the objectives of the Direction in that it:

To encourage a choice of housing types to provide for existing and future housing needs,

- This Planning Proposal has demonstrated that the subject site is more suited to a use ancillary to the adjacent service station, rather than for housing.

to make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services,

- The proposal will allow improved access to the service station adjacent to the site, and reduce congestion on Military Road, improving the efficiency of existing infrastructure and services for surrounding housing.

to minimise the impact of residential development on the environment and resource lands,

- Not applicable.

3.2 Caravan Parks and Manufactured Home Estates

The planning proposal is not affected by this Direction.

3.3 Home Occupations

The planning proposal is not affected by this Direction.

3.4 Integrating Land Use and Transport

The planning proposal is consistent with the objectives of the Direction in that it:

Improves access to housing, jobs, and services by walking, cycling and public transport

- The subject site is located on a busy thoroughfare with bus services. It is also located in close proximity to housing.

Increases the choice of available transport and reduces dependence on cars

- The proposal will not have an impact on the choice of available transport. Improved bus movements may attract further uses to public transport.



Statement of Consistency with Section 117 Directions

Reduces travel demand including the number of trips generated by development and the distances travelled, especially by car

Supports the efficient and viable operation of public transport services

- The Planning Proposal is not expected to generate any increase or decrease in travel demand. See above
- The Planning Proposal does not propose changes to any existing transport infrastructure that caters for the movement of freight.
- The proposal would indirectly result in an improvement in the public transport in the vicinity of the site, by reducing the congestion in the bus lane that is currently experienced.

3.5 Development near Licensed Aerodromes

The planning proposal is not affected by this Direction.

4. Hazard and Risk

4.1 Acid Sulfate Soils

The planning proposal is not affected by this Direction.

4.2 Mine Subsidence and Unstable Land

The planning proposal is not affected by this Direction.

4.3 Flood Prone Land

The planning proposal is not affected by this Direction.

4.4 Planning for Bushfire Protection

The planning proposal is not affected by this Direction.

5. Regional Planning

The following Directions do not apply to North Sydney Council

5.1 Implementation of Regional Strategies

5.2 Sydney Drinking Water Catchments

5.3 Farmland of State and Regional Significance on the NSW Far North Coast

5.4 Commercial and Retail Development along the Pacific Highway, North Coast

5.5 Development in the vicinity of Ellalong, Paxton and Millfield (Cessnock LGA)

5.6 Sydney to Canberra Corridor

5.7 Central Coast

5.8 Second Sydney Airport: Badgerys Creek

6. Local Plan Making

6.1 Approval and Referral Requirements

The planning proposal does not alter provisions relating to approval and referral requirements.



Statement of Consistency with Section 117 Directions

6.2 Reserving Land for Public Purposes

The planning proposal is not affected by this Direction.

6.3 Site Specific Provisions

The Planning Proposal is consistent with the objectives of the Direction in that it:

Discourages unnecessarily restrictive site-specific planning controls.

- It is not restrictive in that it adds an additional use to a residentially zoned site, thereby creating a more flexible range of uses for the site.

4.3 Environmental, Social and Economic Impact

4.3.1 Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

No, the Planning Proposal relates to an additional use in an urban environment, where there is no known critical habitat or threatened species, population or ecological community.

4.3.2 Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

The planning proposal is unlikely to have any additional environmental effects, for the following reasons:

- It is considered that the use of the site for access to the existing service station, and associated landscaping, additional acoustic treatments, will result in a positive outcome for the site, reducing on-street queuing, and noise related impacts associated with the use of the site.

4.3.3 How has the planning proposal adequately addressed any social and economic effects?

Through the use of the site for a non-intensive use such as that proposed, it is considered that the proposal is appropriate for the site.

The proposal will result in improved social and economic effects, by reducing on-street queuing, and noise related impacts associated with the use of the site.

4.4 State and Commonwealth Interests

4.4.1 Is there adequate public infrastructure for the proposal?

The planning proposal is likely to result in reducing the burden on public infrastructure, by reducing the queuing on Military Road.

4.4.2 What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?

A gateway determination has not yet been issued. No State agency has been consulted on the Planning Proposal to date.



5 Community Consultation

This Planning Proposal is considered to be of a type that falls within the definition of a *low impact Planning Proposal*. Therefore, it is likely to be on exhibition for a minimum period of 14 days. The community will be notified of the commencement of the exhibition period via a notice in a local newspaper and via a notice on the North Sydney City Council website

The written notice will:

- Give a brief description of the objectives or intended outcomes of the planning proposal;
- Indicate the land affected by the planning proposal;
- State where and when the planning proposal can be inspected;
- Give the name and address of the RPA for the receipt of submissions; and
- Indicate the last date for submissions.

During the exhibition period, the following material will be made available for inspection:

- The planning proposal, in the form approved for community consultation by the Director General of Planning;
- The gateway determination; and
- Any studies relied upon by the planning proposal.







6 Conclusion

The Planning Proposal seeks to amend North Sydney LEP 2001 by inserting a site specific clause to permit *driveway access, landscaping, car parking and structures related to noise mitigation* on the subject site.

This is considered an appropriate use for the subject site, for the following reasons:

- The proposal will have a net community benefit by:
 - Improved traffic flows on Military Road.
 - Improved safety at this point on Military Road for motorists.
 - The redevelopment of part of the site for non-intensive development, such as landscaping will result in significant visual improvements at the site.
 - It will isolate the site from surrounding residential development through the increase in the landscaping buffer mentioned above, and the extension of the acoustic wall.
 - It is consistent with the objectives of the Environmental Planning and Assessment Act 1979, providing orderly development of the land.
- The proposal complies with the relevant strategic planning framework relating to the site, and it is supported by the RTA.
- Is considered suitable for the proposed development.

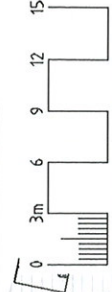
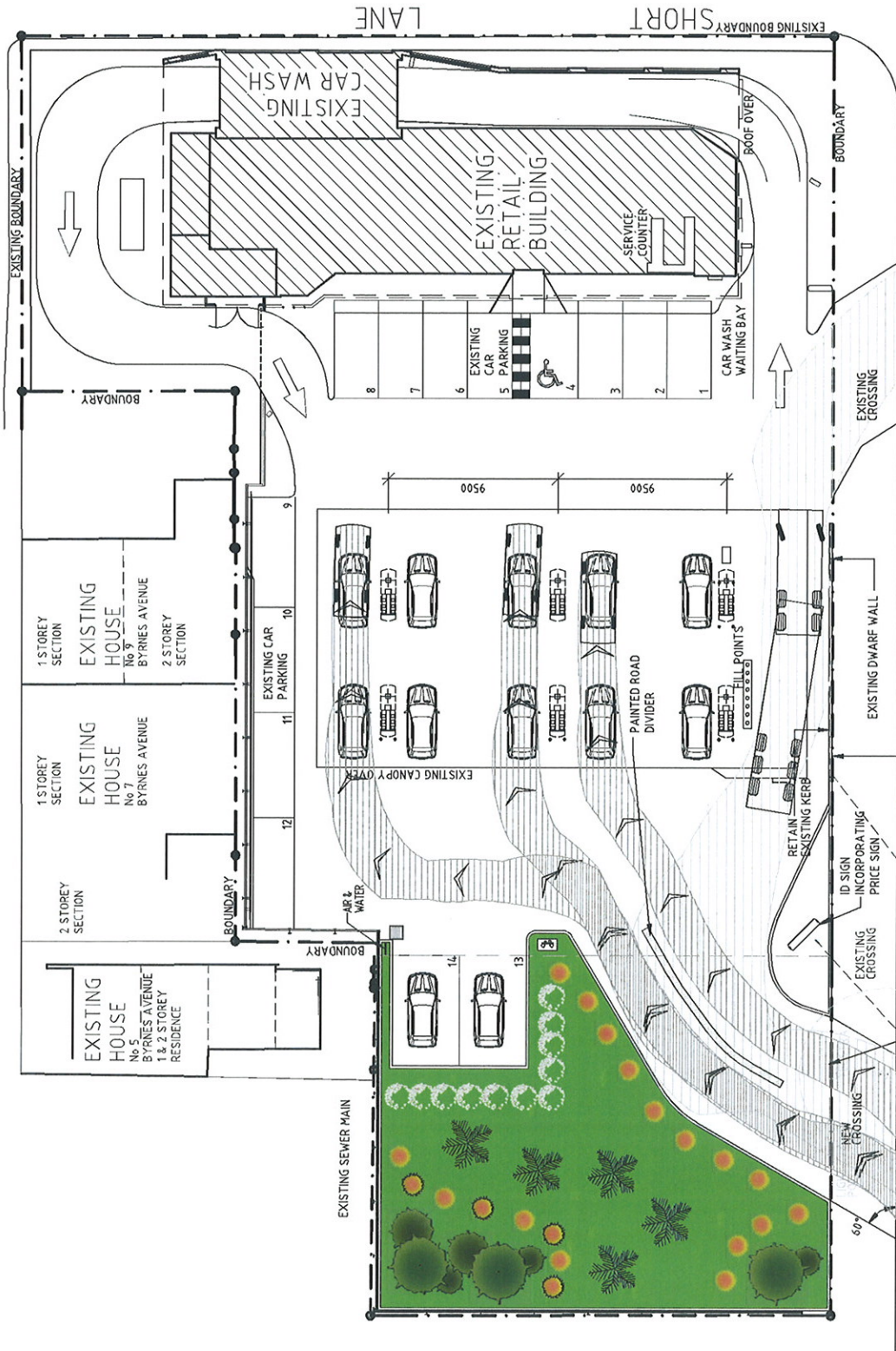


Appendix A Site Plan





BYRNES AVENUE



PRELIMINARY FOR DISCUSSION ONLY

DATE	28.01.10	APPROVED	
DATE	28.01.10	APPROVED	
SCALE	1:250	DRAWING NO.	22447-AG12
SIZE	A3	REV.	D

DRAWN		MK	
TITLE		PROPOSED SITE PLAN	

PROJECT		NEUTRAL BAY - NSW 20-38 MILITARY ROAD	
---------	--	--	--

REV.	BY	DATE	DESCRIPTION OF CHANGE	REVISION
B	MK	11.02.10	AMENDED LENGTH OF HUMP	
C	MK	11.02.09	AMENDED HUMPS & ADD TANKER PATH	
D	PA	16.02.10	ID SIGN RELOCATED & NOTES AMENDED	

CALTEX
Caltex Australia Petroleum Pty Ltd

CONCEPT DESIGNING & DESIGN MUST BE COPIED IN WHOLE OR PART WITHOUT THE WRITTEN CONSENT OF CALTEX AUSTRALIA PETROLEUM PTY LTD.



Appendix B Letter from RTA



Our References: ID 09M746-c SYD09/00374
Contact: Edmond Platon
Telephone: 8849 2906



Dobinson and Associates
38/59 Macquarie Drive,
Cherrybrook NSW 2126
kdob5500@bigpond.net.au

Attention: Ken Dobinson

**PROPOSED MODIFICATION TO AN EXISTING ENTRY TO THE CALTEX SERVICE
STATION AT 20-38 MILITARY ROAD, NEUTRAL BAY**

Dear Mr Dobinson

I refer to your letter of 25 November 2009 seeking clarification on a number of issues relating to my letter of 11 November 2009.

I wish to confirm that the revised access arrangements show a significant improvement in addressing the existing queuing problems and the RTA would support the initiative shown by Caltex should Caltex approach North Sydney Council and obtain their approval to undertake the works.

In my letter, a comment was made (point 2) about the need to have a qualified traffic controller guide cars in and around the site to ensure queuing does not occur on Military Road. After further consideration it is suggested that in lieu of a traffic controller, Caltex may wish to investigate other measures to address this problem should it arise.

Any further inquiries in relation to this matter should be forwarded to the nominated Assistant Planner, Edmond Platon on telephone 8849 2906 or facsimile 8849 2918.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Ken Moon', written over a horizontal line.

Ken Moon
Land Use Planning and Assessment Manager
Transport Planning, Sydney Region

3 December 2009

cc North Sydney Council

Roads and Traffic Authority

27-31 Argyle Street Parramatta NSW 2150
PO Box 973 Parramatta CBD NSW 2150 DX28555 Parramatta
www.rta.nsw.gov.au | 13 17 82



Appendix C Traffic Report



DOBINSON & ASSOCIATES Pty Ltd

A.B.N. 40 050 042 021

Consultants in Management, Transport Planning
Traffic Safety & Management and Infrastructure Development.

38/59 Macquarie Drive,

Cherrybrook NSW 2126

Ph: (02) 9481 0453

Mobile: 0419 227 466

Email: kdob5500@bigpond.net.au

Revised Entry to Service Station 20-38 Military Road, Neutral Bay
REPORT ON TRAFFIC IMPLICATIONS

The Proposal

Caltex, being conscious of traffic overflow onto Military Road from the existing Woolworths/Caltex service station at 20-38 Military Road Neutral Bay during peak activity periods, has taken the initiative to improve safety for traffic on Military Road, specifically for bus movement, by proposing a relocation of the entry to the site and consequential site works to increase on-site vehicle storage capacity to inhibit the overflow.

This **traffic safety initiative** involves demolition of the old unsightly house, removal of the existing access to the old house, shifting the existing entry to the service station to the west on the combined site, re-arrange parking spaces on site and landscaping the remained of the old house site. The arrangement now proposed is shown in Drawing 22447-012A below. This drawing also shows how the revised access arrangement will be serviced by the fuel tanker.

The proposal has been developed in consultation with the RTA which has indicated its support to the proposal; see copy of RTA letter of 9th December 2009 below.

Traffic Assessment

Existing situation

Military Road past the site is divided by a central island of houses with the site fronting the eastbound carriageway. This carriageway is 4 lanes past the site with the left hand kerbside lane a red painted bus lane.

The present entry to the site with restricted access to the pump islands can cause entering vehicles to congregate for entry to the fuel pump islands at times reflecting back onto the bus lane on Military Road causing buses to veer into the middle lane to pass. However it should be appreciated in respect to this traffic safety issue that it occurs only at times of peak traffic activity on the site, essentially during evening peak periods on the major discount days; at others times there is no traffic issue in operation of the site in regard to vehicle site capacity or access

A count was made in the p.m. peak period on Thursday 22nd April 2010, a fuel discounted day that week, of traffic entering and leaving the service station site from Military Road; the number of vehicles queued back onto Military Road was recorded at 5 minute intervals and the accumulation of vehicles on site in marked car spaces, at bowsers and in queues was also recorded. The full count data is included as Appendix A.

This count showed:

- 133 vehicles per hour (vph) entered the site during the peak hour of entry and 135 vph departed the site during the peak exit hour;
- the peak queue of vehicles back onto Military Road was 4; and

- the peak accumulation of vehicles on site during the peak period in marked parking spaces, at bowsers and in queues was 19.

Situation with Proposed New Entry

In accordance with the RTA *Guide to Traffic Generating Developments* which provides the best criteria to assess traffic generation of facilities, the proposed new entry will not attract additional patronage to the site in the peak hour as no change is proposed to facilities on site.

The proposed new entry will provide greater lead in space to the pump islands, avoid the congregation of vehicles at the entry and obviate the likelihood of queuing back onto Military Road. Closing of the existing entry to the old house will remove the potential for conflict from vehicles using that access crossing.

This is illustrated in Drawings 2247-SK2/A and 2247-012B below which respectively show the existing situation and that with the changes now proposed. It will be noted that the revised proposal almost doubles the capacity of the forecourt space for cars seeking the pumps enabling them to move fully onto the site compared to the restrictive space with the existing arrangement, namely –

- Existing layout – 12 at pumps + 4 in the forecourt leading to the pumps = 16 vehicles
- Proposed layout – 12 at pumps + 16 in forecourt leading to pumps = 28 vehicles.

The extra site capacity of 12 extra spaces for vehicles leading to the pumps more than accommodates the maximum queue of vehicles back onto Military Road of 4 vehicles at present.

The improved forecourt operation can also be assessed by reference to normal refuelling times. The fill time per pump generally varies between 2 and 5 minutes with a average of about 3 minutes. With 12 pump outlets this means that the throughput capacity is $12 \times 60/3 = 240$ fills per hour. This can be compared with the recorded peak arrival of 133 vph. This indicates that it is unlikely that any queuing will occur beyond the normal one vehicle at a pump island. The problem with the present site operation is not the number of pumps but the restricted space leading to the pumps which can inhibit vehicles reaching some of them.

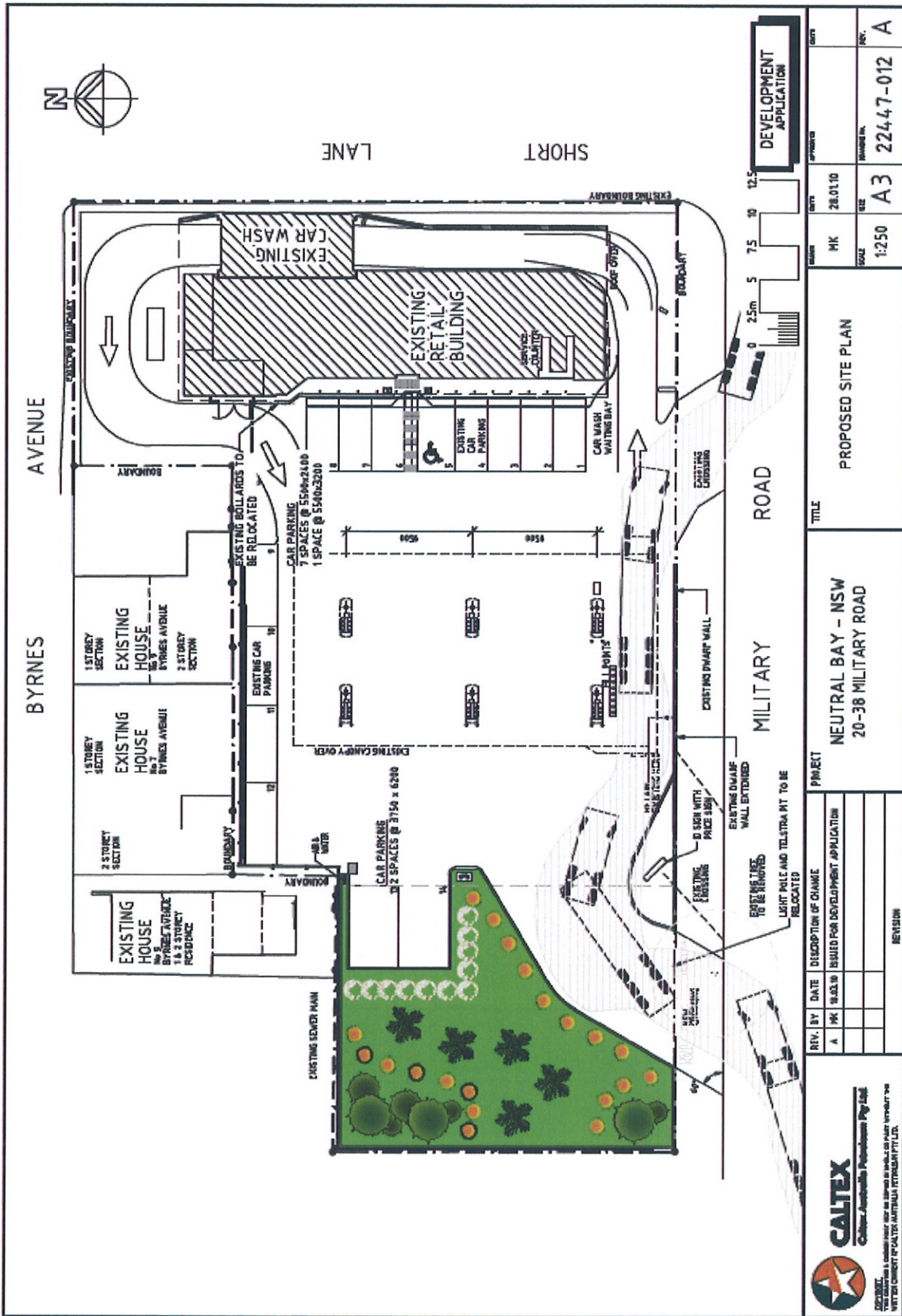
Hence the safety initiative should inhibit overflow onto Military Road.

There is ample on site capacity for vehicles to park or fuel with 14 marked parking spaces and 12 spaces at bowsers = 26 spaces compared to a maximum accumulation on site of 19 vehicles. Access to the parking spaces and bowsers, as indicated above, can be restricted in peak periods by the restricted on site access conditions in the present layout. The re-arranged access and parking coupled with the widened forecourt will better accommodate parking demand at the site and avoid vehicles congregating on site awaiting spaces.

Landscaping of the rest of the old house site with acoustic walling around the periphery will reduce the impact of site operation on neighbours to the site and generally improve the streetscape in this area.

Ken Dobinson
28th April 2010





Our References: ID 09M746-c SYD09/00374
Contact: Edmond Platon
Telephone: 8849 2906



Dobinson and Associates
38/59 Macquarie Drive,
Cherrybrook NSW 2126
kdo55500@bigpond.net.au

Attention: Ken Dobinson

**PROPOSED MODIFICATION TO AN EXISTING ENTRY TO THE CALTEX SERVICE
STATION AT 20-38 MILITARY ROAD, NEUTRAL BAY**

Dear Mr Dobinson

I refer to your letter of 25 November 2009 seeking clarification on a number of issues relating to my letter of 11 November 2009.

I wish to confirm that the revised access arrangements show a significant improvement in addressing the existing queuing problems and the RTA would support the initiative shown by Caltex should Caltex approach North Sydney Council and obtain their approval to undertake the works.

In my letter, a comment was made (point 2) about the need to have a qualified traffic controller guide cars in and around the site to ensure queuing does not occur on Military Road. After further consideration it is suggested that in lieu of a traffic controller, Caltex may wish to investigate other measures to address this problem should it arise.

Any further inquiries in relation to this matter should be forwarded to the nominated Assistant Planner, Edmond Platon on telephone 8849 2906 or facsimile 8849 2918.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Ken Moon'.

Ken Moon
Land Use Planning and Assessment Manager
Transport Planning, Sydney Region

3 December 2009

cc North Sydney Council

Roads and Traffic Authority

27-31 Argyle Street, Parramatta NSW 2150
PO Box 973 Parramatta CBD NSW 2150 DX28555 Parramatta
www.rta.nsw.gov.au | 13 17 82

APPENDIX A

**Traffic, Parking & Queuing Count
p.m. Thursday 22nd April 2010**



R.O.A.R. DATA
 Reliable, Original & Authentic Results
 Ph. 88196847, Fax 88196849, Mob. 0418-239019

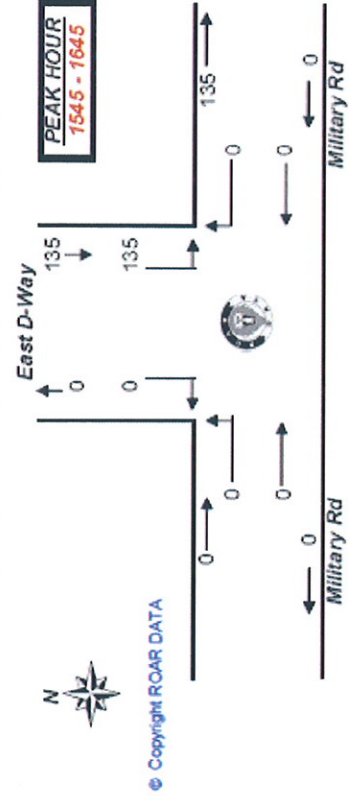
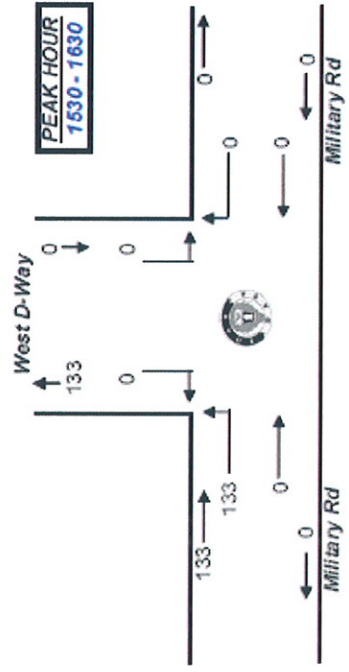
Client : Ken Dobinson & Associates
 Job No/Name : 3072 NEUTRAL BAY Caltex Military Rd
 Day/Date : Thursday 22nd April 2010

Time Per	WEST			NORTH			EAST			TOTAL
	Military Rd	L	R	West D-Way	L	R	Military Rd	L	R	
1530 - 1545	39	0	0	0	0	0	0	0	0	39
1545 - 1600	29	0	0	0	0	0	0	0	0	29
1600 - 1615	29	0	0	0	0	0	0	0	0	29
1615 - 1630	36	0	0	0	0	0	0	0	0	36
1630 - 1645	31	0	0	0	0	0	0	0	0	31
1645 - 1700	30	0	0	0	0	0	0	0	0	30
1700 - 1715	32	0	0	0	0	0	0	0	0	32
1715 - 1730	30	0	0	0	0	0	0	0	0	30
1730 - 1745	29	0	0	0	0	0	0	0	0	29
1745 - 1800	28	0	0	0	0	0	0	0	0	28
1800 - 1815	29	0	0	0	0	0	0	0	0	29
1815 - 1830	28	0	0	0	0	0	0	0	0	28
Period End	370	0	0	0	0	0	0	0	0	370

Time Per	WEST			NORTH			EAST			TOTAL
	Military Rd	L	R	East D-Way	L	R	Military Rd	L	R	
1530 - 1545	0	0	0	31	0	0	0	0	0	31
1545 - 1600	0	0	0	36	0	0	0	0	0	36
1600 - 1615	0	0	0	27	0	0	0	0	0	27
1615 - 1630	0	0	0	35	0	0	0	0	0	35
1630 - 1645	0	0	0	37	0	0	0	0	0	37
1645 - 1700	0	0	0	31	0	0	0	0	0	31
1700 - 1715	0	0	0	25	0	0	0	0	0	25
1715 - 1730	0	0	0	30	0	0	0	0	0	30
1730 - 1745	0	0	0	30	0	0	0	0	0	30
1745 - 1800	0	0	0	32	0	0	0	0	0	32
1800 - 1815	0	0	0	27	0	0	0	0	0	27
1815 - 1830	0	0	0	28	0	0	0	0	0	28
Period End	0	0	0	369	0	0	0	0	0	369

Peak Per	WEST			NORTH			EAST			TOTAL
	Military Rd	L	R	West D-Way	L	R	Military Rd	L	R	
1530 - 1630	133	0	0	0	0	0	0	0	0	133
1545 - 1645	125	0	0	0	0	0	0	0	0	125
1600 - 1700	126	0	0	0	0	0	0	0	0	126
1615 - 1715	129	0	0	0	0	0	0	0	0	129
1630 - 1730	123	0	0	0	0	0	0	0	0	123
1645 - 1745	121	0	0	0	0	0	0	0	0	121
1700 - 1800	119	0	0	0	0	0	0	0	0	119
1715 - 1815	116	0	0	0	0	0	0	0	0	116
1730 - 1830	114	0	0	0	0	0	0	0	0	114
PEAK HR	133	0	0	0	0	0	0	0	0	133

Peak Per	WEST			NORTH			EAST			TOTAL
	Military Rd	L	R	East D-Way	L	R	Military Rd	L	R	
1530 - 1630	0	0	0	129	0	0	0	0	0	129
1545 - 1645	0	0	0	135	0	0	0	0	0	135
1600 - 1700	0	0	0	130	0	0	0	0	0	130
1615 - 1715	0	0	0	128	0	0	0	0	0	128
1630 - 1730	0	0	0	123	0	0	0	0	0	123
1645 - 1745	0	0	0	116	0	0	0	0	0	116
1700 - 1800	0	0	0	117	0	0	0	0	0	117
1715 - 1815	0	0	0	119	0	0	0	0	0	119
1730 - 1830	0	0	0	117	0	0	0	0	0	117
PEAK HR	0	0	0	135	0	0	0	0	0	135



© Copyright ROAR DATA



R.O.A.R. DATA

Reliable, Original & Authentic Results
Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Ken Dobinson & Associates

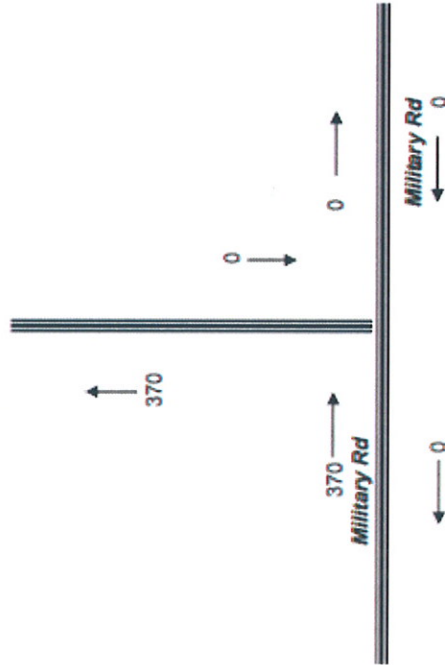
Job No/Name : 3072 NEUTRAL BAY Caltex Military Rd

Day/Date : Thursday 22nd April 2010

TOTAL VOLUMES
FOR PERIOD
COUNTED

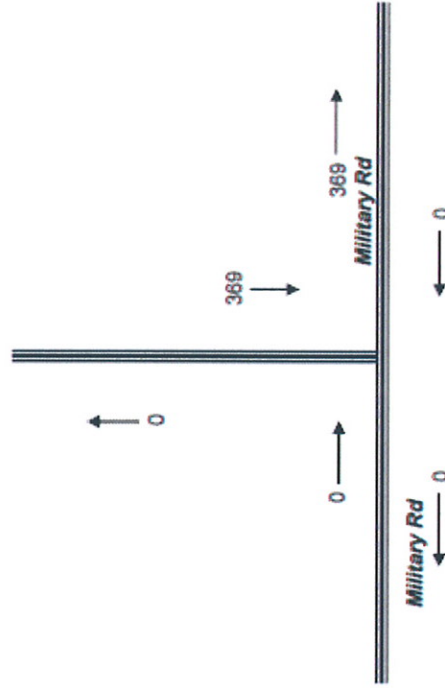
Western

West D-Way



Eastern

East D-Way







R.O.A.R DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Ken Dobinson & Associates

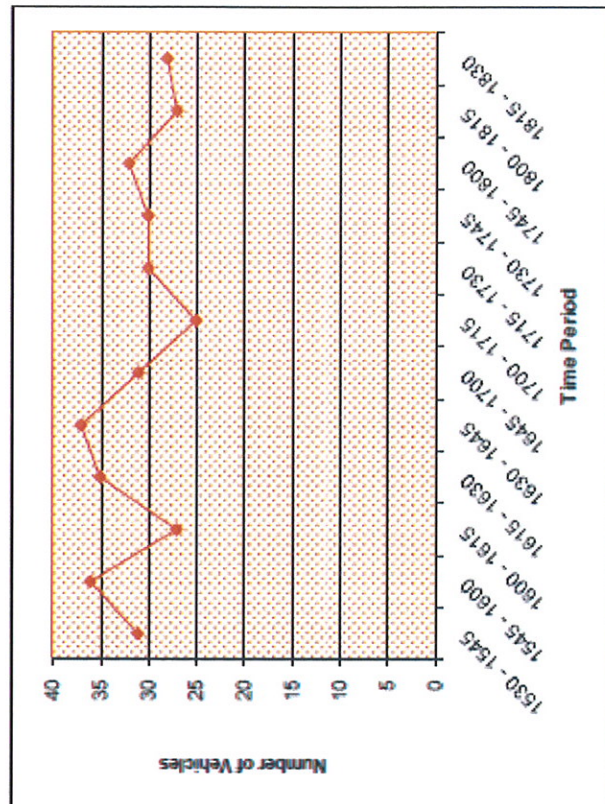
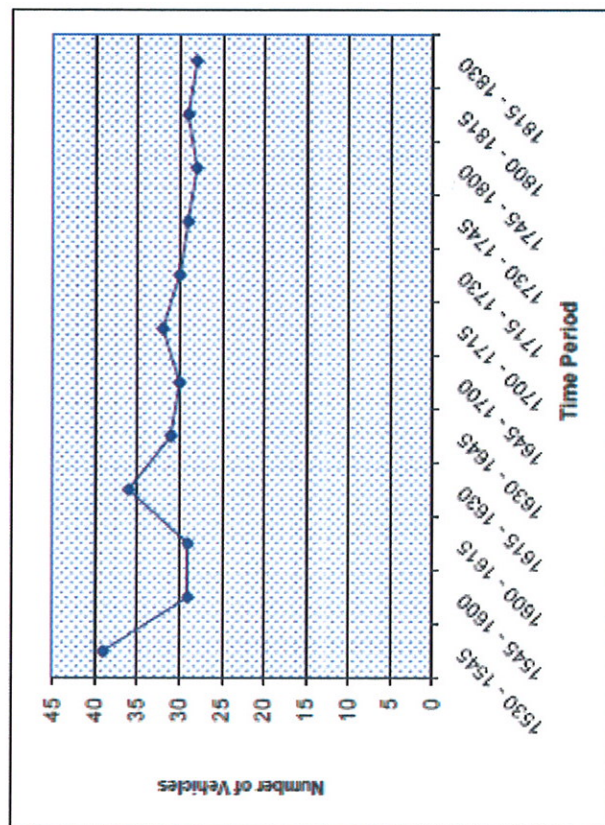
Job No/Name : 3072 NEUTRAL BAY Caltex Military Rd

Day/Date : Thursday 22nd April 2010

Western

Caltex & Military Rd

Eastern







R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.04118-239019

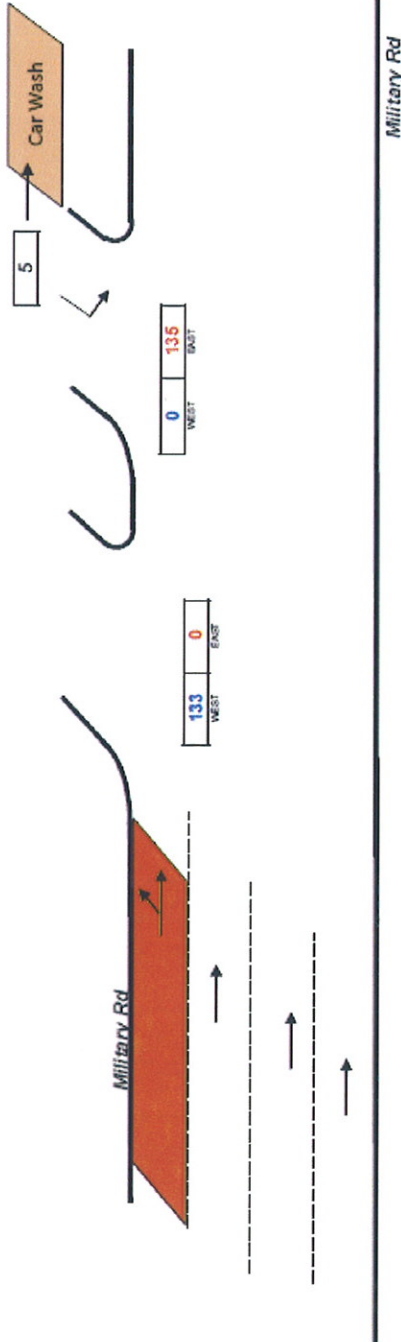
Client : Ken Dobinson & Associates
Job No/Name : 3072 NEUTRAL BAY Caltex Military Rd
Day/Date : Thursday 22nd April 2010



Intersection Details
Obtained via satellite
May be incorrect

West PEAK HOUR
1530 - 1630

Caltex



East PEAK HOUR
1545 - 1645



Weather >>>









R.O.A.R. DATA

Reliable, Original & Authentic Results
 Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Ken Dobinson & Associates
 Job No/Name : 3072 NEUTRAL BAY Caltex Military Rd
 Day/Date : Thursday 22nd April 2010

At Start
 Car Spaces 4
 Bowsers 7
 Queue 0
 Total 11

At Finish
 Car Spaces 3
 Bowsers 9
 Queue 0
 Total 12

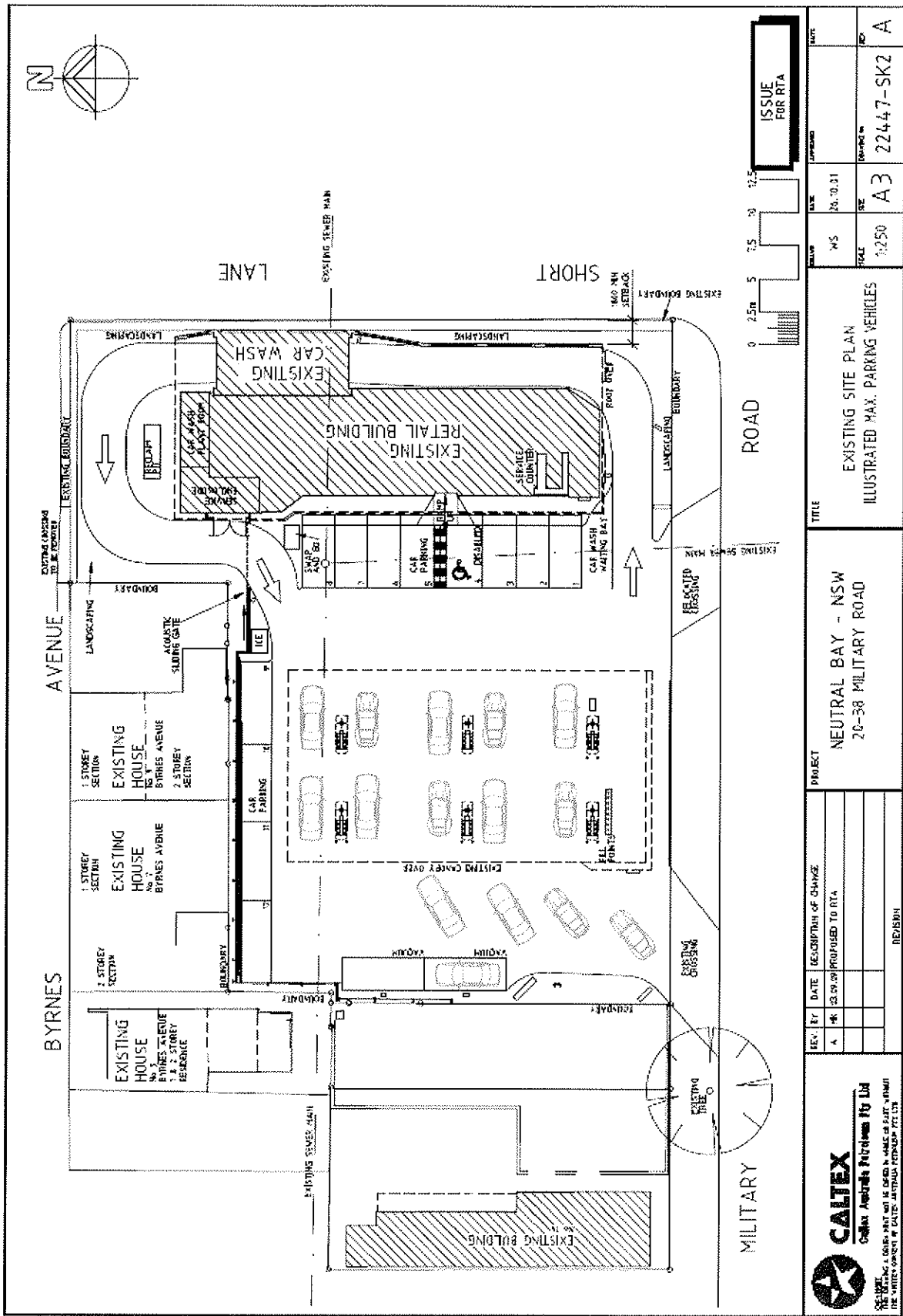
All Vehicles	MILITARY RD WESTERN			TOTAL
	Driveway			
Time Per	Left In	Left Out		
1530 - 1545	39	0		39
1545 - 1600	29	0		29
1600 - 1615	29	0		29
1615 - 1630	36	0		36
1630 - 1645	31	0		31
1645 - 1700	30	0		30
1700 - 1715	32	0		32
1715 - 1730	30	0		30
1730 - 1745	29	0		29
1745 - 1800	28	0		28
1800 - 1815	29	0		29
1815 - 1830	28	0		28
Period End	370	0		370

All Vehicles	MILITARY RD EASTERN			TOTAL
	Driveway			
Time Per	Left In	Left Out		
1530 - 1545	0	31		31
1545 - 1600	0	36		36
1600 - 1615	0	27		27
1615 - 1630	0	35		35
1630 - 1645	0	37		37
1645 - 1700	0	31		31
1700 - 1715	0	25		25
1715 - 1730	0	30		30
1730 - 1745	0	30		30
1745 - 1800	0	32		32
1800 - 1815	0	27		27
1815 - 1830	0	28		28
Period End	0	369		369

Caltex	
Accumulation	
19	
12	
14	
15	
9	
8	
15	
15	
14	
10	
12	
12	

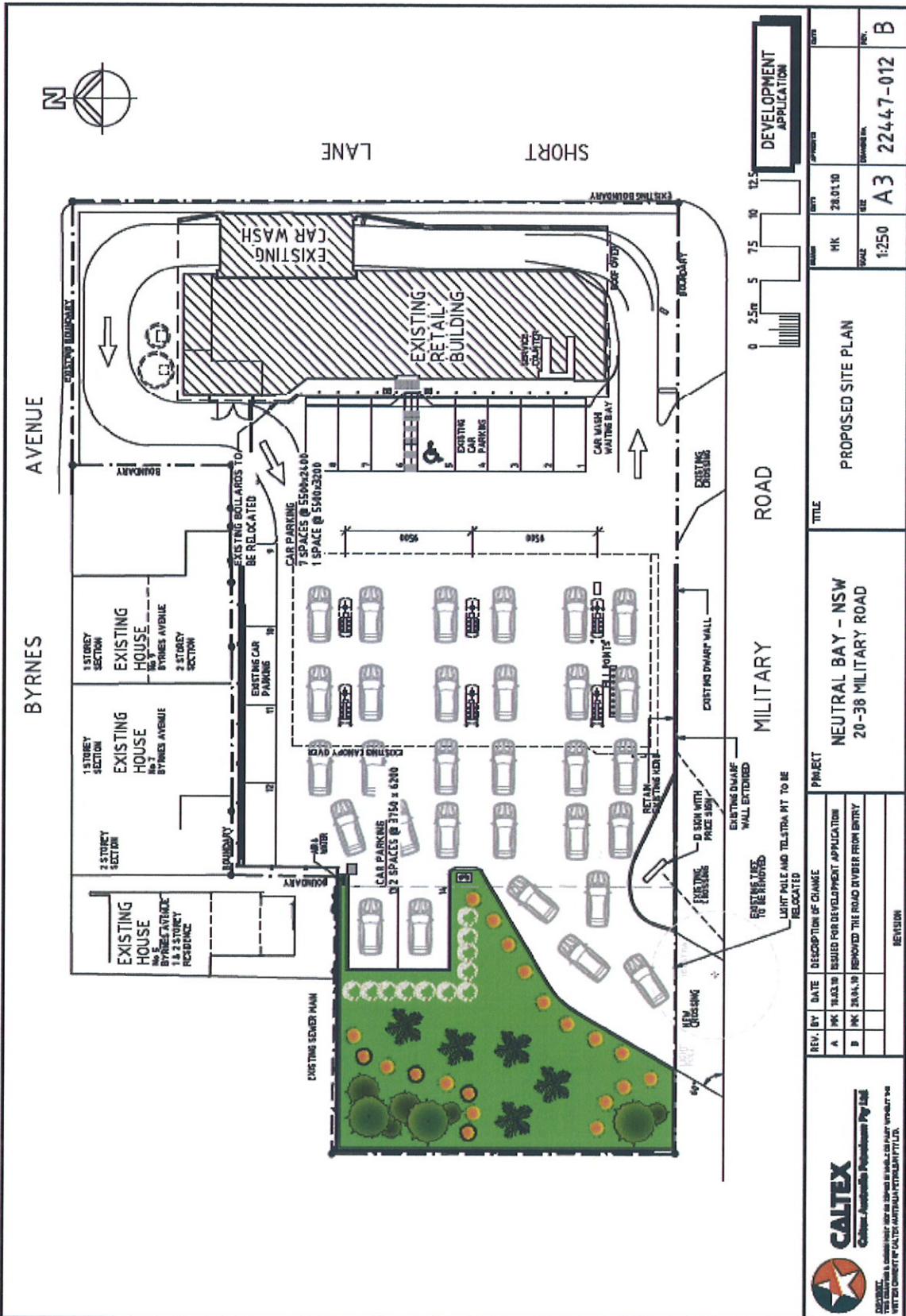
Time Per	Number parked in	
	Car Spaces	Bowsers
1530	4	
1545	2	
1600	3	
1615	3	
1630	6	
1645	3	
1700	3	
1715	3	
1730	3	
1745	4	
1800	3	
1815	6	
1830	3	





 CALTEX Caltex Australia Petroleum Pty Ltd		PROJECT NEUTRAL BAY - NSW 20-38 MILITARY ROAD		TITLE EXISTING SITE PLAN ILLUSTRATED MAX. PARKING VEHICLES		SCALE 1:250		DATE 28.10.01		DRAWING NO. 22447-SK2		SHEET NO. A	
REV.	BY	DATE	DESCRIPTION OF CHANGE	REV.	DATE	DESCRIPTION OF CHANGE	REV.	DATE	DESCRIPTION OF CHANGE	REV.	DATE	DESCRIPTION OF CHANGE	REV.
1	MS	28.10.01	ISSUE FOR RFA	1	MS	28.10.01	ISSUE FOR RFA	1	MS	28.10.01	ISSUE FOR RFA	1	MS





DEVELOPMENT APPLICATION

DATE: 28.01.10
 MK: 1:250
 SCALE: A3
 PROJECT NO: 22447-012
 REV: B

TITLE: PROPOSED SITE PLAN

PROJECT: NEUTRAL BAY - NSW
 20-38 MILITARY ROAD

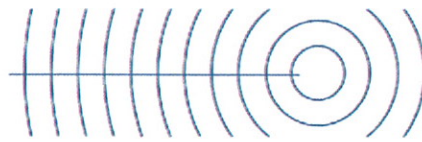
REV.	BY	DATE	DESCRIPTION OF CHANGE
A	MK	18.03.10	ISSUED FOR DEVELOPMENT APPLICATION
B	MK	28.01.10	REMOVED THE ROAD DIVIDER FROM ENTRY

CAITEX
 Caltech Australia's Infrastructure Pty Ltd
 CALTEX AUSTRALIA'S INFRASTRUCTURE DIVISION
 A DIVISION OF CALTEX AUSTRALIA PETROLEUM PTY LTD.



Appendix D Acoustic report





RSA ACOUSTICS
Acoustic Consultants

Woolworths Caltex Petrol Station Military Road, Neutral Bay Acoustical Assessment

Report 4118R1

April 2009

Prepared For
Caltex Australia

Prepared By
Lee Hudson
BAppSc MAAS
RSA Acoustics

A division of Heggies Pty Ltd

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Parramatta NSW 2124



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1 INTRODUCTION

RSA Acoustics Pty Ltd (RSA) has been engaged by Caltex Australia, to undertake an assessment of the acoustical implications associated with the demolition of an existing two storey residence adjacent to the Caltex Woolworths Petrol Station at Military Road, Neutral Bay. The residence currently provides shielding between the Petrol Station forecourt and a neighbouring apartment building.

The purpose of this report is to determine the potential noise impact on the residential apartment building located at 12 Military Road and provide treatment recommendations so that the existing Petrol Station may operate in an acoustically compliant manner.

This report presents the study methodology, assessment criteria, assessment of noise emissions and noise control recommendations in relation to the following specific areas of acoustical significance:

- Noise emission from customers' vehicle movements on the premises.
- Noise emission from vehicles serving the premises.

2 PROJECT DESCRIPTION

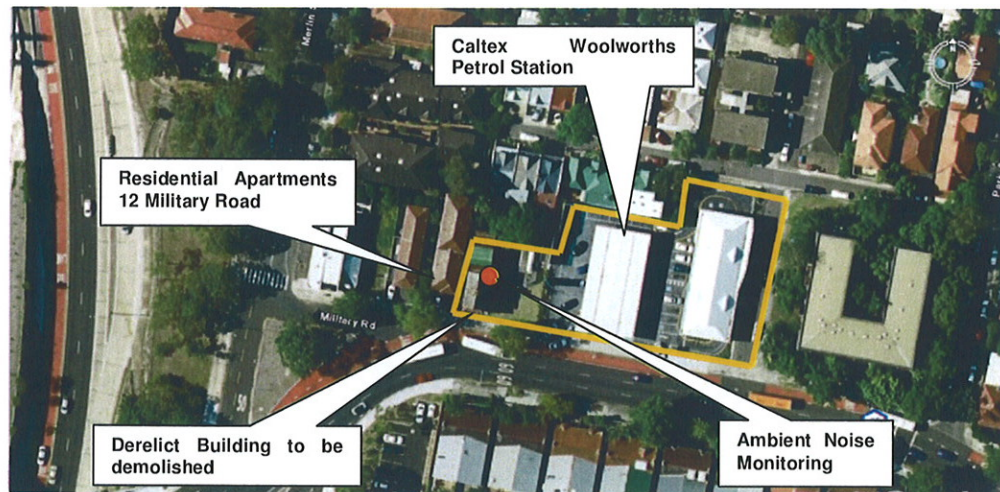
2.1 Site Location

The Caltex Woolworths Petrol Station is located at 16 – 38 Military Road, Neutral Bay NSW.

The site is bounded by a two storey residential apartment building to the west, residential premises to the north, Military Road and residences to the south and commercial premises to the east. The site includes a derelict two storey building, which is to be demolished, located on the western side.

An aerial photo of the site is presented in **Figure 1**.

Figure 1 Site Location



Aerial Image courtesy of Google Earth

2.2 Proposed Development

Figure 1 shows the site location and layout of the development and its relationship with the surrounding receivers.

The nearest potentially affected receivers following the demolition of the existing derelict building at the southwestern corner of the site have been identified as the residential apartment building at 12 Military Road, directly to the west of the Petrol Station site.

2.3 Hours of Operation

The petrol station operates on a 24 hours per day, 7 days per week basis.

3 EXISTING NOISE ENVIRONMENT

3.1 Ambient Noise Monitoring

In order to establish the existing ambient noise environment of the area, noise monitoring was conducted at a location representative of the nearest potentially sensitive receivers. This location was selected after a detailed inspection of the project area giving consideration to other noise sources which may influence the readings, the proximity of noise-sensitive receivers, security issues for the noise monitoring device and gaining permission for access from the residents or landowners. The selected monitoring location is detailed in **Table 1**, and shown in **Figure 1**.

Unattended environmental noise monitoring was conducted over 3 days from Monday 20 April 2009 to Wednesday 22 April 2009.

Instrumentation for the survey comprised an Acoustic Research Laboratories (ARL) Environmental Noise Logger Type EL-316 (serial number 16-306-038) fitted with a microphone windshield. Calibration of the logger was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dBA. All equipment carried appropriate and current NATA (or manufacturer) calibration certificates.

Table 1 Ambient Noise Monitoring

Logger Location ¹	Description	Notes
1	Approximately midway along the eastern facade of the derelict property on the western side of the Caltex site.	Used to determine ambient noise at the nearest residential property to the west.

Note 1: Refer to **Error! Reference source not found.** for noise monitoring location.

3.2 Noise Monitoring Results

In order to assess the acoustical implications of the demolition of the derelict dwelling on the levels of noise received at the neighbouring residential apartments due to the petrol station operations, the measured data was processed according to the NSW Department of Environment and Climate Change's (DECC) Industrial Noise Policy (INP) assessment time periods. **Table 2** details the RBL (background) noise levels recorded during the daytime, evening and night time periods.

Table 2 Measured Ambient Noise Levels Corresponding to DECC Industrial Noise Policy Assessment Time Periods

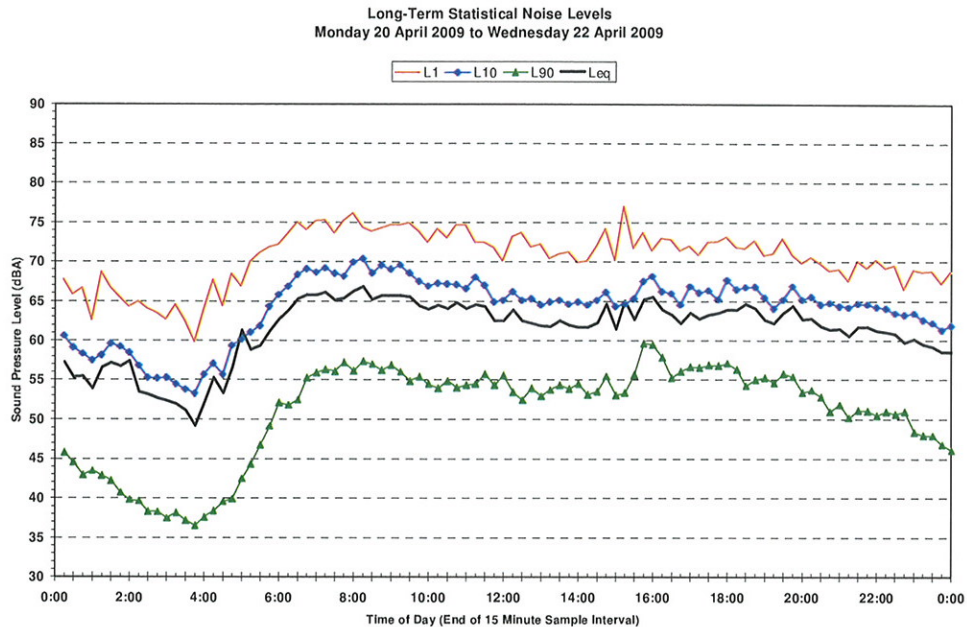
Logger Location	Noise Level – dBA re 20 μ Pa					
	Daytime 0700 hrs – 1800 hrs		Evening 1800 hrs – 2200 hrs		Night-time 2200 hrs – 0700 hrs	
	RBL ¹	LAeq ²	RBL	LAeq	RBL	LAeq
Location 1	56	65	51	63	39	60

Note 1: The RBL noise level is representative of the average minimum background sound level (in the absence of the source under consideration), or simply the background level.

Note 2: The LAeq is essentially the average sound level. It is defined as the steady sound level that contains the same amount of acoustical energy as a given time-varying sound.

A representative 24 hour period of measured ambient noise levels is presented in **Figure 2**.

Figure 2 Long-Term Statistical Noise Levels – Western area of site



The measured data at this location is dominated by road traffic on Military Road and the nearby Warringah Freeway.

3.3 Statistical Noise Level Descriptors

The common statistical noise level descriptors referred to in this report are described below:

LA1 The noise level exceeded for 1% of the sample time (15-minute) and representative of the highest noise level events, (eg passing heavy vehicles, aircraft etc).

LA10 The noise level exceeded for 10% of the sample time (15-minute) and is typically described as the average maximum noise level. The LA10 noise level is representative of intrusive noise

LA90 The noise level exceeded for 90% of the sample time (15 minutes). The LA90 noise level is described as the average minimum background sound level or simply the background level.

LAeq The LAeq is the energy-average sound level. It is defined as the steady sound level that contains the same amount of acoustical energy as a given time-varying sound.



4 ASSESSMENT CRITERIA

4.1 Operational Noise Emissions

Noise criteria relating to operational noise emissions at nearby residential areas are contained in the DECC's Industrial Noise Policy (INP). The policy is applicable to commercial and industrial facilities and has the following broad objectives:

- Controlling intrusive noise impacts.
- Maintaining noise level amenity for particular land uses over the medium to long-term.

4.1.1 Intrusiveness Criterion

In setting an "Intrusive" noise criterion, a statistically rigorous estimate of the ambient (background) LA90 noise level, termed the RBL, needs to be established at the nearest sensitive receivers. Normally, an "RBL plus 5 dBA" criterion is then applied to the 15-minute LAeq noise emissions of the noise source in question (usually at the property boundary of the receivers of interest).

Intrusive Design Goal: $LA_{eq}(15\text{minute}) \leq \text{RBL} + 5 \text{ dBA}$

Section 3.1 of the INP recommends that, where the RBL is found to be below 30 dBA, it is set at 30 dBA. This requirement is not relevant to this situation.

4.1.2 Amenity Criterion

The "Amenity" noise goal seeks to place a limit on noise emissions according to how existing emissions from industrial/commercial activities relate to recommended noise levels for the type of area involved, ie rural, urban, etc.

The resulting amenity criterion placed upon noise emissions from a new facility then depends upon whether existing industrial/commercial-related LAeq(period) levels are lower or higher than the recommended amenity level.

In areas where existing industrial/commercial-related noise levels are already high, the amenity noise criterion acts to limit new industrial noise emissions so that the cumulative industrial/commercial noise emission levels do not increase.

Conversely, in areas where there is no (or minimal) existing industrial/commercial noise, the amenity noise criterion would be set at a level which allows new industrial/commercial noise emissions up to the recommended amenity level for the area.

The DECC's recommended "acceptable noise levels" (ANLs) for residential premises located in an "Urban" area are given in **Table 3**.

The ambient noise environment in this area is dominated by traffic noise from Military Road and the nearby Warringah Freeway. The existing traffic noise (LAeq) levels are well above the recommended acceptable noise levels for the area during the daytime, evening and night-time periods. Therefore, as recommended in Section 2.2.3 of the INP, the high-traffic amenity criterion applies to this area during these time periods and the amenity criterion becomes the LAeq,period(traffic) minus 10 dB.



4.1.3 Project Specific Noise Criteria

The intrusive and amenity criteria for the neighbouring residential premises are presented in **Table 3**. These criteria are nominated for the purpose of assessing the potential noise impact from the operation of the Petrol Station.

For each assessment period, the lower (ie the more stringent) of the amenity or intrusive criteria are adopted. These are shown in bold text in **Table 3**.

Table 3 Noise Criteria for Residential Receivers

Location	Time of Day	ANL ¹ LAeq(period)	Measured RBL ² LA90(15minute)	Measured LAeq(period) Noise Level)	Criteria for New Sources	
					Intrusive LA90(15minute)	Amenity ³ LAeq(period)
1	Day	60	56	65	61	55
	Evening	50	51	63	56	53
	Night	45	39	60	44	50

Note 1: ANL = "Acceptable Noise Level" for residences in a Suburban Area.

Note 2: RBL = "Rating Background Level".

Note 3: Assuming existing noise levels are unlikely to decrease in the future.

Noise criteria derived from the data measured at logger Location 1 are to be used for assessing potential noise impacts on the neighbouring residential apartment building at 12 Military Road.

4.2 Sleep Disturbance

The DECC's Environmental Noise Control Manual (ENCM) contains a guideline in relation to sleep disturbance. This provides a useful assessment tool for short duration, high noise level events which may not be assessed appropriately or controlled sufficiently by the INP's long-term-noise assessment procedures.

In order to minimise the potential for sleep disturbance due to transient (short-term) sounds, the DECC's ENCM recommends that:

The LA1(60second) noise level outside a bedroom window should not exceed the LA90 background noise level by more than 15 dBA.

This criterion is applicable only during the night time period (ie 10.00 pm to 7.00 am).

The LA1(60second) noise level may conservatively be estimated as the typical maximum level of the event being considered.

For planning purposes the assumed level of background noise for the night-time period is taken to be the night-time Rating Background Level, as given in Error! Reference source not found. (and **Table 3**) – resulting in a sleep disturbance criterion of:

- LA1(60second) **54 dBA** for residences along Military Road.

5 NOISE IMPACT ASSESSMENT

5.1 Car Noise Emissions

Noise associated with forecourt activities is primarily of concern during the night-time period, in particular the potential to cause sleep disturbance due to individual short-term high-noise-level events.

Noise will be generated by activities associated with cars arriving and leaving the premises (opening and closing of doors, starting, manoeuvring, accelerating etc). Typical sound power levels for low speed vehicle activities are included in **Table 4** along with the corresponding predicted noise levels at the adjacent residential apartments at 12 Military Road. Calculations have been conducted for two scenarios: without the intervening derelict residence which currently acts as a barrier for noise emissions to these receivers and with a 4.5 m high solid barrier along the new western boundary of the Petrol Station site. Vehicle noise events will be significantly noisier than normal speech and therefore the latter can be disregarded.

Table 4 Typical Vehicle-related Noise Emissions

Noise Source	Typical Maximum Sound Power Level L _w (dBA)	Resultant Noise ¹ at 12 Military Road No Barrier (dBA)	Resultant Noise ¹ at 12 Military Road 4.5 m Barrier ² (dBA)
Car Accelerating	93 – 98	53 – 58	43 – 48
Car Starting	91 – 97	51 – 57	41 – 47
Car Door Closing	88 – 93	48 – 53	38 – 43
Car Moving	83 – 90	43 – 50	33 – 40

Note 1: Calculations are based on noise source at approximate midpoint of forecourt area.

Note 2: Calculations include the shielding loss provided by a 4.5 m high solid concrete panel barrier (nominally 159 kg/m²) along the western boundary (approximately 2 m from the eastern facade of the residential apartments at 12 Military Road). A barrier performance equivalent to the existing barrier at the site has been adopted.

The upper end of the range of noise levels given in **Table 4** provides an indication of the maximum noise levels involved – ie representative of the LA_{1(60s)} metric associated with the sleep disturbance criteria referred to in **Section Error! Reference source not found.**

The calculated results show that the sleep disturbance criterion of 54 dBA will at times be exceeded at the neighbouring residential apartments following the demolition of the existing derelict building. However, with the provision of a 4.5 m high solid barrier along the western boundary, the sleep disturbance criterion will be achieved. A continuation of the existing concrete panel barrier construction along the boundary adjacent to the residential apartments at 12 Military Road will provide adequate acoustical shielding.

The LA_{eq} descriptor, measured over 15 minutes of typical forecourt vehicular activity would be considerably lower than the predicted maximum levels shown in **Table 4** and will comply with the night-time INP criterion of 44 dBA.

5.2 Tanker and Truck Deliveries

Tanker and truck delivery noise levels are based on experience of loading dock activities where vehicle reversing alarms and truck engines tend to produce the highest noise levels – as shown in **Table 5**.

Table 5 Typical Large Truck Delivery Noise Emissions

Noise Source	Typical Maximum Sound Power Level L _w (dBA)	Resultant Noise ² at 12 Military Road No Barrier (dBA)	Resultant Noise ² at 12 Military Road 4.5 m Barrier ³ (dBA)
Reversing Alarm ¹	100 - 110	60 - 70	50 - 60
Truck Engine	100	60	50
Raised Voices	83	43	33

People Talking	78	38	28
Note 1:	Depends upon vehicle noise - needs to be clearly audible in the presence of vehicle manoeuvring noise.		
Note 2:	Calculations are based on noise source at approximate midpoint of forecourt area.		
Note 3:	Calculations include the shielding loss provided by a 4.5 m high solid concrete panel barrier (nominally 159 kg/m ²) along the western boundary (approximately 2 m from the eastern façade of the residential apartments at 12 Military Road). A barrier performance equivalent to the existing barrier at the site has been adopted.		

Tanker and Truck Engine Noise

The results indicate that tanker and truck delivery noise will exceed the daytime and evening criteria of 55 dBA and 53 dBA respectively, at the neighbouring residential apartments following the demolition of the existing derelict building. However, with the provision of a solid 4.5 m high barrier along the western boundary, the daytime and evening criteria will clearly be achieved.

The night-time sleep disturbance criterion of 54 dBA will also be achieved following the construction of a 4.5 m high solid barrier along the western boundary of the site.

Truck Reversing Alarms

Tankers delivering fuel will not reverse on site as they are required to enter and leave the petrol station in a forward direction. This is a safety requirement for all Caltex Woolworths Petrol Stations. Reversing alarms associated with tanker operations on the site are therefore not an issue in terms of achieving the daytime, evening or night-time criteria.

Trucks making deliveries to the paypoint building may operate reversing alarms and the maximum predicted levels at the neighbouring residential apartments from reversing derelict dwelling range between 60 dBA to 70 dBA following the demolition of the intervening derelict dwelling. These levels reduce to between 50 dBA to 60 dBA following the construction of the 4.5 m high solid barrier along the western boundary. These levels may at times marginally exceed the daytime and evening amenity criteria by approximately 5 dBA to 7 dBA. These predictions are based on maximum noise levels, due to the short-duration nature of this type of noise source and it is inappropriate to compare this predicted maximum level with a criterion based upon an LAeq(15minute) emission. The LAeq descriptor, measured over 15 minutes of typical forecourt vehicular activity, including reversing alarm operation, would be considerably lower than the predicted maximum levels shown in **Table 5** and will comply with the daytime and evening INP criterion of 55 dBA and 53 dBA, respectively. It therefore unlikely that such events, occurring during the daytime or evening, would be particularly noticeable at the neighbouring apartment building.

6 CONCLUSION AND RECOMMENDATIONS

RSA Acoustics has conducted an assessment of the acoustical implications associated with the demolition of a two story derelict building located between the Caltex Woolworths Petrol Station at 16-38 Military Road, Neutral Bay and the residential apartments at 12 Military Road, Neutral Bay.

The scope of the assessment involved: a noise measurement survey; noise predictions with and without a barrier; a noise impact assessment relative to appropriate criteria; and, recommendations for noise control measures to enable the petrol station to continue operating in compliance with the relevant environmental criteria for noise emissions. The findings are as follows:

6.1 Forecourt Noise Emissions

- For typical source to receiver distances (ie, to the middle of the forecourt area) car-related noise events will be indistinguishable above the prevailing noise environment at the neighbouring residential apartments, and well below the existing typical ambient daytime and evening levels. Given that they will occur only intermittently, they are unlikely to exceed the daytime and evening criteria.



- These levels also comply with the night-time sleep disturbance criterion of 54 dBA with the provision of a 4.5 m high noise barrier to be constructed along the western boundary of the site, adjacent to neighbouring apartment building.

6.2 Tanker and Truck Deliveries

- Tanker and truck delivery engine noise will comply with the daytime and evening amenity criteria following the construction of a 4.5 m high solid barrier along the western boundary.
- The tankers making deliveries will not reverse on site as they are required to enter and leave the petrol station in a forward direction as a standard safety condition on all Caltex Woolworths petrol sites. Reversing alarms are therefore not an issue in terms of achieving the daytime, evening or night-time criteria.
- Truck reversing alarms are predicted to marginally exceed the daytime and evening amenity criteria by approximately 5 - 7 dBA following the construction of the 4.5 m solid barrier along the western boundary. However since the predicted levels are representative of a short-duration maximum noise event the LAeq(15minute) noise level will achieve the amenity criteria at the adjacent residential apartments and it is unlikely that such events, occurring during the daytime or evening, would be particularly noticeable.
- Deliveries to the paypoint building should be restricted to the daytime and evening periods only.

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