

SYDNEY

GPO Box 2748 Sýdney, NSW, 2001

02 9221 0300 02 9221 0300 02 9221 021 (

and i

sydney@hlipda.com

65 Constitution Avenue Campbell, ACT, 2612

canbeirra@hillpda.com

CANBERRA

02 6243 3617 02 6243 3617 02 6247 8989

INTERNET

Level 9, 185 Macquarle Street

# Proposed Parramatta Rail Link Impacts on Property Values Independent Peer Review

December 2001

Prepared for: Department of Urban Affairs and Planning



## CHIPDA

an an

Contraction of

No.

#### QUALITY ASSURANCE

This document is for discussion purposes only unless signed and dated

#### Hill PDA

Reviewed by

**Martin Hill** 

Director Hill PDA FAPI, MRE

Date: 21 December 2001

Date Printed: 21/12/2001 11:34 AM File Name: Document1

CHIIPDA

### CONTENTS

1.	EXECUTIVE SUMMARY	, 3
2.	INSTRUCTIONS	.6
3.	Methodology	.6
4.	CRITICAL ASSUMPTIONS	.7
5.	RESULTS OF SURVEY OF LOCAL REAL ESTATE AGENTS	
6.	EXAMPLES OF PROPERTIES ALONG THE ALIGNMENT	.9
7.	NEW SOUTHERN RAILWAY (AIRPORT LINK)	12
	7.1 Survey of Residents (George St, Redfern)	12
	7.2 Survey of Local Real Estate Agents (Redfern/Surry Hills)	13
8.	M5 EAST (FREEWAY) TUNNEL	14
9.	EASTERN SUBURBS RAILWAY	
10.	Perth Northern Bypass-(Graham Farmer Freeway)	
	Conclusion	

Line and

1 House

Allowing

1000

- International

Survey of

#### **LIST OF FIGURES**

Figure 1 - 61 Ray Road, Epping	.9
Figure 2 - 14 Muriel Avenue, Epping	.9
Figure 3 - 121 Ray Road, Epping	
Figure 4 - 163 Ray Road, Epping	10
Figure 5 - 34 Trafalgar Avenue, Roseville	10
Figure 6 - 119 Ray Road, Epping	11
Figure 7 - 23 Dent Street, Epping	11
Figure 8 - George St, Redfern	12
Figure 9 - Location Map	12
Figure 10 - M5 East Freeway Map	14

Appendix 1 - Letter from Richard Heggie Associates

#### **1.** EXECUTIVE SUMMARY

The Department of Urban Affairs and Planning (Development and Infrastructure Branch) instructed Hill PDA Land Economists and Valuers to undertake an independent assessment as to the extent the proposed Parramatta Rail Link (PRL) would impact on property values. We have carried out research and a peer review of the report prepared by Brady Whealing for the Parramatta Rail Link Company (PRLC), including the cited infrastructure projects such as the M5 East Freeway Tunnel, New Southern Line (Airport Link), the Eastern Suburbs Railway along with the local market. We have made a number of critical assumptions in our study including:

- There will be no adverse noise affectation
- There will be no significant settlement
- Land to be acquired as Stratum allows owners to have a clear title

After researching the impact the previously noted projects have had on property values, the impact of the Perth Northern Bypass (Graham Farmer Freeway), combined with results of surveys undertaken by us, we consider the PRL will have no significant negative impact on property values in the area and along the alignment in the long term. The projects noted have not experienced any significant adverse impact on property values.

In the short term or until construction is complete we would expect property values above the alignment to decrease marginally but it is difficult to quantify. Some agents estimating a decrease by approximately 5-10% as potential purchasers perceive the PRL as a negative. This may result in properties taking longer periods to sell and vendors accepting reduced selling prices to obtain a quick sale.

Over the long term or once the PRL is complete we would expect this negative impact on property values above the PRL to decrease. We consider the PRL will be only one factor of many that affect property values. Over time these factors including interest rates, the historical value of property values in the area, the world economy and the Australian economy will outweigh the influence the PRL will have on property values. Over the long term the PRL will have a positive affect on property values in the area as a whole, increasing accessibility to the rail network and the ability for residents to walk to railway stations.

#### HIIRD/A

#### 2. INSTRUCTIONS

The Department of Urban Affairs and Planning commissioned Hill PDA in November 2001 to undertake an independent assessment as to the extent the proposed Parramatta Rail Link could impact on property values. The assessment includes a peer review of the report prepared by Brady Whealing Pty Ltd for the Parramatta Rail Link Company (PRLC) including the cited other infrastructure projects such as M5 East Freeway Tunnel, New Southern Line (Airport Link) and the Eastern Suburbs Railway.

#### 3. METHODOLOGY

We have researched and reviewed the following as part of our methodology including:

- The information provided by PRLC and referenced within the EIS.
- We have taken part in a noise demonstration held by Richard Heggie and Associates to obtain a greater understanding of the issue of regenerated noise and have reviewed the information provided by them in relation to dBA levels as a result of the PRL along with background noise levels taken along the proposed alignment.
- We have carried out a literature search on the internet for similar projects and areas of study and have contacted the Urban Land Institute in the United States searching for studies or cases that may be relevant.
- We have surveyed a number of local real estate agents active in the areas affected by the EIS alignment and the modified alignment of the PRL, specifically Roseville, Lindfield and Epping. We asked them a number of questions relating to the impact the PRL is having on property values directly above and within the surrounding area. We were able to arrive at a conclusion of their overall opinions on the PRL and the affect it is having at the moment on property values above the PRL as well as their opinions of the possible effect in the long run.
- We have contacted the RTA in regard to the M5 East Freeway and the impact the tunnel has had on the properties above, specifically the results of the resales of properties which have exercised the Value Guarantee provided to nominated properties. From these results we were able to arrive at a conclusion of the impact the M5 East is having on property values above.
- We have surveyed a number of the local residents located near the New Southern Railway (Airport Link), which runs under George Street, Redfern. We have asked the residents if there have been any affects as a result of the Airport Link. From the results we were able to arrive at a conclusion.

All of the second second

In States

STATISTICS &

SHORE:

- We have surveyed a number of local real estate agents in the Redfern/Surry Hills locality as to the effect the New Southern Railway has had on the property values along George Street, Redfern. From their answers we were able to arrive at a conclusion of their overall opinions.
- We have reviewed the Property Values Review undertaken by Brady Whealing and their conclusions.
- We have contacted the East Perth Redevelopment Authority regarding the Perth Northern Bypass (Graham Farmer Freeway) and the impact it has had on residential property values above the tunnel section and we were able to arrive at a conclusion.

## 4. CRITICAL ASSUMPTIONS

We have had to make a number of critical assumptions based on information provided to us by Richard Heggie Associates and PRLC. These assumptions are as follows:

- -• There will be no adverse noise affectation, including regenerated noise.
- There will be no significant settlement issues.
- There will be no sleep disturbance.
- There will be no unacceptable noise impacts during construction.
- Land will be acquired as a stratum under Crown Lands enabling property owners to have a clear title.

ST-SALES

B

#### 5. RESULTS OF SURVEY OF LOCAL REAL ESTATE AGENTS

The results of the survey of local real estate agents in areas affected by the proposed PRL, specifically Roseville, Lindfield, and Epping, revealed generally similar responses and opinions on the two main questions asked. These being the impact the PRL is having on property values above the alignment, and what impact it will have on property values in the area in the long term.

It was evident from a number of agents that they considered properties located above the PRL were affected by a negative perception from some potential purchasers as a result of the PRL, but, they were unable to quantify the impact, if any, on values as a result. We found that the negative perception is having a greater effect more recently due to a softening of the market since September. This being a result of a number of factors including the September 11 terrorist attacks, the current world economic climate, the Australian economy and recent increases in supply. This negative perception is resulting in longer selling periods and, for owners who require a quick sale, reduced sale prices. This impact is being felt across the Sydney market and is not just specifically affecting the properties above the proposed PRL alignment.

Our research revealed that there are a limited number of examples of properties above and nearby the PRL alignment, which have been sold. The real estate agents surveyed revealed that the sentiment being shown by potential purchasers varies from seeing the PRL as a negative and expecting a discount on the property to being a positive as they will benefit from the PRL in the future. The results of this analysis indicated that the impact of the PRL has ranged from a positive impact, no impact on value, to a slight reduction in value.

It was noted that some agents considered the ability to be able to walk to a railway station a positive and key marketing point. One agent considers property values to have already increased near the proposed UTS(Ku-ring-gai) station as a result of the PRL.

We found that the general opinion by agents in the areas affected was that the area as a whole will benefit from the PRL in the long term as other factors such as interest rates, the historical growth in demand for property in the area, the world economic climate and the Australian economy will outweigh any negative impact the PRL will have on property values. One agent interviewed in Epping noted that they had personally invested a lot of money in commercial property in the area, as they consider the PRL an integral part of the future development of Epping.

**CHIRDA** 

## 6. EXAMPLES OF PROPERTIES ALONG THE ALIGNMENT

While there were limited examples available our survey identified a number of examples of properties that have been sold or are for sale along the proposed and original PRL alignment which are worth noting.

<u>61 Ray Road, Epping</u> sold in September 2001 prior to auction for \$583,000 is a single storey rendered brick residence with three bedrooms and single garage under. The subject property is within the rail corridor of the <u>proposed</u> alignment. Discussions with the selling agent reveal they did disclose that property was affected by the rail corridor. They considered the property to have been sold above market with a strong offer by the purchaser prior to auction. They consider





the sale price to be slightly above market and that the PRL did not have an impact on value.

<u>14 Muriel Avenue, Epping</u> sold in May 2001 for \$490,000 is a single storey 1940/50's style brick residence. The subject is within the rail corridor of the <u>original</u> alignment. The selling agent considers the property to have sold at the market level for properties unaffected. After analysis of sales evidence we consider the subject to have been sold at a comparable value to that of similar properties that are unaffected.

Figure 2 - 14 Muriel Avenue, Epping



#### HIRDA

<u>119 Ray Road, Epping</u> sold in April 2000 for \$388,500 is a single storey brick residence with single garage. We have been advised by the selling agency that the subject property is within the <u>original</u> rail corridor. They consider the subject to be sold at the same level as similar properties that were unaffected. After analysis of sales evidence we consider the subject to have been sold at a comparable value to that of similar properties that are unaffected.

<u>163 Ray Road, Epping</u> is a single storey brick residence on a corner allotment that was passed in at auction in September 2001 at \$560,000. This property has only a small portion of the property impacted by the <u>proposed</u> rail corridor. The owner is currently contemplating withdrawing the property from the market until early next year. We were advised that the recent softening in the market combined with the PRL had decreased the interest from the market.

<u>34 Trafalgar Avenue, Roseville</u> is a single storey rendered brick residence in average condition, which is within the <u>proposed</u> rail corridor. It was recently passed in at auction for \$960,000 with a reserve of approximately \$1,050,000. Discussions with the selling agent revealed that the purchasers were aware of the alignment but felt it had little impact in the end result. Other major contributing factors being the state of the economy and the increase in supply of similar properties on the market.



Figure 4 - 163 Ray Road, Epping







#### **CHINDA**

<u>119 Ray Road, Epping</u> sold in April 2000 for \$440,000 is a single storey brick residence with single garage. We have been advised by the selling agency that the subject property is within the <u>original</u> rail corridor and is considered to be sold at the same level as similar properties that were unaffected. After analysis of sales evidence we consider the subject to have been sold at a comparable value to that of similar properties that are unaffected.

23 Dent Street, Epping is a single storey residence that is currently being marketed at \$439,000. We have been advised by the selling agent who is a registered valuer that the property is affected by the PRL alignment. In his opinion the market value of the property if it were unaffected would be in the vicinity of \$460,000. The property has received a firm offer of \$415,000, a discount of 9.8% on the indicative value if unaffected. The agent considered the PRL to be the main factor affecting value.







Discussions with a number of real estate agents in the areas affected by the PRL indicated that it was hard to quantify any decreases in value of the properties affected by the alignment with only a few who would estimate a range of 5 to 10%. This decrease in value being a result of the perception of potential purchasers which they consider should diminish as the unknown(PRL) is completed and purchasers can see and feel the affect of the PRL. They considered that in the long term property values will increase back in line with unaffected properties due to the benefits provided in the area by improved accessibility to the rail network.

## 7. New Southern Railway (Airport Link)

#### 7.1 Survey of Residents (George St, Redfern)

We have carried out a survey of a number of residents in George Street, Redfern, as it is the most recent comparable example of underground railway tunnels running under residential areas in NSW.

The New Southern Railway (Airport Link) runs directly under George Street Redfern with residential properties adjacent. It comprises a single tunnel with two tracks. Operation noise for Figure 8 - George St, Redfern



the PRL is predicted to be similar to operation noise associated with this project. The tunnel depth to track ranges from 12 metres at the intersection of Cleveland St to 24 metres at the intersection of Phillip Street.



It is important to note that George Street is located in a noisy urban environment. In particular at the northern end of George Street where some properties are in close proximity to an existing rail tunnel.

#### Figure 9 - Location Map

The results of the survey generally showed that most of the owners surveyed did not notice any regenerated noise. One recent purchaser interviewed was unaware that there is an underground railway under George Street. The only properties whose owners did notice any noise was generally a result of an existing rail tunnel.

### 7.2 Survey of Local Real Estate Agents (Redfern/Surry Hills)

We surveyed a number of local real estate agents in the Redfern/Surry Hills Locale about the affect they considered the New Southern Line under George Street, Redfern was having on property values nearby. The results of our survey revealed that most of the agents considered that the tunnel was not having a negative impact on property values nearby. Most of the agents surveyed pointed out that there is a pre-existing noise level at the northern end of George Street where it intersects with Cleveland Street from an existing tunnel.

It was the agents general opinion that property values along George Street had moved along with the market in Redfern as a whole over the year which has seen a number of price increases. Only recently the market has softened as a result of the uncertainty in the world and Australian economy.

Dis Sills

## 8. M5 EAST (FREEWAY) TUNNEL

The M5 East (Freeway) tunnel stretches approximately 3.8 kilometres and comprises twin tunnels, which run under residential areas. The impact the M5 East (Freeway) tunnel has had on the values of properties above has been minimal. The RTA provided a Value Guarantee to properties that lay above the tunnel. The RTA preselected 300 properties that would be eligible for the Value Guarantee. To date approximately 100(33%) owners have exercised the Value Guarantee with 60 having been resold and settled.

We were advised that most of these properties were resold close to the guaranteed value with a maximum resale reduction in only a number of cases being up to a maximum of approximately 10%. We have been advised further that this maximum decrease in value had another contributing factor, their proximity to the tunnels portals and ventilation stacks.



Figure 10 - M5 East Freeway Map

Source: Baulderstone Hornibrook

The RTA concluded that the M5 East tunnel has had a minimal impact on property values located above, excluding those properties located near portals and ventilation stacks.

The property value guarantee is not available to the PRL as it was not included in the Transport Administration Amendment (Parramatta Rail Link) Act 2000.

### 9. EASTERN SUBURBS RAILWAY

A case study was carried out in 1999 by Creer and Berkeley on the impact of property values located above the Eastern Suburbs Railway Tunnel. The study comprised an analysis of sale transactions of residential properties above the tunnel over a period of 5 years compared to properties that were unaffected. The study combined this with information from enquiries with local real estate agents, property owners and tenants in the area. The sales of properties along the alignment had been determined by comparing plans by Rail Access Corporation and sales data that is publicly available

The study concluded from the reviewed sales of properties that lay above or nearby the tunnel that there was no detrimental affect on the properties values as a result of the tunnel below. It is important to note that the technology used in construction of the eastern suburbs railway tunnel is not as advanced as it is today.

#### 10. PERTH NORTHERN BYPASS-(GRAHAM FARMER FREEWAY)

The Perth Northern Bypass (Graham Farmer Freeway) is a recently completed freeway including a section of tunnel, which runs under a residential zoned area in the Perth suburb of Northbridge. The depth of the tunnel from road level to the property above varies from approximately 6.45 to 10.45 metres. Our enquiries with the project director found that they had recently auctioned four vacant residential lots above the tunnel in Aberdeen Street. These lots were subject to an easement at the rear of each property for the tunnel.

The selling agent advised that there was full disclosure to potential purchasers in regard to the easement. The demand for the lots was considered strong with the results of the auctions considered to be in line with the market for similar lots in the area that are not affected by the tunnel. In conclusion they did not consider that the perception of a tunnel under the lots had an impact on the properties values above.

#### L'HINRDA

行用

No.

Ĩ

### 11. CONCLUSION

From the analysis undertaken namely:

- Survey of real estate agents in Epping, Roseville and Lindfield;
- Survey of market prices for properties located above the PRL alignment;
- Survey of residents in George Street, Redfern;
- Survey of local real estate agents in Redfern and Surry Hills;
- Discussions with RTA;
- Discussions with East Perth Redevelopment Authority;
- Review of literature including the report on the Eastern Suburbs Railway;

We conclude that the PRL should have a marginal negative impact on property values above the alignment in the short term (until completion of construction), with the impact decreasing over time as other factors that influence property values outweigh the PRL in the long term. In the long term we consider the PRL will benefit the area as a whole increasing property values due to the increased accessibility for residents to the rail network.

In the short term we would expect property values above the alignment to decrease marginally with agents finding it difficult to quantify the impact. Some local agents estimating a possible decrease between 5-10% as potential purchasers perceive the PRL as a negative, resulting with properties taking longer periods to sell and vendors accepting reduced selling prices to obtain a quick sale.

Over the long term (After completion) we would expect this negative impact on property values above the PRL to decrease. We consider the PRL will be only one factor of many that affect property values. Over time these factors including interest rates, the historical value of property values in the area, the world economy and the Australian economy will outweigh the influence the PRL will have on property values. If the market is strong once the PRL is complete we would consider there should not be a negative impact on property values above the PRL.

The PRL will have a positive aspect for the area as a whole increasing accessibility to the rail network and the ability for residents to walk to railway stations. This can be seen near the Proposed UTS Station were one agent considers property values to have increased as a direct result.

#### DISCLAIMER

This report and its attached appendices are based on estimates, assumptions and information sourced and referenced by Hill PDA.

We present these estimates and assumptions as a basis for the reader's interpretation and analysis. With respect to forecasts we do not present them as results that will actually be achieved. We rely upon the interpretation of the reader to judge for themselves the likelihood of whether these projections can be achieved or not.

In accordance with standard practice, we must state that this report is for the use only of the party to whom it is addressed and we disclaim any responsibility to any third party acting upon or using the whole or part of its contents.





#### RICHARD HEGGIE

A S S O C I A T E S ABN 29 001 584 612

5 December 2001

10-1087 PRL 051201.doc

HIII PDA GPO Box 2748 SYDNEY NSW 2001

Attention: Mr Kieron Moran

Dear Kieron

#### Parramatta Rail Link - Requested Information

In response to your letter of 8 November 2001, I am pleased to provide the following information:

- a Copy of slides from the Powerpoint Presentation (forwarded previously).
- Pages 9 and 10 of Technical Report Page 6 (i), which notes that the vibration criteria being adopted for human comfort and regenerated noise are much lower than levels which would potentially cause damage to buildings (forwarded previously).
- Pages 11 to 13 of Technical Report A(i), which show ambient noise levels measured for this project.
  The LA90 levels represent the background noise level. Measurements carried out inside houses are indicated in the table (forwarded previously).

During the development of its current procedures for road traffic noise (released 1999) the EPA undertook a detailed review of the effects of noise on sleep. The studies reviewed were not limited to general road traffic noise and included consideration of short term maxima (which would be relevant for both road and rail noise events). The conclusions drawn were that "Maximum internal noise levels below 50-55 dBA are unlikely to cause awakening reactions" and "One or two noise events per night with maximum internal noise levels of 65-70 dBA, are not likely to affect health and wellbeing significantly".

The World Health Organisation "Guidelines for Community Noise" recommends that noise limits to avoid the onset of any sleep disturbance effects (ie including changes in sleep state that do not lead to awakening) should be based on a combination of values of 30 dBA LAeq(8 hour) and 45 dBA LAmax. These are limits to avoid <u>any</u> sleep disturbance effects and could therefore be regarded as "ideal" long term objectives for the community.

Richard Heggie Associates Pty Ltd ACN 001 584 612 Level 2, 2 Liucoln Street Lane Cove NSW 2066 PO Box 176 Lane Cove NSW 1595 Telephone 61 2 9427 8100 Facsimile 61 2 9427 8200 Emzil sydney@heggies.com.su



.

Parramatta Rail Link - Requested Information Hill PDA Page 2

លោបមក

For the PRL situation, at no time will the LAeq(lhour) during night-time or early morning exceed 20 dBA. The LAeq(8 hour) will probably never exceed 15 dBA. These LAeq levels are a significant margin of at least 10 dBA below the 30 dBA guideline value recommended by WHO to protect against <u>any</u> sleep disturbance effects.

In terms of addressing the WHO requirement to limit the number of events which exceed 45 dBA, again the PRL objective of 35 dBA (5% exceedance level) complies by a margin of around 10 dBA. About half the train events will be a margin of 15 dBA or more below the 45 dBA WHO value.

The approach adopted for the PRL project complies in both instances by a margin of 10 dBA or more. It is considered that this margin will compensate for the low frequency character of the regenerated noise as well as address the increased sensitivity of particular groups of people, particularly those in quiet localities

The frequency of train operations will vary according to the time of day from up to four trains per hour in each direction in the early morning and evening periods, to six to eight trains in each direction in peak periods at start-up. A maximum of 10 to 14 trains per hour in each direction is planned for year 2016 and betyond (assuming the Castle Hill line is operational by then). The ranges given are due to the fact that train frequencies are higher in the peak direction than in the counter-peak direction.

At least 50% of trains will have a maximum noise level of 30 dBA or lower in the most affected dwellings. 5% of trains would reach 35 dBA (ie one train in twenty).

During tunnelling works, the regenerated noise levels will range between 30 dBA and 35 dBA depending on the depth of the tunnels beneath houses. For each tunnel, the noise events may occur for a period of up to two weeks as the noise level rises above background level and will reach its maximum for a period of around two to four days.

For the Brisbane Inner City Rail Duplication project (early 1990's), the best contact would be Queensland Rail's Environmental Manager, Tony Ramsden 073235 1414. For the Perth Northern Bypass (Graham Farmer Freeway) project, John Fisher 08 9323 4140 is the Project Director for Main Roads WA.

It may also be useful to follow up on the Melbourne Citylink project, although we do not have a suitable contact.

I trust this is sufficient information for your requirements. If you have any questions please give me a call.

Yours faithfully

ANDREW WEARNE

cc Erica Adamson Parramatta Rail Link Company Locked Bag 5026 PARRAMATTA NSW 2124

'1(-1087 PRL 051201.doc)