Connecting
the Future
Parramatta to Macquarie Park Light Rail
The Parramatta to Macquarie Park Light Rail corridor would connect the people of Western Sydney and Greater Parramatta to over 80,000 potential jobs in Macquarie Park, and would have the additional benefit of connecting them to jobs within the North West Growth Corridor, Chatswood and North Sydney.
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As Mayor of the City of Ryde I commend the Baird Government for its commitment to the Western Sydney Light Rail Network.

Whilst I believe that all four corridors currently being investigated have merit, the City of Ryde strongly supports the Parramatta to Macquarie Park (via Carlingford and Epping) corridor as the preferred route for Stage 1 of the construction of the Western Sydney Light Rail Network.

By connecting Parramatta and Macquarie Park CBDs, this vital piece of infrastructure completes a critical missing link in the Sydney metropolitan transport network, providing fast, effective and affordable travel for the tens of thousands of commuters travelling from Western Sydney to Macquarie Park.

A light rail connection between Parramatta and Macquarie Park would deliver significant economic, transport and social benefits, not only to our region of the City of Ryde (and Parramatta and The Hills district), but to the wider Sydney region.

I look forward to the opportunity of working with you and other stakeholders to show how servicing this Global Economic Corridor with adequate and connected transport infrastructure will ensure its continued significant contribution to the state’s economy and reputation as an international city.

Yours sincerely,

Clr Bill Pickering
Mayor
City of Ryde

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Welcome

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“...
EXECUTIVE SUMMARY

Addressing this critical missing link will establish a strong connection between Sydney and Parramatta CBDs through Macquarie Park, which serves as the Global Economic Corridor’s central powerhouse.

The development of the Parramatta CBD as a high functioning CBD will require the eventual construction of all four corridors in the Western Light Rail Network.

Choosing the most appropriate corridor to start will have a significant impact on the light rail network roll out that will follow. The investigations to date clearly indicate the benefits of establishing the Macquarie Park to Parramatta CBD as the first priority connection.

Macquarie Park is located in the Global Economic Corridor and is a growth area in both jobs and housing.

The Parramatta to Macquarie Park Light Rail corridor would connect the people of Western Sydney and Greater Parramatta to over 80,000 potential jobs in Macquarie Park, and would have the additional benefit of connecting them to jobs within the North West Growth Corridor, Chatswood and North Sydney.

It would also connect the people of Macquarie Park, City of Ryde and residents along the North Shore Rail line to over 53,000 potential jobs in Greater Parramatta.

The Parramatta to Macquarie Park corridor is the only section of the Global Economic Corridor that does not have a mass-transit connection.

Addressing this critical missing link will establish a strong connection between Sydney and Parramatta CBDs through Macquarie Park, which serves as the Global Economic Corridor’s central powerhouse.

Light rail along this corridor will assist Parramatta CBD to undertake a step-change transformation to achieve its full potential. This needs to begin now as Western Sydney begins to expand.

Developing the Parramatta to Macquarie Park light rail corridor now will not only support the forecast growth of the Macquarie Park area, but also minimise the need for expensive and disruptive retrofitting of infrastructure, such as the Herring Road Precinct after it is constructed.

Additionally, the anticipated high patronage of the Macquarie Park Line would spread the overall investment cost through the established revenue, patronage and operations.

With 20% of all single-driver trips occurring, between Macquarie Park and Parramatta CBD, through the Ryde to Hunters Hill, Carlingford and Parramatta corridor, there is sufficient demand and market for light rail. Additionally reducing some of the 20,000+ commute trips per day will ease pressure on the local road network.

Building the Parramatta to Macquarie Park should be undertaken as the preferred first stage of the construction of the entire Western Sydney Light Rail Network.
SYDNEY LIGHT RAIL FUTURE PLAN

Light rail has been identified by Transport NSW as being able to play a significant role in Sydney’s transport future, offering an effective option that builds on our current transport network.

Transport NSW estimates that congestion is costing our economy around $5.1 billion each year, and that is expected to rise to $8.8 billion a year by 2021.

Light rail has been identified by Transport NSW as being able to play a significant role in Sydney’s transport future, offering an effective option that builds on our current transport network.

As a result Transport NSW developed the Sydney Light Rail Future plan to address these problems.

Building on this plan the former Minister for Transport, Gladys Berejiklian, announced: “Parramatta is the centre of Western Sydney’s rapidly-growing economy and creating even better transport links is key to achieving the region’s potential.”

The following four corridors have been shortlisted for further investigation to determine which represents the best option for light rail in the region:

- Parramatta to Macquarie Park via Carlingford and Epping
- Parramatta to Castle Hill via Old Northern Road
- Parramatta to Bankstown
- Parramatta to Sydney Olympic Park and Strathfield/Burwood

NSW Transport Minister, Andrew Constance, will soon be determining the preferred corridor to be subject to further analysis by Transport NSW.

Adapted from source: Transport NSW, Media Release, October 2014
Macquarie Park

THE STRATEGIC POSITION OF MACQUARIE PARK

Macquarie Park is centrally located in the heart of the Global Economic Corridor and is currently the fastest growing economic centre in NSW.

Global Economic Corridor
The Global Economic Corridor is the engine room of Sydney’s globally competitive industries, providing some 600,000 jobs.

The corridor extends from Port Botany and Sydney Airport north to St Leonards, Chatswood and Macquarie Park.

It attracts international corporations and is home to some of Australia’s most successful and innovative firms specialising in knowledge-intensive activities such as finance, professional services, engineering, IT, scientific research, health care, marketing and a host of creative ventures.

The Global Economic Corridor is vital in the national economy and accounts for about 50% of NSW’s gross state product.

The Global Economic Corridor will continue to grow as an internationally significant economic hub and will become the most important cluster of professional and service industry jobs in the country, with a total of 190,000 additional jobs by 2030. Source: A Plan for Growing Sydney, 2014.

Macquarie Park is centrally located in the heart of the Global Economic Corridor and is currently the fastest growing economic centre in NSW.
The Global Economic Corridor will continue to grow as an internationally significant economic hub and will become the most important cluster of professional and service industry jobs in the country, with a total of 190,000 additional jobs by 2030.
WHAT MAKES MACQUARIE PARK UNIQUE?

In January 2014 Macquarie Park officially became the second largest business district in NSW with 854,251 square metres of commercial space, ahead of North Sydney, which has 848,605 square metres.

Blue Chip Hub
Macquarie Park is a dynamic, highly connected hub that is home to Macquarie University – one of Australia’s leading research universities – as well as global players across the pharmaceutical, technology, electronics and telecommunications industries.

In the last 13 years the economy of Macquarie Park has doubled. In 2012/13 Macquarie Park had the highest growth rate in the Sydney Metropolitan Area: 6.8%.

In January 2014 Macquarie Park officially became the second largest business district in NSW with 854,251 square metres of commercial space, ahead of North Sydney, which has 848,605 square metres. (Source: Property Council for NSW Office Market Report, Jan 2014).

Macquarie Park has always leveraged competitive advantages, including its proximity to Macquarie University and its position in the Global Economic Corridor along the Chatswood-Epping rail corridor.

This advantage will continue with further State Government investment in infrastructure, particularly the new North-West Rail lines and Urban Activation Precincts.

Comparison of Economic Growth in NSW

<table>
<thead>
<tr>
<th>Location</th>
<th>GSAP CAGR FY08-FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney CBD</td>
<td>7.1%</td>
</tr>
<tr>
<td>Melbourne CBD</td>
<td>7.0%</td>
</tr>
<tr>
<td>Perth CBD</td>
<td>7.0%</td>
</tr>
<tr>
<td>Brisbane (QLD)</td>
<td>6.7%</td>
</tr>
<tr>
<td>Adelaide CBD</td>
<td>6.6%</td>
</tr>
<tr>
<td>North Sydney (NSW)</td>
<td>6.1%</td>
</tr>
<tr>
<td>Macquarie Park</td>
<td>5.4%</td>
</tr>
<tr>
<td>Liverpool</td>
<td>4.0%</td>
</tr>
<tr>
<td>Penrith</td>
<td>3.0%</td>
</tr>
<tr>
<td>Sydney CBD</td>
<td>2.0%</td>
</tr>
<tr>
<td>North Sydney</td>
<td>1.0%</td>
</tr>
<tr>
<td>Paramatta</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Urban Activation Precincts – North Ryde Station and Herring Road
Urban Activation Precincts (UAPs) are areas with good access to existing or planned transport infrastructure that have potential to provide for significant growth in housing and jobs.

North Ryde Station and Herring Road precincts were chosen as UAPs because they are within the Macquarie Park Specialised Precinct, which is strategically located between the Sydney CBD and Parramatta CBD, and have been identified as a location for future jobs and housing growth.

With the additional uplift in these UAPs, Macquarie Park has the capacity to grow to more than two million square metres in the foreseeable future.

This increased employment capacity will allow Macquarie Park to nearly double in size from the current 47,000 employees to 80,000 employees. In addition there will be an additional 8,400 residential dwellings developed.

In June 2014, the Department of Planning and Infrastructure Planning Report for the Herring Road Urban Activation Precinct addressed the findings of Parramatta City Council’s Western Sydney Light Rail Network feasibility study.
The report stated that the benefits of the Parramatta to Macquarie Park light rail line would include:

- An additional public transport mode servicing Macquarie Park that can supplement the existing Epping to Chatswood Rail Line and the local/regional bus network.
- A direct public transport connection westwards to Parramatta that would service residents, workers and students.
- The potential to increase the use of public transport to and from Macquarie Park and facilitate a mode shift away from private vehicle use and towards public transport.
- The potential for the development of a transport interchange that manages connections and access between three public transit modes – rail, light rail and bus.

It would also reinforce the vision of Herring Road’s transformation into a major activity centre.
While Sydney’s Bus Future (2013) includes improvements to bus services to address some of the immediate transport needs, it notes that additional mass-transit capacity will be required and identifies a need for light rail along the Parramatta to Macquarie Park corridor as part of the Western Sydney Light Rail Network.

**Missing Mass-Transit Link on the Global Economic Corridor**

Macquarie Park to Parramatta is the only link in the Global Economic Corridor that does not have a current or planned mass-transit service.

The continued success and development of the Global Economic Corridor will rely on the strong linkages between Sydney and Parramatta CBDs with Macquarie Park serving as the Corridor’s central powerhouse.

While Sydney’s Bus Future (2013) includes improvements to bus services to address some of the immediate transport needs, it notes that additional mass-transit capacity will be required and identifies a need for light rail along the Parramatta to Macquarie Park corridor as part of the Western Sydney Light Rail Network.
Among the 46 demand corridors identified, several have direct connections to Macquarie Park, including the Parramatta to Macquarie Park corridor.

Macquarie Park’s Role within the Strategic Transit Network Hierarchy

The Metropolitan Strategy and NSW Long Term Transport Master Plan form the crucial connection between transport and land-use planning.

They identify corridors that connect activity centres such as CBDs, airports, ports or residential centres.

The Master Plan’s key demand corridor map for Sydney identifies areas of high demand for mobility between activity centres.

Among the 46 demand corridors identified in the Strategic Transit Network Hierarchy, several have direct connections to Macquarie Park, including the Parramatta to Macquarie Park corridor.

Adapted from source: NSW Long Term Transport Master Plan, 2012
When asked how these directly affect their organisations, more than 60% have difficulty attracting and retaining quality employees, and 70% report employees arrive to work late.

Impact of Congestion on Business
Macquarie Park’s nationally significant research and business centre is in high demand, with continued growth forecast. This demand is already acutely noticeable on the transport network that services the area, particularly roads.

Traffic congestion affects nearly every business in Macquarie Park and is a significant factor when evaluating employee satisfaction.

When businesses were asked to identify the key transport issues affecting Macquarie Park, 95% of the respondents indicated that traffic congestion affects their business directly.

When asked how this affects their business, more than 60% stated they have difficulty attracting and retaining quality employees, and 70% reported that employees arrive to work late.


95% of the respondents indicated that traffic congestion affects their business directly.
Demand Along the Macquarie Park-Greater Parramatta Corridor

Journey to work data indicates that 20% of all single driver trips occur in the corridor between Ryde and Hunters Hill, Carlingford and Parramatta.

Short car trips in dense urban environments add to city congestion, particularly during peak hours.

Reducing the number of short car trips will ease existing congestion and leave more space for long distance connections and commercial traffic.

Future Demand

The planned development in Macquarie Park will more than double the current number of trips by 2031.

Transport-demand modelling for Macquarie Park, by Bitzios Consulting, demonstrates that there is limited capacity within the existing (or improved) road system to accommodate major increases in traffic.

This indicates that public transport must be relied upon to meet demand.

By 2031, the 40% mode split for alternative trips in Macquarie Park will total over 100,000 person trips per day. If all of these trips were accommodated using only public transport roughly 16,000 trips would occur in the peak hours.

Heavy rail would potentially accommodate 6,000 trips with the remaining 10,000 trips accommodated on buses.

This would require over 330 buses (30 persons per bus), which is seven times the number of buses currently using the Macquarie interchange in 2011.

For Greater Parramatta, a similar mode split would result in over 85,000 person trips per day.

Once again the split between modes would vary slightly, however there would still be a heavy reliance on the bus network to accommodate passengers.

Journey to work (only)

<table>
<thead>
<tr>
<th>Place of Employment</th>
<th>Metro/Urban Area Employees that drive to work</th>
<th>Metro/Urban Area Drivers from Ryde-Hunters Hills/Carlingford/Parramatta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macquarie Park</td>
<td>27,711</td>
<td>5,766 20%</td>
</tr>
<tr>
<td>Greater Parramatta</td>
<td>27,892</td>
<td>5,260 19%</td>
</tr>
</tbody>
</table>

Adapted from source: Bureau of Transport Statistics, 2015

Existing vs future demand

Comparison of existing and future demand

Anticipated growth

Anticipated growth in employment and students

Adapted from source: ABS data 2011
THE BENEFITS OF LIGHT RAIL

Key benefits of light rail include increased capacity with space for up to 300 commuters on each light rail service – equivalent to five standard length buses – reducing crowding and congestion.

A new, high frequency light rail will benefit commuters travelling between Macquarie Park and Parramatta CBD for work, shopping and entertainment, and students travelling to schools and universities.

Light rail between these destinations will ease existing congestion, leaving more space for long distance connections and commercial traffic.

Some of the potential key benefits of light rail include:

- Increased capacity with space for up to 300 commuters on each light rail service – equivalent to five standard length buses – reducing crowding and congestion
- Faster, simpler, more reliable services that are simple to navigate
- Improved amenity with smooth, comfortable and quiet services that reduce the stress of commuting
- Urban renewal opportunities through creation of more pedestrian friendly streets, open spaces and revitalised public areas.

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“Increased capacity with space for up to 300 commuters on each light rail service – equivalent to five standard length buses – reducing crowding and congestion.”

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Comparison of vehicle capacity by mode
Adapted from source: Sydney’s Light Rail Future, 2011
A Final Word

THE CASE FOR LIGHT RAIL FROM PARRAMATTA TO MACQUARIE PARK

It will ensure that one of Sydney’s key economic growth areas is able to meet its transport demands, which in turn will have flow-on social, economic and transport benefits for greater Sydney.

The case for light rail from Parramatta to Macquarie Park has been clearly demonstrated in this document. From a socio-economic development perspective it would:

- Connect workers along the corridor with access to a potential 80,000 knowledge-based jobs in the Macquarie Park Specialised Precinct and Parramatta business hub
- Connect students along the corridor with world-class educational opportunities at Macquarie University, the Rydalmere Educational Precinct and the University of Western Sydney’s new Parramatta City campus
- Serve fast-growing population centres such as Greater Parramatta, the new Urban Activation Precincts in Epping and Macquarie Park, and other large housing developments occurring at Carlingford
- Connect residents with a range of recreational and shopping opportunities such as Rosehill Racecourse, Macquarie Shopping Centre, Parramatta Westfield and Parramatta shopping precincts

From a transport perspective, it would:

- Provide a key missing transport link for the Global Economic Corridor by connecting the CBDs of Parramatta and Macquarie Park and into the existing northern transport link to Sydney CBD
- Reduce congestion and remove the reliance upon cars for commuters by providing fast, effective and affordable travel options
- Reduce the demand by employers for parking on site for staff, enhancing their ability to attract and retain staff

And from an infrastructure investment perspective it would:

- Align with the Metropolitan Strategy for Sydney commitment to prioritising infrastructure investment to Growth Centres and Priority Growth Areas
- Align with the NSW Government priorities such as the Macquarie Park Specialised Precinct, the Herring Road and North Ryde Station Urban Activation Precincts
- Provide necessary infrastructure to a key centre of the Global Economic Corridor, which generated over $9.1 billion in economic output in 2012/13, is currently NSW’s second biggest CBD and is projected to become the fourth largest CBD in Australia.

These outcomes clearly indicate the Parramatta to Macquarie Park Light Rail is the right choice for Stage 1 of the Western Sydney Light Rail Network.

It will ensure that one of Sydney’s key economic growth areas is able to meet its transport demands, which in turn will have flow-on social, economic and transport benefits for greater Sydney.