Jury Report

Carlton United Brewery Site (Balfour Park)
Design Excellence Competition

Executive summary

In accordance with the Competition Brief, the Design Jury, consisting of Graham Jahn (Jury Chair), Richard Johnson, Professor James Weirick, Keith Cottier, Robert Nation and Russell Barnes have determined the first ranked design team and have made recommendations for any future master plan. The key points are:

- The master plan design competition was an invaluable tool for assessing key issues such as the impact of land use mix, provision and location of public open space, traffic circulation and the impact of building height and overshadowing.

- All schemes illustrated that the maximum development potential on the site, under the existing planning standards for a predominantly residential use, cannot be reached on urban design, environmental and amenity grounds. However, the competitors explored the complex planning issues in considerable depth and tabled different approaches.

- None of the schemes submitted is unreservedly endorsed, however all schemes were ranked and the first ranked scheme was submitted by the team of Alexander Tzannes Associates, Cox Group and Sue Barnsley Design (Scheme C). This team produced the best response for a predominantly residential land use.

- The Jury recommends that the promoter engage this team to continue to work on an appropriate master plan ('development plan') solution for the site in concert with the consent authority.

- The Jury's recommendations include:

    - Concepts contained in the Competition Brief such as requiring a buffer of commercial buildings along Broadway and creating a new service and activity street parallel to Broadway (Little Broadway) are supported.

    - Multiple towers in the northeast corner of the site are not supported for overshadowing, amenity, urban design and wind effect reasons. Any consideration of increasing the height of buildings above 45 metres should concentrate on the Broadway buffer zone, with the principal open space set well back to the south to avoid overshadowing.

    - The provision of a new public east-west park on the southern edge of the site deep in Chippendale, and which contains the historic oviform drain system, is supported by the Jury. A network of connected open spaces is required to support this new park asset. The Jury recommends that any new public spaces be protected for the long term with appropriate sun-access planes in the LEP.

- Community comment was vigorous and a number of observations about excessive height and density, in attempting to maximize the floor space, are justified. The exhibition has been valuable in defining many practical opportunities and limitations on the site.

Jury Report

Carlton United Brewery Site (Balfour Park) Design Excellence Competition

Jury

Graham Jahn (Jury Chair)
Richard Johnson
Professor James Weirick
Russell Barnes
Keith Cottier
Robert Nation

Introduction

In 2003, a 'Design Excellence Competition' was required by the consent authority to inform possible amendments to the City of Sydney LEP in relation to the future development of the Carlton United Brewery (CUB) site. A six-person Jury reviewed and assessed five urban design master plan or 'development plan' schemes, which together with options that did not conform with the Competition Brief, comprised a total of fourteen alternative proposals.

In accordance with the Competition Brief, the Jury provides this Report which grades the proposals in order of merit with a recommendation that the first ranked design team is retained by the promoter to assist with developing a further urban design response to the site. As the stated purpose of the competition is to inform a Local Environmental Study, which may lead to a possible amendment of the Local Environmental Plan, the Jury sets out its advice on a range of issues which may assist the consent authority.

The body of this Report is divided into two sections:

Part 1 Grading of submissions
Part 2 Issues and Recommendations

PART 1

Grading of submissions

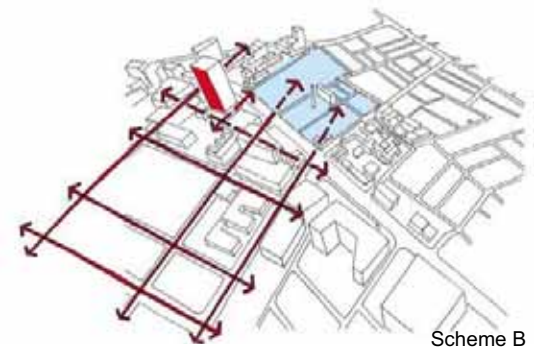
Preamble

The very large Carlton United Brewery Site on Broadway (5.79 hectares) is capable of absorbing a wide range of uses under its present 'City Edge' zoning. For over 150 years the site has been used for brewing operations known as the Kent Brewery operated by Tooth and Co. The culmination of land purchases and consolidation of land parcels reached its current extent in the 1950s.

With the exception of parklands, The Rocks precinct and three large maritime and transport precincts (including Central Railway and Garden Island), The City of Sydney LEP is philosophically different from typical LEPs in other Local Government Areas by virtue of leaving land use choices essentially to the market. Rather than designating land use zones such as 'commercial', 'residential', 'hotel', 'retail' or 'special use', the City of Sydney LEP uses two scale-of-development zones being City Centre and City Edge with variable height and floor space controls.

Although designated a mixed-use zone under the City of Sydney LEP, the City Edge Zone can potentially accommodate 100% commercial (a broad definition which includes education and retail) or 100% residential use, or any combination of uses. Only brothels are a prohibited use. In the City Edge Zone, the zone objectives encourage both 'mixed use' and 'new residential development' that creates a 'permanent residential population'.

Therefore, it must be acknowledged that this 'design excellence competition' tests a range of urban design responses to a specific land use scenario, which is a land use mix (as stated in the brief) of 70% residential and 30% non-residential. Consequently, the Jury has assessed and ranked the schemes according to this land use premise, and has ranked in first place the proposal that offers the best set of principles for a predominantly residential development.



Scheme B

Scheme B

Scheme F

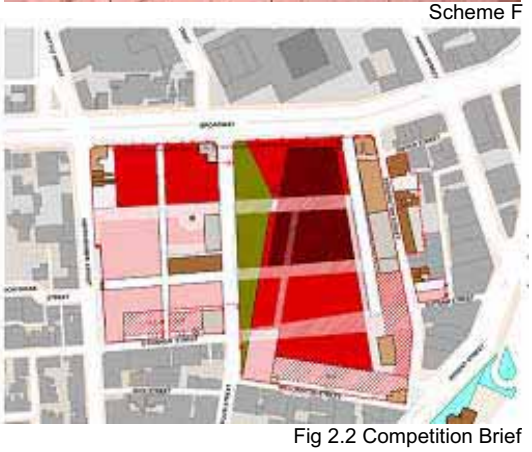


Fig 2.2 Competition Brief

Commentary

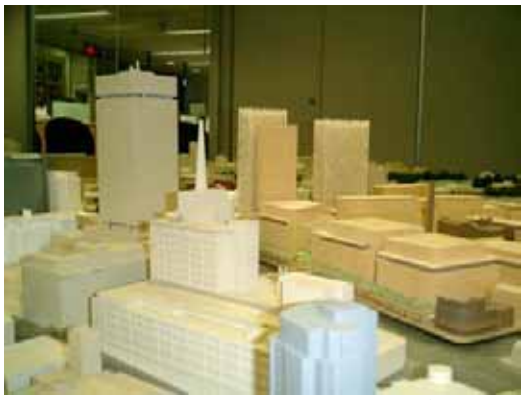
Much hard work and thought has gone into the submissions. In the limited time available, the competitors have explored in considerable depth, the complex planning issues involved on this site. There are many lessons here for any future planning studies or controls. The Jury has also had the benefit of numerous technical reports.
Each report was critically examined by the Jury, however not every report was relied upon in the Jury's assessment process.

In examining these proposals, it is important to bear in mind that this is an urban design master planning exercise ('development plan' under City of Sydney). The final built forms will inevitably be the work of many different designers, and as such a development plan must be capable of accommodating this diversity without loss of clarity or strength. Conversely, a good development plan cannot be dependent upon a particular architectural treatment or subtle relationship. Key underlying issues such as the implications of land use, the provision and disposition of public open space, solar access, position of any tower forms and traffic implications become the critical factors, not architectural subtleties.

Several proposals concern themselves with an extension of the Pyrmont street grid into the site. Such a planning notion may in some other circumstances have some validity, but here it was considered that Broadway already severs any potential relationship with the Pyrmont grid, and that the nature of Chippendale and Broadway was in itself, a far greater influencing factor on the CUB site.

Due to the maximisation of site density and resultant building heights, many proposed north-south public spaces enjoyed good solar access for a few hours around lunchtime only. This may be acceptable for a city office workers' park or a university campus, but not for a residential park, where sun throughout the day and the seasons is of great value. In this regard, the east-west park orientation generally achieved better results for a predominantly residential land use. This orientation of the major public space also resulted in a better traffic circulation, avoiding public space conflicts

Scheme C



Scheme B

Scheme H

Scheme B

and through site ‘rat runs’ from north to south.

The exploration of multiple towers, positioned within the controls of Fig.2.2 of the Competition Brief, resulted in an unacceptable wall of buildings when seen from many viewpoints, including the important vista from Railway Square and the contextual street view from Balfour Street in Chippendale. The repositioning of one of the towers, as per some of the non-complying schemes, to the Broadway edge, helped alleviate this unforeseen problem and merits serious consideration if increased height in limited locations is desired as a trade off for providing solar protected public open space. Furthermore, the 'twin towers’, positioned as per the Competition Brief, and found in a number of the proposals, seemed to not form any meaningful relationship with the UTS Tower. The strong pedestrian desire line from Chippendale to Railway Square (as opposed to Jones Street) was generally ignored, with one exception.

All schemes enthusiastically tackled ESD issues, but in most cases, the ideas went beyond the level of controls useful at a development plan level. At the development plan stage, building orientation and solar access remain the core ESD considerations.

Few competitors sought to retain more than the bare minimum of heritage buildings. Several of the brewery buildings, whilst having no heritage listing, have a very strong character and presence, and their retention warrants serious consideration.

In all proposals, there were substantial areas where the intent of SEPP 65, provisions of the City of Sydney DCP and general marketability considerations relating to solar access and building separation, could not be met. These considerations will be powerful determinants in limiting the density on the site for any development plan that has a significant residential component, regardless of at what level the maximum floor space ratio controls are set.

Scheme C

Scheme C

Scheme C

Conclusion

Given the comments above, none of the entrants produced a scheme that the Jury would unreservedly endorse. The Jury concludes that it is not possible to realize the maximum floor space area (density) of a 30% non-residential and 70% residential land use mix under the current LEP floor space controls of 3:1 commercial, 4:1 hotel and 5:1 residential, regardless at what level height controls are eventually set. This can be substantiated on purely urban design, environmental and amenity standards.

The inclusion of significant public space is compromised if it is significantly overshadowed during the hours and seasons in which it is likely to be used. Each metre of public open space created required the relocation of 5 metres of residential and 3 metres of commercial space, a significant impact on the overall density.

The highest ranked scheme did however produce a robust urban structure that would provide a flexible basis for a range of building outcomes, provided there is a substantial residential component compared to predominantly commercial or educational component.

The concept of 'Little Broadway' to service and activate the commercial buffer, as suggested in the Competition Brief and well developed in Scheme C, and the positioning of the large residential east-west park adjacent to the existing Chippendale population were strong and logical moves. The local context analysis, managed traffic system and the extension of the Chippendale street grain were strong design principles.

In accordance with the Competition Brief and the intent of the Design Excellence provisions of the LEP, the Jury recommends that the first ranked design team be retained by the proponent and the consent authority to develop further responses which take into account the issues and lessons identified in this Report. Further work will need to be underpinned by an analysis and determination on the residential and non-residential land use mix for the site.

Jury Ranking

First	Scheme	C
Second	Scheme	A1 (non-conforming)
Third	Scheme	F
Fourth	Scheme	B
Fifth	Scheme	H
Sixth	Scheme	A

PART B

Local Environment Plan considerations

Jury and observers

Scheme H

Scheme B

The competitive process

This design excellence competition has been an invaluable tool for assessing possible outcomes and development plan alternatives submitted by multi-disciplinary teams. It has enabled the quantum and location of public open space to be considered; the degree of overshadowing associated with the land use mix; effects of a possible relaxation of building heights, and better appreciation of the maximum densities set by the current planning controls. It has also enabled the community to respond to planning issues, when simply drawn development plan envelopes often draw disproportionately little public comment until actual building applications are submitted. Clearly this has not been the case.

In addition to the understanding gained by the Jury, the investigation afforded by the submissions has provided invaluable insight for the observers representing the current owner, the proponent and the consent authority. This has been greatly beneficial in understanding the opportunities and limitations of the site.

Community submissions

The Jury makes no comment about the pre-competition consultation process. However, the Jury has reviewed all of the statements and submissions presented to it during the exhibition period and find that a number of community comments made about density and overdevelopment, having regard to urban design and assessable amenity issues, are supportable. The exhibition has been valuable in defining a good number of competing issues.

Land use

The greatest challenge in establishing any development plan for the site is the impact that the predominant land use mix has on density (floor area), intensification (height), public and private open space components, traffic generation and through site links (connectivity).

A predominant land use or land use mix can be tested at the overall scale of the site and at the individual scale of the block. On a large site such as the CUB, where public domain (streets and footpaths) must be created, commercial land use has the lowest intensification factor. This is because commercial (and educational) uses generally requires large footprints and floor plates (1200-1500 sq m/floor/building); have a high efficiency of measured to unmeasured floor area (nett area to gross area); low building separation requirements (except at the highest of rises) and little if any need for private open space (except in the campus condition).

At the opposite end of the scale, residential use under today's SEPP 65 and DCP standards has the highest intensification factor. This is due to preference for relatively small cross-ventilated building footprints; medium efficiency of measured to unmeasured floor space; highest building separation requirements (in excess of 24 metres above 10 stories) and high private open space requirements (15% of unmeasured floor area is commonly attributable to terraces and balconies). Hotel use lies somewhere in between commercial and residential uses in terms of intensification (height), as accommodation units are not cross-ventilated and floor plates can be considerably larger.

Where new public domain must be provided around a new street block, residential buildings need to be approximately twice as high as commercial buildings to dispose of the same floor area. This is mainly due to public/private open space components and building separation requirements. This is what is referred to in this Report as the 'intensification' factor associated with use.

The City of Sydney applies maximum floor space ratios (development yields) of 3:1 for commercial and educational, 4:1 for hotel and 5:1 for residential - a spread of values which tend to amplify the 'intensification' factor, i.e., greater potential floor area aligned with greater intensity. While it may be possible to create a 'development plan' for the site that achieves the maximum FSA for commercial use at 3:1 (given the low intensification factor), the Jury

concludes that, from an urban design and residential amenity standpoint, maximum FSA cannot be achieved for predominantly residential use at 5:1. This is principally due to the floor space control coupled with the intensification factor (height and overshadowing).

For these reasons, it will be important to determine the land use mix from the outset. This determination will need to bear in mind the philosophy which has underpinned the City of Sydney LEP which essentially leaves the land use mix to market forces, albeit influenced by various yield incentives via floor space ratio differentials.

Public open space

The provision of public open space (hard paved or green) and the height of development that surrounds it (and therefore overshadowing) must be complementary and in balance.

In a predominantly residential development plan, a public open space provision of 12-15% (excluding streets and footpaths) of gross site area appears appropriate. However, the type, location and distribution of such space/s is crucial. There are advantages in having a principal passive landscaped open space in the form of a park adjoining the existing Chippendale neighbourhood edge. This helps to combine and integrate the communities, is less disrupted by traffic circulation, and achieves not only midday, but also early morning and late afternoon sun access, which is more suitable for residential living. Such a space should be linked to a network of smaller public spaces by foot and bicycle, which connect into the overall neighbourhood network.

As suggested by Scheme C, such a park should have 100% deep soil planting potential, and have appropriate rectangular proportions for a range of activities. A further advantage of the Scheme C park proposal, is that the historic oviform drain is located in the park and can be appropriately celebrated and interpreted. These are some of the reasons that Scheme C solution has been ranked first. The park serves as an important open space component on a potential

diagonal pedestrian and bicycle route from Railway Square to Chippendale.

However, in the case of a predominantly commercial or educational land use (such as a new university campus), the Scheme C location, type and size of open space might not be preferred. Schemes F and B are more appropriate 'campus' solutions which connect new open space to Broadway, enabling a great frontage of buildings to address it and be a breakout area. The character of such a space would be greatly influenced by the daily student or worker populations that come to the site, rather than the weekend and afternoon residential users of a predominantly residential scheme. These north-south spaces provide excellent midday sun solutions but suffer from excessive overshadowing in the winter mornings and afternoons.

Public space network

The Jury supports the notion of a variety of smaller public spaces being connected to the principal community park by path and cycle ways, and their association with heritage buildings where possible. However, it is imperative that new public open space is protected by sun access planes which ensure winter sun during a substantial period of the day (4 hours) for each space provided. These should be included in the LEP amendments to protect these spaces from subsequent development far into the future. These spaces should provide interconnected internal routes to defined external and internal destination points. The diagonal route from Railway Square explored in Scheme F is desirable.

Jones Street is regarded as an important link and open space network component, but not a powerful visual link as suggested in the Competition Brief and found in a number of the schemes. The Balfour Street extension should be retained as a pedestrian/bicycle spine.

Separation of uses

It is recommended that if there are substantial areas of both residential and non-residential (meaning any non-residential uses in

excess of 25% of total floor area), commercial (and educational) uses should be generally co-located rather than spread throughout the project. This is to improve livability and residential amenity. However, some mix of complementary non-residential uses on small scale mixed is supported. Additional uses, including student accommodation and live-work accommodation (which are not in the Brief) should be considered.

Tower forms

The reallocation of floor space into 'tower forms' has been the underlying argument for the transfer of development potential in order to create public open space on ground and lower heights on edges. The Jury is firmly of the view that multiple towers on the north-eastern corner of the site near the UTS Tower are not worth pursuing. The footpath vista from Balfour Street in Chippendale looking north towards the UTS Tower would be confronting and significantly deplete sky values. The clustering of multiple towers (two or three) near UTS have unacceptable cross-viewing problems; create a wall of morning shadow over future apartments on the site (and their private open spaces); create an awkward relationship with the UTS Tower and, as a cluster, may be responsible for significant wind acceleration. If there was to be a single lower tower in this north-east location, it should be aligned so as to block the view of the UTS Tower from Balfour Street, but not enlarge the existing silhouette.

If some increased height beyond 45 metres can be accommodated on the site, it might best relate to Broadway (but further to the west than illustrated in the Competition Brief) rather than relating to Chippendale along Kensington Street. This height should not be easily seen from Chippendale and not be of place within the scale of Broadway. If there is more than one (in order to create public open space), they need to be widely separated. Their location must be considered from all vantage points, including vistas from Balfour Street, all new public open spaces in the scheme, and from Broadway. The narrow width moving shadows from a slender building are preferable to large floor plate building.

Consideration might be given to protected vistas to the brewery chimneystack in any future development plan from various vantage points in the public domain. Controls might protect defined vistas far into the future from the effects of subsequent development.

Winter sunshine

All proposals exhibited excessive overshadowing of public open space and private open space at ground level during the six months from March 21 to September 21. Although the Competition Brief and the City of Sydney DCP refer to solar access at the equinox March/Sept 21 (DCP) – the Jury does not believe this standard is sufficient for a project of this magnitude. Some degree of winter sunlight pentration should be taken into account for a high proportion of all new dwellings (refer to SEPP 65) and for overshadowing of surrounding streets. Grassed areas require approximately 4 hours sunshine per day for growth. This was rarely achieved, except in the large park area in Scheme C.

Consideration should be given to requiring a variety of spaces between street edge buildings along new streets so as to admit sunlight into the public domain during low sun angles, particularly from the east and west. This is an existing characteristic of Chippendale's variable building form, small lots and narrow streets.

Continuous weather protection

Consideration should be given at the development plan stage to require continuous weather protection along Broadway for pedestrian traffic to and from Sydney University but not in lieu of trees. Consideration should be given to extending weather protection along the length of Broadway to the destination points of Sydney University and Railway Square. UTS creates a substantial impediment to all weather access on the northern side of Broadway due to its street condition.

Traffic

Traffic generation, management and parking are significant concerns that are heavily influenced by the land use mix and a number of contextual considerations. These include: right turn ingress and egress from the site at Broadway in the vicinity of Jones Street; access to and from Regent Street in the vicinity of the Wellington Hotel; a clear pattern of circulation within the site that does not compromise patterns of development or public open space; ease of access generally within Chippendale (old and new); and control of potential 'rat runs' without creating unnecessary bottle necks of single points of entry and access. The site must be regarded as an integrated part of the neighbourhood precinct as far as practicable.

Right turn traffic from Broadway

The Jury identifies that the question as to whether a right turning to enter and leave the site when traveling east or west along Broadway must be determined prior to any future development plan being settled. The inclusion or exclusion of right turning traffic has an overall effect on the access to the site for traffic approaching from the west, and the question of whether Abercrombie street needs to be returned to two-way traffic.

Little Broadway

Existing Broadway (Parramatta Road/Great Western Highway) is a relatively hostile environment for residential use in both podium height levels and tower levels. It is a poor interface for what might be termed sustainable naturally-ventilated building typologies facing north (i.e. across Broadway). A deep non-residential 'buffer' (i.e. commercial or educational) is suggested along the length of Broadway, with a new landscaped street, such as 'Little Broadway' to service the Broadway development and become the activity zone of this precinct.

This would be the most active street on the site. It needs to be contained along its length by buildings on both sides and positioned so that the historic buildings of St Benedicts to the west, and the

Brewery offices to the east, terminate the vista at either end. The 'buffer' buildings need to be articulated to allow pedestrian permeability at ground level from Broadway through to Little Broadway at regular intervals. These could be either in open air or through buildings and have gaps to let shafts of winter sunlight penetrate the Little Broadway street section. The historic chimneystack could have an intimate relationship to a new courtyard accessed from this street. Scheme C offered the best solution of this type, with variations found in other schemes.

Wellington and O'Conner streets

The existing LEP controls (15m then 45m) and the Competition Brief (13.5m then 16.5m) do not adequately provide sufficient graduation of building height transition in these locations. The existing brewery buildings along Wellington Street should not be used as a yardstick for the height of future adjoining, as this existing development is a poor interface.

The widening of Wellington Street through setbacks (as suggested in the Competition Brief) is recommended at the development plan stage. Interfaces such as the southern side of Wellington and O'Conner Streets need to be more carefully considered.

Heritage

The Jury does not find the retention of the disused corner hotel on Regent Street or the former 'workshop' (or 'stables' as it is sometimes referred) as essential on heritage grounds. However, the Jury encourages greater investigation and consideration of retention of the brick brewery buildings along former Balfour Street near the historic chimneystack. Heritage buildings need a greater consideration of reuse than found in many of the proposals. They may help to provide a greater variety of live/work type accommodation than contemplated in the Brief. How the brewery elements are embedded in the new environment will help to retain the sense of history.

Community Facilities

The Jury supports consideration of community uses associated with heritage buildings particularly if they are fronting public open space. The location of community facilities on the park in Scheme C, in the main heritage Irving Street Brewery building, is thought to be desirable due to the co-location factors and the accessibility to existing residents.

Staging

The project is likely to be staged. It is desirable that the first stages contain elements of substantial public benefit, such as a public park area in a predominantly residential scheme. This will service the community from early stages and provide a building activity buffer.

ESD

The following development plan objectives are thought to be a minimum for the LEP controls:

<u>commercial buildings</u>	
green star rating	4 stars
ABGR	4.5 stars
<u>residential buildings</u>	
basix compliance	
<u>Site</u>	
water	40% reduction (basix)
stormwater	Landcom water sensitive Urban Design Strategy
<u>Amenity</u>	SEPP 65 and DCP
<u>Ecology</u>	Ecological Diversity Index of 2.0 minimum or greater (green star)