



BIS OXFORD  
ECONOMICS

# **CHATSWOOD CBD STRATEGY MARKET FEASIBILITY TESTING**

**UPDATE REPORT FOR WILLOUGHBY CITY  
COUNCIL [AMENDED]**

**MARCH 2019**

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# 1. EXECUTIVE SUMMARY

This report provides an update to our 2016 report *Willoughby Council Report – Draft Chatswood CBD Strategy* which was used as an input to Chatswood's Draft CBD Strategy. The Strategy, in turn, aimed to protect the B3 commercial core area and relax planning controls in order to stimulate office development and help meet the jobs target in the Greater Sydney Commission's North District Plan.

We strongly endorse this logic. Our 2016 report:

- argued the case for preserving the office core;
- forecast office demand and stock in the Chatswood CBD to 2036; and
- investigated the high level financial feasibility of development at 14 selected potential office sites, looking at the consequences of easing planning restrictions.

While, at the time, none of those potential developments was financially feasible, our forecasts of continued strength in office rents and property values suggested seven of them would be feasible/marginally feasible within five years, underwriting a round of development in Chatswood. That would be augmented by easing floor space ratio (FSR) restrictions on office development. Hence our forecast in that report of significant additions to stock within the Chatswood office precinct over the forecast horizon to 2036.

## 1.1 KEY CONCLUSIONS

In this update report, we note that development of office space has not yet begun. However, rents and property values have risen to a level at which four or five of the potential development sites are currently financially feasible/marginally feasible (depending on the return assumptions used in development feasibilities). Further, continued strengthening in the office market will take a total of up to eight projects into the broadly viable zone within three more years. The number of viable sites vary, dependent on traditional or aggressive development feasibility assumptions.

Accordingly, with no FSR restrictions, our current forecast is for substantial additions to Chatswood office space adding 133,000 square metres – or almost 50% – to current stock by 2036. That is expected to take place in two tranches, a little more than half in this current office development cycle (i.e. with completion by December 2024), and the rest in the next. It will underwrite an additional 9,700 office jobs and help Chatswood to achieve the 20 year target of an additional 6,300 to 8,300 jobs as set out in the North District Plan. Without office employment growth, Chatswood will struggle to meet these job targets.

The real problem is that in most parts of the office and residential cycles, development feasibilities and potential site residual values heavily favour residential uses – sites are worth more for residential than for commercial development. Hence the pressure by owners and developers for approval of residential or mixed-use rather than office developments. Short-term financial considerations clash with longer term planning for economic development.

The reality is that office development in Chatswood will be constrained by the availability of potential sites. Office jobs can only go where there is office

space. The danger is that more of the identified sites will go to residential, limiting potential office development and jobs. Already, many potential office sites have gone to residential. This problem is not unique to Chatswood.

This problem is losing urgency now, with the end of the residential boom and hence reduced demand for residential development sites. But this is not a short-term issue. The current commercial development phase will be of limited duration, with commencements peaking in three to five years. Demand for commercial sites will evaporate around the time that the residential cycle picks up again, leading to renewed pressure for conversion of sites to allow residential development.

But we will need more sites for the subsequent round of office development. And we understand there are plenty of sites outside Chatswood's CBD Core for residential development, certainly enough to meet the targets in the North District Plan. Indeed, the extension of the CBD boundary beyond the Core to include new mixed-use areas with substantial provision for residential development will help to provide residential sites around the Core. Nevertheless, there will continue to be pressure from building owners in the Core for residential development.

The demand for office space is a derived demand driven by office employment. It will not come through immediately. It will come through over time as office employment grows across the metropolitan area. Chatswood is expected to share in that growth. And development takes place in phases through the office cycle. We'll need sites for office development through several future cycles.

## **1.2 CHATSWOOD VIABILITY AS A LONG TERM OFFICE PRECINCT**

Without protection, encroachment by residential development will limit Chatswood's potential for office development and hence job creation. Indeed, it could threaten the viability of Chatswood as an office precinct. A viable office precinct that is attractive to office occupants requires a cluster of a critical mass of office buildings within comfortable walking distance of transport interchanges. Letting 'unfeasible' sites go to alternative uses, particularly residential, risks further fragmenting the commercial core. A viable office precinct needs new office buildings for growth and to encourage renewal of ageing stock. Furthermore, previous research undertaken by BIS Shrapnel in Macquarie Park revealed most office occupants interviewed felt the 'professionalism' of a commercial core is compromised by allowing residential towers alongside office towers or as 'mixed use' residential/office buildings. The appeal of combined residential/office space uses in one building to a broad range of occupants is also tainted by security issues, regulatory controls, differing building standards between the uses and the desire not to work and live in the same building.

From the viewpoint of economic development and job creation, loss of commercial sites to residential will limit office jobs and hence potential economic growth. We'll need more office space to underwrite additional jobs in the future. It's not just about the here and now. If we don't reserve sites for office buildings into the future, they won't be there when we need them. That goes both for Chatswood and for Sydney as a whole. Hence the logic of limiting development in Chatswood's CBD Core and preserving those sites for future office use.

## 2. CONTRIBUTION OF OFFICE EMPLOYMENT TO SYDNEY'S ECONOMIC DEVELOPMENT

### 2.1 OFFICE EMPLOYMENT IN METROPOLITAN SYDNEY

As a working city, Sydney is focused on services, both for the resident population and for business and administration. Office workers comprise 44% of the total Sydney metropolitan workforce and 60% of those work in dedicated office buildings (the stand alone office workforce). Sydney's growth will focus on these service industries. And the increase in office jobs will require commensurately more office space to house them.

Over the 20 years to 2036, we expect the metropolitan stand alone office workforce to grow by 46%, an average annual growth rate of 1.9%. To meet those needs, we expect the office stock to grow by 3.6 million square metres, or by 30%.

**Fig. 1. Sydney metropolitan office market share of floorspace, 1996 to 2036**

Sydney metropolitan office market			
	Share of floorspace stock		
	1996	2016 %	2036
CBD	45.9	42.0	38.5
North Sydney	8.9	6.8	6.9
Crows Nest & St Leonards	3.4	2.6	2.7
Chatswood	3.2	2.3	2.6
Macquarie Park	3.2	7.3	8.2
Parramatta	5.9	5.8	7.8
Remainder	29.4	33.1	33.3
Total	100.0	100.0	100.0

Source: BIS Oxford Economics

The majority of new development will be outside the Harbour CBD (called the CBD henceforth unless otherwise stated). While the CBD is the preferred location for many office users, historically, constraints on CBD development space has led to the development of a network of office precincts, largely suburban centres linked to the CBD. Indeed, some of those centres themselves have constraints on available space for office development. Sydney has developed on an overflow logic with constraints on available space leading to demand overflowing to other office precincts.

Office development is cyclical. At any given time, developers tend to develop the most attractive sites to meet demand. The first developments tend to be in

the CBD. As a development cycle proceeds and site constraints come into play – and given the time it takes to consolidate new sites – development overflows to suburban precincts where sites are more readily available. Rental costs can exacerbate these movements.

Over time, more metropolitan office development is outside the CBD than inside. The proportion of metropolitan office stock in the CBD has fallen from 46% in 1996, to 42% in 2016. And in the current development phase, that is about to happen again. The initial round of development in the CBD spread to North Sydney and Parramatta, and will continue in Macquarie Park, Chatswood and other metropolitan centres. We expect the CBD proportion of office stock to fall to 38% in 2036.

## **2.2 OFFICE EMPLOYMENT IN CHATSWOOD**

The Chatswood office precinct forms an integral and established part of Sydney's office hierarchy. It has strong links with both the CBD and other precincts. It is Sydney's 6th largest office precinct comprising 2.3% of Sydney's office stock. It is a designated 'strategic centre' with employment growth targets (in the North District Plan).

If it is to achieve its growth target of an additional 6,300 to 8,300 jobs by 2036, office jobs are an integral part and that means that we'll need to expand the Chatswood office precinct – not all at once, but as additional space is required. And we'll need the sites for that. If there is no room, jobs will go elsewhere.

However, Chatswood's office precinct is under threat from encroachment by residential development. Despite its attractiveness as an office precinct with ready access to transport and retail facilities, those features are also attractive to residential uses. Development feasibilities favour residential over office development in Chatswood. Already, many potential office sites have been taken by residential development.

A viable office precinct requires a cluster of a critical mass of office buildings within comfortable walking distance of transport interchanges. It needs new office buildings for growth and to encourage renewal of ageing stock. Worse, if office buildings are lost, that places the viability of the precinct under threat. Loss of critical mass would undermine Chatswood's office precinct and weaken the quality of existing stock by discouraging refurbishment and redevelopment. Furthermore, research undertaken by BIS Shrapnel relating to Macquarie Park revealed occupants of office buildings there felt that the 'professionalism' and attractiveness of commercial cores is compromised by allowing residential towers to co-exist alongside office towers. Most office occupants questioned were also not attracted to mixed use residential/office buildings because they have no desire to work and live in the same building. Security issues, regulatory controls and differing building standards that apply to residential and office buildings were also all cited as reasons why mixed use projects did not appeal.

Certainly, building residential projects creates jobs – but only in the short term, in the building phase. Once those buildings are completed, medium term job creation is minimal. On the other hand, offices are employment rich into the medium and long term. They underwrite the development of services jobs.

Certainly, individual owners and developers want to build residential property because of the higher residual land value. They make more money that way. But then that land is lost to office uses, running counter to economic development considerations. Already many potential sites have been lost. Chatswood needs a balance of jobs and housing. Hence the need to set aside an office precinct so that sites are available at times when office development is warranted, not just in the current cycle but to meet future needs.

The Chatswood CBD Strategy seeks to achieve a balance of office and residential development – focusing on office development within the CBD Core and allowing mixed use development in the surrounding areas.



## 3. SYDNEY'S OFFICE DEVELOPMENT CYCLE

### 3.1 CURRENT TRENDS IN METROPOLITAN DEVELOPMENT

Sydney is in a strong office upswing in rents and property prices. But, while we have seen some significant projects in certain locations, we are only starting the development phase. We haven't come close to beginning the projects that are needed to firstly balance, but then in all probability will oversupply the market. In this cycle, rents and values rose first in the CBD prime market. Then withdrawal of sites for the Metro rail project and redevelopment boosted rents for CBD B grade space followed by North Sydney and Parramatta. Those rent and price rises underwrote the financial feasibility of projects in those locations. Hence the development that has taken place to date. However, over the last few years rents in Chatswood and Macquarie Park have risen more strongly to a level at which some projects have become financially feasible/marginally feasible.

### 3.2 CHATSWOOD DEVELOPMENT FEASIBILITY AND DEMAND AND SUPPLY FORECASTS

In our 2016 Chatswood CBD strategy report, we investigated the high level financial feasibility of 14 selected potential office sites – all within the CBD Core. At that time, none of the potential developments was financially feasible – even with no FSR restriction. However, given our expectation of rises in rents and property prices, our analysis suggested that seven projects would become feasible within five years.

Over the last 2 years, the market has been extraordinarily strong. A grade net face rents have risen by 22%, leasing incentives have fallen, effective rents are up 34%, yields have firmed and values are up 47%. On re-running the figures, we found that – based on current planning regulations with no FSR limit – four or five of those sites are now broadly financially feasible and up to a total of eight would be feasible in three years time when net face rents are forecast to have risen by another 20%. (See Figure 3 and 4 plus Appendix A for the results).

As yet, none of these projects has started. Financial feasibility is not enough – developers need to be ready, willing and able to undertake the development. However, as finding good development sites in Sydney becomes more difficult with constraints in the inner areas, we expect a number of these developments will proceed.

In our forecasts of the Chatswood office market to 2036, we have assumed that five of the eight will proceed, underwriting a round of office building in Chatswood in the current cycle as well as the subsequent one.

**Fig. 2. Chatswood CBD office stock and stand-alone office workforce 2016 to 2036**

<b>Chatswood CBD office stock and stand-alone office workforce 2016 to 2036</b>		
<i>Year ended December</i>	<i>Base case <sup>(1)</sup></i>	
	<i>Office stock (Sqm) <sup>(2)</sup></i>	<i>Stand-alone office workforce (persons)</i>
2016	278,900	14,200
2021	288,900	15,600
2026	354,400	18,500
2031	349,300	20,200
2036	411,600	23,900
	<i>Change (Sqm)</i>	<i>Average annual growth (%)</i>
2016-2021	10,000	1.9
2021-2026	65,500	3.5
2026-2031	-5,100	1.8
2031-2036	62,300	3.4
2016-2036	132,700	2.6

Source: BIS Oxford Economics, PCA

**Table notes**

1) Base case forecasts are based on our current forecasts contained within our Sydney Suburban Centres 2019 to 2029 and extended to 2036.

These forecasts are based on current planning regulations with no floorspace ratio limit

This forecast incorporates five of the feasible sites identified in the high level feasibility task

2) 2016 office stock based on Property Council of Australia's OMR

Our forecast is for a net additional 133,000 square metres of office space in Chatswood CBD from now to 2036, a little over half in the current cycle (i.e. with completion by December 2024) and the remainder in the subsequent cycle. That, together with reduced workspace ratios over time, would underwrite an additional 9,700 office jobs over the period (compared with the targeted 6,300 – 8,300 additional jobs in the Plan). It assumes that there would be no further incursions into available office development sites within the Chatswood CBD Core.

Given its improved transport linkages – most notably from the recent opening of the North West Metro – and amenities, there will be plenty of demand for office space in Chatswood. From the point of view of economic development, expansion of the Chatswood office precinct with a corresponding addition of office jobs makes a lot of sense.

The above forecasts of demand and supply would require the development of five financially feasible sites. On this basis it could be tempting to let the other sites go for residential development. However, feasibility is only one consideration. Office precincts require clusters of a critical mass of office buildings within a defined core to function effectively, with prime locations for tenants within easy walking distance of transport interchanges. Letting 'unfeasible' sites go to alternative uses, particularly residential, risks fragmenting the commercial core and threatens Chatswood's longer term potential as a viable office precinct.

**Fig. 3. Chatswood CBD feasible development sites, traditional developer, no FSR restrictions**

Chatswood CBD development site feasibility summary table					
Development sites				Feasible now <sup>(3)</sup> 20% return on cost	Feasible by 2021 <sup>(4)</sup> 20% return on cost
Architectus Ref	Address	Approx. existing NLA <sup>(1)</sup> Sqm	Total office capable NLA Sqm <sup>(2)</sup>	Site cost at estimated market value	Site cost at estimated market value
W1	845 Pacific Highway	2,450	32,600	✓	✓
W3	815 Pacific Highway 15 Help Street	12,300	34,700	✗	✗
W4	11 Help Street 7A-9 Help Street	14,150	35,700	✗	✗
W5	7 Help Street (strata titled) <sup>(5)</sup> 6 McIntosh Street 26 Railway Street (strata titled) <sup>(5)</sup>	5,450	34,400	✗	✓
W6	10 Help Street 4-8 Help Street 2 Help Street	15,000	41,650	✗	✗
M1	1-5 Railway Street	15,600	36,150	✗	✓
M2	446 Thomas Street	4,050	10,500	✓	✓
S1	Interchange Nth Tower Post Office Lane (432 Victoria Avenue)	3,800		Floorplates too small	
V4	414 Victoria Avenue 45 Victor Street	2,250	34,700	✓	✓
M5	Mandarin Centre -Office redevelopment <sup>(6)</sup> -Retail centre and office redevelopment <sup>(7)</sup>	9,700	14,350	High level financial feasibility were not updated for 2019 report as current information on existing building was not available. Office redevelopment was unfeasible in 2016 report and is unlikely to have changed. Residential redevelopment feasibility would also need to be tested to confirm its viability	
M4	Westfield			Excluded as existing anchor tenant leases would make development difficult in timeframe	
S2	1 Spring Street 3-9 Spring Street 11 Spring Street 13 Spring Street 66 Archer Street 70 Archer Street 72-76 Archer Street	13,250	56,800 split over 2 buildings	✓	✓
M3	Chatswood Chase			Excluded for similar reasons as Westfield and more than 400 metres from train station	
M6	Westfield car park <sup>(8)</sup>		69,600 split over 2 buildings	High level financial feasibility were not updated for 2019 report due to time limitations. Redevelopment was not feasible in 2016 report and is unlikely to have changed	

**Table notes**

Summary table should be read in conjunction with individual site tables

✓ = feasible at required return on cost

✗ = does not achieve required return on cost

1) NLA= 0.85 x gross floor area

2) As provided by Architectus

3) At 2019 upper A grade net stated rents

4) Upper A grade office net stated rents are forecast to be more than 20% higher than now

5) Assumes strata title doesn't prevent redevelopment

6) Assumes existing centre is demolished and rebuilt as ground level retail and office tower

7) Assumes existing centre is demolished, new retail centre built and new office tower developed on top

8) Assumes existing car park is demolished and replaced with a new car park of similar capacity in addition to office and retail development

**Fig. 4. Chatswood CBD feasible development sites, aggressive developer, no FSR restrictions**

Chatswood CBD development site feasibility summary table					
Development sites				Feasible now <sup>(3)</sup> 8% return on cost	Feasible by 2021 <sup>(4)</sup> 8% return on cost
Architectus Ref	Address	Approx. existing NLA <sup>(1)</sup> Sqm	Total office capable NLA Sqm <sup>(2)</sup>	Site cost at estimated market value	Site cost at estimated market value
W1	845 Pacific Highway	2,450	32,600	✓	✓
W3	815 Pacific Highway 15 Help Street	12,300	34,700	✓	✓
W4	11 Help Street 7A-9 Help Street	14,150	35,700	✗	✗
W5	7 Help Street (strata titled) <sup>(5)</sup> 6 McIntosh Street 26 Railway Street (strata titled) <sup>(5)</sup>	5,450	34,400	✗	✓
W6	10 Help Street 4-8 Help Street 2 Help Street	15,000	41,650	✗	✓
M1	1-5 Railway Street	15,600	36,150	✗	✓
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5) Assumes strata title doesn't prevent redevelopment

6) Assumes existing centre is demolished and rebuilt as ground level retail and office tower

7) Assumes existing centre is demolished, new retail centre built and new office tower developed on top

8) Assumes existing car park is demolished and replaced with a new car park of similar capacity in addition to office and retail development

### 3.3 HIGH LEVEL FINANCIAL FEASIBILITY

In order to provide the forecasts of demand and supply of office space in Chatswood, it was necessary to determine if and when it will be feasible to develop new office buildings.

This section of the report seeks to determine the feasibility of office development should sites be set aside given forecast cyclical movements in Chatswood's office market (and the broader Sydney office market) over the next 20 years.

Key conclusions:

- Using a traditional developer's return on cost of 20%, new office development is currently feasible/marginally feasible on four of the 14 sites identified by Architectus for the 2016 draft Chatswood CBD Employment Strategy (See Fig. 3). These four sites have the capacity to be developed into about 134,000 square metres of office space, or 119,000 square metres in net additions to stock. For the remaining 10 sites, there is either too much value in the existing sites that needs to be demolished for new office development to occur, or other site specific impediments to redevelopment.
- Closer to the market peak in three years' time when rents will have risen by another 20%, we estimate two more sites will become broadly feasible for a traditional developer to build as new office space. Combined with the four sites that are feasible/ marginally feasible now, total completions of around 205,000 square metres or 170,000 square metres in net addition terms could occur.
- Under more aggressive development assumptions (based on an 8% return on cost), eight sites (See Fig 4) would be feasible/marginally feasible to develop in 3 years' time, potentially contributing 219,000 square metres in net additions from total completions of 281,000 square metres, which would come close to doubling Chatswood's current office stock. However, only the most aggressive large scale institutional developers would proceed with projects for an 8% return on cost.
- Of the remaining six sites considered 'unfeasible' for new office development, (regardless of where we are in the cycle):
  - Two involve developing on top of existing shopping centres, which would be difficult to achieve in the next 20 years given existing long term leases to anchor tenants. Moreover, Chatswood Chase is not considered as a prime location for office tenants as it is outside a comfortable walking distance from the Chatswood transport interchange.
  - We did not re-run the financial feasibilities on the redevelopment of the Mandarin Centre or the Westfield car park in the 2019 report as current information to determine the value of the existing improvements was not available. However, neither were feasible to develop as office buildings in the 2016 analysis and this is unlikely to have changed.

- One site, at 432 Victoria Avenue, is considered too small to develop into a modern office tower with at least 1,000 square metre floorplates.
- For the remaining site, the cost involved in demolishing the existing buildings at 7A-9 and 11 Help Street was too high to enable feasible re-development.

Notwithstanding this, in our view, all the identified sites should be preserved in order to maintain the critical mass required for a self-sustaining commercial core into the long term future.

## 4. SYDNEY'S RESIDENTIAL DEVELOPMENT CYCLE

Across Australia's major capital city markets, the residential boom has well and truly run its course. With the demand for residential sites evaporating, some owners and developers may well be looking to commercial development. But this is temporary. Residential property will recover – not quickly, but eventually, and certainly within the planning horizon to 2036.

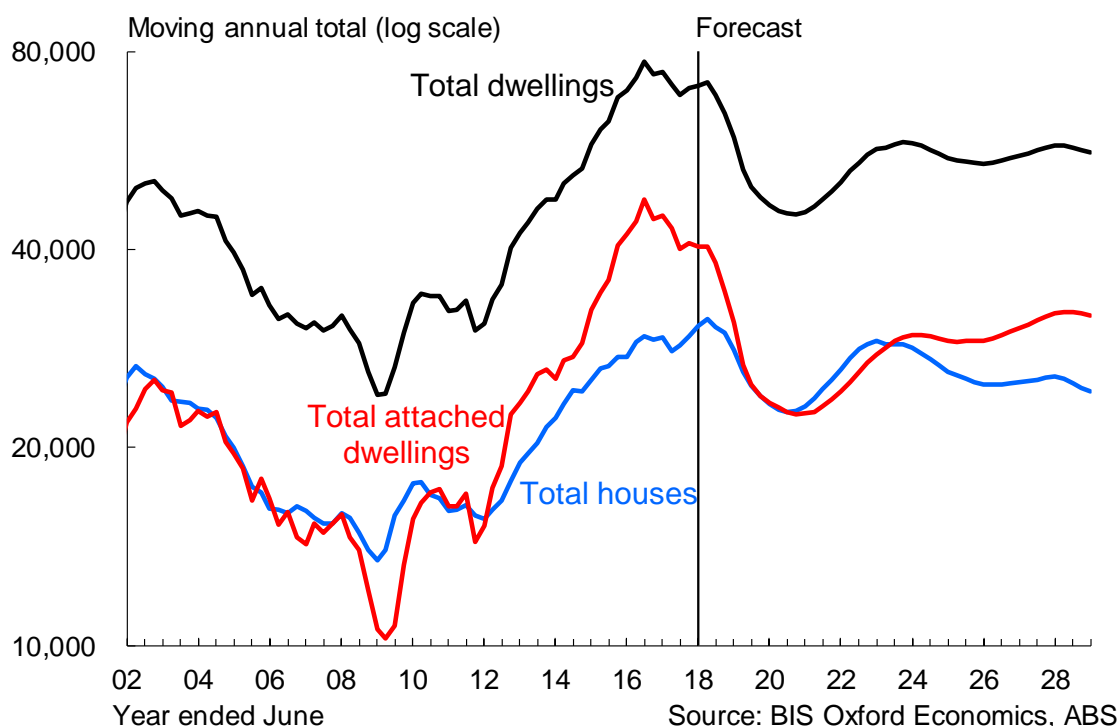
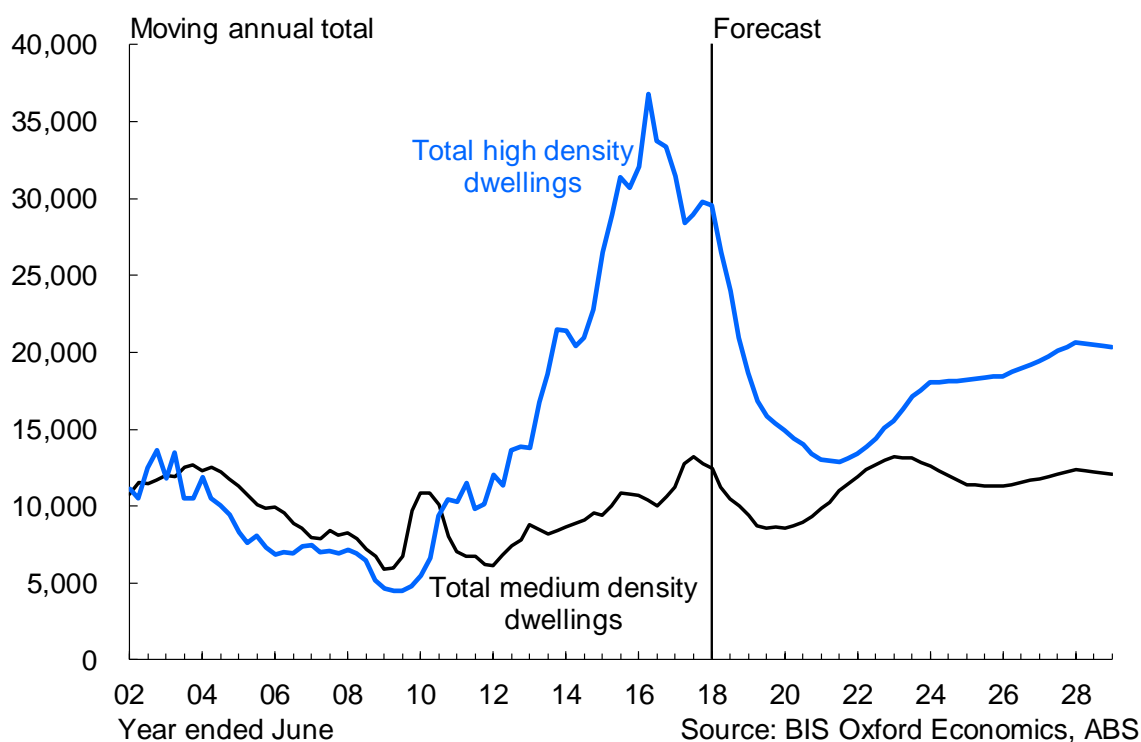
Interestingly, the extent of oversupply in Sydney is relatively moderate. Indeed, Sydney remains undersupplied in aggregate, but oversupplied with small investor apartments.

This has been a most unusual cycle. It was a narrow boom focused on the capital cities, all on roughly the same timing. It was driven primarily by high-rise apartments for investors. Hence the boom in high-density dwellings swamped the magnitude of the upswing in medium density dwellings and detached housing. By the same token, the decline in high-rise apartment projects will dominate the fall in residential building. This process has already begun. Over the next three years, we expect a 30% decline in residential commencements Australia-wide, with high-density dwellings falling by more than half. Sydney will be very much a part of this.

A cooling of the apartment market in Sydney over the past 12 months has followed a four year period of record purchaser activity and price growth. Record dwelling completions in 2017-18 and tighter lending practices from the banks had a larger influence on pricing than the strong fundamentals of population growth, an existing dwelling undersupply and historically low interest rates. Both local and foreign investors, who have supported strong dwelling and apartment demand in recent times, have had their influence curtailed by stricter lending criteria and financial policy. Indeed, changes to FIRB pre-approvals from foreign buyers of apartments is already having an impact on tightening the supply pipeline in Sydney and elsewhere.

Nevertheless, the boom is well and truly over. Investors have been discouraged and pressure for owner occupiers to buy early has evaporated. Pre-sales have dried up and most of the next round of projects can't get enough pre-commitments to bank their projects. Developers who bought sites at highly inflated prices have seen the residual development value of those sites evaporate. Site values will collapse, not just for high-rise projects but for residential subdivisions. That happens every cycle.

Don't expect a quick rebound. It will take a long time to absorb the excess capacity created during the boom. And it will take a long time for discouraged investors to come back into the market. Nevertheless, this is just another cycle. We are not expecting the next recovery to begin for another 3 to 5 years.

**Fig. 5. NSW dwelling construction cycle****Number of dwellings commenced, NSW****Number of attached dwelling approvals, NSW**



## 5. CONCLUSIONS

Offsetting residential and office cycles could lead to an easing of pressure for residential development in Chatswood, temporarily easing pressure on sites. This will be a pause rather than a cessation of the pressure for encroachment of residential development into potential office space in the Chatswood CBD Core.

But the issue of preserving office sites in the Chatswood CBD Core is a long-term economic development and planning issue, not a short term one. We'll need those sites to underwrite future growth in office jobs, not immediately but over time. If they are not there, Chatswood won't get the jobs.

Meanwhile, the current office development phase will be of limited duration – we think another 3, to perhaps 5, years – followed by a period of low development activity. Office development is cyclical. During the office downturn, we'll probably see another residential upswing, again heightening the pressure for sites and threat of encroachment. And, again, the problem will be to preserve commercial sites in the core in the face of strong residential demand so that when the next office development phase comes through, there will be sites on which to build.

There is plenty of room outside the Core for residential development to meet housing targets. Indeed, the extension of the CBD boundary beyond the Core to include new mixed-use areas with substantial provision for residential development will help to provide residential sites around the Core. But if we lose the Core to residential, we limit potential office development and, indeed, threaten the viability of the office precinct.

Strategic planning and economic development issues clash directly with owner/developer desires to make money in the here and now. The task is to facilitate the development of Chatswood/Willoughby in terms of economic development - with a balance between housing, jobs and services – to ensure that resources are available to meet those needs.

Cycles will come and go. This is not about one cycle. We also need to think about future cycles – to preserve space for office development, create jobs and underwrite economic development through several cycles of both office and residential development.

If there is not enough space for offices, that will limit Chatswood's economic development. Given its transport links and retail services, Chatswood is a great location for an office precinct fitting in to Sydney's suburban centre hierarchy. It doesn't make sense to let it go. Without the expansion of Chatswood's office precinct, Chatswood will struggle to meet its employment growth targets outlined in the North District Plan by the Greater Sydney Commission. Already, given the number of sites that have been lost to residential, there are limits on potential office development. We can't afford to lose any more.

# APPENDIX A. HIGH LEVEL FINANCIAL FEASIBILITY

## A.1 DEVELOPMENT ASSUMPTIONS

Our summary high level financial feasibility conclusions for the sites we tested are presented in Figs. 3 and 4, reflecting typical assumptions a traditional and a more aggressive developer would include under two key scenarios. Individual site feasibilities, assuming both a traditional developer return on cost of 20% and a more aggressive 8% return, are presented in Figs. 6 to 10. All development feasibilities were assessed at a high level and should be taken as indicative only.

We tested identified development sites under two main scenarios:

- Scenario 1): Undertake a development in 2019 or;
- Scenario 2) Undertake development closer to the forecast market peak three year's time, when rents and capital values are expected to be much higher than now.

Under each of these timings, individual site development assumptions were adjusted to assess feasibility using:

- A traditional developer's return on cost of 20%
- A more aggressive developer required return on cost of 8%
- Office redevelopment capacity assuming no FSR restrictions
- Purchasing the existing buildings at estimated market value; and
- Purchasing the existing buildings at double the estimated market value.

### A.1.1 Key feasibility inputs

On the sites where the two scenarios listed above were tested, the following key inputs were incorporated and were confirmed as reasonable by several major commercial property developers:

#### 1A) Existing site purchase price estimate and cost of demolition

- For office buildings: Based on our current and forecast market rent, yield and incentives for the applicable grade of space. We assume these buildings are maintained to their current grade standard over time
- For retail buildings: Estimated capitalising average market rent and yield
- Buying costs: Various industry sources
- Existing office leases allow for development to proceed within a year of purchase
- Demolition costs: Rawlinson's Construction Handbook

#### 1B) Multiple of estimated purchase value

- A 1 x estimate of purchase value assumes an existing site sells for market price estimate. However, most existing owners seek more

than market value when there is significant development uplift potential from planning changes. Various developer sources confirmed a doubling (2 x) of the estimated purchase value is common.

## 2) New office building

- Construction costs: Rawlinson's Construction Handbook
- Office capable gross floor area and number of storeys: Provided by Architectus
- A minimum floorplate of 1,000 square metres.
- Office buildings have ground floor retail
- Development costs: Various industry sources and BIS Oxford Economics forecasts
- Sale price: Based on required net stated rent and forecast upper A grade market yield at time of sale. We also assume that before construction begins, a developer secures a tenant pre-commitment and pre-sells the building at prevailing upper A grade yields.
- Development funding based on 50% debt and equity, with debt drawn down as the project proceeds

## 3) Acquisition, development and sale timeframe

- All existing buildings are bought a year before construction commences, six months is allowed for demolition, with the construction timeframe commensurate with the new building size. The new office building has a 10-year lease attached. A vacancy and lease up period has been allowed for.

## 4) Developer required return on cost

- The 20% required return on cost was verified as a reasonable traditional developer profit margin by several developers active in the Sydney office market. The 8% required return on cost was also confirmed by a number of developers as probably the lowest return the most aggressive developer would accept—being moderately above commonly applied hurdle rates currently used by A-REITs.

**Sites where high level feasibility assessment were based on specific assumptions**

The purchase price estimate used in our high level feasibility analysis for the Chatswood RSL adopted a different approach to the other sites considered due to the significantly different existing improvements on this site.

The site value used in determining the feasibility of redeveloping as a new 10,500 square metre NLA office tower was based on the latest property valuation contained within the RSL's accounts.

**Sites where feasibility analysis were not undertaken or re-run from our 2016 report**

We did not undertake high level feasibility analysis of the sites identified by Architectus for the reasons outlined below:

*Westfield Chatswood and Chatswood Chase*

Architectus identified more than 130,000 square metres of potential net lettable office capacity above the existing Westfield Chatswood Shopping Centre and about 80,000 square metres above Chatswood Chase Shopping Centre. Significant development above Westfield faces a number of substantial obstacles over the next 20 years. It is our understanding that a long term lease to Myer would prevent the required reinforcement works needed to support an office tower. Even if an existing anchor tenant could be bought out of their lease, this would add significantly to development cost and in all probability make it unfeasible. In our assumptions outlined above, it is more realistic to assume alternative existing lower quality office building leases within Chatswood would expire within a year of purchase, whereas anchor retail leases often have a term of 15 years or more.

Chatswood Chase would presumably have similar long term anchor tenants which would prevent redevelopment above the existing centre. Furthermore, Chatswood Chase is outside a comfortable walking distance from the Chatswood transport interchange, which would be less appealing to prospective office tenants.

*Interchange North Tower—Post Office Lane*

This site was not considered in our feasibility analysis as Architectus determined the site too small to deliver 1,000 square metre or greater floorplates which are typically required for modern office developments. Our discussions with developers confirmed 1,000 square metre floorplates as a reasonable development threshold.

We did not re-run financial feasibilities from our 2016 report on the following sites:

*The Mandarin Centre*

Architectus identified the potential for about 14,300 square metres of additional net lettable office capacity on this site. In our 2016 report, the existing Centre value and cost to buy out tenants, particularly Hoyts, made the redevelopment unfeasible. We have not re-run the financial feasibility this time around because

the Centre site value is not available. However, the cost to buy out long term leases means redevelopment as an office tower is still unlikely to be feasible.

*The Westfield carpark*

We did not re-run the financial feasibilities on this site due to time constraints. However, the long term lease to Westfield until 2028 would delay the redevelopment for office well into the next cycle.

**Fig. 6. Site 1 and 2, high level feasibility summary**

<b>Architectus Ref W1</b>		<b>Address 845 Pacific Highway</b>	
		<i>At 2019 upper A grade office rents</i>	<i>At 2021 upper A grade office rents (20% above 2018 levels)</i>
<b>No FSR restriction</b>			
Traditional developer high level estimate development feasible at 20% return on cost			
Site cost at estimated	1x	✓	✓
market value	2x	✓	✓
Integrated institutional builder/developer development feasible at 8% return on cost			
Site cost at estimated	1x	✓	✓
market value	2x	✓	✓

**Table notes**

✓

= feasible at required return on cost

X

= does not achieve required return on cost

<b>Architectus Ref W3</b>		<b>Address 815 Pacific Highway 15 Help Street</b>	
		<i>At 2019 upper A grade office rents</i>	<i>At 2021 upper A grade office rents (20% above 2018 levels)</i>
<b>No FSR restriction</b>			
Traditional developer high level estimate development feasible at 20% return on cost			
Site cost at estimated	1x	X	X
market value	2x	X	X
Integrated institutional builder/developer development feasible at 8% return on cost			
Site cost at estimated	1x	✓	✓
market value	2x	X	X

**Table notes**

✓

= feasible at required return on cost

X

= does not achieve required return on cost

**Fig. 7. Site 3 and 4, high level feasibility summary**

<b>Architectus Ref</b> W4		<b>Address</b> 11 Help Street 7A-9 Help Street	
		At 2019 upper A grade office rents	At 2021 upper A grade office rents (20% above 2018 levels)
<b>No FSR restriction</b>			
Traditional developer high level estimate development feasible at 20% return on cost			
Site cost at estimated	1x	X	X
market value	2x	X	X
Integrated institutional builder/developer development feasible at 8% return on cost			
Site cost at estimated	1x	X	X
market value	2x	X	X

**Table notes**

✓

= feasible at required return on cost

X

= does not achieve required return on cost

<b>Architectus Ref</b> W5		<b>Address</b> 7 Help Street (strata titled) <sup>(1)</sup> 6 McIntosh Street 26 Railway Street (strata titled) <sup>(1)</sup>	
		At 2019 upper A grade office rents	At 2021 upper A grade office rents (20% above 2018 levels)
<b>No FSR restriction</b>			
Traditional developer high level estimate development feasible at 20% return on cost			
Site cost at estimated	1x	X	✓
market value	2x	X	X
Integrated institutional builder/developer development feasible at 8% return on cost			
Site cost at estimated	1x	✓	✓
market value	2x	X	✓

**Table notes**

✓

= feasible at required return on cost

X

= does not achieve required return on cost

1)

= assumes strata title doesn't prevent redevelopment

**Fig. 8. Site 5 and 6, high level feasibility summary**

<b>Architectus Ref W6</b>		<b>Address 10 Help Street 4-8 Help Street 2 Help Street</b>	
<b>No FSR restriction</b>		<i>At 2019 upper A grade office rents</i>	<i>At 2021 upper A grade office rents (20% above 2018 levels)</i>
Traditional developer high level estimate development feasible at 20% return on cost			
Site cost at estimated	1x	<b>X</b>	<b>X</b>
market value	2x	<b>X</b>	<b>X</b>
Integrated institutional builder/developer development feasible at 8% return on cost			
Site cost at estimated	1x	<b>X</b>	✓
market value	2x	<b>X</b>	<b>X</b>

**Table notes**

✓

= feasible at required return on cost

**X**

= does not achieve required return on cost

<b>Architectus Ref M1</b>		<b>Address 1-5 Railway Street</b>	
<b>No FSR restriction</b>		<i>At 2019 upper A grade office rents</i>	<i>At 2021 upper A grade office rents (20% above 2018 levels)</i>
Traditional developer high level estimate development feasible at 20% return on cost			
Site cost at estimated	1x	<b>X</b>	✓
market value	2x	<b>X</b>	<b>X</b>
Integrated institutional builder/developer development feasible at 8% return on cost			
Site cost at estimated	1x	✓	✓
market value	2x	<b>X</b>	<b>X</b>

**Table notes**

✓

= feasible at required return on cost

**X**

= does not achieve required return on cost



**Fig. 9. Site 7 and 8, high level feasibility summary**

<b>Architectus Ref M2</b>		<b>Address 446 Thomas Street</b>	
		<i>At 2019 upper A grade office rents</i>	<i>At 2021 upper A grade office rents (20% above 2018 levels)</i>
<b>No FSR restriction</b>			
Traditional developer high level estimate development feasible at 20% return on cost			
Site cost at estimated	1x	✓	✓
market value	2x	X	✓
Integrated institutional builder/developer development feasible at 8% return on cost			
Site cost at estimated	1x	✓	✓
market value	2x	✓	✓

**Table notes**

✓

= feasible at required return on cost

X

= does not achieve required return on cost

<b>Architectus Ref V4</b>		<b>Address 414 Victoria Avenue</b>	
		<b>45 Victor Street</b>	
		<i>At 2019 upper A grade office rents</i>	<i>At 2021 upper A grade office rents (20% above 2018 levels)</i>
<b>No FSR restriction</b>			
Traditional developer high level estimate development feasible at 20% return on cost			
Site cost at estimated	1x	✓	✓
market value	2x	✓	✓
Integrated institutional builder/developer development feasible at 8% return on cost			
Site cost at estimated	1x	✓	✓
market value	2x	✓	✓

**Table notes**

✓

= feasible at required return on cost

X

= does not achieve required return on cost

**Fig. 10. Site 9, high level feasibility summary**

<b>Architectus Ref S2</b> <b>Address</b> <b>1 Spring Street</b> <b>3-9 Spring Street</b> <b>11 Spring Street</b> <b>13 Spring Street</b> <b>66 Archer Street</b> <b>70 Archer Street</b> <b>72-76 Archer Street</b>		
<b>No FSR restriction</b>		<i>At 2019 upper A grade office rents</i> <i>At 2021 upper A grade office rents (20% above 2018 levels)</i>
Traditional developer high level estimate development feasible at 20% return on cost		
Site cost at estimated	1x	✓
market value	2x	X
Integrated institutional builder/developer development feasible at 8% return on cost		
Site cost at estimated	1x	✓
market value	2x	✓

**Table notes**

✓

= feasible at required return on cost

X

= does not achieve required return on cost

# APPENDIX B: METHODOLOGY AND FORECAST ASSUMPTIONS

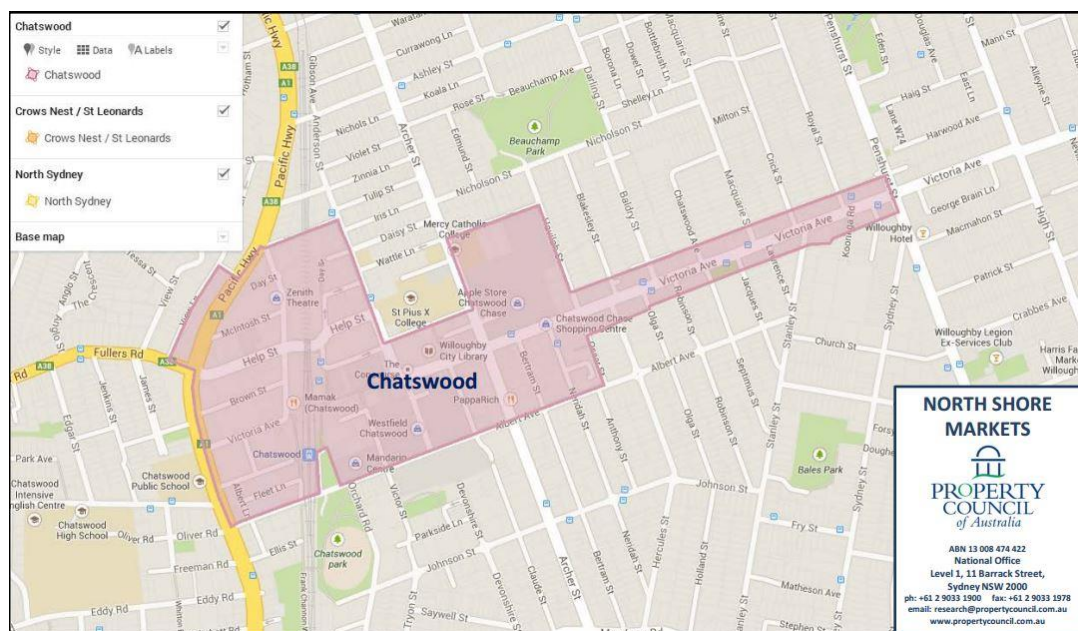
## B.1 DEFINITION OF STAND-ALONE OFFICE SPACE

Stand-alone office space is defined as space in buildings where office functions are the principal usage. This is the Australian Bureau of Statistics definition. It excludes ancillary office space in factories, hospitals, warehouses etc. It includes the office component in mixed-use buildings where office space dominates (i.e. over 50% of the building is dedicated to office use). It excludes obsolete office space. In Chatswood, our office stock aligns with that published by the Property Council of Australia's Office Market report.

## B.2 BOUNDARIES AND SITES WITH ADDITIONAL OFFICE CAPACITY

The boundaries for the Chatswood office market used within this report are consistent with the Property Council of Australia boundary for Chatswood (See Fig 11). The 14 sites identified by Architectus as having additional office capacity are provided in Fig 12, all of which sit with the Chatswood office market.

**Fig. 11. Chatswood office market boundaries**

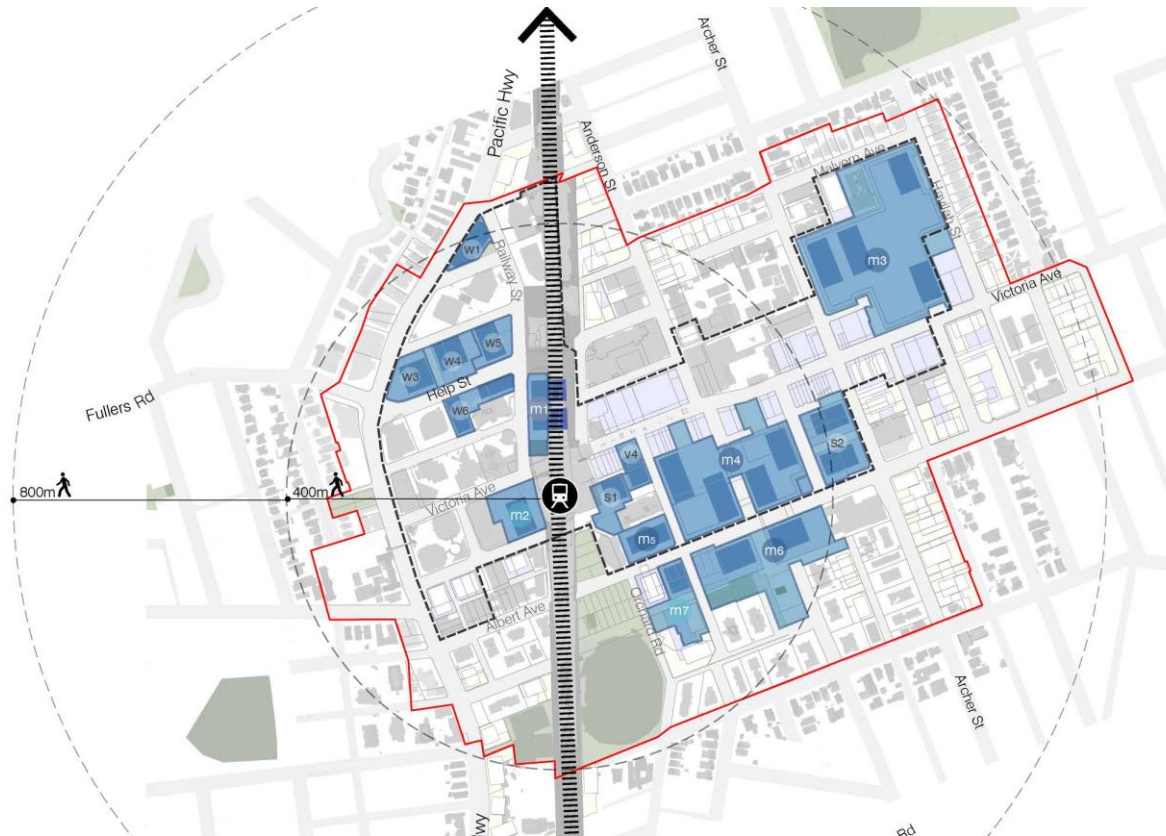


## B.3 STAND-ALONE OFFICE WORKFORCE (SAOWF)

Office employment growth across Sydney's sub-markets is dependent on total metropolitan office employment growth and competition between the sub-markets. Hence our principal analysis of office employment is for the metropolitan market. We define metropolitan Sydney as the ABS Sydney Statistical Division, which is comparable to the Greater Capital City Statistical

Area. Occupations are classified under the ABS ANZSCO structure. We have adjusted total metropolitan 2016 Census data upwards to allow for undercounting using Labour Force data as a guide. Growth rates were applied from the Labour Force series to the Census between 2016 and 2018.

**Fig. 12. Sites with additional office capacity identified by Architectus**



#### **B.4 FORECAST STAND-ALONE OFFICE EMPLOYMENT AND OFFICE SPACE CAPACITY CONSTRAINTS**

In order to allocate office employment across the Sydney metropolitan area over a long term horizon, it is important to have an understanding of centre capacity constraints. i.e. how much office space can be built in any given centre under current and proposed planning regulations? Once a centre nears capacity, the office employment growth it might otherwise have captured will need to be accommodated elsewhere.

Based on internal analysis, BIS Oxford Economics has estimates of office stock capacity under existing (or proposed) planning controls for the Sydney CBD, North Sydney, Parramatta, Chatswood, St Leonards and Macquarie Park. In order to determine when a centre is likely to hit capacity constraints for office development, we have calculated future office stock by combining projections of office employment with forecasts of average workspace ratios (WSRs) and vacancy rates, as follows:

- For the Sydney CBD, North Sydney, Parramatta, Macquarie Park, and St Leonards we separately forecast office stock levels to 2029, as well as average workspace ratios and market vacancy rates in our Sydney CBD

Property Prospects and Sydney Suburban Centres and Office Parks 2019 to 2029 studies. These studies also include 10 year forecasts for Chatswood assuming no changes to current planning controls. For the period between 2029 and 2036, we assumed the rate of decline in WSRs for each centre forecast over the next 10 years would continue. For the post 2029 period, we adopted a long run vacancy rate of 6.0% for the Sydney CBD and 7.0% for the metropolitan area as well as each of the remaining major suburban centres.

- The remaining smaller suburban office markets are included in what we define as the residual metropolitan office market (the metropolitan area minus the Sydney CBD, North Sydney, Parramatta, Macquarie Park, St Leonards and Chatswood).
- Based on proposed changes to planning restrictions, none of the major office sub-markets are expected to reach capacity over the next 20 years, although some will come close.

#### **B.4.1 Stand-alone office employment growth assumptions for forecasts to 2036**

We rely on individual market forecasts for growth in the SAOWF for the Sydney CBD, North Sydney, Macquarie Park, Parramatta, St Leonards and Chatswood as published in our Sydney CBD and Sydney Suburban Centres and Office Parks 2019 to 2029 reports. For employment projections beyond 2029, we apply the following growth rates:

- 'moderate growth': 1.5% per annum
- 'medium growth': 2.0% per annum
- 'high growth': 3.0% per annum.

For each of the major office centres, except Macquarie Park, the average annual SAOWF growth was applied by assuming the growth over the last 20 years and that forecast over the next 10 would continue. i.e. for the Sydney CBD and North Sydney, 1.5% was applied, 2.0% for the metropolitan area and Crows Nest/St Leonards as well as 3.0% for Parramatta and Macquarie Park. A 3.0% per annum growth rate was applied to Macquarie Park, even though its historical growth rate was much higher. It was considered unlikely that the rate of growth in Macquarie Park could be sustained at its historical rate given the slowing in stand-alone office employment growth forecast across the metropolitan area in the longer term.

For Chatswood, a first pass forecast of office employment, workspace ratios and net absorption was undertaken, assuming Chatswood cycles in line with the broader metropolitan market. With vacancy rates a key driver of rents, phases of low vacancies would underpin strongly rising rents and capital values, surpassing replacement cost levels for various development sites over the next three years, adding to the sites already assessed as feasible for a given developer's profit margin. We were provided with 14 sites identified by Architectus as having potential for additional office capacity, 13 of which are within easy walking distance of the Chatswood transport interchange.

Developers tend to develop the best sites first, i.e. those with little or no existing value to tear down within easy access to transport hubs. On this basis, our first pass demand and supply forecasts included those sites with relatively little existing value to demolish. We then ran a high level feasibility assessment to

indicate which sites were feasible as office redevelopments closer to the expected cycle peak in market rents and prices. Our demand and supply forecasts were recalibrated based on the feasibility results.

## **B.5 LIMITATIONS OF FORECASTING**

Forecasting over any time horizon (and particularly longer term forecasting) is limited by various factors including:

- The quality of the data relied upon. Key inputs into our historical series are provided by the Australian Bureau of Statistics and the Property Council of Australia, whom in turn collects data via survey samples and agency committees—processes which are open to manipulation.
- Unforeseen events, be they catastrophic events, financial crises, wars or pandemics have the potential to dramatically alter the assumptions upon which forecasts are based.
- Our forecasts assume that market behaviour/interactions/relationships witnessed in the past will hold into the future, but this may not necessarily be so.
- Changes in the way we work may not be properly captured in the data e.g. full time/part time employment or place of actual work measured by the ABS data, which can impact upon employment and demand for office space. Furthermore, long term changes to workplace practices could turn out to be greater or less than allowed for.
- Future turning points and magnitudes of demand cycles are difficult to forecast
- Planning changes by governments at either the state or local level have the potential to increase or decrease the future capacity for office development across the centres and hence their ability to accommodate forecast stand-alone office workforce growth. Other government interventions, such as tax changes or business regulations have the potential to influence both the prospects for employment and development and can be difficult to anticipate.