

### AUSTRALIA

In September 2012, the Rider Levett Bucknall (RLB) Oceania Research & Development and Communication teams created the RLB Crane Index<sup>®</sup> as a simple insight into the construction sector's health within Australia. It was based on the theory that cranes in the sky supported the construction industry which is a significant contributor to Australia's economic growth.

Now in its 10th edition, the Q2 2017 Crane Index showcases that Sydney still commands the skies with more than 50% of all cranes in Australia. Melbourne with 22% and Brisbane 12% are the only other capital cities with more than 10% of the nation's cranes.

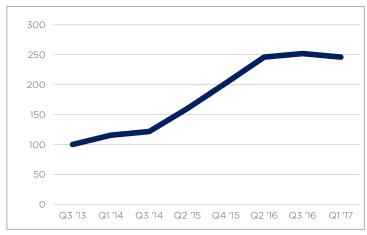
The index, represented in the graph below, is a lineal representation of the number of fixed cranes in Australia over time, using the number of cranes observed in Q3 2013 (3rd edition) as the base.

As house prices across the country continue to rise, development activity within both Sydney and Melbourne are driving much of the growth. General economic activity within the states has turned in recent years, with both New South Wales and Victoria leading the charge as Western Australia, Queensland and Northern Territory are feeling the effects of the post construction phase of the mining boom.

The RLB Crane Index<sup>®</sup> has shown similar results. From a base of 100 at Q3 2013, the latest index value for Australia has now risen to an index value of 245.

#### RLB CRANE INDEX®

BASE = Q2 2014 = 100



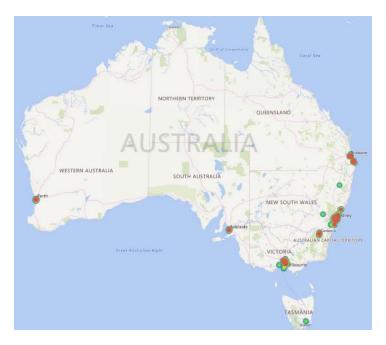
Across Australia, 653 cranes have been sighted on working developments. The residential sector continues to be dominant with 548 cranes representing 84% of all cranes commissioned on future residential dwellings. The sector saw a net gain in crane numbers of nine since the last index.

The only other sectors to show growth in crane numbers were the health, retail and civil sectors with three, one and three additional cranes respectively.

Commercial projects underway across Australia account for 30 cranes, down from 35 at the last count. This sector currently accounts for about 5% of all cranes in Australia.

Crane removals saw the education, civic, recreation, hotel and other sectors all record a fall in total crane numbers.

CITIES			С	VERALL S	TATUS
ADELAIDE	1-				
BRISBANE					
CANBERRA					
DARWIN					
GOLD COAST		KEY SECTORS			
HOBART		COMMERCIAL		CIVIC	
MELBOURNE		RESIDENTIAL		RECREATION	
NEWCASTLE		HEALTH	1~	HOTEL	
PERTH		EDUCATION	1	CIVIL	
SYDNEY		RETAIL	1~	OTHER	
		LEGEND			
		INCREASE IN NUMBER OF CRANES		ECREASE NUMBER OF CRANES	CRANE NUMBERS STEADY



#### CRANE ACTIVITY - AUSTRALIA BY KEY CITIES

	OPENIN	G COUNT	м	OVEME	NT	CLOSING COUNT	
	Q3 2016	%	+		NET	Q2 2017	%
ADELAIDE	15	2.3%	6	-6	0	15	2.3%
BRISBANE	95	14.3%	52	-66	-14	81	12.4%
CANBERRA	24	3.6%	11	-16	-5	19	2.9%
DARWIN	1	0.2%	0	-1	-1	0	0.0%
GOLD COAST	34	5.1%	12	-16	-4	30	4.6%
HOBART	4	0.6%	1	-4	-3	1	0.2%
MELBOURNE	131	19.7%	92	-77	15	146	22.3%
NEWCASTLE	9	1.4%	2	-7	-5	4	0.6%
PERTH	48	7.2%	7	-31	-24	24	3.7%
SYDNEY	305	45.8%	147	-118	29	334	51.1%
TOTAL	666	100.0%	330	-342	-12	654	100.0%



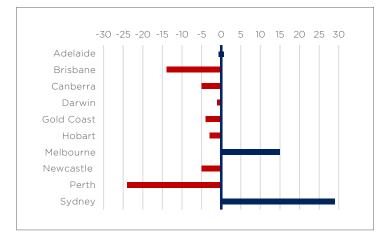
## AUSTRALIA

In October 2012, RLB released the inaugural edition of the RLB Crane Index<sup>®</sup> which reflected a general sentiment of uncertainty across Australia. Mark Lochran, RLB's then Director of Research and Development stated: *'Whilst the current numbers of cranes recorded indicate varied CBD construction workloads across Australia, future workload remains uncertain for all.'* Key findings within the 2012 edition were:

- New South Wales was concerned about future workload with few large scale projects being tendered
- Victoria was seeing an uplift in apartment approvals but access to finance was being seen as a hindrance
- Western Australia, was waiting for the State Government to formalise major projects such as Perth waterfront, light rail system and development of railway land west of the CBD
- South Australia was jolted by BHP's decision in the shelving of the Olympic Dam expansion
- Queensland was already feeling the effects of the mining construction phase turn, and the anticipation of a number of government backed projects would assist in the uplift of construction activity within the State
- The Northern Territory was just starting to see the economic impact of the significant investment in key energy projects and associated infrastructure with an increased optimism

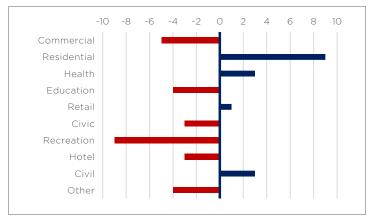
#### AUSTRALIA NET CRANE MOVEMENT BY CITY

NUMBER OF CRANES REMOVED / ADDED



#### AUSTRALIA NET CRANE MOVEMENT BY SECTOR

NUMBER OF CRANES REMOVED / ADDED



#### **CRANE ACTIVITY - AUSTRALIA BY SECTOR**

		G COUNT	M	OVEME			G COUNT
	Q3 2016	%	+	-	NET	Q2 2017	%
COMMERCIAL	35	5.3%	17	-22	-5	30	4.6%
RESIDENTIAL	539	80.9%	281	-272	9	548	83.8%
HEALTH	14	2.1%	10	-7	3	17	2.6%
EDUCATION	12	1.8%	4	-8	-4	8	1.2%
RETAIL	5	0.8%	5	-4	1	6	0.9%
CIVIC	12	1.8%	1	-4	-3	9	1.4%
RECREATION	10	1.5%	0	-9	-9	1	0.2%
HOTEL	14	2.1%	3	-6	-3	11	1.7%
CIVIL	4	0.6%	4	-1	3	7	1.1%
OTHER	21	3.2%	5	-9	-4	17	2.6%
TOTAL	666	100.0%	330	-342	-12	654	100.0%

• The Australian Capital Territory was experiencing a period of contraction

Not less than five years later, both residential and nonresidential work done around the country are at record levels, up more than 40% and 2% respectively, which are reflected in the overall RLB Crane Index<sup>®</sup> which is up over 145% since the commencement of the Index.

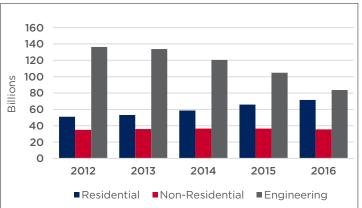
#### RLB CRANE INDEX® COMPARATIVE DATA INDEX: THIRD EDITION Q3 2013 = 100

	3RD EDITION Q3 '13	4TH EDITION Q1 '14	5TH EDITION Q3 '14	6TH EDITION Q2 '15	7TH EDITION Q4 '15	8TH EDITION Q2 '16	9TH EDITION Q3 '16	10TH EDITION Q1 '17
ADELAIDE	100	93	53	40	47	60	100	100
BRISBANE	100	132	132	192	274	274	250	213
CANBERRA	100	150	117	83	100	283	400	317
DARWIN	100	54	54	46	23	23	8	0
GOLD COAST				100	107	200	227	200
HOBART							100	25
MELBOURNE	100	92	143	178	209	226	208	225
NEWCASTLE					100	113	113	50
PERTH	100	114	108	116	127	127	130	65
SYDNEY	100	136	129	176	230	313	332	363
AUSTRALIA	100	115	122	160	203	246	252	246

Note: This table does not represent crane numbers but rather the RLB Crane Index. Refer to last page for more details of the calculation of the RLB Crane Index.

#### **CONSTRUCTION WORK DONE - AUSTRALIA**

CALENDAR YEAR - SOURCE: ABS



### RLB CRANE INDEX<sup>®</sup> Q2 - 2017 10TH EDITION



## ADELAIDE

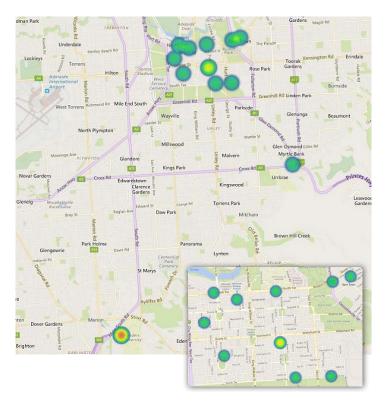
Adelaide has again seen an increase in the total number of cranes operating since our last RLB Crane Index<sup>®</sup>. Crane numbers have been steadily increasing throughout Adelaide since the recorded low in Q2 2015. The Index number for Adelaide has reached its highest point of 120.

Construction work done in South Australia for the calendar year 2016 was down 6%, with residential work up 1% and non-residential work down 13%. Even with the drop off in activity during 2016 promising signs saw six new cranes being established.

Four cranes within the health sector commenced on projects with two at the Calvery Hospital and one each at St Andrews Hospital and the Carmelite Retirement Living in Murtle Bank. One crane was removed from the Woodville BUPA aged care project with continuing projects. Three cranes remain from our last index at the Flinders Medical Centre development, the largest number of cranes on one site within the city. The health sector has a total of seven cranes representing 39% of the cities total cranes, and almost 50% of the countries health cranes.

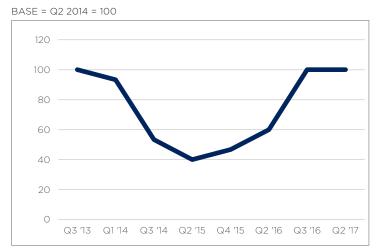
The strongest sector within Adelaide is still the residential sector with nine cranes, up from eight in our last index. Two cranes were added and one removed. Additions included cranes at the Urbanest development in North Terrace and Waymouth Street in Hindmarsh. One crane was removed from The Storeys apartments in South Terrace. Continuations include Citi Terrace Apartments, Holiday Inn Express Hotel, Central Adelaide Apartments, Bohem, Two Sixty Two South Terrace and Verde.

The education sector has seen a decrease from three cranes to two with the removal of one crane at the University of Adelaide Health building. Two cranes remain at the University of South Australia's Health Building.





#### **RLB CRANE INDEX® - ADELAIDE**

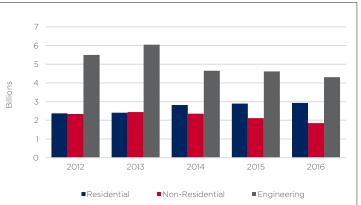


#### **CRANE ACTIVITY - ADELAIDE**

	OPENING	G COUNT	M	OVEME	NT	CLOSING	G COUNT
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	8	53.3%	2	-3	-1	7	46.7%
HEALTH	4	26.7%	4	-1	3	7	46.7%
EDUCATION	3	20.0%	0	-2	-2	1	6.7%
RETAIL	0	0.0%	0	0	0	0	0.0%
CIVIC	0	0.0%	0	0	0	0	0.0%
RECREATION	0	0.0%	0	0	0	0	0.0%
HOTEL	0	0.0%	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
OTHER	0	0.0%	0	0	0	0	0.0%
TOTAL	15	100.0%	6	-6	0	15	100.0%

#### **CONSTRUCTION WORK DONE - SOUTH AUSTRALIA**

CALENDAR YEAR SOURCE: ABS





## BRISBANE

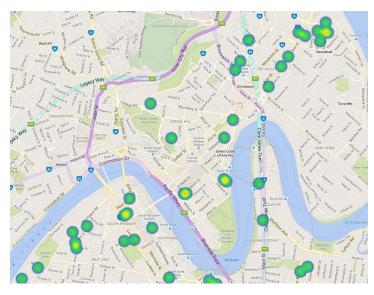
Brisbane has seen a 15% decrease in the value of the RLB Crane Index<sup>®</sup> for Q2 2017 from our previous index. The current index value of 213 is down from 250 at Q3 2016.

The amount of construction work currently being undertaken in Queensland remains strong in regard to residential and non-residential work done for 2016, even though the total of construction work was down by 12%. Engineering work done was down by 21% but residential work was up 12% and non-residential work across the state was up by 2%.

Eighty-one cranes were seen around Brisbane, down from 95 in our previous index. Seventy-two cranes, or 89% of all Brisbane cranes, were within the residential sector.

Brisbane's residential sector remains strong with 46 cranes commencing on projects and 61 removed from projects nearing completion. Cranes commenced on residential projects at Anstey Street in Albion, Kings Street in Bowen Hills, Hope Street, Logan Road, Lincoln Street, Mary Street and Adelaide Street, all within Brisbane, Longman Terrace in Chelmer, Wellington Road & Manilla Street both in East Brisbane, McLachlan Street & St Pauls Terrace in Fortitude Valley, Gladys Street in Greenslopes, Kingsford Smith Drive in Hamilton, Hercules Street in Hamilton, Station Road & Scott Street both in Kangaroo Point, Longland Street, Ann Street, Stratton Street and Evelyn Street all in New Stead, Peel Street, Cordelia Street, and Merivale Street in South Brisbane, Boundary Street in Spring Hill, Jephson Street in Toowong, Bailey Street, Rogers Street, Beesley Street, Donkin Street, Jane Street, Bank Street, all in West End, Hubert Street in Woolloongabba and Cansdale Street in Yeronga.

Residential projects completed or nearing completion where cranes have been removed include sites in Albion, Bowen Hills, Brisbane, Chelmer, Clontarf, Coorparoo, Fortitude Valley, Hamilton, Indooroopilly, Kangaroo Point, Lutwyche, Milton, Newmarket, Newstead, South Brisbane, Spring Hill, Toowong, West End, Windsor, Woolloongabba and Yeronga.





#### **RLB CRANE INDEX® - BRISBANE**



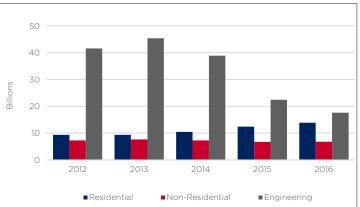


#### CRANE ACTIVITY - BRISBANE

	OPENING	G COUNT	M	OVEME	NT	CLOSING	G COUNT
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	3	3.2%	3	-3	0	3	3.7%
RESIDENTIAL	87	91.6%	46	-61	-15	72	88.9%
HEALTH	0	0.0%	0	0	0	0	0.0%
EDUCATION	0	0.0%	0	0	0	0	0.0%
RETAIL	0	0.0%	0	0	0	0	0.0%
CIVIC	0	0.0%	0	0	0	0	0.0%
RECREATION	0	0.0%	0	0	0	0	0.0%
HOTEL	0	0.0%	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
OTHER	5	5.3%	3	-2	1	6	7.4%
TOTAL	95	100.0%	52	-66	-14	81	100.0%

#### CONSTRUCTION WORK DONE - QUEENSLAND

CALENDAR YEAR SOURCE: ABS





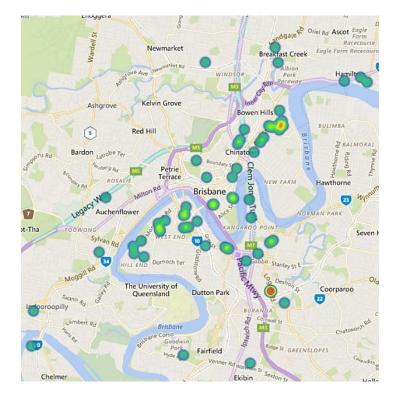
## BRISBANE

Three new commercial cranes commenced and three were removed. Two cranes were removed from 1 William Street and one from Benson Street in Toowong. New commercial projects include 900 Anne Street and two cranes have been installed at St Pauls Terrace.

The commencement of the Brisbane Private Hospital ward expansion project has seen one crane added to the health sector.

Within the hotel sector, commencements at the Adina Hotel on George Street and the Calile on James Street, lifts the numbers of cranes up from zero at our last count.

One crane each from mixed use sites have been removed within the other sector. The projects include 300 George Street and Markwell Street in Bowen Hills. Three cranes remain on the 300 George Street site.



### RLB CRANE INDEX<sup>®</sup> Q2 - 2017 10TH EDITION

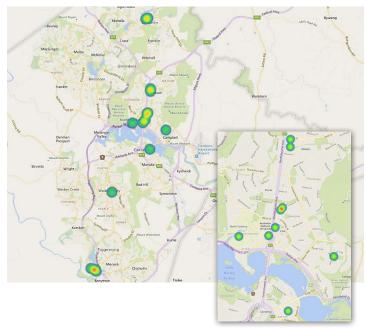


### CANBERRA

Canberra's construction work done for 2016 rose 16% over 2015 levels. Residential work was up 19% and non residential work was up 6%. This rise in activity for the construction industry can be seen in the RLB Crane Index® values over the past three editions. Eighteen months ago the index was 100, with the index now at 317, a significant index. Even though the numbers of cranes were down since our last publication, the steady rise in construction work within the ACT has seen significant numbers of cranes rise within Canberra over the past two years. From six cranes 18 months ago. Canberra now has 19 in the sky.

Eleven cranes commenced on projects and 16 cranes were removed from sites since our last count. Total cranes in Canberra now number 19, down from 24.

The residential sector still dominates with 74% of all cranes on residential projects. There were 12 cranes removed and nine cranes added for a net decrease of three cranes.



Cranes were removed from the following projects: Mayfair in Civic, ANU student accommodation SA5 in Acton, Esque Apartments in Franklin, Wayfarer in Belconnen, UC student accommodation Cooper Lodge 2 in Bruce, Trilogy apartments in Phillip, The Central stage 2 in Crace, Evoque apartments in Braddon, St Germain in Campbell and Axiom Apartments in Griffith

Cranes on new residential projects include: Southport in Tuggeranong, Idalia Apartments in Phillip, The Gallery in Braddon, Malabar Apartments in Dickson, Antill Street in Dickson and Mezzo and Infinity Tower, both in Gungahlin.

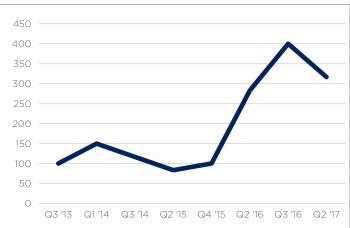
One crane was added to the education sector at ANU and an additional crane commenced at the ACT Supreme Court Building in Vernon Circle bring the total cranes on site to two.

Both the Canberra Centre Carpark crane and the crane at the Tuggeranong office development in Athllon Drive remain



#### **RLB CRANE INDEX® - CANBERRA**

BASE = Q2 2014 = 100

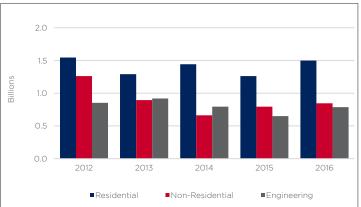


#### **CRANE ACTIVITY - CANBERRA**

	OPENING	G COUNT	M	OVEME	NT	CLOSING	G COUNT
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	3	12.5%	0	-2	-2	1	5.3%
RESIDENTIAL	17	70.8%	9	-12	-3	14	73.7%
HEALTH	2	8.3%	0	-2	-2	0	0.0%
EDUCATION	0	0.0%	1	0	1	1	5.3%
RETAIL	1	4.2%	0	0	0	1	5.3%
CIVIC	0	0.0%	0	0	0	0	0.0%
RECREATION	0	0.0%	0	0	0	0	0.0%
HOTEL	0	0.0%	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
OTHER	1	4.2%	1	0	1	2	10.5%
TOTAL	24	100.0%	11	-16	-5	19	100.0%

#### **CONSTRUCTION WORK DONE - ACT**

CALENDAR YEAR SOURCE: ABS





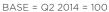
## DARWIN

Darwin's construction work continues to slow with a fall of 21% in 2016. Residential work fell by 21%, non-residential by 5% and Engineering work by 24%.

There are no cranes installed on developments within Darwin at the moment.



#### **RLB CRANE INDEX® - DARWIN**



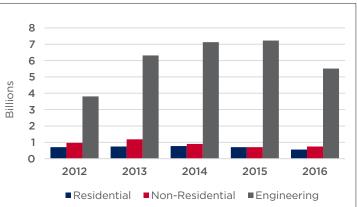


#### **CRANE ACTIVITY - DARWIN**

	OPENING	G COUNT	M	OVEME	NT	CLOSING	G COUNT
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	0	0.0%	0	0	0	0	0
RESIDENTIAL	1	100.0%	0	-1	-1	0	0
HEALTH	0	0.0%	0	0	0	0	0
EDUCATION	0	0.0%	0	0	0	0	0
RETAIL	0	0.0%	0	0	0	0	0
CIVIC	0	0.0%	0	0	0	0	0
RECREATION	0	0.0%	0	0	0	0	0
HOTEL	0	0.0%	0	0	0	0	0
CIVIL	0	0.0%	0	0	0	0	0
OTHER	0	0.0%	0	0	0	0	0
TOTAL	1	100.0%	0	-1	-1	0	0.0%

#### CONSTRUCTION WORK DONE - NORTHERN TERRITORY

CALENDAR YEAR SOURCE: ABS



### RLB CRANE INDEX<sup>®</sup> Q2 - 2017 10<sup>TH</sup> EDITION



### **GOLD COAST**

The Gold Coast is still showing signs of strong growth in crane numbers. The RLB Crane Index<sup>®</sup> fell 12% this edition but this fall was due to the removal of seven cranes from the Commonwealth Village project. The RLB Crane Index® for the Gold Coast now stands at 200, down from 227 in the last edition.

Total cranes now number 30, down from 34 in the previous index. Since our last publication 16 cranes have been removed and 12 have been erected.

The residential sector accounts for 93% of all Gold Coast cranes. A total of 28 cranes can be seen on residential projects. Thirteen residential cranes were removed from Vantage in Benowa, East Quays Stage 3 in Biggera Waters, Tugan in Bilinga, The Park in Mermaid Beach, La View in Palm Beach, Athletes Village in Southport (6 cranes), and both Lanikai and 5 Chester in Southport.

Twelve new residential cranes were seen at Qube in Broadbeach, Boardwalk at Burleigh Heads, both Eleve and Marina Concourse in Carrara, Arvia in Coolangatta, an additional crane at the Jewel Residences at Surfers Paradise, Ratan at Surfers Paradise and both South Lakes and Aura Stage 2 at Varsity Lakes.

The health sector has seen the removal of the crane at Robina Private Hospital, leaving the sector with no cranes.

The hotel sector's cranes are still installed at Jupiters as part of the hotel refurbishment and expansion project.

Southern Cross University has seen the removal of their crane.

#### **RLB CRANE INDEX® - GOLD COAST**

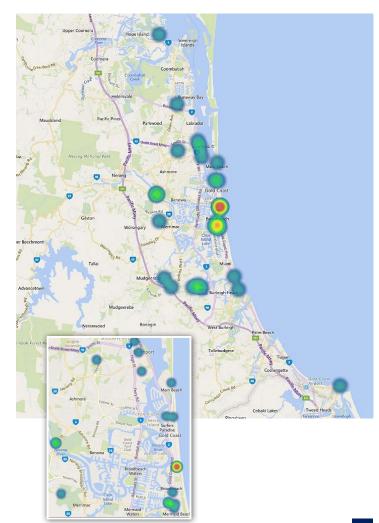
BASE = Q2 2015 = 100



#### **KEY SECTORS** RESIDENTIAL RECREATION 1-HOTEL HEALTH ~ EDUCATION

#### **CRANE ACTIVITY - GOLD COAST**

	OPENING	G COUNT	M	OVEME	NT	CLOSING	G COUNT
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	29	85.3%	12	-13	-1	28	93.3%
HEALTH	1	2.9%	0	-1	-1	0	0.0%
EDUCATION	1	2.9%	0	-1	-1	0	0.0%
RETAIL	0	0.0%	0	0	0	0	0.0%
CIVIC	0	0.0%	0	0	0	0	0.0%
RECREATION	1	2.9%	0	-1	-1	0	0.0%
HOTEL	2	5.9%	0	0	0	2	6.7%
CIVIL	0	0.0%	0	0	0	0	0.0%
OTHER	0	0.0%	0	0	0	0	0.0%
TOTAL	34	100.0%	12	-16	-4	30	100.0%



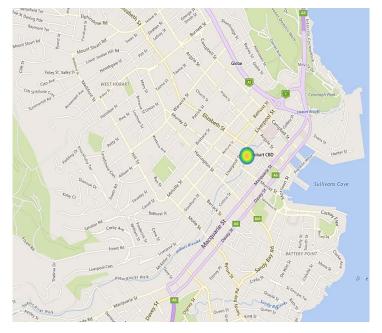


## HOBART

The RLB Crane Index<sup>®</sup> welcomed Hobart in its last edition with four cranes. Cranes have been removed from Parliament Square, Macquarie Street and the University of Tasmania Student Accommodation building in Melville Street. The sole crane in Hobart has been erected on the Myer redevelopment site in Liverpool Street.







#### **RLB CRANE INDEX® - HOBART**

BASE = Q3 2016 = 100

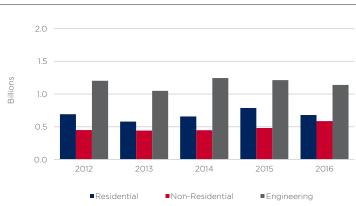


#### **CRANE ACTIVITY - HOBART**

	OPENING	G COUNT	M	OVEME	NT	CLOSING	G COUNT
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	1	25.0%	0	-1	-1	0	0.0%
RESIDENTIAL	2	50.0%	0	-2	-2	0	0.0%
HEALTH	0	0.0%	0	0	0	0	0.0%
EDUCATION	0	0.0%	0	0	0	0	0.0%
RETAIL	0	0.0%	1	0	1	1	100.0%
CIVIC	0	0.0%	0	0	0	0	0.0%
RECREATION	0	0.0%	0	0	0	0	0.0%
HOTEL	1	25.0%	0	-1	-1	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
OTHER	0	0.0%	0	0	0	0	0.0%
TOTAL	4	100.0%	1	-4	-3	1	100.0%

#### CONSTRUCTION WORK DONE - TASMANIA

CALENDAR YEAR SOURCE: ABS



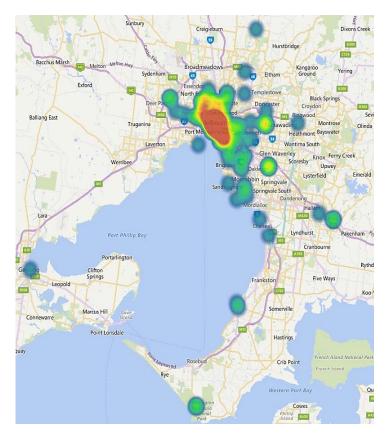


### MELBOURNE

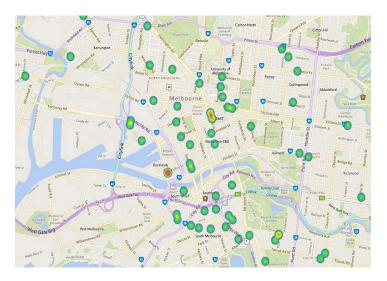
Melbourne's RLB Crane Index<sup>®</sup> recorded an 8% increase in this edition. The index has risen to an almost record high of 225 up from 208 in the 9th edition.

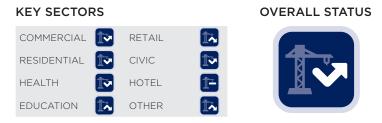
Construction work done in Victoria was up 6% in 2016. Residential work is still strong recording a 10% lift while non-residential work was down 8%.

Cranes across Melbourne now number 146, up from 131 in the previous edition, a net gain of 15 cranes. 92 cranes were added and 77 removed from sites.

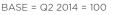


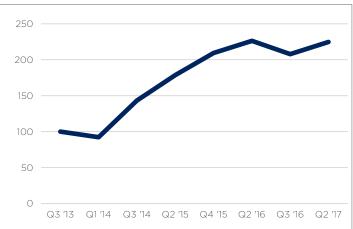
Across Melbourne, the CBD and surrounding suburbs have 43 (30%) cranes installed, The eastern suburbs have 28 (19%), the north have 30 (20%), the south have 35 (24%) and the west have 10 (7%) cranes installed.





#### **RLB CRANE INDEX® - MELBOURNE**



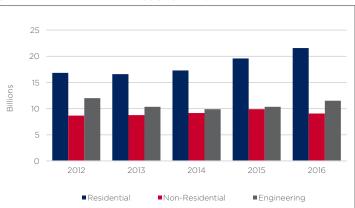


#### **CRANE ACTIVITY - MELBOURNE**

	OPENING	G COUNT	M	OVEME	NT	CLOSING	G COUNT
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	6	4.6%	7	-4	3	9	6.2%
RESIDENTIAL	109	83.2%	79	-66	13	122	83.6%
HEALTH	2	1.5%	2	0	2	4	2.7%
EDUCATION	6	4.6%	1	-3	-2	4	2.7%
RETAIL	3	2.3%	2	-3	-1	2	1.4%
CIVIC	1	0.8%	1	0	1	2	1.4%
RECREATION	0	0.0%	0	0	0	0	0.0%
HOTEL	3	2.3%	0	0	0	3	2.1%
CIVIL	0	0.0%	0	0	0	0	0.0%
OTHER	1	0.8%	0	-1	-1	0	0.0%
TOTAL	131	100.0%	92	-77	15	146	100.0%

#### **CONSTRUCTION WORK DONE - VICTORIA**

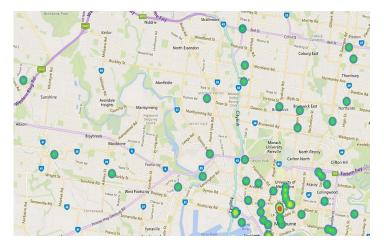
CALENDAR YEAR SOURCE: ABS





### MELBOURNE

The residential sector accounts for 84% of all cranes installed in Melbourne. 122 residential were counted this edition, up from 109.



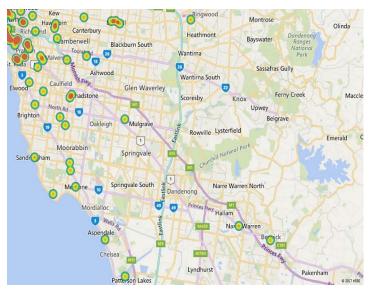
92 cranes were erected on new projects including Beatty Avenue and 881 Armadale in Armadale, Poplar, Chloe and Astrina in Box Hill, 288 Albert St, 8 Lygon St and the Burgin Residence in Brunswick East. Moreland Road in Brunswick West, Botanic at Parc Vue in Bundoora, Swanston Central, 205-223 Pelham St and The Eminence in Carlton, Cooper and 17 Belsize Avenue in Carnegie, 689 Glen Huntly Rd in Caulfield, Orr Apartments in Caulfield North, Tennyson St in Cheltenham, Pace of Collingwood and 97 Wellington Rd in Collingwood, The Parade in East Melbourne, Lochiel St in Edithvale, Glen Eira & Hotham in Elsternwick, cnr Smith St and Hotham St and George Street in Fitzroy, Riverina in Footscray, Trentwood and the The Henderson in Glen Iris, 555 Glenferrie Rd and Kootongkoot Road in Hawthorn, Ivanhoe Apartments in Heidelberg, River Walk in Kensington, Jasper and McKinnon Road in McKinnon, Aurora, 388 Lonsdale, The Fifth, Lakeside, Conservatory and Domain Lane in Melbourne, Balcombe Rd in Mentone, Margaret St in Moonee Ponds, both the Esplanade and Nepean Highway in Mornington, Racecourse Rd, Reflections and Arden Gardens in North Melbourne, Pace of Northcote, Pier 1 Apartments in Patterson Lakes, High Street in Preston, Dux Richmond Hill and Burnley & Beissel in Richmond, En Vue in Sandringham, Coventry Street, The Record, 74 Eastern Rd, Lakehouse and Buckhurst St in South Melbourne, Noir, Chapel St, Domain Road and The Millswyn in South Yarra, Australia 108, Southbank Central, Coventry Haus and Kings Domain in Southbank, 198 St Kilda Rd in St Kilda, The Benson in Toorak, Volaire Apartments in West Melbourne and at Hawke & King Street in West Melbourne.

Residential projects that have had cranes removed and are completed or nearing completion include: Playhouse and Pavillion in Abbotsford, Toorak Park in Armadale, Botanica in Balwyn, Rita in Bentleigh, Elland Avenue, Belle, Central Avenue in Box Hill, The Easton in Burwood, Rathdowne Place and Royal Elizabeth in Carlton, Holmes Hill Apartments in Chadstone, Elxir in Cheltenham, Quest Dandenong, Silver & Bronze and Array in Docklands, Primrose Apartments in Doncaster East, Hyatt Place in Essendon Fields, Nicholson St and C.F Row in Fitzroy,

Vivid in Glen Iris, Campbell Place in Glen Waverly, The Hampton in Hampton, Hawthorn Black in Hawthorn East, The Orchard and Everygreen in Ivanhoe, Finch apartments in Malvern East, Aspire in Maribynong, Collins and Briscoe Ln, Queens Place, Avant Collins Street, 35 Spring Street, The Trillium, Eporo, Lighthouse, EQ Tower, Victoria One, West Side Place and Opera Melbourne in Melbourne, MO. PO in Moonee Ponds, NV apartments in North Melbourne, The General in Northcote, Tre Monte and Nine High in Preston, Billy & Co and Light Edge in Richmond, Shadowplay, Teri Apartments and Jewel Apartments in South Melbourne, Parque Melbourne, The Carlisle and Made in St Kilda in St Kilda, Canterbury Hill in Surrey Hills, Mandeville Lane in Toorak, Kubix Stage 3 in Wantirna South, Como Parade in West Mentone, George Windsor and Lumar in Windsor.

The Commercial sector has nine cranes erected, Health and education have four each, hotels have three and retail and civic have two each.

New cranes within the commercial sector were sighted at 405 Bourke St, MCEC at South Wharf, ANMF in Elizabeth Street, Footscray Road, Bayside Masonic in Gardenvale, Withers Street in Sunshine and Worksafe in Geelong. Cranes were removed from Collins Square, Riverside Quay, 96 Maroondah Highway in Ringwood and Cremorne Street in Richmond within the commercial sector. The only continuing project since our last edition with two cranes is Collins Quarter.



Health cranes includes the Joan Kirner Hospital in Sunshine and at St John of God in Berwick.

Education sector cranes have been removed from RMIT, South Melbourne Primary School and one crane at Monash University Learning and Teaching Building. The only new education crane has been erected at Beaumaris Secondary College.

Within the hotels sector, three cranes remain on the RACV at Cape Schanck and at the Sage Hotel in Ringwood.



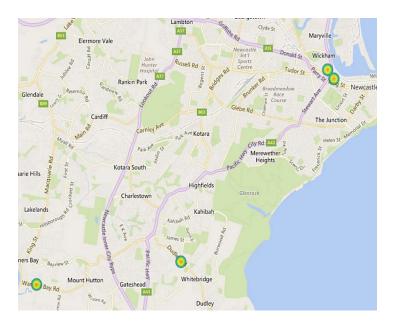
### NEWCASTLE

Newcastle has seen a fall in the number of cranes observed since the last RLB Crane Index<sup>®</sup>. The index has fallen from a high of 113 at our last two editions to 50, a fall of 55%. Four cranes now dot the skyline around Newcastle, down from nine at our last count.

Two new cranes have been erected and seven removed from projects.

All cranes within the Newcastle area are sited on residential projects. These include Aspire apartments, Shearwater apartments in Warners Bay, West End apartments in Wickham and Aero apartments in Newcastle.

Cranes that have been removed have come from University of Newcastle, The Huxley, Spire apartments, Eastside apartments, Stockland's Greenhill shopping centre and Gosford Hospital.





#### **RLB CRANE INDEX® - NEWCASTLE**

BASE = Q4 2015 = 100



#### **CRANE ACTIVITY - NEWCASTLE**

	OPENING	G COUNT	м	OVEME	NT	CLOSING	G COUNT
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	0	0.0%	0	0	0	0	0.0%
RESIDENTIAL	5	55.6%	2	-3	-1	4	100.0%
HEALTH	2	22.2%	0	-2	-2	0	0.0%
EDUCATION	1	11.1%	0	-1	-1	0	0.0%
RETAIL	1	11.1%	0	-1	-1	0	0.0%
CIVIC	0	0.0%	0	0	0	0	0.0%
RECREATION	0	0.0%	0	0	0	0	0.0%
HOTEL	0	0.0%	0	0	0	0	0.0%
CIVIL	0	0.0%	0	0	0	0	0.0%
OTHER	0	0.0%	0	0	0	0	0.0%
TOTAL	9	100.0%	2	-7	-5	4	100.0%

### RLB CRANE INDEX<sup>®</sup> Q2 - 2017 10<sup>TH</sup> EDITION



## PERTH

Perth's RLB Crane Index<sup>®</sup> fell 50% to 65 for the current edition.

This fall in the index is reflected in the 2016 Construction Work Done numbers. The ABS reported that Western Australia's work done for the 2016 calendar year fell by 34%. This was represented by falls in engineering work of 40% (\$17B), residential work 19% (\$1.8B) and nonresidential work of 13% (0.6B).

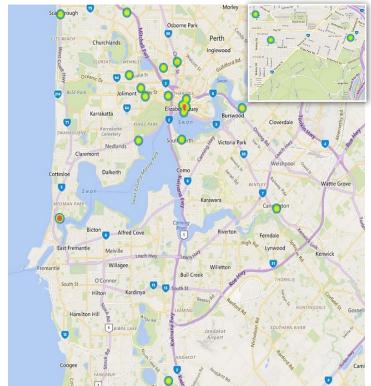
Even though we saw a small lift in the index in our previous edition, the completion of 16 projects saw the total crane numbers in Perth fall by 24 cranes.

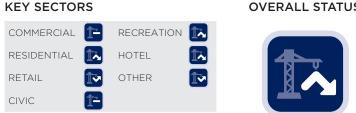
Cranes within the residential sector in Perth have recorded the lowest proportion to total cranes in Australia at 38% this edition. 17 cranes were removed from developments with only three added to new projects. Removals were seen at Tribeca Apartments in Ascot, Concert Apartments (former ABC site), Fiore Apartments, Motive Apartments, Mount Street, Palmerston Street in Northbridge, Red Castle Apartments, Scarborough seafront, Subi Centro, Vetroblue Apartments, Ventnor Street and Whetacroft Street Apartments

New residential cranes have been installed at the Aire Apartments in Murray Street and the Tasker Apartments and The Cove in North Fremantle.

Seven cranes were removed from the New Perth Stadium, leaving the recreation sector with no cranes.

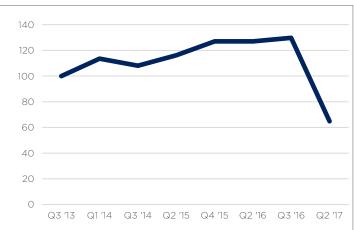
Two cranes have been removed from the Westin Hotel site, with one remaining and from the Tribe Hotel site in Walker Avenue. A new crane was installed at the new Ritz Carlton. One crane remains at each of the Loft Hotel and Old Melbourne Hotel sites. The Hotel sector has a total of four cranes down from seven at our last edition. Two cranes have been erected on Station Street at Subiaco for the Station Street Mixed Use Development





#### **RLB CRANE INDEX® - PERTH**

BASE = Q2 2014 = 100

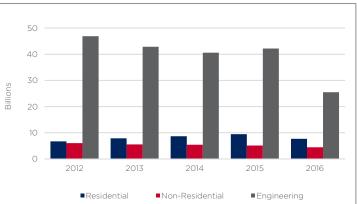


#### **CRANE ACTIVITY - PERTH**

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	7	14.6%	0	-3	-3	4	16.7%
RESIDENTIAL	23	47.9%	3	-17	-14	9	37.5%
HEALTH	0	0.0%	0	0	0	0	0.0%
EDUCATION	0	0.0%	0	0	0	0	0.0%
RETAIL	0	0.0%	2	0	2	2	8.3%
CIVIC	1	2.1%	0	0	0	1	4.2%
RECREATION	7	14.6%	0	-7	-7	0	0.0%
HOTEL	7	14.6%	1	-4	-3	4	16.7%
CIVIL	0	0.0%	0	0	0	0	0.0%
OTHER	3	6.3%	1	0	1	4	16.7%
TOTAL	48	100.0%	7	-31	-24	24	100.0%

#### **CONSTRUCTION WORK DONE - WESTERN AUSTRALIA** SOURCE: ABS

CALENDAR YEAR



#### **OVERALL STATUS**

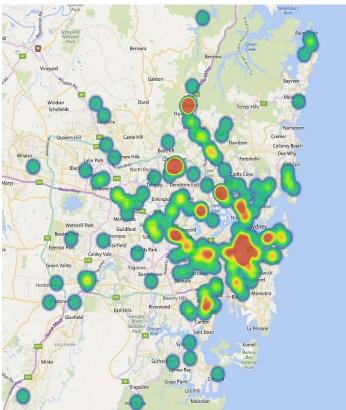


## SYDNEY

Sydney continues to dominate the RLB Crane Index<sup>®</sup> with a 10% increase in Q2 2017. From an index value of 332 in the previous edition, the index has grown to a value of 363. The Index is based on the movement of crane numbers using the crane numbers observed in Q3 2013 as the base for the index.

Sydney can now see 334 cranes on the skyline within and around Sydney, up from 305 in our previous edition. This represents more than 50% of all cranes sighted around Australia. Since our last edition Sydney has seen 147 cranes erected on new projects and 118 removed for projects completed or nearing completion.

Construction work done within New South Wales grew by another 13% during 2016, with residential activity up by 21% and non-residential up by 5%. This increase in work done is reflected in the growth of residential cranes seen around Sydney. The spread of cranes, highlighted in the heat maps within this edition, showcase the construction activity along the main northern, western and southern corridors of Sydney.



Residential cranes soared to 292 around Sydney which amounts to 45% of all Australian cranes and 53% of all residential cranes in Australia. The total residential work done in NSW represents only 31% of the national total, yet commands 53% of all cranes working on residential projects.

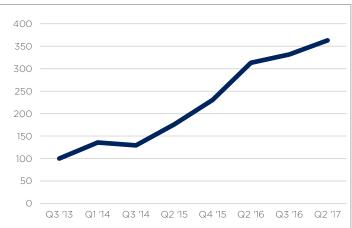
Since our last report, Sydney has added 128 cranes within the sector and 94 have been removed. Cranes are positioned in most Sydney suburbs, unlike other Australian cities where the cranes are located closer to the city centre.

#### KEY SECTORS

# COMMERCIALImage: RecreationImage: Re

#### RLB CRANE INDEX® - SYDNEY

BASE = Q2 2014 = 100

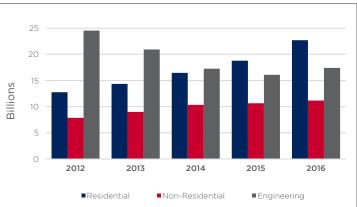


#### CRANE ACTIVITY - SYDNEY

	OPENING COUNT		MOVEMENT			CLOSING COUNT	
	Q3 2016	%	+		NET	Q2 2017	%
COMMERCIAL	15	4.9%	7	-9	-2	13	3.9%
RESIDENTIAL	258	84.6%	128	-94	34	292	87.4%
HEALTH	3	1.0%	3	-1	2	5	1.5%
EDUCATION	1	0.3%	2	-1	1	2	0.6%
RETAIL	0	0.0%	0	0	0	0	0.0%
CIVIC	10	3.3%	0	-4	-4	6	1.8%
RECREATION	2	0.7%	0	-1	-1	1	0.3%
HOTEL	1	0.3%	0	-1	-1	0	0.0%
CIVIL	4	1.3%	4	-1	3	7	2.1%
OTHER	11	3.6%	3	-6	-3	8	2.4%
TOTAL	305	100.0%	147	-118	29	334	100.0%

#### CONSTRUCTION WORK DONE - NEW SOUTH WALES

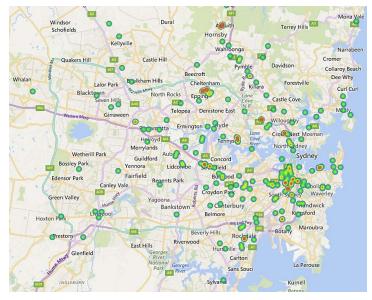
CALENDAR YEAR SOURCE: ABS



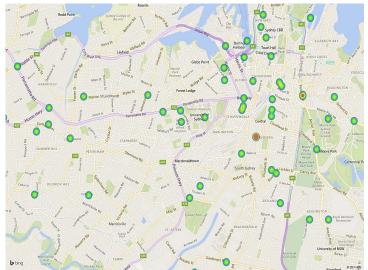


## SYDNEY

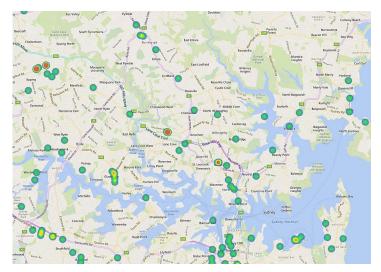
Suburbs within Sydney which more than two residential cranes currently installed include: Parramatta (15), Wolli Creek (12), Epping (9), Homebush (9), Nth Ryde (8), Surry Hills (8), Wentworth Park (8), Meadowbank (7), Gordon (6), Liverpool (6), Asquith (5), Flemington (5), Gladesville (5), Mascot (5), Wollongong (5), Auburn (4), Burwood (4), Hurstville (4), Kirrawee (4), Merrylands (4), Mt Colah (4), Toongabbie (4), Waterloo (4), Zetland (4), Casula (3), Crows Nest (3), Eastwood (3), Epping (3), Fairfield (3), Kellyville (3), Lane Cove (3), Leichhardt (3), Manly (3), Macquarie Park (3), Point Piper (3), Rockdale (3), Rose bay (3), St Leonards (3), Strathfield (3), Summer Hill (3), Annandale (2), Arncliffe (2), Bondi Junction (2), Campbelltown (2), Drummoyne (2), Erskineville (2), Kensington (2), Lewisham (2), Lidcombe (2), Lindfield (2), Miranda (2), Mosman (2), Mount Druitt (2), Olympic Park (2), Paddington (2), Pennant Hills (2), Pymble (2), Turramurra (2), Vaucluse (2), Waitara (2) and Wentworthville (2).



Thirteen cranes are now in the commercial sector mainly centred on the central city. Seven cranes were added in the period and nine removed. Current sites with cranes operating include: 177 Pacific Highway in North Sydney, York & George, Pitt Street and Kent Street in Sydney, Wynyard Place in the CBD, 100 Mount Street and 317 Pacific Hwy in North Sydney and at the GCA Building in Redfern. Notable removals include two cranes at Barangaroo and three cranes at Darling Harbour. Rail projects dominate the civil sector with seven cranes supporting transport developments. Cranes have been observed at the Northwest rail link, in Moore Park for the light rail works, in Ashfield for West Connex and in Bella Vista for the Sydney Metro Station.



Two cranes are active at Sydney University's new administration building with one crane removed from UNSW's Bioscience Renewal Project



Within the health sector, new cranes have been installed at Armidale Hospital, Blacktown Hospital and St George Hospital. One crane has been removed from the Prince of Wales Hospital in Randwick and two cranes remain at Mona Vale at the Northern Beaches Hospital.

### RLB CRANE INDEX® Q2 - 2017 10<sup>TH</sup> EDITION



#### **ABOUT THE RLB CRANE INDEX®**

The RLB Crane Index<sup>®</sup> is published by Rider Levett Bucknall biannually in Australia, New Zealand, USA, Gulf States and Southern Africa. The Australian index tracks the numbers of cranes in the key cities within Australia.

The RLB Crane Index<sup>®</sup> gives a simplified measure of the current state of the construction industry's workload in each of these locations.

Each RLB office physically counts all fixed cranes on each city's skyline twice yearly which provides the base information for the index. This information is then applied to a base date (3rd edition Q3 2013), which enables the RLB Crane Index® to be calculated highlighting the relative movement of crane data over time for each city.

The indexing of RLB Crane Index<sup>®</sup> data commenced in Q3 2013, when it was determined that the data collection and reporting methodology was mature and consistent between all offices. Crane counts for that release were indexed to 100 in each city. Subsequent movements in crane numbers were applied to the base RLB Crane Index<sup>®</sup> to highlight the crane movements in each city over time based on the relative count in Q3 2013.

Using the RLB Crane Index<sup>®</sup> table data makes for quick comparisons in determining city by city crane activity. For example, when comparing Sydney cranes for the base period of Q3 2013, against the count in Q4 2016, the following formula can be used to determine the percentage increase (or decrease).



where Crane Indexcp is the RLB Crane Index<sub>co</sub> for the current period and Crane Index<sub>pp</sub> is the RLB Crane Index<sup>®</sup> for the previous period.

#### **HEATMAPS**

The RLB Crane Index® hotspot maps offer a pictorial representation of the collected data for each city using a heatmap indicator to indicate the level of crane activity. The size of hotspot is relative to the scale of the map and is not an indication of the crane count in that position. The heatmap uses blue to indicate a lower crane activity, and the brighter red insert to indicate higher crane activity.

The location of the hotspots are indicative only and have been positioned to convey the general spread of cranes within a city.

The levels of intensity are calculated on a map by map basis and should not be compared between different cities.

#### CONTACT DETAILS

For further comments, please contact:

Contact:	Stephen Ballesty Director Research & Development	Contact:	John Cross Oceania Research & Development Manager
Email:	stephen.ballesty@au.rlb.com	Email:	john.cross@au.rlb.com
Tel:	+61 2 9922 2277	Tel:	+61 3 9690 6111

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