



USA REPORT

QUARTERLY CONSTRUCTION COST REPORT

THIRD QUARTER 2016



USA REPORT

AT A GLANCE

Following a healthy 2015 for the US construction industry where several key sectors grew by as much as 20%, construction spending will increase approximately 6% in 2016, and a further 5% in 2017.

Continued low interest rates, improved consumer confidence and healthy job growth are some of the positive factors in the economy that continue to sustain demand within the construction industry. The outlook for the construction industry in the remainder of 2016 remains reasonably favorable as supported by the Architecture Billings Index (ABI) which, despite recently moderating, remains positive.

Gains in construction activity may start to slow with a recent consensus forecast of real estate trends conducted by the Urban Land Institute (ULI) suggesting that we are in the latter stages of a real estate cycle.

National economic growth has been slower than previously anticipated, in part due to the development of increasing national and international vulnerabilities. Combined with weakened US manufacturing output and investor uncertainty leading up to the US presidential election, this may begin to create downward pressure on the construction industry in 2017.

UNIVERSITY OF TEXAS CAMPUS RENOVATION EL PASO, TEXAS

The University of Texas at El Paso (UTEP) celebrated 100 years of service to the Paso del Norte region in 2014. During this time, the campus underwent a site campus transformation, designed by Ten Eyck Landscape Architects and 11 other consulting firms. The team designed a new campus core by eliminating 4.3 acres of asphalt and replacing it with new pedestrian malls, arroyos and green spaces that knit together campus buildings and to visibly tie the campus to the surrounding desert mountains creating a climate consistent with UTEP's development as a national research (Tier One) university with a 21st century student demographic.

The team was inspired by and utilized UTEP's rich heritage, located on the U.S.-Mexico border, its attractive geological features, and the Chihuahuan Desert landscape to cultivate a unique campus setting. Aided by the unifying Bhutanese architectural style of the buildings, Ten Eyck was able to transform the campus into a national model of campus design. Comfortable and pleasing to the eye, the campus transformation helped to increase pride in the University and to reinforce UTEP's collective commitment to excellence.

The Campus Transformation project was the first project in the world to be SITES certified, achieving the silver rating by the Green Building Certification Institute. The project was awarded this designation because collaborative design efforts between disciplines and the University allowed land development and creative design to work hand-in-hand. This resulted in an inspiring, ecologically resilient campus that connects students with nature and each other through its site design. Rider Levett Bucknall provided milestone cost estimating services throughout the design phases for this campus transformation project.

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NATIONAL CONSTRUCTION COST INDEX

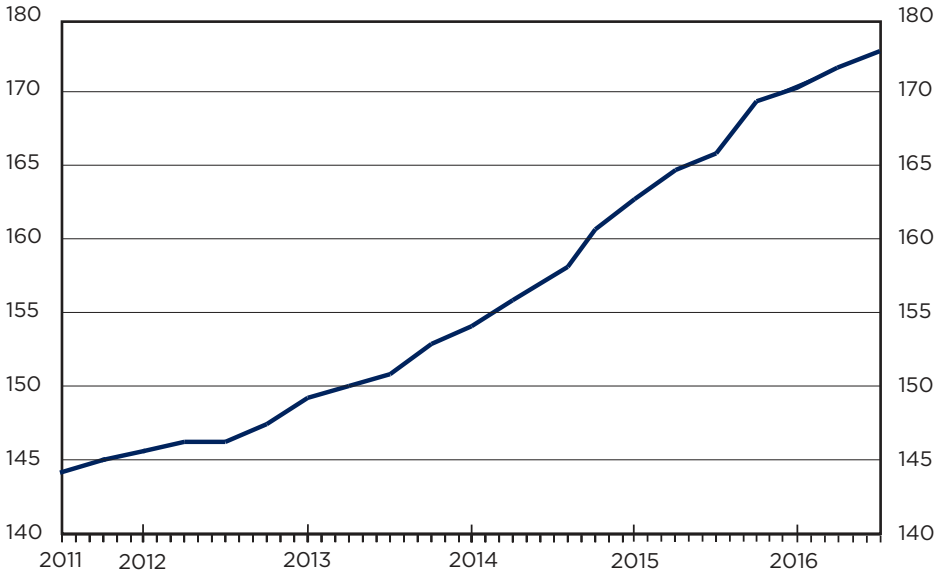
The National Construction Cost Index shows the changing cost of construction between July 2011 and July 2016, relative to a base of 100 in April 2001. Index recalibrated as of April 2011.

Date	Cost Index
July 2011	144.53
October 2011	145.29
January 2012	145.73
April 2012	146.35
July 2012	146.67
October 2012	147.74
January 2013	149.19
April 2013	150.75
July 2013	151.89
October 2013	153.09
January 2014	154.56
April 2014	156.33
July 2014	158.48
October 2014	161.11
January 2015	162.98
April 2015	164.96
July 2015	166.85
October 2015	169.05
January 2016	171.38
April 2016	173.84
July 2016	176.48

Welcome to the third quarter 2016 issue of Rider Levett Bucknall's Quarterly Cost Reports! This issue contains data current to July 1, 2016.

According to the U.S. Department of Commerce, construction put-in-place during June 2016 was estimated at a seasonally adjusted annual rate of \$1,133.5 billion, which is 0.6% below the revised May estimate of \$1,140.9 billion. The June 2016 figure is 0.3% above the June 2015 estimate of \$1,130.5 billion. The value of construction for the first six months of this year was \$539.8 billion, 6.2% above the same period in 2015.

NATIONAL CONSTRUCTION COST INDEX



KEY UNITED STATES STATISTICS

	Q3 2015	Q4 2015	Q1 2016	Q2 2016
Gross Domestic Product (GDP)*	2.1%	1.4%	0.8%	1.1%
Consumer Price Index (CPI)	237.8	236.5	238.1	241.0
Inflation (Quarter)	-0.34%	-0.60%	0.68%	1.22%
Architectural Billings Index (ABI)	53.7	50.9	51.9	52.6
Construction Put-in-Place (B)	\$1,094.2	\$1,116.6	\$1,133.9	\$1,133.5
Unemployment	5.1%	5.0%	4.9%	4.9%
Construction Unemployment	5.5%	7.5%	8.7%	4.6%

GDP represented in percent change from the preceding quarter, seasonally adjusted at annual rates. CPI quarterly figures represent the monthly value at the end of the quarter. Inflation rates represent the total price of inflation from the previous quarter, based on the change in the Consumer Price Index. ABI is derived from a monthly American Institute of Architects survey of architectural firms of their work on the boards, reported at the end of the period. Construction Put-in-Place figures represent total value of construction dollars in billions spent at a seasonally adjusted annual rate taken at the end of each quarter. General Unemployment rates are based on the total population 16 years and older. Construction Unemployment rates represent only the percent of experienced private wage and salary workers in the construction industry 16 years and older. Unemployment rates are seasonally adjusted, reported at the end of the period.

Sources: U.S. Bureau of Labor Statistics, Bureau of Economic Analysis, American Institute of Architects

* Adjustments made to GDP based on amended changes from the Bureau of Economic Analysis.

INDICATIVE CONSTRUCTION COSTS

The data in the chart below represents estimates of current building costs in each respective market. Costs may vary as a consequence of factors such as site conditions, climatic conditions, standards of specification, market conditions, etc. Values represent hard construction costs based on U.S. dollars per square foot of gross floor area.

LOCATION	OFFICES				RETAIL SHOPPING				HOTELS				HOSPITAL		INDUSTRIAL		PARKING				RESIDENTIAL				EDUCATION					
	PRIME		SECONDARY		CENTER		STRIP		5 STAR		3 STAR		GENERAL		WAREHOUSE		GROUND		BASEMENT		MULTI-FAMILY		SINGLE-FAMILY		ELEMENTARY		HIGH SCHOOL		UNIVERSITY	
	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
Boston	275	450	180	275	150	250	100	150	350	500	225	350	375	600	100	175	70	100	90	150	175	300	250	350	275	375	285	400	300	450
Chicago	230	360	140	200	130	210	105	130	290	450	190	240	330	595	100	130	65	110	90	140	130	210	150	325	220	350	220	370	250	375
Denver	160	255	115	175	90	145	70	135	200	310	150	185	370	455	90	150	50	70	90	120	85	190	90	400	245	300	260	310	285	400
Honolulu	285	530	245	400	210	495	175	435	515	745	325	545	475	760	145	225	100	145	140	265	195	445	280	760	340	475	405	610	445	720
Las Vegas	140	295	105	190	115	480	65	145	350	500	150	300	285	455	50	100	50	85	60	150	70	405	90	350	180	315	200	455	235	455
Los Angeles	210	315	145	220	130	295	105	170	315	470	210	290	420	630	100	170	100	120	115	165	160	260	160	325	325	430	340	470	360	515
New York	350	550	275	375	250	400	150	250	375	550	275	375	450	650	115	200	90	150	125	200	200	375	275	400	290	400	300	450	300	450
Phoenix	160	275	110	175	110	170	75	130	275	475	150	250	300	450	55	100	40	65	60	100	90	185	100	400	170	250	200	300	250	375
Portland	180	250	130	180	140	240	120	180	190	275	150	190	380	525	90	150	85	105	110	150	150	240	125	280	235	295	250	310	280	400
San Francisco	200	350	180	275	195	325	225	325	300	500	250	350	400	525	140	190	100	130	165	190	280	425	200	400	320	400	300	375	250	375
Seattle	190	235	130	185	130	265	110	155	215	315	185	210	370	525	90	125	80	100	100	145	140	250	130	270	235	290	265	395	305	455
Washington, D.C.	250	400	175	275	125	250	100	150	325	475	225	325	375	600	90	150	65	100	80	125	175	300	250	350	275	350	275	375	300	450

RLB WINS THE BEST TALL BUILDING AWARD

The Council on Tall buildings and Urban Habitat has announced the regional (Americas, Asia & Australasia, and Europe) winners for their 2016 Tall Buildings Award. RLB provided quantity surveying services for the winner of the Asia & Australasia region, the Shanghai Tower. RLB is humbled and proud to be a part of the team whose innovation, teamwork, performance, and seamless design integration resulted in the receipt of this prestigious achievement.

About the Project

Recognized as one of the world's greenest skyscrapers, Shanghai Tower achieved LEED Platinum certification. The structure features a double-glass facade, one of several green technologies that will reduce the building's carbon footprint by 34,000 tonnes per year. The tapering spiral shape at the top was designed to be eco-friendly, by minimizing wind loads.

Shanghai Tower stands 632 meters high and consists of 121 stories, with a total floor space of about 570,000 square meters. It is the tallest building in China and the second tallest structure in the world.



Shanghai Tower, Shanghai

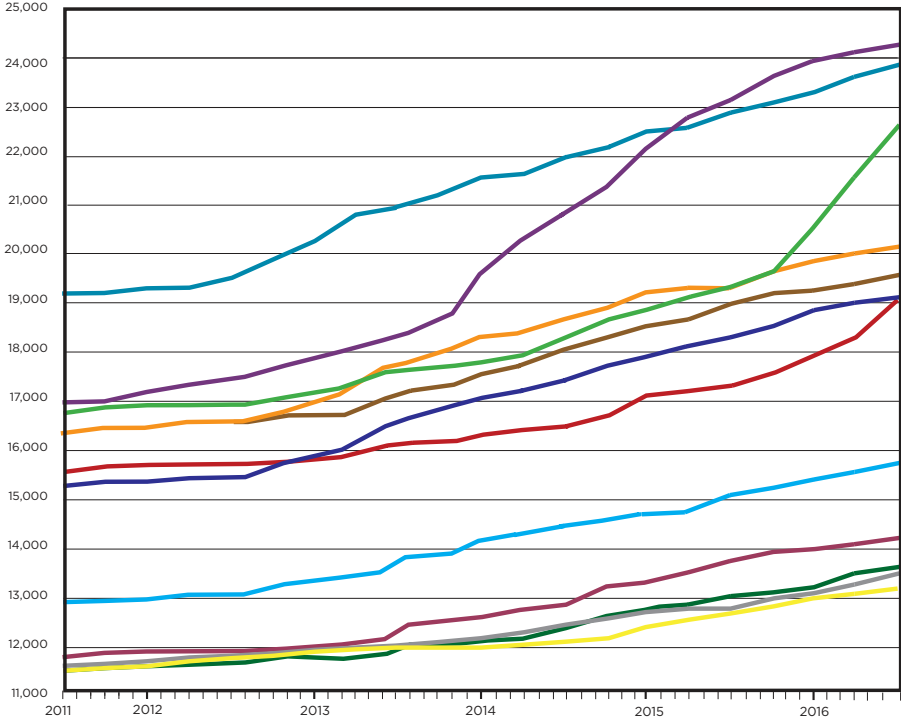
**Best Tall Building
Award Winner**

Asia & Australasia Region 2016



USA REPORT

COMPARATIVE COST INDEX





Each quarter we look at the comparative cost of construction in 12 US cities, indexing them to show how costs are changing in each city in particular, and against the costs in the other 11 locations. You will be able to find this information in the graph titled *Comparative Cost Index (above)* and in the *Cost and Change Summary (right)*.

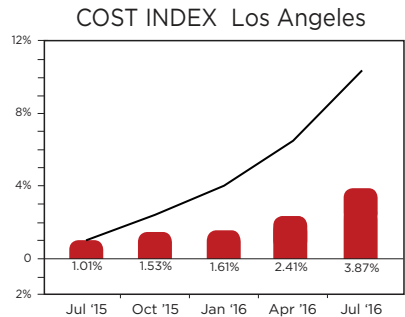
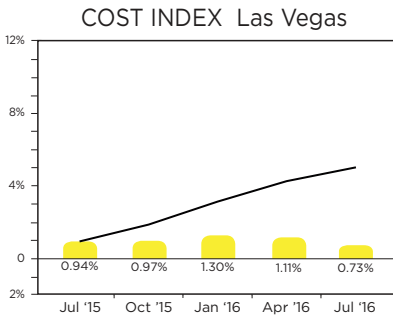
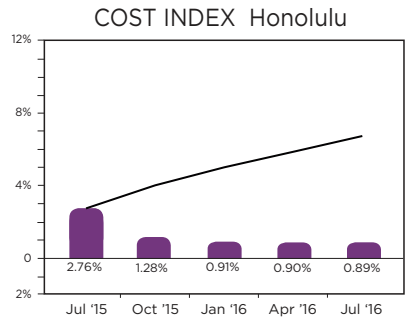
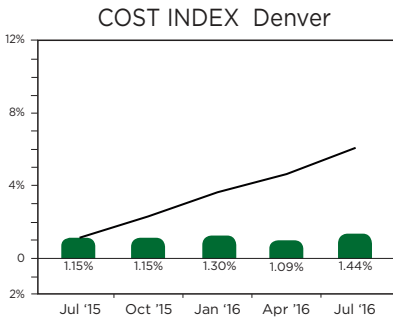
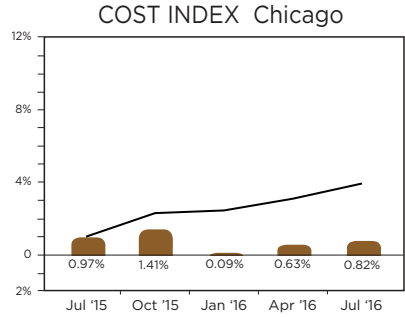
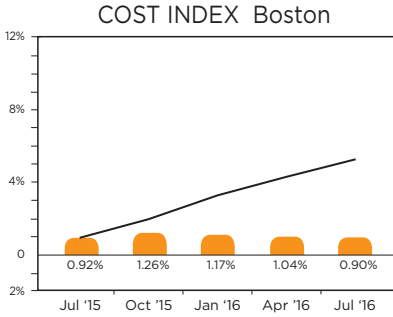
Our Comparative Cost Index tracks the 'true' bid cost of construction, which includes, in addition to costs of labor and materials, general contractor and sub-contractor overhead costs and fees (profit). The index also includes applicable sales/use taxes that 'standard' construction contracts attract. In a 'boom,' construction costs typically increase more rapidly than the net cost of labor and materials. This happens as the overhead levels and profit margins are increased in response to the increasing demand. Similarly, in a 'bust', construction cost increases are dampened (or may even be reversed) due to reductions in overheads and profit margins.

City	April 2016	July 2016	% Change
• Boston	20,076	20,257	0.90%
• Chicago	19,388	19,547	0.82%
• Denver	13,466	13,660	1.44%
• Honolulu	24,122	24,338	0.89%
• Las Vegas	13,155	13,251	0.73%
• Los Angeles	18,332	19,041	3.87%
• New York	23,617	23,837	0.93%
• Phoenix	13,318	13,481	1.22%
• Portland	14,162	14,287	0.88%
• San Francisco	21,659	22,625	4.46%
• Seattle	15,613	15,774	1.03%
• Washington, DC	18,961	19,163	1.07%

Our research suggests that between April 1, 2016 and July 1, 2016 the national average increase in construction cost was approximately 1.5%. Los Angeles (3.9%) and San Francisco (4.5%) again experienced the greatest increases. Other locations experienced inflation between approximately 1.0% and 1.4% with Boston, Chicago, Honolulu, Las Vegas, New York and Portland all experiencing less than 1.0% change in the quarter.

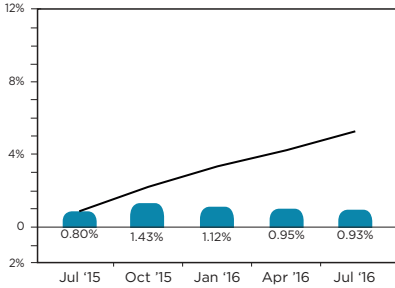
The following escalation charts track changes in the cost of construction each quarter in many of the cities where Rider Levett Bucknall offices are located. Each chart illustrates the percentage change per period and the cumulative percentage change throughout the charted timeline.

 Percentage change per quarter  Cumulative percentage change for the period shown

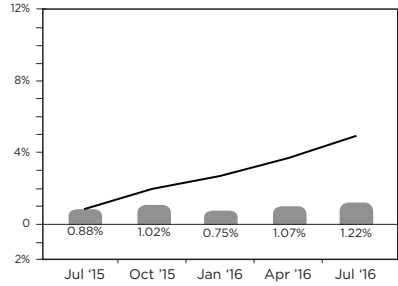


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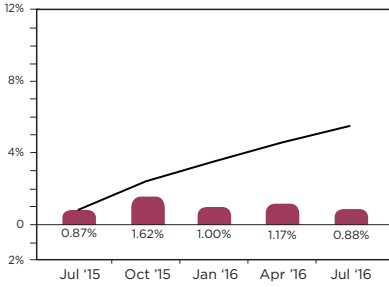
COST INDEX New York



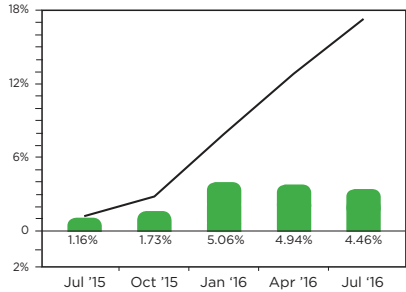
COST INDEX Phoenix



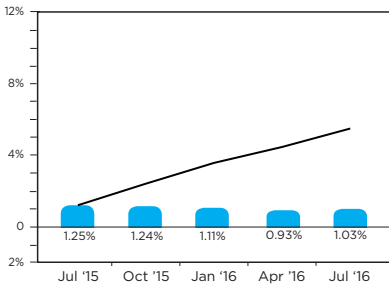
COST INDEX Portland



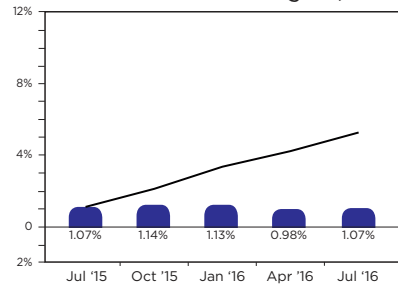
COST INDEX San Francisco



COST INDEX Seattle



COST INDEX Washington, DC



While the information in this publication is believed to be correct, no responsibility is accepted for its accuracy. Persons desiring to utilize any information appearing in this publication should verify its applicability to their specific circumstances.

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