NORTH AMERICA

QUARTERLY CONSTRUCTION COST REPORT

FIRST QUARTER 2017

RLB Rider Levett Bucknall

ON THE COVER

UNIVERSITY OF IOWA
STEAD FAMILY CHILDREN'S HOSPITAL
IOWA CITY, IOWA

The University of Iowa Stead Family Children's Hospital project is a 14-story (two below grade), 507,000 square foot tower designed to unify the existing children's hospital patient care services spread throughout the 3.8 million square-foot campus. This will improve the health and well-being of children and their families by integrating imaging, treatment, surgical, and patient care rooms in a single facility, 100 percent dedicated to children's care. The new, kid-friendly, children's hospital is the heart of a comprehensive pediatric system that has been designed to minimize stress, encourage hope, provide comfort, and promote healing. The building's oval shape and 170 floor-to-ceiling windows provide a 360-degree panoramic view of the University of Iowa and the surrounding countryside. The programming and interior design work was supported by Stanley Beamon & Sears from Atlanta and ZGF Architects LLP from Portland, with Heery International Inc. of Iowa City serving as the architect of record. The exterior design was provided by the award winning British architectural firm Foster & Partners.

Rider Levett Bucknall (RLB) provided Construction Liaison services for Transition and Activation Planning, Building Load and Occupancy to The Carter Group. RLB's role includes acting as the liaison between the construction of the Tower and the technology and equipment that allow for the most modern children's patient care possible.

NORTH AMERICA

On the occasion of our fifteenth year publishing our Quarterly Construction Cost Report, I reflect on the undulation our construction industry has experienced. Boom, near-bust, and everything in between, we have chronicled the economic trends impacting the construction industry in urban centers from coast to coast.

To mark this milestone, we have made a few changes to our report. First, we are expanding the markets we cover, adding two major Canadian cities to the list. In Calgary, RLB has specialized in mechanical, electrical, and plumbing cost management services since 1996. Our firm's roots in Toronto go back to 1969; there, we have worked with all levels of government on major infrastructure projects, including subways, railways, bridges and roads, and water treatment facilities.

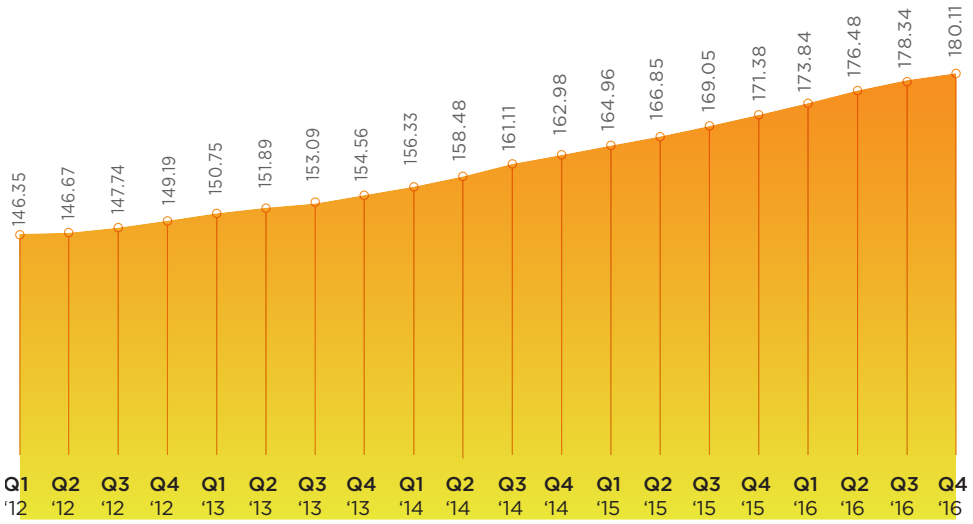
Second, we have adopted a new format for the report. While still featuring the full range of comprehensive data and details you expect from RLB, we have enhanced the graphic design, with more charts and graphs making it easier to glean key information from the content.

Looking ahead, we are monitoring the current U.S. administration's initiatives and waiting to see how several of them will impact construction activities. A broad-stroke federal budget proposal has called to cut the Department of Transportation's spending by 13%, raising questions about the plan to overhaul the country's infrastructure. Nonetheless, barring some external shock to the economy, we continue to expect a generally positive year for the construction industry.

Julian Anderson FRICS
President

USA REPORT

NATIONAL CONSTRUCTION COST INDEX



Welcome to the first 2017 issue of the Rider Levett Bucknall Quarterly Cost Report! This issue contains data current to January 1, 2017.

$1,180.3 Billion

According to the U.S. Department of Commerce, construction-put-in-place during January 2017 was estimated at a seasonally adjusted annual rate of $1,180.3 billion, which is

1% below

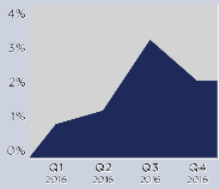
the revised December estimate of $1,192.2 billion, and

3.1% above

above the January 2016 estimate of $1,144.9 billion.

The National Construction Cost Index shows the changing cost of construction between January 2012 and January 2017, relative to a base of 100 in April 2001. Index recalibrated as of April 2011.

KEY UNITED STATES STATISTICS

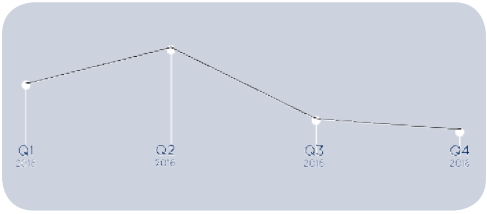


Gross Domestic Product* (GDP)

Throughout 2016, GDP fluctuated from quarter to quarter, closing out the year at 1.9%, down from 3.2% in the third quarter.

Consumer Price Index (CPI)

CPI reflected a 1.22% change during the first half of 2016, but remained steady in the latter half of the year.

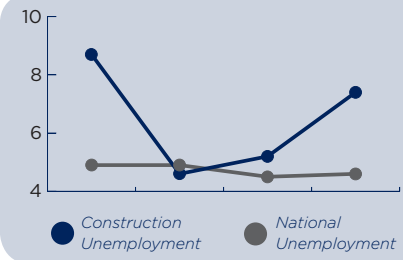


Inflation

A CPI of 241.4 during the fourth quarter of 2016 indicates no change in inflation since the third quarter, but a 1.39% change since the first quarter.

Architectural Billings Index (ABI)

Architecture firms reported a strong finish to 2016, with an ABI of 55.9, the highest reported growth of the year.



Unemployment

National unemployment remained relatively steady throughout 2016, varying from 4.5% to 5.1% throughout 2016. In comparison, national construction unemployment experienced greater changes from quarter to quarter, closing out the year at 7.4%.

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.

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

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

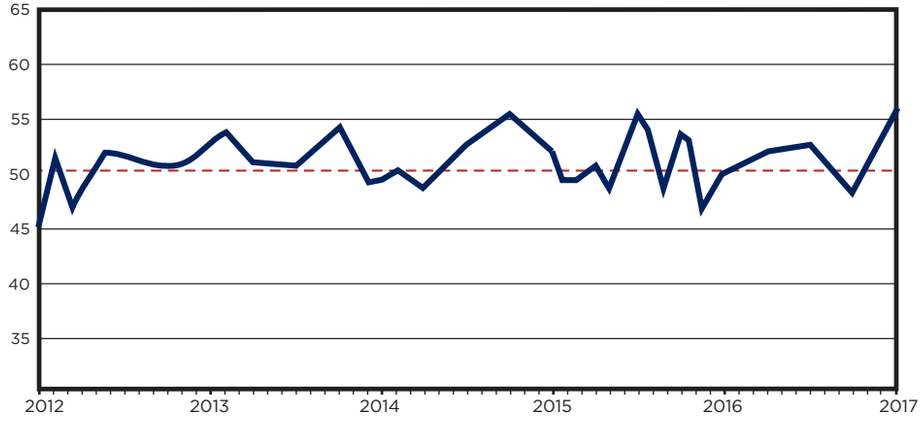
USA REPORT

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 of U.S. locations represent hard construction costs based on U.S. dollars per square foot of gross floor area, while values of Canadian locations represent hard construction costs based on Canadian dollars per square foot.

	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	
LOCATION	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
USA																														
Boston	300	475	200	300	175	275	125	200	375	550	250	375	400	650	100	175	75	125	90	150	175	300	250	350	275	375	285	400	325	475
Chicago	270	450	165	280	185	280	120	220	390	650	265	380	360	630	110	180	80	125	90	140	160	320	220	420	250	380	300	380	345	480
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	215	325	150	230	135	305	110	175	330	495	220	305	450	690	105	175	100	120	120	165	170	275	165	335	335	445	355	480	370	530
New York	375	575	300	400	275	425	175	300	400	600	300	400	475	700	115	200	95	175	125	200	200	375	275	400	290	400	300	450	325	475
Phoenix	160	275	110	175	110	170	80	140	300	475	150	250	300	450	55	100	45	70	60	110	90	185	100	400	170	250	200	300	250	400
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	200	245	135	195	135	305	110	155	230	325	215	230	370	525	95	125	85	100	120	155	145	250	155	270	240	295	265	460	310	460
Washington	275	425	200	300	150	275	125	175	350	525	250	350	400	650	90	150	70	125	80	125	175	300	250	350	275	350	275	375	325	475
CANADA																														
Calgary	235	295	190	285	220	310	110	160	300	450	190	245	550	720	75	120	75	95	85	145	140	215	125	315	185	260	220	310	300	450
Toronto	195	260	170	250	200	250	105	160	300	355	195	260	500	645	70	90	70	90	115	150	130	205	190	330	170	195	200	230	200	295

ARCHITECTURAL BILLINGS INDEX



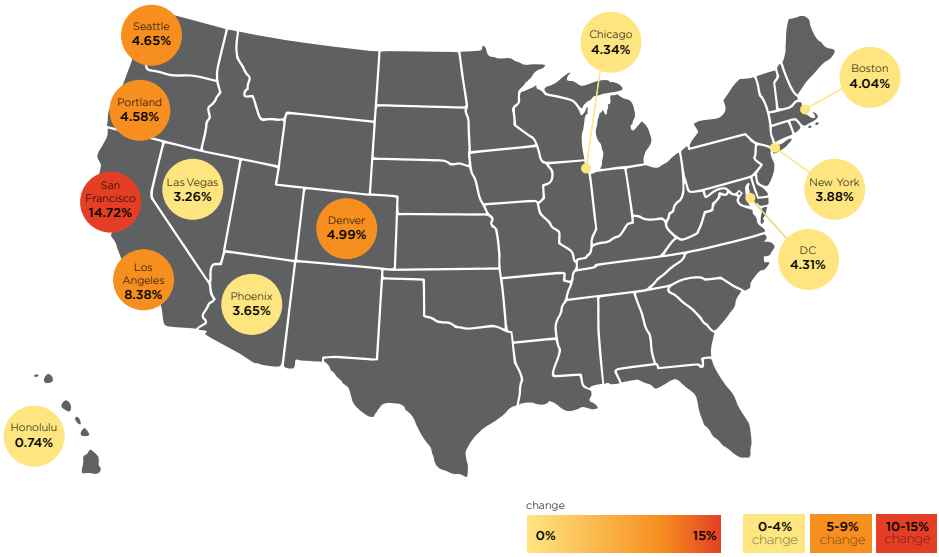
As a leading economic indicator of construction activity, the Architectural Billings Index (ABI) reflects the approximate nine to twelve month lag time between architecture billings and construction spending.

The American Institute of Architects reported the December 2016 ABI score was 55.9 which is up from the September 2016 score of 48.4. This reflected an unanticipated, and short lived, end of year spike in billings by architects.

CONSTRUCTION ACTIVITY CYCLE

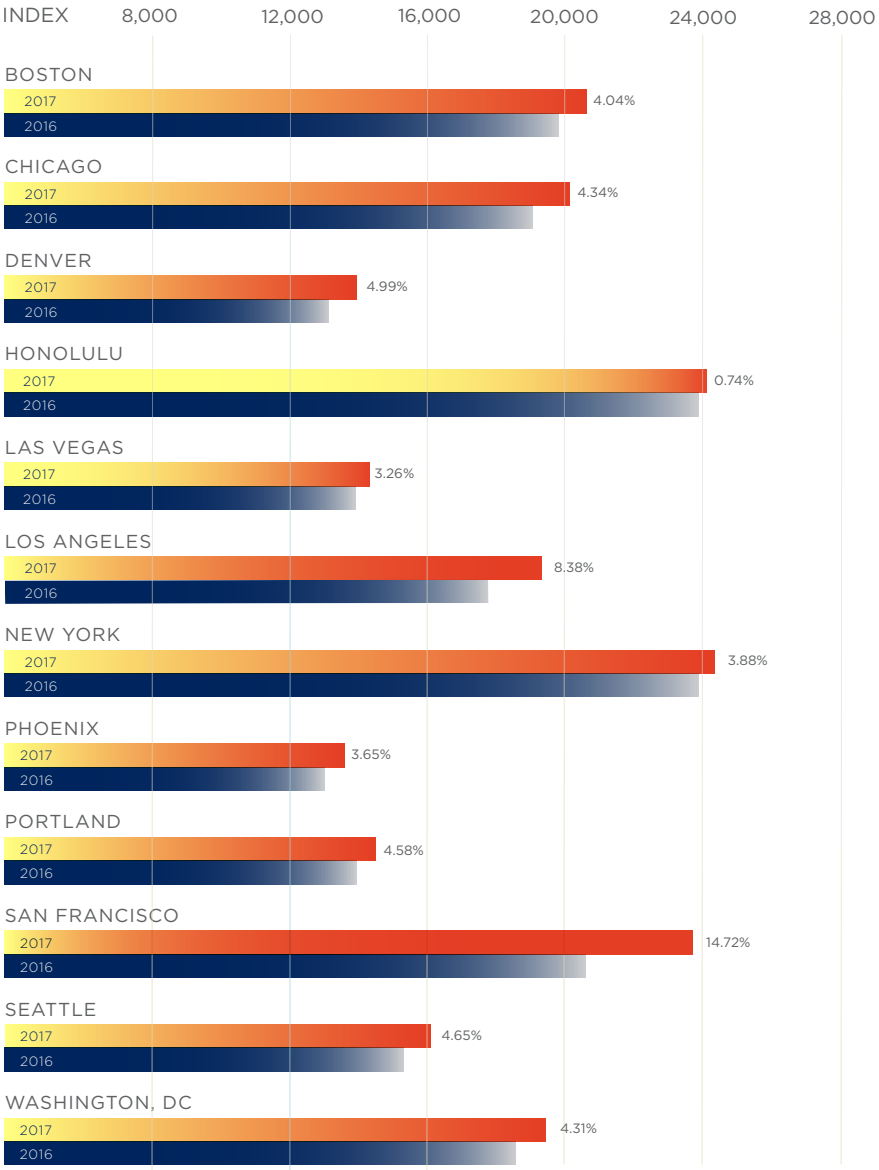
USA REPORT

COMPARATIVE COST INDEX



City	January 2016	April 2016	July 2016	October 2016	January 2017	% Change
Boston	19,868	20,076	20,257	20,489	20,671	4.04%
Chicago	19,266	19,388	19,547	19,809	20,103	4.34%
Denver	13,321	13,466	13,660	13,932	13,987	4.99%
Honolulu	23,906	24,122	24,338	24,181	24,082	0.74%
Las Vegas	13,011	13,155	13,251	13,342	13,435	3.26%
Los Angeles	17,901	18,332	19,041	19,225	19,401	8.38%
New York	23,395	23,617	23,837	24,101	24,303	3.88%
Phoenix	13,178	13,318	13,481	13,578	13,659	3.65%
Portland	13,997	14,162	14,287	14,469	14,638	4.58%
San Francisco	20,639	21,659	22,625	23,005	23,677	14.72%
Seattle	15,470	15,613	15,774	15,972	16,190	4.65%
Washington, DC	18,777	18,961	19,163	19,376	19,586	4.31%

Comparative Cost Map and Bar Graph Indicate percentage change between January 2016 and January 2017.



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)*.

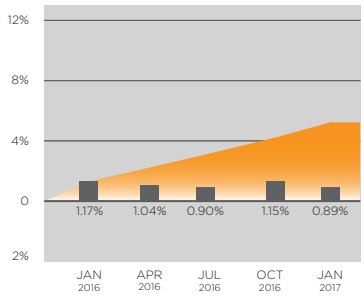
Our Comparative Cost Index tracks the 'true' bid cost of construction, which includes, in addition to costs of labor and materials, general contractor and sub-contractor overhead costs and fees (profit). The index also includes applicable sales/use taxes that 'standard' construction contracts attract. 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.

USA REPORT

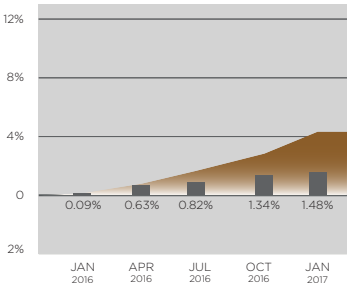
The following escalation charts track changes in the cost of construction each quarter in many of the cities where RLB offices are located. Each chart illustrates the percentage change per period and the cumulative percentage change throughout the charted timeline.

Percentage change per quarter — Cumulative percentage change for the period shown

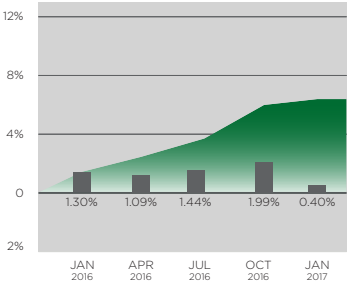
COST INDEX Boston



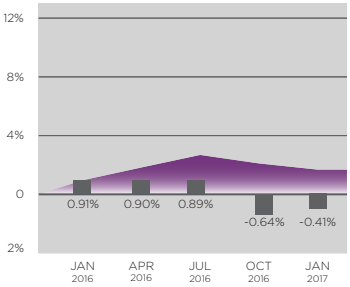
COST INDEX Chicago



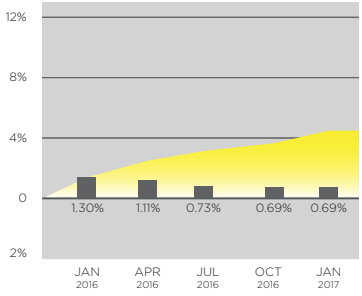
COST INDEX Denver



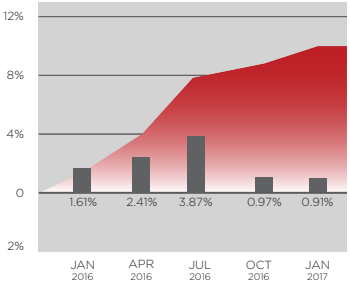
COST INDEX Honolulu



COST INDEX Las Vegas

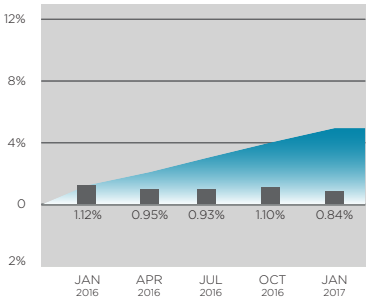


COST INDEX Los Angeles

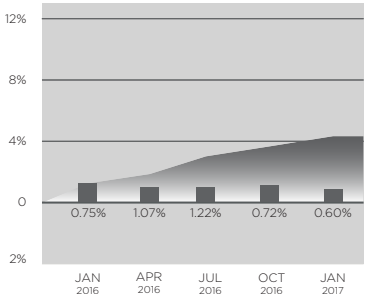


Our research suggests that between January 1, 2016 and December 31, 2016 the national average increase in construction cost was approximately 5.1%. Los Angeles and San Francisco experienced the greatest annual increases showing escalation over 8% while Boston, Chicago, Denver, New York, Phoenix, Portland, San Seattle and Washington DC experienced more modest annual increases around between 3.3% and 5.0%. Honolulu experienced a significantly lower annual increase below 1.0%.

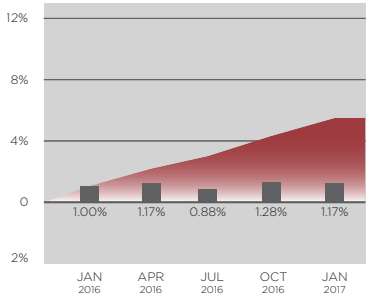
COST INDEX New York



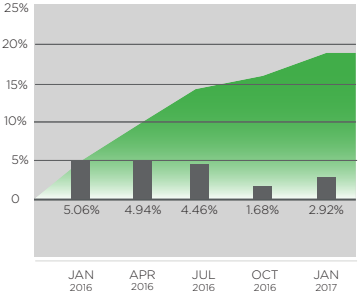
COST INDEX Phoenix



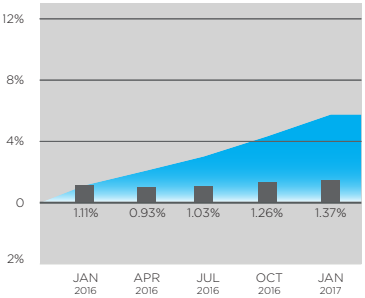
COST INDEX Portland



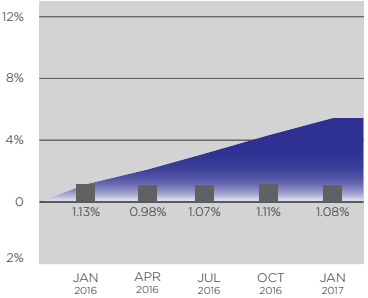
COST INDEX San Francisco



COST INDEX Seattle

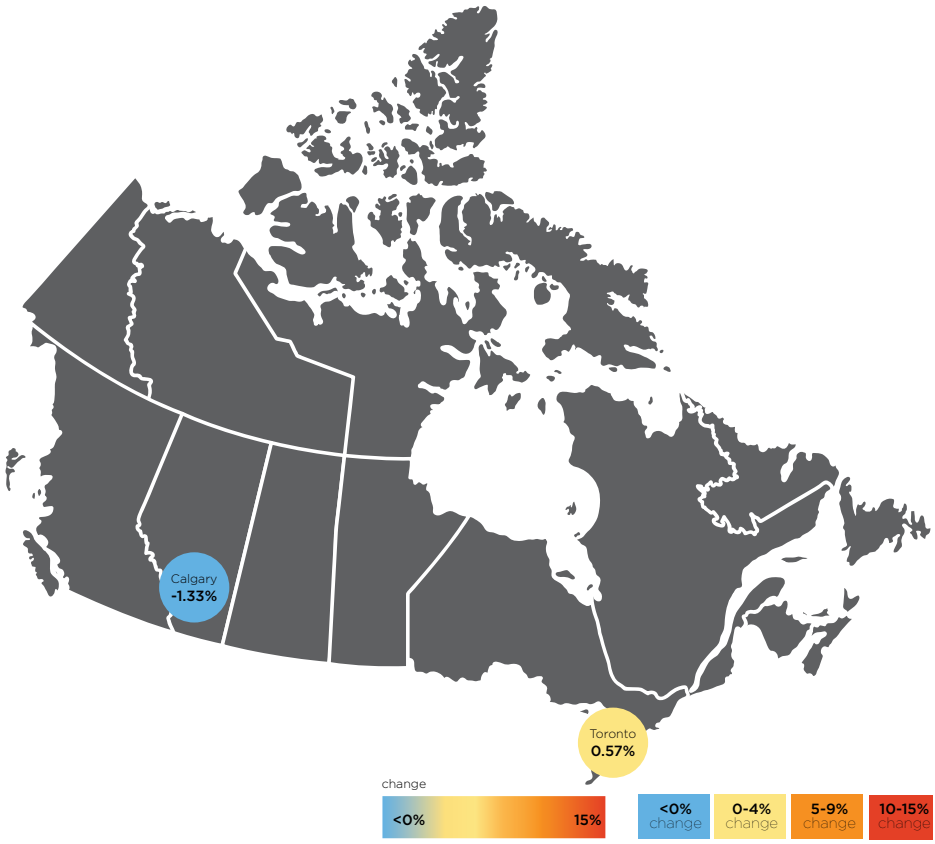


COST INDEX Washington DC



CANADA REPORT

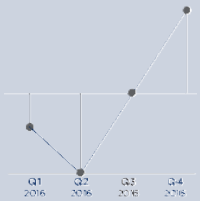
COMPARATIVE COST INDEX



City	October 2016	January 2017	% Change
• Calgary	18,435	18,190	-1.33%
• Toronto	18,690	18,800	0.57%

The Calgary construction market has been impacted by the oil price decline driving lower employment across all construction sectors. However, the provincial and municipal governments have announced increased capital spending in response to the economic downturn. The City of Calgary plans to increase infrastructure spending in 2017 by about 30% over the previous year and intends to continue that trend in 2018. The City Council recently approved $1.8 billion in their capital budget for 2017 representing a projected growth of $200 million over 2016 capital budget.

KEY CANADIAN STATISTICS

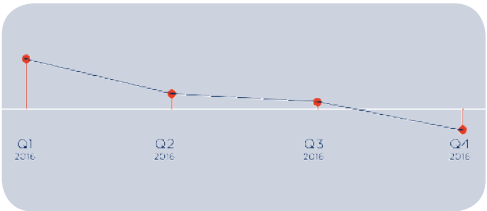


Gross Domestic Product

While GDP for construction appears to fluctuate, it does so with a variance of 1%; ranging from -0.47% in Q1 2016 to 1.24% in Q4 2016.

Consumer Price Index

Canada's CPI experienced minimal change throughout 2016, with a variance of less than 1%.

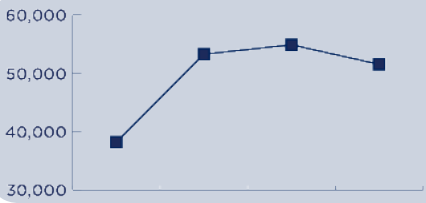


Inflation

A CPI of 128 during the first quarter of 2016 indicates a -0.62% drop from the previous quarter. Inflation remains minimal through 2016.

Unemployment

2016's unemployment rate experienced little fluctuation, closing out the year at a rate of 6.9%.



Housing Starts

Housing starts in Canada experienced a 40% increase between Q1 and Q2 during 2016. However, during the last quarter of the year, housing starts experienced a slight decline of approximately 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. 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 15 years and older. Unemployment rates are seasonally adjusted, reported at the end of the period.

Sources: Statistics Canada

ABOUT RIDER LEVETT BUCKNALL

Rider Levett Bucknall is an award-winning international firm known for providing project management, construction cost consulting, and related property and construction advisory services – at all stages of the design and construction process. The firm was voted #1 Cost Consultant in 2016 and 2017 by World Architecture Magazine.

This issue was compiled by Taryn Harbert with contributions from Evans Pomegas, Grant Owen, Edd Hamzanlui, Paul Brussow, Maelyn Uyehara, Cassie Idehara, Simon James, Philip Mathur, Scott Macpherson, Graham Roy, Daniel Junge, George Bergeron, Peter Knowles, Catherine Stoupas, Joe Pendlebury, and Edward Traore.

If you have questions or for more information, please contact us.

AUSTIN
Phone: +1 512 704 3026
E-mail: AUS@us.rlb.com
Contact: Ruben Rodriguez

BARBADOS
Phone: +1 246 256 0704
E-mail: erwin.benjamin@bb.rlb.com
Contact: Erwin Benjamin

BOSTON
Phone: +1 617 737 9339
E-mail: BOS@us.rlb.com
Contact: Grant Owen

CALGARY
Phone: +1 403 571 0505
E-mail: YYC@ca.rlb.com
Contact: Joe Pendlebury

CAYMAN ISLANDS
Phone: +1 345 946 6063
E-mail: martyn.bould@ky.rlb.com
Contact: Martyn Bould

CHICAGO
Phone: +1 312 819 4250
E-mail: ORD@us.rlb.com
Contact: Grant Owen

DENVER
Phone: +1 720 904 1480
E-mail: DEN@us.rlb.com
Contact: Peter Knowles

GUAM
Phone: +1 671 473 9054
E-mail: GUM@us.rlb.com
Contact: Emile le Roux

HILO
Phone: +1 808 934 7953
E-mail: ITO@us.rlb.com
Contact: Kevin Mitchell

HONOLULU
Phone: +1 808 521 2641
E-mail: HNL@us.rlb.com
Contact: Tony Smith
Paul Brussow
Maelyn Uyehara

LAS VEGAS
Phone: +1 702 227 8818
E-mail: LAS@us.rlb.com
Contact: Simon James

LOS ANGELES
Phone: +1 213 689 1103
E-mail: LAX@us.rlb.com
Contact: Philip Mathur

MAUI
Phone: +1 808 875 1945
E-mail: OGG@us.rlb.com
Contact: Kevin Mitchell

NEW YORK
Phone: +1 212 952 1300
E-mail: EWR@us.rlb.com
Contact: Grant Owen

PHOENIX
Phone: +1 602 443 4848
E-mail: PHX@us.rlb.com
Contact: Julian Anderson, Scott Macpherson
John Jozwick

PORTLAND
Phone: +1 503 226 2730
E-mail: PDX@us.rlb.com
Contact: Graham Roy

SAN FRANCISCO
Phone: +1 415 362 2613
E-mail: SFO@us.rlb.com
Contact: Catherine Stoupas

SAN JOSE
Phone: +1 650 943 2317
E-mail: joel.brown@us.rlb.com
Contact: Joel Brown

SEATTLE
Phone: +1 206 223 2055
E-mail: SEA@us.rlb.com
Contact: Graham Roy

ST. LUCIA
Phone: +1 758 452 2125
E-mail: mark.williamson@lc.rlb.com
Contact: Mark Williamson

TORONTO
Phone: +1 905 631 8210
E-mail: YYZ@us.rlb.com
Contact: Joe Pendlebury

TUCSON
Phone: +1 520 777 7581
E-mail: TUS@us.rlb.com
Contact: Joel Brown

WAIKOLOA
Phone: +1 808 883 3379
E-mail: KOA@us.rlb.com
Contact: Kevin Mitchell

WASHINGTON, DC
Phone: +1 202 457 1450
E-mail: DCA@us.rlb.com
Contact: Grant Owen

rlb.com