



THIRD QUARTER 2021

NORTH AMERICA

QUARTERLY CONSTRUCTION COST REPORT



ON THE COVER

DESERT DIAMOND WEST VALLEY CASINO ▲

GLENDALE, ARIZONA

At Rider Levett Bucknall, we aim to create exceptional experiences for our communities. One of the ways we do this is by aligning our capability with client needs. In the case of Tohono O'odham Gaming Enterprise, our team of specialists assisted them by creating, evaluating, and managing project controls that addressed the critical issues of time, cost, scope, and quality of their casino.

Our efforts, in conjunction with Summit Project Management, resulted in the successful delivery of a new casino in the heart of the West Valley entertainment and sport district.

Just a short drive from the State Farm Stadium, Desert Diamond Casino (dubbed "Jackpot Valley") brings 1.2 million SF of entertainment space to the west valley. The casino was developed around the core concept of a truly distinct entertainment experience, including over 75,000 SF of gaming space, comprising the latest slots, table games, a poker room, and a bingo hall.

Rider Levett Bucknall - in conjunction with Summit Project Management - provided project management services to the Tohono O'odham Gaming Enterprise. In a unified effort, we demonstrated one of our core strengths: promoting project and team performance through oversight of resource utilization, schedule and risk management, and compliance with health, safety, and building ordinance regulatory requirements. **Our team represented the needs of the Gaming Enterprise, ensuring that their goals remained top-of-mind throughout the construction of the casino. RLB and Summit combined their strengths, assembling the best team to see the project through from pre-construction, to construction and turnover.**

NORTH AMERICA

While the past year has posed a rocky road for virtually all members of the AEC industries, there are clear—albeit it conditional—signs emerging that indicate there are better times ahead.

At the peak of the pandemic, many development projects were disrupted, with 59% of construction firms reporting to the Associated General Contractors of America they had projects scheduled to start in 2020 but were delayed until 2021, while 44% saw jobs completely canceled.

More recently, between January and June of 2021, that retreat continues, but to a much lesser degree. Only eight percent of firms report that owners canceled projects scheduled to start during that period. Approximately six percent of contractors have seen projects scheduled for the second half of the year postponed, and only two percent report project cancellations.

Taking a look at how specific non-residential building sectors have been affected adds perspective to the story. Again, comparing activity in January-July 2020 to the same period of 2021, work in the hospitality/lodging field declined 30%, both education and office projects dropped 11%, commercial slipped three percent, and healthcare fell by two percent.

The effect of the depressed business has intensified competition for construction contracts. Because the market is so fierce, we're seeing contractors striving to keep their bids low; in order to do so, they are choosing not to pass along their spiking expenses. The Bureau of Labor Statistics tracks the prices for all manner of building materials and other goods as they ship from the manufacturer, in a report called the Producer Price Index [PPI]. A look at this data exposes the dramatic extent to which contractors are suppressing their costs in their bid price for non-residential work. In July of this year, bid prices averaged 4.4% more than in July 2020, while at the same time, the PPI registered a growth of 25.6%.

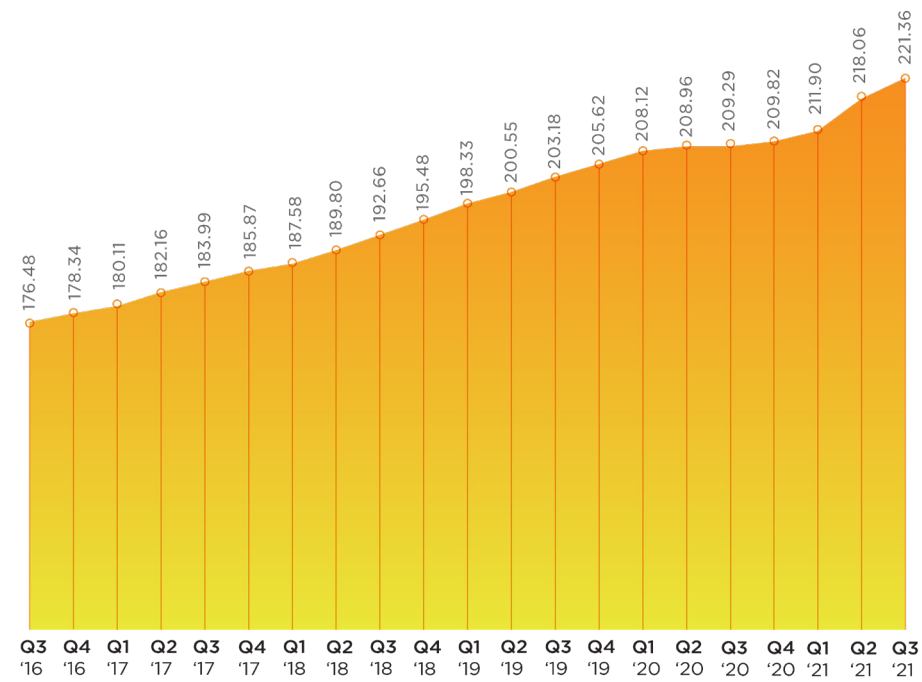
Supply chain upheavals, erratic materials tariffs and trade wars, pandemic-induced labor contractions, the continued impact of climate change on the built and natural worlds—these and other events of the past several years have injected periodic uncertainty into the AEC industries. Informed by the sweeping changes in the world, at Rider Levett Bucknall, we stand as trusted advisors, analyzing present conditions and identifying potential opportunities to guide our clients securely into the future.



Julian Anderson FRICS
President,
North America

UNITED STATES

NATIONAL CONSTRUCTION COST INDEX



Welcome to the third quarter 2021 issue of the Rider Levett Bucknall Quarterly Cost Report! This issue contains data current to mid-Q3 2021.

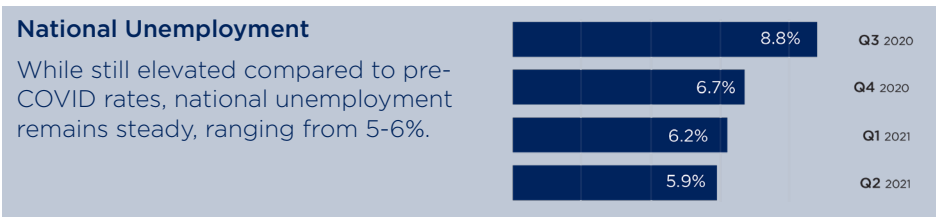
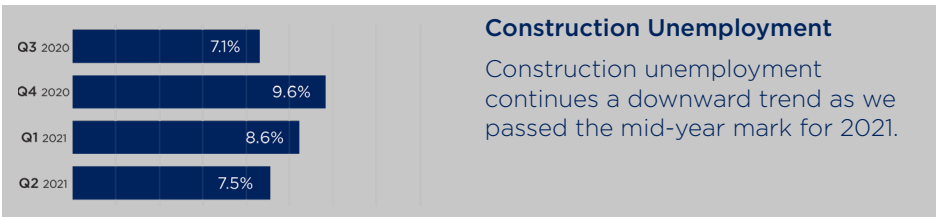
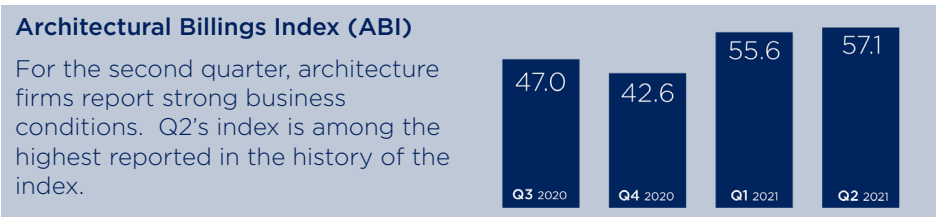
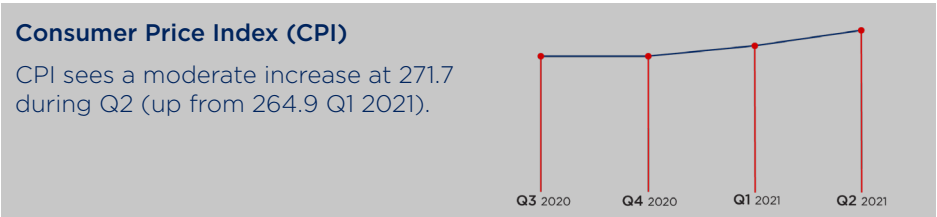
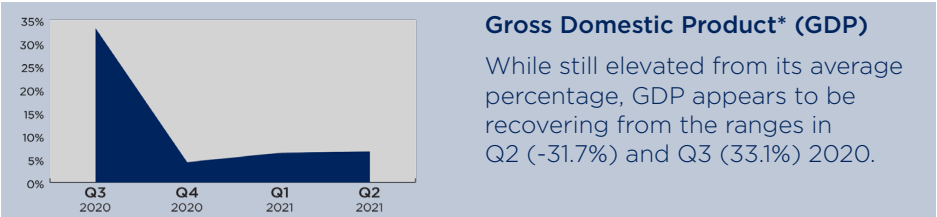
\$1,568.8 Billion According to the U.S. Department of Commerce, construction-put-in-place during July 2021 was estimated at a seasonally adjusted annual rate of \$1,568.8 billion, which is

0.3% above the revised June 2021 estimate of \$1,563.4 billion, and

9.0% above the July 2020 estimate of \$1,439.6 billion.

The National Construction Cost Index shows the changing cost of construction between July 2016 and July 2021, relative to a base of 100 in April 2001. Index recalibrated as of April 2011.

KEY UNITED STATES STATISTICS



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, reported at the end of the period. National unemployment rates are seasonally adjusted, reporting the average of the three-month 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.

UNITED STATES

INDICATIVE CONSTRUCTION COSTS

LOCATION	OFFICES				RETAIL SHOPPING				HOTELS				HOSPITAL	
	PRIME		SECONDARY		CENTER		STRIP		5 STAR		3 STAR		GENERAL	
	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
USA														
Boston	350	550	225	325	200	300	150	240	400	580	275	390	425	675
Chicago	280	450	175	280	185	290	135	220	400	660	290	410	380	720
Denver	290	400	175	235	125	225	105	175	335	510	250	350	415	625
Honolulu	315	540	195	310	245	525	225	390	610	745	350	560	475	800
Las Vegas	200	350	135	190	120	480	105	190	310	580	185	315	400	475
Los Angeles	240	360	180	265	160	350	135	195	380	560	285	365	615	930
New York	360	830	210	520	310	620	360	670	445	670	330	445	560	840
Phoenix	220	350	140	195	175	295	95	170	350	550	185	275	425	600
Portland	230	315	210	310	210	315	185	260	340	440	260	365	465	620
San Francisco	400	655	310	500	310	510	235	400	500	750	380	600	540	875
Seattle	275	520	185	250	200	330	150	250	350	550	250	350	450	630
Washington	325	500	225	325	175	300	140	225	400	600	265	400	500	765
CANADA														
Calgary	245	370	205	250	200	280	125	170	270	420	195	225	605	835
Toronto	240	390	200	275	180	375	145	190	350	640	205	250	510	800

ABC CONSTRUCTION BACKLOG INDICATOR

The chart on the adjacent page shows the average construction backlog in months, by quarter, as represented by the Associated Builders and Contractors, Inc. Construction Backlog Indicator (CBI).

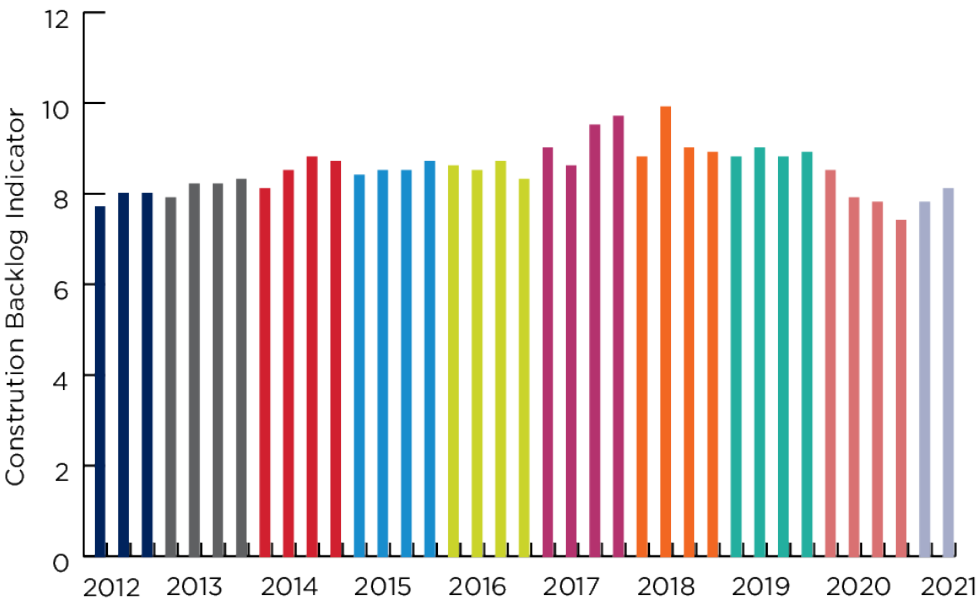
The CBI is a national economic indicator that reflects the amount of work that will be performed by commercial and industrial contractors in the months ahead. This national economic data set offers a level of specificity focused on the U.S. commercial and institutional, industrial and infrastructure construction industries.

The CBI remained relatively consistent during Q2-2021 with only a modest increase, yet is still well below pre-pandemic levels. The ongoing economic recovery is starting to indicate that projects delayed by COVID are slowly getting back on-track for construction. A major hinderance to a sustained construction industry recovery continues to be concern for a shortage in skilled labor, as well as volatile material costs. While some costs have leveled out more recently, they remain elevated from this time last year. Despite these concerns, the demand for construction appears to be on the rise, though it may be at a cost.

Source: Associated Builders and Contractors, Construction Backlog Indicator

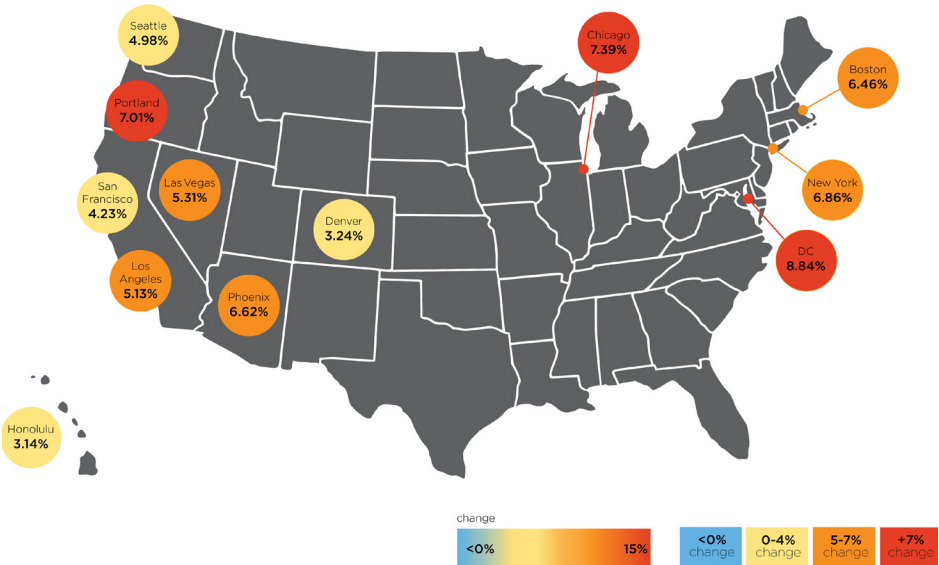
The data in the chart below represents estimates of current building costs in each respective market. Costs may vary as a consequence of factors such as site conditions, climatic conditions, standards of specification, market conditions, etc. Values of U.S. locations represent hard construction costs 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.

INDUSTRIAL		PARKING				RESIDENTIAL				EDUCATION					
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
110	190	85	140	100	160	185	315	260	360	350	475	375	500	375	600
110	185	80	125	125	170	165	400	220	420	265	380	300	405	350	600
100	185	125	145	140	185	155	290	190	450	280	400	310	450	380	575
110	235	140	190	155	255	250	420	275	525	475	785	485	665	610	895
70	100	50	85	70	145	150	355	175	350	225	350	270	455	350	575
125	190	105	125	135	195	235	370	205	365	365	480	310	550	460	625
120	210	100	180	140	220	220	420	310	620	475	600	520	660	510	725
75	125	50	90	80	135	155	245	165	450	250	350	270	425	355	575
160	240	120	160	140	225	210	315	185	340	340	420	370	450	415	565
150	255	140	195	240	345	385	600	300	490	385	560	425	740	560	990
125	180	90	125	145	205	210	355	190	290	325	500	250	500	450	610
120	190	65	80	85	135	200	340	260	380	300	410	325	430	385	625
105	150	85	110	95	135	165	225	245	360	220	310	225	320	300	460
105	150	95	125	120	180	180	245	240	465	220	265	220	285	255	450



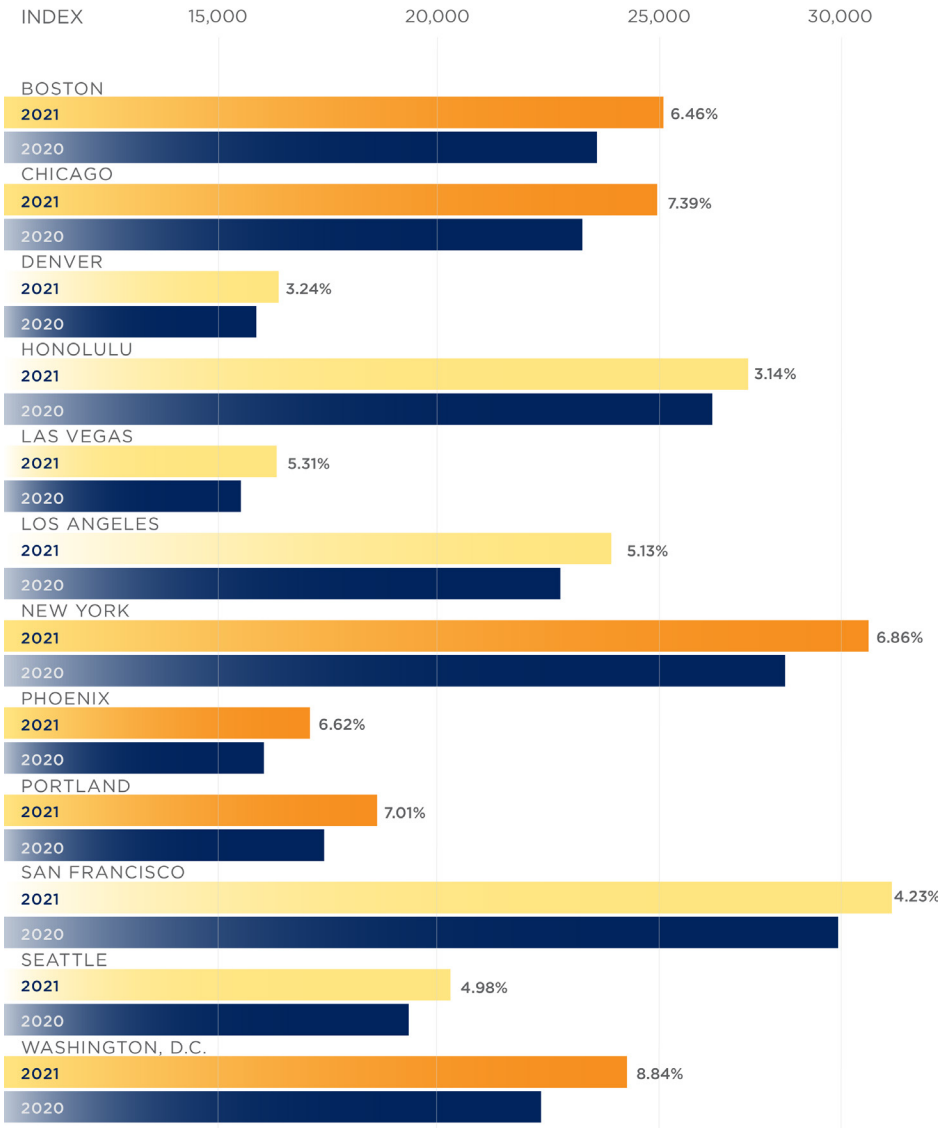
UNITED STATES

COMPARATIVE COST INDEX



City	July 2020	October 2020	January 2021	April 2021	July 2021	Annual % Change
• Boston	23,677	23,773	23,974	24,711	25,207	6.46%
• Chicago	23,340	23,518	23,745	24,854	25,064	7.39%
• Denver	15,835	15,864	15,914	16,150	16,349	3.24%
• Honolulu	26,333	26,325	26,647	26,891	27,158	3.14%
• Las Vegas	15,480	15,480	15,623	16,077	16,302	5.31%
• Los Angeles	22,835	22,781	22,928	23,567	24,006	5.13%
• New York	28,008	28,112	28,542	29,507	29,930	6.86%
• Phoenix	16,008	15,979	16,133	16,824	17,068	6.62%
• Portland	17,397	17,539	17,658	18,348	18,616	7.01%
• San Francisco	29,230	29,423	29,611	30,246	30,467	4.23%
• Seattle	19,342	19,367	19,452	19,804	20,305	4.98%
• Washington, DC	22,389	22,418	23,040	23,841	24,369	8.84%

Comparative Cost Map and Bar Graph Indicate percentage change between July 2020 to July 2021.



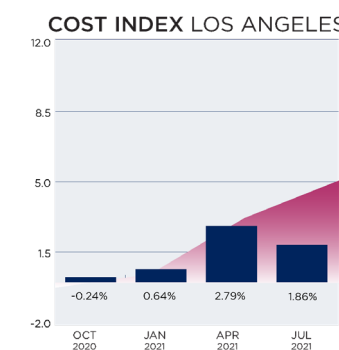
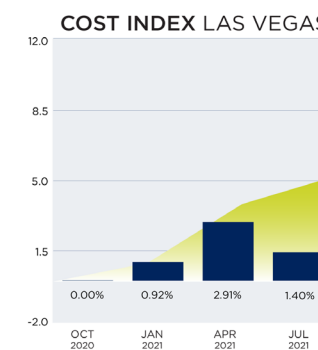
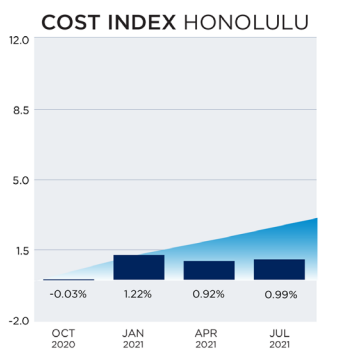
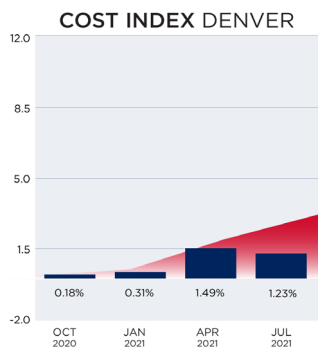
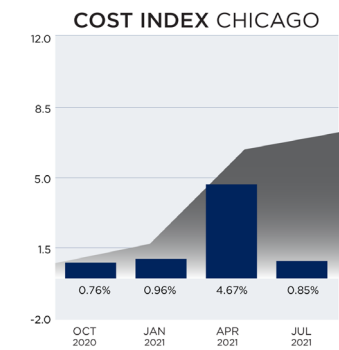
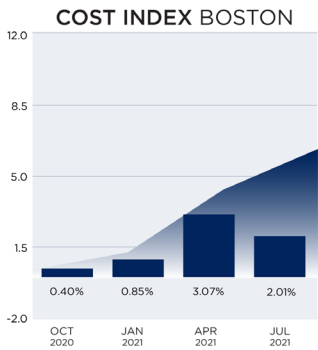
Each quarter we look at the comparative cost of construction in 12 US cities, indexing them to show how costs are changing in each city in particular, and against the costs in the other 11 locations. You will be able to find this information in the graph titled Comparative Cost Index (above) and in the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

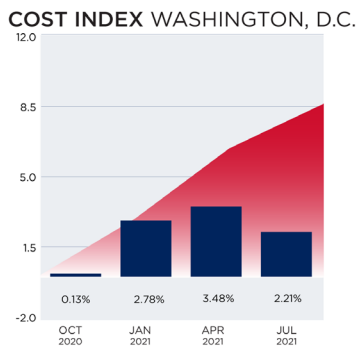
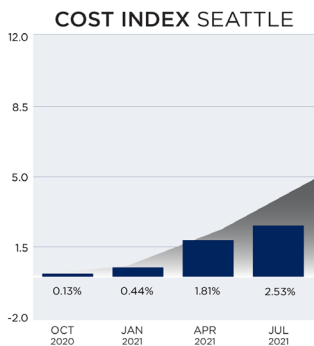
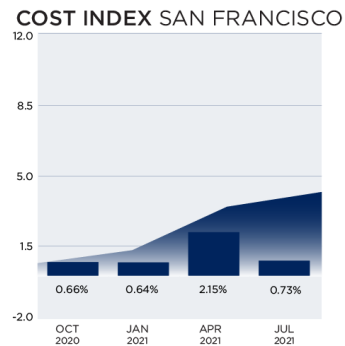
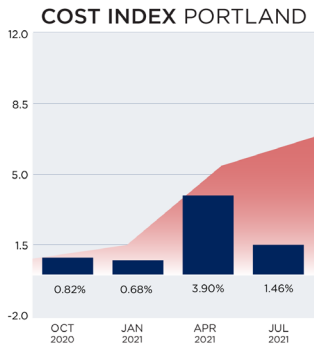
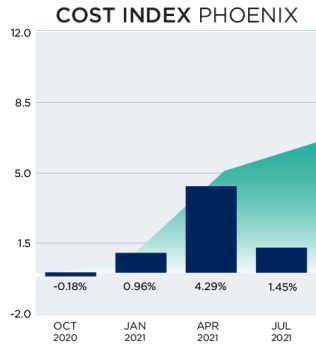
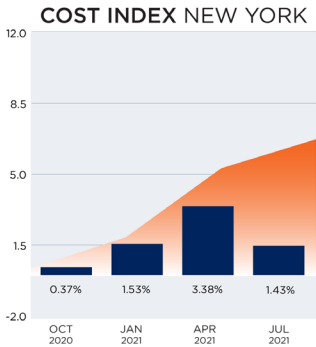
UNITED STATES

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.

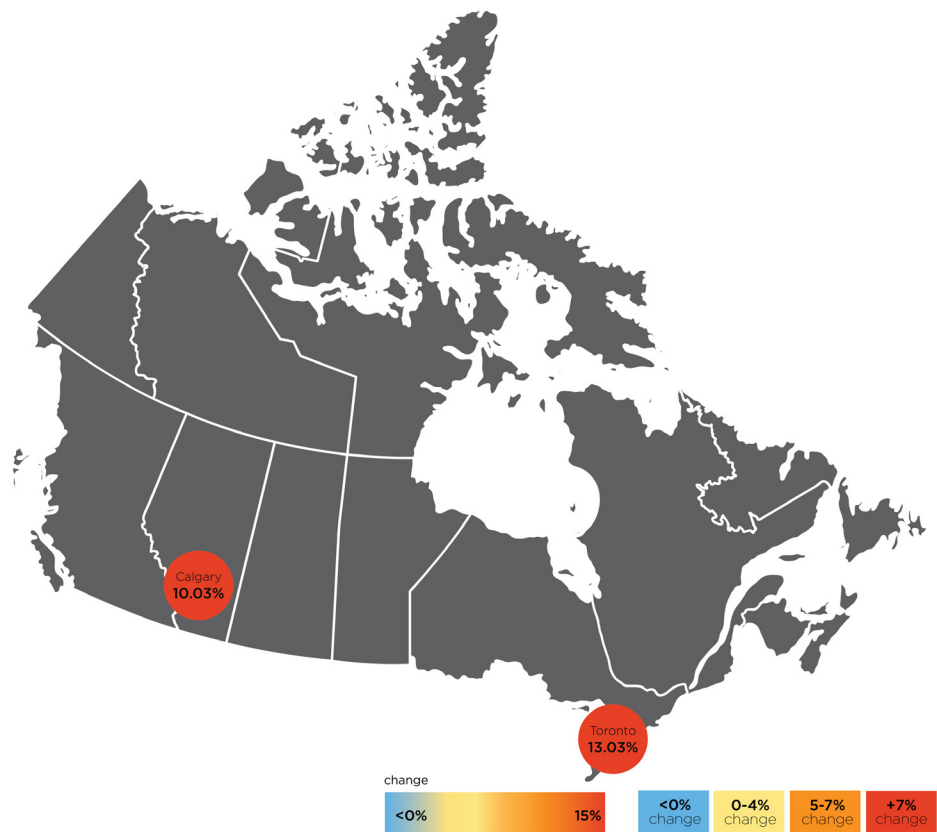
■ Percentage change per quarter ▲ Cumulative percentage change for the period shown



Our research suggests that between April 1, 2021 and July 1, 2021 the national average increase in construction cost was approximately 1.51% (compared to 0.16%, this time last year). Boston, Los Angeles, Seattle, and Washington, D.C. all experienced increases over the national average in the quarter. Chicago, Denver, Honolulu, Las Vegas, New York, Phoenix, Portland, and San Francisco experienced gains less than the national average.



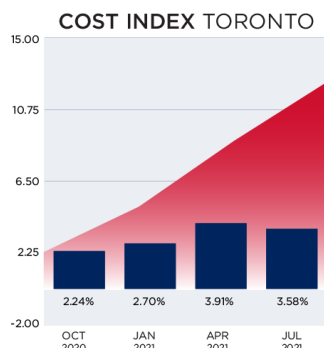
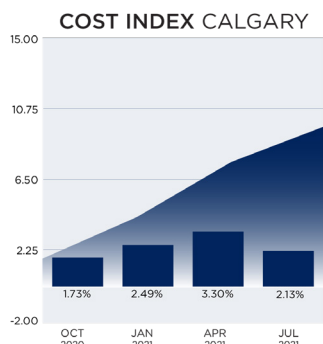
COMPARATIVE COST INDEX



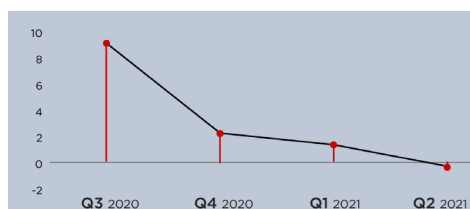
City	July 2020	October 2020	January 2021	April 2021	July 2021	Annual % Change
• Calgary	19,646	19,985	20,483	21,160	21,617	10.03%
• Toronto	23,873	24,409	25,069	26,050	26,983	13.03%

In Calgary, the \$4.9 billion Green Line LRT is the largest infrastructure investment in the city’s history. Alberta transportation continues construction of the Southwest Calgary Ring Road and the West Calgary Ring Road. Moreover, ongoing major road construction projects include new roadways, rehabilitation, and upgrades to existing roadways, intersection upgrades, and installation of interchanges.

Construction in Toronto downtown remains busy, experiencing intensive development, with 13 new towers in various phases of development. Construction costs have increased due to demand and supply chain problems while affordable housing has become a primary issue across Ontario. Looking ahead, the Ontario government has announced investment on 38 infrastructure projects at an estimated \$60B.



KEY CANADIAN STATISTICS

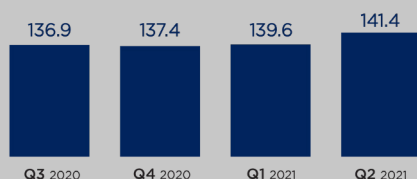


Gross Domestic Product (GDP)

Canada's GDP continues a downward trend after its significant drop in Q4 2020.

Consumer Price Index (CPI)

Canada's CPI grows at a steady - though nominal - pace, indicating a variance of 3.60% from this time last year.

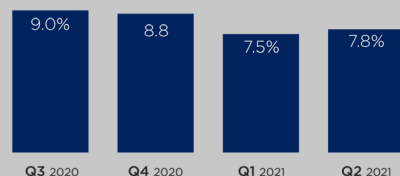


Housing Starts

Housing starts are up 26.12% from the previous quarter. This is reminiscent of a cyclical trend between the first and second quarter of each year.

Unemployment

While Canada's unemployment remains stagnant so far this year, it is down 4.5% from this time last year.



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.

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.

This issue was compiled by Taryn Harbert with contributions from Antonio Gonzales, Cassie Idehara, Chris Harris, Daniel Junge, Evans Pomegas, James Casey, Julia Flores, Kirk Miller, Lucy Liu, Maelyn Uyehara, Paul Brussow, Paraic Morrissey, Peter Knowles, Robin Kankerwal, Ryan Bosworth, and Scott Macpherson.

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DESERT DIAMOND CASINO

WEST VALLEY • SI'AL KE:K