

The background image is a photograph of a large, dark-colored construction vessel, possibly a barge or a specialized transport ship, floating on a body of water. The vessel has a tall, dark structure on its deck. In the foreground, four people are visible from behind, looking out at the water. One person on the right is wearing a wetsuit and holding a surfboard, while the others are in casual clothing. The water is calm, reflecting the sky and the vessel. The sky is a clear, light blue. The overall scene suggests a coastal or maritime setting.

FIRST QUARTER 2022

NORTH AMERICA

QUARTERLY CONSTRUCTION COST REPORT



ON THE COVER

SURF LAKES ▲

LOS ANGELES, CALIFORNIA

Offering 'the biggest break in surf park innovation' Surf Lakes is an Australia-based company. They have a unique concentric wave generation technology that creates multiple surfing breaks in one custom-designed pool.

Rider Levett Bucknall (RLB) is acting as a trusted advisor to Surf Lakes as they break into the North America market. As a construction consultant who can act as an extension of their team, we are assisting Surf Lakes to achieve their desired outcome by providing informed guidance and recommendations on the best procurement strategy. RLB is also providing full quantity surveying services, providing them the level of certainty they need to make critical, real-time decisions to ensure the commercial success of their project.

RLB is proud to assist Surf Lakes by empowering them to bring imagination to life on their world-class wave technology, bringing innovative sport spaces to the U.S. market and shaping the future of the built environment in southern California.

NORTH AMERICA

Over the past two years, we've seen how modern medicine can effectively combat viral pandemics. Unfortunately, it can't provide an antidote to human foibles rooted in ambition. How the Russia-Ukraine war will ultimately be resolved is unknown. But the toll on humanity is painfully clear.

As far as the AEC industries are concerned, the crisis is having a major impact on oil and metal prices around the world. The conflict, and the resulting sanctions, will also trigger recessions in Russia and Ukraine, and directly impact many economies in Europe. New supply chain disruptions will arise as well.

The severity and duration of the economic and market fluctuations on the US economy are difficult to predict.

On the domestic front, there's good news and not-so-good news. The Infrastructure Investment and Jobs Act (IIJA) that passed with bipartisan support a few months ago is impressive in its scope. More than \$550 billion in new federal investments are being allocated to upgrade the country's infrastructure over five years, including \$110 billion for roads, bridges, and major infrastructure projects; \$66 billion for passenger and freight rail; \$55 billion for water infrastructure; \$40 billion for bridge repair; and \$39 billion to improve public transit infrastructure. Additionally, the bill has tax incentives designed to promote partnerships with cities and states as well as encourage private investments.

The IIJA's benefits extend beyond the C-suite, with several provisions targeting labor development. One example of how the legislation promotes job growth is by providing funding for an apprenticeship program that will train 18- to 21-year-olds to drive tractor-trailers on interstate roadways by way of extensive classroom training and on-road experience riding with a seasoned driver. Without the instruction provided by the program, younger operators are restricted to driving within a single state's borders, which discourages trucking as a career.

The not-so-good news can be summed up in one word: Inflation. While the Federal Reserve has started a series of interest rate hikes to try to keep the situation from escalating, expect to see companies reevaluate their business risks as they look to preserve profit margins.

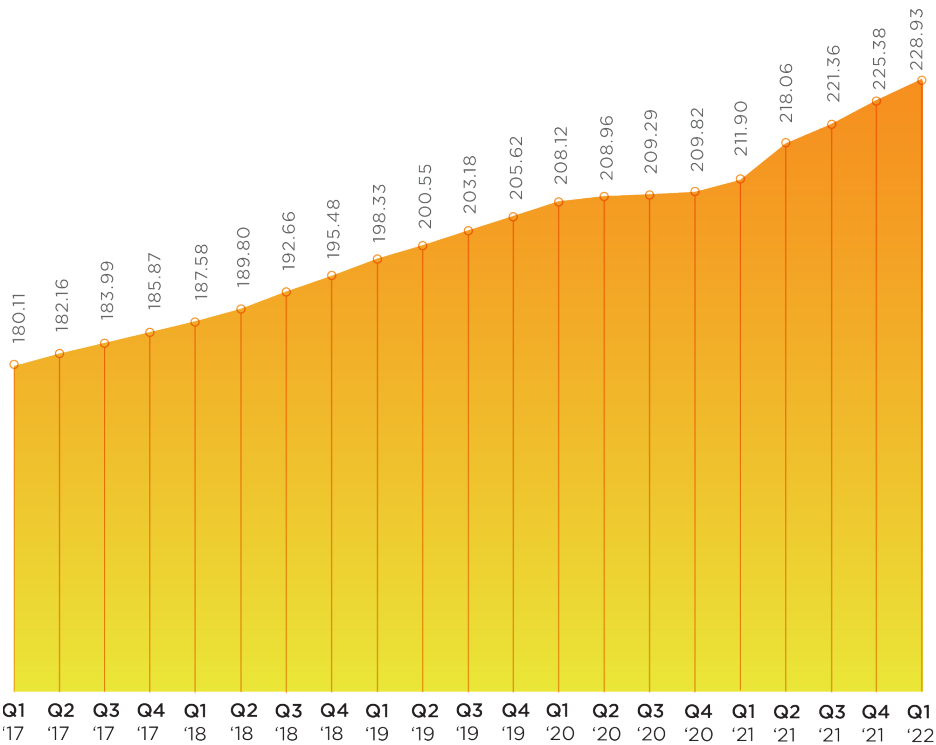
As we navigate these uncertain times, we all seek clarity that's informed by experience and facts. At Rider Levett Bucknall, we have always placed a high premium on earning and keeping your trust, and we assure you that we will continue to do so in the face of the changing challenges—and opportunities—confronting the AEC industries.



Julian Anderson FRICS
President,
North America

UNITED STATES

NATIONAL CONSTRUCTION COST INDEX



Welcome to the first quarter 2022 issue of the Rider Levett Bucknall Quarterly Cost Report! This issue contains data current to mid-Q1 2022.

\$1,677.2
Billion

1.3%
above

8.2%
above

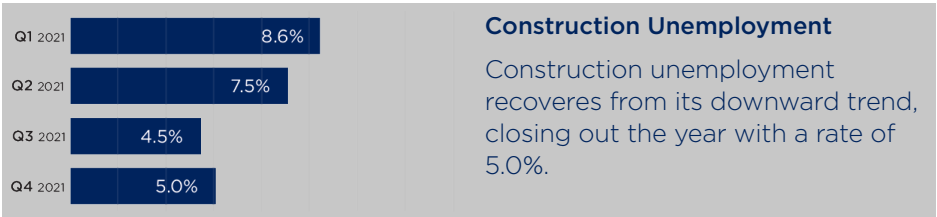
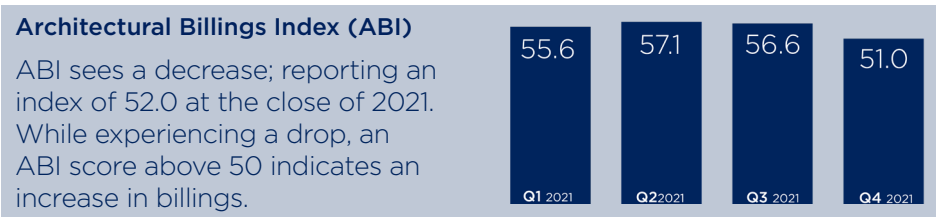
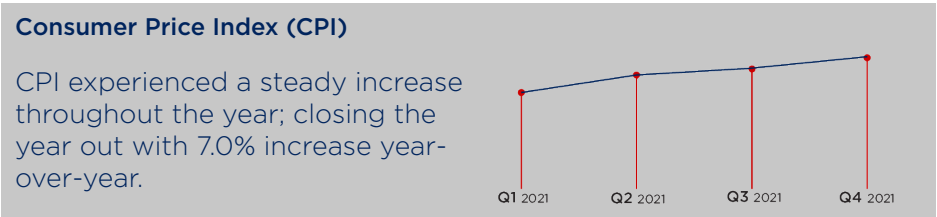
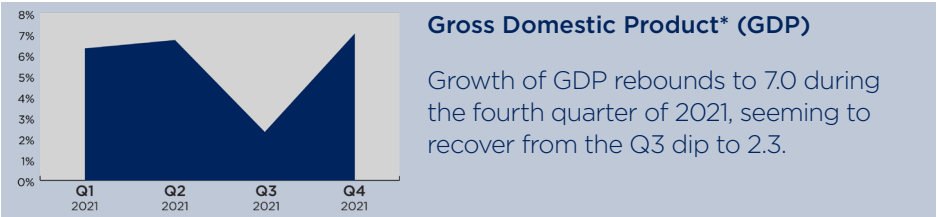
According to the U.S. Department of Commerce, construction-put-in-place during January 2022 was estimated at a seasonally adjusted annual rate of \$1,677.2 billion, which is

the revised December 2021 estimate of \$1,655.8 billion, and

the January 2021 estimate of \$1,549.8 billion.

The National Construction Cost Index shows the changing cost of construction between January 2017 and January 2022, 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. National unemployment rates are seasonally adjusted, reflecting the average of a 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.

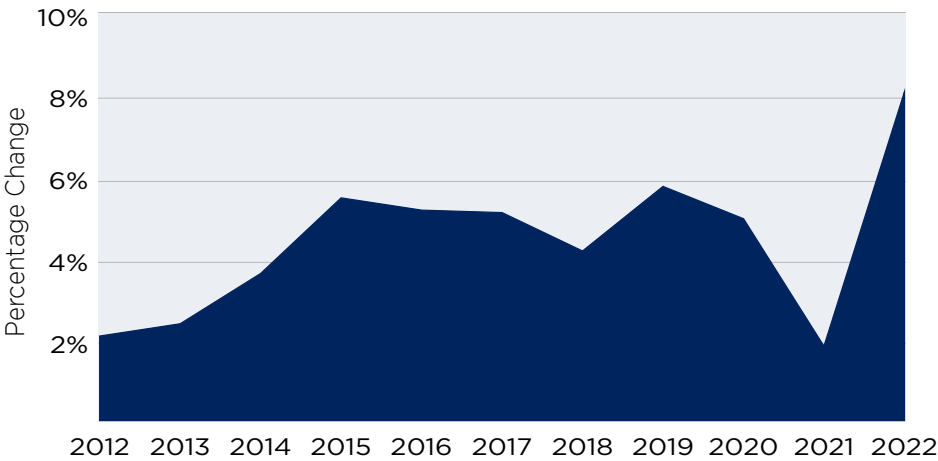
UNITED STATES

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	300	425	175	235	135	225	125	220	350	550	275	400	415	635
Honolulu	320	550	200	315	250	535	230	400	625	760	360	575	485	815
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	330	650	445	670	330	445	560	840
Phoenix	220	375	140	200	175	295	100	170	350	550	185	275	425	600
Portland	230	315	210	310	210	315	185	260	340	440	260	365	465	620
San Francisco	420	700	325	525	310	510	235	400	525	775	380	600	570	890
Seattle	290	550	195	265	210	350	160	265	370	585	265	370	480	670
Washington	335	550	230	360	180	325	145	240	425	650	280	435	510	810
CANADA														
Calgary	250	380	210	255	205	285	130	175	275	430	200	230	620	855
Toronto	250	405	205	285	185	390	150	195	360	660	210	260	525	825

AT-A-GLANCE: CONSTRUCTION COST CHANGE

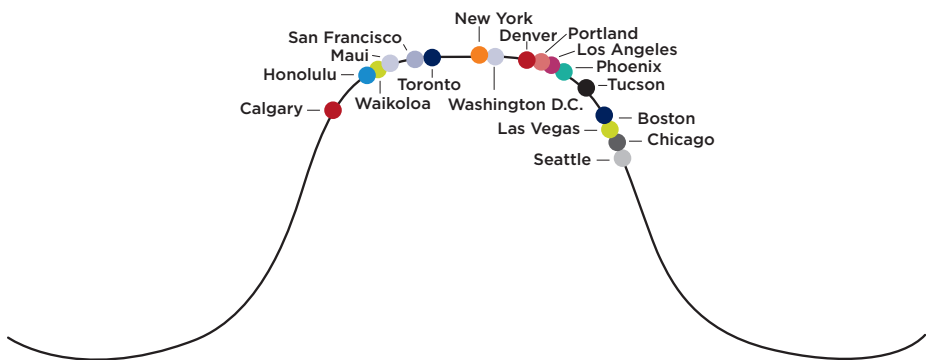
As construction costs across the country continue to increase, RLB takes a historical view of the percentage change of year-on-year construction costs, dating back ten years.



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	175	310	200	450	280	415	310	470	380	575
115	240	145	195	160	260	255	430	280	535	485	800	495	680	625	915
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	375	575
160	240	120	160	140	225	210	315	185	340	340	420	370	450	415	565
150	255	130	195	240	345	385	600	300	490	385	560	425	740	560	990
130	190	95	130	150	215	220	375	200	310	345	530	265	530	475	650
130	210	70	90	90	150	205	355	265	390	320	430	340	450	420	665
105	155	85	115	95	140	170	230	250	370	225	315	230	325	305	470
110	155	100	130	125	185	190	255	255	485	225	275	225	295	265	465

CONSTRUCTION ACTIVITY CYCLE

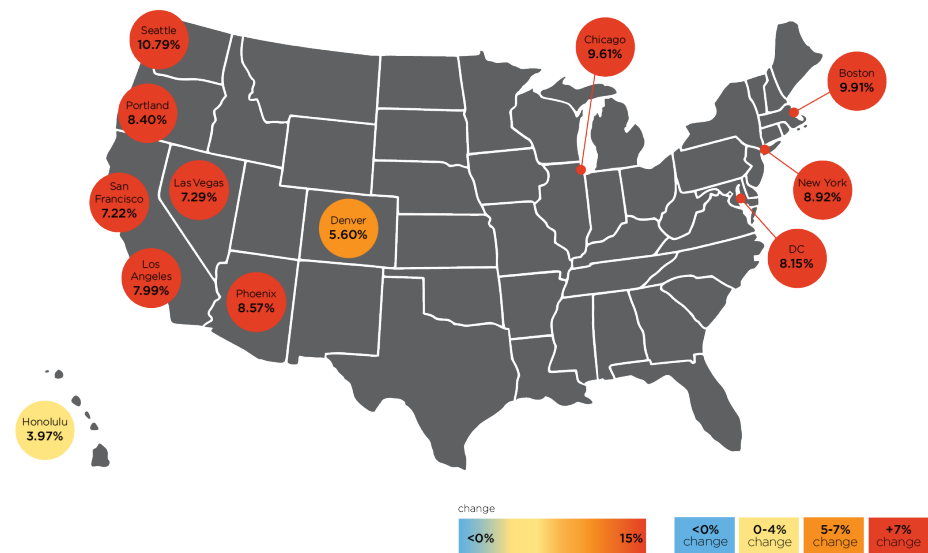


TROUGH GROWTH	MID GROWTH	PEAK	MID DECLINE	TROUGH DECLINE
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* Construction Activity Cycle updated for Hawaii offices April 20, 2022

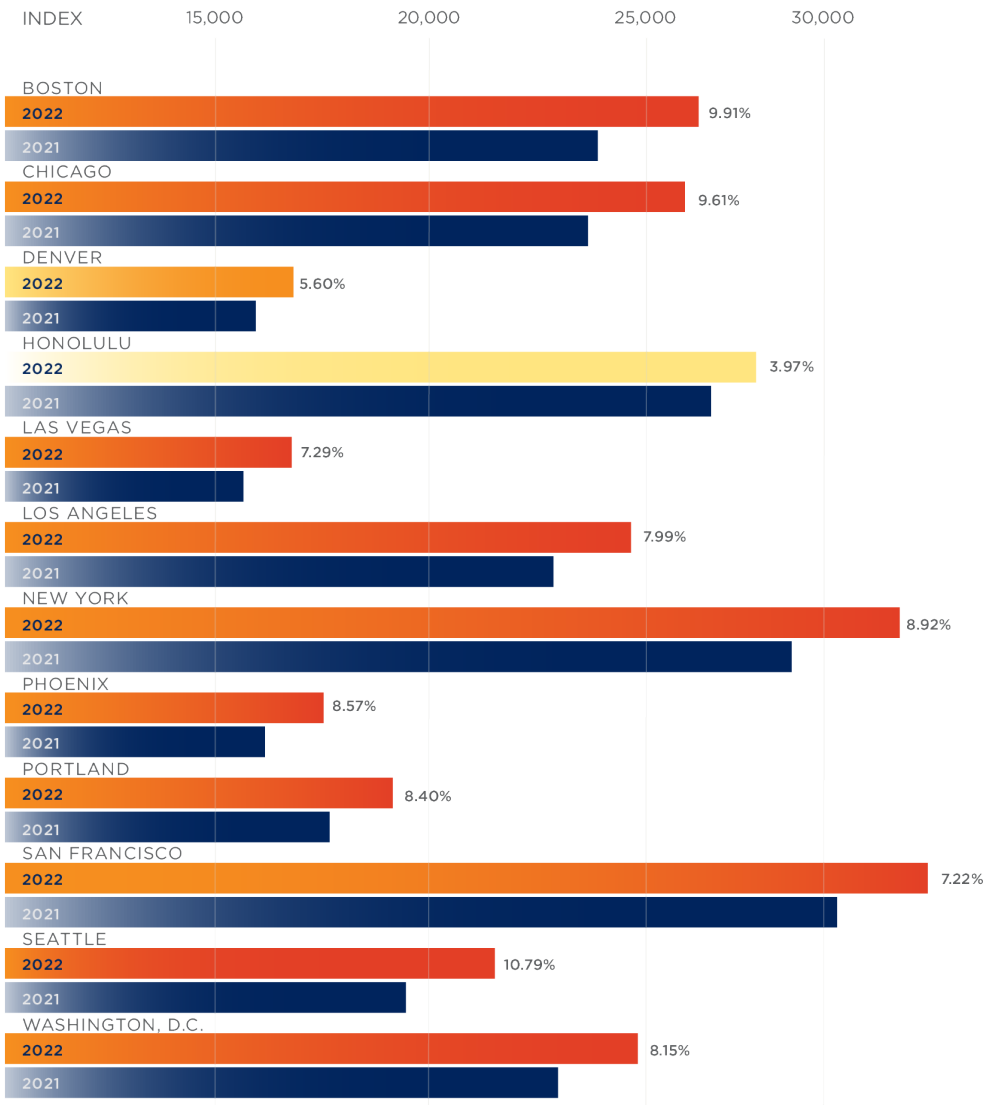
UNITED STATES

COMPARATIVE COST INDEX



City	January 2021	April 2021	July 2021	October 2021	January 2022	Annual % Change
• Boston	23,974	24,711	25,207	25,877	26,350	9.91%
• Chicago	23,745	24,854	25,064	25,636	26,026	9.61%
• Denver	15,914	16,150	16,349	16,567	16,805	5.60%
• Honolulu	26,647	26,891	27,158	27,413	27,705	3.97%
• Las Vegas	15,623	16,077	16,302	16,522	16,762	7.29%
• Los Angeles	22,928	23,567	24,006	24,341	24,760	7.99%
• New York	28,542	29,507	29,930	30,504	31,087	8.92%
• Phoenix	16,133	16,824	17,068	17,276	17,516	8.57%
• Portland	17,658	18,348	18,616	18,864	19,141	8.40%
• San Francisco	29,611	30,246	30,467	31,073	31,748	7.22%
• Seattle	19,452	19,804	20,305	21,320	21,551	10.79%
• Washington, DC	23,040	23,841	24,369	24,460	24,918	8.15%

Comparative Cost Map and Bar Graph Indicate percentage change between January 2021 to January 2022.



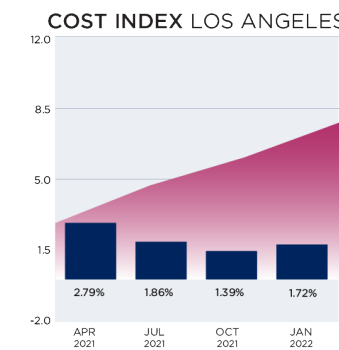
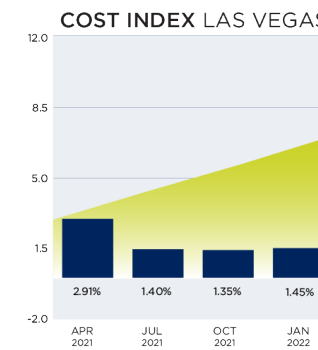
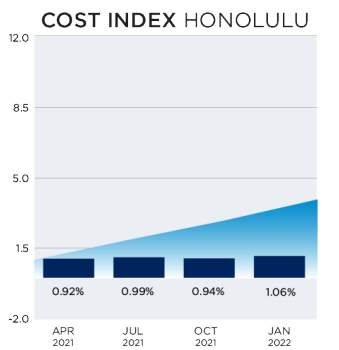
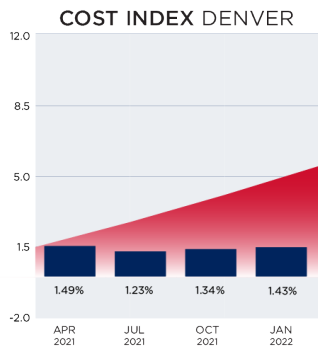
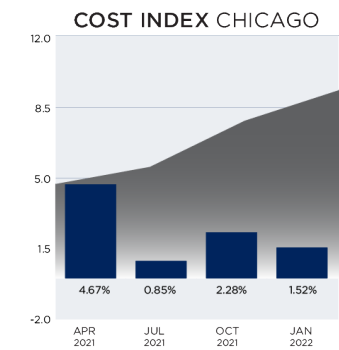
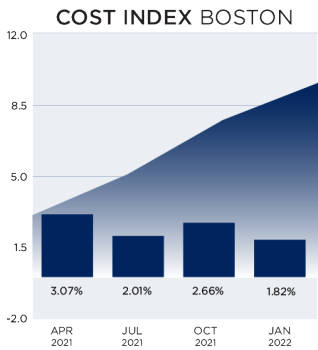
Each quarter we look at the comparative cost of construction in 12 US cities, indexing them to show how costs are changing in each city in particular, and against the costs in the other 11 locations. You will be able to find this information in the graph titled Comparative Cost Index (above) and in the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

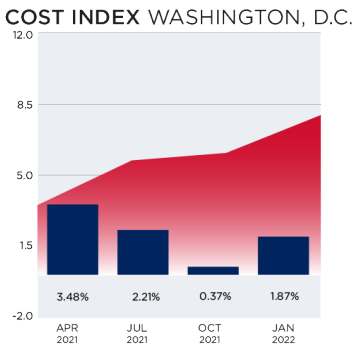
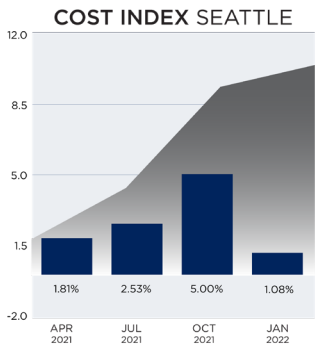
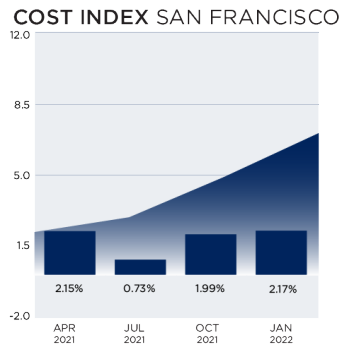
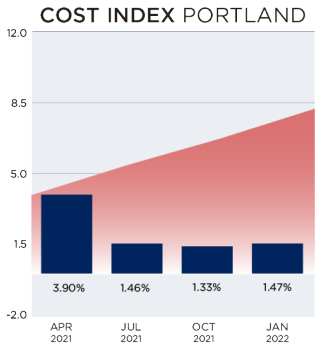
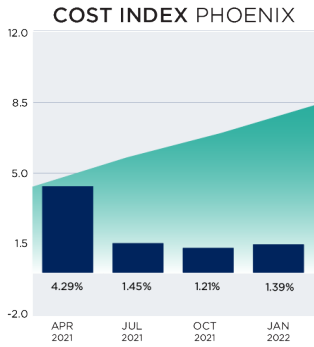
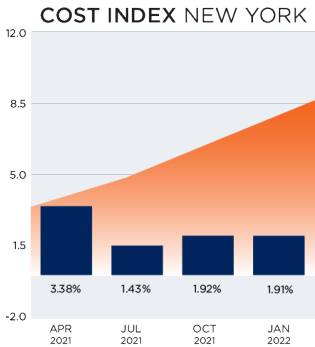
UNITED STATES

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

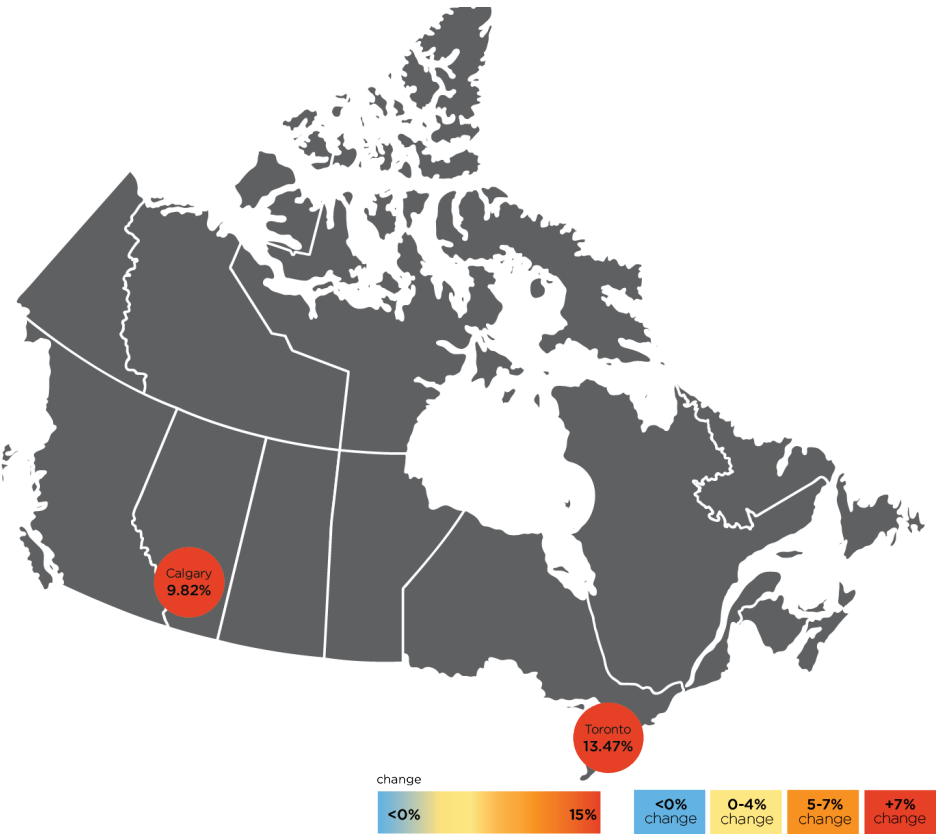


Our research suggests that over the course of 2021, the national average increase in construction cost was 8.04%. Boston, Chicago, New York, Phoenix, Portland, Seattle, and Washington, D.C. experienced the greatest annual increases, showing escalation above the national average. Denver, Honolulu, Las Vegas, Los Angeles, and San Francisco experienced lower annual increases, ranging from 3.97% (Honolulu) to 7.99% (Los Angeles).



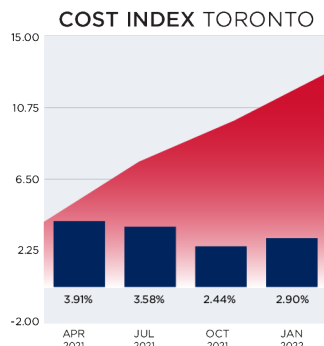
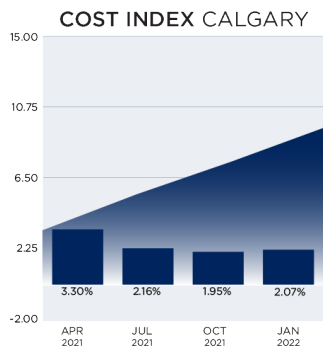
CANADA

COMPARATIVE COST INDEX

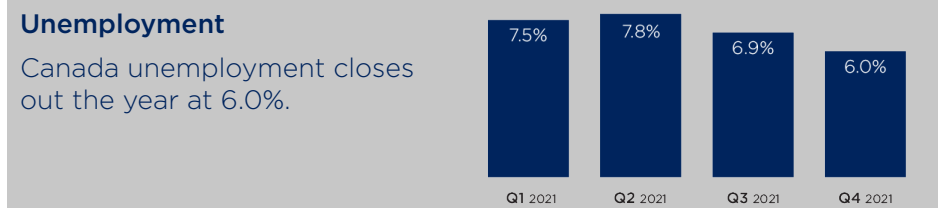
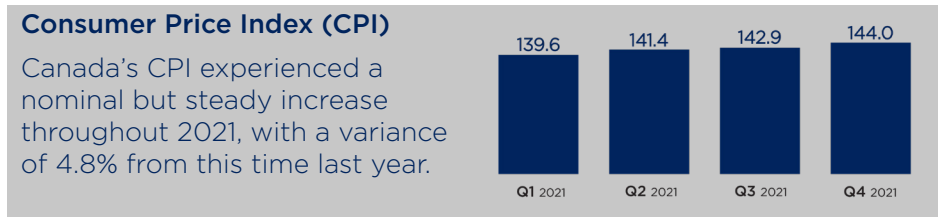
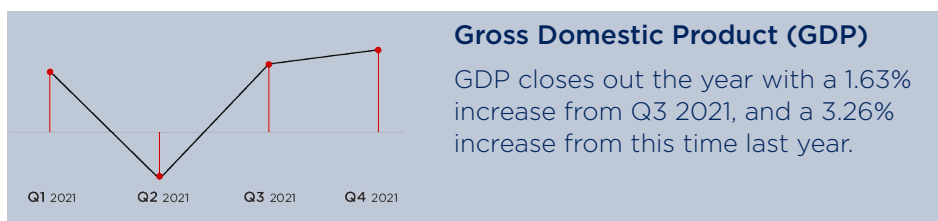


City	January 2021	April 2021	July 2021	October 20201	January 2022	Annual % Change
• Calgary	20,483	21,160	21,617	22,039	22,494	9.82%
• Toronto	25,069	26,050	26,983	27,642	28,445	13.47%

In Alberta, the 2022 Capital Plan will invest approximately \$21B in the construction of roads, schools, and hospitals over a three-year period. The projects it funds will support 19,000 direct and 12,000 indirect jobs each year. This investment includes \$2.4B for roads and bridges and \$3B for capital maintenance and renewal of public infrastructure. While in Ontario, housing continues to be major economic engine. This is the case not only in the province's major urban areas but also in smaller communities where an influx of big-city migrants sustains solid demand. The Greater Toronto Area (GTA) condo market outside of the core continue to perform well because their price points allow additional buyers to enter the market. The GTA housing sales are expected to surpass the long-year-average in 2022.



KEY CANADIAN 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. 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.

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