

SECOND QUARTER 2021

# NORTH AMERICA

## QUARTERLY CONSTRUCTION COST REPORT





*Photo Credit: American Savings Bank*

**ON THE COVER**

## **AMERICAN SAVINGS BANK CAMPUS ▲**

### **HONOLULU, HAWAII**

The American Savings Bank Campus project involved construction of an 11-story office building that serves as the new headquarters for American Savings Bank in Hawaii. Bringing together more than 650 teammates into a centrally located, modern office, the building was designed and constructed in alignment with the company's vision for a workplace that fosters innovation, collaboration and wellness.

Touted as the first new office building to be constructed in downtown Honolulu in nearly 25 years, development of the campus utilized unique construction methods and materials such as precast concrete that comprises the majority of the building and self-tinting View Dynamic Glass. The American Savings Bank Campus is also recognized as the first project in Hawaii to earn the WELL Health-Safety Rating from the International WELL Building Institute.

Rider Levett Bucknall provided project management services and cost consultancy support throughout the duration of the project. Early in the design and preconstruction phases, Rider Levett Bucknall guided the client through value engineering exercises and contractor negotiations that resulted in millions of dollars in cost savings. With construction underway, the Rider Levett Bucknall team was key in navigating complex site challenges, schedule risks and driving the project to timely completion.

# NORTH AMERICA

In the course of a year like no other, the AEC industries endured economic turmoil. Where we stand now, however, there are some encouraging trends beginning to emerge.

From April 2020 to April 2021, the Architectural Billings Index has gone from 30.2 to a robust 57.9. The Midwest and the South are the regions seeing the greatest uptick in billings, reporting 60.6 and 58.3 respectively, while the Northeast (55.0) and the West (52.4) are also securely above the 50 mark. Nationwide, the news on the number of inquiries firms are fielding from potential clients is also positive, steadily climbing from November 2020 to April 2021, although there is still an appreciable gap between inquiries and awarded design contracts.

Of course, questions and concerns remain. Some of the issues that came strongly into play during the height of the pandemic, like bottlenecked supply chains, volatile commodity prices, delayed permitting processes, and materials tariffs, will likely linger for a while. As well, a long-familiar problem—the ongoing dearth of qualified labor—will continue to cloud the construction field. The worker shortage makes projects more costly and slower to build, destabilizing the industry.

Looking ahead, there are some relatively new factors that will affect the industry. A couple are economic in nature; the possibility of climbing interest rates and construction cost escalation will make budgeting challenging and bidding highly uncertain. Another is the prioritization of clean energy and reduced carbon levels by the Biden administration, in response to the climate crisis.

Among the most critical of choices facing general contractors and construction managers will be to identify which building sectors to target while operating in this altered business environment. It's a decidedly what's hot, what's not scenario. In Q1 2021, industrial warehouses showed a 12% increase in size year-over-year, while retail malls shrank 11%. The square footage of Class A apartment developments grew 6%, as that of hotels/hospitality projects contracted 9%.

Collectively, these conditions prompt a question worth contemplating as we move into the future: Are we in a recovery or a transition? The former implies a return to a previous state of affairs, a resumption of a past status quo, while the latter points to a wholesale shift, a permanent transformation.

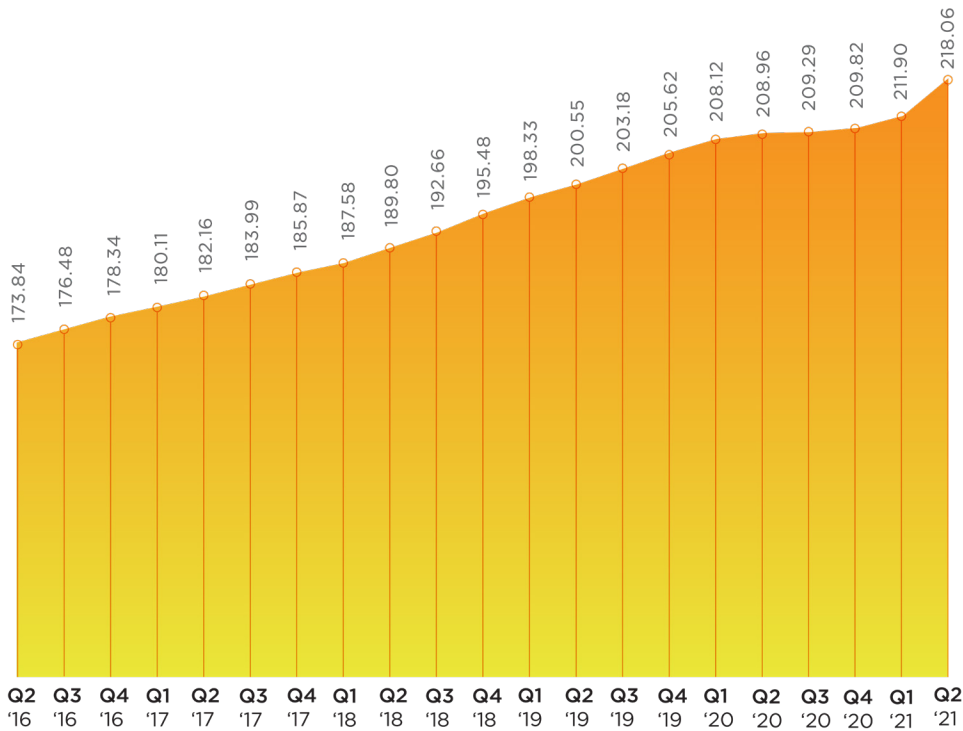
At Rider Levett Bucknall, we recognize that managing risk is more than a financial concern; at its core, it's about the long-term outcomes of creating stability and building trust. The needs of the AEC community are certainly different than what we have faced before—but so are the opportunities. As we evaluate and analyze the ever-changing conditions of the marketplace, we remain a committed partner, focused on delivering the most accurate information and advice on construction costs and strategies.



**Julian Anderson** FRICS  
President,  
North America

# UNITED STATES

## NATIONAL CONSTRUCTION COST INDEX



Welcome to the second quarter 2021 issue of the Rider Levett Bucknall Quarterly Cost Report! This issue contains data current to mid-Q2 2021.

**\$1,524.2 Billion** According to the U.S. Department of Commerce, construction-put-in-place during April 2021 was estimated at a seasonally adjusted annual rate of \$1,524.2 billion, which is

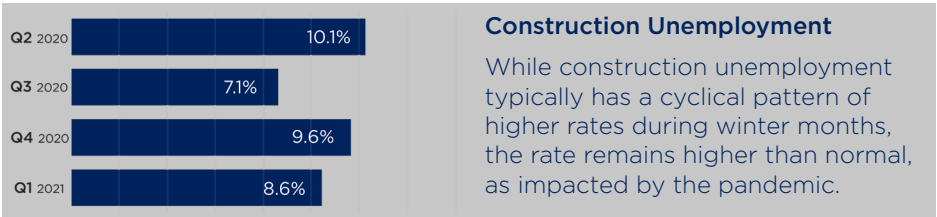
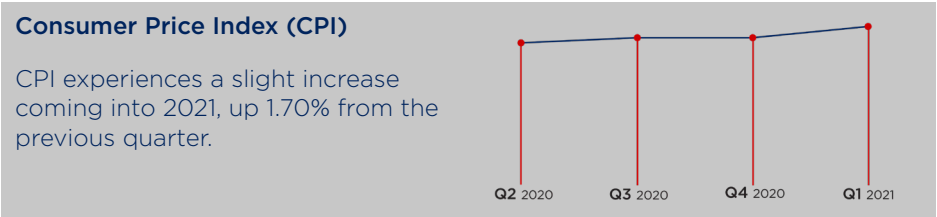
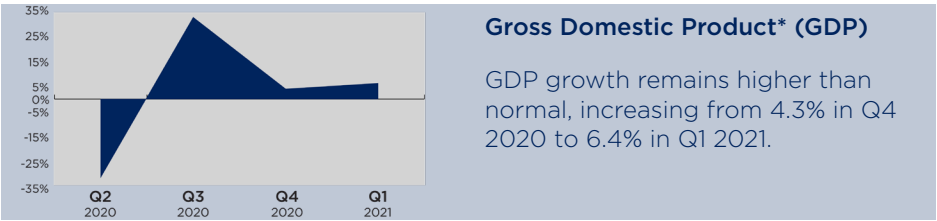
**0.2% above** the revised March 2021 estimate of \$1,521.0 billion, and

**9.8% above** the April 2020 estimate of \$1.387.9 billion.

The National Construction Cost Index shows the changing cost of construction between April 2016 and April 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. 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	250	350	175	225	95	150	80	175	300	500	250	350	400	550
Honolulu	310	560	260	420	230	525	195	460	545	785	345	575	505	800
Las Vegas	200	350	135	190	120	480	80	145	350	550	150	300	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	670	360	445	670	330	445	560	840
Phoenix	220	350	140	195	120	220	95	160	350	550	185	275	425	600
Portland	230	315	210	310	210	315	185	260	340	440	260	365	465	620
San Francisco	380	650	300	500	300	475	260	400	500	750	410	600	550	850
Seattle	565	670	230	335	260	440	230	335	410	620	310	410	455	620
Washington	325	500	225	325	175	300	140	225	400	600	265	400	500	765
CANADA														
Calgary	235	310	200	285	225	300	125	175	310	455	200	250	560	740
Toronto	235	320	200	285	245	300	140	185	425	540	220	280	530	750

## INDUSTRY MOMENTUM AND CONSTRUCTION COSTS CLIMB

The bar chart to the right is the Dodge Data & Analytics ‘Momentum Index’ (DMI). This index is a monthly measure of the first report for non-residential building projects in planning, which have been shown to lead construction spending for non-residential buildings for a full year.

The orange line above the bar chart is Rider Levett Bucknall’s National Construction Cost Index (NCCI) (see page 2 of the QCR). The NCCI represents the average escalation of costs across U.S. 12 cities, representing the hypothetical change in bid pricing across cities measured that quarter.

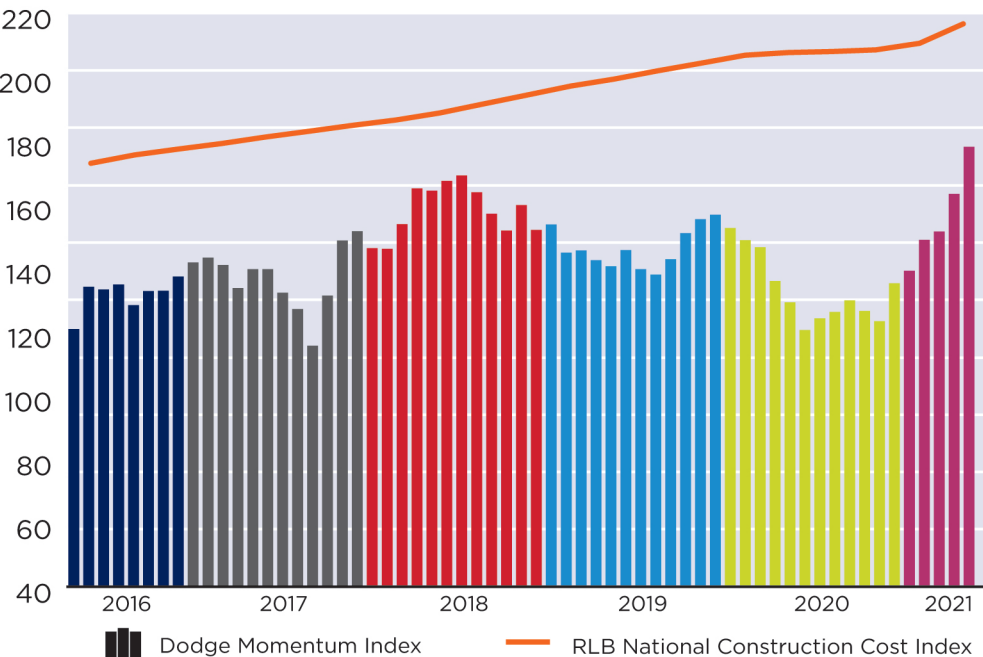
### WHAT DO THESE INDICES TELL US?

As the DMI increases rapidly in 2021 there is a corresponding jump in RLB’s NCCI. This indicates that demand continues to drive cost increases, as supply struggles to keep up. This quarter, we have seen the NCCI increase from 211.90 to 218.06, increasing by 2.9%; that’s the largest increase in a quarter in the last twenty years (the previous high was 2.75% in April 2004).

*Source: Dodge Data & Analytics, Momentum Index*

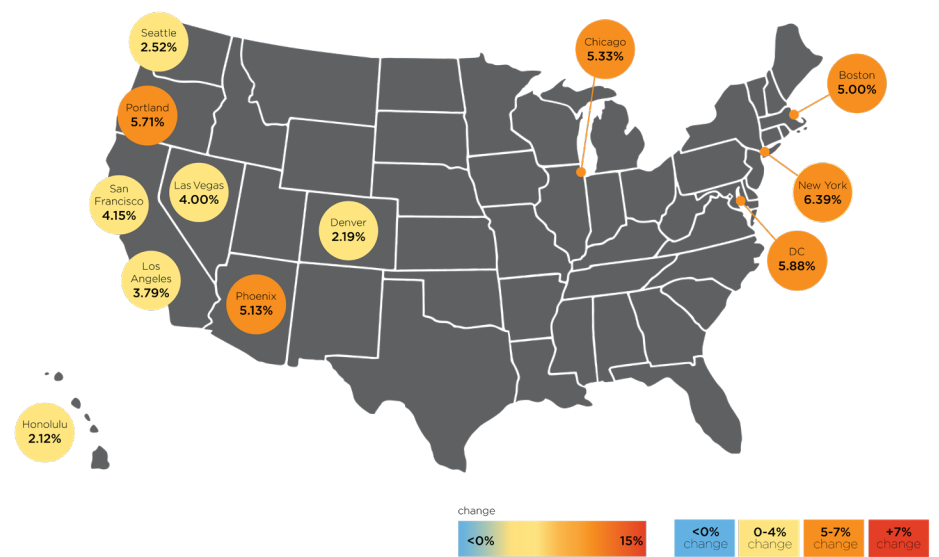
The data in the chart below represents estimates of current building costs in each respective market. Costs may vary as a consequence of factors such as site conditions, climatic conditions, standards of specification, market conditions, etc. Values of U.S. locations represent hard construction costs 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	160	125	145	140	175	125	250	115	450	275	350	300	400	325	475
160	250	110	160	155	285	215	470	305	805	365	505	435	645	470	760
70	100	50	85	60	150	100	405	100	350	225	350	250	455	300	455
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	80	75	120	100	250	150	450	250	350	275	425	350	500
160	240	120	160	140	225	210	315	185	340	340	420	370	450	415	565
175	250	140	160	260	300	390	600	325	475	375	450	385	490	490	695
145	205	105	155	180	230	205	465	185	335	310	340	400	515	465	595
120	190	65	80	85	135	200	340	260	380	300	410	325	430	385	625
95	145	85	105	95	135	165	225	155	370	210	275	225	315	300	450
95	120	85	125	120	165	215	255	220	410	225	250	250	290	255	380



# UNITED STATES

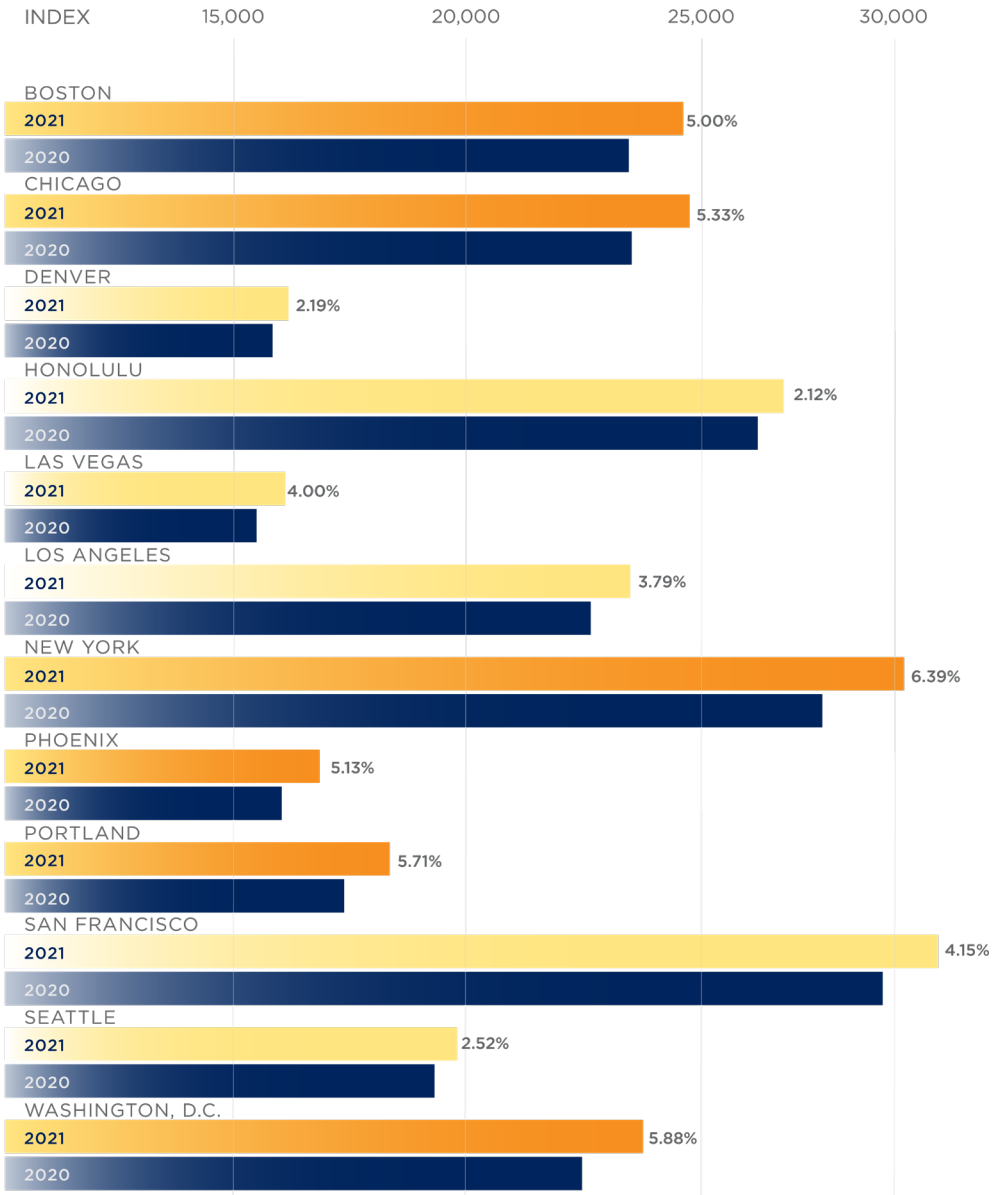
## COMPARATIVE COST INDEX



City	April 2020	July 2020	October 2020	January 2021	April 2021	Annual % Change
• Boston	23,534	23,677	23,773	23,974	24,711	5.00%
• Chicago	23,596	23,340	23,518	23,745	24,854	5.33%
• Denver	15,804	15,835	15,864	15,914	16,150	2.19%
• Honolulu	26,333	26,333	26,325	26,647	26,891	2.12%
• Las Vegas	15,459	15,480	15,480	15,623	16,077	4.00%
• Los Angeles	22,706	22,835	22,781	22,928	23,567	3.79%
• New York	27,734	28,008	28,112	28,542	29,507	6.39%
• Phoenix	16,004	16,008	15,979	16,133	16,824	5.13%
• Portland	17,357	17,397	17,539	17,658	18,348	5.71%
• San Francisco	29,040	29,230	29,423	29,611	30,246	4.15%
• Seattle	19,318	19,342	19,367	19,452	19,804	2.52%
• Washington, DC	22,518	22,389	22,418	23,040	23,841	5.88%

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





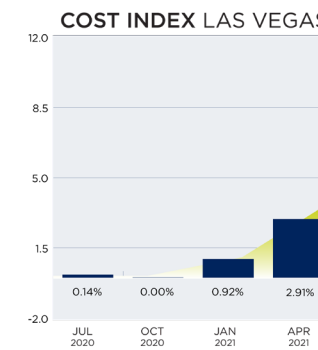
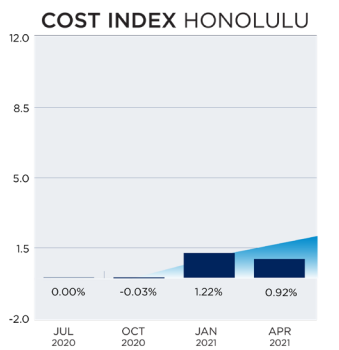
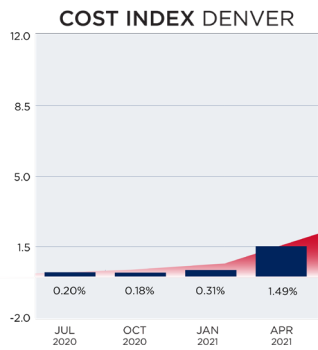
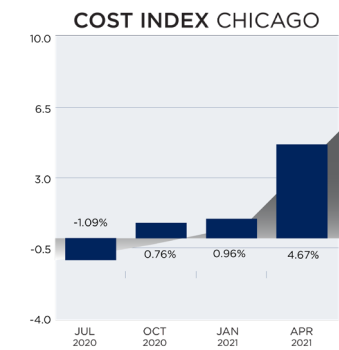
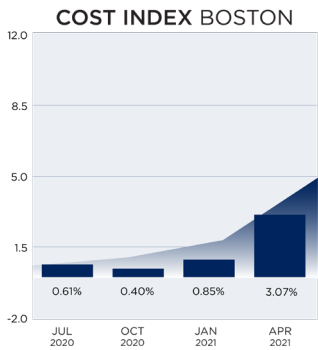
Each quarter we look at the comparative cost of construction in 12 US cities, indexing them to show how costs are changing in each city in particular, and against the costs in the other 11 locations. You will be able to find this information in the graph titled Comparative Cost Index (above) and in the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

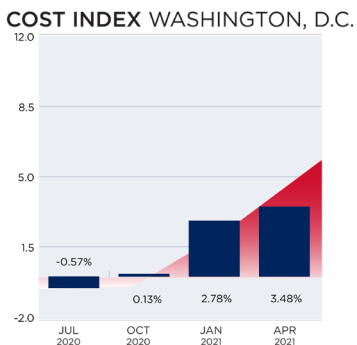
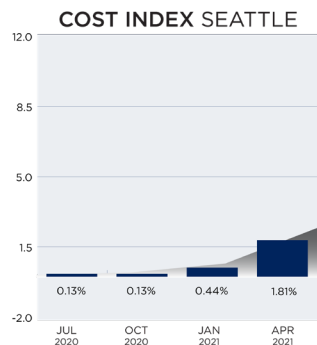
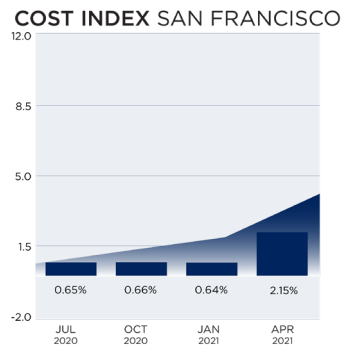
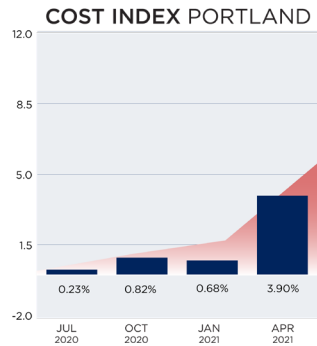
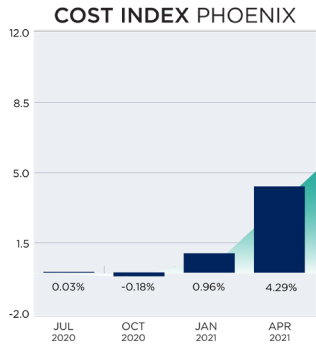
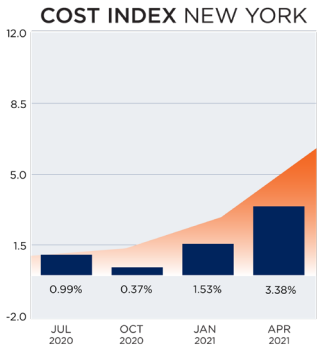
# UNITED STATES

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

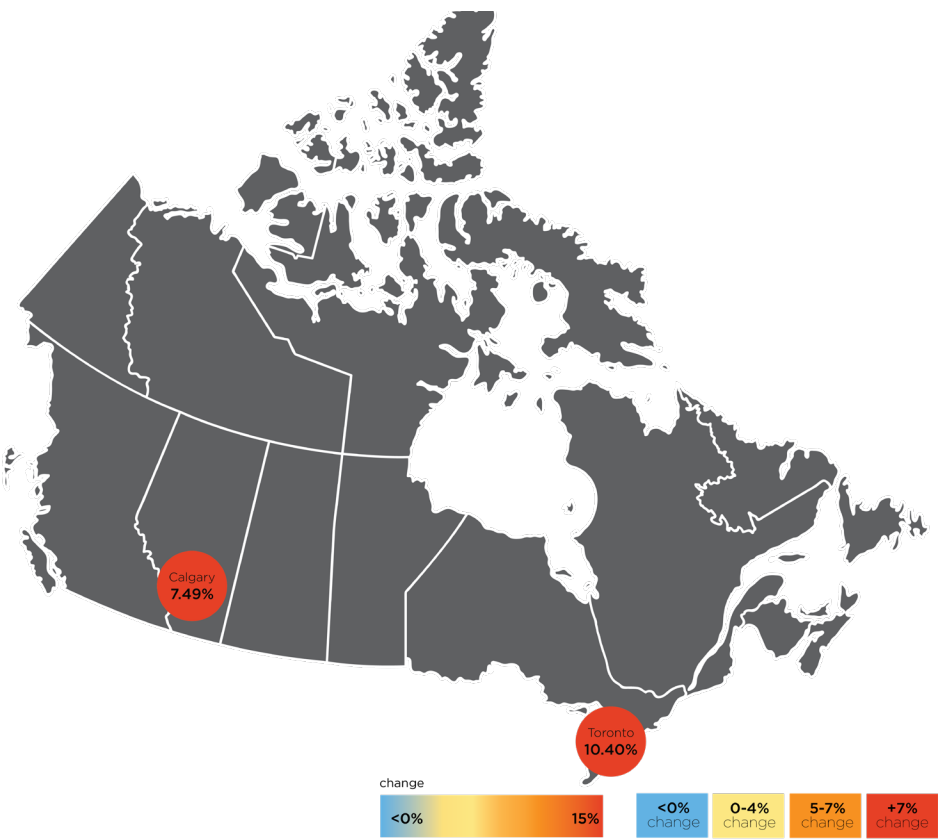


Our research suggests that between January 1, 2021 and April 1, 2021 the national average increase in construction cost was approximately 2.91% (11.64% annualized); however, the increase year-over-year is a more 'normal' 4.35%. Boston, Chicago, New York, Phoenix, Portland, and Washington, D.C. all experienced increases above the quarterly national average during Q1 of 2021. Other locations below the national average included Denver, Honolulu, Los Angeles, San Francisco, and Seattle. Las Vegas experienced the same escalation as the national average.



# CANADA

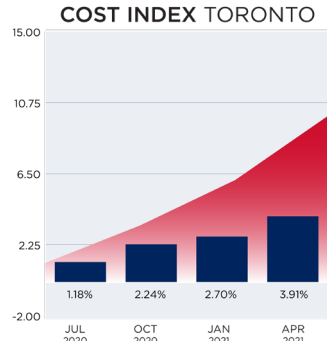
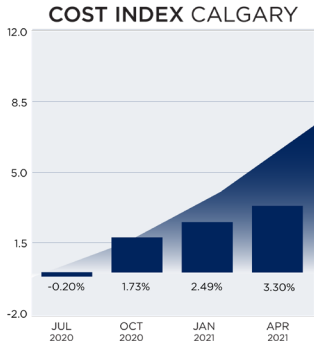
## COMPARATIVE COST INDEX



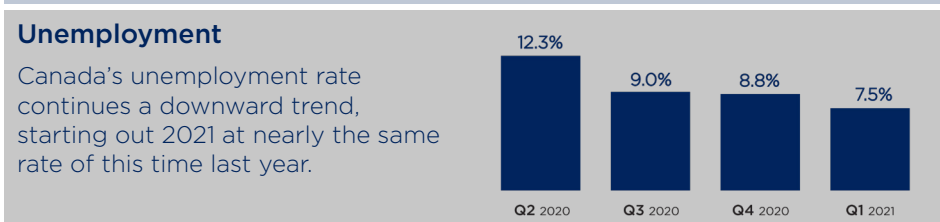
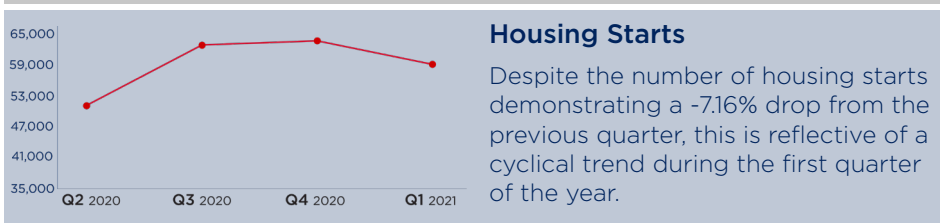
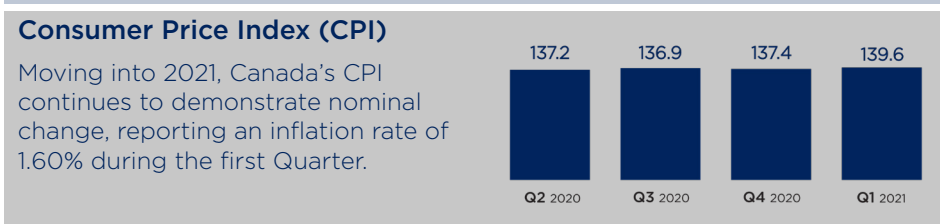
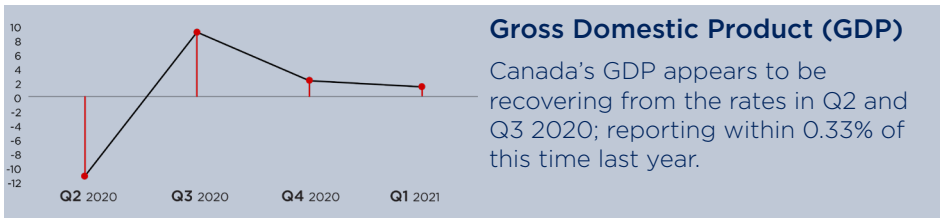
City	April 2020	July 2020	October 2020	January 2021	April 2021	Annual % Change
• Calgary	19,685	19,646	19,985	20,483	21,160	7.49%
• Toronto	23,595	23,873	24,409	25,069	26,050	10.40%

In Ontario, the economy has gained momentum as the year progresses and the construction market grows. The government infrastructure investment drives activity in public transit, health care, and utility projects. Strong housing demand continues as remote working surges as a long-term option. The increased demand of construction labour force will require more training for young workers as a significant number of the current workers are expected to retire.

Alberta's construction activity increases with major projects, including healthcare, education, oil and gas investment, pipelines, and public transportation in both Calgary and Edmonton. In Calgary, the Green Line LRT construction preliminary work has recently begun. The City of Calgary is investing \$660M in other transportation, roads and transit infrastructure projects.



## 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.



## **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.

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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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