THIRD QUARTER 2022

NORTH AMERICA

QUARTERLY CONSTRUCTION COST REPORT

RLB Rider Levett Bucknall

LĪLIA WAIKĪKĪ

ON THE COVER

WAIKĪKĪ, HI

Līlia Waikīkī is a vibrant mixed-use development that offers a modern living experience in the heart of Waikīkī. The project introduces the first new residences to be built in this iconic Hawai‘i neighborhood in more than 20 years with 401 rental units, including 38 that are designated as affordable homes. The 28-story residential building offers a collection of apartments that feature open floorplans, luxury finishes and expansive views, along with neighborhood-serving retail and lush outdoor gathering spaces that create a sense of community among residents.

Līlia Waikīkī is named to honor the life and legacy of Queen Emma, a royal member of the Hawaiian Kingdom whose favorite flower was the lily (“līlia”). Her passion for wellness, nature and traditional Hawaiian crafts was an inspiration to design a place that provides connection to the neighborhood and culture of Waikīkī and is a sanctuary for residents to proudly call home.

Early in the design and preconstruction phases, Rider Levett Bucknall guided the client through contractor negotiations that resulted in significant cost savings. With construction underway, the Rider Levett Bucknall team maintained stewardship of the budget by meticulously reviewing change proposals and preparing independent estimates to equip the client with cost certainty. Ultimately, Rider Levett Bucknall’s out-of-the-box thinking and flexibility to dynamic project conditions enabled successful delivery of the stunning building that expands the availability of quality housing options on O‘ahu.

NORTH AMERICA AT A GLANCE

Amid recessionary fears, continued inflation and higher staffing costs, overall commercial construction activity has remained strong. With this demand for construction services, there are some significant challenges impacting construction schedules and the ability to reach profitability goals that are resulting from supply-side issues including worker shortages, equipment delivery delays and elevated materials prices.

While it is good news that there is this strong demand for construction services, it has been impacted by supply chain issues, limiting companies' ability to fully benefit from this current demand. That demand will likely continue to grow as Infrastructure Investment & Jobs Act (IIJA) projects come to fruition. For example the U.S. Department of Transportation recently announced the recipients of $1.5 billion in grants from the Infrastructure for Rebuilding America (INFRA) program which includes major infrastructure projects around New York City area to improve bridges, tunnels and airports.

Inflation is also having an impact on these supply chain challenges, with material prices rising sharply in the commercial construction sectors. Although the annual inflation rate in the US eased for a second straight month to 8.3 percent in August, it is still at a 40-year high and above market forecasts of 8.1 percent. When combined with the related, rising interest rates, inflation is impacting the cost of everything from materials to wages, and with volatile pricing predicted to continue, certain existing construction supplies, like glass, concrete and lumber, will remain at risk.

Overall material costs rose 10 percent nationally in the first half of the year, with specific shortages in glass and concrete. From July to August, the price of materials and services used in nonresidential construction finally dropped by just over one percent, but it was the dramatic drop in fuel prices that masked the actual cost of construction supplies.

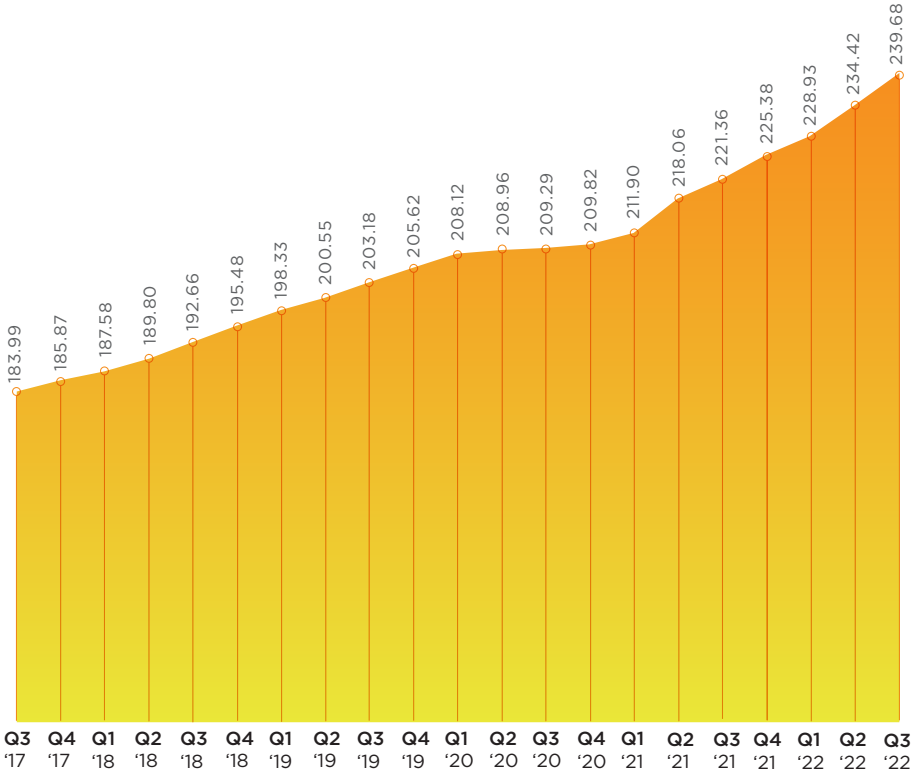
The labor shortages continue to be a challenge and compounds the supply chain issues. The workforce shortages are so severe, they are having a significant impact on construction firms of all types and all sizes. A recent survey of firms found that 91 percent of construction firms are having a hard time hiring workers, which is contributing to increased costs of projects too. These staffing shortages are compounding the challenges of supply chain disruptions, inflating the cost of construction materials and creating uncertainty around delivery schedules and product availability.

While the future of supply chain disruptions cannot be accurately predicted we know it's important for commercial construction companies to become more actively involved in developing a more resilient supply chain, using upgraded technology and employing more proactive forecasting. At Rider Levett Bucknall, we are committed to helping our customers be more proactive with the availability of industry data and our decades of advisory experience.

Julian Anderson FRICS
President,
North America

UNITED STATES

NATIONAL CONSTRUCTION COST INDEX



Welcome to the third quarter 2022 issue of the Rider Levett Bucknall Quarterly Cost Report! This issue contains data current to mid-Q3 2022.

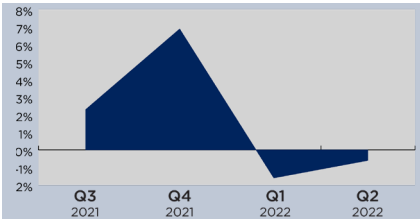
$1,777.3 Billion According to the U.S. Department of Commerce, construction-put-in-place during July 2022 was estimated at a seasonally adjusted annual rate of $1,777.3 billion, which is

0.4% below the revised June estimate of $1,784.3 billion, and

8.5% above the July 2021 estimate of $1,637.3 billion.

The National Construction Cost Index shows the changing cost of construction between July 2017 and July 2022, relative to a base of 100 in April 2001. Index recalibrated as of April 2011.

KEY UNITED STATES STATISTICS

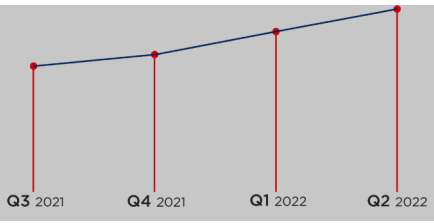


Gross Domestic Product* (GDP)

GDP decreases less in the second quarter than in the first quarter, decreasing 0.6% after decreasing 1.6%.

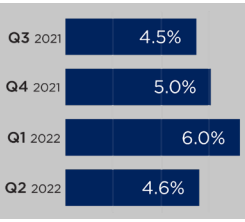
Consumer Price Index (CPI)

CPI sees an increase at 296.3 during Q2 (up from 287.5 in the previous quarter).



Architectural Billings Index (ABI)

After growth in the spring, ABI returns to a modest pace, scoring 53.2 in Q2.

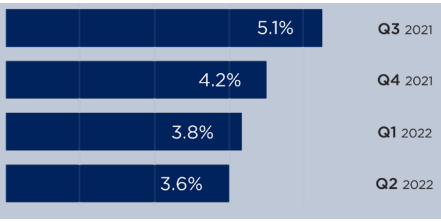


Construction Unemployment

Construction unemployment returns to pre-pandemic numbers, down from 7.5% in Q2 this time last year.

National Unemployment

National unemployment continues a downward trend finally returning to a pre-pandemic rate of 3.6%.



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. 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

	OFFICES				RETAIL SHOPPING				HOTELS				HOSPITAL	
	PRIME		SECONDARY		CENTER		STRIP		5 STAR		3 STAR		GENERAL	
LOCATION	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	300	500	180	300	185	400	150	250	450	700	320	450	380	800
Denver	315	445	180	245	145	235	135	230	365	575	285	415	430	685
Honolulu	335	570	210	330	260	550	240	410	645	785	370	590	500	840
Las Vegas	200	350	135	190	120	480	105	190	310	580	185	315	400	475
Los Angeles	245	370	185	275	165	360	140	200	390	575	295	375	630	950
New York	365	845	215	530	315	630	335	660	455	680	335	455	570	855
Phoenix	220	375	140	200	175	295	100	170	350	550	185	275	425	600
Portland	230	315	210	310	210	315	185	260	360	460	280	385	550	710
San Francisco	420	720	325	525	310	510	235	400	525	775	380	600	570	890
Seattle	315	585	215	290	235	375	175	290	410	640	290	400	510	710
Washington	335	550	230	360	180	325	145	240	425	650	280	435	510	885
CANADA														
Calgary	260	400	220	265	215	295	140	185	285	450	210	240	650	895
Toronto	270	440	220	310	200	425	160	210	390	715	230	280	570	895

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).

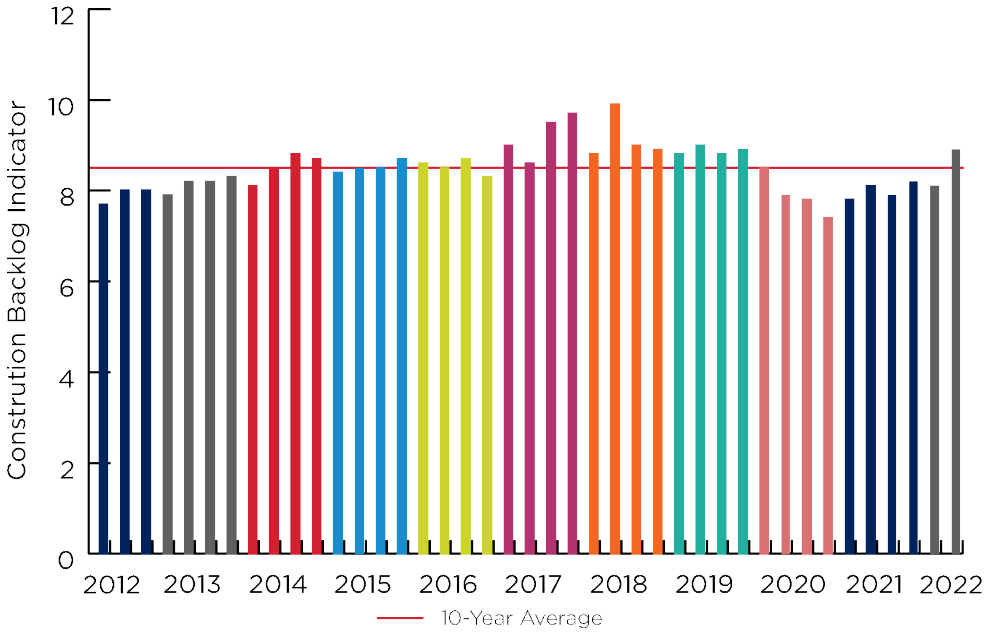
The CBI is a national economic indicator that reflects the amount of work that will be performed by commercial and industrial contractors in the months ahead. This national economic data set offers a level of specificity focused on the U.S. commercial and institutional, industrial and infrastructure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

The CBI returns to pre-pandemic levels for the first time in Q2 2022 (8.9), exceeding the ten-year average of 8.5. This indicates a busy industry with plenty of projects on the books and is possibly exacerbated by labor shortages and supply chain issues which are making projects take longer.

Source: Associated Builders and Contractors, Construction Backlog Indicator

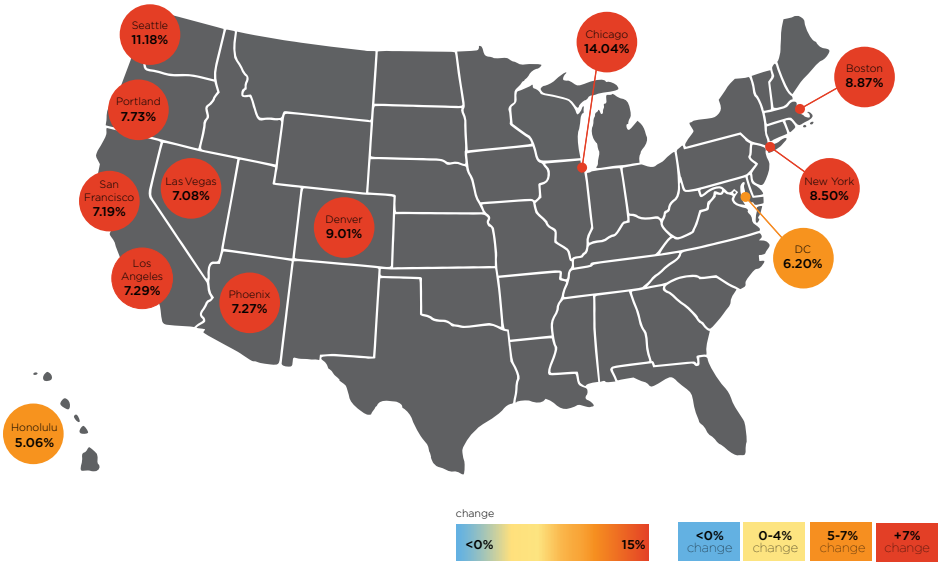
The data in the chart below represents estimates of current building costs in each respective market. Costs may vary as a consequence of factors such as site conditions, climatic conditions, standards of specification, market conditions, etc. Values of U.S. locations represent hard construction costs 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
120	200	80	130	140	250	180	420	250	500	280	420	320	450	400	800
105	195	145	200	200	250	185	325	210	465	290	430	325	490	410	600
120	250	150	200	165	270	265	445	290	550	500	825	510	700	640	940
70	100	50	85	70	145	150	355	175	350	225	350	270	455	350	575
130	195	110	130	140	200	240	380	210	375	375	490	320	565	470	640
120	215	100	185	140	225	225	425	315	630	485	610	530	670	520	740
75	125	50	90	80	135	155	245	165	450	250	350	270	425	375	575
160	240	140	180	160	245	210	315	185	340	360	450	400	500	435	585
150	255	130	195	240	345	385	600	300	490	385	560	425	740	560	990
145	210	105	140	170	240	245	415	220	335	365	575	290	580	515	690
130	210	70	95	90	155	205	355	265	390	320	435	340	460	420	700
110	165	85	120	95	150	185	255	275	410	235	330	240	340	315	490
120	165	110	140	135	200	220	290	285	560	245	300	245	320	285	500



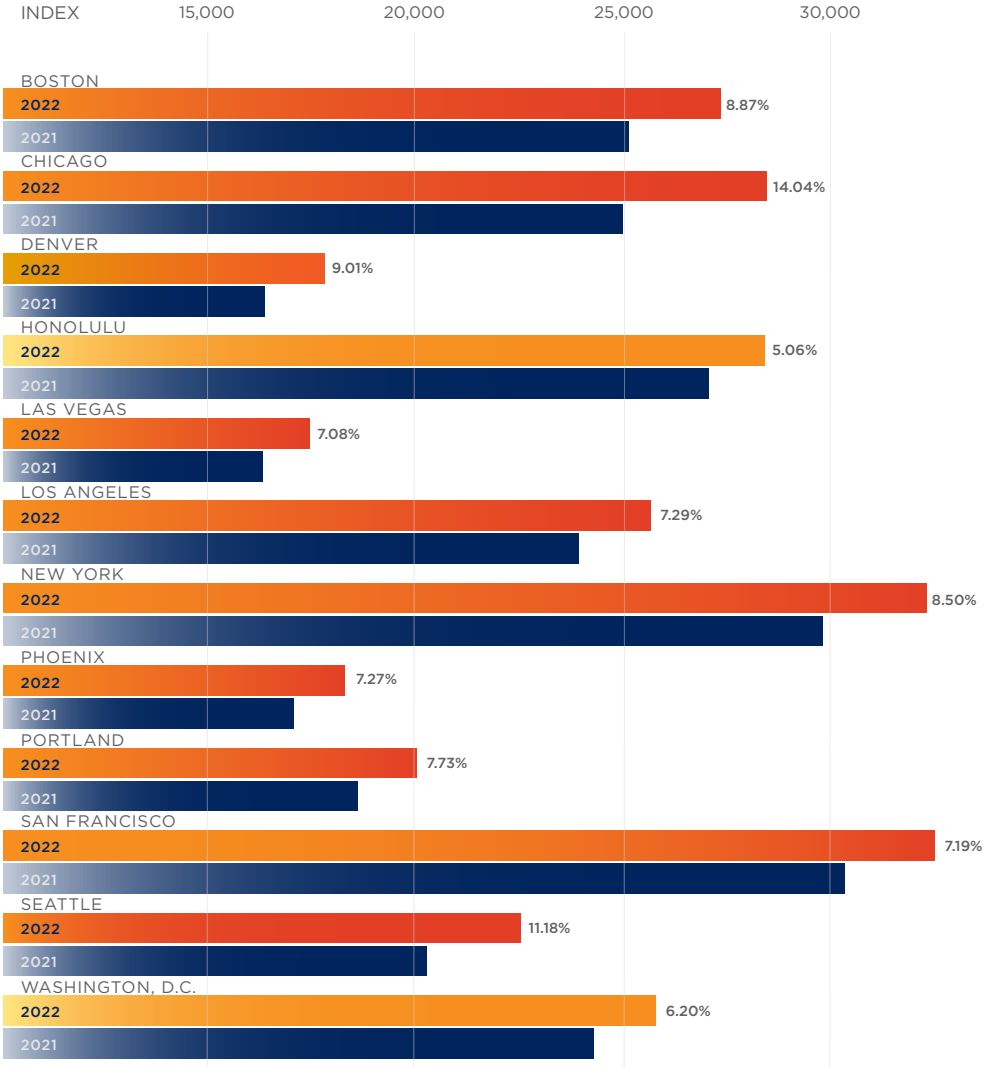
UNITED STATES

COMPARATIVE COST INDEX



City	July 2021	October 2021	January 2022	April 2022	July 2022	Annual % Change
Boston	25,207	25,877	26,350	26,876	27,443	8.87%
Chicago	25,064	25,636	26,026	27,093	28,583	14.04%
Denver	16,349	16,567	16,805	17,468	17,821	9.01%
Honolulu	27,158	27,413	27,705	28,125	28,533	5.06%
Las Vegas	16,302	16,522	16,762	17,102	17,456	7.08%
Los Angeles	24,006	24,341	24,760	25,291	25,756	7.29%
New York	29,930	30,504	31,087	31,918	32,476	8.50%
Phoenix	17,068	17,276	17,516	17,897	18,309	7.27%
Portland	18,616	18,864	19,141	19,578	20,055	7.73%
San Francisco	30,467	31,073	31,748	32,246	32,656	7.19%
Seattle	20,305	21,320	21,551	22,038	22,575	11.18%
Washington, DC	24,369	24,460	24,918	25,444	25,880	6.20%

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



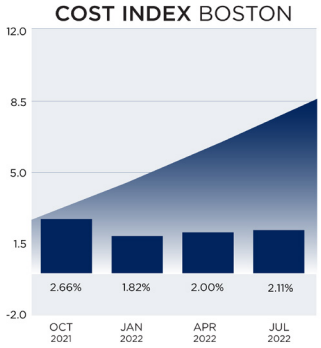
Each quarter we look at the comparative cost of construction in 12 US cities, indexing them to show how costs are changing in each city in particular, and against the costs in the other 11 locations. You will be able to find this information in the graph titled Comparative Cost Index (above) and in the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

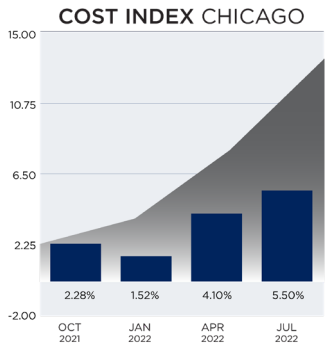
Our Comparative Cost Index tracks the 'true' bid cost of construction, which includes, in addition to costs of labor and materials, general contractor and sub-contractor overhead costs and fees (profit). The index also includes applicable sales/use taxes that 'standard' construction contracts attract.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

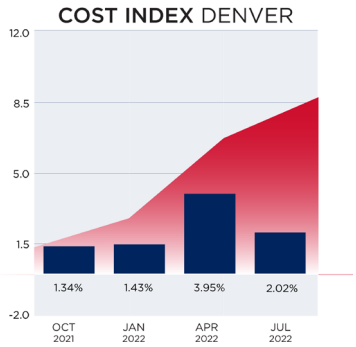
UNITED STATES

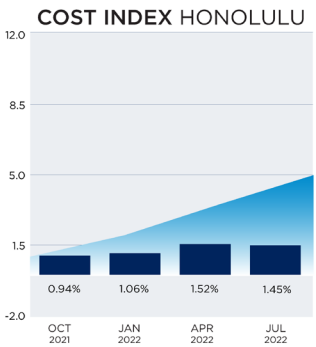
The following escalation charts track changes in the cost of construction each quarter in many of the cities where RLB offices are located. Each chart illustrates the percentage change per period and the cumulative percentage change throughout the charted timeline.

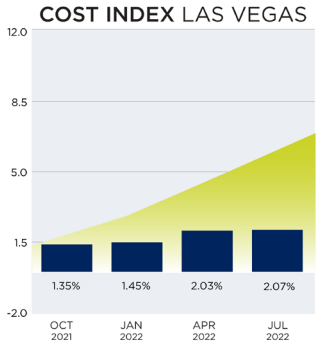
Percentage change per quarter Cumulative percentage change for the period shown

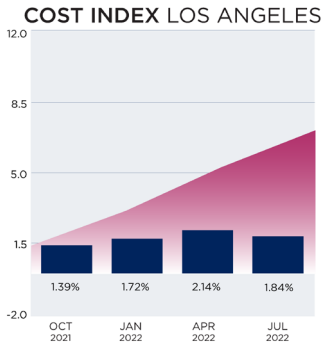






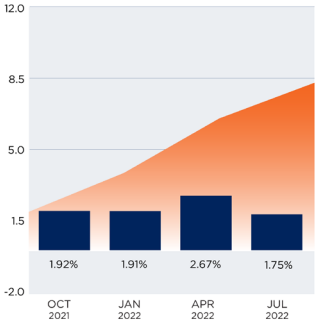




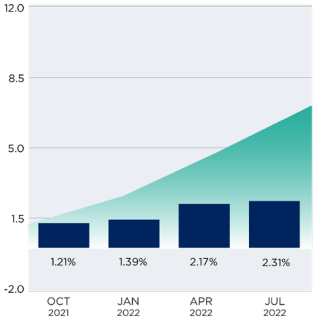


Our research suggests that between April 1, 2022 and July 1, 2022 the national average increase in construction cost was approximately 2.24% (compared to 1.51%, this time last year). Chicago, Phoenix, Portland, and Seattle all experienced increases over the national average this quarter. Boston, Denver, Honolulu, Las Vegas, Los Angeles, New York, San Francisco, and Washington, DC experienced gains less than the national average.

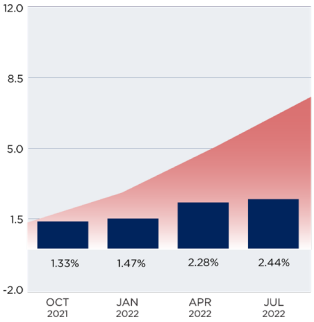
COST INDEX NEW YORK



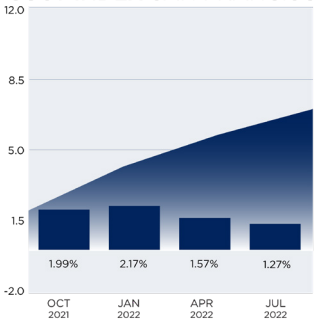
COST INDEX PHOENIX



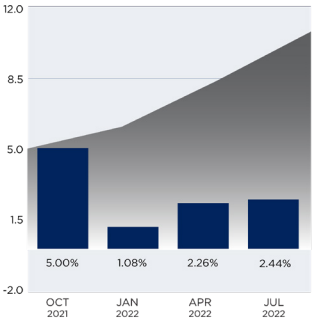
COST INDEX PORTLAND



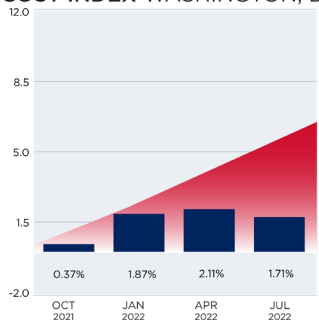
COST INDEX SAN FRANCISCO



COST INDEX SEATTLE

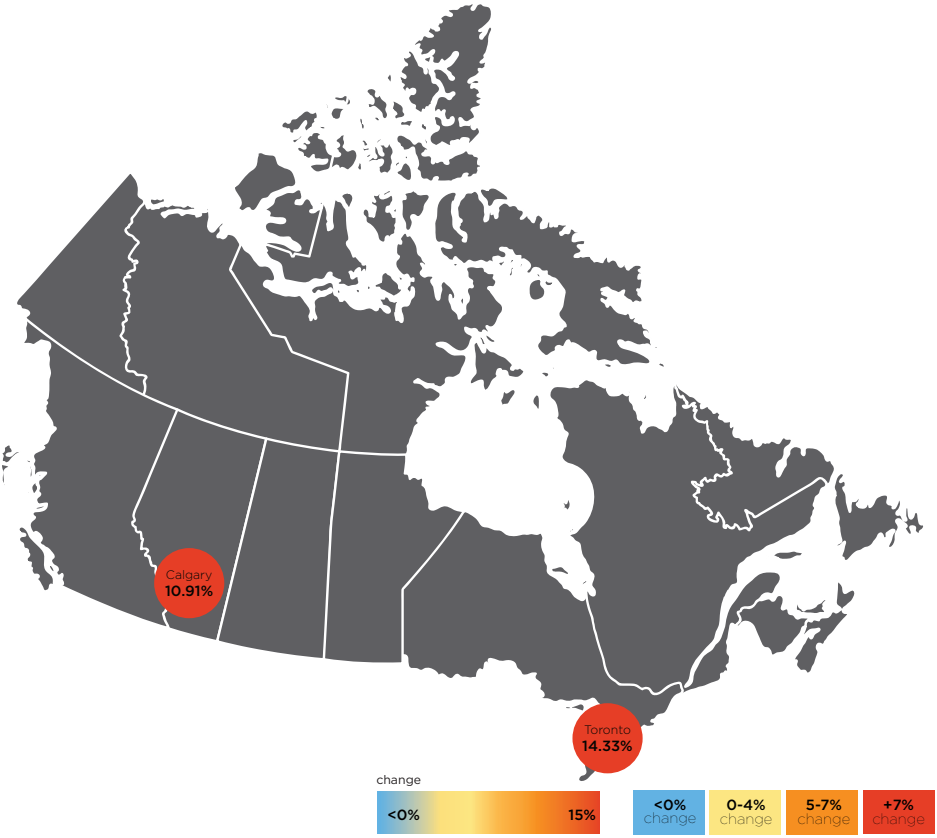


COST INDEX WASHINGTON, D.C.



CANADA

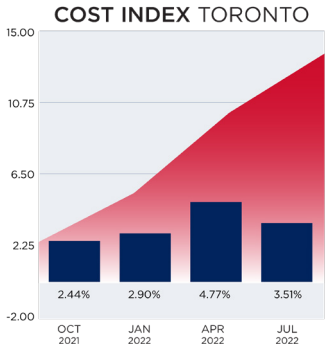
COMPARATIVE COST INDEX



City	July 2021	October 2021	January 2022	April 2022	July 2022	Annual % Change
• Calgary	21,617	22,039	22,494	23,326	23,976	10.91%
• Toronto	26,983	27,642	28,445	29,801	30,849	14.33%

Building permits in Calgary exceeded $3B in the first half of 2022 as demand for construction in the city continues at a record-breaking pace. Applications for commercial building permits totaled $81.8M, up from $22.6M in the first half of 2021, with projects in the food, entertainment, and hospitality sectors leading the way. Capital expenditures in the largest sector, oil and gas, are expected to rise by 56% in 2022.

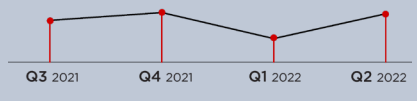
The first six months of 2022 saw the highest-ever investment totals recorded in the Greater Toronto Area commercial real estate investment market. The first half of the year registered record-breaking investment in residential land, followed by industrial assets, both of which are still in high demand heading into the second half of the year. The investment surpassed $19.2B in the first two quarters of 2022, a 41% increase over the same period in 2021.



KEY CANADIAN STATISTICS

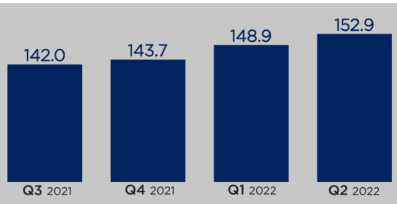
Gross Domestic Product (GDP)

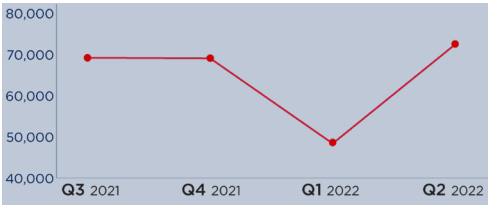
GDP in Canada remains relatively consistent, with nominal changes in the last year.



Consumer Price Index (CPI)

Canada's CPI grows at a steady pace, indicating a variance of 8.13% from this time last year.



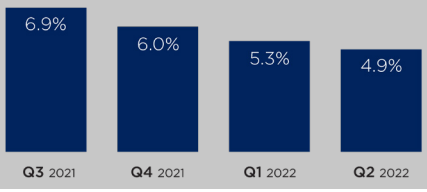


Housing Starts

Housing starts are up 49.54% from the previous quarter. This is typical for a cyclical trend between the first and second quarter of each year.

Unemployment

Canada's unemployment continues a downward trend well into 2022, down 2.7% 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.

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

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