

SECOND QUARTER 2023

NORTH AMERICA

QUARTERLY CONSTRUCTION COST REPORT





HYATT HOUSE SACRAMENTO ▲

SACRAMENTO, CALIFORNIA

The Hyatt House Hotel is an adaptive re-use project situated in Sacramento's Sutter District. This unique project combined a three story 1925 Romanesque Revival style Eastern Star Hall building with a brand new, steel-framed eight-story structure. Listed on the historical register with the City of Sacramento, it was imperative to both the Owner/Developer team as well as the City to keep the historic integrity of the building intact. The Moorish and Byzantine elements of the building façade beautifully complement the contemporary look of the building addition. The hotel opened in January 2023.

RLB provided owner's representative services for this historic preservation project located at 2719 K Street, in Sacramento, California.

NORTH AMERICA

AT A GLANCE

Q2 2023

As we approach the halfway point of 2023, economic uncertainty looms large as both inflationary and workforce concerns continue to be addressed. While we wait out the current economic situation, the nonresidential construction sector is still having a solid year of growth, even in the face of possible inflation, bank failures, and overall recession fears.

Nationally, construction cost escalation remains problematic, and in the most recent quarter, rose from 1.35% in the January quarter to 1.55% in the April quarter. However, the year-over-year rate fell from 8.11% to 7.22%, a sign of an overall downward trend.

While there has been some softening of material prices, demand for construction has remained remarkably strong overall. Interestingly, the Federal Reserve Bank of New York's Global Supply Chain Index shows a sharp drop in supply chain pressure, which is good for the construction industry.

There are a few sectors where we are seeing significant shifts and some challenging activity, including office buildings with the continued struggle to get workers back into the office and the resulting falling occupancy for one. The hospitality sector has been challenged even though demand is booming in this post-COVID world, and the sector's dependence on small and medium-sized banks is pulling back lending impacting new construction in the sector. The industry also depends on consumer spending, so its fortunes might change towards the end of the year.

Conversely, there is growth in mega-projects and infrastructure, with multi-family projects remaining strong, which may be driven by the high-interest rates that are a barrier to home ownership. Those high-interest rates and construction costs are holding back residential construction, and compared to the multi-family sector, the number of new single-family homes being built remains somewhat low. This dynamic will change at some point, but it is unclear what the catalyst will be.

As we look ahead and find some clarity on the economy, it's interesting to see that even with the Federal Reserve intent on crushing inflation, the economy — and construction industry — is only just starting to react to the Federal Reserve's interest rate increases and quantitative tightening. Right now, I flashback to my Looney Tunes watching days and can't help but think that the economy and the construction industry are in a 'Wile E. Coyote' phase. At some point, as we continue to race forward, we will run off a cliff only to realize that there's nothing beneath us but a canyon floor far below.

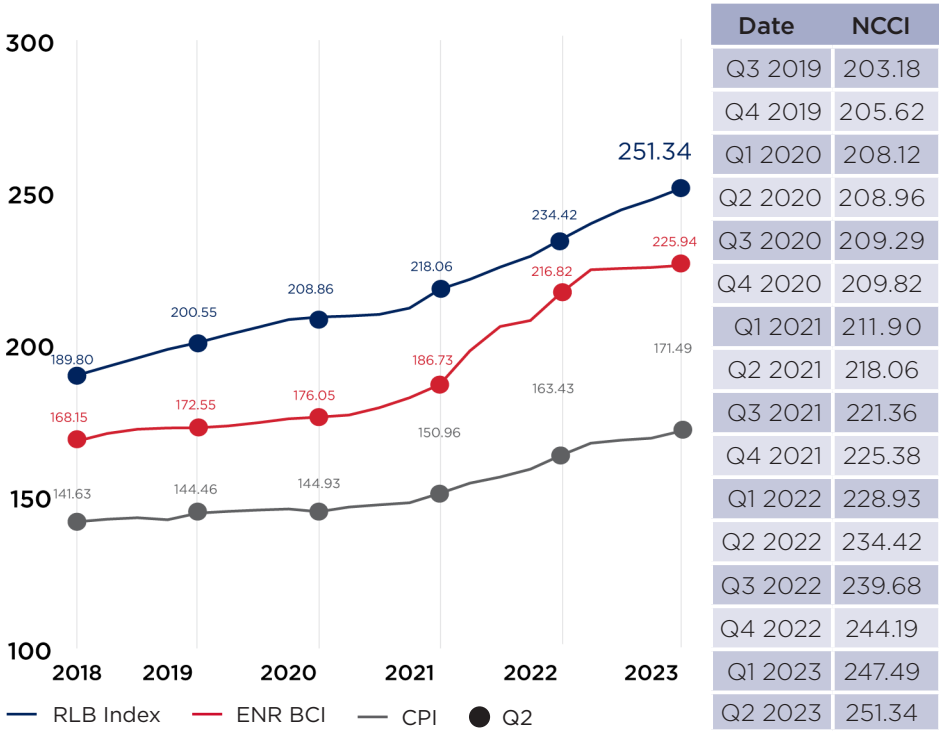
Managing costs in the face of this current economic state is important across the construction industry. Here at RLB, we are committed to creating value for our clients and achieving more certainty and, ultimately, more project success.

Julian Anderson FRICS
President,
North America



UNITED STATES

NATIONAL CONSTRUCTION COST INDEX



Welcome to the second quarter 2023 issue of the RLB Quarterly Cost Report! This issue contains data current to mid-Q2 2023.

\$1,908.4
billion

According to the U.S. Department of Commerce, construction-put-in-place during April 2023 was estimated at a seasonally adjusted annual rate of \$1,908.4 billion, which is

1.2%
above

the revised March 2023 estimate of \$1,885.60 billion, and

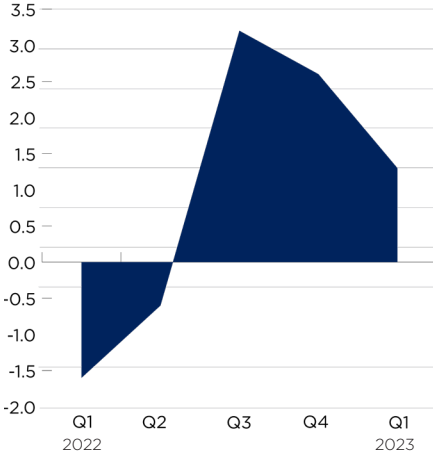
7.2%
above

the April 2022 estimate of \$1,780.9 billion.

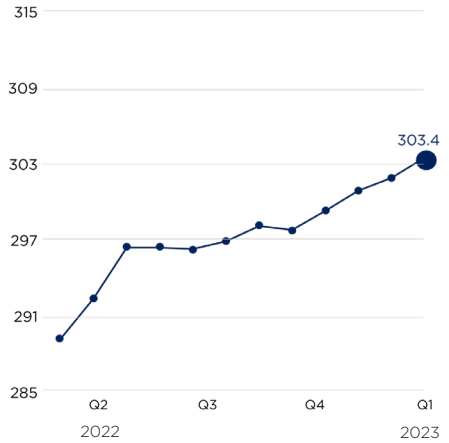
The National Construction Cost Index shows the changing cost of construction between April 2018 and April 2023, relative to a base of 100 in April 2001. Index recalibrated as of April 2011.

KEY UNITED STATES STATISTICS

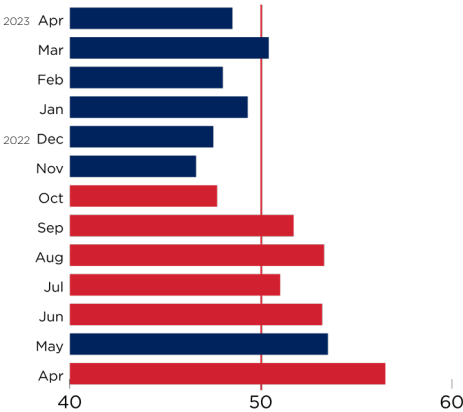
Gross Domestic Product* (GDP)



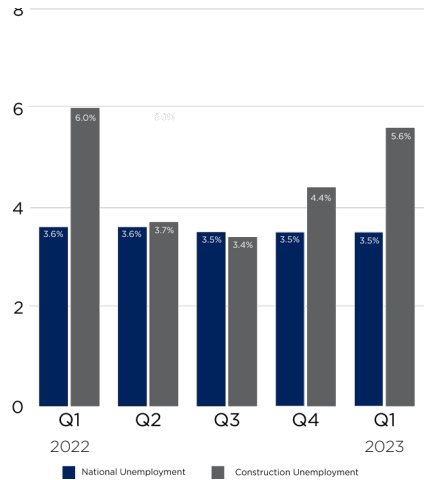
Consumer Price Index (CPI)



Architectural Billings



Unemployment Comparison



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	380	600	245	355	220	325	165	260	435	635	300	425	465	735
Chicago	305	505	185	305	185	405	150	250	455	710	330	455	385	810
Denver	350	445	200	300	160	300	145	230	425	625	285	415	600	800
Honolulu	345	580	215	335	265	560	245	420	660	800	380	600	505	855
Las Vegas	250	435	175	235	150	595	135	325	385	720	230	390	495	590
Los Angeles	250	375	190	280	170	365	145	205	395	585	300	380	640	970
New York	370	855	215	535	320	640	340	670	460	690	340	460	580	870
Phoenix	240	405	150	215	190	320	110	185	380	595	200	300	460	650
Portland	250	335	230	320	230	325	205	280	425	550	300	405	600	800
San Francisco	430	740	330	530	315	520	240	410	550	820	390	650	580	925
Seattle	330	595	225	305	245	395	180	300	430	670	300	415	530	745
Washington	335	550	230	360	180	325	145	240	425	650	280	435	510	885
CANADA														
Calgary	265	405	225	270	220	300	140	190	290	455	215	245	665	905
Toronto	280	455	230	325	210	440	170	220	405	745	240	290	590	925

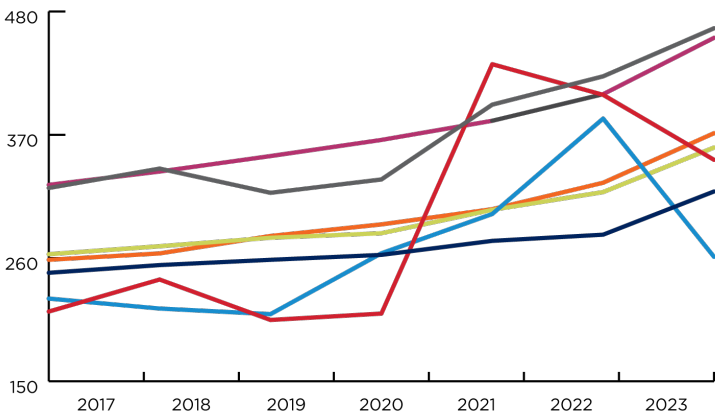
MATERIALS PRICE INDEX

Cement, concrete products, structural block, and gypsum building materials all saw double-digit year-over-year price increases in the month of April 2023. Cement increased 13.7%, concrete products 12.5 %, structural block 13.5%, and gypsum building materials 12.1%. On the other hand, prices for lumber, and steel products have decreased by 32.1% and 14.3% respectively since last year.

An analysis by Associated Builder and Contractors (ABC) indicates that in April 2023, construction input prices were typically reasonable and decreased year over year for the second consecutive month. ABC said that this Price Producer Index data brings some welcome news for an industry that has seen construction costs rise by almost 40% since the COVID-19 outbreak began. However, for the construction and the larger economy, inflation is still a major concern.

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.

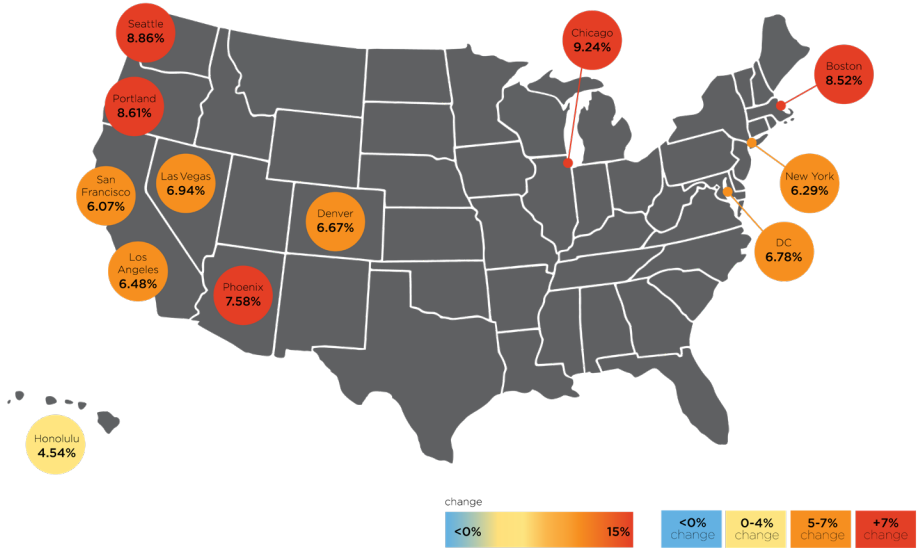
INDUSTRIAL		PARKING				RESIDENTIAL				EDUCATION					
WAREHOUSE		GROUND		BASEMENT		MULTI-FAMILY		SINGLE-FAMILY		ELEMENTARY		HIGH SCHOOL		UNIVERSITY	
LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
120	205	95	155	110	175	200	345	285	395	380	520	410	545	410	655
125	205	85	130	140	250	185	425	255	505	285	425	325	455	400	810
125	195	145	200	200	250	185	325	210	465	310	450	350	500	500	700
120	255	150	200	170	275	270	455	295	560	510	840	520	715	655	960
75	145	75	100	95	175	185	440	215	435	400	500	480	650	620	820
130	200	110	130	145	205	245	385	215	380	380	500	325	575	480	650
125	215	105	185	145	225	225	435	320	640	490	620	535	680	525	750
80	135	55	100	85	145	170	265	180	490	270	380	295	460	405	625
180	265	180	220	190	265	250	340	215	360	400	500	425	525	475	620
150	255	130	205	250	350	400	625	310	520	390	570	440	750	570	1000
155	220	110	150	175	250	255	435	230	355	385	605	305	610	540	725
130	210	70	95	90	155	205	355	265	390	320	440	340	465	420	715
110	165	90	125	95	150	190	260	285	415	240	335	245	345	320	495
130	175	120	150	145	210	235	305	300	590	255	315	255	335	295	520



- Cement
- Iron & Steel
- Ready-Mix Concrete
- Gypsum Wall*Board
- Lumber
- Sand, Gravel, and Crushed Stone
- Structural Block

UNITED STATES

COMPARATIVE COST INDEX



City	April 2022	July 2022	October 2022	January 2023	April 2023	Annual % Change
• Boston	26,876	27,443	28,192	28,741	29,165	8.52%
• Chicago	27,093	28,583	28,718	28,947	29,595	9.24%
• Denver	17,468	17,821	18,004	18,236	18,632	6.67%
• Honolulu	28,125	28,533	28,802	29,106	29,402	4.54%
• Las Vegas	17,102	17,456	17,777	17,932	18,289	6.94%
• Los Angeles	25,291	25,756	26,238	26,585	26,929	6.48%
• New York	31,918	32,476	32,986	33,456	33,624	6.29%
• Phoenix	17,897	18,309	18,693	18,993	19,253	7.58%
• Portland	19,578	20,055	20,631	20,949	21,263	8.61%
• San Francisco	32,246	32,656	33,115	33,679	34,202	6.07%
• Seattle	22,038	22,575	23,239	23,641	23,991	8.86%
• Washington, DC	25,444	25,880	26,615	26,857	27,169	6.78%

Comparative Cost Map Indicates percentage change between April 2022 to April 2023.

INTRODUCING

SECTOR MARKET INSIGHTS

*A Companion to the QCR
Providing a Expert Insights and
Construction Cost Drivers
Impacting the Future of the Sector.*

COLLEGIATE SPORT OUTLOOK 2022

- 350 million in revenue
- +6.5% increase in revenue
- \$3.5B increase in revenue of Division I schools

NCAA GAME ATTENDANCE

ABOUT THE CHART: The chart represents the average from all schools of football game attendance of NCAA games since 2003.

WHAT THIS MEANS FOR COLLEGIATE SPORTS: NCAA game attendance continues to be on an upward trend. This, along with the fact that the average attendance per game is increasing, will lead to more revenue for the industry. This is a positive sign for the industry as it shows that fans are still interested in college sports. The revenue from ticket sales is a significant portion of the total revenue for the industry. This revenue is used to fund the operations of the schools and to provide scholarships for students. The revenue from ticket sales is also used to fund the operations of the schools and to provide scholarships for students. The revenue from ticket sales is also used to fund the operations of the schools and to provide scholarships for students.

SPORTS CONSTRUCTION COST DRIVERS

8.28% increase in construction cost

Material	Change
Steel	+1.2%
Concrete	+1.5%
Aluminum	+1.8%
Brick	+1.1%
Other	+1.0%

DON'T MISS OUT ON THESE BENEFITS

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WHAT IS A SECTOR MARKET INSIGHT?

A companion to the Quarterly Cost Report, our sector market insight offers clients the certainty they need to make critical, real-time decisions to ensure the commercial success of their aviation projects.

The sector market insight takes a deep dive into:

- state of the market,
- what cost drivers are likely to affect material prices,
- industry trends, and
- what information like this means for the future of the sector.

What sectors are included?

The Sector Market Insights will feature Aviation, Convention Centers, Data Centers, Healthcare, Hotels & Leisure, Infrastructure, Sports & Events, and Sustainability. Of these 10 sectors covered, we'll be highlighting two a quarter.

For Q2 2023, we'll be highlighting:



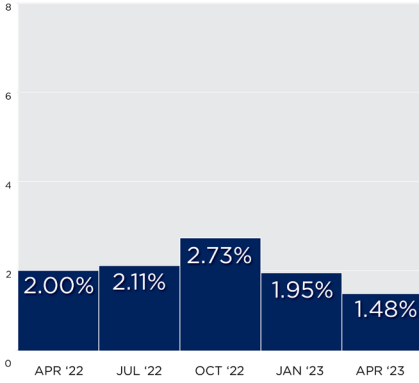
**DATA
CENTERS**



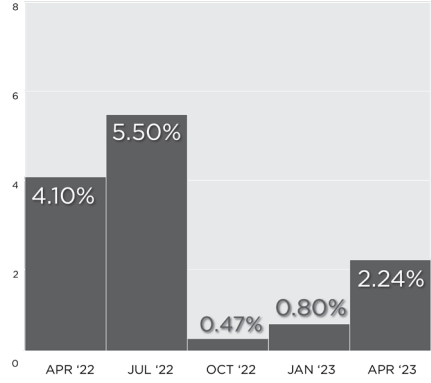
**CONVENTION
CENTER**

UNITED STATES

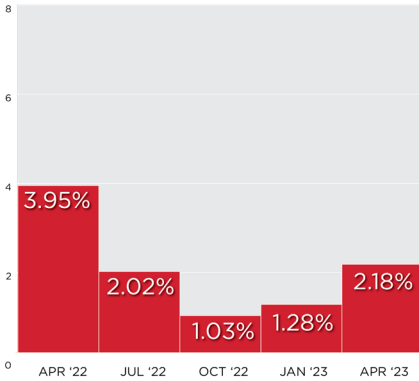
The following escalation charts track changes in the cost of construction each quarter in many of the cities where RLB offices are located. Each chart illustrates the percentage change per period.



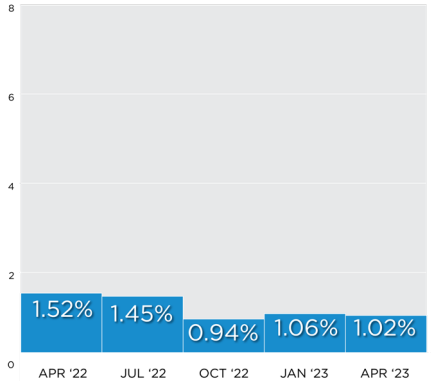
Boston Cost Index



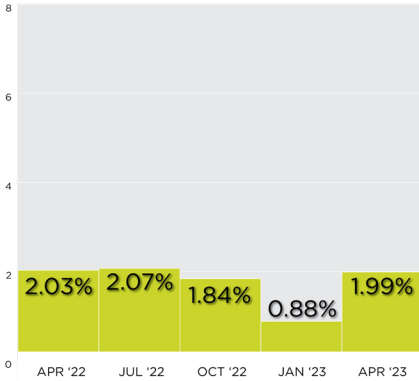
Chicago Cost Index



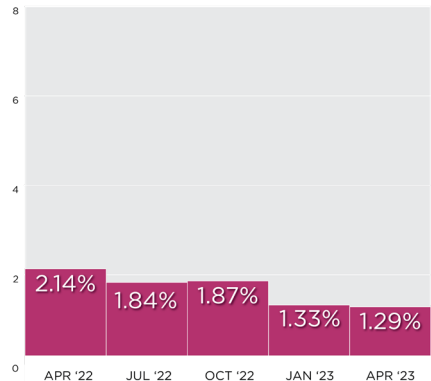
Denver Cost Index



Honolulu Cost Index

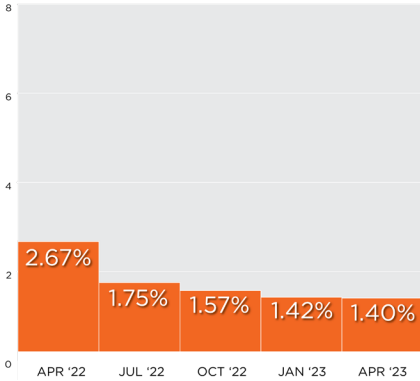


Las Vegas Cost Index

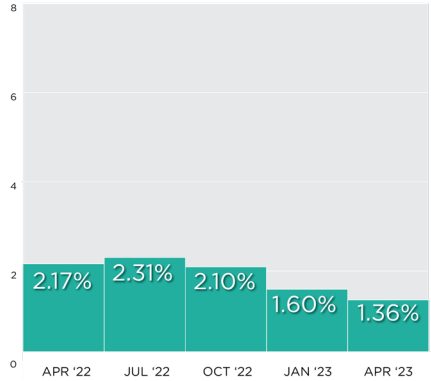


Los Angeles Cost Index

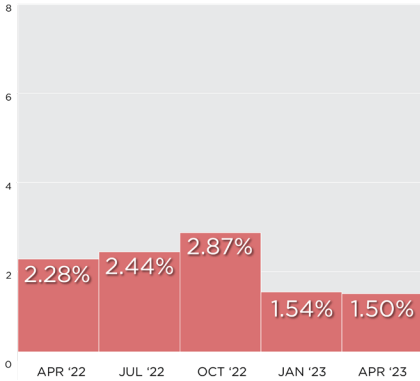
Our research suggests that between January 1, 2023 and April 1, 2023 the national average increase in construction cost was approximately 1.56% (7.22% annualized). Chicago, Denver, and Las Vegas all experienced increases above the quarterly national average during Q2 2023. Locations below the national average included Boston, Honolulu, Los Angeles, New York, Phoenix, Portland, San Francisco, Seattle, and Washington, D.C.



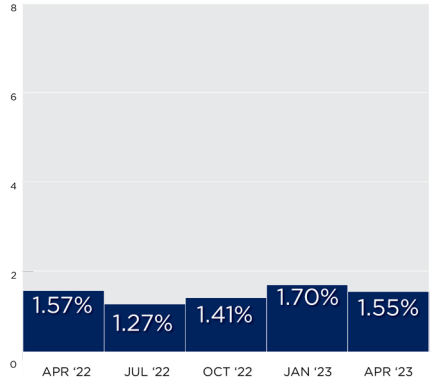
New York Cost Index



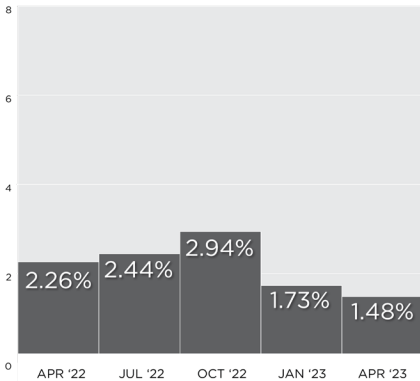
Phoenix Cost Index



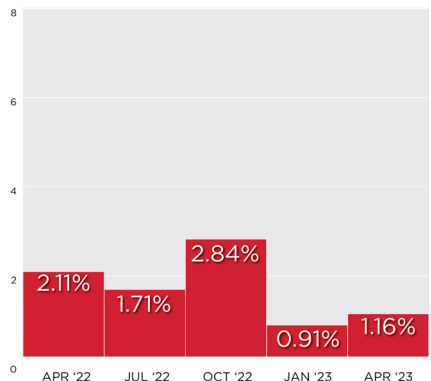
Portland Cost Index



San Francisco Cost Index



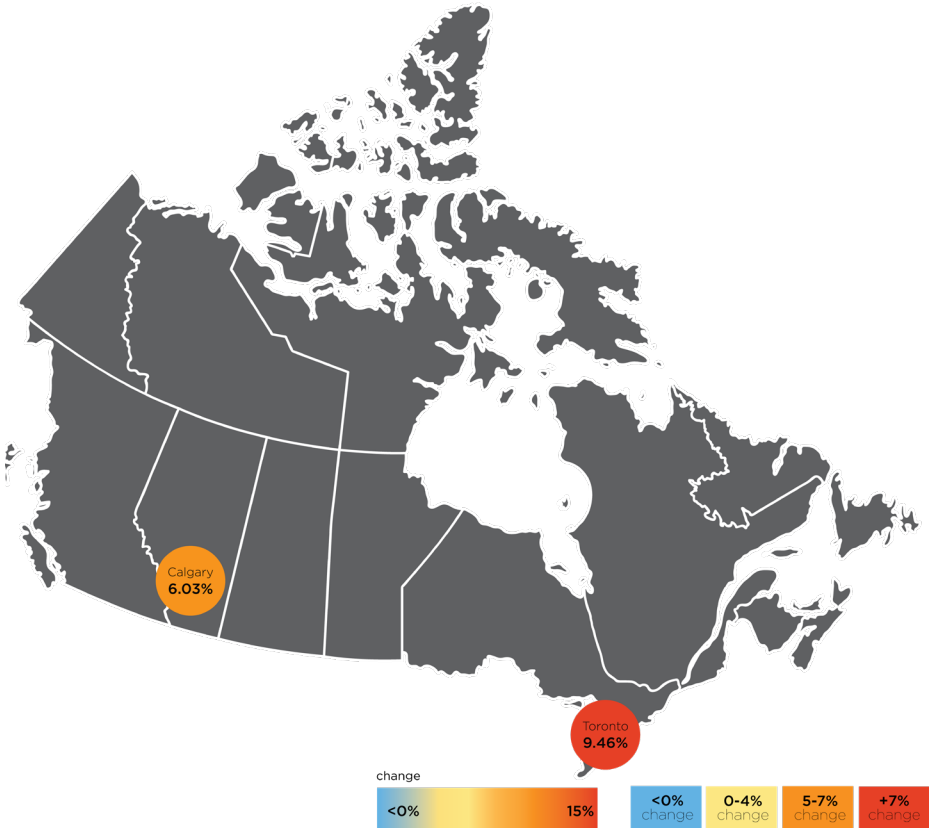
Seattle Cost Index



Washington DC Cost Index

CANADA

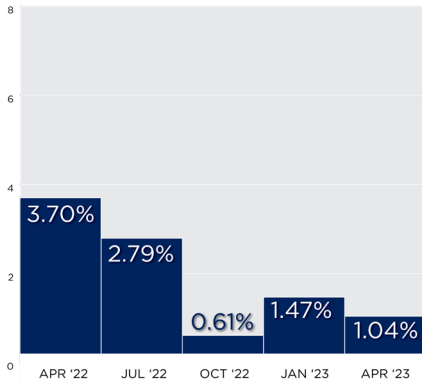
COMPARATIVE COST INDEX



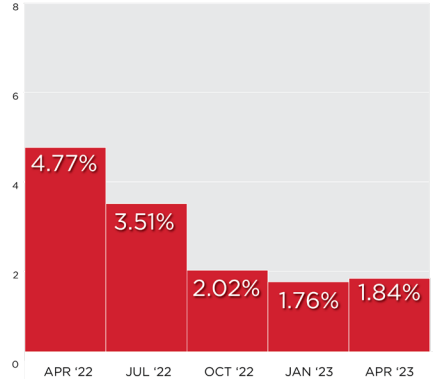
City	April 2022	July 2022	October 2022	January 2023	April 2023	Annual % Change
• Calgary	23,326	23,976	24,123	24,477	24,732	6.03%
• Toronto	29,801	30,849	31,473	32,028	32,619	9.46%

Q1 2023 got off to a strong start for Calgary's construction and development sector. The overall value of construction has increased by 6% year over year to \$1.17B so far in 2023. Calgary anticipates a decline in overall permit volume applications for residential home repair projects as its residents deal with rising mortgage rates and the cost of living. The city reported that the value of apartment building construction increased by 170%, from \$109M in Q1 2022 to \$293M in Q1 2023. Even with supply constraints and difficulties in the procurement process, Calgary stated that several projects were finished at the beginning of 2023.

As continuous activity in both residential and non-residential sectors boost employment to higher levels and adds pressure to already-tight recruiting conditions, labor market issues may persist across Ontario's construction industry. The provincial government added \$224M to the Skills Development Fund to build and upgrade training facilities. Toronto is investing \$426M from the 2023 Budget in transportation infrastructure rehabilitation and enhancements. In addition, \$713M will be invested in water infrastructure. In the Q1 of this year, condo sales in the Greater Toronto Area (GTA) reached a 14-year low. In the same period, unsold inventories reached a seven-year high, and prices increased at the slowest rate in 8 years. The GTA continues to attract a lot of immigrants, which should contribute to the recovery of the residential market.

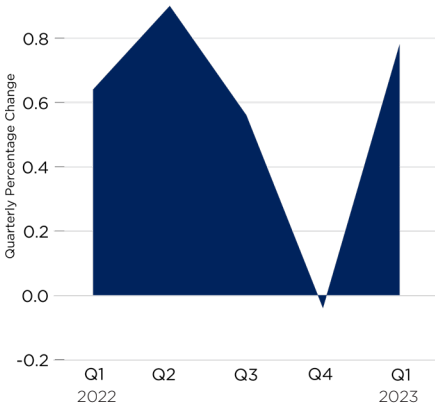


Calgary Cost Index

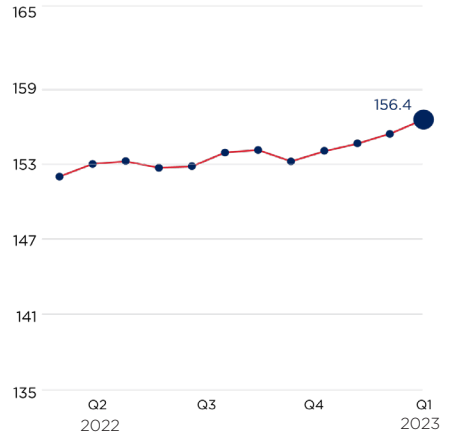


Toronto Cost Index

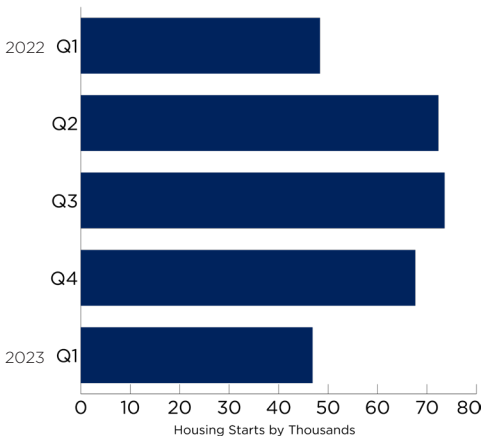
KEY CANADIAN STATISTICS



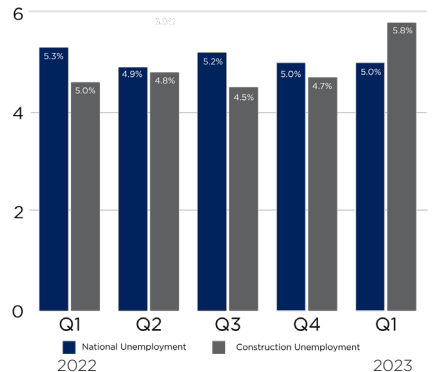
Gross Domestic Product* (GDP)



Consumer Price Index (CPI)



Housing Starts



Unemployment Comparison



ABOUT RIDER LEVETT BUCKNALL

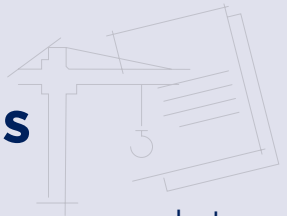
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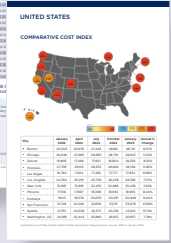


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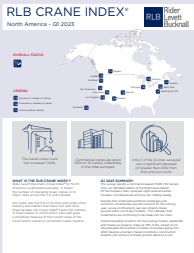
PERSPECTIVE



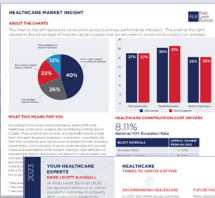
CONSTRUCTION COST REPORT



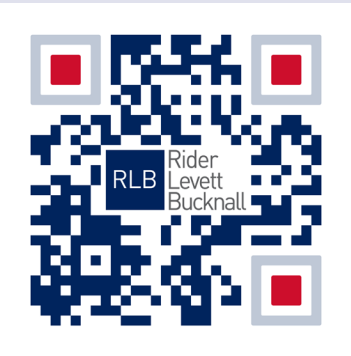
CRANE INDEX



SECTOR MARKET INSIGHTS



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