

SPRING 2024



Cost Trends

What's Changing in Construction Costs?

Current Trends

Welcome to Hixson's Spring 2024 issue of **Cost Trends!**

As described in this edition, the overall construction inflation picture has slowed, with material prices stabilized at significantly higher prices than pre-Covid. In most instances, the supply chain recovery is in full swing, with many lead times returning to near historical norms.

From an industry perspective, non-residential design and construction experienced strong demand and growth in 2023...growth which is expected to continue through 2024. Contractors' backlogs of work show they continue to be busy. Sectors such as manufacturing (particularly computer chips, electronic, high-tech, electrical manufacturing, data centers, logistical centers, and fulfillment type facilities) and infrastructure (roads and bridges) are seeing the most impactful exceptional growth, with many so-called mega-projects: those driven in large part by congressional funding acts.

Because of this, the supply chain has gotten much worse for large electrical equipment such as transformers, large switchgear, and generators. We are hearing of lead times on the order of magnitude of one to two years or

more for these items. There are other concerns as well. For example, keep an eye on the cost of labor, as labor availability coupled with high demand continues to drive up costs. Private sector project financing and contractor financing are additional issues to watch. These stem from the rapid rise in the federal funds rate, resulting in higher borrowing interest rates, bank failures, and associated potential issues with bank-restricted lending.

IN THIS ISSUE:

The following cost trends are included in this issue:

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5. Construction Employment/Unemployment Rates
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To mitigate such concerns, there are some strategies owners may choose to undertake. Options to improve electrical equipment lead times may include using multiples of smaller equipment to reach total capacity or temporary service until permanent equipment arrives, although such options may increase overall cost.

Additionally, getting ahead of the game may be required. This may mean engaging in more robust master planning and early design activities to arrive more quickly at working project budgets...allowing for early procurement of long-lead items and contractor engagement. Conducting these activities sooner than one might in a typical delivery model can lock in resources earlier and mitigate risks. Finally, we always recommend estimating project costs at every design phase, but especially if there may be major scope changes. This helps provide owners with the best available information for decision-making during rapidly changing construction marketplace conditions.

IN THE NEWS HIGHLIGHTS

FED Rate Pivot: The federal funds rate is at a 22-year high of 5.25% to 5.5%. According to ENR, economists predict a better construction outlook in the second half of 2024 compared to the first half, as interest rates are predicted to ease, leading to growth in construction activities.

Escalating Labor Costs and Labor Shortages: Addressing the current AEC industry labor shortages to meet demand may be the most pressing issue currently facing design and construction in the US today. While it's welcomed by many workers who see wages rising and abundant work opportunities, construction inflation has shifted away from material toward the labor component of costs. Due to increasing retirements of the aging construction workforce coupled with reduced interest from younger generations, and with continuing strong demand for design and construction services, this labor shortage issue is not expected to go away anytime soon. It will continue to be a limiting resource on the design and construction industry.

CHIPS Act, IRA (Inflation Reduction Act) and Infrastructure Investment & Jobs Act (IIJA): According to Deloitte, public investments in the non-residential sectors, facilitated by initiatives like the CHIPS Act, IRA, and IIJA, offer growth opportunities. However, the increased demand in related construction sectors is creating some challenges such as restricted labor resources to meet demand, along with persistent struggles in long lead times for major large electrical equipment like transformers and switchgear.

Generative AI: According to Deloitte, engineering and construction firms and construction technology companies are actively researching the capabilities of generative AI to improve efficiencies and are also exploring solutions to leverage this technology for their specific business requirements.

1. ***U.S. Construction Costs continue to hold steady at significantly higher costs than pre-Covid levels and rose at a much slower rate in 2023 as compared to the rapid rise seen in 2021 and 2022.***

For January 2024, the annual Construction Cost Index (CCI) as reported in Engineering News Record (ENR) is +2.6%, Building Cost Index (BCI) is +3.8% and Material Cost Index is +4.5%. In December 2023, the All-Items Consumer Price Index increased +3.4% over the last 12 months. The RLB Construction Cost Index 4Q 2023 annual increase was 6%. Out of the ENR 20 cities indexes, those cities with the highest annual construction cost increases for January 2024 were Chicago at +10.4%, Los Angeles at +9.4%, Cincinnati at +6.7%, Denver at +6.4%, and Pittsburgh at +4.2%. Turner's Building Cost Index of non-residential building construction market in U.S. represents an 6% yearly increase from 4Q 2022 to 2023.

2. Leading Indicators of Construction Industry show mixed signs of slowing, which may be offset by projects coming down the pike as a result of congressional funding acts.

At 45.4, the Architecture Billings Index (ABI) for December 2023 was five points below the average of 50, indicating a slowdown in billings. The ABI has stayed below 50 since July 2023, but has increased since hitting a low point of 44.8 in September 2023. ([Read more about the ABI here.](#)) The seasonally adjusted Dodge Momentum rose 2.8% per month in December 2023 to 186.6, but 11% below the November 2022 peak with an average reading of 184.3 in 2023. Dodge commercial building index increased by 1% and institutional building index increased by 6.1% from November to December 2023. For the full year, the Dodge Momentum Index is down by -2% in December 2023 from December 2022.

DODGE MOMENTUM INDEX

(2000=100, Seasonally Adjusted)

	Dec-23	Nov-23	% Change
Dodge Momentum Index	186.6	181.5	2.8%
Commercial Building	212.1	210.0	1.0%
Institutional Building	155.1	146.2	6.1%

Source: Dodge Construction Network

DODGE MOMENTUM INDEX

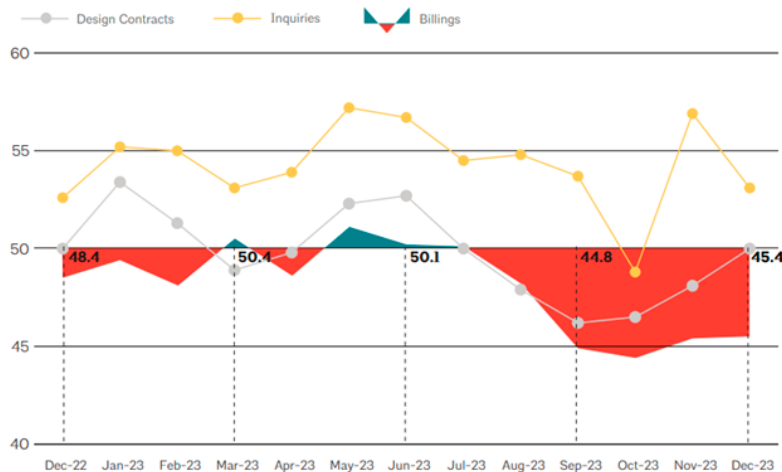
(2000=100, Seasonally Adjusted)



National

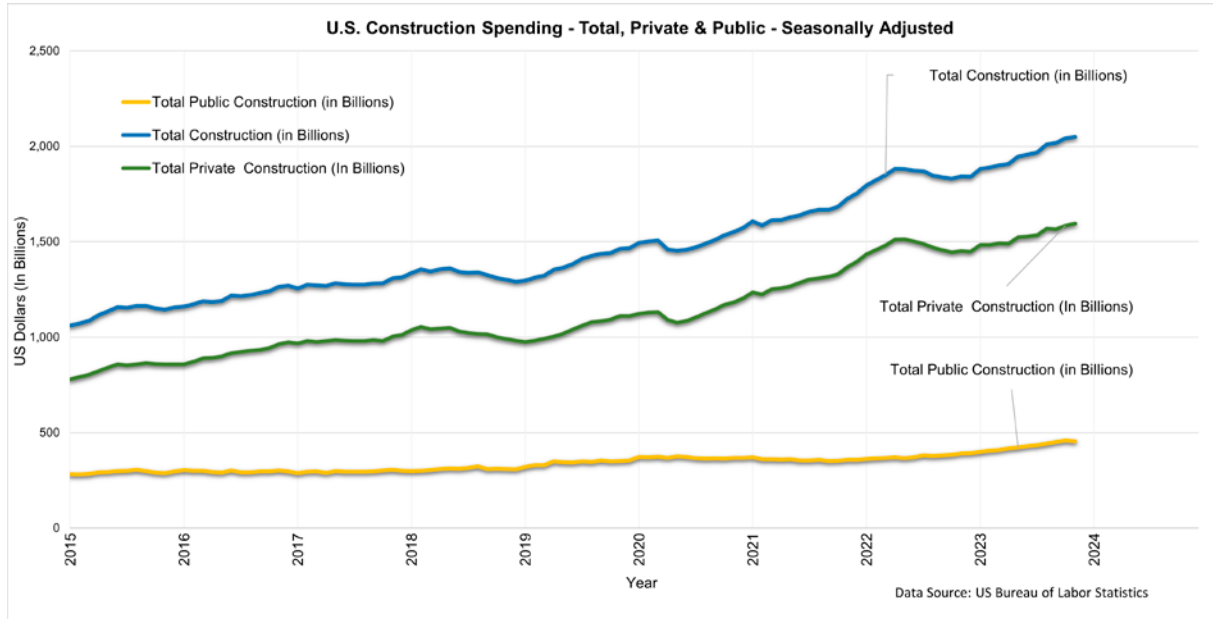
Architecture firm billings remain weak in December

Graphs represent data from December 2022-December 2023.



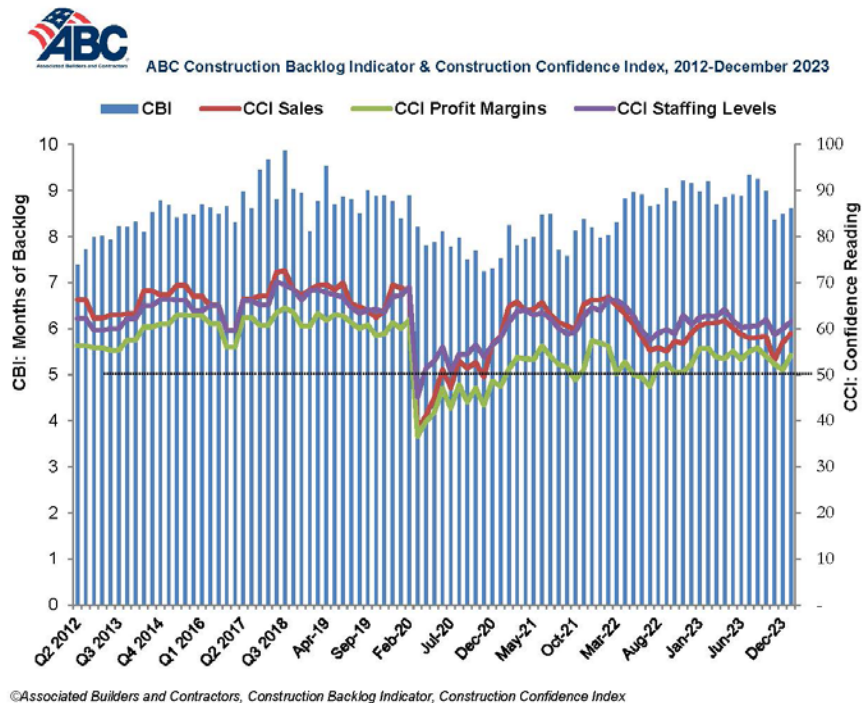
3. Total Construction Spending was 11% higher and private construction spending was 10% higher than a year ago.

According to the U.S. Census Bureau, total construction spending in November 2023 was \$2,050 billion, which is 11% higher than a year ago. Total private construction spending in November 2023 was \$1,595 billion, which is 10% higher than a year ago. Dodge Data & Analytics predicts that these elevated levels of construction spending will be supported by large projects that are sitting in queue going into 2025 with labor and construction costs persisting in 2024.



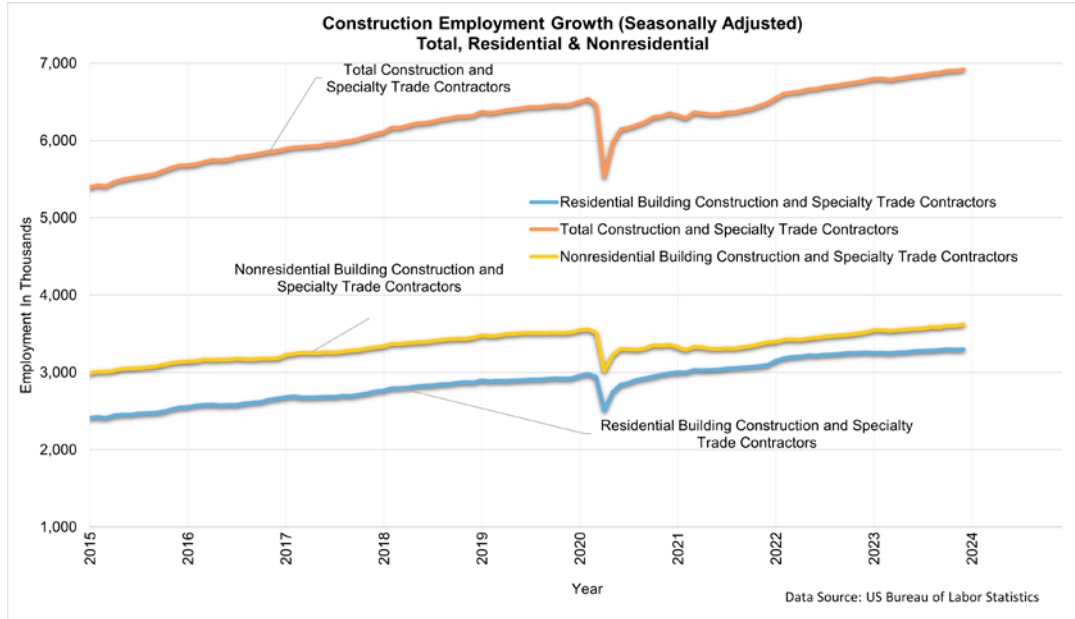
4. Construction Backlog Indicator (CBI) is up on a monthly basis, but down on a yearly basis.

Average CBI for December 2023 is 8.6 months, which is little higher than November 2023 of 8.5 but 0.6 months lower than December 2022 of 9.2.



5. Construction Employment continues to gain jobs, while Construction Unemployment is at 4.4%. A tight construction labor market continues to create issues finding enough construction workers.

Total Construction Employment gained 17,000 jobs between November and December 2023, according to data from the Bureau of Labor Statistics (BLS). Total building construction employment and specialty trade contractors was 6,920,000 in December 2023, an increase of 142,900 jobs since December 2022. Construction unemployment is at 4.4% in December 2023, after rising to almost 7% in January 2023 and falling to a low of 3.6% in June 2023.



6. Construction Labor costs continue to rise in major metropolitan cities specifically for skilled labor.

Per ENR's Cost Indexes by City for January 2024, annual skilled labor costs have risen +17.1% in San Francisco, +13.2% in Los Angeles, +6.5% in Detroit, +3.5% in Denver and Pittsburgh, and +3.2% in Minneapolis. Common labor costs rose +15.8% in Los Angeles, +10% in Chicago, +3.7% in Kansas City, and +2.8% in San Francisco with the rest of the 20 cities tracked by ENR showing less of an increase.

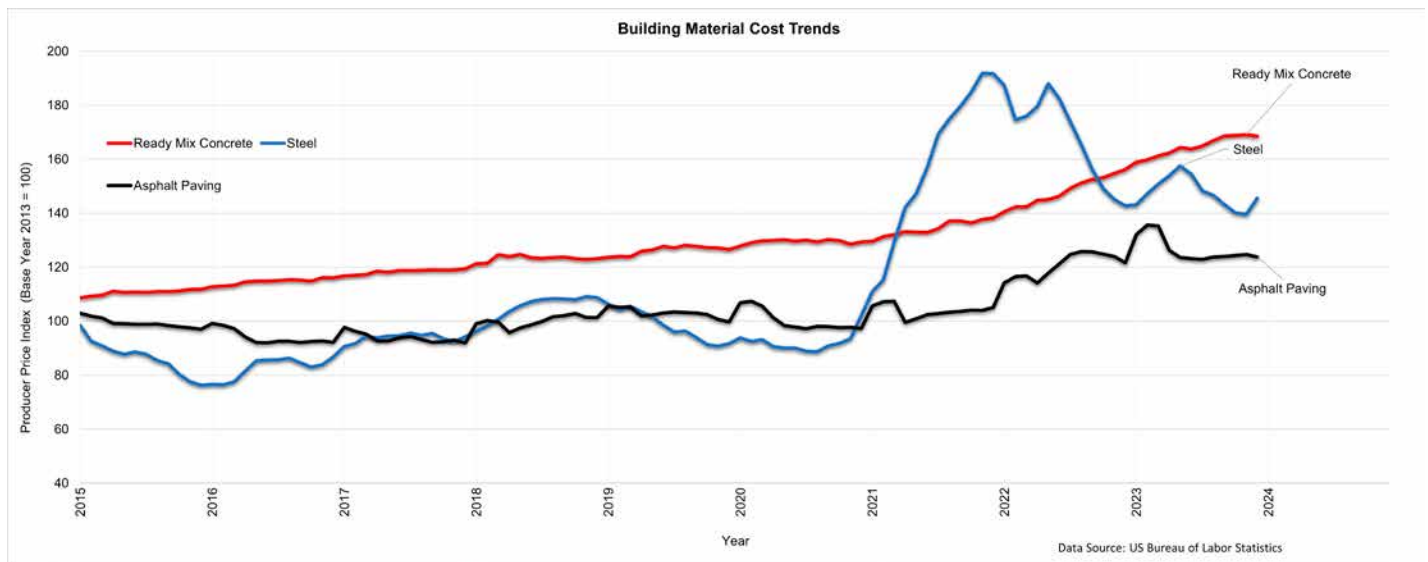


7. **Material Inflation rate has come down from its peak.**

According to Gilbane 2024 Q4 Construction Market Report, from December 2022 to December 2023, material prices for ready mix concrete grew 7.8%, fabricated structural steel 5.6%, concrete pipe 3.9% and paving mixtures and blocks 3.9%. At the same time, #2 diesel fuel fell -18.7%, steel pipe and tube by -17.6%, lumber -8%, and steel mill products -2%.

7.1 **Asphalt Pavement prices are steady after a dip.**

According to the BLS, December 2023 asphalt prices are up +1.7% from a year ago. Per ENR's April 2023 20-City Average, asphalt prices are up +2.6% from a year ago.

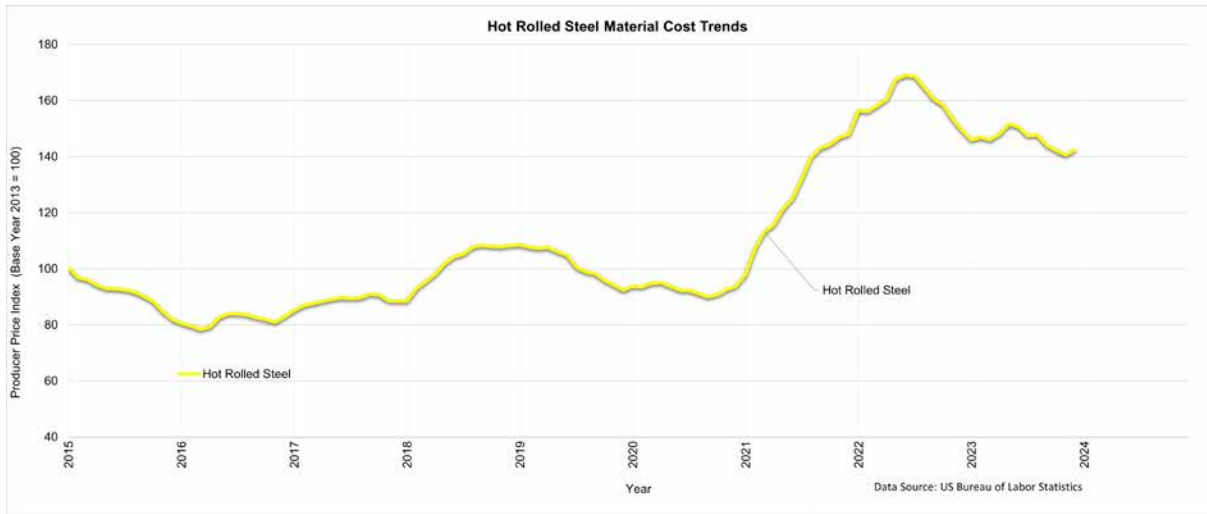


7.2 **Concrete pricing continues to rise while reinforcing steel prices show a decline.**

According to the December 2023 BLS, ready-mix concrete prices are up +7.8% from a year ago. Per the ENR April 2023 20-City Average, annual escalation for ready-mix concrete is up +19.3% for 3,000 psi and +6.7% for 5,000 psi. Portland cement increased +23.9% above last year. Per ENR, reinforcing steel material prices reduced -8.9% in December 2023 from last year.

7.3 Structural Steel pricing's rate of inflation cools down.

Per the BLS, steel prices in December 2023 fell 32% from their peak in December 2021 and increased by 1.9% in December 2023 from December 2022. The ENR January 2024 20-City Average for wide-flange steel increased 5.4% above a year ago. The BLS May 2022 for hot-rolled steel is down -4.8% over a year ago.

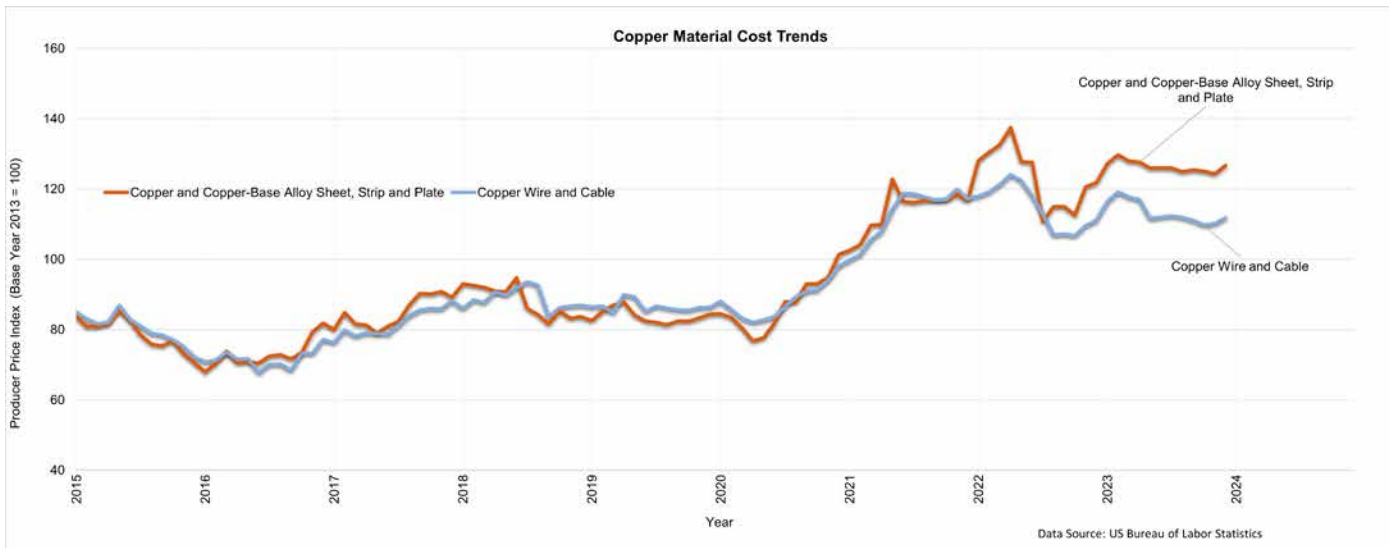


7.4 Stainless Steel sheet prices are stabilized.

Per the January 2024 ENR 20-City Average, stainless steel sheet prices have decreased 1% below a year ago.

7.5 Copper, after a noticeable pullback, prices seem to be stabilizing and increasing at a gradual pace.

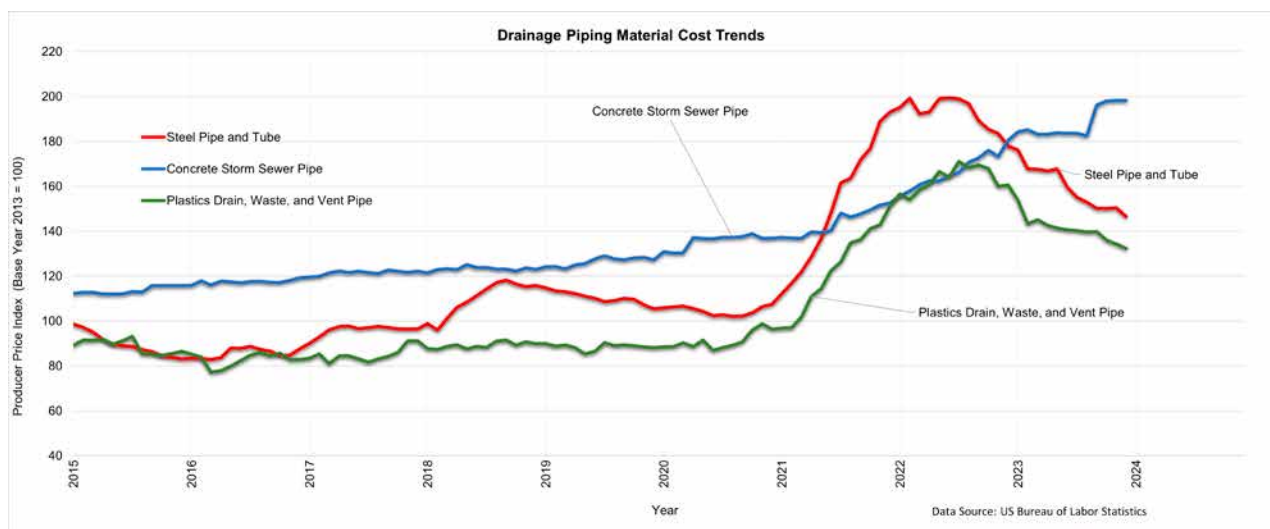
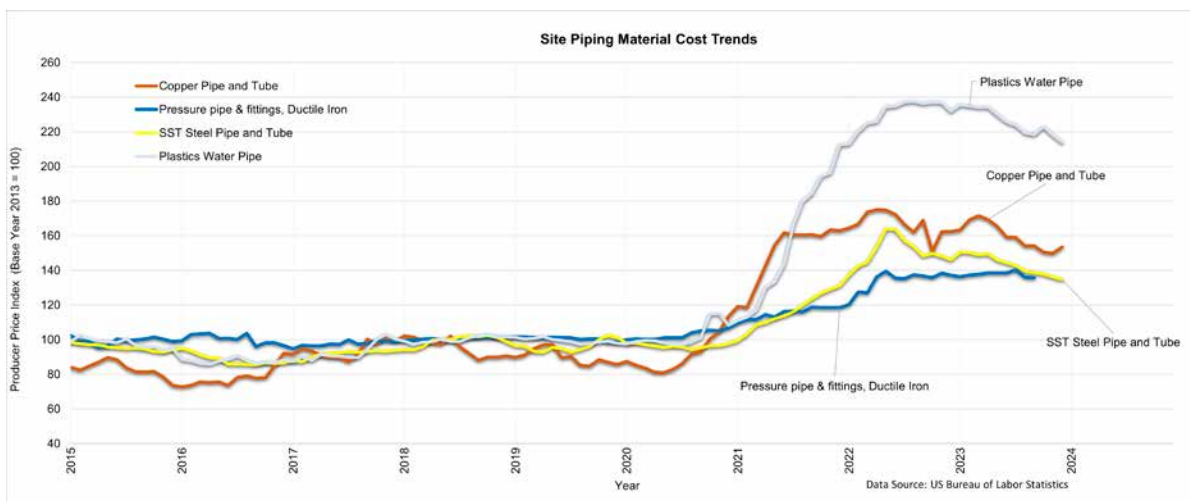
Copper prices were stable in 2023 and are increasing at a gradual pace, after rising significantly from 2020 to early 2022. The BLS December 2023 shows copper prices increased by 4% compared to a year ago.

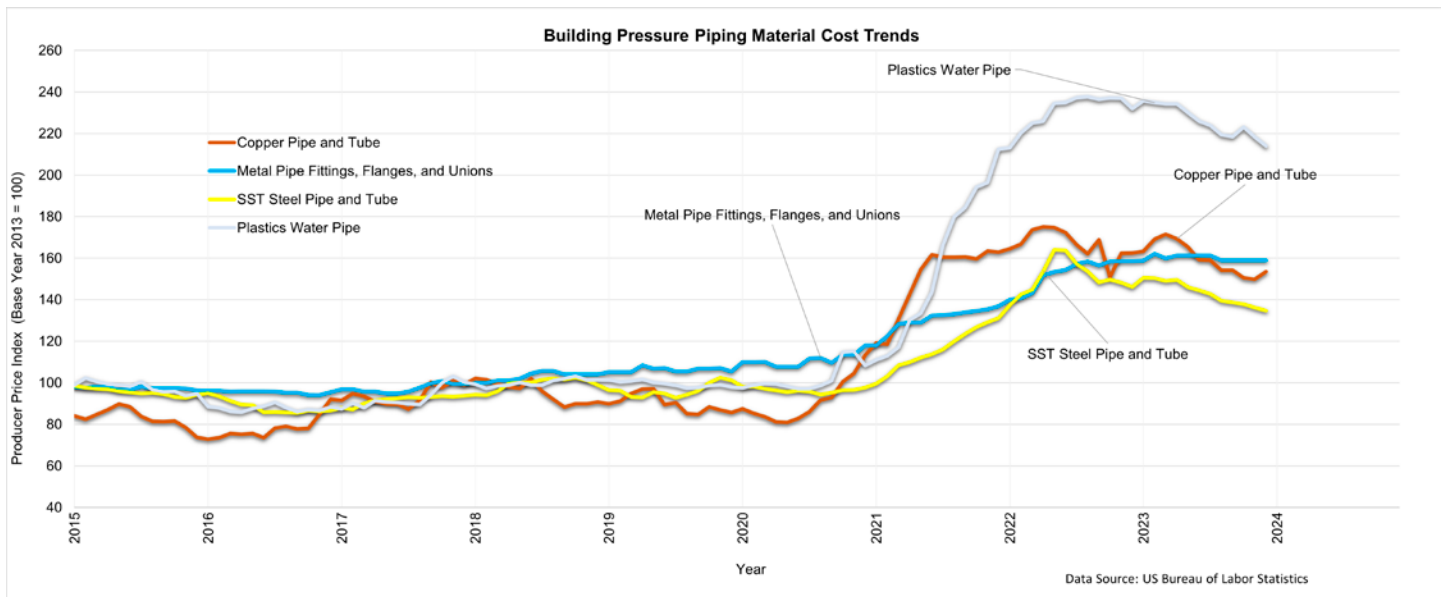


7.6 Pipe prices, as per ENR, have observed a substantial increase and have concurrently declined according to the BLS in comparison to the corresponding period a year ago.

Per annual changes shown in the ENR 20-City Average for January 2024:

- Corrugated steel pipe is up +64.1% for 12", +23.8% for 36", and +19.3% for 60"
- Ductile iron pipe is up +24.3% for 6", +17% for 8", and +15% for 12"
- Reinforced concrete pipe is up +29.5% for 12", +13.9% for 24", +13.5% for 36" and +6.3% for 48"
- PVC sewer pipe is up +14.3% for 4" up +27.9% for 8"
- PVC water pipe is up +16.5% for 6", +45.4% for 8", and +34.5% for 12"
- Copper water tubing is up +35.1% for ½" and +29.5% for 1 ½"
- Plastic water pipe is down -7.8%, steel pipe and tube is down -17.6%, concrete pipe is up +3.1%, copper and copper alloy pipe and tube is down -5.5% below a year ago.





About This Newsletter

Cost Trends is a publication created by the Hixson Cost Estimating department. Having a professional in-house estimating department is distinctive in design/engineering firms and enables Hixson to fulfill our commitments to design/engineer a project to an agreed-upon cost, by knowing our clients, their projects, and the areas where those projects are built.

Because Hixson consistently works on projects throughout North America, we have up-to-date information on prices and conditions that affect our work. Sources used to compile this edition of Cost Trends include:

- American Institute of Architects
- Associated Builders & Contractors, Inc.
- Associated General Contractors of America
- Compass International Reports
- Commodity Online
- Construction Connect
- Contractor, Endeavor Business Media
- Danis Construction
- Deloitte Consulting
- Dodge Data & Analytics
- Engineering News Record
- FMI Corporation
- Gilbane Building Company
- IHS Global Insight
- Kitco
- Miles McClellan Construction
- Portland Cement Association
- Rider Levett Bucknall Consultants
- R.S. Means, Quarterly Cost Round-up
- Turner Building Cost Index
- U.S. Bureau of Labor Statistics (BLS)

CONTINUING EDUCATION

Hixson associates regularly participate in continuing professional education events across the country. Recent events attended by Hixson's Cost Estimating Group, professional organization participation, and honors received include:

- *2024 Construction Costs Open Forum by Gordian*
 - *2024 Cincinnati Area Construction Market Outlook by ASPE, Chapter 38*
 - *2023 Construction Cost Trends: Insights and Impacts from Across the Industry by Gordian*
 - *2023 ASPE, Chapter 2, Golden Gate, Reading the Economy for the Estimating Advantage*
 - *2022 ASPE President's Award to Michael E. Downing, CPE-Lifetime, LEED AP BD+C*
 - *2022 ASPE Certified Professional Estimator Certification earned by Sai Mattaparthi, CPE*
 - *Construction site visits to Hixson's projects*
 - *Monthly Meeting Presentations of ASPE (American Society of Professional Estimators), AACE (Association for Advancement of Cost Engineers), ACI (American Concrete Institute), CSI (Construction Specifications Institute)*
 - *Past ASPE National Certification Committee Member*
 - *ASPE Chapter Certification Committee Chairman*
 - *AACE Section Secretary & Treasurer/Past President*
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