

Construction Cost Impacts



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MATERIAL SUPPLY AND PRICING

Over the last three years the U.S. construction industry has been rocked by unparalleled volatility in materials costs, supply-chain bottlenecks, and a tight labor market. Overall inflation rates and economic growth have cooled, while congestion at West Coast ports has eased. These changes have led some to assume that construction costs and completion times must also have improved. Unfortunately, this is not the case for many projects, materials, and subcontractors. Prices continue to remain volatile for many key construction materials. Bidding multi-year projects is still problematic for subcontractors. Although some materials have decreased in price recently, they are still year-over-year increase in excess of 10%. Russia's ongoing attack on Ukraine and Western sanctions against Russia have disrupted production and transport of dozens of commodities. The economic slowdown is expected to continue in 2023. The CPI all-items index increased 4.9 percent for the 12 months ending April; this was the smallest 12-month increase since the period ending April 2021. The 2023 CPI is expected to average 4.3% and will lead to a push for higher wages.

PRIMARY CAUSES

The primary underlying causes of these issues include:

- **Labor shortages** – continuing issue of attracting and retaining workers
- **Raw material shortages** – shortage of one ingredient can stop or limit production.
- **Transportation issues** – demand for container shipping and trucking have outstripped supply, together with truck driver shortages.
- **Production times** – just-in-time production has been severely impacted.
- **Energy disruptions** – the rapid rise in the cost of diesel fuel.
- **Ukraine/Russia War** – both countries are major suppliers of base metals to the world market and the supply of these metal has been severely disrupted.

SUPPLY CHAIN IMPACTS (AS OF MAY 2023*)

There are signs that portions of the supply chain has improved, but there are still products that are in short supply, cement and electrical transformers as two examples. Even if materials are available, subcontractor bids are still short-lived. Managing supply chain has now become routine on project sites.

CURRENT COST IMPACTS ON CONSTRUCTION MATERIALS

Legend: ■ Alert- Significant Impact ■ Caution - Medium Level Impact ■ Clear- Little to No Impact

	<i>COST IMPACT BASE</i> JAN. 2023	Anticipated Lead Time	Supply Chain Factors
Fabricated structural steel	<6% M/M	No lead time issues	Hot Rolled Coil - 58.59 cwt. Wide Flange Beams - 68.50 cwt. Prices rose during Q1 but have since fallen or leveled off ¹ Tracking production rates reflect demand in the market from US mills and correlate directly to mill lead times and prices. The higher the capacity percentage, the higher the price of steel and the longer the lead time. <ul style="list-style-type: none"> • ¹ Current capacity is sitting at an average rate of 73.7% for 2023 year-to-date. Capacity for March 2023 finished at 75.1%. • ¹ Mini mill capacity has increased, and integrated mill capacity is shrinking. • ¹ Capacity utilization remains low and production rates are still behind the same time period last year.
Reinforcement Bars	Stabilized	8 weeks	Raw cost of material has gone down to about: \$0.55/lb. Average furnish and install at about: \$1.70/lb.
Metal bar joists	Stabilized	4 - 8 weeks	Same as fabricated steel.
Concrete	Stable for last 6 months	No lead time issues.	\$200-\$215 per CY of concrete. Our main ready-mix suppliers have different approaches. As far as we understand, Cemex had issues in the past with their color vendor so they stopped offering color. If the customer purchased the integral color, Cemex would incorporate it into the mix at their batch plant. We believe they are in the process of securing a new color vendor so they can offer it to their customers again. Central Concrete quote color on job to job basis.

Lumber	>5% M/M	No lead time issues	Overall, today's pricing is about the same as Jan. 2023. Plywood is about the only item where we have seen some volatility which has increased approximately 2-5% depending on the item. Over the past few weeks, plywood has decreased slightly due mostly to lower demand and/or weather conditions which has slowed construction.
MDF	Stabilized	2 weeks	No supply chain issues.
Domestic Plywood	Stabilized	Easily Available	Plywood has increased approximately 2-5% depending on the item. Over the past few weeks, plywood has decreased slightly due mostly to lower demand and/or weather conditions which has slowed construction.
Imported Plywood	Stabilized	Easily Available	Same as domestic plywood.
Melamine	Stabilized	2 weeks	No supply chain issues.
Insulation	Stabilized	4 weeks	Fasteners price has gone down. 1" insulation is at \$70-80 per SQ, 1/2" insulation is at \$60 SQ, if more than 25 PSI add 5%, glass coated facer - \$25 per SQ for roofing. Batt insulation remains the same as March 2023.
Drywall	Stabilized	Glasmat 4 weeks, Densdeck 8 weeks	No escalation on drywall. It has all tightened up a bit for summer work.
Joint Compounds	Stabilized	Easily Available	No supply chain issues.
Steel Components/Studs/Ceiling T's	Stabilized (5%-10% increase expected in June)	2-3 weeks	No supply chain issues.
Ceiling Tiles	Stabilized (5% increase expected in August)	Standard:-1-2 weeks, Non-standard:-4-6 weeks, Speciality:-8-12 weeks, Wood Product:-8-16 weeks	No supply chain issues.
Flooring	Stabilized	4-6 weeks	No supply chain issues.
Plumbing Fixtures	Stabilized	6-8 weeks	Not much increase, 5% since January. Next expected increase will be in July/August.
Steel Piping	<0.75% M/M	6 weeks	Steel pricing seems to have leveled off in recent weeks.
Polypropylene Piping	Stabilized	4 months	No supply chain issues.
MEP Equipment	Stabilized	Long Lead Times	Minor Equipment escalation HVAC: Sound attenuators, VAVs, FSDs, GRDs, etc. Pricing for electrical commodities has levelled and no increases for that period. Switchgear saw a price increase of 5% first part of March, and we may see another in June/July. Generators also saw an increase first of March at 3-5%. There is no increase in quotes as of now for all electrical equipments.
Copper & Brass Products	<0.5% M/M <0.16% M/M	Longer Lead Times	There is now a projected shortage in copper supply relative to demand through 2025, with the shortfall reaching as much as 290,000 tonnes.
Nickel Products	>3.4% M/M	Longer Lead Times	Lack of active mines, global supply chain issue, on-going high demand from EV industry.