Update to the Interim Budget Committee

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June 15, 2022

Inflation & Supply Chain Issues

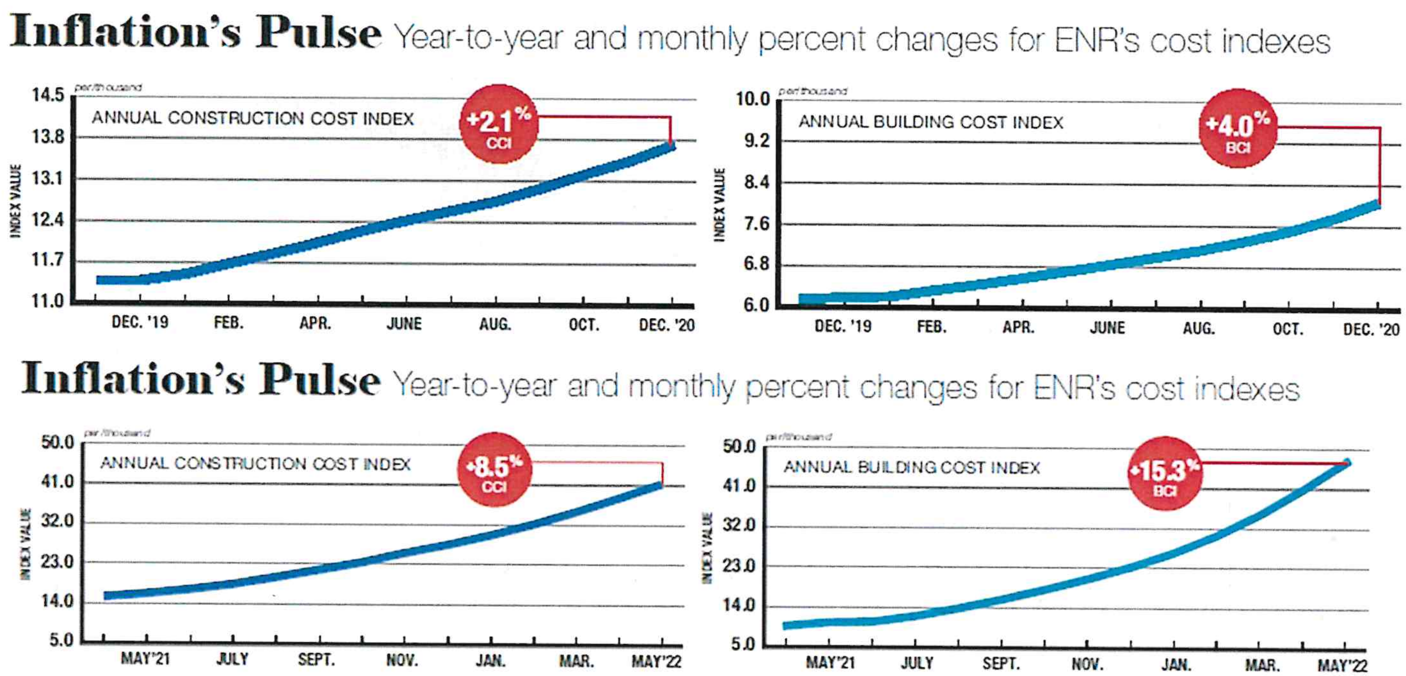
COVID-19, the Market & Inflation

- Engineering News Record Cost Indices

From February 2021 Presentation to 67th Legislature

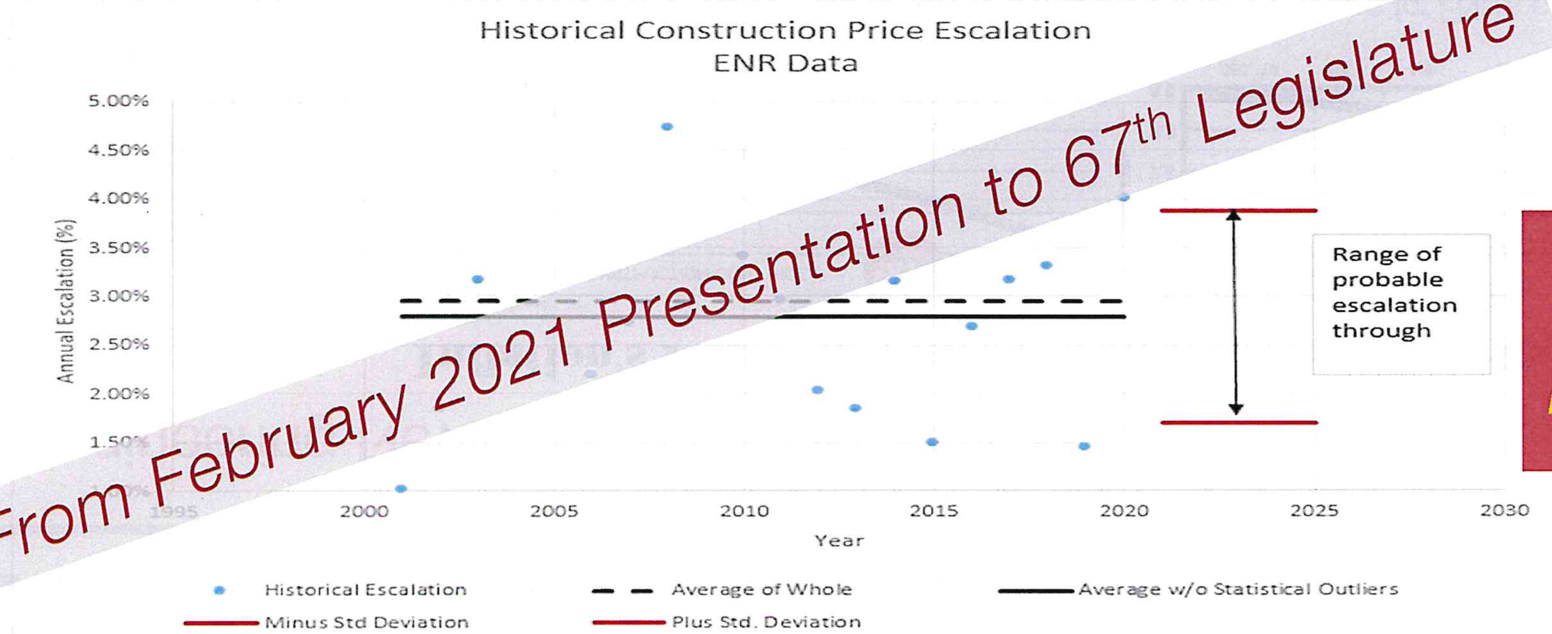
Key Takeaway:
~4X increase in the indexes over 18 months

May 2022



COVID-19, the Market & Inflation-cont'd

- Engineering News Record Annual Historical Escalation %



Historical Escalation Unusable.

Predicted 1.6% to nearly 4%

COVID-19, the Market & Inflation-cont'd

- *HOWEVER:*
  - *LRBP projects are experiencing much higher bids*
  - *Frequently 30%+ higher than pre-bid estimates*
  - *Some instances of 100% greater than estimates*
  - *Causes:*
    - *Very busy contractors and subcontractors*
    - *Increased supply chain timelines and material costs*

From February 2021 Presentation to 67th Legislature

Current Market & Inflation

- Q2 results and Q3 projections due next month
  - Don't anticipate anything other than continued upward trends
- Materials Costs follow Producer Price Index (tracks input costs)
  - Manufactured Materials and Products are per commodity and availability of raw materials, cost of production, transportation, demand, etc.
- Construction Labor costs differ per sector, but are up substantially
  - Shortage of skilled trades is not new; demand has increased
  - Wages are up ~8% and climbing

Materials

MATERIAL IMPACTS

Engineering News Record (ENR)

Average Cost Indices (YTD)

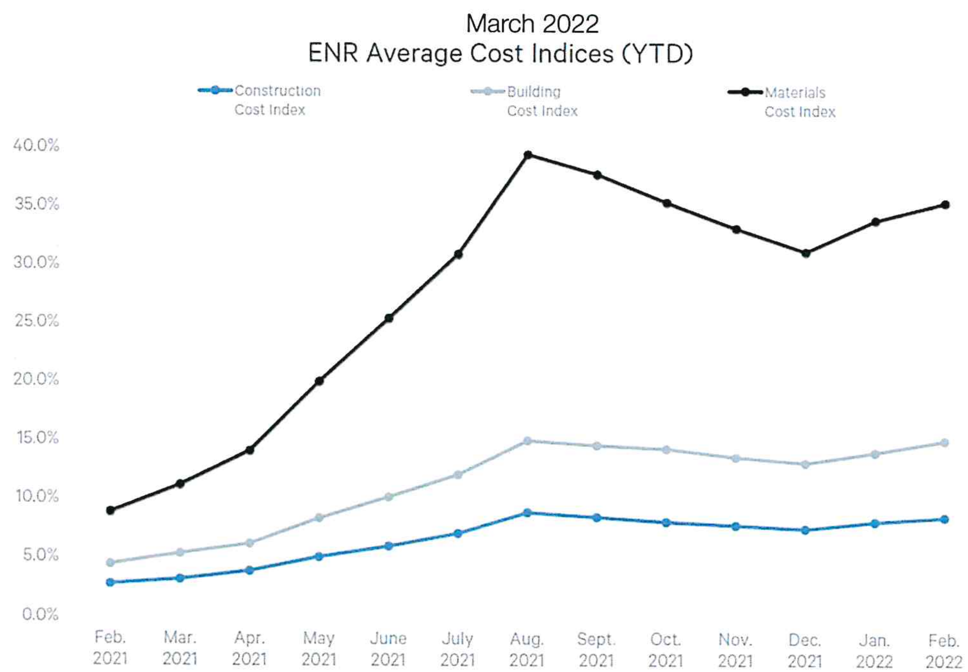
Engineering News-Record (ENR) publishes monthly 20 city averages for cost indices, wages and material prices.

The cost indices averages continued to rise from December to February and represent a significant overall increase in the Year To Date (YTD) costs for construction.

8.4% YOY

14.9% YOY

35.2% YOY



- ENR Construction Confidence Index | Source: ENR, CBRE Cost Consultancy

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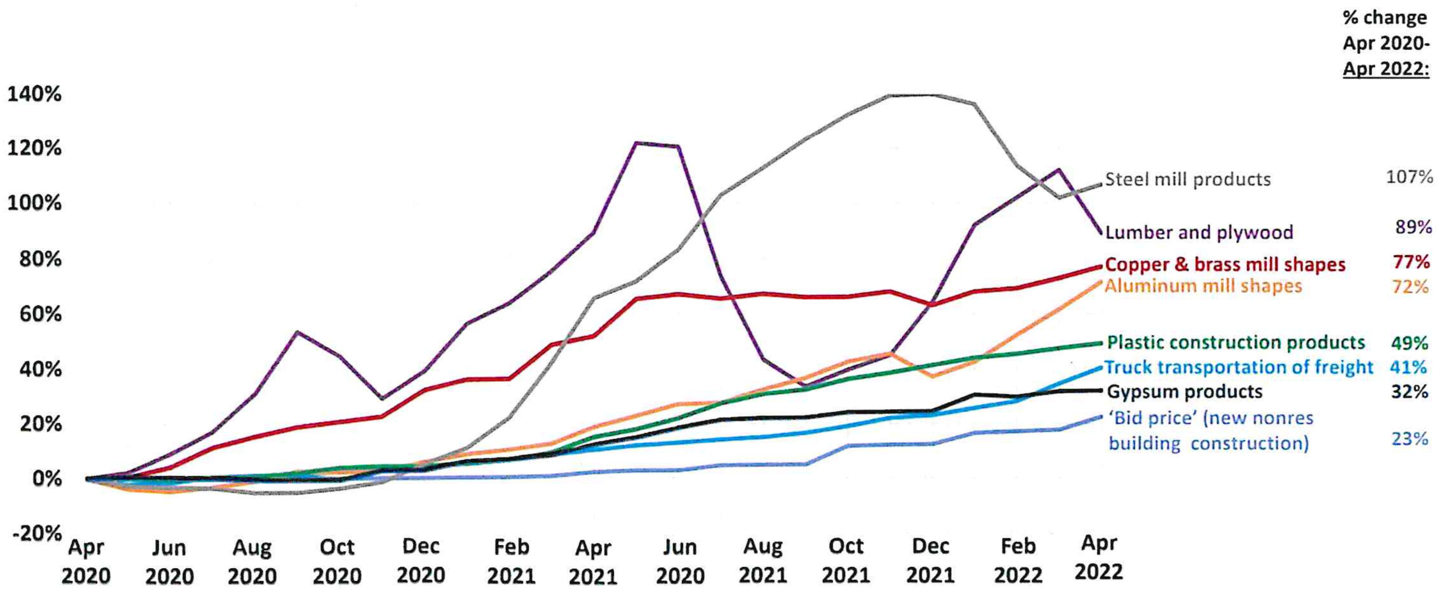
Materials (cont'd)

PPIs for construction bid prices and selected inputs

cumulative change in PPIs, April 2020-April 2022 (not seasonally adjusted)

AGC THE CONSTRUCTION ASSOCIATION



Anticipating diesel fuel to be >300% in AGC Q3 report

7 | Source: Bureau of Labor Statistics, producer price indexes, www.bls.gov/ppi

Materials (cont'd)

MATERIAL IMPACTS

March 2022

Divisional Commodity Changes

Quarterly and Annually

DIVISIONAL COMMODITY PRICE MOVEMENT			2020 Mar	2020 Jun	2020 Sep	2020 Dec	2021 Mar	2021 Jun	2021 Sep	2021 Dec
Metals	Steel Mill Products	Quarterly (%)	0.69%	-3.82%	-2.09%	10.97%	35.09%	28.90%	21.86%	7.05%
		Annual (%)	-12.48%	-12.02%	-9.75%	5.23%	41.18%	89.20%	135.49%	127.16%
	Iron and Steel	Quarterly (%)	1.59%	-3.37%	0.84%	12.43%	26.66%	21.46%	14.30%	6.45%
		Annual (%)	-11.74%	-8.54%	-3.34%	11.29%	38.75%	74.40%	97.69%	87.18%
	Fabricated Structural Metal Bar Joists & Reinforcing	Quarterly (%)	0.19%	-0.23%	0.19%	0.37%	11.37%	21.25%	13.64%	2.56%
		Annual (%)	0.75%	0.42%	0.33%	0.51%	11.73%	35.80%	54.03%	57.39%
	Fabricated Structural Iron & Steel	Quarterly (%)	-0.08%	-0.25%	0.08%	0.49%	10.82%	25.07%	14.31%	2.44%
		Annual (%)	0.50%	0.17%	0.00%	0.25%	11.18%	39.41%	59.22%	62.30%
Woods, Plastics, & Composites	Softwood Veneer and Plywood	Quarterly (%)	8.43%	5.20%	53.48%	-11.65%	40.08%	56.97%	-57.04%	15.20%
		Annual (%)	-8.00%	5.08%	75.84%	54.68%	99.83%	198.15%	-16.55%	8.81%
	Plywood	Quarterly (%)	4.87%	3.08%	32.08%	-8.44%	28.22%	44.26%	-44.57%	10.51%
		Annual (%)	-3.86%	3.33%	43.75%	30.73%	59.83%	123.68%	-6.13%	13.30%
Thermal & Moisture	Thermoplastic Resins & Plastics Materials	Quarterly (%)	1.26%	-8.86%	6.92%	8.63%	21.65%	14.64%	4.85%	-4.51%
		Annual (%)	-3.42%	-10.85%	-4.63%	7.18%	28.76%	61.96%	58.84%	39.63%
HVAC & Mechanical	Copper & Copper Alloy Sheet, Strip & Plate	Quarterly (%)	-4.64%	1.61%	13.81%	8.96%	8.18%	6.19%	0.39%	-0.17%
		Annual (%)	-7.47%	-0.86%	12.89%	20.15%	36.30%	42.46%	25.66%	15.13%
Utilities	Plastic Sewer, Storm Drain, & Water Main Pipe	Quarterly (%)	-0.71%	-1.33%	10.98%	7.28%	6.44%	35.81%	12.01%	13.17%
		Annual (%)	-3.46%	-2.62%	7.75%	16.65%	25.05%	72.12%	73.71%	83.25%

* Annual changes are measured month to month

* Source: Bureau of Labor Statistics, CBRE Cost Consultancy

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Materials (cont'd)

- Recommendations and what State A&E is pursuing:
  - Award projects as quickly as possible, when in budget
  - Be creative with material and product substitutions
  - Quick, timely decision-making throughout the submittal and approval processes

Labor

State construction employment change, Feb. 2020–Apr. 2022

32 states **up**, 1 **flat**, 17 states and DC **down** **(U.S.: 0.1%)**

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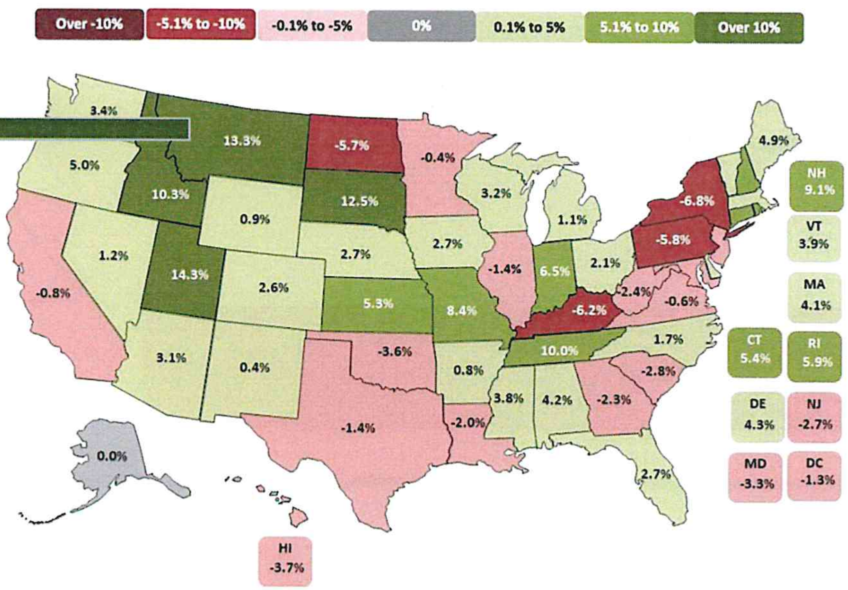
Top 5

Utah	14.3%
Montana	13.3%
South Dakota	12.5%
Idaho	10.3%
Tennessee	10.0%

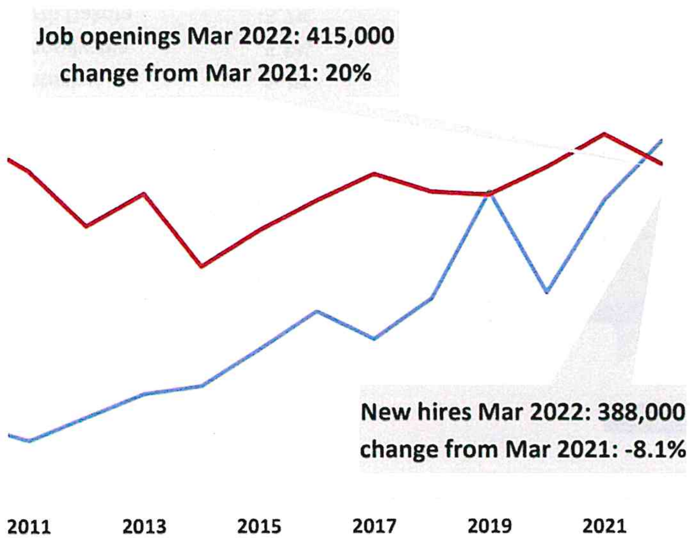
Bottom 5

New York	-6.8%
Kentucky	-6.2%
Pennsylvania	-5.8%
North Dakota	-5.7%
Hawaii	-3.7%



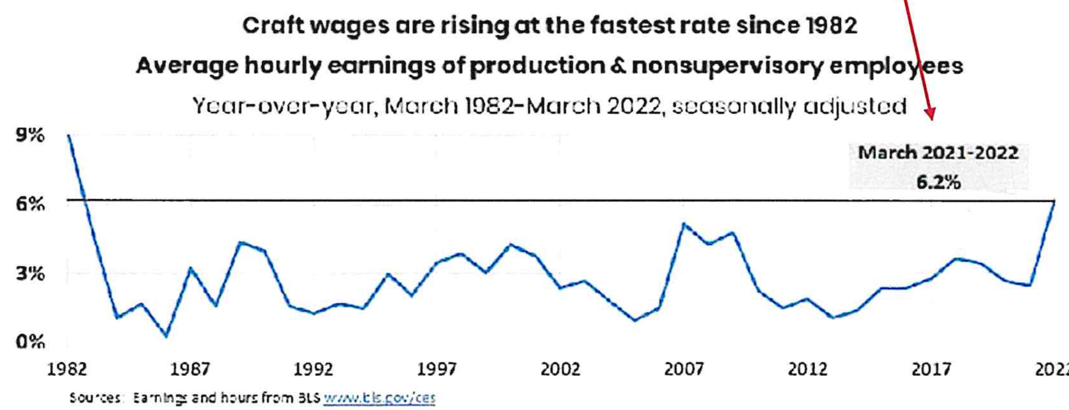
 Note: Shading based on unrounded numbers Source: BLS state and area employment, www.bls.gov/sae

Labor (cont'd)



Two Key Takeaways from job openings exceeding hires:
1) Labor shortage which delays projects; and,
2) Demand for skilled labor drives wage increases

Anticipating this to be >8% in AGC Q3 report



Supply Chain & Delays

March 2022

Material	Lead Time
Steel Beams/Metal Decking	16-22 weeks
Open Web Joists	32-36 weeks
Roofing Membranes	32-34 weeks
Roofing Insulation	40-50 weeks
Doors & Hardware	18-20 weeks
HM Door Frames	16-18 weeks
Aluminum & Storefront	20-26 weeks
Drywall & Metal Studs	6-8 weeks
Flooring (Imported)	14-18 weeks
Granite	8-10 weeks
Paint	6-8 weeks
Metal Panels	18-20 weeks
HVAC Equipment	20-24 weeks
Electrical, Lighting & Controls	14-16 weeks
Generators	40-45 weeks

* Source: ENR, Aggregated Multiple General Contractors' Reports

Trade Item	Lead Time Increase	Stop Light Status
Steel Beams & Decking	+167%	
Roofing Membranes	+750%	
Roofing Insulation	+667%	
Doors / Hardware	+233%	
HM Door Frames	350%	
Aluminum Panels / Glazing	+333%	
Drywall/Metal Studs	+200%	
Paint	+600%	
Plumbing and HVAC	+100%	
Switchgear	+150%	
Lighting and Controls	+100%	

>/= 100% lead time increase

100% > 200% lead time increase

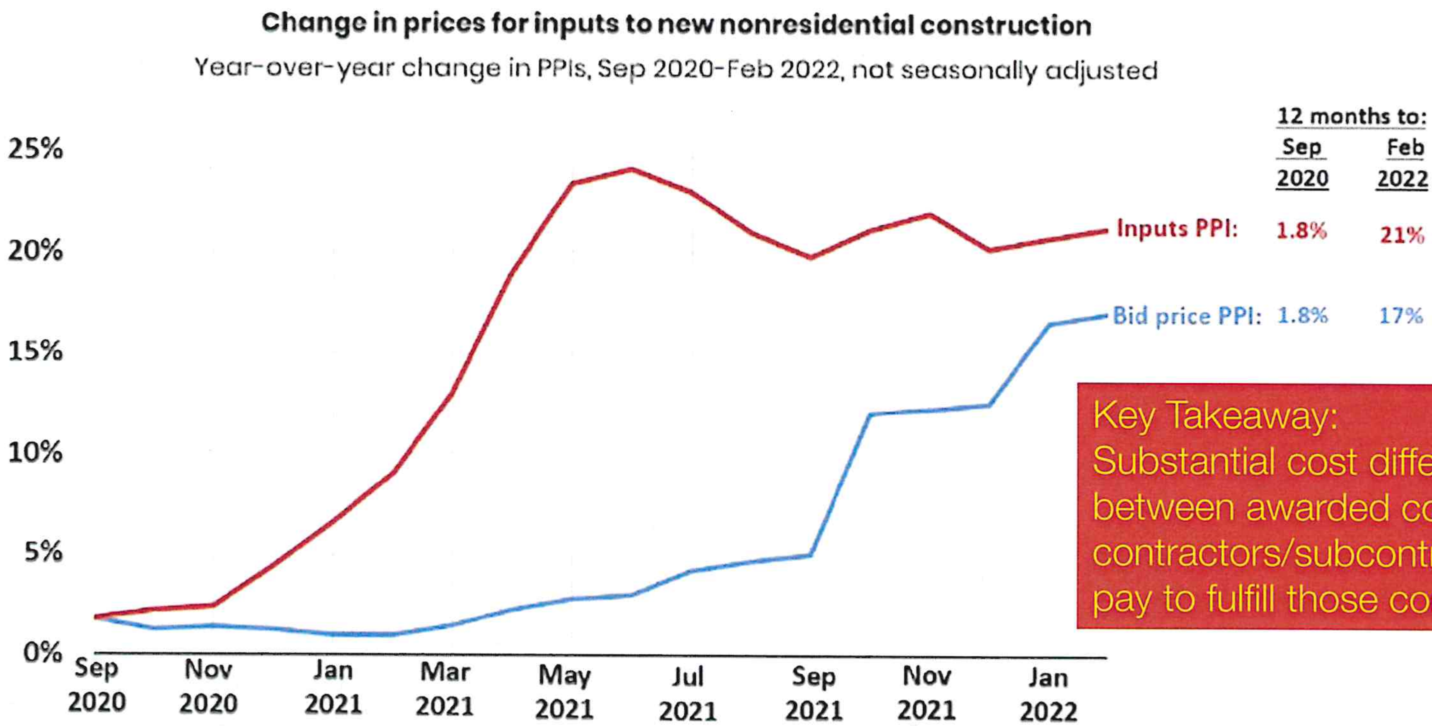
200% < lead time increase

Sources: ENR, Multiple General Contractors' Q4 Reports, CBRE Cost Consultancy

Supply Chain & Delays (cont'd)

- Recommendations and what State A&E is pursuing:
  - Focus on securing supply rather than minimizing cost
  - Identify critical components; modify procurement practices
  - Adjust away from "just in time" methodology
  - Engage in stored materials and pre-pay practices
  - Be creative with material and product substitutions
  - Extending contract performance dates

Impacts to Contractors/Subcontractors



Source: Bureau of Labor Statistics, producer price indexes, www.bls.gov/ppi

Key Takeaway:
Substantial cost differences may exist between awarded contracts and what contractors/subcontractors are having to pay to fulfill those contracts.

What State A&E is Doing Within LRBP

- Projects in Construction:
  - Requests for Increased Costs
  - Requests for Timeline Extensions/Delays

- Projects in Planning/Design:
  - Evaluating projects for potential scope cuts or phasing or both
  - Re-prioritizing and adjusting order of projects
  - Utilizing funding adjustment authorization in Major Repair
  - Seeking deferred maintenance funding help from agency operating funds
  - Researching/implementing LRBP budget amendments, 17-7-211 MCA

Potential Options Next Session?

- Additional avenues that might be work exploring:
  - Adjustments and flexibility within construction procurement statutes
  - Scope-gap funding requests for projects already authorized
  - Greater flexibility within future Major Repair and/or Capital Development appropriations to adjust funding among projects
  - Flexible funding dedicated to inflation, delay, or supply issues

Domestic Preference & Buy American Act

- 2CFR 200.322
- Executive Order 14005
- OMB Memo M-22-11

Domestic Preference & BABA

§ 200.322 Domestic preferences for procurements.

(a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

Domestic Preference & BA (cont'd)

Buy American preference:

(1) All iron and steel used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) All manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.

(3) All construction materials are manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

Domestic Preference & BA (cont'd)

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

April 18, 2022

M-22-11

MEMORANDUM FOR HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: Shalanda D. Young, Director (Shalanda D. Young)

SUBJECT: Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act ("IIJA"), Pub. L. No. 117-58, which includes the Build America, Buy America Act ("the Act"). Pub. L. No. 117-58, §§ 70901-52. The Act strengthens Made in America Laws[1] and will bolster America's industrial base, protect national security, and support high-paying jobs. The Act requires that no later than May 14, 2022—180 days after the enactment of the IIJA—the head of each covered Federal agency[2] shall ensure that "none of the funds made available for a Federal financial assistance program for infrastructure, including each deficient program, may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States."[3]

The Act affirms, consistent with Executive Order 14005, *Ensuring the Future Is Made in All of America by All of America's Workers* ("the Executive Order"), this Administration's priority to "use terms and conditions of Federal financial assistance awards to maximize the use of goods, products, and materials produced in, and services offered in, the United States."[4]

The Act provides statutory authorities for the Made in America Office ("MIAO") in the Office of Management and Budget ("OMB") to maximize and enforce compliance with Made in

[1] "Made in America Laws" means all statutes, regulations, rules, and Executive Orders relating to Federal financial assistance awards or Federal procurement, including those that refer to "Buy America" or "Buy American," that require, or provide a preference for, the purchase or acquisition of goods, products, or materials produced in the United States, including iron, steel, and manufactured products offered in the United States. Made in America Laws include laws requiring domestic preference for maritime transport, including the Merchant Marine Act of 1920 (Pub. L. No. 66-261), also known as the Jones Act. Exec. Order No. 14,005, 86 Fed. Reg. 7475, § 2(b) (Jan. 28, 2021), *available at* https://www.federalregister.gov/documents/2021/01/28/2021-02038/ensuring-the-future-is-made-in-all-of-america-by-all-of-americas-workers. Made in America Laws also include laws that give preference to Indian-owned and -controlled businesses, such as the Buy Indian Act (25 U.S.C. 47), that produce items in the United States.

[2] For the purposes of this guidance, the terms "Federal agency" and "agency" mean any authority of the United States that is an "agency" (as defined in section 3502 of title 44, United States Code), other than an independent regulatory agency (as defined in that section). IIJA, § 70912(3).

[3] IIJA, § 70914(a)

[4] Exec. Order No. 14,005 (see footnote 1)

OMB Memo M-22-11

(1) 17 pages of direction to other instructions and references

(2) Comply with all "Made in America Laws"

(3) For Manufacturing Processes, Awaiting OMB Standards

> "For construction materials, the Act requires that, not later than 180 days after November 15, 2021, OMB must issue standards that define the term "all manufacturing processes" in the case of construction materials. These standards must require that each manufacturing process required for the manufacture of the construction material and the inputs of the construction material occurs in the United States."

Domestic Preference & BA (cont'd)

Implications:

(1) Products incorporated in a project must be made, manufactured, or processed in the US

a) Products manufactured in foreign countries by US-owned companies do not comply
b) Products manufactured in US by foreign-owned companies do comply
c) Some products manufactured under trade/treaty agreements with US comply, some do not

(2) Incidental items (typically <5% of a product) are allowed

(3) Exceptions – nonavailability, unreasonable cost, public interest (OMB waiver req'd)

Domestic Preference & BA (cont'd)

- Anticipated Cost and Supply Chain Impacts:
  - Increases Cost?
    - Guidance appears to acknowledge increases are very likely
    - Specific material cost differentials are difficult to quantify over an entire project
    - No waiver granted unless unavailable, total aggregate project cost is impacted by >25%, or other public interest; difficult to document and prove
  - Supply Chain Impacts?
    - Nearly everything is delayed; reasonable to assume this will continue and preferences are likely to exacerbate the situation into 2023 and 2024

Update on Fundraising

Update on Fundraising Progress

67th Session - Projects:

		Projects:	Authorization:	Status:
HB5	DOA	State Health Lab Renovation	$ 6,000,000	Federal Grants
HB5	DOA	Commodities Warehouse Expansion	$ 1,779,230	Federal Grants
HB5	DOC	Food Factory Expansion	$ 500,000	Proprietary Account
HB5	FWP	MT Wild Avian Rehab Building	$ 600,000	Pending Agency Fund-Raising
HB5	DPHHS	SWMTVH 6th Cottage	$ 4,000,000	Pending Agency Fund-Raising
HB5	UM	Music Building Renovations	$ 6,000,000	$3M & Two Phases Completed
HB5	UM	Rankin Hall Building Renovations	$ 6,000,000	$50K for Planning
HB5	UM	Mansfield Library Renovations	$ 6,000,000	$150K for Planning
HB5	MSU	Instructional Space Upgrades	$ 2,000,000	Unknown
HB5	MSU	Renne Library Renovations	$ 5,000,000	Unknown
HB5	UM	Additional MT Musuem for Art & Culture	$ 2,000,000	$14.72M; Under Construction
HB5	MUS	General Spending Authority	$ 20,000,000	Multiple Projects (Allocated via MUS/OCHE)
HB14	MUS	UM Forestry Conservation & Lab	$ 20,000,000	Pending Agency Fund-Raising
HB14	MUS	MAES Research & Wool Lab	$ 1,300,000	Pending Agency Fund-Raising
			$ 81,179,230	

MONTANA DEPARTMENT OF ADMINISTRATION

ARCHITECTURE & ENGINEERING

THANK YOU