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Analyzing your WIP Report and Other Benchmarking

Taking your Financial Statements Beyond the Numbers™

Introduction

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Agenda and Learning Objectives

- ► Economic Indicators
- ► Trend and Benchmarking Analysis
 - ► Company Wide Performance and Key Performance Indicators
 - ► Project performance and analysis
 - ► Examples/Exhibits

Economic Indicators

- ► Architecture Billings Index
- ► CFMA Confindex
- ► FMI Construction Outlook Report
- ► ENR Construction Industry Confidence Index
- ► ABC's Construction Backlog Indicator

Architecture Billings Index

- ► The ABI, published by the American Institute of Architects (AIA) serves as a leading economic indicator that leads nonresidential construction activity by approximately 9-12 months.
- ► July ABI was at **50.1** (anything above 50 indicates growth).

Architecture Billing Index

National

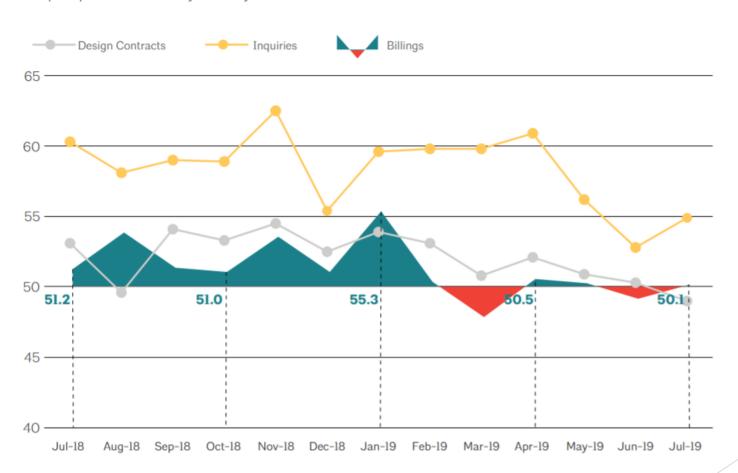
Firm billings still flat, design contracts soften







Graphs represent data from July 2018-July 2019.

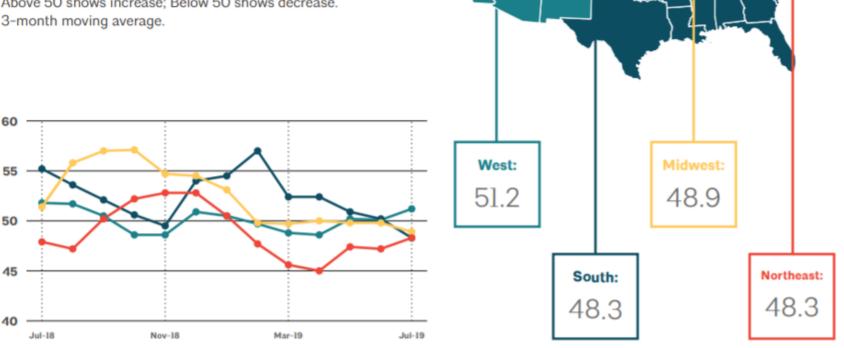


Architecture Billing Index

Regional

Firm billings decline in all regions except the West

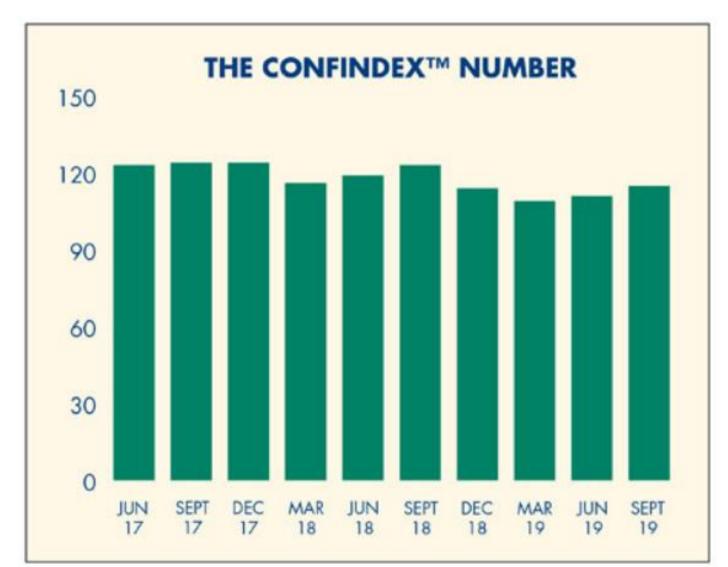
Graphs represent data from July 2018–July 2019 across the four regions. 50 represents the diffusion center. A score of 50 equals no change from the previous month. Above 50 shows increase; Below 50 shows decrease. 3-month moving average.



CFMA Confindex

- ► Confindex is CFMA's proprietary confidence index survey of CFOs in the commercial construction sector.
- ▶ After revealing an abundance of growing pessimism over the past year, construction financial executives collectively expressed more upbeat sentiment regarding the current performance of the U.S. construction industry during the most recent Confindex survey. During the third quarter of 2019, the Overall Confindex reading rose 3.6 percent on a quarterly basis from 111 to 115. The 2019 first quarter reading on Confindex was the lowest in many years (2012).

CFMA Confindex

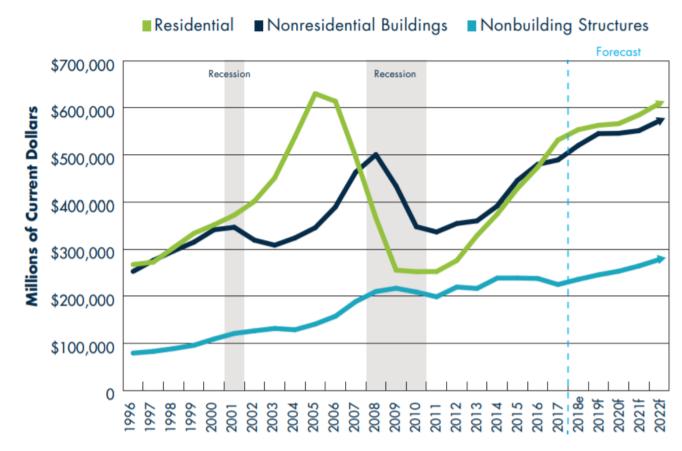


FMI Construction Outlook Report

- ► Analysis prepared by FMI utilizing historical building permit and construction-put-in-place data provided by the U.S. Commerce Department.
- ► Key Takeaways from the 2019 Report:
 - ► Looking ahead to 2019, FMI forecasts a 3 percent increase in spending levels over 2018.
 - ▶ "Primary growth segments in 2019 are expected to include office, educational, public safety, transportation, conservation and development, and manufacturing all with forecast growth rates of 5 percent or more. Most other segments will likely grow by roughly the rate of inflation and therefore be considered stable. Multifamily, lodging and religious are three segments expected to experience decline through 2019.
 - ▶ "East and West Coast markets are expected to outperform other regions across the country. Through 2019, FMI forecasts the top-three-performing Census divisions will include the Middle Atlantic (+5 percent), Pacific (+5 percent) and the South Atlantic (+4 percent).

FMI Construction Outlook Report

Total Construction Put in Place Estimated for the United States

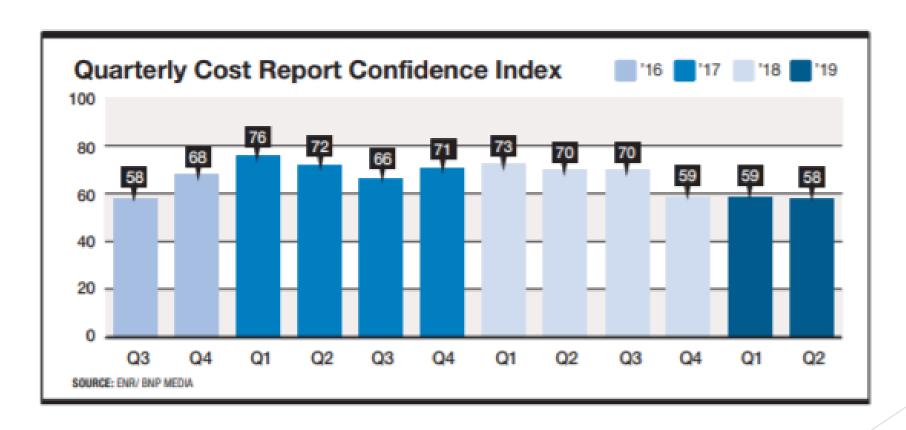


Source: U.S. Census and FMI Forecast

ENR Construction Industry Confidence Index

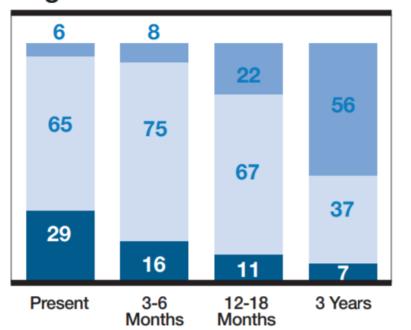
- ► The CICI measures executive sentiment about the current market, where it will be in the next three to six months and over a 12- to 18-month period. A rating above 50 shows a growing market. The index is based on responses to surveys sent between May 16 and June 24 to 6,000 U.S. companies on ENR's lists of leading general contractors, subcontractors and design firms.
- ► The CICI fell one point to 58 in the second quarter of 2019, from 59 in the first quarter. Of the 238 executives from large construction and design firms responding to the survey, many believe the market is beginning to soften and may begin declining next year.

ENR Construction Industry Confidence Index



ENR Construction Industry Confidence Index How Different Types of Firm

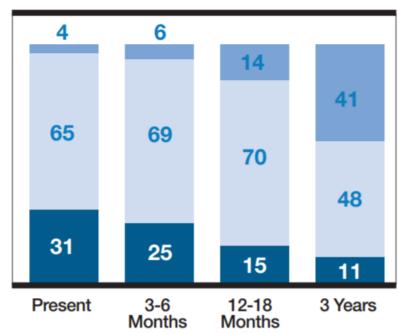
General Contractors, Construction Managers, Engineer-Constructors



How Different Types of Firms View the Overall Market



Subcontractors



ABC's Construction Backlog Indicator

- ► The Construction Backlog Indicator (CBI) is a forward-looking national economic indicator that reflects the amount of work that will be performed by commercial and industrial contractors in the months ahead.
- ▶ In the latest report (July), the CBI fell to 8.5 months, down 0.3 months or 2.9% from June 2019, when CBI stood at 8.8 months. All four regions included in the survey (Northeast, South, West and Middle States) saw declines, with the most significant in the West (Colorado) and Middle States.
- ▶ Despite the 9.3% monthly decline in the **West** region, backlog remains above levels observed in early 2019.

ABC's Construction Backlog Indicator





©Associated Builders and Contractors, Construction Backlog Indicator

ABC's Construction Backlog Indicator

Construction Backlog Indicator

	July 2019	June 2019	Net Change	% Change
Total	8.5	8.8	-0.3	-2.9%
	Industi	у		
Commercial & Institutional	8.4	9.0	-0.6	-6.5%
Heavy Industrial	8.7	6.4	2.3	35.6%
Infrastructure	9.2	9.2	0.0	0.5%
	Region	7		
Middle States	7.0	7.5	-0.5	-5.9%
Northeast	8.8	8.9	-0.1	-1.1%
South	10.2	10.3	-0.1	-0.6%
West	7.4	8.2	-0.8	-9.3%
	Company	Size		
<\$30 Million	7.4	8.2	-0.8	-9.8%
\$30-\$50 Million	9.2	8.8	0.4	4.6%
\$50-\$100 Million	11.5	9.5	2.0	20.8%
>\$100 Million	13.6	13.3	0.3	2.8%

@Associated Builders and Contractors, Construction Backlog Indicator

Summary of Indicators

Architecture Billings Index	CFMA Confindex	FMI Construction Outlook Report	ENR Construction Industry Confidence Index	ABC's Construction Backlog Indicator
Leads nonresidential construction activity by approximately 9-12 months	CFMA's proprietary confidence index survey of CFOs in the commercial construction sector	Utilizes historical building permit and construction-put-in-place data provided by the U.S. Commerce Department	Measures executive sentiment about current market, and forecasts next three to six months, and over a 12- to 18-month period. A rating above 50 shows a growing market	A forward-looking national economic indicator that reflects the amount of work that will be performed by commercial and industrial contractors in the months ahead
Published Monthly	Published Quarterly	Published Annually	Published Quarterly	Published Monthly
July ABI was at 50.1	During the third quarter of 2019, the Overall Confindex reading rose 3.6 percent on a quarterly basis from 111 to 115	FMI forecasts a 3 percent increase in 2019 spending levels over 2018	The CICI fell one point to 58 in the second quarter of 2019, from 59 in the first quarter.	CBI fell to 8.5 months, down 0.3 months or 2.9% from June 2019

- ▶ Profitability Ratios Measure and evaluate the ability of a company to generate income relative to balance sheet assets.
- ► Leverage Ratios Measures how much capital comes in the form of debt (loans) vs. equity, and assesses how operations leverages the balance sheet.
- ► Efficiency Ratios Measure a company's ability to use its assets and manage its liabilities effectively in the short-term.
- ► Liquidity Ratios Measures the ability of a company to pay off its short-term obligations

Profitability Ratios

▶ <u>Return on Assets</u> - Indicates the profit generated by the total assets employed. A higher ratio reflects a more effective employment of company assets. This ratio is generally stated in terms of percentages (i.e., 10% return on assets). (Net Earnings Before Income Taxes divided by Total Assets).

Profitability Ratios (Continued)

► <u>Return on Equity</u> - Indicates the profit generated by the net assets employed. This ratio reflects the stockholders' return on investment and is generally stated as a percentage. A very high ratio may indicate an undercapitalized situation or conversely, a very profitable company. (Net Earnings Before Income Taxes divided by Total Net Worth).

Profitability Ratios (Continued)

► <u>Times Interest Earned</u> - Indicates the company's ability to pay interest expense from operations. A low ratio may indicate an over-leveraged situation and a need for more permanent equity. (EBIT divided by Interest Expense).

Leverage Ratios

▶ <u>Debt to Equity</u> - Indicates the relationship between creditors and owners. Generally, a ratio of three or lower is considered acceptable. (Total Liabilities divided by Total Net Worth).

Surety Benchmark - 3.0 : 1 (Considered a "Big Three")

Leverage Ratios (Continued)

- ► <u>Revenue to Equity</u> Indicates the level of revenue being supported by each \$1 of equity. Generally, a ratio of 15 or less is considered acceptable. (Revenue divided by Total Net Worth).
- ► <u>Asset Turnover</u> Indicates the level of revenue being supported by each \$1 of assets. By reviewing the trend of this ratio, one can determine the effectiveness of asset expansion. (Revenue divided by Total Assets).

Leverage Ratios (Continued)

► <u>Fixed Asset Ratio</u> - Indicates the level of stockholders' equity invested in net fixed assets. A higher ratio may indicate a lack of funds for current operations. Usually, a low ratio indicates a more favorable liquidity position; however, off balance sheet financing of equipment may offset this apparent positive indication. (Net Fixed Assets divided by Total Net Worth).

Leverage Ratios (Continued)

- ► <u>Equity to G&A Expenses</u> Indicates the level of overhead in relation to net worth. Generally, a ratio of 1.0 or more is considered acceptable. (Total Net Worth divided by G&A Expenses).
- ► <u>Underbillings to Equity</u> Indicates the level of unbilled contract volume being financed by the stockholders. Usually stated as a percentage, a ratio of 30% or less is considered acceptable. (Unbilled Work + Costs in Excess divided by Total Net Worth).

Leverage Ratios (Continued)

▶ <u>Backlog to Equity</u> - Indicates the relationship of signed or committed work to total stockholders' equity. Generally, a ratio of 20 or less is considered acceptable. A higher ratio may indicate the need for additional permanent equity. (Backlog divided by Total Net Worth).

Leverage Ratios (Continued)

► <u>Net Worth to Cost to Complete</u> - Indicates the relationship of costs left on jobs in progress to the net worth of the organization. (Net Worth divided by the total estimated costs to complete on in-progress jobs).

Surety Benchmark - >10% for Subcontractors/specialty subs, >5% for General Contractors and >10% for Heavy Equipment (Considered a "Big Three")

Efficiency Ratios

- ► <u>Backlog to Working Capital</u> Indicates the relationship between signed or committed work and working capital. A higher ratio may indicate a need for an increase in permanent working capital. (Backlog divided by Working Capital (Current Assets minus Current Liabilities).
- ► <u>Months in Backlog</u> Indicates the average number of months it will take to complete all signed or committed work. (Backlog divided by Revenue/12).

Surety Benchmark - Generally => 12 Months

Efficiency Ratios (Continued)

▶ <u>Days Sales in Receivables</u> - Indicates the number of days to collect accounts receivable. A lower ratio indicates a faster collection of receivables, thus more liquidity. Consideration should be given to the days in accounts payable ratio, because higher days in accounts receivable ratio may indicate a drain on cash flow. (Net Accounts Receivables x 360 divided by Total Revenue).

Surety Benchmark - <60 Days

Efficiency Ratios (Continued)

► <u>Days Sales in Inventory</u> - Indicates the number of days required to sell inventory. A high ratio may indicate overstocking of inventory. (Net Inventory x 360 divided by Total Costs of Sales).

Efficiency Ratios (Continued)

► <u>Days Sales in Accounts Payable</u> - Indicates the average number of days it takes to liquidate trade payables. The ratio should be compared with credit terms of vendors. Retainage has been excluded. (Total Accounts Payable (excluding retainage) x 360 divided by total costs).

Surety Benchmark - <60 Days

Efficiency Ratios (Continued)

► <u>Operating Cycle</u> - Indicates the length of time it takes for the company to complete a normal operating cycle. A low ratio may indicate a need for more permanent working capital. (Days in Cash + Days in Accounts Receivable + Days in Inventory - Days in Accounts Payable).

Liquidity Ratios

► <u>Current Ratio</u> - Indicates the extent to which current assets are available to satisfy current liabilities. Usually stated in terms of absolute values (i.e., 2.1 to 1.0, or simply 2.1). Generally, a minimum current ratio is 1.0, which indicates that current assets at least equal current liabilities. (Current Assets divided by Current Liabilities).

Surety Benchmark - Generally >1.2, but >1.0 for Heavy Equipment

Liquidity Ratios (Continued)

▶ Quick Ratio - Indicates the extent to which the more liquid assets are available to satisfy current liabilities. Usually stated in terms of absolute values, a quick ratio of 1.0 is generally considered a liquid position. ((Cash and Cash Equivalents + Short Term Investments + Net Accounts Receivable) divided by Current Liabilities).

Surety Benchmark - >1.0

Company Wide Performance and Key Performance Indicators

Liquidity Ratios (Continued)

▶ <u>Days of Cash</u> - Indicates the number of days' revenue in cash. Generally, a ratio of seven days or more is considered adequate. (Cash and Cash Equivalents x 360 divided by Revenues).

Surety Benchmark - >7 days

Company Wide Performance and Key Performance Indicators

Liquidity Ratios (Continued)

► <u>Working Capital Turnover</u> - Indicates the amount of revenue being supported by each \$1 of net working capital employed. A ratio exceeding 30 may indicate a need for increased working capital to support future revenue growth. (Revenue divided by Working Capital).

Company Wide Performance and Key Performance Indicators

Liquidity Ratios (Continued)

► <u>Working Capital to Cost to Complete</u> - Indicates the relationship of costs left on jobs in progress to the working capital of the organization. (Working Capital divided by the total estimated costs to complete on inprogress jobs).

Surety Benchmark - >10% for Subcontractors/specialty subs, >5% for General Contractors and >2.5% for Heavy Equipment (Considered a "Big Three")

Project Performance and Analysis

► <u>Gain/Fade Analysis</u> - The increase or decrease in gross profit from the original estimate. Performed by project, by project manager, region and type of contract.

Surety Comments - Volatility and bias towards fade are negative reflections on estimates. Generally looking at three year trends.

▶ <u>Bid Spread</u> - The difference between the successful bid, and the next highest competitive bid.

Surety Comments - Generally spreads of over 10% are heavily scrutinized (depends on industry, size of project, market conditions, and historical profitability).

Project Performance and Analysis

- Contract Cash Flow Analysis Cash collected less cash paid; compared to total contract revenue and gross profit.
- Contract Risk Analysis Gross profit based on historical percentages vs. estimated.

Other Considerations

- ► <u>Equal Employment Opportunity (EEO) Status</u> Many government (local and federal) require diversity within the company.
- ► <u>Workers Comp/E-Mod Rate</u> Not only does a higher Experience Modification Rate (EMR) cost the company more money in Workers Compensation Insurance premiums, the rate may be considered as a qualifier or factor in the bid process (especially in government projects).

The "Big Three" Reminder

- ► Debt to Equity Leverage Ratio
- Net Worth to Cost to Complete Leverage Ratio
- ➤ Working Capital to Cost to Complete -Liquidity Ratio

CFMA Benchmarker Company Report Card

FINANCIAL INFORMATION KEY RATIOS - ALL SHOWN AS MEDIANS EXCEPT INVENTORY	EXAMPLE COMPANY - 2018	EXAMPLE COMPANY - 2017	2017 All Companies	2017 Revenue: \$10 - 25 Million	2017 TRAFFIC CONTROL COMPANIES	Status (EXAMPLE COMPANY vs. TRAFFIC CONTROL		
Number of Participants			955	260	10			
LIQUIDITY RATIOS								
Current Ratio	1.4	1.1	1.6	1.7	1.4	Fair		
Quick Ratio	1.3	1.0	1.4	1.5	1.2	Weak		
Days of Cash	14.8	10.3	20.0	19.1	9.2	Good		
PROFITABILITY RATIOS								
Return on Assets	34.6%	15.1%	10.2%	11.5%	9.5%	Good		
Return on Equity	77.7%	53.0%	27.5%	29.1%	31.8%	Strong		
Times Interest Earned	54.0	47.3	26.0	22.2	11.6	Strong		
LEVERAGE RATIOS								
Debt to Equity	1.2	2.5	1.4	1.2	1.9	Fair		
Fixed Asset Ratio	50.7%	76.5%	30.7%	37.6%	80.1%	Good		
Asset Turnover	3.8	3.3	2.7	2.6	2.5	Good		
Equity to SG&A Expenses	90.0%	50.0%	160.0%	150.0%	100.0%	Fair		
Underbillings to Equity	12.0%	15.7%	8.1%	7.6%	9.3%	Fair		
EFFICIENCY RATIOS								
Average Backlog to Working Capital	6.9	42.6	7.0	4.4	13.0	Strong		
Average Months in Backlog	5.0	9.5	7.5	6.2	9.2	Good		
Days in Accounts Receivable	34.8	49.2	54.0	53.7	54.1	Good		
Days in Inventory	1.8	1.6	3.8	4.2	1.0	Fair		
Days in Accounts Payable	24.2	32.9	29.8	27.7	22.9	Good		
Operating Cycle	27.1	28.2	45.7	48.0	36.3	Strong		
PRODUCTIVITY RATIOS								
Revenue per FTE Employee	\$220,340	\$229,259	\$388,874	\$315,042	\$178,556	Strong		
Gross Profit per FTE Employee	\$49,734	\$53,100	\$53,523	\$55,146	\$37,278	Strong		

WIP Schedule Analysis - WIP by Project Type

Job Type	2	018 Contract Revenue	Co	2018 Cost of ontract Revenue	7	2018 Gross Profit	2018 Gross Profit Percent
Contract type 1	\$	9,858,031	\$	7,845,850	\$		20%
Contract type 2		13,073,932		9,858,887		3,215,044	25%
Other <\$100,000		2,453,813		1,571,406		882,407	36%
Total		25,385,775		19,276,143		6,109,632	24%
Under applied overhead		-		443,308		(443,308)	
Grand Total	\$	25,385,775	\$	19,719,451	\$	5,666,324	22%

	2010 C	2018 Cost of Contract	2010 6	2018 Gross Profit
Location	2018 Contract Revenue	Revenue	2018 Gross Profit	Percent
Adams County	\$ 5,890,142	\$ 4,737,797	\$ 1,152,345	20%
Arvada CO	4,162,137	2,828,517	1,333,620	32%
Aurora, CO	2,977,722	2,027,992	949,730	32%
Boulder, CO	1,452,847	1,406,579	46,268	3%
Broomfield, CO	1,323,596	939,188	384,408	29%
Cheyenne, WY	1,275,042	1,084,004	191,038	15%
Denver, CO	1,126,871	911,179	215,692	19%
Englewood, CO	1,044,582	792,866	251,716	24%
Erie, CO	940,075	795,696	144,380	15%
Fort Collins, CO	939,047	758,439	180,607	19%
Frederick, CO	888,179	644,181	243,998	27%
Gilcrest, CO	801,874	625,516	176,358	22%
Greeley, CO	354,157	260,802	93,355	26%
Hudson, CO	321,155	222,665	98,491	31%
Lafayette, CO	295,534	114,643	180,891	61%
Lakewood, CO	282,934	218,983	63,951	23%
Lochbuie, CO	230,648	158,725	71,923	31%
Longmont, CO	220,325	119,720	100,605	46%
Loveland, CO	206,473	(1,620)	208,093	101%
Northglenn, CO	124,657	122,585	2,071	2%
Parker, CO	92,320	219,613	(127,293)	-138%
Sterling, CO	82,820	34,482	48,338	58%
Thornton, CO	74,905	49,765	25,140	34%
Wiggins, CO	65,000	47,897	17,103	26%
Windsor, CO	55,143	39,394	15,749	29%
Other < \$50,000	157,590	116,535	41,055	26%
Total	25,385,775	19,276,143	6,109,632	24%
Under applied overhead		443,308	(443,308)	
Grand Total	\$ 25,385,775	\$ 19,719,451	\$ 5,666,324	22%

WIP Schedule Analysis -WIP by Location

Project Manager	2018 Contract Revenue		2018 Cost of Contract Revenue		2018 Gross Profit		2018 Gross Profit Percent
Project Manager 1	\$	8,579,747	\$	6,679,182	\$	1,900,565	22%
Project Manager 2	•	5,015,639	•	3,566,718	•	1,448,921	29%
Project Manager 3		4,693,489		3,587,792		1,105,697	24%
Project Manager 4		3,517,628		2,777,496		740,132	21%
Project Manager 5		2,321,756		1,754,171		567,585	24%
Project Manager 6		1,056,728		812,465		244,263	23%
Project Manager 7		146,744		59,903		86,841	59%
Project Manager 8		54,044		38,416		15,628	29%
Total		25,385,775		19,276,143		6,109,632	24%
Under applied overhead				443,308		(443,308)	
Grand Total	\$	25,385,775	\$	19,719,451	\$	5,666,324	22%

WIP Schedule Analysis -WIP by Project Manager

WIP Analysis - Other Considerations

- ► WIP by Estimator
- ► WIP by Customer/Owner
- ► Others?

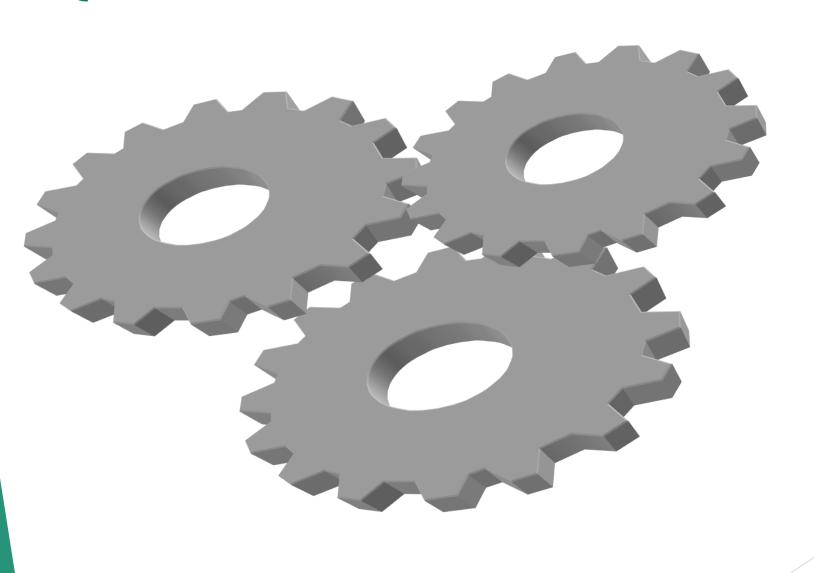
Resources

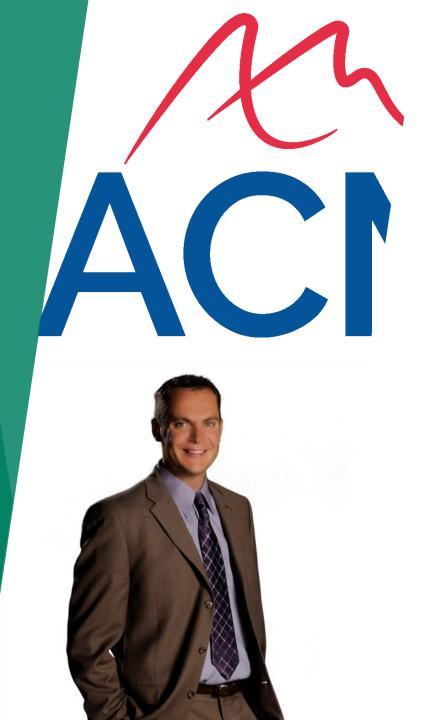
- ► Construction Financial Management Association (CFMA)
 - http://www.cfma.org/



- ► Associated General Contractors of America (AGC)
 - http://www.agc.org/
- ► Associated Builders and Contractors, Inc.
 - http://www.abc.org/

Questions...





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