# RedTeam on the Road

Learn, Lead, Build, Transform

Nashville, May 13







# Artificial Intelligence Demystified

RedTeam on the Road Nashville May 13<sup>th</sup>, 2024

## **Hugh Seaton**



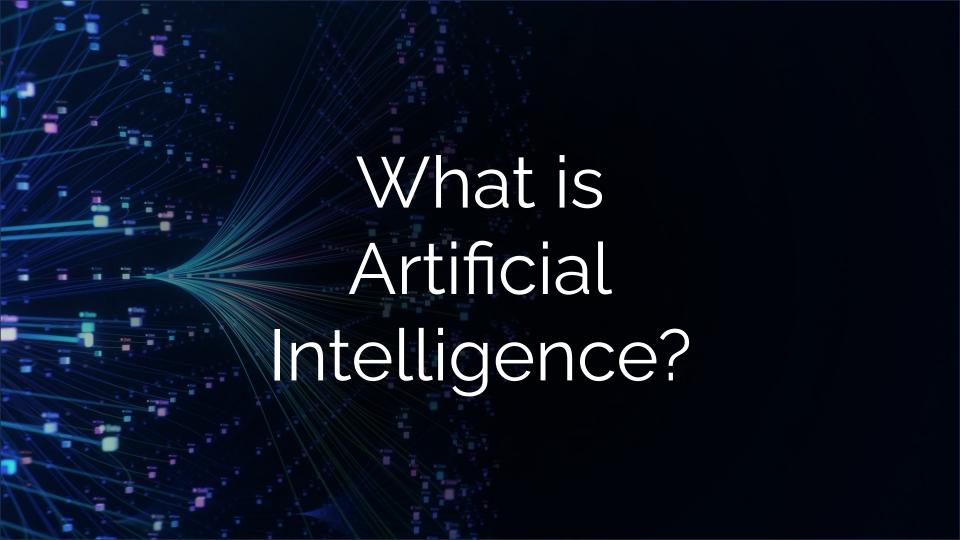
- CEO. The Link.ai
- GM, Construction Specifications
   Institute
- Host
  - Constructed Futures Podcast
  - Al in Construction Webinar Series
- Author
  - The Construction Technology Handbook (Wiley 2021)
  - Al in Construction (Taylor & Francis, 2025)

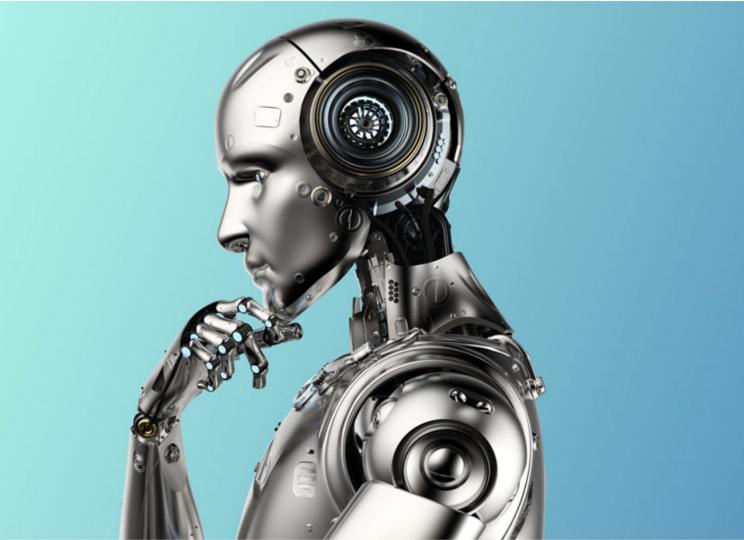


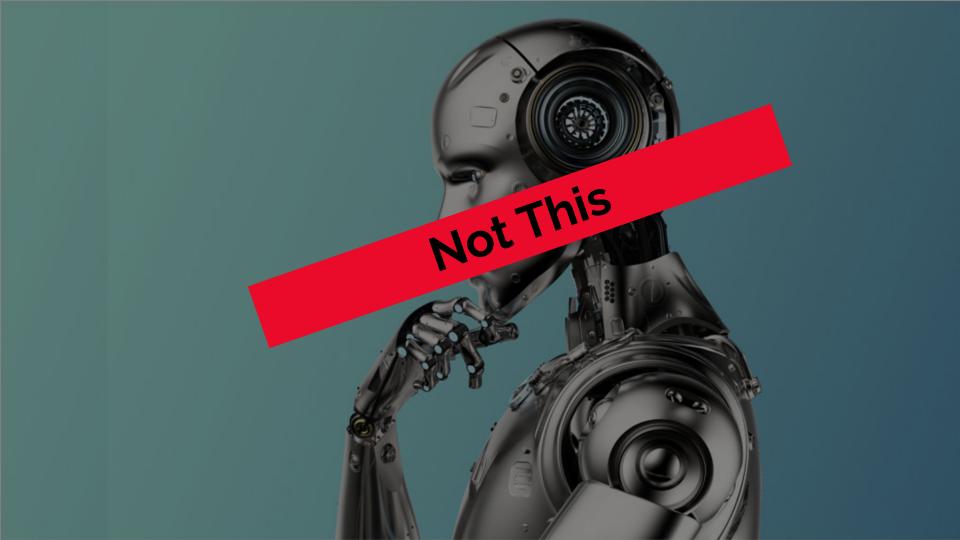












Al is software
that can do unique things
without explicit programming

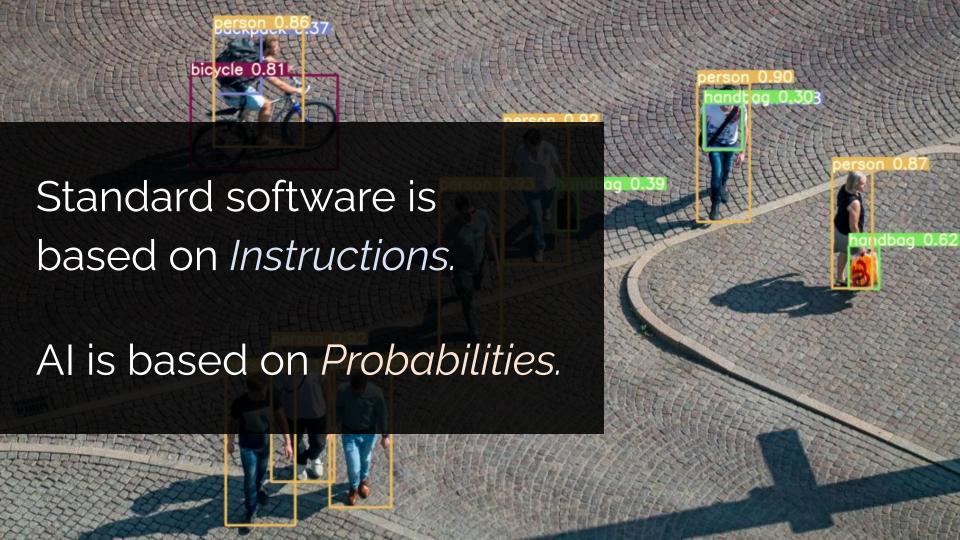






Al is math, not magic





## Probability means risks

- Al responses can vary
- Software is built to manage this

 Al is not a silver bullet—good for some things, not for others



#### Two types of Al

# Deep Learning 2011 to present

- Machine learning
- Tons of Labeled Data
- Classification

#### **Generative Al**

Nov. 2022 to present

- Transformers
- Documents, knowledge
- ChatGPT & LLMs

#### Deep Learning vs. Generative Al

- Deep Learning turns
   Data into Information
  - That photo is a dog
  - That email is spam.

- Generative AI turns
   Knowledge into Action
  - Surveying, summarizing pre-existing content and knowledge
  - Enabling better decisions
  - Making its own decisions

## Why this distinction matters

Deep Learning has been around for over a decade

Lots of hype, limited impact:

- · Few companies have enough good data
- Most applications powered something else limited user interface

#### Risks:

Data quality, quantity and problem size

## Why this distinction matters

#### Generative Al is new

Lots of hype, significant impact:

- Data is not the key input knowledge is
- Users are directly interacting with GenAl

#### Risk:

Trusting before it's ready

## Different challenges with use

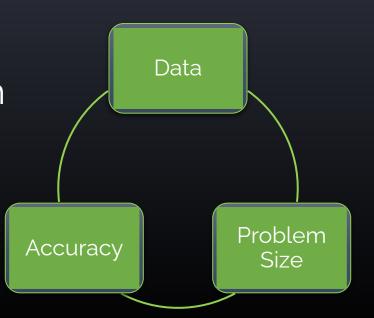
#### Generative AI challenges:

- Asking good questions, or "prompting"
- Treating it like Google

#### Different challenges with use

#### Deep Learning challenges:

- Smallest possible problem
- Lowest possible accuracy
- Most possible data



# Deep Learning data requirements scale exponentially

Data Required

\*This is why product demos always look so good

# Trusting Al

## Al doesn't fail like a human would

#### AI is not a "silicon brain"

• We all have a "theory of mind" for how other human brains might work

This fails us with Al

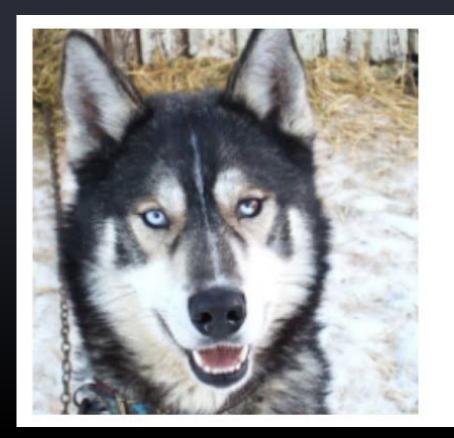
 Results that come from AI do not emerge the way they do in humans

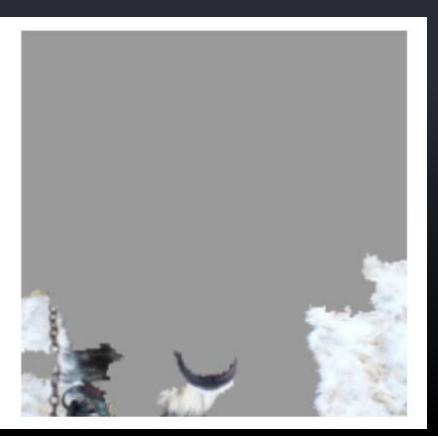
#### Bottom up vs. top down

• In 2017 researchers built an image recognizer

It confused huskies with wolves

A human would assume because they look alike





# Always have a human in the loop

Key takeaway:

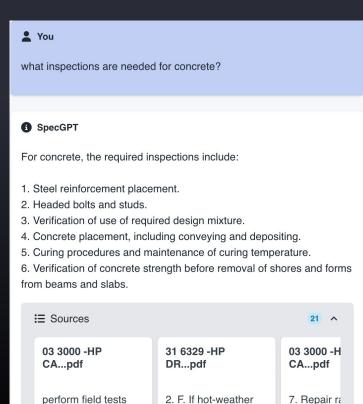
# Al and project delivery

## 2024 is already moving fast

- Agents: Al that can string together actions to produce end results
- Imagine replacing a bundle of tasks you might give junior staff, or an intern
- If the intern was a genius with zero people skills...

#### How can GenAI help?

- No more blank sheets of paper
  - Jump start thought process
  - Increase output
- Minimize tedious search & summarizing
  - Specifications
  - RFIs/Change Orders
  - Communications who said what, and what did that mean
  - Lessons learned



Message

## How can GenAl help?

#### Speed up Job Analysis

- Extract plans
- Extract Spec information
- Summarize it in a table on demand
  - "Give me window schedule" or "Give me the hardware schedule"

#### Avoid guessing about terms or requirements

- Help us quickly reference contract details such as how many weather days do I need to include in my schedule?
- Are there liquidated damages?



Please show training videos for how do to concrete inspections in this spec

#### SpecGPT

Yes, here are the training videos related to inspections for concrete placement, including various specific aspects:

- 1. \*\*Steel Reinforcement Placement and Inspection:\*\*
- Reference Video: [ASTM E 329: Standard Specification For Agencies Engaged In Construction Inspection, Testing, Or Special Inspection](https://youtube.com/shorts/ByhiPjPv0Fk? si=K\_380U16QLzwahMF)
- 2. \*\*Headed Bolts and Studs Inspection:\*\*
- Unfortunately, there's no direct link provided for a video specifically about inspecting headed bolts and studs. However, general inspection practices might be covered under the standards and practices for steel reinforcement and concrete placement.
- 2 \*\* Varification of Use of Required Decian Mixture \*\*

What if you could automate the paperwork, the repetitive tasks, the double checking information?

# Al will completely change the economics of project delivery and the industry

## Is Al coming for your job?

## Al as Economic Input

#### **Economics of Inputs is not new**

 When an input cost is reduced, other entities that do similar things lose value

 However, when an input cost is reduced, entities that use that input gain value

#### Within the next 5 years:

Skilled trades expertise is **not** being automated

Judgement is **not** being automated

Experience is **not** being automated

# In 30+ Years, nothing has moved anywhere near this fast

#### What you can do now:

- Avoid hype. Construction is still hard.
- Have someone *really* learn how to write prompts
- Check out AI in Construction Webinars (Linkedin)
- Try some lower cost GenAl products

#### **SpecGPT**



#### Thank You



**Hugh Seaton** 

CEO, The Link

hugh.seaton@thelink.ai

Q & A



# **How to Effectively Manage Risk**

## in Construction



**Brad Ellis** 

Flow Construction Company



Landivar & Associates



BBI









## What's New with RedTeam

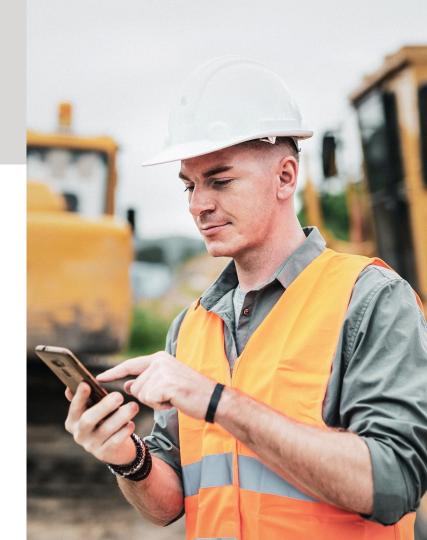
A Product Recap and Lookahead



## **What's New with RedTeam**

### **About the presentation**

This session lead by our product team will share a recap and lookahead of our product updates for RedTeam Flex, RedTeam Go, and Fieldlens by RedTeam. Get first hand details, best practices, and ask your questions during the live Q&A with the team.





# **Session learning objectives**

After attending this session, you will...

- 1 Know a little more about the latest updates for our products
- Have a high-level understanding of what's coming next for our products
- 3 Understand our feedback collection and roadmap-planning process



## This is RedTeam

### Visit RedTeam.com for additional information

Construction is one of the world's most challenging industries. We get it, because we've been there. RedTeam understands what success looks like every step of the way. That's why we're focused on the entire project team from the office to the field. Your job will never be easy, but having maximum control over schedules, safety, quality and cost makes the day-to-day run better and more smoothly than ever before.

That's total project control. That's RedTeam.

### **Presenters**



Traci VanDalsem

VP of RedTeam Go



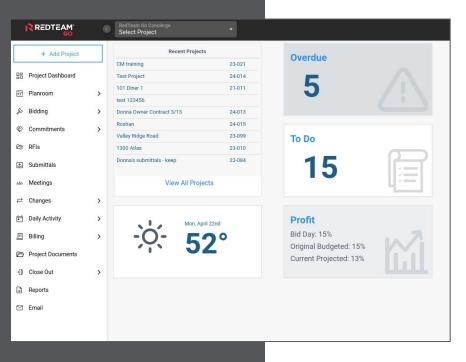
Nicole Chance

Product Marketing

Manager,

RedTeam





# Latest enhancements in RedTeam Go

### What's New?

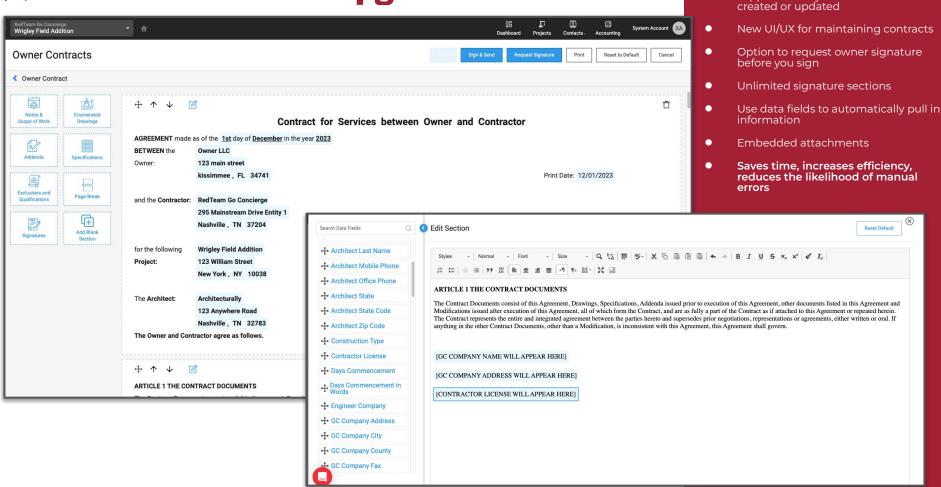
- Owner Contracts Upgrade
- Estimate Import
- Project Export

### What's Coming?

- Change Orders Upgrade
- Owner Billing Optimization



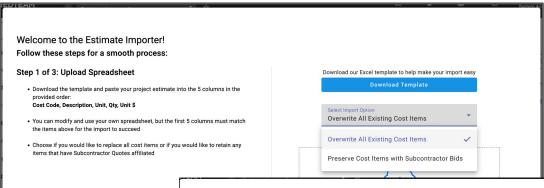
## Owner Contracts upgrade



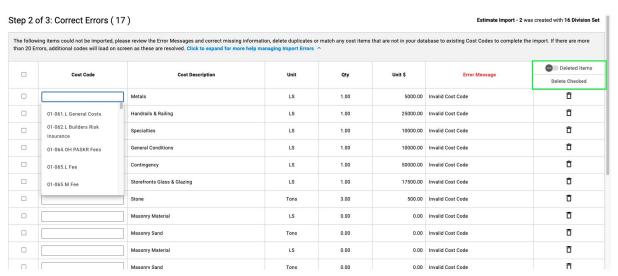
Eliminates the need to contact support when you need contracts



## **Estimate Import**

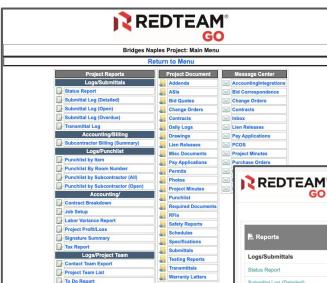


- Allows you to work on your estimate where you want and simply load it into RedTeam Go when you're ready
- Error handling right on screen
- Ability to overwrite an existing estimate or preserve cost items associated with subcontractor bids
- Streamlines your estimating so you can start using RedTeam Go's powerful bidding tools right away





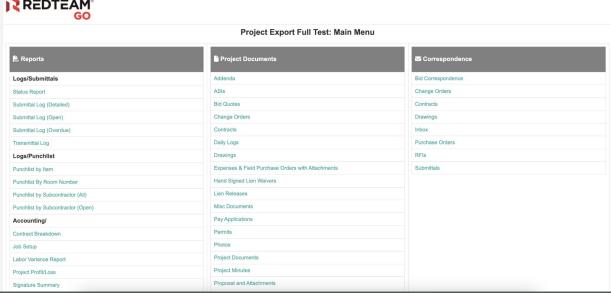
## **Project Export**



**Before** 

- A great tool for project closeout add files to operation and maintenance manuals
- Includes security improvements and new code
- Automatic failure recovery
- UI/UX enhancements
- More efficient project closeout process; streamlined experience with a more comprehensive list of project documents available for export

### After





# Roadmap candidates for RedTeam Go

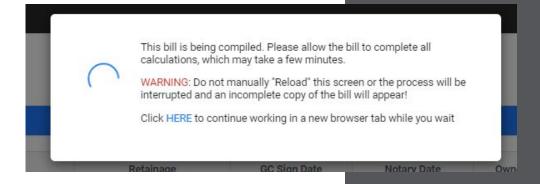
### **Change Orders upgrade**

- "Ease-of-Use" improvements
- Change Orders additional features
- Report updates
- Additional client feedback and suggestions to be incorporated wherever possible

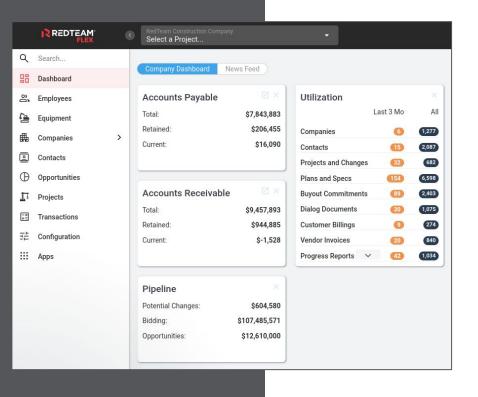
### Owner Billing optimization

- Speed and performance enhancements
- "Ease-of-Use" improvements to make the UI more intuitive and efficient

- Roadmap updates planned based on client feedback
- Focus on 'Ease-of-use' and increased efficiency







# Latest enhancements in RedTeam Flex

### What's New?

- Estimating
- Bid Management
- Proposals
- SOV and IOR

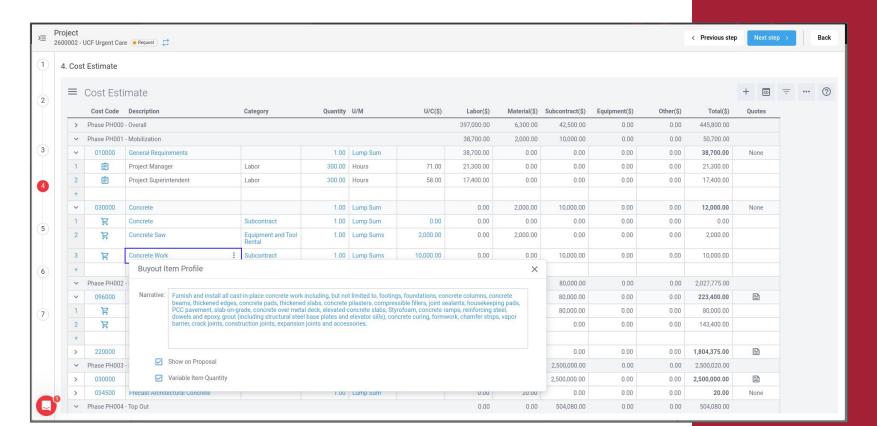
### What's Coming?

- Submittals Enhancements
- Spec Book Enhancements



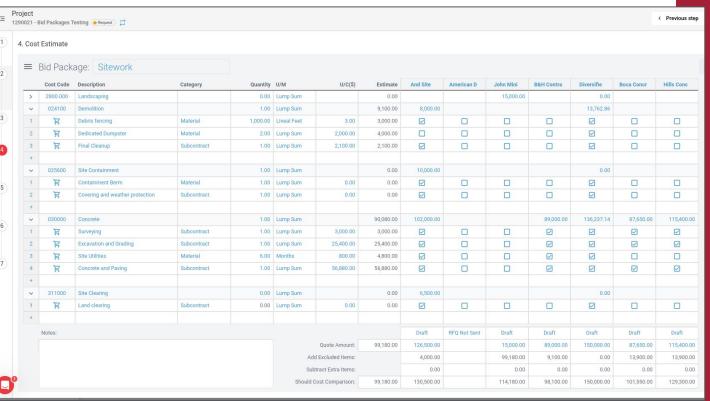
## **Estimating**

- Spreadsheet style UI/UX
- Lightning fast simultaneous cost and pricing calculations
- Streamline the estimate building process





## **Bid Management**



- New bid packages allow you to invite subcontractors to bid on several cost codes at once
- Coming soon: Collaborative bid form to see changes in real-time
- Tools for quick communication during the bidding process
- Build bid packages and use bid leveling to automatically update the cost and pricing calculations in the bid package and the estimate simultaneously
- Multiple team members can work on the estimate at the same time



DRAFT

### REDTEAM® Select Building Systems dba Training2 Construction

#### NEGOTIATED PRICING DETAILS

Legal name SOV Type Cost of the Work 3 10630 Portable Partitions

Portable Partitions 1055-11 18 Fittng,F&I,Di/Ci,Cap/Plg,8-

> Utility Subcontract-S Fittng,F&I,Di/Ci,Cap/Plg,8-

M-Jc02

PH1 - phase1 15400

> Plumbing cat262520

-Phase

Utility Pipe, Adjust/Mod,5-1050-11 21

Plumbing

Utility Pipe, Adjust/Mod.5- Labor PE

1050-11 4 Utility Pipe, F&I,Pvc,Water/Sewer,5-7.9"

> Utility Pipe. F&I,Pvc,Water/Sewer,5

Houston Division - Change

BID PACKAGE: PHASE 2: INSTALLATION

Page 2 of 3

Date: 10/11/2023

Project: 1010009 - Miami Seaguarium Area Development

Document: 1010009

	Lance was a	50000000000000000000000000000000000000	BALL CARROLL BEST	0010100100101010101010		
Cost Code	Description	Affordable Constru	Bomel Constructio	Builders Boost	Green Builders	Betterbuddy Contr
16050	Basic Electrical Materials And Methods			8,000.00	9,246.31	
	Basic Electrical Materials			8,000.00		
	Basic Electrical Methods		~	~	~	
16200	Electrical Power	800.00	900.00	800.00	1,017.09	2,000.00
	Electrical Power			800.00		
	Wiring	~		~	~	
	Conduits		~	~		~
16300	Transmission And Distribution	1,800.00	1,300.00	1,000.00	1,849.26	
	Transmission			1,000.00		
	Distribution	~		~	~	
17100	Plumbing	4,500.00	4,300.00	4,000.00	5,547.78	8,000.00
	Plumbing			4,000.00		
	Materials	~	~	~	~	~
17300	Fire Protection Piping	10,000.00	12,000.00	10,000.00	11,095.56	9,000.00
	Fire Protection Piping			10,000.00		
	Substations	~	~	~	~	~
17500	Heat-Generation Equipment	800.00	1,000.00	800.00	1,017.09	2,000.00
	Heat-Generation Equipment			800.00		
	Electrical Panel	~		~	~	
	Conduits		~	~		~

- Back end improvements to enhance your proposal forms
- Use data fields to automatically pull in information
- Updated attachments available for CM projects: Negotiated Pricing Summary and Negotiated Pricing **Details**
- Coming Soon: New attachments available for all projects: Bid Leveling Output for greater transparency

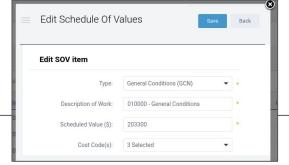


CONSTRUCTION

2570004 - Winter Park Hotel (CMAR

Orlando Construction Company

# Schedule of Values and Indicated Outcome Report



- New SOV Types let you control what's shared with your client
  - Separate your General Conditions SOV items from your Cost of Work items
  - Use the IOR report to share progress with your client

INDICATED OUTCOME REPORT

Date: 05/08/2024

 Quickly see Savings and Loss by cost code and track your profit





# Roadmap candidates for RedTeam Flex

#### **Submittals enhancements**

- Submittals from Spec Book
- Submittals from Vendors
- Submittal Reminders
- Ball-In-Court
- Approver Portal

### **Spec Book enhancements**

- Distinct section for SpecBook management
- Splitting Spec Book

- Roadmap updates planned based on client feedback
  - Focus on 'Ease-of-use' and increased efficiency, along with continued focus on risk reduction



## Fieldlens by RedTeam

#### What's New?

- New Mobile Application is out now!
- A whole new mobile app for Fieldlens, with updated technology for a seamless work between web and mobile
- Optimized processes to enhance speed & faster response times
- Standard UI between iOS and Android
- Markup functionality now expanded on the mobile platform to match the web version

The classic Fieldlens mobile app will not be updated with new features and enhancements. Please download the new app in Google Play or the Apple App Store.

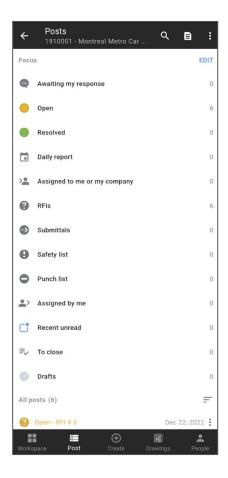


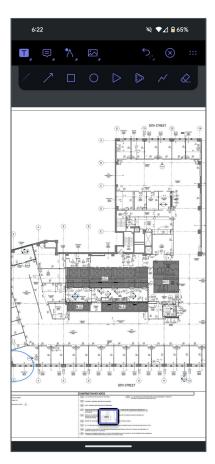


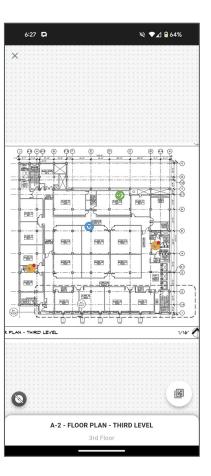


**Apple** 

## **Fieldlens Mobile App**





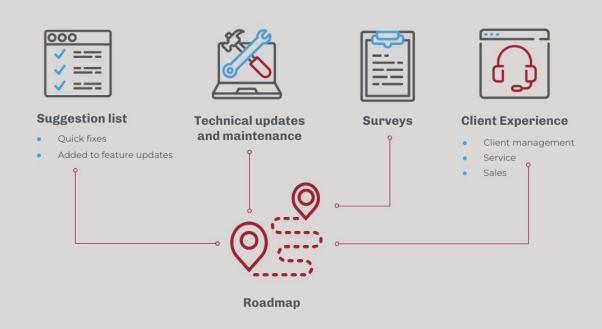




## Feedback and suggestions

#### Your feedback matters

- How do we collect feedback
- How do we make decisions for the roadmap
- Who should you contact?





# Thank You!

**Questions?** 

Traci VanDalsem

VP of RedTeam Go



### **Nicole Chance**

Product Marketing Manager







## **Lump-Sum vs. Negotiated**

## **Construction Contracts**





# Lump Sum vs. Negotiated Construction Contracts

### **Vendor relationship management**

There are benefits and challenges to hard bidding a job and negotiating a contract with clients. Learn why you'd want to negotiate a job versus why you'd want to hard-bid a job.





# **Session learning objectives**

After attending this session, you will...

- After attending this session, you'll understand the difference between Hard-Bid and Negotiated Work
- You'll walk away with the knowledge why a General Contractor would choose to hard-bid a job
- You'll gain an understanding of why a General Contractor would choose to Negotiate a contract
- You'll gain best practices for how to leverage construction management software to successfully execute on different delivery methods and contract types



## **About me**

### 10 years of commercial construction experience

In the following type of construction

- Industrial Construction
- Medical Facilities
- Ground-up and renovations

#### Focusing on the following areas

- Design-Build & Turnkey Construction
- Budget Management
- Contract Compliance

#### Experience with the following commonly used applications

- RedTeam Flex
- Procore Technologies
- Sage 300 CRE
- Sage Paperless
- Textura TPM

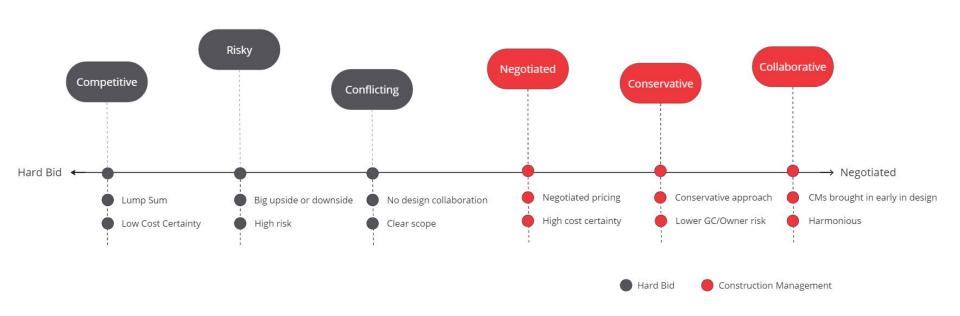
### **Cinthia Gil**

Sr. Industry Specialist





## Hard Bid vs. Negotiated





## **Negotiated contracts**

### **Advantages**

- There is more control of the outcome, less change orders
- Highly collaborative
- Construction time is reduced
- Opportunity for value engineering input, reducing overall cost



## Ways to promote timely completion of a job

### **Negotiated Contracts**

- Order long lead items ahead of construction commencement
- Collaborate with key subcontractors during preliminary design phase
- Develop a preliminary construction schedule



# Construction Management vs. Construction Management at Risk (CMAR)

### **Construction Management**

CM is hired by the Owner as an advisor during all phases of the project.

CM acts as the Owner's Representative.

One contract between the CM and the Owner.

CM is not the General Contractor during construction.

CM is not responsible for project exceeding the budget or the schedule not being met by the General Contractor.

### **Construction Management at Risk**

CM is hired by the Owner as an advisor during all phases of the project.

CM acts as the General Contractor during the construction phase.

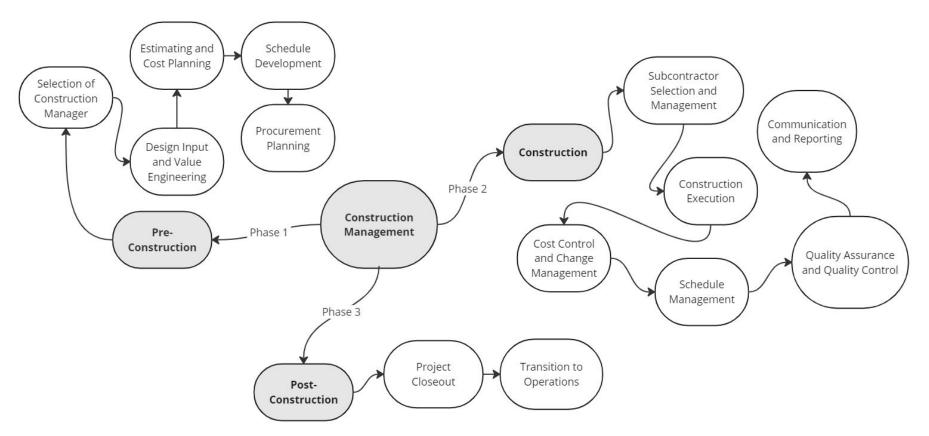
The Owner hires the CM and the CM hires the Subcontractors. The design firm may or may not be hired by the CMAR.

CM is also the General Contractor.

CM is at risk of losing money if the project goes over budget or not completed on time.



## Construction Managers are involved at every stage





## **Construction Management at Risk**

### **Advantages for the General Contractor**

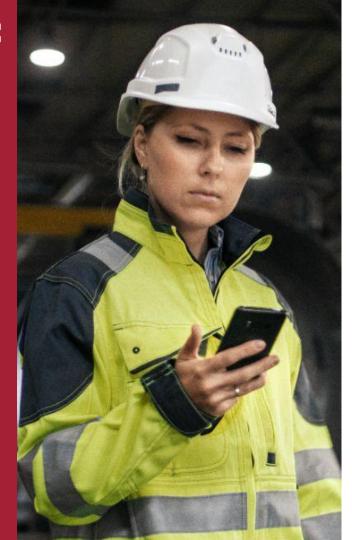
- ✓ You're being compensated for preconstruction services
- ✓ Provide value engineering, and constructability consultancy during the pre-construction phase
- ✓ Risk of losing money on a project is lower, as there is more cost certainty
- ✓ You have some ability to sway the design your way if it's more convenient down the road



## **Construction Management at Risk**

### **Disadvantages for the General Contractor**

- X Not as many new job opportunities in comparison to the traditional project delivery method of hard bid
- X Lose out on large profit margins



## **Advantages for Owners**

- Cost certainty for the Owner. Owner will not pay more than the agreed upon amount
- Contingency is popular, with unused money often being returned to the client, or split amongst the CM and the Owner
- Open book! The Owner has more visibility into how much is spent for every component of the project



### **Guaranteed Maximum Price**

### **Advantages for the Construction Manager at Risk**

- ✓ Both the Owner and the Construction Management at Risk firm agree to a reduced risk in order to have a predictable cost outcome
- $\checkmark$  The chances are higher that you will earn a profit when compared to a lump sum
- ✓ Providing a price breakdown increases the level of trust in the Owner-CM relationship
- ✓ Less change orders due to errors and omissions



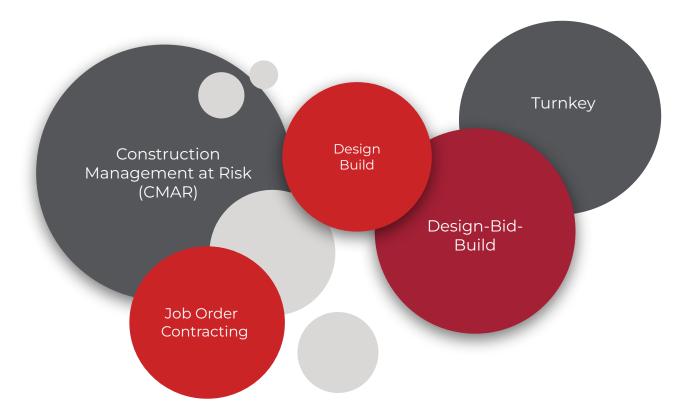
## **Guaranteed Maximum Price**

### Disadvantages for the CM at Risk

- X Unlike a lump sum contract, cost savings don't necessarily belong to you
- X You can potentially make less money than you would on a lump sum
- X Increased administrative burden to provide information to the Owner on cost detail

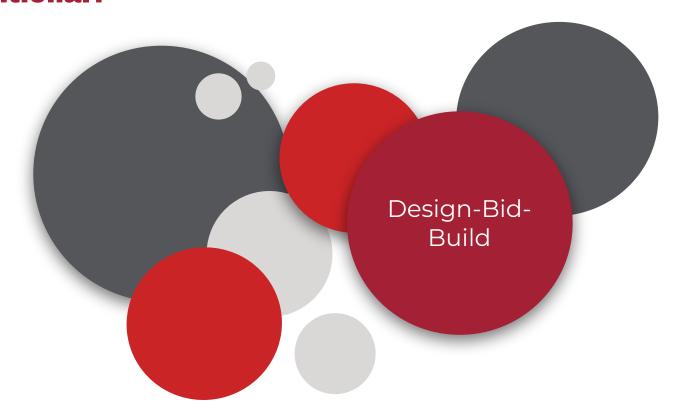


# Which of these project delivery methods is considered traditional?





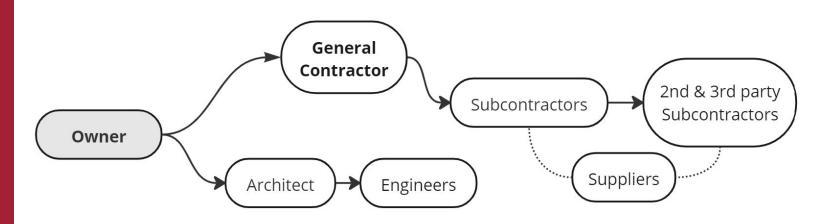
# Which of these project delivery methods is considered traditional?





### **Design-Bid-Build**

#### **Sequence**





### **Competitive Bids**

### Perceived advantages and why it's common

- The notion that the Owner will receive the lowest possible price for the work
- Brings opportunity for emerging contractors
- Brings opportunity for GCs wanting to break into new markets



### Ways to incentivise timely completion of a job

#### **Lump Sum Contracts**

• Be innovative about accelerating the schedule

Example: Jobsite trailer refreshments and food for subcontractors when key milestones are met ahead of time

What are some ways your company is innovative about accelerating the schedule?

• Be innovative about the means and methods to reduce cost

Example: Negotiating supplier contracts, buying materials in bulk to be used in several jobs

What are some ways your company is innovative about accelerating the schedule?

Be aggressive during the buyout process to capture savings



### **Design-Bid-Build**

#### **Advantages for the General Contractor**

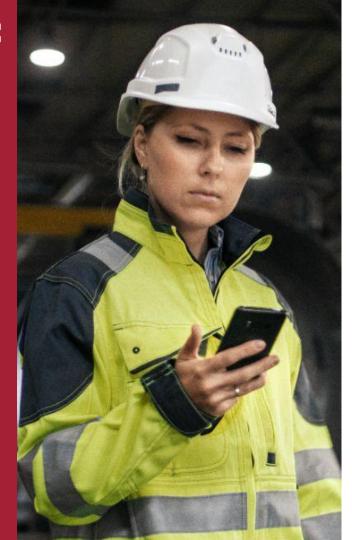
- ✓ Great opportunity for new GCs to win jobs
- ✓ Easier to price because it has a defined scope
- ✓ Less design-related liabilities
- ✓ It's a way in to break into new markets



### **Design-Bid-Build**

#### **Disadvantages for the General Contractor**

- X More change orders
- You'll spend a lot of time and money chasing after jobs which you may not get
- X High risk, you may make a lot of money, or you may lose a lot of money



# Attributes of a Lump Sum Agreement

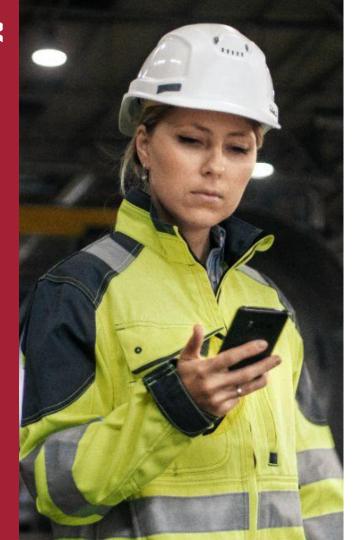
- Pricing is not transparent
- Not collaborative by nature
- Fluctuating profit; win big or lose big!



### **Trivia**

## What are the differences between these types of contracts:

- Lump Sum
- Stipulated lump sum
- Fixed Price



### **Nothing!**

General Contractors use different names for the same thing!



## Thank You!

**Questions?** 

#### **Cinthia Gil**

Sr Industry Specialist







### **Construction Management at Risk**

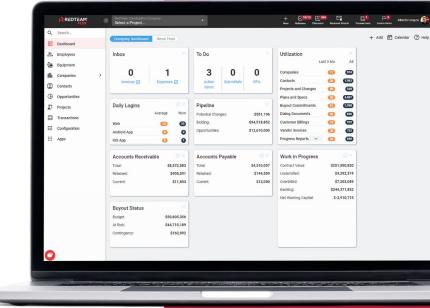
as a Project Delivery Method



### **Session overview**

### Construction Management at Risk (CMAR) as a Project Delivery Method

This session will focus on industry best practices and real-life insights for performing Construction Manager at Risk (CMAR) projects. We'll touch on all key phases of CMAR projects including Preconstruction, establishing a Fee rate and other markups; negotiation of a Guaranteed Maximum Price (GMP), change management, progress billing and most importantly, managing your customer's expectations around budget and schedule. All within the context of RedTeam's solutions







### **Session learning objectives and outcomes**

As a result of today's session, you will...

- Learn best practices for performing Construction Manager at Risk ("CMAR") projects
- Get a clear understanding of the different phases involved in setting up and running successful CMAR projects
- Gain insights and tips on how to effectively manage customer expectations around budget and schedules



### **Session agenda**

#### Today's session will cover...

- The different phases of CMAR projects explained
- How to set up your CMAR project to effectively manage changes

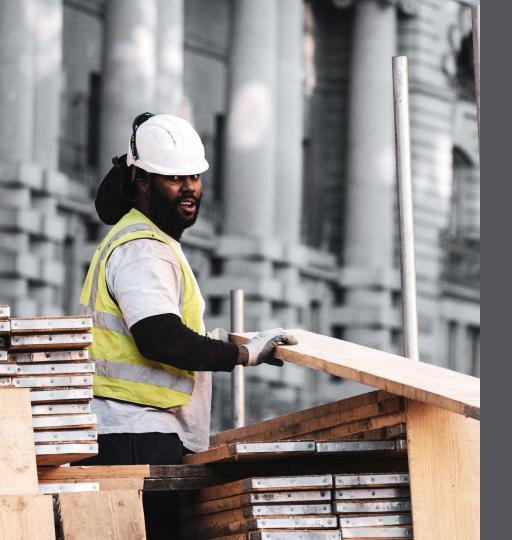
2 Preconstruction best practices

6 How to complete Progress Billing using Construction Management software

How to establish unit prices and negotiated pricing rates, fee rate and other markups

- 7 Tips on effectively setting and managing customer expectations
- How to prepare your proposal for a Guaranteed Maximum Price (GMP)





Built for contractors, by contractors.



### This is RedTeam

#### Visit RedTeam.com for additional information

Construction is one of the world's most challenging industries. We get it, because we've been there. RedTeam understands what success looks like every step of the way. That's why we're focused on the entire project team from the office to the field. Your job will never be easy, but having maximum control over schedules, safety, quality and cost makes the day-to-day run better and more smoothly than ever before.

That's total project control. That's RedTeam.

### **Presenters**



#### **Michael Wright**

CSO and Founder,

A seasoned commercial general contractor with a history of over 25 years in construction and real estate development.

RedTeam



Traci VanDalsem

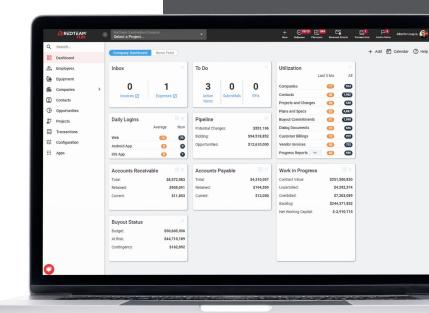
VP of RedTeam Go





Highly configurable construction management software designed to help contractors manage their construction projects from start to finish.

This product is built for commercial construction companies with complex business organizations and sophisticated workflows that demand advanced integration and configurability.







Easy-to-use construction project management software designed to help simplify, automate and standardize tasks for contractors looking to save time and money.

Modeled on world-class construction processes and built for commercial general contractors to manage their projects from start to finish.

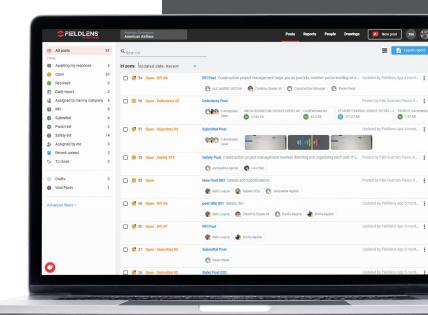






Intuitive construction jobsite management software for efficient, real-time collaboration among field, office, and trade workers, that reduces rework and miscommunication.

This product is built for construction companies of all sizes that are looking for tools to keep everyone — from project owners to architects to subcontractors — on the same page.





### Construction Manager at Risk (CMAR) delivery method

How does it differ from the more traditional Design-bid-build (DBB) delivery method?

Design-bid-build project delivery method has general contractors bid on a complete set of plans and specifications

- Often leads to many change orders due to design and planning inconsistencies and questions about the plans
- Schedules can be impacted and projects are often completed at a higher price than originally planned

Construction manager at risk delivery method has construction managers act as an advisor during design and planning and as a general contractor throughout the construction phase for more predictable outcomes

- Construction manager (CM) and owner negotiate a Guaranteed Maximum Price (GMP) for the project. Costs exceeding the GMP fall solely on the construction manager, which puts them "at risk"
- "Open book" project with owner visibility into project financials
- Projects are more likely to remain on time and within budget



# Advantages of the CMAR project delivery method



#### Enhanced collaboration

Streamlined decision making; optimized project outcomes



#### Cost and schedule certainty

Mitigate risks by incorporating a CM during the design phase



#### Quality assurance

Promotes transparency and accountability



#### Flexibility and innovation

Easy to adapt to unforeseen circumstances and design changes





### **CMAR** project phases

#### Requests for proposal (RFP process)

Proposal packages and presentations highlight capabilities and experience Separate engagements for design and preconstruction services

#### **Design and Preconstruction**

Proposal for Preconstruction Services

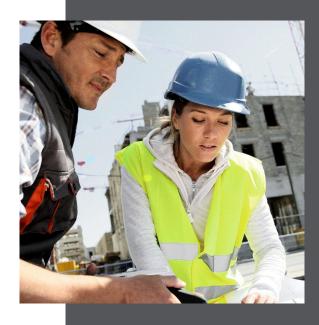
- Level of effort
- Unit prices and markups
- o Fee

Design assist / value engineering

Guaranteed Maximum Price (GMP) proposal

#### Construction

Act as a general contractor during construction







### **Preconstruction best practices**

#### **Develop a cost and pricing estimate**

- Utilize unit prices and markups
- Build out assemblies
- Break out cost of the work, general conditions / requirements, allowance
- Create bid packages
- Bid solicitation and bid leveling

#### **Generate Construction proposal**

- Include negotiated cost report with unit prices
- Add your estimate details, including fee to provide owner transparency
- Guaranteed Maximum Price (GMP)

#### **Set customer expectations**

- Create and share a detailed project budget
- Build a Gantt schedule, including milestones



## Set up your projects to effectively manage changes

- Involvement in design helps mitigate risk
- Transparency for owner → 'Open book' experience
- Set up and manage Contingency
- Create baseline budget to easily manage costs and estimates at complete
- Construction can begin prior to 100% complete construction documents for an expedited project schedule
- Work closely with designers
- Use construction management software to manage CMAR projects





## More predictable outcomes with RedTeam Flex

#### **Best practices for successful CMAR projects**

- Manage preconstruction in RedTeam Flex
- Set up SOV types, including Cost of the Work, General Conditions, Contingency, etc.
- Link SOV to budget
- Manage vendor commitments and changes, vendor invoice approval
- Manage employee time and expenses and expense approval
- Create customer changes and cost-plus billing with attached backup documentation
- Financial reporting for owner transparency
- Budget management, including estimated cost at complete





## More predictable outcomes with RedTeam Go

#### **Best practices for successful CMAR projects**

- Manage preconstruction in RedTeam Go
- Set up SOV types, including Cost of the Work, General Conditions, Contingency, etc.
- Select an SOV broken down by cost codes
- Manage vendor commitments and changes, vendor invoice approval
- Manage employee time and expenses and expense approval
- Create customer changes and cost-plus billing
- Financial reporting for owner transparency
- Budget management, including estimated cost at complete

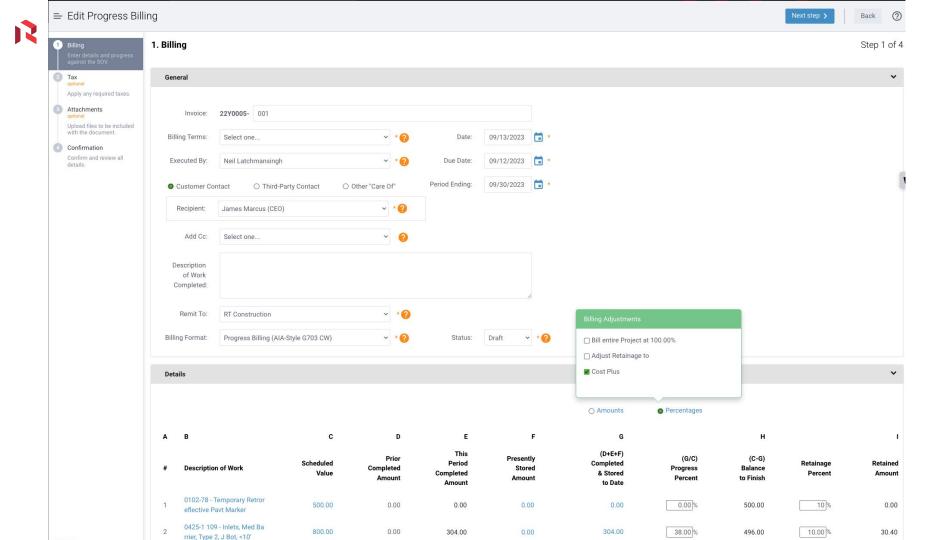




### **Create progress billing in RedTeam Flex**

#### Generate cost plus billing with supporting documentation to streamline billing and customer review

- AIA-style G703 CW 2021 cost plus fee progress billing form
- Calculations are automatic, greatly reducing the potential for billing errors
- SOV linked to budget as you manage your budget, your SOV matches actual costs
- Project cost backup documentation is readily available to select to add to the billing
- Option to include links to documents or show each document as additional pages of the owner billing



001

04/30/2024

22Y0005

09/13/2023

day of

Date:

PAGE 1

PAGE 2

Distribution to:

ARCHITECT

CONTRACTOR

OWNER

FIELD OTHER

Company Confidential:

#### APPLICATION AND CERTIFICATE FOR PAYMENT

TO OWNER: PROJECT: Umbrella Corporation Records Room (CMAR) James Marcus Racoon Police Department

23 Wesker ST Raccoon City, AR 71666

FROM CONTRACTOR: VIA ARCHITECT: RT Construction

Orlando, FL 32801

1. ORIGINAL CONTRACT SUM

a. 10.00% of Completed Work

123 Main St.

#### DESCRIPTION

CONTRACTOR: RT Construction

Subscribed and sworn to before me this

rights of the Owner or Contractor under this Contract.

Neil Latchmansingh /

My Commission expires:

AMOUNT CERTIFIED

certified.) ARCHITECT

State of: \_

Notary Public:

received from the Owner, and that current payment shown herein is now due.

ARCHITECT'S CERTIFICATE FOR PAYMENT

and that the Contractor is entitled to payment of the AMOUNT CERTIFIED.

Records Room (CMAR)

22Y0005

04/30/2024

001

information and belief the Work covered by this Application for Payment has been completed

in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments

Date:

County of:

In accordance with the Contract Documents, based on on-site observations and the

data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed

as indicated, the quality of the Work is in accordance with the Contract Documents,

(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform to the amount

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any

CONTRACT DATE:

APPLICATION NO:

PERIOD TO:

PROJECT NOS .:

#### CUSTOMER CONTRACT ID: The undersigned Contractor certifies that to the best of the Contractor's knowledge, CONTRACTOR'S APPLICATION FOR PAYMENT

\$ (2,960,742.40)

\$ (2,960,742.40)

\$ 3,538,087.18

\$ 6,706.90

\$ 6.036.21

3,532,050.97

\$ 0.00

Application is made for Payment, as shown below, in connection with the Contract Continuation Sheet.

2. Net change by Change Orders . 3. CONTRACT SUM TO DATE (Line 1 + 2) ..... SCHEDULE OF VALUE .

4. TOTAL COMPLETED & STORED TO DATE ...

5. RETAINAGE:

\$ 670.69 (Columns D + E) b. 0.00% of Stored Material \$ 0.00 (Column F) Total Retainage (Line 5a + 5b) .

6. TOTAL EARNED LESS RETAINAGE .. 7. LESS PREVIOUS APPLICATIONS FOR PAYMENTS .....

8. CURRENT PAYMENT DUE . 9. BALANCE TO FINISH, INCLUDING RETAINAGE .....

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner:	0.00	0.00
Total approved this Month:	0.00	0.00
TOTALS	0.00	0.00
NET CHANGES by Change Order:	0	.00

**CONTINUATION SHEET** 

Umbrella Corporation James Marcus 123 Main St. Orlando, FL 32801

From: RT Construction

Project Name: Project #: Application #: Period:

C1 C2 C D E (D+F+F) (C1+C2) PRIOR HIS PERIOD PRESENTLY COMPLETED (C-G) OMPLETED CHEDULED RETAINAGE STORED BALANCE TO DESCRIPTION ORIGINAL CHANGES COMPLETED (G/C) VALUE AMOUNT AMOUNT/ OF WORK (\$) AMOUNT AMOUNT STORED TO FINISH (\$) ADJUSTED) (D+E) PERCENT (\$) (\$) DATE (\$) (\$) 1 0102-78 - Temporary 500.00 0.00 500.00 0.00 0.00 0.00 0.00 0.00 % 500.00 0.00 Retroreflective Payt Marker 0.00 % 2 0425-1 109 - Inlets, Med 30.40 800.00 304.00 38.00 % 496.00 Barrier, Type 2, J Bot, <10' 10.00 %

#### Comments



Add a comment...

Attachments \*

There are no comments yet!



PAGE 8
SOV: 0431-1 2 - Pipe Liner, Optional Material, 25-36\*

DATE VENDOR/EMPLOYEE SOURCE DOCUMENT DESCRIPTION AMOUNT (\$)

09/21/2023 Tatiana Londono https://ga.redteam.link/9w9okfc Paint Supplies (Paint Supplies) 32.30



SC	SOV: 00001 - a asupplemental 0717											
	DATE	VENDOR/EMPLOYEE	SOURCE DOCUMENT	DESCRIPTION	AMOUNT (\$)							
1	09/21/2023	Hyvac Inc.	https://qa.redteam.link/bjh6njg		1,000.00							

Invoice Receipt

\$1,000.00

Number: HVAC

Date: 09/21/2023



### **Create progress billing in RedTeam Go**

#### Easily generate cost plus progress billing with attached cost backup documentation

- AIA-style cost plus progress billing form
- Calculations are automatic, greatly reducing the potential for billing errors
- SOV by cost code can include separate profit line or itemized markups
- Changes are applied to the individual cost codes
- Project cost backup documentation is readily available to attach to the billing



### RedTeam Go cost plus owner billing form

wner Billing												Bill List Actio	Print +
Application #: 1													
Application Date:	05/07/2024		Work Ret	tainage %:	5.00		Distribute To: Owner	Architect	Contractor	Construct	tion Manager		
Start Date:	05/01/2024		Material	Retainage %:	5.00						-		
End Date:	05/07/2024		Payment	by Purchase Order:	0.00								
			0.11	of v. l			with						
Description		Original	Schedule (	Changes	Revised	Prev. App.	Work in Pr Owner Paid	To Pay	SM\$	Total	% Comp	Balance	Retainage
01-001.L General Con	nditions	18,334.05	0.00	0.00	18,334.05	0.00	0.00	0.00	0.00	0.00	0.0000	18,334.05	0.00
01-001.OH General Co	onditions	48,890.81	0.00	0.00	48,890.81	0.00	0.00	0.00	0.00	0.00	0.0000	48,890.81	0.00
01-020.L Temporary F	Fencing	12,222.70	0.00	0.00	12,222.70	0.00	0.00	0.00	0.00	0.00	0.0000	12,222.70	0.00
01-210.0 Contingency	у	24,445.40	0.00	0.00	24,445.40	0.00	0.00	0.00	0.00	0.00	0.0000	24,445.40	0.00
01-301.L Assist. Supe	erintendent	1,222.27	0.00	0.00	1,222.27	0.00	0.00	0.00	0.00	0.00	0.0000	1,222.27	0.00
02-100.S Site Remedi	iation	7,333.62	0.00	0.00	7,333.62	0.00	0.00	0.00	0.00	0.00	0.0000	7,333.62	0.00
02-200.M Site Prepara	ation	6,111.35	0.00	0.00	6,111.35	0.00	0.00	0.00	0.00	0.00	0.0000	6,111.35	0.00
02-230.S Site Clearing	g	73,336.21	0.00	0.00	73,336.21	0.00	0.00	0.00	0.00	0.00	0.0000	73,336.21	0.00
03-001.M Concrete		2,444.54	0.00	0.00	2,444.54	0.00	0.00	0.00	0.00	0.00	0.0000	2,444.54	0.00
03-001.S Concrete		61,113.51	0.00	0.00	61,113.51	0.00	0.00	0.00	0.00	0.00	0.0000	61,113.51	0.00
10-001.S Specialties		613,579.64	0.00	0.00	613,579.64	0.00	0.00	50,200.00	0.00	50,200.00	8.1815	563,379.64	2,510.00
Total		869,034.10	0.00	0.00	869,034.10	0.00	0.00	50,200.00	0.00	50,200.00	5.7765	818,834.10	2,510.00
Project Grand Total		869,034.10	0.00	0.00	869,034.10	0.00	0.00	50,200.00	0.00	50,200.00	5.7765	818,834.10	2,510.00



### RedTeam Go cost plus owner billing form

Owner Billi	ing				Bill List	Actions ▼	Print *
Application Date:	05/07/2024	Work Retainage %:	5.00	Distribute To:  Owner Architect	Contractor		
Start Date:	05/01/2024	Material Retainage %:	5.00	Construction Manager	Contractor		
End Date:	05/07/2024	Payment by Purchase Order:	0.00				

		e Of Values	Prev.	Work in Progress				%				
Description	Original	Prior	Changes	Revised	App.	Owner Paid	To Pay	SM\$	Total	Comp	Balance	Retainage
01-001.L General Conditions	18,334.05	0.00	0.00	18,334.05	0.00	0.00	0.00	0.0	0.00	0.0000	18,334.05	0.00
01-001.OH General Conditions	48,890.81	0.00	0.00	48,890.81	0.00	0.00	0.00	0.0	0.00	0.0000	48,890.81	0.00
01-020.L Temporary Fencing	12,222.70	0.00	0.00	12,222.70	0.00	0.00	0.00	0.0	0.00	0.0000	12,222.70	0.00
01-210.0 Contingency	24,445.40	0.00	0.00	24,445.40	0.00	0.00	0.00	0.0	0.00	0.0000	24,445.40	0.00
01-301.L Assist. Superintendent	1,222.27	0.00	0.00	1,222.27	0.00	0.00	0.00	0.0	0.00	0.0000	1,222.27	0.00
02-100.S Site Remediation	7,333.62	0.00	0.00	7,333.62	0.00	0.00	0.00	0.0	0.00	0.0000	7,333.62	0.00
02-200.M Site Preparation	6,111.35	0.00	0.00	6,111.35	0.00	0.00	0.00	0.0	0.00	0.0000	6,111.35	0.00



#### **RedTeam Go Concierge Payment Request**

TO: Owner LLC 123 main street kissimmee, FL 34741

PROJECT: CMA Project 5201 Bridgepoint Fort Wayne IN, 46801 FROM: RedTeam Go Concierge

295 Mainstream Drive, Entity 1 Nashville, TN 37204

ARCHITECT: Architecturally

41,207.07

754.541.04

123 Anywhere Road Nashville, TN 32783 PERIOD TO: 05/06/2024 PROJECT NO: 24-019 APPLICATION NO: 1 ARCHITECT NO:

CONTRACT DATE: 04/03/2024 APPLICATION DATE: 05/06/2024

. 79:	5,748.11	prior payment requests have been paid where payments have been rece now due.	erved from Owner and the current payment shown is
	0.00	CONTRACTOR: RedTeam Go Concierge	
79	5,748.11		
. 4:	3,421.57	Bv:	Date:
		Agent of RedTeam Go Concierge	76
2,214.50			
0.00		County of.	
		Subscribed and sworn to before me this:	
	2,214.50	9.000.0 10.0 - 0.0 10.0 10.0 10.0 10.0 10	
4	1,207.07	NOTABY BUBLIC:	
	0.00	NOTART FUBLIC.	
	0.00	My Commission Expires:	
	0.00		
	79 4 2,214.50 0.00	0.00 795,748.11 43,421.57 2,214.50 0.00 2,214.50 41,207.07 0.00 0.00	795,748.11

TOTAL OF CHANGE ORDERS	ADDITIONS	DEDUCTIONS
Prior Months Approved Change Orders	0.00	0.00
Current Month Change Orders	0.00	0.00
TOTALS	0.00	0.00
Net of Approved Change Orders		0.00

CURRENT PAYMENT DUE

(See Attached Pages for Continuation Worksheet Page.)

BALANCE TO FINISH INCLUDING RETAINAGE.....

CONTRACTOR'S PAYMENT REQUEST

CERTIFICATION FOR PAY REQUEST BY ARCHITECT	
Deced on an eite observations and the requested emount in this new request	the Construe

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

Work covered by this Payment Request has been completed in accordance with the Contract Documents. Furthermore, all

By:\_\_\_\_\_ Date:\_\_\_\_

The AMOUNT REQUESTED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract. Architecturally

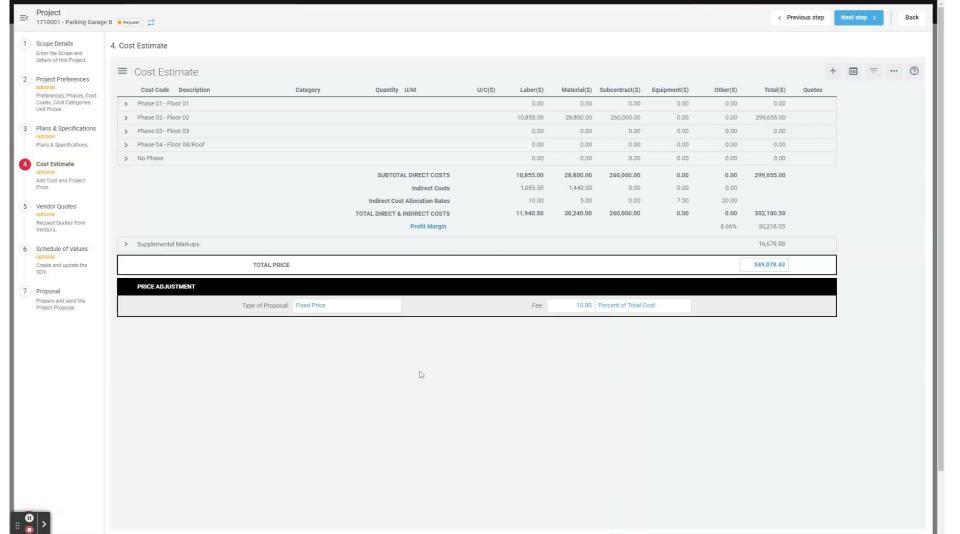
Authorized Signator for Owner LLC

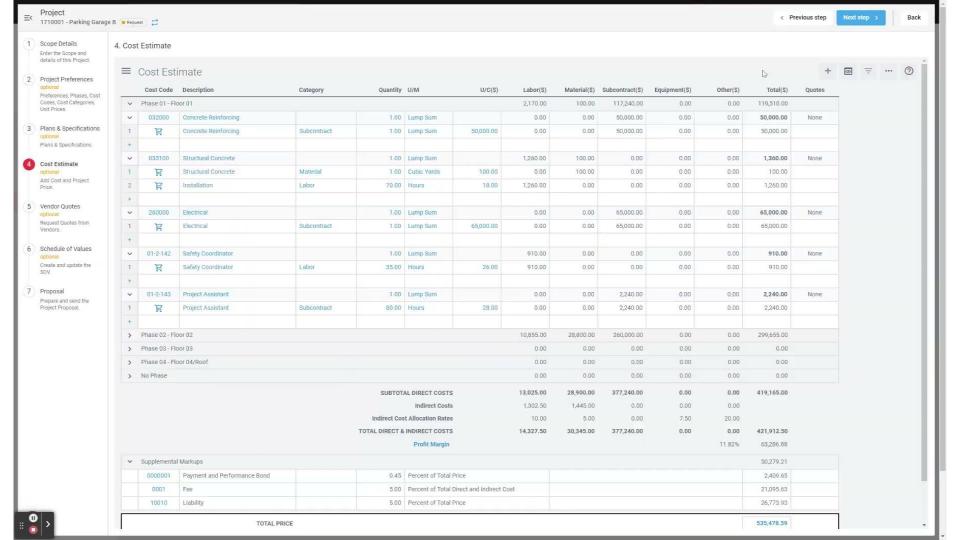
By:	Date:	
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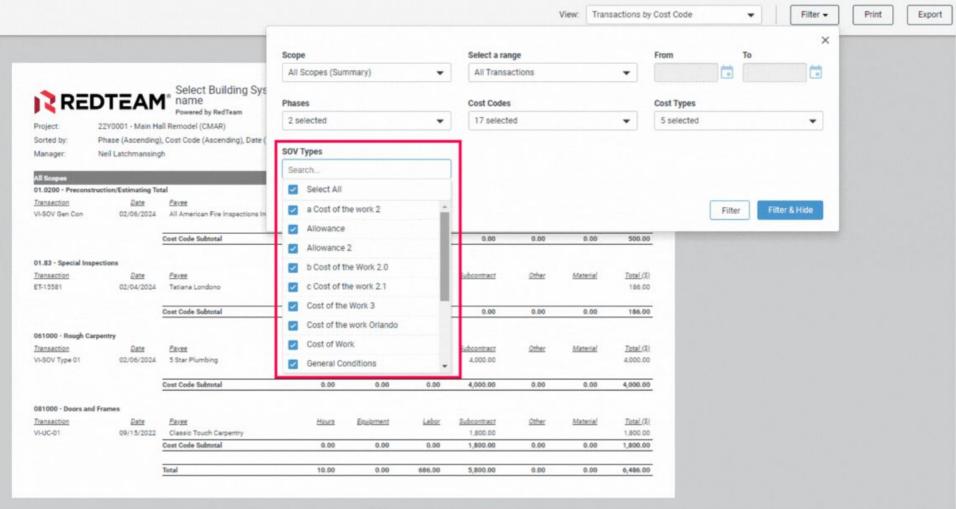


Application Number: 1 Application Date: 05/06/2024 Period from: 04/03/2024 to 05/06/2024 Contractor's Project No: 24-019 Submitted From: RedTeam Go Concierge 295 Mainstream Drive, Entity 1 Nashville, TN 37204 Project: CMA Project Architect Number: Print Date: 05/06/2024

Α	В	С	D	E	F	G	Н	1	J	K		L	М						
Item	Description of Work		Schedul					ork			%	Balance	Retainage						
No.		Original	Char		Revised	Previous		This Application								Complete	Comp	to Finish	
			Prior	This		Application		In Place To	Stored	and Stored To Date		(F-K)	1						
			Period	Period			Paid by Owner	Pay	Material	(G+H+I+J)	8		+						
1	01-001.OH General Conditi	232.15	0.00	0.00	232.15	0.00	0.00	23.22	0.00	23.22	10.0000	208.93	1.1842						
2	01-300.L Superintendent	37,681.88	0.00	0.00	37,681.88	0.00	0.00	5,652.28	0.00	5,652.28	15.0000	32,029.60	288.2663						
3	01-315.O Project Vehicle	1,741.17	0.00	0.00	1,741.17	0.00	0.00	261.18	0.00	261.18	15.0000	1,479.99	13.3202						
4	01-511.O Temp Electrical	11,607.75	0.00	0.00	11,607.75	0.00	0.00	1,741.16	0.00	1,741.16	15.0000	9,866.59	88.7992						
5	01-541.M Job Sign	318.36	0.00	0.00	318.36	0.00	0.00	79.59	0.00	79.59	25.0000	238.77	4.0591						
6	01-560.O Temporary Barrie	2,901.95	0.00	0.00	2,901.95	0.00	0.00	2,901.95	0.00	2,901.95	100.0000	0.00	147.9995						
7	01-731.L Dust Protection	1,808.73	0.00	0.00	1,808.73	0.00	0.00	1,356.55	0.00	1,356.55	75.0000	452.18	69.1841						
8	01-731.M Dust Protection	6,366.95	0.00	0.00	6,366.95	0.00	0.00	0.00	0.00	0.00	0.0000	6,366.95	0.0000						
9	01-740.M Cleaning	2,546.78	0.00	0.00	2,546.78	0.00	0.00	0.00	0.00	0.00	0.0000	2,546.78	0.0000						
10	01-742.O Dumpster Rental	1,886.26	0.00	0.00	1,886.26	0.00	0.00	1,886.26	0.00	1,886.26	100.0000	0.00	96.1993						
11	01-746.S Final Cleanup	3,482.33	0.00	0.00	3,482.33	0.00	0.00	0.00	0.00	0.00	0.0000	3,482.33	0.0000						
12	02-220.S Site Demolition	11,607.75	0.00	0.00	11,607.75	0.00	0.00	11,607.75	0.00	11,607.75	100.0000	0.00	591.9953						
13	02-221.S Building Demolitio	17,411.63	0.00	0.00	17,411.63	0.00	0.00	17,411.63	0.00	17,411.63	100.0000	0.00	887.9931						
14	02-900.S Landscaping	40,627.13	0.00	0.00	40,627.13	0.00	0.00	0.00	0.00	0.00	0.0000	40,627.13	0.0000						
15	02-924.S Grass Sod	23,215.50	0.00	0.00	23,215.50	0.00	0.00	0.00	0.00	0.00	0.0000	23,215.50	0.0000						
16	04-001.S Masonry	29,019.38	0.00	0.00	29,019.38	0.00	0.00	0.00	0.00	0.00	0.0000	29,019.38	0.0000						
17	06-100.L Rough Carpentry	22,609.13	0.00	0.00	22,609.13	0.00	0.00	0.00	0.00	0.00	0.0000	22,609.13	0.0000						
18	06-100.M Rough Carpentry	57,302.45	0.00	0.00	57,302.45	0.00	0.00	500.00	0.00	500.00	0.8726	56,802.45	25.5000						
19	06-220.S Millwork	24,086.09	0.00	0.00	24,086.09	0.00	0.00	0.00	0.00	0.00	0.0000	24,086.09	0.0000						
20	06-415.S Countertops	17,411.63	0.00	0.00	17,411.63	0.00	0.00	0.00	0.00	0.00	0.0000	17,411.63	0.0000						
21	07-210.S Building Insulation	5,223.50	0.00	0.00	5,223.50	0.00	0.00	0.00	0.00	0.00	0.0000	5,223.50	0.0000						
22	07-248.S Stucco Exterior	52,234.88	0.00	0.00	52,234.88	0.00	0.00	0.00	0.00	0.00	0.0000	52,234.88	0.0000						
23	07-401.S Roofing	92,862.00	0.00	0.00	92,862.00	0.00	0.00	0.00	0.00	0.00	0.0000	92,862.00	0.0000						
24	07-840.S Firestopping	6,384.27	0.00	0.00	6,384.27	0.00	0.00	0.00	0.00	0.00	0.0000	6,384.27	0.0000						
25	07-921.S Caulking	3,482.33	0.00	0.00	3,482.33	0.00	0.00	0.00	0.00	0.00	0.0000	3,482.33	0.0000						
26	08-001.L Doors/Frames & H	1,808.73	0.00	0.00	1,808.73	0.00	0.00	0.00	0.00	0.00	0.0000	1,808.73	0.0000						
27	08-001.M Doors/Frames &	32,864.09	0.00	0.00	32,864.09	0.00	0.00	0.00	0.00	0.00	0.0000	32,864.09	0.0000						
28	08-400.S Storefronts Glass	20,313.57	0.00	0.00	20,313.57	0.00	0.00	0.00	0.00	0.00	0.0000	20,313.57	0.0000						







**Actual Costs Report** 



	10-		Include Budget Details by Cost Co
History:	Current	~	<ul> <li>Include Budget Details by Scope</li> </ul>
			Include Budget Details by Phase

46,595.71 Net Cash Flow

[Snapshot] [Export] [Print] [Close]

For best results print this report on Landscape and use More Settings to set Scale to 85



Over (Under) Billed

#### Smith Construction Co. Powered by RedTeam

#### FINANCIAL OVERVIEW

(248,877.22)

day's Date: 5/3/2024	То					
Amount (\$	Days		Contract Details			Project Details
14,447,918.78	270	01/08/2018	Original Contract dated		truction	Company Division: Smith Cons
1,695,790.82	144	Orders	13 Authorized Change		uarium Area Development	Project: 1010009 - Miami Seaq
16,143,709.60	414	t	Total Modified Contract		pment	Customer: Wilson Fisks Develo
15,396,410.48	0	ish	Contract Balance to Fi			Facility: Amusement Parks
30,981.19	36	nges	15 Potential Scope Ch			Contact: Joe Rodriguez
08/24/2021			Contract Start Date:			Manager: Eileen Ewashko
10/11/2022		ate:	Contract Completion D		1	Status: In Progress / Permitting
08/26/2020		Date:	Anticipated Completio		•	
Variance (\$	Complete (\$)	ETC (\$)	Open (\$)	Actuals (\$)	Budget (\$)	Estimate At Complete
0.00	16,143,709.60			700,703.41	16,143,709.60	Contract Revenue
2,806,530.00	3,069,375.79	72,866.79	2,972,216.20	24,292.80	262,845.79	Direct Labor
(146,713.74	265,593.09	145,255.15	59,671.68	60,666.26	412,306.83	Material
7,847,187.57	22,853,429.57	13,367,054.00	7,835,636.57	1,650,739.00	15,006,242.00	Subcontract
0.00	24,935.11	24,675.11	0.00	260.00	24,935.11	Equipment
13,688,182.2	13,709,822.21	1,480.21	13,708,120.00	222.00	21,640.00	Other
24,195,186.03	39,923,155.77	13,611,331.26	24,575,644.44	1,736,180.06	15,727,969.73	<b>Total Direct Cost</b>
(1,562.49	126,160.21	15,479.31	108,555.90	2,125.00	127,722.69	Indirect Costs
24,193,623.54	40,049,315.97	13,626,810.57	24,684,200.34	1,738,305.06	15,855,692.43	Total Cost
	100.00%	34.03%	61.63%	4.34%		Percent Complete
(24,193,623.54	(23,905,606.37)			(1,037,601.65)	288,017.17	Profit (Loss)
(149.86)%	(148.08)%			(148.08)%	1.78%	Profit Margin
					ntial Changes are included.	Note - Commitments related to Pote
						Working Capital
449,642.00		Accounts Payable	2,184.19	Received to Date	700,703.41	Total Revenue
698,519.22	evenue	Less Uncollected Re	1,288,663.06	Less Paid to Date	747,299.12	Less Total Billed

(1,286,478.87)

**Net Working Capital** 



### **Smith Construction**

CONSTRUCTION	Powered by RedTeam	
1010009 -		
Miami		
eaquarium		
Area		

n Co.	FINANCIA	L OVERVIEW
	То	day's Date: 5/3/2024
	Days	Priced (\$)
	0	1,180,439.32
	6	130,886.92

Customer Char	iges	Days	Priced (\$
Authorized:			
CO# 001	Change 001 - 04/24/2019	0	1,180,439.32
CO# 002	Change 002 - 04/24/2019	6	130,886.92
CO# DR	Change DR - 05/21/2019	15	0.00
CO# 003	Change 003 - 05/13/2019	20	69,228.12
CO# 004	Change 004 - 07/12/2019	20	12,007.60
CO# 005	Change 005 - 08/21/2019	2	3,100.00
CO# 006	Change 006 - 04/01/2020	4	12,800.04
CO# 19	Change 19 - 03/25/2020	2	0.00
CO# 21	Change 21 - 06/04/2020	45	256,503.82
CO# 22	Change 22 - 08/11/2020	0	30,825.00
CO# 26	Change 26 - 05/04/2021	30	0.00
CO# 29	Change 29 - 10/29/2021	0	0.00
CO# 30	Change 30 - 10/28/2021	0	0.00
		144	1,695,790.82
Potential:			
# 9999	-Scope Change 07: Remove Trees - 04/23/2019	TBD	TBD
RCO# 007	Change Order 006: Electrical - 04/13/2020	5	11,604.51
	-Scope Change 10: Upgrade of Electrical Lighting Fixtures in Office Area - 06/05/2019		
RCO# 008	- 09/24/2020	0	4,209.07
	-Scope Change 16: Parking lot - 06/04/2020		
RCO# 055	- 11/30/2021	31	3,667.61
	-Scope Change 17: Finishes Update - 05/18/2020		
RCO# 1561	- 06/03/2021	TBD	TBD
	-Scope Change 18: T&M touch ups - 02/21/2020		
RCO# 1561	- 06/03/2021	0	0.00
	-Scope Change 23: 01 - 05/15/2021		
# TBD	-Scope Change 24: 01 - 09/20/2021	TBD	TBD
# TBD	-Scope Change 25: Additional Tile - 03/29/2021	TBD	TBD
RCO# 1561	- 06/03/2021	0	0.00
	-Scope Change 27: Two new outlet in terrace - 06/03/2021		

000	Change 000 - 04/01/2020	-	12,000.04
CO# 19	Change 19 - 03/25/2020	2	0.00
CO# 21	Change 21 - 06/04/2020	45	256,503.82
CO# 22	Change 22 - 08/11/2020	0	30,825.00
CO# 26	Change 26 - 05/04/2021	30	0.00
CO# 29	Change 29 - 10/29/2021	0	0.00
CO# 30	Change 30 - 10/28/2021	0	0.00
00" 00	5. angle 55 16, 25, 252.	144	1,695,790.82
Potential:			1,010,110.02
# 9999	-Scope Change 07: Remove Trees - 04/23/2019	TBD	TBD
RCO# 007	Change Order 006: Electrical - 04/13/2020	5	11,604.51
110011 007	-Scope Change 10: Upgrade of Electrical Lighting Fixtures in Office Area - 06/05/2019		11,001.01
RCO# 008	- 09/24/2020	0	4,209.07
	-Scope Change 16: Parking lot - 06/04/2020		1,207107
RCO# 055	- 11/30/2021	31	3,667.61
	-Scope Change 17: Finishes Update - 05/18/2020	17.5	5,557.151
RCO# 1561	- 06/03/2021	TBD	TBD
110011	-Scope Change 18: T&M touch ups - 02/21/2020	155	100
RCO# 1561	-06/03/2021	0	0.00
1100% 1001	-Scope Change 23: 01 - 05/15/2021		0.00
# TBD	-Scope Change 24: 01 - 09/20/2021	TBD	TBD
# TBD	-Scope Change 25: Additional Tile - 03/29/2021	TBD	TBD
RCO# 1561	- 06/03/2021	0	0.00
1100111001	-Scope Change 27: Two new outlet in terrace - 06/03/2021		0.00
# TBD	-Scope Change 28: Bathroom Upgrade with Use of Allowance	TBD	TBD
# TBD	-Scope Change 31: Changes - 11/17/2021	TBD	TBD
# TBD	-Scope Change 32: Snapshot created from Specification E-2.1 2nd Floor Plan	TBD	TBD
# TBD	-Scope Change 33: Add Scope - 02/21/2023	0	11,500.00
# TBD	-Scope Change 34: 5t - 07/05/2023	TBD	TBD
# TBD	-Scope Change 35: Plan Revision 5	TBD	TBD
	occupation of the contract of	136	30,981.19
nternal Change	S S	Days	Cost (\$)
Authorized:		*	
CO# TBD	Change - 05/29/2019	0	0.00
	-Scope Change 09: Drawing Revisions - 05/29/2019		
CO# 10	Change 10 - 05/18/2020	0	36,139.74
	-Scope Change 20: Plans Update - 05/18/2020		
	-Scope Change 20: Plans Update - 05/18/2020		
	and the second s	0	36,139.74
Potential:			,
# 005RT789	-Scope Change 14: New Window - 04/13/2020	TBD	TBD
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		

- Scope Change 18: T&M touch ups - 02/21/2020  C0# 1561 - 06/03/2021 0  - Scope Change 23: 01 - 05/15/2021  TBD - Scope Change 24: 01 - 09/20/2021 TBD	0.00 TBD TBD
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	100000000000000000000000000000000000000
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1DD -3COPE Origing 24, 01 - 03/20/2021 1DD	TRD
TBD -Scope Change 25: Additional Tile - 03/29/2021 TBD	
CO# 1561 - 06/03/2021 0	0.00
-Scope Change 27: Two new outlet in terrace - 06/03/2021	
TBD -Scope Change 28: Bathroom Upgrade with Use of Allowance TBD	TBD
TBD -Scope Change 31: Changes - 11/17/2021 TBD	TBD
TBD -Scope Change 32: Snapshot created from Specification E-2.1 2nd Floor Plan TBD	TBD
TBD -Scope Change 33: Add Scope - 02/21/2023 0	11,500,00
TBD -Scope Change 34: 5t - 07/05/2023 TBD	TBD
TBD -Scope Change 35: Plan Revision 5 TBD	TBD
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ernal Changes Days	Cost (\$)
thorized:	
O# TBD Change - 05/29/2019 0	0.00
-Scope Change 09: Drawing Revisions - 05/29/2019	
O# 10 Change 10 - 05/18/2020 0	36,139.74
-Scope Change 20: Plans Update - 05/18/2020	
-Scope Change 20: Plans Update - 05/18/2020	
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OISRT789 -Scope Change 14: New Window - 04/13/2020 TBD	TBD
-Scope Change 14: New Window - 04/13/2020	100
Stope Grange 14. New Yilliam Cay 10/2020	

Material (M)

Subcontract (S)

Material (M)

Labor (LA)

Material (M)

Labor (LA)

Material (M)

Other (0)

Material (M)

Labor (LA)

Material (M)

Material (M)

Subcontract (S)

Subcontract (S)

Labor (LA)

Labor (LA)

Other (O)

Labor (LA)

Material (M)

Equipment (E1)

Subcontract (S)

Category

Authorized Scope Change: 22 - Spiral staircase (Included in CO #22)

Other (0)

Subcontract (S)

Home Depot Rentals (HD1)

0000001

0000001

0001

01.31

01.31

01.31

010000

010000

010000

01-2-101

01-2-104

013100

013100

015100

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65-65-0-000

7099

E03

E04

Cost Code

01-2-104

789789

8020 FIELD LABO

Smith Construction Co.

Description

Payment and Performance Bond

Payment and Performance Bond

(updated in Adjust Budget)

(updated in Adjust Budget)

General Liability Insurance

General Conditions; General

Superintendent

Superintendent

Superintendent

Requirements General Conditions; General

Requirements General Conditions, General

Requirements

Coordination

Project Management and

Coordination

Temporary Utilities

Temporary Utilities

Temporary Utilities
Temporary Barriers and

Contract Allowance

WSI Performance Bond

Drywall

Field Labor

Quoted Items

Description

General Materials

Concrete Superintendent

Subtotal:

Subtotal

Total Direct:

**Total Costs:** 

Indirect Costs:

Enclosures

Sr. Superintendent

Concrete Superintendent

Project Management and

Estimate (\$)

0.00

0.00

0.00

0.00

0.00

0.00

47,250.00

41.000.00

0.00

0.00

0.00

0.00

112,500.00

18,100.00

17.500.00

50,271.00

4,585.19

23,400.00

1,640.00

4.680.00

4,218.39

1,518.81

225,860.01

Estimate (\$)

0.00

0.00

15,929,416.07

16,054,979.80

125,563.73

216,718.78

Budget (\$)

10,000.00

216,718,78

0.00

0.00

0.00

0.00

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47,250.00

25,500.00

20,000.00

112,500.00

18,100.00

17.500.00

50,271.00

4,585.19

23,400.00

1,640.00

4.680.00

4,218.39

1,518.81

225,860.01

Budget (\$)

0.00

0.00

15,727,969.73

15,855,692.43

127,722.69

0.00

0.00

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Actual (\$)

46,745.00

0.00

0.00

1,000.00

1,000.00

260.00

8,572.80

970.46

0.00

500.00

498.22

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100.00

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0.00

1,736,180.06

1,738,305.06

2,125.00

Actual (\$)

12,560.00

1,004,999.00

Open (\$)

(1,341.00)

0.00

23.00

50.00

0.00

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70,296.20

1.588.16

1,551.64

101,920.00

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24,575,644.44

24,684,200.34

108,555.90

Open (\$)

14,965.00

2,800,000.00

At Risk (\$)

0.00

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(260.00)

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38.441.38

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4.680.00

4,218.39

1,518.81

225,700.22

At Risk (\$)

825.00

825.00

13,509,331.26

13,524,810.57

15,479.31

Contingency (\$)

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Contingency (\$)

Complete (\$)

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1,000.00

47,250.00

41.000.00

2,051.64

114,480.00

498.22

18,100.00

100.00

17.500.00

65,236.00

4,585.19

23,400.00

1,480.21

4.680.00

4,218.39

1,518.81

225,700.22

Complete (\$)

825.00

825.00

39,923,155.77

40,049,315.97

126,160.21

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(Over)Under (\$)

(37,404.00)

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20,000.00

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(14,965.00)

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(825.00)

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(24,193,623.54)

(Over)Under (\$)

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(1,004,999.00)

Goal (\$)

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0.00

Goal Date Responsible

Goal (\$)

Goal Date Responsible

Budget Notes

add \$500

Baseline updated

**Budget Notes** 

At Risk Notes

At Risk Notes

BUDGET DETAILS

Today's Date: 5/3/2024

W



## Thank You!

Questions?

**Michael Wright** 

CSO and Founder



Traci VanDalsem

VP of RedTeam Go







### Want to learn more?



**Book a meeting** 









### **Building a Successful Construction**

### **ERP - CM Ecosystem**





# Building a Successful Construction ERP-CM Ecosystem

#### **Industry Session and Challenges**

Explore best practices and latest trends in building a successful ERP-PM ecosystem with Jay Snyder, president at BBI. Jay will share his expertise on the selection process, vendor management and integration strategies that contribute to a quality ERP-PM ecosystem. He'll address common challenges and pitfalls in construction ERP systems and how to identify them, with a particular emphasis on the integration between project management and accounting systems. Gain valuable insights from Jay as he highlights the key differences between internal management systems and financial reporting systems, and how you can rally your teams around them.





### **Session learning objectives**

After attending this session, you will...

- Learn the fundamental components to proper technology management that supports a high performing tech ecosystem.
- Define the barriers to creating an integrated technology stack including your ERP and PM systems.
- Understand the three models for integrating your ERP and PM systems.



### **About me**

- · Construction industry native, from APM to SVP of Operations.
- Experience with large market general contractor, mid-market general contractor, healthcare system, tech startup founder, business management consulting.
- · Past founder of a prequalification software startup.
- · Former FMI Practice Leader Tech & Innovation.
- · Lt Col in U.S. Air Force reserve.
- · President of BBI.

### **About BBI – Big Blue Innovations**

- U.S. based business and technology consulting firm with international presence.
- · Serving the construction industry only.
- 22 consultants from the industry specializing in business modernization, data, and technology.
- Product agnostic / not a reseller or referral partner
- Strategic planning, tech strategy, tech selection, implementation, data integration, database development and database administration

### **Jay Snyder**

President



BBi



### Contractors' technology situation by the numbers

Eight years ago, when I started tracking these stats, the numbers were far worse. We are getting better, but still have a long way to go.

**35** 

Average number of operational technologies in use by a contractor.

60%

Share of contractors that have a technology strategy.

25%

Percent of contractors with a Technology Director, CIO or CTO.

15%

Percent of contractors with parameters and architecture to control data across their systems.



### **Fundamental Components to Technology Management**

#### There is no faking it. These are "Must Dos" whether in-house or outsourced.

- 1. Technology Leadership (Dir of Tech, CIO, CTO)
- 2. Focus Direction (Strategy, Roadmap, Annual Tech Spend Plan)
- 3. End User Engagement and Feedback (Surveys, User Groups, Committees)
- 4. Data and Integration Standards
- 5. Tech Selection and Implementation Processes
- 6. Active Data Management (CDE, DBA, Performance Monitoring, Maintenance)
- 7. Active Cybersecurity (Mitigation, Monitoring, and Training)



### **Barriers to an Integrated Ecosystem**

#### You may be experiencing these every day and be aware that it's keeping you from progressing

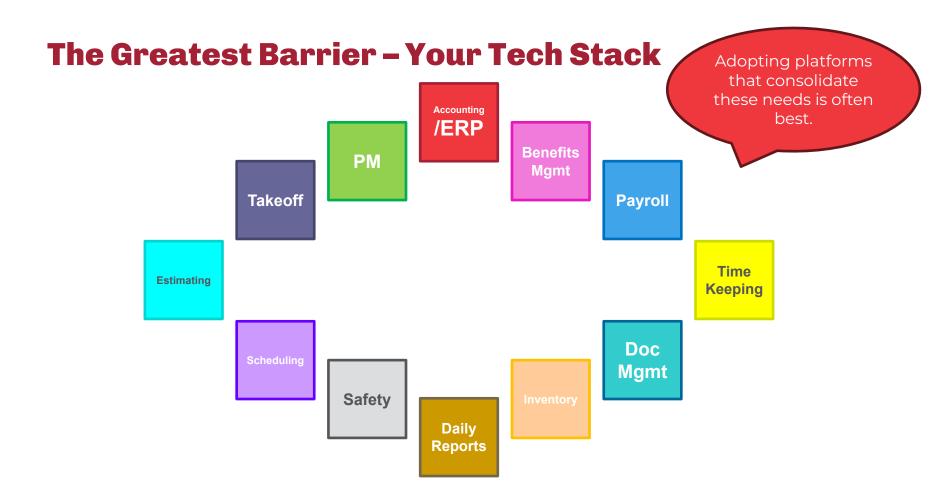
- 1. Uncertainty on the path or process and required resources
- 2. Unclear integration purpose and goals → What parts/pieces/data do we integrate
- 1. On Prem and On Prem comingled with Cloud
- Closed systems (regardless of hosting)
- 3. Available but limited API functionality
- 4. Poor/No backend access / access to data
- 5. Bad data hygiene / inaccurate data / incomplete data



### The Greatest Barrier - Your Tech Stack









### **The Greatest Barrier**

#### Your tech stack and ... department/functional silos



- The two common departments
  - Accounting
  - Estimating
- Why?

Because of the need for accuracy and discretion.



### **Integrating your ERP-PM Ecosystem**

#### Where to start...

- 1. Craft, at least a basic, data standard.
- 2. Take stock of all relevant applications in use and assess their ability to integrate.
- 3. Determine what type of data is important to flow between systems, and what that end result is (process automation, consolidated reports, reduced data entry, notifications, dashboards, etc.)
- Bring your tech providers into the conversation and allow them to explain what is possible.
- 5. Loosely sketch the architecture options and determine your path.



### **Integrating your ERP-PM Ecosystem**

#### **Architecture Options...**

1. Point-to-Point

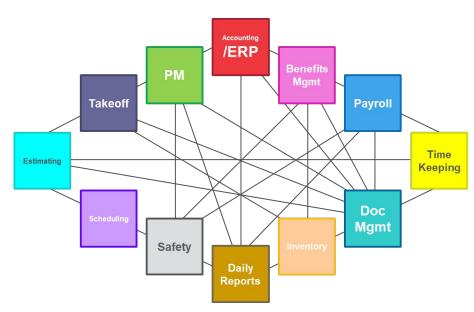
2. Integration Platform as a Service (iPaaS)

3. Common Data Environment (CDE)



### **Architecture Options**

#### **Point-to-Point**



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#### Pros

- Leverage native integrations
- Data connected where needed
- With APIs on both ends, can be straightforward/low code

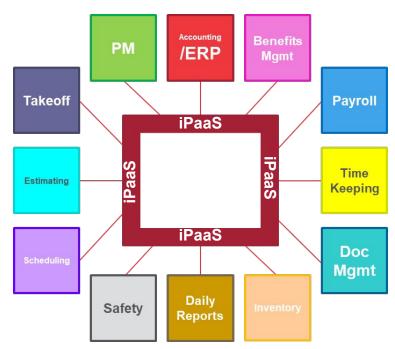
#### Cons

- Complex
- Expensive
- Cyber vulnerabilities



### **Architecture Options**

Integration Platform as a Service (iPaaS) e.g., Agave, Boomi, Nexus, Workato, Tray, MuleSoft, etc.



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#### Pros

- Usually straightforward execution
- Off-the-shelf, sort of
- Requires less expertise

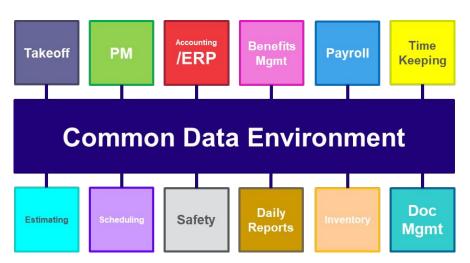
#### Cons

- Complexity / May require multiple
   iPaaS platforms
- Data ownership
- Maintenance



### **Architecture Options**

#### Common Data Environment - Consolidated database structure



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- Pros
  - Consistent / Cleanest to Mange
  - Future flexibility of systems
  - Data ownership
- Cons
  - Initial Cost
  - Expertise likely requires MSP
  - Requires long-term commitment to this structure



### **Major Takeaways**

### The power of an integrated construction ERP-PM Ecosystem is tremendous. Doing nothing can't be an option.

- 1. Place the fundamental components in place for a high functioning tech program.
- 2. Ensure the systems you have will serve you in the future.
- 3. Have a team discussion about the ideal experience with tech. Find the pain points where you are looking for info, entering data multiple times, comparing printed reports from different systems, etc.
- 4. Determine the right systems integration option for your company.
- 5. Plan your plan to create that integrated ERP-PM ecosystems.
- 6. Commit to the plan and commit the resources.

Initial time to value can be 6-12 months; when done well the value only increases over time!





# Thank You!

**Questions?** 

#### **Jay Snyder**

President

jsnyder@bigblueinnovations.com

www.linkedin.com/in/snyderjayp





Thank you!



