

A photograph of two men in high-visibility yellow safety vests working at a computer. One man is seated and looking at a laptop, while the other stands behind him, also looking at the screen. The background shows an office or construction site environment with a yellow wall and a yellow folder.

# SIMPLIFIED CONSTRUCTION COST MANAGEMENT

The Key to Successful Construction Projects

The image features a blue background with a repeating geometric pattern of small triangles. On the right side, there is a photograph of two people. The top part shows a woman with long brown hair looking intently at a screen. The bottom part shows a man wearing a white hard hat, safety glasses, and a bright yellow high-visibility safety vest over a dark shirt. He is holding a tablet computer and looking towards the camera. The photograph is partially obscured by the blue background.

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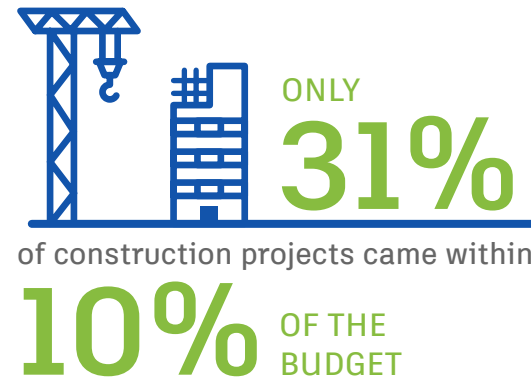
# 1. The World of Construction Cost Control

## HOW PROJECT TEAMS ARE MANAGING COST TODAY

Cost Management on construction projects is not a new concept. It is an essential part of the construction process and some may argue, one of the most important. When stats like, only 31% of all constructions projects came within 10% of the budget (reported by KPMG), industry professionals are pressed to find ways to improve project costs. Managing change orders and ensuring project costs stay as close to the budget as possible is critical.

Traditionally one of the primary ways construction teams track project costs is by using outdated or siloed applications like Excel. These tools can be great and many of them will still serve a great need in our industry. In fact, Excel is one of the most commonly used tools amongst construction professionals.

However, when it comes to construction cost management, strictly relying on these outdated or siloed applications like spreadsheets can be a risky play. Did you know that various studies have found that 88% of excel spreadsheets contain errors?



(KPMG International)

With large projects typically taking 20% longer to finish than scheduled and getting up to 80% over budget, construction teams really can't afford to take any more risks.


Charles Perry Partners, Inc. (CPPI), one of the Southeast's largest privately held construction firms specializing in healthcare, education, and commercial sectors, recognized the need to change.

After years of using Excel spreadsheets and Primavera Contract Manager as their primary applications for any cost management activities, CPPI decided to make the shift to BIM 360. "Our team was having to do a lot of duplicate entry and then wasting time," said Brad Buckles, Director of Technology at CPPI.

"We needed a single place where all cost management activities could be maintained. We still leverage spreadsheets but having a one stop shop allows us to have better insight into the history of specific cost items as well as reduces the amount of labor hours spent on cost tracking since all activities are housed under one user interface."

The number one reason CPPI made the switch to an integrated project management platform was the value they saw in having a more sophisticated solution for cost management. "Our company was ready for a change and wanted to automate a lot of the mundane tasks," said Brad. CPPI is thrilled to have made the leap and is currently transitioning all construction project management workflow into BIM 360's cloud platform.

As we mentioned earlier, the construction cost management workflow is a staple component of every project. We're not trying to introduce anything groundbreaking. We are however trying to simplify the way teams manage project costs and increase the use of solutions that can help minimize project risk.



*“We still leverage spreadsheets but having a one stop shop allows us to have better insight into the history of specific cost items as well as reduces the amount of labor hours spent on cost tracking since all activities are housed under one user interface.”*

*- Brad Buckles, Director of Technology, CPPI*



## 2. The Struggle is Real

### CHALLENGES TEAM MEMBERS NEED TO OVERCOME

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Managing construction costs comes with a slew of challenges. Not only are teams pressured to keep costs as low as possible, but they also have the headache of balancing multiple spreadsheets saved in different locations. And not to mention if project members are sharing these spreadsheets, not always having the most up to date version can add hours of rework, and coincidentally, increased project costs.

Whether you're a project leader who is trying to manage the overall profit and loss of a project or a project member who is trying to deliver a quality project on time and within budget, here are few challenges you might face and how moving away from spreadsheets onto a common data platform can help.



### THE STRUGGLE

Not having a real time view of the financial health of a project or ability to see historical cost changes.



### THE FIX

Rather than referring back to static spreadsheets saved in different folders, switching to an integrated cost management solution allows teams to always have the most up to date view of project costs. Whether viewed onsite or in the office, changes are made instantly, and everyone has access to view the real time impact of a cost changes.

Have a question about a cost item? No problem, by using an interactive platform like BIM 360, teams can drill down to get specific details on cost items and well as access a paper trail of how a specific cost item moves through the change order process.



### THE STRUGGLE

Juggling multiple change orders and documentation through the whole approval process.



### THE FIX

Making sure all of your spreadsheets are linked can be tedious. One small mistake can make a big impact if budget items are adding up incorrectly. With a connected platform teams can enter cost items once, whether it starts as a Potential Change Order (PCO) or Owner Change Order (OCO) or Supplier Change Order (SCO), and can easily track that specific cost items as it goes through the change order approval process.



### THE STRUGGLE

Managing multiple contracts and tracking costs for each trade with visibility to how it impacts overall project cost.



### THE FIX

Contractors are tasked with the time consuming and sometimes stressful job of managing all of the subcontractors on a project. A given project can have dozens of subcontractors all who need their own contracts and payment tracking. Staying on top of multiple spreadsheets and folders with different supplier contracts can eat up a ton of valuable time. By switching to a cloud platform, teams can easily create, edit, and view supplier contracts in a centralized location. In addition, all contracts are associated with cost items to teams can easily view a history of cost items by supplier.



# 3. Mitigating the Risk Curve

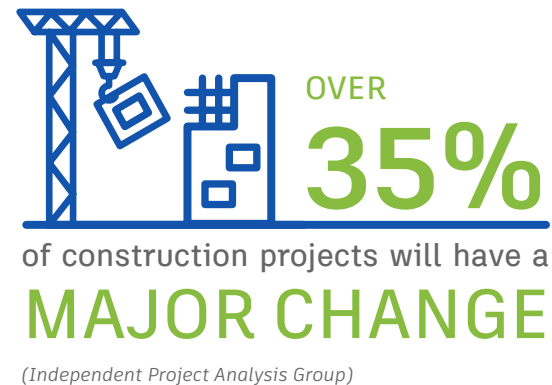
## THE VALUE OF A COMMON DATA PLATFORM

We all know that success of a project is measured in a variety of ways. However, the two that are most consistently pointed to as leading indicators of success are:

1. **Time**...was the project completed on schedule? And,
2. **Cost**...was the project completed within budget?

Being in the construction industry it's your job to make sure you are mitigating any potential risks that could impact these two indicators of success. But the challenge is, potential risks happen every day. One of the biggest risks to the success of a project is change orders and the resource costs related to these unexpected deviations. In fact, according to a study of over 12,000 projects by the Independent Project Analysis Group, more than 35% of all construction projects will incur a major change.

Let's look at this from a graphic perspective with the Risk Curve.





On your projects, you're effectively spending and taking in money over time. From bid through construction to handover. You're hoping your cash flow curve resembles this (top graph). You invest money at the beginning followed by revenue from the owner and make final payments to specialty contractors and reconciliation. Ultimately leading to a successful handoff and an acceptable margin level.

## SHRINKING MARGINS

But there are several trends increasing pressure to perform. Resources are limited, and projects are becoming more complex. And, although you have more information than ever before gaps in your data and challenges accessing it make it difficult to put it to good use.

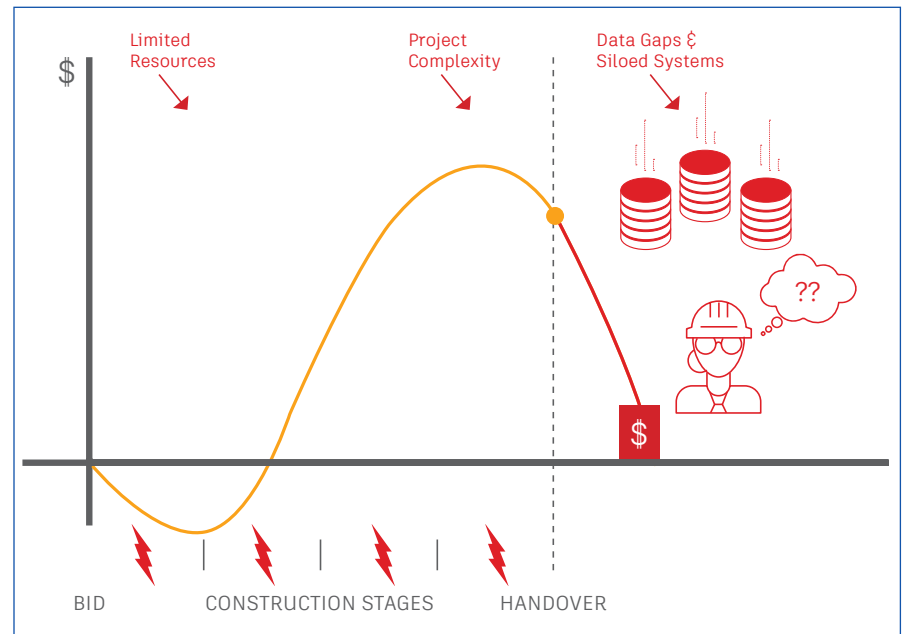
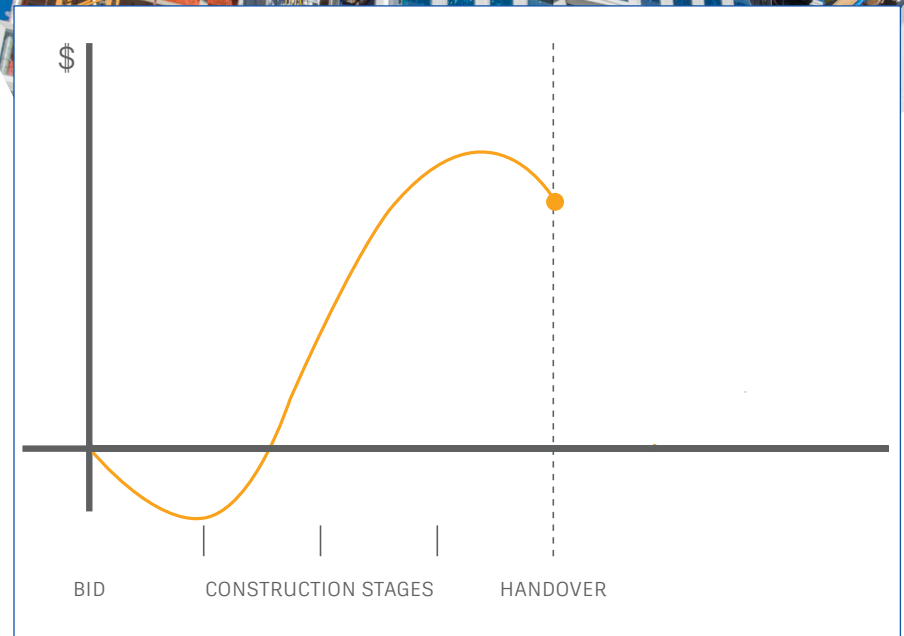
From bid to handoff, information is fragmented, easily incorrect, or lost. Though you have multiple systems, they most likely don't all talk to each other leaving you running paper documents back and forth while making sense of dozens of spreadsheets that reside on local drives and are shared only periodically. And as it relates to cost control time is wasted trying to find the right information and you never have a clear or real-time view of the financial health of the project.

And with more and more information spread across job sites it's nearly impossible to pull it together to make use of it. Leaving you with no idea whether you will hit your desired profit until after everything is completed.

All these factors have a negative impact, and your cost flow curve now looks something like this (bottom graph) with a smaller margin and profit than anticipated.

So, if time and cost are of the upmost concern, what do we need to do to mitigate these project risks and start pushing the curve back to the left?

The answer...move to a common data platform!



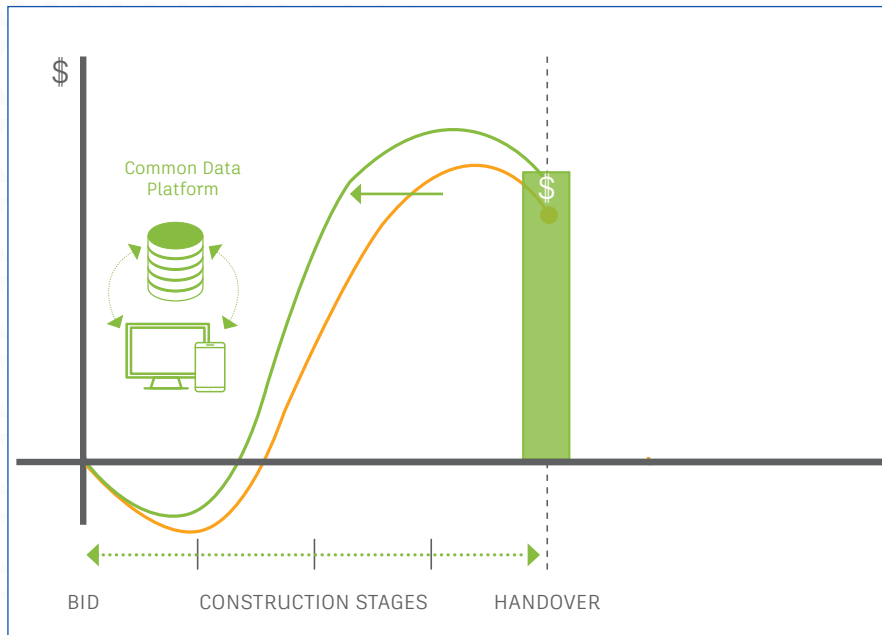


## SHIFTING THE CURVE

Rather than having separate applications for different construction tasks, taking your processes into a common data platform helps teams save time looking for information in multiple places and ensures everyone has access to the right information at the right time.

As it relates to shifting the Risk Curve, a common data platform gives you visibility to project information you need, like real-time updates of the financial health of a project allowing you to make more profitable decisions.

When you create this connected environment teams can better manage unforeseen project risks handing over more projects on time, and completing them with stronger cash flow and higher margins.





# 4. Making the Move

## 5 REASONS TO STOP USING SILOED COST APPLICATIONS

Transitions are not always easy, and it can take a lot of time for everyone on the team to adjust. We understand it is not always straightforward, but when it comes to better control of your projects costs, you really can't afford not to consider the alternatives.

Here are 5 reasons why switching to an interactive common data platform for your construction cost management process is the right way to go.

**Cost Management**

Number	Name	Status	Submitted
O-0002	RCO R-0002, R-0001	Approved	\$3,043.96
CI-0039	Frame - Revised Main Entrance Layout per ASI002		6,000.00
CI-0040	Doors - Revised Main Entrance Layout per ASI002		9,000.00
CI-0038	Revised Signage		11,050.00
CI-0037	Frame - Additional Floor Openings as per RFI005		23,000.00

**Owner Change Order**

Project: Pacific Center Campus  
Contractor: [Redacted]  
Change Order Number: O-0002  
Title: RCO R-0002, R-0001  
Change Order Date: Oct 24, 2018  
Architect's Project No: [Redacted]  
Contract Date: [Redacted]

Contract scope changes:  
Revisions to Main Entrance Layout and Specification per ASI002. Door: Specification revisions per ASI002. Signage schedule additions and revisions. Additional Floor Openings as per RFI005, per structural drawing ST-EWG-010. All work in connection with forming revised and new openings per structural drawing ST-EWG-010.

Original Contract Sum	\$102,454,521.71
Previously approved Change Orders	\$51,230.50
Contract Sum prior to this Change Order	\$102,505,752.21
Contract Sum adjustment by this Change Order	\$53,043.96
Revised Contract Sum including this Change Order	\$102,558,796.16

Summary Table:

	Proposed	Submitted	Approved
Markups	3,888.85	3,993.96	3,993.96



### 1. SINGLE SOURCE OF TRUTH

Rather than having multiple spreadsheets saved in different locations. A common data platform allows teams to centralize all of the inputted cost data in one place and is accessible any-time, any-where.



### 2. CONNECTED

A cloud-based platform with an open API allows for integrations to other cost applications as well as connects with other construction workflows.



### 3. FLEXIBLE

An advantage of Excel is that teams can easily customize fields and equations to meet their needs. This flexibility is built into BIM 360 with the ability to customize budget codes, hierarchical build ups, and custom segment options.



### 4. COLLABORATIVE

Unlike static spreadsheets or outdated desktop software, anyone on the team has real-time access to the financial health of a project to make well-informed decisions.



### 5. SECURE

An integrated cloud platform like BIM 360 allows teams to set user permissions ensuring that only the right people have access to the information they need.





Visualize Cost Related Risk  
by managing all construction  
cost activities in an interactive  
common data platform.

[LEARN MORE](#)



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