**Larry:** This is the Corrections Attention Track for the seminar, and we’re doing the alternative delivery methods and lessons learned from the Washington State Department of Corrections. You’ll see throughout our presentation it’s pretty interesting that in the state of Washington the Department of Corrections was one of the first state agencies to really get into alternative delivery methods.

Keeping with the theme of this conference, we’re going to be sharing – through a case study and a panel discussion – two of the delivery methods that the state has been utilizing: GC/CM, which is like CM at Risk, and also a Design-Build process.

We’ll be introducing our panel in just a second here, but we’ve got representatives: two from the owners, two from the builders, and myself from the AE side. You’ll be learning a little bit of insights about each of these delivery methods from those different perspectives, and what people found and the lessons we’ve learned throughout the course of that.

A few things we need to do at the start of this process is mention these are copyrighted materials. You are going to be able to get Continued Education units with this course. There’ll be a process for you to get your AIA credits and all those type of things throughout that. I think you’re pretty familiar with that aspect of it. The continuation you can do with the electronic form sent via e-mail. You’ll get something to send in after that fact.

Here’s our course description. It’s a panel discussion utilizing case studies of these two projects. We’ll get into those best practices as we go through it.

These are the learning objectives that’s were going to be talking about there. You’re going to understand a little bit about the different processes. We’ll be describing what those processes are and what they mean: how the selection process is utilized; how to facilitate each process during the design and construction, obviously from our perspective and how those went; and insights on lessons learned.

We’re going to share some insights. We’re going to share some challenging insights that we came to and things like that. Obviously, no delivery method is perfect for every type of project, so you’ll hear a little bit about when it might be appropriate to use Design-Build, and when it might be appropriate to utilize an alternative delivery like a CM at Risk or GC/CM versus the traditional Design-Bid-Build.

We’re going to get into it now and we’ll go ahead and start with introductions. I’m Larry Hurlbert. I’m a principal with Integrus Architecture from Seattle, Washington. I’ve been doing justice architecture for the last 35 years. I was just mentioning to some of the panel members that I’m getting old enough now were I’m starting to see some of my projects I did many years ago being renovated and gutted. I said, “Holy smokes! What do you mean it’s outdated and outmoded?” But that’s what’s happening.

I’ve been working for a long time and I’ve had the opportunity, particularly with the state of Washington being located here, to go through these different delivery methods as the legislature authorized and approved public entities to utilize alternatives to the traditional Design-Bid-Build. So I’ve been fortunate enough to have those experiences, and I’m a firm believer that there are definite benefits to alternative delivery methods for certain types of projects.

**Bill Kent:** I’m Bill Kent. I’m a construction executive with Mortenson Construction. I’ve been fortunate through my 27-year-career to be focused on alternative delivery. Part of that was being involved both with Integrus and the Department of Corrections, really on the ground floor of GC/CM and CM at Risk-type delivery in the state of Washington. I project managed four projects on that women’s correctional facility in Washington through that delivery method.

I’m currently the Vice-President of the Northwest region of Design Builders Institute of America and on the national faculty of DBIA, also.

**Bill Phillips:** My name is Bill Phillips. I was the Director of Capital Programs for the Department of Corrections when GC/CM was born in Washington. We implemented the first two pilot projects, and I had the pleasure of working for the department for 14 or 15 years. Through that period of time we had the opportunity to refine the process and, after building it, continue to do refinements and then look for additional ways to make improvements in alternative public works delivery.

For the record, I’m retired from the state of Washington, and I’m currently faculty at St. Martin’s University.

**Bill Dobyns:** I’m the third Bill of the group. I’m Bill Dobyns with Lydig Construction. Lydig Construction is a general contractor based in Washington. I lead the Justice Group for Lydig. We focus on justice work throughout the western United States.

I was the Project Executive on the Coyote Ridge Corrections Center, which is one of our projects that we’re going to talk about.

**David:** My name is not Bill. I’m Dave Jansen, and for about an eight-year period, I was the Director of Capital Programs for the Washington Department of Corrections. My tenure overlapped the period in which we used Design-Build at the Washington State Penitentiary and the Coyote Ridge Correction project, which are going to be discussed today.

I’m currently with the Washington Department of Health. I changed jobs about four months ago. I’m also a faculty member at St. Martin’s University.

**Larry:** The format of our presentation, from the perspective of all these different entities, is that we’re going to be talking about two case studies and utilize those case studies to help explain the GC/CM or the CM at Risk process and the Design-Build process as applicable to the Washington Department of Corrections.

First of all, we’re going to give you a little overview of what the differences between those are. Bill Kent is one of the national DBIA instructors for the aspects of this, so he’s going to share just a quick oversight of the differences between the different delivery methods before we get into our case studies.

**Bill Kent:** Craig Unger also is on the national faculty for the DBIA, so we have some slides that might look a little similar. He had a slide like this up at his opening address. I took the liberty to drop off multiple crime because that’s one that, in this region of the country, we don’t see very often, although I have taught all over the country and some places on the east coast, and multiple crime is how public work is delivered. So for the most part, when we talk about different delivery methods, we talk about Design-Bid-Build, which is the standard traditional; Construction Manager at Risk, also known as CM/GC, GC/CM, and CMC – and quite honestly, a lot of private negotiated work replicates what happens at CM at Risk; and Design-Build, which is the newest member to the bunch, but one which is definitely picking up steam, has a lot of fans and a good fan base moving forward.

A couple things that all these project delivery methods is they all have a common cast of characters. There’s always an owner, there’s always a design component, and there’s always a construction component. Those things don’t change. What changes is the relationship between those and how the contracts flow and how the relationships flow, and when the right people get engaged in a project.

**Design-Bid-Build**

We have fun with this one. First of all, I should say obviously I have some preferences towards alternative delivery, but as Larry mentioned, it’s not right for every job. Sometimes Design-Bid-Build is a right way to go about delivering a project. In some cases, Design-Bid-Build jobs can go very well for everybody involved. The delivery method in itself is not bad, but sometimes the outcome is not what people desire.

One of the main reasons for that is the contracts which are signed that set the rules for this delivery method. The owner signs a contract with the design team, and that contract is based on a standard of care, not profession. We know that we can’t have perfect drawings any everything else, but it’s based on a standard of care and that’s what expected.

The challenge comes in when the owner signs a contract with the contractor saying, “I’m going to give you a perfect set of documents, and if they’re not perfect, I’m going to have to pay for everything that’s not perfect in those documents.” That’s where we start seeing this rub. So quite honestly, the process is a little bit flawed in the way that the contracts are signed.

Other big challenges with this delivery method are that there is really no interaction or integration during the design process. The contracts and the builders are brought on very late in the process, and there’s no chance for synergy in that regard.

The premise for Design-Bid-Build includes two contracts, not a lot of interaction, and it’s a very linear process – a design-bid-build-type delivery. It’s been used for a long time, and there are some very good things about this process. Some people are very comfortable with it.

Pros: everyone is familiar with this method. Especially in a public realm, elected officials’ initial thing is, “Let’s bid this out.” It’s the best way to protect the taxpayers’ dollars or the dollars that are available for the project.

One of the other selling points for Design-Bid-Build is that the market dictates the first cost for the project. Craig talked about how on a Design-Bid-Build job you know what the cost of a project is on bid day. I almost said something last night and I always talk about this when I teach my classes: you know what the first cost of the project is on bid day. You don’t know what your final cost is going to be until you close that job out, and that’s where you get into some of the unknowns and some of the risks associated with Design-Bid-Build. The price on bid day is rarely the cost of the job for the owner and everybody involved on that project.

Good or bad, the rules are very well-defined and the reason is because there have been so many court cases. When you get into Design-Bid-Build projects, there’s probably been a ruling on any type of issue that could come up in that job, so people know how the courts will usually dictate the rules of the game. So the rules are very well-defined. There’s not a lot of gray area. That’s a very comfortable position for many people.

Some of the cons we already talked about, like lack of contractor involvement in the design process. One of the cons for an owner is typically on a public job the only barrier to entry is being able to provide a bid bond and a performance bond on the project. Other than that, the qualifications of a contractor really don’t matter that much. If they have the low number, they get to do the job. There’s very little qualitative-type analysis available in Design-Bid-Build.

When I’m talking to owners about the risks associated with different delivery methods, the owner assumes basically all the risk in Design-Bid-Buildprojects. That’s just how the contractor sets it up. When we start talking about alternative deliveries, we start talking about how those risks are shed from an owner’s perspective, and I’m sure Bill and David will get into that when we get into Design-Build. But that’s one of the things: on Design-Bid-Build, owners typically will take on most of the risk associated with that project.

**CM at Risk**

Larry and Bill and I saw this happening in the state of Washington. People started realizing, “There has to be a better way. What can we do?” In the private sector, all their nice big corporate headquarter buildings don’t end in claims and fights and litigation. What are they doing that we’re not doing?

One of those was more of a collaborative-type delivery. CM at Risk is entering that realm of collaboration, and this is a process that many states are allowed to do given their regulations now. In Washington, it’s GC/CM or CM/GC. The federal government uses CMC. Everybody has a different name for it, but it’s the same type of delivery method.

Here are the characteristics of it. There are still three linear phases: design, bid and build. There are still the three main parties: owner, designer, and GC/CM. Some of the differences are that in this process there’s an assumed relationship between the GC/CM and the designer. If this process is done properly, those two parties are brought together at about the same time, very early in the design process. That’s one of the challenges and sometimes that’s one of the mistakes that’s made from an owner’s perspective in GC/CM or CM at Risk: they don’t bring the parties together early enough.

I was involved on one of the earlier projects in the state of Washington’s Snohomish County project where we got involved as a GC/CM way after there were 50% designed development drawings. Most of the project decisions had already been made, and their architect was not geared up. They had been hired under a Design-Bid-Build-type basis. The owner brought us on, the first time we made a recommendation he was thinking, “Whoa, we’ve done our work already. We don’t want any input from you.” So the process has to be set up properly in order for the process to work.

Pros and cons of CM at Risk: Pros from an owner’s perspective is typically a two-part selection process, so they’re all qualitative factors. There is a chance to start qualifying the contractors that may be involved in your project. It’s still a very comfortable contract relationship. The owner is still holding two contracts, one with the designer, which is a very comfortable relationship for many owners, and one with the GC/CM. If it’s done properly and the teams are brought on board at the right times, it can really foster collaboration and you get the early input, help with phasing, constructability and whatnot during the design process.

Some of the cons: the owner still assumes most of the risk because they’re still carrying the risk for design. Granted, that risk should be shed a little bit. Basically, if the process has gone right, both the designer and the GC/CM should feel ownership for those design documents, so there should be a sense of ownership, but contractually, the owner is still at risk for those design documents.

This is a challenging one, this is one that people need to realize: it requires skills and attitudes not common in Design-Bid-Build delivery. Being a good Design-Bid-Build builder does not automatically make you a good CM at Risk-type partner because it does take a separate set of skills, a new attitude, and a new sense of teamwork. This comes from the owner, designer, and contractor. It’s not just the contractor side. Everyone has to change that mindset to, “We’re in this as a team,” and not just, “I’m here to protect my interest and make as much money as I can,” which you’d usually see in the Design-Bid-Build world.

Team selections are made prior to establishing construction costs, and this is sometimes a challenge when you start explaining to people higher up in your organization, “We’re going to select somebody, but we won’t know what the cost of the project is going to be until months or years from now.” That’s sometimes a mental shift that people have a hard time making.

This last one could be a pro or a con, and I’ve used it both ways. Subcontractor work is still primarily awarded on a Design-Bid-Buildbasis, so if I’m trying to convince you to use GC/CM or CM at Risk, I’d say, “For 85% of the work the market is still driving what those costs are.” That’s very comfortable for many people. But, at the same time, you still have a little bit of that Design-Bid-Build mentality amongst those subcontractors because they’re bidding on 100% set of documents and all the same rules apply. They’re only required to do what’s on those documents, so they still have that parameter of the Design-Bid-Build delivery.

**Design-Build**

Design-Build is where it starts getting fun, and this is where you start to some major changes. The biggest change in Design-Build is that there’s a single point of contract. That single point of contract could be a general contractor, an architect, a large design firm, or a developer. But the owner has now shed the two-contract mentality and he’s hired one person to control both design and construction. That single point of contract helps him shed risks, and hopefully it will guarantee some good collaboration with that design build entity, so they’re all watching out for each other.

Typically, the Design-Build entity, depending on the projects we see in the vertical construction, is contractor-led, and there are a lot of reasons for that. For most of them, it’s a public job, you still have to be able to bond the project, and a lot of design firms don’t have the financial capacity or business model to do that. But we do see in the horizontal infrastructure-type work that the large engineering firms now are taking on Design-Build as a design builder. So their business model is a little bit different.

We’re also seeing in the public-private partnerships developer-led Design-Builds, which is when the developer holds that single point of contact with the owner to design and build the project.

Pros and cons: one of my favorites is the time an owner awards a Design-Build contract and the cost and schedule are guaranteed. That’s different that a Design-Bid-Build because at that point, unless the developer changes the program or some unforeseens come up at the site or whatnot, nothing should change that cost all the way through the project because now the design builder is holding the risk for anything that might happen within the design documents or whatnot. When I’m talking to owners about Design-Build I tell them, “That’s where you’re shedding your risks a little bit.”

Qualitative and quantitative factors used in the selection process. As Craig stated last night, owners, don’t be afraid to let qualifications or design dictate who you want your partner to be more than the price. This Design-Build delivery allows owners to do that.

It maximizes collaboration and integration, and that absolutely can happen if it’s done properly. All these different delivery methods work really well when they’re done right. That’s a huge component. That’s one of the things that, as you go through either an owner, designer, or contractor, you want to start looking for little bits of hints that this is going to go right or it’s not going to go right. I call them red flags, and there are a few of those out there. If we had more time, we could go into this today. All these processes work best when we hire a team that knows how to do it right, and you as an owner, architect, or a contractor know what needs to happen to make it successful.

The owner no longer assumes the majority of the contract risk. He’s not responsible for the design anymore. All he’s responsible for is to communicate in the RFP process what the requirements of the project are, but now all the intricacies of the design – like making sure everything fits in the box – that’s now the responsibility of the design builder, and he’s not at risk for the costs associated with any of those inconsistencies.

Design-Build can definitely facilitate fast-tracking of a project. It’s no longer a linear process. The design builder can get work started before design is done. A lot of things can happen in Design-Build if it’s done properly and everybody has the right attitude for that to happen.

Some of the cons include that the procurement process can be costly and time-consuming. I have seen this. I’ve talked to owners who say they want to use Design-Build because it’s the quickest of the processes, and then they have an 18-month-long selection process.

One of the major cons in the industry, especially amongst designers and general contractors, is the amount of effort it takes to compete. Owners are starting to realize this. We’re starting to see owners who are now cognizant of the fact that people are spending hundreds of thousands of dollars to compete for these projects and they want to limit what’s required for submittals or use more a qualifications-based selection versus the whole design final price competition.

For the perception of loss of owner control during the design process, I’ll probably let Dave to address that when he talks about his projects. But there is this perception that as an owner in Design-Build you don’t get to have any input in the design. That comes back to doing Design-Build right, because quite obviously a good design builder should want to the owner involved in everything that’s going on. That owner needs to understand the parameters that have been established, but his involvement absolutely is important in the process.

The last one is that it requires special skills, attitudes, and approach for all parties involved. Design-Build is very different. It takes a different skill set, attitude, and mindset. Sometimes your best PM who was a great PM on Design-Bid-Build projects from a contractor standpoint is not the right guy for Design-Build. You just have to vet that out and work amongst your team players.

That brings us to the history of the Department of Corrections project delivery.

**Bill Phillips:** Just to give you a little bit of a history, GC/CM was really the first big alternative public works process to come to Washington. It was signed back into law back in 1991 and allowed the Department of Corrections to utilize the GC/CM process to build. We were focused specifically on two particular sites at that point.

The law was driven by the Department of General Administration and the Department of Corrections because the state had just implemented some new sentencing laws that caused the inmate population to essentially explode in Washington, and beds were absolutely critical. We had a massive overcrowding problem and we needed to get new facilities online immediately. But when we sat and looked back at the history and the successes and the lack of success at DOC in regards to new prison construction, the use of the Design-Bid-Build process was abysmal. It was fraught with delayed projects, budgets that were blown, and in a lot of cases the scope was sacrificed just to maintain the project itself.

So the agencies went out and started asking the question, “What might we do to make this better?” There was a clear understanding that what we had to do is make sure that we had the opportunity to get the right people at the table – the right designer, the right contractor, and the right people on the owner side – to really make a project successful.

So the GC/CM process, when we go back and look at history, was actually borrowed from the state of Oregon. Oregon had already implemented to CM/GC process, so there was a collaboration between the two states to try to build a similar process in Washington, but there was a little bit of a change in the name. Instead of CM/GC, we went with GC/CM, and there was a real desire to make sure that as we moved forward the general contractor element of that particular entity stood above the CM element.

One of the main differences between the two states is that Oregon was utilizing an approach where they would select on qualifications and then negotiate a contract with a CM/GC and then move forward on the project. It gave Oregon the opportunity to really be specific and select those firms that they thought were best to do the job, and they had tremendous success.

In Washington – I’ll go back to some of the things that Bill was talking about – with the Design-Bid-Build process, one of the canons of the process, and it stands firm even yet today, is that the best way to establish value on a project – the value that the taxpayers are getting – is through a competitive selective process, meaning that the low bid represents what I should pay for the project.

The difficulty is that we all know the fallacy of that. If you get the wrong contractor on the project, you’ll get a low bid and, as Bill was talking about, the bid price does not represent what the final project cost is. It’s just a reality that we deal with.

From that, as we developed the GC/CM process, we utilized a selection process that gave us the ability to request qualifications and then select a body of contractors that we felt were qualified to do the job, meaning that they had correctional experience, could do large projects, and had a team of people within the organization that could step forward into this new process.

The second phase was to select the best qualified. From there, we would actually go into an interview process: we’d see proposals and then we could look at the resumes of the people and make a determination about the two or three firms that we felt were the best qualified.

The final phase of the process is where we would assume a MACC on the project and then we would bid it, or submit it for bids, from the best qualified firms. Essentially, for comparison we were using a lump sum for general conditions and a fee percentage applied to the MACC, and we had a great deal of success moving forward with that approach.

As I mentioned before, the first two projects that came out of the gate were Airway Heights and the minimum-security facility at the Washington Correction Center for Women. The Airway Heights project was about a $120 million project, a combination of minimum and medium security. The women’s prison was just the minimum security camp, we were focused on about 300 beds, and it was in a range of about $20 million, so it was significantly less.

One of the interesting things as we moved forward through the process, we as an organization had to learn the process as we were moving forward, so part of it was that we were building the manuals of practice as we moved forward. As we learned a lesson, we would make sure that we would incorporate it into the manual as a best practice and continue to move forward.

Keep in mind that the people we were utilizing in this process had been embedded in the Design-Bid-Build process for decades. That’s all we knew how to do. As far as we knew, that was the best approach, so we had a mindset that was born in the Design-Bid-Build process.

With that comes a natural lack of collaboration and an environment that’s hot for disputes with difficulty coming to resolution. Some of the things we learned up front immediately were that for these projects to be successful, we had to collaborate. We had to change the culture and embed collaboration into the process.

During that period of time – we’re talking 23-24 years ago – the utilization of a dispute resolution model was really quite uncommon at the time. We tried to make sure the people on the ground, when an issue came up, resolved it immediately, and if it could not be resolved at that point, then immediately we would start to elevate those disputes to the point to where we could come to some form of meeting of the minds and then move forward. That was one of the pieces that, quite frankly, saved both of those projects because, as I said, we learning as we were moving forward.

We also implemented a partnering process, which gave us the ability to pull the entire team together before we ever started turning dirt on the project to make sure that everybody understood the goals and the objectives of the project. We were all focused on project success. That was really the critical element we were looking at.

Then, on a monthly basis, we would get the project executives together to at least find out what the temperature of the project is, where it’s going, how is the budget fit, what the condition of the schedule is, and whether or not we need to make some changes. If we did, then we made the changes.

There were a number of things that we learned through these early projects. Number one was as you flow through design the CG/CM has to be at the table at the early stages. It was our perspective that the sooner, the better. Before we even started putting ink to paper, we needed the contractor at the table so we could get that collaboration, constructability knowledge and buildability knowledge at the table.

On the owner side, we also learned that we needed to really start focusing on balancing the budget with the scope of the work. I recall some of the early discussions where some of the executives who I worked for at the time would say, “What do you mean you don’t know what the scope is? Look at the budget. That’s the scope.” Well, it really doesn’t quite work out that way. It takes a little bit more thought to get there, but the budget, in a lot of cases, is paramount and as we built the scope, we needed to contractor at the table to help us.

The next thing was to be reasonable and responsible. If we look back at the old Design-Bid-Build approach, which was always a hotbed for conflict, this was the culture right here: conflict occurred, then more of this occurred, and oftentimes projects would grind to a halt. We had to really focus on training people to have the right mindset to be reasonable when we sat down and talked about issues, and also be responsible, understanding that the project was paramount. We had to have the successful project, which meant that you had to be a responsible party.

The final one that we learned is that you have to have the right team. As we looked at GC/CM resumes and the different individuals who were involved in the project, it’s not always the person on the contractor’s side who has built the most prisons. We’re looking for the individual who knows how to sit down, collaborate, and make it happen.

Then, on the owner side, in my perspective it was always that you have to have the right project manager on that team. It has to be somebody who knows how to build relationships and work through problems and keep the train on the tracks, so to speak. If issues occur, it has to be somebody who’s a good critical thinker and a collaborator who can sit down and find ways to resolve issues utilizing the body of the whole.

In some cases, when we were hiring clerks of the works to help us monitor and manage the projects on the site, we made wrong decisions when we hired some of the clerks of the works because in some cases we wound up with this mentality, and it just doesn’t work.

**Dave:** A couple other issues that had to be dealt with relative to changing over to alternative delivery methods is that the political system still tends to favor Design-Bid-Build. Part of the image behind it is that small and minority contractors are going to have a hard time competing in the alternative delivery methods market. So that’s an image that has to be overcome when you’re busy trying to bring this into part of the marketplace.

Another component is that the regulatory structure is not geared toward anything other than Design-Bid-Build. The expect to see the entire project in front of them at one point so they can review it and not necessarily get it in the bits of pieces that you might get, for example, in Design-Build.

I’ll throw out one little statistic for you, hopefully to make things a little bit more interesting. I took a look back over the eight years I’ve been with the Department of Corrections, and to give you a flavor for where Design-Bid-Build still plays in this, 90% of the projects done by the Department of Corrections over the same years were still Design-Bid-Build. But 70% of the money spent by the Department of Corrections was in alternative delivery methods. So that gives you a flavor almost immediately as to where the investments are occurring in the alternative delivery methods versus the more conventional delivery methods.

When I started, we actually had 15 major facilities, so one overlay you might add to this, in addition to the points that Bill mentioned about forecast and changes and statutory requirements, is the recession. When you note that one of the components of the slide says the oldest facility is over 100 years old, one of the facilities that was closed was McNeil Island because it was incredibly expensive to operate for the department.

So part of the impetus for bringing these projects online quickly became not just adapting to the forecast, but adapting to the financial situation that the state was being forced into because of the recession.

Other than that, right now the department is operating 13 major facilities, we still have two that are over 100 years old, with roughly about 17,000 inmates. In this state, that’s pretty much the worst of the worst. This state is low on the curve when it comes to incarceration rate, so a lot of those people are very difficult individuals to hold onto.

**Larry:** The first case study we’re going to get into is the Washington Corrections Center for Women.



As Bill Phillips talked about, this is one of the two institutions that the stated looked at in their first foray into alternative delivery. They had a men’s facility at Airway Heights, and then they had the women’s facility as this need for expansion for beds happened.

Let me just give you a little bit of background of what you’re looking at here. This right here is the perimeter as the main institution as it existed. This out here is that minimum camp that Bill talked about that was added for the first GC/CM process delivery in terms of that.

None of the projects have been Design-Built at this institution. They’ve pretty much down four major GC/CM projects over there, the first one being the addition of this minimum camp in the early 90s. Since that time, there have been four variations of expansion of the women’s facility. This is primarily the only major women’s facility in the state, so it grew as the need of incarceration for that population growth developed also.

The project we’re going to talk about now – the 256 bed expansion and the Special Needs Unit – that were the most recent ones that Mortenson and this team did with the Department of Corrections. This is the 256 bed. It was addition of medium beds onto the campus.

This is the special needs unit. As they found their aging population was growing and they had a need for a higher security level, there are three different housing components in this housing unit. We have the mental health and geriatric component. We have their higher-level of custody segregation component. Then they developed an intake housing unit for their first arrival and classification, rather than having them spread throughout. So that became what they called the Special Needs Unit because there are actually three different population housed within that facility.

Those were both done also with a GC/CM process, and we’re going to talk a little bit about why those projects were developed that way and what some of the things are we learned GC/CM in the development of those two projects.

Each time you add housing and expand the size of the institution, all of the support programs also needed to expand. So it wasn’t just a matter of, “We’re going to stick a medium-bed housing here and some more additional special needs housing here.” We also needed to expand health care, food service, and programs. We had other things happening and specialized buildings, so even those they were growing, additions were happening at different components, whether it was healthcare or food service or whatever, as part of these. So each of these GC/CM weren’t such simple standalone buildings: they had multiple project components and they had to happen within an occupied, operating facility. Those were some of the nuances of these projects.

Bill is going to go ahead and talk a little bit about the owner’s perspective over there.



**Bill Phillips:** In the owner’s perspective in going back over the three – there were three significant GC/CM projects that occurred on this – obviously, the learning curve helped us move along. On the first project, we learned a great deal about how to make GC/CM work.

On the second and third project, we gained a lot. We’ll put it in that perspective. We found that the process works very well, but the other key pieces, too, were that you need to know what you’re doing when you step into the process, that it can be tremendously valuable to the owner. It can be tremendously successful, but you have to know what you’re doing when you walk into it, and you need to know the nuances of the project.

I said this earlier on the owner’s perspective: you have to be focused on the project. You can’t on anything else. It has to be principally the success of the project. As we move from the first to the second to the third project, the other thing we learned is that the owner at times has to be able to let go and let those who are best at what they do do what they do, meaning that you have to let the contractor do the things that they do, provide the CM services, and you have to let the architect and the engineer do their work, too.

The other piece in the owner’s perspective is that you have to know that the contract is significantly different than a traditional Design-Bid-Build process. There are a lot of differences in addition to management of the budgets and the contingencies, and that’s a tough thing sometimes for people to understand because the process carries two different contingencies, one that’s carried by the contractor, and one that’s carried by the owner. Each one of them has very specific purposes, and you have to understand when and where to utilize those.

I stated earlier that when issues come up, you have to be able to elevate disputes. You have to be willing to work as a team. I still look at the third project as being the most successful one at the women’s prison because we all grew together.

I believe, Bill, you were the PM on the third project. I remember sitting in some of the meetings when we first got together to discuss and negotiate the MACC how prepared Bill was when he came to the room. Quite frankly, I was floored because he had continued to learn through the process, preparing himself and building up his body of knowledge before he ever sat down at the table. He was prepared and the negotiations and the process were extremely smooth.

The final element in the owner’s perspective – and this is the big one for me – is that, as we looked at the teams of people who would sit down, it helped me go with this statement that I’ve used from time to time, and that’s when we talked to the team members, one of the things that I always tell them is, “You need to be ready to take personal responsibility for team success. You as an individual have to be ready to step up and do what’s necessary to move the project forward, or it’s going to fall flat on its face.”

In my individual perspective, it’s a great process. It can do a lot of things for you, but you better know what you’re doing, or you’re going to get into trouble. You better know what you’re doing.



**Larry[?]:** As Bill mentioned, there were multiple GC/CM awards throughout the life of this institution. Our firm was fortunate, we were actually involved in all of them, from the initial two pilot programs, asking, “What’s this all about?” It was a real learning curve for our firm in terms of what it was all about, because all of a sudden, even though we were still contractually obligated to the owner for leading the design effort, we had a new integrated partner now bringing on board to that. It was a new role for us.

Going through that process, we found that we had to understand and change our mindset also about how this really worked and how we could expand and grow, because we were used to leading the efforts and obviously directing the direction of the design development. We still had that responsibility contractually under this alternative delivery method, but we were getting a lot more information and nuances as we were developing it, and we had a lot more data, rather than us trying to figure out the most constructible way and the best building systems and “This ought to work the best.”

I’m sure a lot of you in the traditional method as architects have been involved when you go through all that time developing systems, putting a process together, thinking that this is how the project is going to phase and go, putting it out to bid, starting down the process, and the contractor says, “Hey, I have an idea. If we did this differently and this, this and this” – whether it’s a substitution quest or a whole different system development direction – “and I can save the owner X hundred thousand dollars,” The owner gets pretty excited about that. But we architects all think, “Oh no.” We have to go back and change everything, and what’s that going to mean? So it’s not the best process to do that way down the road.

I think you’ve all seen the diagrams that show what the cost is to the project of making decisions early versus late. Obviously, the later you made a change in the system, you’ve spent a lot more money and time going to get to all that process. If you can make decisions up front, plan them, get all the information, make the right decision and move forward in a more linear or lean process, it’s much better for everybody. It’s better for the design team. It’s better for the owner. It’s better for the price and the schedule of the project.

So we had to learn about this, and Bill mentioned that we had partnering sessions. It was very different from the first process of how we went through these different GC/CM packages. When we did the first one, we said, “We’re going to try this alternative delivery method. We have to go explain to these builders what this project is all about.” We started merrily designing away with the owner. We started with the traditional design method and went through a schematic and got into design development.

When we tried the first alternative delivery package, we were in DD before we brought our GC/CM partners on board. We’ve learned a lot obviously through that. In the last ones we were going through with Mortenson, they we on board when we were basically starting schematic design, which is much better in terms of that because we did have some systems change – backup or whatever – once our first contractor got on board for the very first package (the pilot programs) in terms of, “Hey, we have some different ideas.” “Okay, let’s back up and redo some stuff.” So the earlier you can get your partners together and collaborate, the better.

Also we have to change the mindset to have an integrative project delivery collaboration. Those partnering sessions were unique and helpful for us because we had done partnering under the hard bid world, where partnering really was trying to just get together and mediate problems. “Okay, we have all these problems. Let’s partner and get together.” It really wasn’t that. It was really trying to get people on board with, “We’re all a part of the same team. Let’s work together and help each other,” and the mindset of what creates success for the project rather than, “Let’s all create success for our own contractual obligation, which is not the three-contract hard bid world situation.

So it was interesting. One of things we did in that very first one is that we had the traditional partner meeting with a facilitator, getting together and putting all the goals and missions up – everybody does that – and that’s hard to do. I think we had 50-60 in the room, trying to bring all the people together and facilitate a big workshop, really to build any camaraderie or direction.

As Bill mentioned, we’d have these monthly executive meetings where we’d have a smaller group and we’d talk about what’s working and what’s not working and how we could help, because we had some team members down below that hadn’t changed their mindset yet. They were still staunchly holding onto their own, “This is my direction and we should design the mechanical system this way. The contractors might to it a different way, but I want to do it this way.” So we had some of those sessions.

Another interesting thing we did for the first one is we actually had a float trip. We got our three entities together and went on a float trip. That was an interesting change because all of a sudden people weren’t just coming together for a business meeting. They were people all working together creating almost a family attitude of, “We’re all together working on this thing.” I think we had four rafts of eight people each and went down the river. We made a point of mixing the rafts up so it had builders and owners and designers in each of the rafts. That actually started to make people think, “Okay, we are working tougher. Hey, this contractor is part of the team and we’re working together,” rather than four rafts going down the river and one raft is just full of architects and engineers, and one is just full of builders, and one is just full of the owner.

So that was an interesting thing. It helped us with the mindset. We didn’t have to do that in following ones because people who were onboard for the next ones learned what this was really about for the different system process. So it’s definitely a mindset aspect. Just because you’re a great architect or engineer and can work on putting technical documents together and develop the programmatic designs **[48:21 inaudible]** etc. doesn’t mean you can be a great alternative delivery partner. You really have to make sure you’re checking your egos at the door from the design world. We find that if you can collaborate well with your engineers, there’s no reason why you can’t collaborate well with a team of owners and builders at the same time, too, and value their ideas just as much as you value your engineer’s ideas, in terms of issues for value to the project.

So develop mutual goals. The other big thing is that, all of a sudden, when we had the GC/CM, even though there were two different contracts there, we were still all on the hook to get to this point at the end of the project where we’ve accomplished these both contractual goals. It wasn’t that we’ve got these goals set up and now we were going to put it out to bid and hope somebody else can sign onboard. There really was some development of mutual goals happening because that GC/CM partner wanted this to be done on time and on schedule for this scope of work also, because before those final bid packages all went up to all those subs the builder said, “Yes, we can build this and accomplish this, Mr. Owner, for that.” So he’d given him a guaranteed price maximum, with some contingency, but saying, “Yeah, we’re going to accomplish your scope of work for this dollar value,” before they got to the end of the project. There weren’t a lot of big change orders and things like that.

Really, in the GC/CM, the only change orders that should be coming about are if the owner decides some point along the line they want to change their scope and add some program or change something differently. There shouldn’t be a lot of constructability building system changes going along because before that package goes out, both the design team and the building team have said, “That’s what we’re going to accomplish. That’s what we’re going to do, and here are the prices.”

So that system development and constructability is important, and we actually found it was great for us because we didn’t have any of those changes down the road where we’ve already designed in detail with this type of a building system, and now the contractor tells the owner, “I can save you some money if you change this system,” and we have to all of a sudden come up with a new set of details around a new system. We didn’t have any of that. We were agreeing on the right system as we were going along, so before we even completed any design development or technical documents, we were already in agreement on what the building system was and how we were going to construct.

Also, the project phasing was important or GC/CM. The big thing that we found different on the GC/CM is we didn’t just design one big, giant bid package for the project with multiple buildings and everything. “Here it is. It’s all done. Put it out to bid.” We were developing a bid package working with the GC/CM builder as we were going along, and we might have a site package, where we’re going to get some clearing and grading but we’re still figuring out the rest of the building components. So there were multiple bid packages as the design team. That’s very different from the traditional, “Let’s finish everything and put it out in one giant bid package.” So that’s a big change in terms of the phasing of the project. There might be phasing of types of building or something going on and some other building has some long lead items and you’re still designing components for that while they’re up putting up a structure for another building. Those are big perspective changes we saw from our development with the GC/CM.



**Bill Kent:** From a GC/CM’s perspective, one of the challenges we had – especially on the 256 which was the first job we were involved in, even though the minimum camp had been done several years earlier, we got involved in that – was the industry didn’t really know what GC/CM was. Educating the industry was a big part of what my job was because we’ve had subs for eternity and have been faxing bids to general contractors forever.

In a GC/CM world, a fax bid no longer is valid. It has to be a signed bid in a sealed envelope. It’s a public bid opening, just like general contractors normally do. So educating the industry to that was very much a challenge, and we still got a few faxedbids even after all the outreach we had done. So educating the industry was challenging.

The other thing that was interesting about GC/CM back then was when the laws first came out, the GC/CM was not able to self-perform any work. So Mortensen was selected as the GC/CM, We didn’t have the ability to bid on any of the work that we normally would do ourselves. So we had to go out and call general contractor. We had a structures subcontractor contracted to put the building up for us. Fortunately, we got a very high qualified contractor at Lydig who bid the structure for this building, but we had to call up a general contractor and ask, “Would you like to bid on this work we’re doing?” “Why would you want that?” It was a whole educational process we had to go through.

Changing project dynamics, Bill mentioned the clerk of the works. I remember the first discussion I had with this one individual and I tried to explain what horse trading it was. I said, “They’ll do this for us if we do this for that, and that’s how general contractors work and that’s how we do our business and it works very well.” But it was a different concept. Those are the kinds of things that, if a team is working together, can function really well. Not everything is black and white as you go through the process.

Contributing early: that’s when we talked about the different skills that GC/CMs should have. Somebody who can estimate a 100% set of documents is very different than somebody who can estimate what’s going be designed, and that’s the skills you need in GC/CM when you’re working with a design team and an owner during the design development. Usually they can estimate what’s going to be designed. Nobody’s designing something and then having to redraw it because it doesn’t fit within budget. So it’s that ability to see what’s going to happen and what’s going to be there. That’s where a GC/CM can really differentiate themselves and really benefit a project when they have an individual that can help guide where the design should be, not just say where it is after it’s already happened.

Understanding and caring about what’s important: Captain Cole who was a gentleman who was in charge of the facility when we were out there. I remember one meeting where I think he finally realized that we were on his side. His eyes lit up because my superintendent had just done something that was very beneficial to him and you could see it finally just clicked with him that, “We’re all on the same side and working together and we understand what’s important to you.” Once people get that attitude and that collaboration going, the project works very well. We did some things on this that Bill’s going to talk about that were pretty different and special but they worked very well for everybody.

**Bill Phillips:** These are success stories with the projects that we talked about. The first one was that both of the projects that we had Mortenson working on came in under budget. The agency, the customer, and the legislature were delighted when we were able to bring these projects and on time and under budget. So there were savings that we were able to either send back to the taxpayers or utilized for enhancements elsewhere on the project. The cool thing is we had full scope when we needed it, and high quality products. They were very useful.

The early goal and definition was a success when we had in the very beginning of the projects when we sat down and talked about, in concept, where we were trying to go and what we needed to have designed and have constructed.

When we got to the end of the projects and looked over our shoulders to see what we had, it was there. So we had the facilities, structures, and the quality within the projects to be able to do the things that we had to do as an agency and a correctional facility to move forward. So yes, it was tremendously successful.

I still think about the communication elements of those two particular projects. This was the first time that I had ever met Bill, and we have stay connected for many years beyond that. It’s the same with Larry. We were able to establish a level of communications that was so enhanced that we were able to build professional relationships that continued on well over a decade, for a very long time. It was that respect and the tenor of that relationship I think that really helped the process itself.

Part of it was just gaining an understanding that the contractor is not just in this for the quick buck and then out. Mortenson was trying to produce a product, show what they were able to do, build that relationship, and then create an environment where the owner would welcome them back in the door every opportunity that they could. It was by attention to detail, attention to project scope, and attention to the customer I think that got us there.

We minimized the cost of non-program-enhancing items. This goes back when we talk about making sure that you know what you’re really looking for in the definition phase of a project. This is where the architect and the contractor in particular working together with the owner helps root out from the owner, “What do you really want? What do you have to have to make this project happen?” Over the 35 years that I’ve been in this business, time and time again, I find a situation where the customer, when I’m working with a customer who’s the user out there on the facility, doesn’t always understand what they need or what they want. Or in a lot of cases, when they look at the plans, they don’t even really know what they’re looking at.

So part of the team effort is to make sure that the end user out there knows exactly what’s going to happen and exactly what they’re going to get and know that it meets their functional needs. I’m sure most of you have gone through this before when you’re 50% through construction and all of a sudden the owner comes running out and says, “Wait a minute, this is not what we talked about. This is not what I need. I need a window in this 12-inch-thick concrete wall. I have to be able to look through this wall.” Now we have additional costs and a request for changes that will slow the project down, create that environment of conflict and increase the project price. GC/CM, when it’s done properly, will avoid this problem.

The other key fun thing that Bill was talking about just a minute ago is that we maintained the secure perimeter throughout the construction for both of the projects that Mortenson did. Both of the buildings – two separate projects – were on the edge of the site within a secured perimeter. It’s god-awful expensive for the contractor to have to move people, equipment, materials and especially tools in and out of that secured perimeter, and it can have a horrible impact on the project.

So during the collaborative of designing and planning these projects – I don’t even remember where the idea came up – somebody came up with the idea, “Why don’t we just move the secure perimeter?” and I remember somebody laughing, saying, “That’s the dumbest thing I ever heard.” But the more we thought about it, we started thinking, “Well, why don’t we do that? We can move the secure perimeter. We can maintain the security of this facility, and we can significantly reduce the impact to the contractors and the cost of the project.” It was really a delightful move forward.

**Larry:** Yeah. And a big part of that obviously is that it’s a big cost savings for the contractor’s crew and people to come in and out of stuff, but the owner had a huge amount of money set aside for construction escorts, for staff to move people around from the secure perimeter to get them to the work zone through the operating institution and stuff.

So we looked at how many people on staff they had. It was not only the cost of saving time for efficiency for their contractor’s crew, but we were able to reduce the security construction escorts. You’d think that’s not very much, but if you have a couple years of construction and multiple staff people going through there, it was hundreds of thousands of dollars we saved by security staff.

**Bill Phillips:**  Right. Excellent point. Then last one is, at the end of the project – I talked about this earlier – we were able to provide the full program space and we established that long-term partnership that we were looking for in the industry.

**Bill Kent:** So we learned that good ideas can come from anybody. I think maybe it was our superintendents who said, “Boy, it would nice to be outside that fence.” That’s just how that whole thought process started.

Challenge the norm to facilitative improvement. The norm was tool inventory every day in and out, very limited bidders because nobody wants to work inside of a facility and all that stuff. We challenged that and said, “What if we did something different?” and the team worked together and we made that happen.

Bill talked about communication being vital to success, and trusting your partners and the process goes a really long way.

**Larry:** This is the list. We’ve already talked about a lot of these things. This really boils down to some of the best practices. Get the right people on board, everybody understands the goals you’re all working towards the desired outcome, and if you need to make changes, make changes as you go. It doesn’t do any good to have people with the wrong mindset trying to help the team be successful.

**Bill Phillips:** Let me just hit that last one. I really want to lean on this one: trust people and the process. That goes back to the point of making sure that you have the right people on the project, that if we stop and think about the history of the business, there’s a natural conflict between players – there’s a lack of trust – but going through the partnering sessions and learning the process.

The other key piece about how the contractor comes on board – I always go back and think about this – is as an owner, “We selected you,” so there should be a level of trust or a level of understanding. Your contractor is just trying to make a reasonable profit and produce a good project. I think owners sometimes have the tendency to forget that. That level of trust really is paramount in this process.



**Dave:** The Design-Build case study we wanted to talk about, I’m going to start by pointing out that this is the Coyote Ridge Corrections Center finished project. I want you to observe two things. See this little building up here in the northwest corner? Keep it in mind as we move forward. This silver portable **[1:03:12 inaudible]** on this, keep that in mind.

We were doing two Design-Build projects essentially at the same time. One was about 18 months ahead of the other. We were in a hurry for the reasons that Bill mentioned earlier. We selected Design-Build because one of the two projects, Coyote Ridge, was a significant departure from the kind of facilities that we built before. It involved a hybrid medium as well as a conventional medium. We ended up deciding that Design-Build was a really good choice for that, plus it was a very big project and it was a Greenfield project.

However this one was about 18 months ahead of it. This was one our over 100-year-old facilities where we were adding a significant component of additional capacity, maximum custody, and frankly, the project did not go well, putting it bluntly. We’re going to touch on the reasons for that real quick.

This was the size of the project: $130 million, a fairly good priced project at that point in time. Except remember that this was during the period pre-recession when construction escalation was out the window. You were seeing 4-5% cost increases per month during this time period.

When we started looking at this project, these were the things that we didn’t do. We didn’t select a good team and keep the team. We also found out that when you talked about working relationships, the penitentiary is an entity who is way too conservative to really be successful working in a Design-Build environment. They prefer very much the Design-Bid-Build, understanding exactly what they were going to get.

All three of the Design-Build teams that came in to look at this project said that we couldn’t afford it. We bid it anyway. One of them came in substantially lower than the others, and the state made the decision to reward it. The troubles began.

The state tried to chop elements out of the project. We could remove costs out of the project faster than inflation was putting it back into the project. So we literally could cut the project fast enough. So we didn’t know the market, we didn’t know the alternatives, we didn’t have budget support, and we didn’t have a really good working relationship within our organization that was set up to be able to do Design-Build effectively.

To just give you a flavor for it, the state offices were running the campus for the construction team and the Design-Build contractor was at the other end of the campus. We were literally a physical mile apart when that project started. Judging from some of the expressions I’m seeing on the faces, you already see this train wreck coming.

I’ll give us credit for this. We were smart enough to learn from our mistakes and then we transferred that to the Coyote Ridge Project.

**Bill Dobyns:** The Coyote Ridge Project is a Greenfield project, a brand new campus. It was a campus-style design, primarily made up of pre-cast concrete and CMU with a component built in there – pre-engineered buildings – which is a success story that we’ll talk about a little later. It’s about a half million square feet, 100 acre site, and the original concept had I think 58 acres inside the fence. Through some discussions and ideas that we talked about we reduced that down to 51 acres inside. It was designed to hold about 2100 inmates. It employed 450 people.

Original construction or design and construction time period was about 29 months. The state at that time had adopted a requirement that all projects achieve a minimum LEED certification, and this project required LEED silver certification, which was pretty challenging on a correctional institution.

Total budget for the project was $240 million. Original design and construction contract was $160 million. There’s an added scope element there that is a great success story of $30 million, and that goes back to the note that David planted in your head about that extra building at the end of the site.



**David:** You’ll notice this illustration doesn’t show that building up in the northwest corner. The legislature came in partway through this project and threw another $30 million at us for that last housing unit. When we brought that forward to the state construction executives, they said, “You’re going to have to a separate project Design-Bid-Build.” We said, “What? We have a contractor out there. He’s going screaming fast. We have a great relationship.”

We did a lot arguing over that and eventually won. We issued a change order to the team that was already out there. Then even later in the project, the governor’s office came in and said, “We have a million dollars sitting here for renewal energy, and you might be in a place to be able to use it.” We turned to the Design-Build team and asked, “Can we use this?” and they said, “We have a great place where we can put this.” So to me, those were both excellent examples of where the Design-Build collaboration made it possible to accept major changes right in the middle of the project. Because we had established points that were mentioned earlier in this presentation about good teamwork and collaboration, we felt very good about awarding this to the Design-Build team rather than having to go through a separate contractual process on it.

**Bill Dobyns:** I think similar to the GC/CM, the team selection and the process, a lot of that was able to happen because we had the right people on the team. We had built a great trusting relationship so that when the owner’s team was faced with trying to sell this idea upstream in the state, collaboratively we came up with the sales pitch on why it was the best value for the state and why they would get the most bang for their $30 million. We came up with that story together – it was a good story, it was a real story – but because we were able to do it together, they could sell that and really went outside the bounds of normal practices to award a $30 million change order on our project. They got a lot of value for it, so we think that’s one of the best success stories of this project.

**Larry:** And the time completion for the project didn’t change.

**Bill Dobyns:** Yeah, that’s the other thing. We were moving at such a good pace. We added that $30 million change order and that building and did not move the contract completion date at all.

**David:** The only difference you’ll see is it’s about ten feet farther back from the other buildings.

**Bill Dobyns:** So we want to look at the keys to success from the three perspectives: the owner’s, the designer’s and the builder’s on this. The first one being risk management from the owner’s perspective.

**David:** Risk management for us falls into several rough subcategories. I think I’m tending to focus on the last two: political risk. What are the issues around the local government that we have to deal with? How are we going to manage city councilors or city commissioners?

The Design-Build team did a really superb job in presenting this and having frequent contact with the local government, as did our team. We would often appear in front of the city council together. That was a key element. For example, they needed to do early morning concrete pours. Technically, city rules didn’t allow them to be driving large trucks through the city at 4:00 in the morning but, because we had a good relationship with the city council, we were able to make that work.

So I had to deal with local legislatures, but there was still a lot of enthusiasm around building this project, and because we worked collaboratively as a team, we were always appearing in front of the political structures together. We were perceived as a single-functioning entity.

**Larry:** From the designer’s perspective on risk management, we’re finding that the alternative delivery methods are a lot less risky for us than the traditional Design-Bid-Build. Our firm has been doing Design-Build for corrections and justice for probably over 25 years, from our first Design-Build prison we did for the state of Missouri.

Through that 25 years, we’ve never, ever had a claim on GC/CM or Design-Build. We’ve never had to go to our insurance people ever for those projects.

Through that period of time, we’ve had a couple on the traditional Design-Bid-Build, where there was the conflict of, “I don’t think the drawing says that. I think it says this.” You know that traditional deal.

We find from a risk management from the designer standpoint that it’s a lot less risky in the alternative deliveries because you’re working together with the people you’re building with. So on the Design-Build, it’s even that step past the GC/CM. You actually get to pick your partner. You actually get to pick your partner. You’re putting a Design-Build team together before you even go to the owner. So you’re not being married up with anybody, like in traditional Design-Bid-Build, or even somewhat GC/CM. They’re coming in after you’ve already been awarded a contract from the owner. It’s just a step back on the GC/CM.

As we went through that, we found there was value, and the owner did, too. We’ve actually been involved in the selection of the GC/CM. We get onboard. They select us for the design. We start programming, etc., and then as we’re looking for the GC/CM partner, the owner would get us involved in, “Well, we’re going to have a new partner. You’re going to be part of our team. You should help us select them.” So we found that’s a great process from the owner standpoint. Not all owners do that on the CM at Risk type. But on the Design-Build obviously for risk management, you get to pick your partner you want to go do that project with. So you get to manage your risks quite a bit from that standpoint.

**Bill Dobyns:** From the Design-Builder’s perspective, of course for any construction project, the big risk for us is in exposure to time and money: going over schedule and going over budget. Being able to pick our partners helped us control that risk. We specifically selected subcontractors and then subconsultants that we knew not only could construct this kind of work but were also experts at managing budgets and schedules. They had to have all three skills at a high level. That’s how we consolidated our team and made that selection.

One of the things we did to help facilitate that was put the subconsultants – electrical, mechanical, and a few other minor subsconsultants – under the umbrella of the subcontractor, so that the subcontractor could help us manage that schedule and work together as a team. They formed their own little mini-team and managed their own budget for those trades. That added to our success quite a bit and helped us reduce our exposure to that risk of time and money.

Of course, the old adage of under promise and over deliver was our mantra, and we did that on this project. We made sure everyone involved on the project understood that and lived up to that.

Team structure is the next key to success from the owner’s perspective.

**David:** I would say that is probably, at least in my mind, the single most important element. It really helped control a risk management process and dispute resolution. We had the right group of people working on this.

Bill touched earlier on how it’s imperative that the owner take the time to train their own people on how to work under alternative delivery methods. We had an experienced project manager who had the authority to make decisions on the site and was prepared to work in this type of atmosphere.

Where it says “single team, single agenda,” there were times when issues came up – and you know in Design-Build, the idea is to transfer all the risk over the contractor – when the regulators came in and said, “We don’t want to talk to the contractor. We want to talk to the owner. You’re the guys that we normally deal with.” That’s the way they’re set up. Well, it was incumbent on us to step forward and be part of working out that solution along with the contractor.

We also brought in correctional industries as part of the construction team. They had not done quite as well on the prior job that I mentioned was a bit of a disaster. They did very well on this one. They became part of the design team.

I mentioned on the last project our offices were a mile away. Here we shared offices. It looked like a bloody apartment complex. We had the state design team, the state oversight team, and the regulators/code officials. Everybody was in the same building and was able to walk freely back and forth, so it created a much more collaborative atmosphere than the prior project.

**Bill Dobyns:** We had heard of the issues we had with correctional industries and were proactive about taking the lessons learned from that process and making sure we didn’t repeat them on the Coyote Ridge part.

**Larry:**  I think we’ve talked about, from the teaming structure, the need to pick the right team. Pick the right players. Have the appropriate people to the table and value everybody’s expertise in terms of that.

**Bill Dobyns:** I think that one story about that highlights it is we had an individual on our team – a subcontractor/superintendent – who didn’t buy into this process and, as we got into construction, was treating it like a hard bid environment, sending all those RFIs that you know are generating changes, and doing all the things that people have done forever.

We said, “We’re not going to do that. You need to either change your ways or change your address.” He changed his address, so then got someone onboard in that position that understood this method and bought into the concept of what we were trying to do.

I would say that was the biggest hiccup we had on that entire job, and that’s a pretty small hiccup. Don’t be afraid to do that. If there is someone on anybody’s team that is not buying into this method, it’s not going to work any better than any other method.

**David:** Touching just briefly on this, our degree of involvement varied as to where we were. We did use bridging documents on this, and that’s partly because we wanted cross-facility consistency. So they were probably a little more detailed, but at the start of this project, when we actually got into design, the Design-Build contractor threw about half of it away with our permission because we were able to see it was an innovative design, but yet there was a consistency we needed between facilities. So that was a positive change that we were willing to accept.

We were active in the design, we became less active in the construction phase, and then we had to be active in the closeout phase. I do have to mention that our proposed superintendent facility for this facility had a construction background, so he was a huge asset as well. That comes back to having the right people on the team.

**Larry:**  We had more workshop meetings as we were starting to identify the design process and things like that, so we have all of the players involved in that. As were talking about building systems, if it was a mechanical system, we had the architects, the general contractor, the owners, maintenance staff, etc. in there, and the mechanical subcontractor, some major suppliers from different components – particularly if it was like a correctional detention oriented components, etc. – so we had large group meetings, but everybody had a voice at the table. The mantra again is, “Everybody’s opinion is important,” so we wanted to hear about it, put it up there and talk about so we didn’t find out later some good idea when we’re way down the road. So it’s the right information at the right time.

Integration of all the stakeholders: David mentioned the code officials. We actually had the code officials as part of our design team. They were the ones who were ultimately going to have to do this. This was a major project in a small community, so we went to them early and said, “We’re going to be going through this design process. We’d like you to attend our meetings.” They were open to that and they became part of our team. So as we were talking about issues, we got code input as we were developing the concept that we were going to address it to, whether it was the fire marshal or the building officials.

**Bill Dobyns:** From the contractor’s perspective, one of the things we did was we wanted to prefabricate anything we could while the design was going on, and that took a commitment from the design team to free certain elements. Once we cut it loose and put it into production, those details, connections, or whatever it was could no longer change. We established dates where we said we were going to freeze the floor plan – not that it couldn’t change – but everyone on the team had to buy into the fact we froze that floor plan on that day. We were moving forward. We were digging foundations. If we needed to change it, it was going to have an impact.

And we found ways to not change it. It took commitment for everyone on the team. The owner on this project brought into our design meetings every end user who would ever touch this facility, and they had input into this design. They had to say, “I’m done with my input and I can live with what we have right now. We’re freezing that element. Now go start building it.”

The we moved on up through the structure and onward and do that at every step of the way so we could start fabricating things ahead of them being needed on the site, and that took a lot of commitment from everyone on the team. It goes to having the biggest thing of all: have the right people on the team with the right mindset.

Let’s keep moving forward. Dispute resolution? We didn’t have any. We had a dispute executive committee. We met once a month. Toward the end of the project, we’d come together. We’d have lunch. We’d go back and just talk about how good everything was going. We didn’t have a single dispute, so we were very successful in that regard.

Let’s move forward then to what we learned. I think we hit on it. Team, team, team is the biggest thing. Get the right people with the right mindset.

**David:** A couple other points I like to put out about this facility. This was the first LEED Gold correctional campus in the United States. So far as I know, I think it’s still the first LEED Gold campus of any kind in the United States. You don’t often get a chance to build an entire campus all at once so I guess that’s not terribly unique.

The owner had identified about half a million dollar in energy rebates that we were eligible for. The Design-Build contractor went out and found another half million we weren’t aware of, then helped us apply to get those.

We in turn helped them get some tax deductions they were allowed to obtain under the construction of this facility. We estimate in comparison to a prior campus of a similar size and custody level and so forth, built in the 1990s, this one operates about a million dollars per year more efficiently. That’s utility costs, I’m not talking about the savings we get on the alternative design – the lower staffing and so forth – but just utilities – water, wastewater, electrical, and gas. It’s about a million dollars a year less expensive. That’s a separate paper that we’d be happy to present to you at some point.

Now I guess we open it up for conversation.

**Larry:** We encourage you to be interactive. Hopefully you have some questions from your standpoint or your experiences you’ve bumped into, either in GC/CM, CM at Rick, or Design-Build. Or questions that you have for any member of the panel about the components of those delivery systems.

**Participant:** I’m really curious to hear from the GC/CM and the ownerat what point along the design process is it appropriate to sign the GM **[1:23:19 inaudible]**

**Bill Kent:** For the state of Washington, the MACC can’t be established any earlier than 90% CDs.

**Participant:** So that’s almost **[1:23:36 inaudible]**

**Bill Kent:**  It almost is. That’s not how it started though. When I was working with Bill, the MACC was established very early in the design process. I think the only reason that changed was because we all got stung really bad on the escalation that people were talking about earlier. We got in a situation where we had established a MACC a year before that happened, but we weren’t building yet because that’s how these jobs are funded. During that time, due to nobody’s fault, the cost of the building just escalated and everybody was stuck in a very bad situation.

**Bill Phillips:** The history behind that, as Bill was saying, is that in the very early days, the philosophy was that you would sign the contract and lockdown the MACC as rapidly as you could. In those days, the perspective was that the owner went in with a fictitious MACC, the designer was creating a set of schematic documents to get to that level, and we would negotiate at the end of SD and then we would sign the contract with the GC/CM and everybody was happy and you moved forward.

The problem is, as you now, as you move through DD and CD things change. You learn new information. Sometimes it has to do with the cost of materials. We were finding that as we moved through the project, the GC/CM would come back to us and say, “Things have changed. We need to renegotiate the MACC,” or, “We need to write a change order,” or something, so it put us in a situation where we had to in some cases start questioning whether or not we had the appropriate level of scope in the project.

**Larry:** From a designer’s perspective, there was some challenges by creating a GMP2 early. If there was an escalating cost, you found as you got to the end because the general contractor GC/CM was carrying these contingencies to protect against these rising costs. If it didn’t rise up, they’d way, “We have two million dollars to return to the state,” and the users would say, “Gosh, we wish we could have used that to upgrade and enhance the facility.” The design team said, “Wow, we could have got that extra program space we thought we had to give up if we’d have known that money was available.”

So it is a Catch-22. How early or late do you sign it? Basically, you still are just traditionally bidding in the GC/CM world. That’s why I’m a big proponent of going to the full collaboration, not the partial collaboration, and getting the Design-Build team on board.

**Bill Phillips:** The cool thing about it, just to wrap it up in my personal perspective, is that early on in the project, establishing a target MACC is the appropriate thing to do. Getting commitment from the members to focus on that particular budget associated with the scope of work makes all the sense in the world.

But it also goes back to the owner realizing the fact that what you have done in this process is hired the best architect and the best contractor to bring this thing to closure. If we have that level of trust, the renegotiation of the MACC at 90% really didn’t make sense.

**Bill Dobyns:** I think too a benefit of a team working together is, knowing that there’s some unknowns in the history, even at 90%, identifying some either bid protection measures that you can add or detract after you know where the bids come in, so you can add or detract after you know where the bid’s come in. So you’re planning to add more if you can, but you know what you might have to take out if you have to.

**Participant:** In your experience how transparent are these Design-Build **[1:27:00 inaudible]**

**Bill Dobyns:** I think a key to success is we’re totally open book. You have to be. There can’t be any games being played. Everybody has to know where the costs are and where the budgets are because everyone on the team is trying to protect a budget. If we’re working together and we’re all going to have a point in time when something in our budget is getting pressed, we can rely on each other to help solve that if we’re all open and we know what we have in each other’s budgets. If we’re hiding things, that’s never going to happen.

**Larry:** On Coyote Ridge and what we do for Desing-Build is we actually establish what we call a team charter. We get all of our team and we’re going to go after this pursuit together, and that’s one of our charter elements. Everything is open abroad. Nobody misunderstands, “I wonder how much the general contractor really has in for that and what he’s asking me to give up.” It’s all right out there.

People are also in this charter committing to help one another. If somebody has a problem, it isn’t that person’s problem. It’s the whole team’s problem. We all have to make this number work in the end, so we’re all committing to help each other. If somebody brings a challenge to the table, we’re all working to solve that challenge. But it has to be all open to do that.

**Participant:** I think one of the things that wasn’t mentioned about the Design-Build process is that it eliminatesthe activity ofvalue engineering that comes at the end of this manic design phase, which for the architect, becomes wonderful timing because you’re waiting two weeks to a month for the information to come back, and then everything has changed on you. You don’t really know if it’s going to have a cost effect or not because the person who’s going to bid is not necessary reflecting those numbers.

But in the Design-Build situation, it’s actually the contractors coming on early on in that phase and saying, “I can do it for this. I think this is a better way. These are our options. These are ways of accomplishing the same thing.”

**Larry:** Yeah. It becomes more value analysis. As an architect, I hate value engineering after we’ve completed all the documents. “Okay, the CDs are all done. Let’s value engineer it.” A lot of the state requirements for schools and things have a requirement where you have to submit a value engineering component and get a VE done. Well, the VE people almost feel obligated. “They’ve hired us to do this. We better come up with some changes.” It’s almost counterproductive at that late stage of the game to be suggesting great ideas when somebody’s done all their work and expended all their fee. So that’s a good point.

**Participant:** In both projects where you have cost savings where part of it goes back to the contracted party and part of it goes back to the client agency, does the design entities have any sharing of that?

**Larry:** We could let some of the owners comment, but any savings in the contract don’t necessarily always come back to both entities or has to be in the original contractual arrangement that if the owner is willing to give some percentage of that to the team, whether it’s the GC/CM or the design builder, then it’s again part of the discussion with your team.

As I mentioned in the Design-Build, we go in with this team charter and we talk about, if there are potential savings, how the team respond to that. Because everybody is all in, you try to share it all in. Just like what we try to do on the honorariums, we try to share it all in. It isn’t usually enough to cover anybody’s full effort, but we try to get proportional so everybody’s on board together.

**Bill Dobyns:** We try to discourage owners from using cost savings sharing because it create a pot of money where now your primary interest is defending your share of that pot of money. It goes against the spirit of this kind of process, I think.

**Bill Kent:** Craig Unger yesterday in his opening mentioned the part about incentivizing. The reason that worked so well in that Pentagon is that the incentive was not part of the project costs. They had the project costs – that was for design and construction. The incentive was a completely different pot of money. Bill’s exactly right. If there’s money to be had from savings, then people start protecting that, and that’s not good for the project.

Incentives are absolutely a good benefit to the project, but have it be a separate pot of money, not what’s there for design and construction.

**Participant: [1:31:18 inaudible]**

**Bill Kent:** When we did these projects, you couldn’t. We do have the ability to bring on EC/CM and MC/CM now with the same type of selection criteria that the GC/CM is brought on with. So mechanical/electrical trades, if the mechanical/electrical contract is going to be over three million, you can bring them on as a EC/CM and MC/CM. So you can bring on those partners.

**Participant: [1:31:56 inaudible]**

**Bill Kent:** Qualifications and a fee in GC, but similar to how the GC/CM is.

**Larry:** Yeah. We’ve seen in the state that it’s growing and developing. Obviously we on the design and builder side are learning about it, but the state’s been learning about it so the legislature has been changing through the period of time. Just as with the GC/CM, they’re allowing more and more involvement to get it more collaborative rather than just hard bidding all the components.

Also in the Design-Build side, there are major changes this year. On July 1st we went through, in DBIA, and helped reenact or rewrite a lot of that to try to move it toward best practices more so that you could have not just picking on price so much, but also more qualification-based selection or different things.

It’s moving and evolving through the years of its evolution, but at the legislative level, it moves a little slower. So it isn’t where we’d all like it to be yet for best practices, but it’s definitely moving that way.

**Bill Kent:** Here’s one of the benefits of Design-Build in the state of Washington: once a design builder is selected, all the public procurement rules are gone by the wayside. You don’t have to worry about public procuring of any of your subcontractors. It’s all just within the realm of the design builder’s control at that point.

**Participant: [1:33:12 inaudible]**

**Bill Dobyns:** Yes. At the time when we guaranteed our price to the state, we had 60% of the project committed to as far as subcontracts.

**Participant:** What is the selection process on a Design-Build? Describe the selection process for GC/CM **[1:33:41 inaudible]**

**David:** We had two teams who were competing for the project. It was a combination of rights and qualifications. Interestingly, their two prices and the state’s estimate on the Coyote Ridge project were within one half of one percent of each other. The price actually ended up being a non-factor. So essentially, it became a qualification-based evaluation.

We have a scoring system which was set up to allow a certain number of points. Frankly, it was an extremely close competition. This one was unique being that close, and they won, I think, premised on the fact that they made a very powerful presentation, which was something that was of value to us when we were working with the local governments and political structures as well. They were able to articulate very clearly what the intended to build, and they were very attentive to this innovative component we talked about: the hybrid facility as well as the conventional hard medium. They grasped that concept very well.

So there are various elements in the credential-based, and they scored very highly on that particular part of it. That’s where they beat the other team out.

**Participant:**  On the difference between the GC/CM and the Design-Build, GC/CM requires packaging by the architect which oftentimes becomes a difficult factor where the two packages come together, which is where risk comes into the architect’s deal. In the Design-Build, that isn’t that case because the Design-Build is done with one contractor, so therefore that contractor is taking that package separation. They’re taking responsibility of it.

**Larry:** We found that still in Design-Build we still developed technical bid packages because we’re trying to get site work going where we’re still working on final finishing and other stuff. We find there are still phase packages, but we find the risk goes away more as we move down the line towards a complete collaboration of design build.

Thank you very much, everybody.