

**Public Safety Facilities Review Committee**  
**Wednesday, May 7, 2014**  
**7:00 p.m.**  
**Council Chambers, Albany City Hall**

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1. Call to order
2. Adoption of April 22, 2014, minutes [Pages 2-16]
3. Comments from the public
4. Review draft Police Department recommendation [Pages 17-18]
5. Police building programming discussion [verbal]
6. Construction methods discussion [Pages 19-53]
7. Review of questions to answer, issues to address, tasks to complete [Pages 54-56]
8. Committee thoughts and comments
9. Adjourn

Next committee meeting: 7:00 p.m., Thursday, May 15, 2014, Council Chambers

Upcoming meetings and focus:

- Tuesday, May 20 – Funding options and construction process
- Tuesday, May 27 – Funding options
- Tuesday, June 10 – Preliminary recommendations to City Council; adjourn for summer.

**DRAFT Minutes**  
**Public Safety Facilities Review Committee**  
**Tuesday, April 22, 2014**  
**7:00 p.m.**  
**Council Chambers, Albany City Hall**

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Call to order

Co-chair Morse called the meeting to order at 7:00 p.m. He announced excused absences for members Martin, Reece, Wheeler and Berg.

Approval of April 8, 2014, minutes [Pages 3-15]

Steele moved to approve the minutes as written; Edwards seconded. Minutes were approved.

Comments from the public

Morse announced that Mike Quinn had material to present.

Quinn introduced himself as a local builder. He said a group of people had noticed when people voted the bond measure down, they had no drawings to which to refer. He noted that the Committee includes two architects. He said he'd heard a lot of talk about the potential cost of getting drawings of a new fire station and police station so he and others had taken it upon themselves to give the Committee a freebie to give them a head start. He described the Fire Department drawing showing Sixth Avenue closed. He said a Fire station is basically a big shop; it's not like building a house.

The second drawing shows the Police station with an addition. He said he and his group are concerned about a new facility at another location. He is concerned that the City won't be able to facilitate a new building given the department's current budget. He recalled hearing Burright speak to the Elks about 30 years ago when Linn County was seeking voter approval to build a new jail. (See March 11, 2014 Committee minutes.) Quinn said one of the Elks asked Burright if the county would be able to facilitate the new jail with the current budget and that didn't happen, since the Sheriff's Office has sought voter approval of a special property tax levy for many years since.

Burright asked Quinn what he meant by "facilitize." Quinn said he and others are worried that the City won't be able to support a police station away from the current site within its operating budget instead of just adding on. He said their concern is that, if the City builds a \$9 million facility in a neighborhood that doesn't want it, it would cause a budget crisis trying to run it while adding on could be done economically. He said when City Hall was built, the City hired five people to facilitate it and he and his group figured the same thing would happen with the police station. The question is, will it cost more to run a new police station. Quinn said he had come to the meeting mostly to show drawings of the Fire Station but he had drawings of the Police building as well.

Quinn showed a drawing of a new fire station over a closed Sixth Avenue. Part of the building is shown as a two-story building with the middle mainly a "glorified garage." He said if the City wanted to keep the historical value of the building, they could take off the top part of the old building; he said he would just tear it down. The drawings show a building that is 20,722 square feet, with another 4,000 square feet on

the second floor of the two-story section to get to the 25,000 that the Committee wants. He said he and his group had just thrown these out so the City doesn't have to spend \$50,000 to get some renditions.

Quinn then showed a drawing of the Police station, which he described as a lot fancier. He said he actually has the blueprints for the existing police station, he has had them a long time, and they show that it can go to a second story; it doesn't have to be demolished. His drawing shows quads south of the existing building for offices and specialty use. He said he and his group have talked to quite a few policemen about the building. To accomplish the addition and more parking, he said, the City would have to purchase an adjacent four-plex, duplex, and a house. The drawing shows an additional area that Quinn's draftsman had added for a fire station. The additional building and parking would involve property out to Jefferson Street, Quinn said.

He showed a drawing of the Police building's front elevation. He said it's Planning 101 and most of the City's planners would agree with him that keeping the police station close to the financial area is a key part of planning a city. He said the facility his drawings show has several ways to get out into the community. He said he tried to develop the Pacific Boulevard property with 14 houses in 2002. He said he was stopped by ODOT; he wanted to build a bridge across Cathey Creek in front of Schoen Electric and was met with state wetlands issues and other problems. He said if he met with problems on that site, he expects the City would, too. He said he built quite a few of the houses on Willetta Street, it is a condensed street, a lot of employees of the Professional Plaza park on the east side and residents park on the west side; having a police car go down that street at 70 miles an hour is going to hurt the residential area.

Quinn said he and his group still feel this can be equitably done and a key component is to be near the jail. He said the City would have to purchase the neighboring properties east of the police station, but it would be definitely less than the \$875,000 paid for the Pacific Boulevard property; he said he could have bought that property eight years earlier for \$210,000. He said the City overpaid for the property two weeks after looking at the former Weyerhaeuser corporate offices, which is now costing Linn County a lot to remodel. Quinn said that would not have been a good spot for a police station.

Morse asked how much additional property would be gained in purchasing the residential property. Quinn said he thinks it would be about an acre. Morse asked if Quinn's plans encroached into any county property. Quinn said no. Quinn said police personnel had told him that they would like to park inside the compound and not out on the street. He said they need more parking on site. He said he thinks the construction on Jackson Street would be about half the price but location is the biggest thing for his group. He said if ODOT allows access to the Pacific Boulevard property, that would be good for people like him who could use that as a precedent-setting case.

Morse asked how many feet of usable space Quinn's design would provide. Quinn said the additions total about 12,500 square feet and the total is about 21,000. He said he and five others drew the plans in about a day. He said a lot of people in Albany are saying they'd like to see something, so they created it. He said he feels this works. He said he has torn down about 15 houses in the neighborhood around the police station in last 7 years, and the neighborhood likes having the police station there. He said the Willetta Street neighbors are not happy about the new property at all and he doesn't know how the City will come up with a traffic plan. Quinn said he had put a plan like this in the newspaper almost two and a half years ago, and Hasso Hering commented recently in his blog.

Arasmith said it's about 1.3 acres. Burrignt asked how many parking spaces Quinn's plan allots and how many exist now. Quinn didn't know. He said a lot of people park on Jackson Street.

Morse asked how this concept would accommodate future growth. Quinn said some of the land behind the jail has potential but his plan solves the problem for 30-40 years; beyond that, if Albany grows, the police would be looking at precincts or a satellite office.

Steele asked if a second story could go on the building. Quinn said yes. He said he had talked to former Chief Ed Boyd about his ideas and said Boyd told him it had merits but he wasn't going to be here that long. He said he thinks the bond measure can be substantially reduced. Both facilities have to have something done but the Fire Hall is the pressing issue for him. He said the City has an \$875,000 piece of property that the City might be hung out for, but there are a lot of properties that the City has bought all over town and he doesn't think this is any different.

Committee recommendation to City Council for Fire facility [Pages 16-18]

Morse asked members to review the revised recommendation. He asked Bradner for follow-up information on the cost of closing Sixth Avenue. Bradner said he had been asked about the impact of moving the 12-inch waterline to Fifth or Seventh. He read from an email message from Public Works Director Mark Shepard dated April 21, 2014:

“I had PW staff complete a more detailed look at the issue of potentially abandoning the water line in 6<sup>th</sup> Ave. between Lyon and Baker to accommodate a Fire Station building. Initially, I thought there may be some improvements required on 5<sup>th</sup> Ave. or 7<sup>th</sup> Ave. to assure that the water network remained robust. A detailed evaluation has been completed by staff and it has been determined that the water line in 6<sup>th</sup> Ave. between Lyon and Baker can be abandoned without additional water system improvements being required on 5<sup>th</sup> or 7<sup>th</sup> Ave.

Therefore, you can report to the Public Safety Facilities Committee that there will not be any additional costs incurred if a water line cannot be accommodated across the Fire Station property.”

Morse asked about other utilities, specifically the sewer. Bradner said he had reported on that at the last meeting – it would be about \$120,000 to relocate that. He said he is also checking on natural gas and electricity, since those would have to be relocated. He has a meeting with the power company coming up in about a month.

Cordier said it's still an action item that the Committee wants to see the total cost of all utilities to vacate the street and put a building over the top. Bradner said because natural gas and power are in the City's right of way, we can tell them to relocate and they bear the cost; the \$120,000 is an estimate of all City costs associated with relocating utilities.

Morse said he understood that the Committee had approved the paragraph on the top of the second page of the recommendation. Burrigh said the group had reached tentative approval but did not have consensus on the entire document. Morse noted dissent on Sixth Avenue. He asked for discussion on the recommendation and subsequent review after the committee concludes work in June.

Burrigh said he left the last meeting feeling disturbed over the lack of direction the Committee was giving with the Fire Department recommendation. He agrees that the Committee doesn't want to build a building that's too small and needs to be able to plan for the future. It's extremely important to design the building so it can be expanded; he doesn't want his kids to have to deal with this problem. He said he understands that the City will probably never build big enough; the sheriff's office and jail has been updated twice since the main building was completed. He agrees that construction will likely be more expensive in the future and the building needs to be cost-efficient, but he believes the committee cannot

overlook the programming documents for Fire or Police and blindly accept their conclusions. He said he especially feels that when there are obvious spaces in the buildings that are not necessary for this city. He believes that one of the committee's functions is to review the programming of both facilities: not dig down into the minutiae, but take a 10,000-foot over-flight and make sure they feel comfortable that what is being proposed is right for the City of Albany. The Committee needs to continue to remember that they are representing a very broad spectrum of people, a continuum from the very successful business owner who wouldn't care about extra space to the single parent who is unemployed, scrounging for every dollar, to whom extra is important, and everybody in between. He said he tried to keep that in mind during his review.

Burrigh added that someone asked earlier if the Committee was only proposing cuts to sell a bond. In part, that is what the Committee is doing, but if they are leaving something in the building that isn't necessary, that is very wrong when it comes to promoting a bond. He said he can't go any place in town right now without someone stopping him to ask about the committee. He said he hopes that when the Committee is done, he can say it was a great experience, they vetted everything there, he can assure people that the recommendations are what the City needs, and they're ready to go. He doesn't want to say that extra space is in the buildings and the taxpayers will have to foot that bill, maybe for millions of dollars. He wants to be able to look somebody in the eye and say they did their due diligence.

He said he had decided to give another shot at the language related to programming, be more articulate and demonstrate that some things are very important to the Committee. He explained the two paragraphs that had been added to the earlier draft recommendation – the first paragraph deals with eliminating some spaces that Bradner had identified in his program review, and reduces the square footage, which should be listed as a rounded number. The second paragraph sends a message: we're not interested in a monument or a gateway building, but a building that is sensitive to the needs of the people who work in it and to the needs of the taxpayers who are paying for it. The paragraph continues to talk about targets for square footage.

Wyatt said he had read the minutes of the last meeting several times and it appeared that the Committee had reduced the recommended size of the building by about 50 square feet. He said the Committee has selected a site, the site will constrain whatever is built there and parking requirements will constrain it. He recommends going to an architect and asking them to design something including the principles here, make optimum use of the site, with energy-efficient systems, low operating costs, not a monument: use the site, something between 25,000-30,000 square feet, and bring back something that makes some sense. He said the last thing that facility should do is end up to be too small or too whatever; it's never going to be cheaper to build than right now. He said he has never seen building costs go backward. He said the facility should be there for 50-60 years; you don't want to short yourselves and buy the cheapest possible things because of the public bid process because it will have to be fixed later.

Wyatt added that the square footage numbers needed to be rounded off and the requirement handed off to someone who can come back with a proposal. The site is going to drive what can be done there. The drive-through is a real advantage. He said when he read the minutes, he expected a firm conclusion but it appeared that the Committee got sidetracked on the minutiae.

Steele said she appreciated Wyatt's feedback from reading the minutes. She said she remembered a conversation at the last meeting: if you give them 30,000, they'll take 30,000; give them 25, they'll take 25. She asked how that could be done effectively so an architect doesn't end up at the top number if the space isn't needed.

Wyatt said to give them the principles. Cost is a factor. This isn't a monument. Talk about the materials you want to use. The architect will have a lot of interaction with the owner about what works and what

doesn't work. One of the principles is that the Committee doesn't want this to be a cheap facility but a frugal, economical facility. He said his experience in building other facilities is to have some up front principles before ever getting to a number; most architects appreciate that and come up with good products.

Cordier asked if Wyatt would object to targeting some kind of number. Wyatt said, no, rather give the architect a range. He said any activity changes with technology, and new technology will change the needs and the use of that facility. He recommended giving the architect some flexibility, guidance and principles. Whoever gets hired will know that the project has to be financed; if the rendering comes out to be grandiose, it won't fly and they know that.

Morse said he sees most of Wyatt's concerns reflected in the recommendation. Wyatt agreed; he recommended rounding off the square footage to give a target range. Morse read from the recommendation:

“Therefore the committee suggests that the City Council convey to whatever firm is hired to continue in the design process that the desired building size is 25,500 square feet as long as it can be accomplished without jeopardizing the building function and future needs.”

Wyatt said to redefine the needs. The number becomes a constraint, something the architect must work toward. He recommended a range with a minimum of 25,000 and maximum of 30,000.

Ryals said he has been through these things a lot of times and has been reflecting on this since last meeting. In doing some research, he has found that public projects always end up costing more than private projects and often go over budget. In this case, the committee has been through the building program and will then go through the design process, the process of taking the program and turning it into a building. He said the important thing he brings to this committee is knowledge about going through that process. In selecting an architect, it is important to make the selection a public process. Through the process of taking the program and creating a design, the Committee engages the greater community, gets input and creates some excitement. He said he really appreciates what Quinn has done and he wished everyone in town was so committed and had taken such an interest, because that's part of the process.

Ryals said there are lots of ways to go through the process. One is to hire an architect and have them come back and tell the Committee what they need; another is to give an architect the parameters and they come back with several options, allowing the public, City staff and others to come in and voice their opinions. He said, like it or not, the Fire Station is kind of a gateway to downtown; everyone who drives through town will see it. Many things about the current building really work – the doors are open, almost like an open door to the town, he said. People feel attached to it. To him, the number of square feet doesn't seem relevant. He said the building program is a good one. The Committee needs to set priorities and engage an architect and go through a process to move forward to get a design that people in the community are going to get behind. He said he wants to see a 70% vote in favor of this, and the way to do that is get people involved.

Steele said she thought the Committee, with Bradner's help, had already gone through a process with ZCS, and that he had narrowed down what he needed; with careful thought, he had eliminated three different work spaces. Wyatt said his experience is that it's way too early to do that. To say that 1,100 square feet can be eliminated in a specific area can't be done at this point. He said what Bradner did is not wrong but it's too early to make such changes.

Steele asked how to set parameters so the building doesn't end up designed for 35,000 square feet.

Ryals said the story of Corvallis v. Scio at the last meeting was important. The process in each community was very different. Corvallis was driven from within, while Scio was inclusive, done throughout the community and included costing along the way and showing people what's involved. An architect can present possible materials to consider; square footage isn't the only cost. How a building is constructed and how articulated it is makes a big difference. Maybe people want a simpler design; that allows you to get more room. An architect can put together real designs, real options, real costs, and let people respond to that. He said if he were designing a kitchen, the homeowner would probably want to know the cost of various countertop materials before choosing one.

Morse said there is a difference between nice and necessary and that is the message to the chiefs in the Committee's discussion: it needs to be necessary and the nice-to-have may need to be deferred. The recommendation language needs to reflect that.

Morse said he and Burrigh had been discussing this: with the Fire Department, the Committee has programming needs and they'll build on that with an RFP to come up with more specific design criteria and that's in process. Hopefully, the Committee will be doing the same thing with the Police building. The work will not be done by June 10, the target date for the Committee to finish its work. He asked members if they would be willing to come back and reconvene when designs are done for both facilities, to review, critique and sign off or do they want to be involved in the process as it goes along. The co-chairs are concerned that they might lose the Committee as summer goes on. At least for the Fire Department, responses to the RFP may be back by September; the Committee could come back then and do that review. He asked if the Committee is willing to do that.

Cordier said the Committee's work would be incomplete if they didn't do that. If it's not brought back for for the Committee's review, how does the public buy it? He doesn't think they would.

Roe said he doesn't want them to go through all this work without a say on the final buildings.

Arasmith said he thought the process they would go through is somewhat like what Ryals described. An architect would create some kind of conceptual design based around the program documents, then the Committee could get more information and begin to involve the public in more depth. He assumed that's what would happen.

Morse asked if the Committee would be willing to meet during the summer. He asked if the process is moving and things are coming out of it for review, do members want to be involved in that or just the final review.

Wyat said he wants to be involved in the process.

Ryals said his invitation to serve on the Committee did not have an expiration date.

Burrigh asked Wyatt what process he wants to be involved in. Wyatt said they're talking about working toward laying out a model; the whole design process will take some time.

Ryals talked about using square footage multiplied by a dollar amount to determine the project budget. He said there have to be some options in determining cost. He said he thinks all the Committee members have in the back of their minds what this should look like and what it should be. He described the process in designing the Woodland Square housing project – presenting several options and testing reactions to them to learn what kind of design people in Albany want. It was a collaborative process among design professionals and people who know Albany best and also have some skills in economy. The building owner is deeply involved. At the end, everyone feels some ownership.

Wyatt said he believes that part of the problem with the bond measure that failed was that it was a round number. Putting definition on this thing is a key to voters looking at it and saying, yeah, that's what I want to buy. He said the figure may have three zeros on the end but there should be specificity up front about the kind of thing to be built, in general how it looks and real materials that will be used; that can produce a real cost estimate, not just the square footage times a multiplier. He said there are a number of decisions along that route and he thinks this group ought to be involved in it.

Morse asked if anyone objects to the ongoing process; it will take time. Burrig said it will take a couple of months to get the RFP out and back; he thinks it will be a challenge to get that far by September. It may be fall before the Committee has more to do.

Cordier asked to discuss the recommendation. He pointed to the sentence:

“The Committee recommends that the ZCS/hsr Fire Department programming and needs assessment be used as the programming template for the Station 11 design.”

Cordier said he had added “initial” before the second “programming.” That is a stand-alone sentence and that says that is the document but the Committee has made changes to it to create minimum and maximum square footage. The changes were made with the Fire Chief's permission and he has said he can live with 4,000 square feet less than that. That creates the range for the architect to be creative.

In the next sentence are the words “design and build.” Cordier said he cannot support those words. If the bidding process is not involved in it, it won't be successful. He believes that unless the Committee recommends that the City use the design/bid/build process, they will fall back to design/build. Burrig said the phrase is “design and build,” which doesn't preclude design/bid/build. The Committee has not made that decision.

Ryals said he wishes he had been on the Scio field trip. He said he has since heard, over and over, that people really love that building, and they do because there was a vision that was carried forward to people in the community, they listened to all parts of the community and it became a community vision. He said that process works in Albany and maybe the Committee members are the visionaries. Working with the design team, they could go to Rotary, explain their work, they have the community's best interests at heart and this is the result. He said he wouldn't mind being an advocate for something that he believes really serves the community. He said if Cordier spoke to a group and said he supports the measure, a lot of people would say, “Hmm. Mikey likes it.” He said he has the feeling that's why the Committee was brought together.

Cordier said he had spent time today talking to city staff in West Linn, Oregon City, and Salem. He said West Linn broke ground last September for a 20,000 square foot \$5.5 million police building (total \$8.5 million bond). It was their second try; the first was about \$15 million and it didn't go so they hired a project manager. The project manager goes to the Rotary. He is a contractor, paid \$120,000 for two years of work. He is a former registered architect. The building will be up in September. He said West Linn started with CMGC project delivery method and they changed that. The project manager sold the public, going to public meetings. The City Council was deemed not part of the process and was kept out of it. He suggested the concept of whether the committee serves the project manager function or there's an architect that needs to be engaged and a project manager as the third type of project delivery.

Ryals said engaging the community seems to be what was missing from the November bond.

Cordier said West Linn went through design/bid/build so they could have details enough to go to the public and sell it. They lost the vote the first time.

Ryals said after having toured the facilities and met with the two chiefs, Committee members all understand the need. If they could take every voting citizen and give them the education the Committee members have had, there wouldn't be a problem. Demystifying the process and including the public is the key to passing the measure.

(Norman arrived at 8:15 p.m.)

Morse asked what needs to be done to launch this phase of the Committee work and move on to the Police Department. Wyatt proposed a survey: that the Committee recommends that programming documents that already exist be used in the design for Station 11; he proposes a range given to an architect to use a minimum 25,000 square feet and a maximum of 30,000; the principle the Committee wants to use is that the design should be based on function and future needs and incorporate all the parts that are above the two highlighted paragraphs on the second page and that's what goes to the Council. The highlighted paragraphs are not needed.

Cordier asked Wyatt if he was intentionally ignoring the McKenzie subtraction of 4,000 square feet. Wyatt said he is proposing a range, asking for the design to be economical and for an architect to come back with some options. The architect would have freedom within the bounds of the site, the bounds of energy-efficient systems, lifecycle costs, and operating costs as guidance.

Morse suggested that the proposal be in principle and not specific language. Wyatt agreed.

Cordier said he would like the Committee tonight to agree on specific language, not put it off another two weeks, and he doesn't care what time it gets to be. He said he supports Wyatt's proposal.

Steele she isn't sure she can support going up to 30,000 square feet. She said she hopes when the recommendation goes to the City Council that the findings regarding Station 11 are in a positive frame, such as needing adequate facilities of female employees and adequate parking versus what's wrong with the building now; these are things the Committee is looking for in a new building. It should be the parameters of the new building, not what's wrong with the old one. Arasmith said he thought the program documents did that. Wyatt said the findings set the stage for why a new building is needed.

Burright said he has great respect for Wyatt but strongly disagrees and will not consent. He said it is a horrible mistake to not pay attention to the program; whether it's five feet or 10,000 square feet, if there are issues in the program that don't make sense, and the Chief agrees, it's wrong for the Committee to leave it in. If it's in the program, that's what the architect will build to. He said he would be comfortable with Wyatt's proposal if the range was 25,000-28,000 square feet; that takes out the spaces the Committee had identified.

Norman said he is not as concerned about square footage, but wants the building to be what's right for the site, given the program. He said he appreciated Steele's comment because he'd like to have the glass half full, but something he has seen pervasively in the community is people not understanding what it wrong with the structure. The recommendation language is intentional because it explains why the building can't be rehabbed and can't serve its purpose any longer, so there is value in having the glass half-empty. He said he supports Wyatt's language; the result is arbitrary until a design shows something more concrete.

Edwards said she agrees with Wyatt. The Committee could look at the design and take away from it as necessary. She said the Committee needs the flexibility to give the community what is needed.

Roe said he agreed with Wyatt. He said he would rather see something fit well for the location and expects some natural savings due to the site. He said he would like to have the fire chief and police chief sit down with the architects; he hopes it will be an architect with some knowledge of fire stations. He described building a new animal shelter for the Humane Society in Salem; the architects didn't consider barking dogs and initially did not provide enough insulation. He said he would like to give them parameters: the Committee wants the building to be utilitarian, economical, and to last as long as it possibly can. Size doesn't matter as much as quality, how long it will last and what will fit on the property.

Arasmith said he agrees with Wyatt. He added that he may be naïve because he thought that the Committee had agreed that the "program documents" were as altered based on the McKenzie report. He said he agrees with Burright's concern but he thinks it can be worked out.

Ryals said Wyatt is basically right. The programming is a great place to start. He was glad to hear that the Committee members are in it for the long haul and want to be involved in the process, look at designs and see what the options are. Many architects fear design-by-committee; the important design process occurs between the architect and the Fire Chief and his staff. However, the community has an interest in the costs, the materials and the look of the building. Design-by-committee is not a terrible thing as long as people are in it for the right reasons. Each committee member has a network of friends who respect them. Ryals said he is asked about the committee everywhere he goes. That's the missing piece from the first go-round. He said the recommendation is a good starting point, a lot of work has gone into it, and the committee needs to move forward and be part of the process.

Morse said he is quite comfortable with the highlighted language. He said if his company was working on a problem and the staff made recommendations for cuts, he would not come back and tell them to make it bigger. He said he doesn't see any problem in setting a target at 25,500, with a caveat that, if it doesn't meet the needs, consider going beyond that. He added that, as a result of this discussion, they may need to craft some new language.

Cordier said his tally shows the group as 7-3 in favor of Wyatt's language. Morse asked if the group wanted to move forward, based on that. Roe said he hopes that when Bradner sits down with the architect this summer, he will be mindful of how the design will be received by the Committee in the fall.

Wyatt said he would prefer that everybody agrees with whatever goes forward and he has another proposal to survey:

- Include the language highlighted in yellow;
- Put a period after "Station 11 design" in the first sentence. Eliminate "and build." The Committee is not deciding at this point how to build the station but how to design it, he said.
- In the last sentence, delete the word "maximum."
- Leave in "29,386 square feet" because it is in the programming document
- Leave the mathematical calculations done to get down to 25,500. That creates the range.

Cordier said earlier he had asked that the word "initial" be put in before "programming." Wyatt noted that there are several programming documents; he recommends using all the inputs because it's all as valid as anything else. He said he likes the language: "it is very early in the process to be making cuts based on a best guess." He requested a survey on the highlighted language with the changes (above.)

Burright asked for clarification of "29,386 square feet." Wyatt said that is in the ZCS programming document. Burright said, by identifying the changes, it brings the size down. Wyatt said he is suggesting

that the design consider all the programming documents including the proposed cuts, they may not be right, but it's early in the process. He said the language as written has caveats now regarding potential cuts in the programming; they may be good or not.

Morse called for the survey.

Cordier and Steele responded yes.

Burright said he agrees with the intent but is not sure the wording says it. He thinks the language is confusing where the figure 28,386 is listed. Wyatt said his intent is they use the programming document by ZCS as one of the source documents in the mix. He said there is a proposal to go down by 1,100 square feet but the second paragraph says this is early in the process to be making cuts; he says the Committee is telling the architect to go forth and take a look at it.

Norman agreed with the survey.

Edwards, Roe, Arasmith, Ryals, and Morse agreed.

Burright said he thinks Bradner has got the message and he agrees.

Morse noted open issues raised by Cordier. The Committee has covered the Sixth Avenue vacation costs. Cordier said he hoped Shepard's words would be part of the record.

Arasmith asked if City staff would come back with revised population estimates. He said he was unable to find the methodology used for the Fire Department needs.

(Break)

#### Police building issues

Lattanzio passed out two reports: the history of the current building and background of work done toward a new police building, and McKenzie's analysis of the programming. He noted that everybody had toured the existing building. It was built in 1988 with 10,500 square feet and a modular building added 1,400 square feet in 2002.

Visitors can tell that a lot of changes have been made to building to create more space. The lobby has gotten a lot smaller, for example, and can create conflicts among people in that space simultaneously. Work spaces are quite small. Communications are compromised because work groups are in different buildings. The building lacks meeting spaces; a lot of training and meetings have to be done off-site. Storage and evidence are maxed out and some storage is at other locations. The building does not have enough space for the number of lockers needed and current lockers are too small. Parking is a huge issue; a lot of staff has to park on the street.

He said the Police are not married to the spot that the City bought on Pacific Boulevard; if it was up to him, he said, he would love to stay where they're at, right next to the jail, but he doesn't know how that could work. He said he has conflicting information about whether the existing building could support a second story. His memo explains the issues related to purchasing additional property and relocating people who currently live there.

Cordier said the Committee had never reviewed comments about the Police building following the tours. Morse suggested this would be a good time to do that. Lattanzio agreed, as his memo addresses the needs.

Cordier said the building is crowded.

Ryals said he had left the building very disturbed. He felt the police have an almost impossible situation to create safety for people in the building. He saw things, from a design point of view, that were accidents waiting to happen – no proper holding rooms, the lobby. He said he left there thinking the City really has to do something about current conditions because something tragic is going to happen there. He said he appreciates that the Police have done the best they can with what they have, but over time have become backed into a corner. He said he feels that the interface with the public, bringing in individuals caught shoplifting who can't really be held, creating a revolving door – it's all a recipe for disaster.

Arasmith was irritated that, once again, the City had built a public building that was boxed in. He noted that he and Cordier had visited a couple of the other fire stations and noticed a pattern of public buildings being boxed in and he doesn't know the cause of that. He said the Police building was probably too small the year after it was built. He said personnel there are in the position of working elbow to armpit. He is concerned about people with mental issues or who are drunk or on drugs in the lobby with others who may come in for regular business who could become caught there. He said something has to be done but he doesn't know what that is.

Roe said he had noticed storage issues for guns and ammo and evidence. Lockers were in bad shape. The holding areas are crowded. Internal communications must be difficult with detectives in an outbuilding; when crimes are occurring, they should be able to meet with patrol easily. The building has no natural flow and no natural pathways anywhere in it.

Edwards agreed with what others had said and added that she had had no idea that the building was as old as it is already; she remembers it being built and had thought of it as still brand-new. She said it is very crowded. The lobby and holding rooms are her biggest concern.

Norman said it is unfortunate that there is an outbuilding that is essentially a mobile home. It doesn't feel like a permanent structure. He shares Ryals' concerns about safety and believes the City is one lawsuit away from buying several police buildings. The lobby is of particular concern. Also, he commended the Police staff for making the building work as long as they have.

Burright said the Police property on Jackson Street and the parcel north of it were purchased by Linn County in the mid-1980s from Scharpf Lumber for the purpose of building the new county jail. During the jail's design phase, that little triangular corner wasn't being used and was extra. At the same time, Albany Police were still housed at the old City Hall; what they have now is luxurious compared to that and they were desperate to get out of there. He said he remembers the day he heard that the county was selling that corner to the city for a new Police Department; his first reaction was some day the county would want that piece, but, more important, the Police Department would be landlocked and in a lot of trouble someday. He also remembers when it first opened; it was pretty nice and very functional with the number of staff there at the time. Over time, as staff grew and functions grew, they kept chopping it up, trying to make the space work and it got worse and worse. Until last week, he hadn't been in the building since he retired from the Sheriff's Office in 2005, and he was surprised at the number of changes since then. He said he gives the Police credit for making do and making the space work as best they can but it's done; he doesn't know what else can be done with it. They need more space.

Steele said she didn't know what she could add to the devastating facts already reported. She has been in the Police building numerous times over the years. She used to be able to have community meetings there but that space is gone. She used to feel safe in the front lobby but does not now. She said the whole space is wrong; it doesn't fit today's needs or standards.

Cordier said he was surprised at the lack of facility for interview rooms; they are not secure and he doesn't know how anyone can interview anyone there. In the plan, there is a proposal for some number of

detention cells or holding cells; he is not convinced that those are needed if Linn County re-opens its 48-bed wing of the jail after the election in May. He said he is looking for some scrubbing of the programming document to eliminate some of what is in it.

Wyatt said some call secure interview rooms “cells.” He said his impression is much like everybody else’s: it is very crowded. He came away from the tour with a couple of things: if you own more acreage in that location, that’s a great location. The county jail is not going to move; part of the Police Department business is getting people to the county jail so the easier that is, the better off everyone is. Part of the basic facility is old and needs to be rehabbed. The HVAC is kaput. If the City was able to build more facilities adjacent and had more parking adjacent, that would be ideal. He’s not sure how to do that. The City would need to buy property and that is not easy, especially when people know that you need it. He said you could take the existing building, take out everything that has been changed, get back to what was originally there, make sure it has a good roof, use it for administrative purposes, and build the specific things that are needed like interview rooms and secure storage. That would be possible if the City owned more property. With the number of people crammed in there, it’s amazing that it works at all. It’s a tribute to the people who work there.

Morse said he shares Ryals’ concern about risk. The lobby made him very nervous. One of functions of the Police Department is to engage the community, and that’s not going to happen in that environment.

Morse noted that it was now about 9 p.m. and several items remained on the agenda. He asked the group if they wanted to keep going or continue discussion at the next meeting.

Wyatt said for him, the real question is the site: will the City do something on the existing site or use the one that has been purchased. Without knowing the site, it is hard to know what to do.

Morse said he had three questions going into the next phase:

- Is the existing site adequate? Committee members have collectively said it is not.
- Is the existing site plus the multi-family housing units potentially to be acquired adequate?
- Would the existing site and multi-family housing meet the needs in 20 years?

Ryals said he thinks that sums it up perfectly. He asked if there was any way for City staff to dig deeper into that before next meeting. He said Quinn made the same point. He noted information in Lattanzio’s memo about property values and asked if the property owners had been approached. He noted that the Fire Department had done a good job of acquiring property around them and that was as formidable a task as this. He said new rentals are going up around town and while Albany has a fairly tight vacancy rate, it would not be the end of the world to acquire those properties and relocate the occupants.

Norman said the question is the dollar amount: there is X amount of property, with X amount of buildings. To buy those and remodel the existing station costs something; to go to another location costs something else.

Ryals said the existing structure is a fairly recent building and not a seismic disaster. It could be gutted and turned into a different use, but the structure, parking and location have an inherent value in proximity to the jail.

Norman said he thought some of that analysis is in the materials available.

Lattanzio said the issue is the cost of acquiring additional sites. Police staff looked up real market values (see the report). That value will be low compared to what a sale price would really be but it provides a

ballpark value. Morse suggested Lattanzio was referring to assessed value. Lattanzio said the report shows both assessed and real market value.

Ryals said maybe there's a way to swap property with what the City has already bought; it would sure be nice to have that facility stay where it is. Arasmith asked how many property owners are involved. Hinrichs said the property that Quinn spoke of would add .45 acres from one property owner.

Wyatt said the City would want to get at least that area; that's about \$1.7 million and adds about 1.8 acres and creates a square parcel as deep as the county jail property. Ryals said that would be the target and it may cost a couple of million dollars to do that but might be offset by doing something with the Pacific Boulevard property.

Morse said the Committee wants to look at these options in numbers and asked if the City Finance Director could come to next meeting and look at major ancillary issues of the alternative site.

Arasmith asked how many property owners are on Jefferson Street. Hinrichs said two additional.

Cordier asked Wyatt about his suggestion of possibly renovating existing police building for administrative functions. Wyatt said it wouldn't be used for secure evidence, interviews, or the armory. Generalized storage might be part of it and some could be used for meeting rooms or training rooms. It would mostly be offices. If it was used as the department's face to the public, the lobby would need to quadruple. Cordier asked if Wyatt was recommending that the additional building get built in close proximity to the existing one. Wyatt said it would be best to be physically connected. It rains here.

Ryals said the Committee has talked about lifecycle costs and energy use for the Fire Department. With people running around great distances, driving great distances, those costs quickly eat up any other costs.

Cordier asked Lattanzio if he has gone through the programming document to pull out things that aren't absolutely necessary but would be nice to have. Lattanzio said he has discussed the document with Burright and identified some functions that the Police Department doesn't need. Corder asked if that he has put that down in writing. Lattanzio said some of that is in his report, but he would need an architect to determine exact dimensions.

Burright said he appreciates the work that Lattanzio and Hinrichs have done to this point; Lattanzio was not here when the program document was put together. The Committee has spent a lot of time talking about population estimates and will now use 1.4%, which scales back the number of probable officers.

Cordier asked if 1.4% was the number that City planners are going to use, not just for the Police Department. Burright said that is their best guess.

Burright said the programming document is based on a population estimate that the Committee now has a better feel for; the number of officers is lower; it has some "fluff" that can come out but Lattanzio hasn't had a chance to do that. What is being suggested is that, unlike the Fire Department, which has a program document that the Committee feels is pretty close, the Police Department's needs some work. He said the co-chairs are recommending that whatever the group finally decides, they send that to the Council saying, like the Fire Department, they need an architect and the first thing they will do is work with the chief and his staff and re-vet the programming document. The document would then come back to the Committee for review. That wouldn't come back for months, because it's part of the process of hiring an architect. When the document comes back, the Committee would move on to a conceptual floor plan and elevation drawings, as they have done for the Fire Department.

Ryals said the issue is the site.

Cordier asked if the previous population estimate would be updated. Lattanzio said he has done so.

Norman asked if it is possible to get cost estimates for the existing site and the west Albany site, at least a ballpark number, for comparison. Morse said the Committee will have to have that information to make an informed recommendation. He suggested the City Finance Director and staff evaluate both properties. The existing building has a residual value; what is it? Who would buy it? Can it be converted to cash? The property on Pacific has value. He suggested netting out the costs, benefits and liabilities for each site to a number. Ryals asked to include ongoing operating costs. Burright said another factor is that the Police station is a 24-hour/365 building; remodeling would have to be phased in, like the Fire Department proposes. Continuity of operations during construction is a major issue for a police department, he said.

Morse asked for the cost estimates to be ready for the next meeting.

Ryals asked Bradner how the Fire Department tied down its neighboring properties. Bradner said he did it through making phone calls and having conversations with property owners.

#### Updated meeting schedule

Morse reviewed the current meeting schedule and proposed additional dates. (see agenda file) He proposed changing the word “final” to “preliminary” in the last schedule line, and with a follow-up process after each building proposal is refined. He said the Committee would probably take a little hiatus during the summer as work is being done with periodic checks along the way.

Steele has other commitments on May 15 and May 20 and will also miss May 27.

Morse asked that the schedule be sent to everyone on the committee to determine who is available. Members who could not attend this meeting are critical to the process.

Morse said the group does want to allow time to address funding options; the construction method will also be discussed but that may be a little less important in the process right now.

#### Review of questions to answer, issues to address, tasks to complete

Burright said the Committee had not reviewed the Questions and Issues list in weeks, due to the length of the meetings. The Fire issues have mostly been addressed. Cordier asked about including the cost of the West Linn Police Department building, as mentioned earlier. Wyatt asked for the list to be printed on 8.5-by-11 paper to put in the binders.

Cordier said one of the action items from the last meeting was operating costs for the current fire hall. Bradner said total operating costs are not broken down for each building. He handed out a document showing utility costs – water, sewer, natural gas, and electricity – for each station. (see agenda file) Station 11 is about the same as Station 14, about \$1,500 per month for utilities. Station 11 is larger than the other buildings and has more staff working during the day but less 24-hour staffing. Norman said he thought the cost would be higher, being a two-story building. Bradner said it has a different construction type and is made of different materials than the other buildings.

Morse said the next meeting will be site specific – do we stay or do we move and what works in the long term.

Additional public comment

Quinn said Cordier had asked about design/bid. Quinn said he would never be able to do a job for anyone if he didn't bid it. With the \$55 million GAPS bond measure, a committee oversaw the project and saved money. He said former Albany Public Works Director Floyd Collins went out consistently for bids and saved a ton of money on bond projects and made the money go further. Regarding buying property, Quinn said the property on Pacific he could have bought for a third of the price eight years earlier. He said he thinks the City could get additional property around the current police station.

The meeting adjourned at 9:30 p.m.

TO: Public Safety Facilities Review Committee

FROM: Frank Morse  
Dave Burright

DATE: April 30, 2014

SUBJECT: Draft Police Department facility recommendation

The Public Safety Facilities Review Committee finds that the Albany Police Department building as it exists today is inadequate to support the current needs, let alone future needs, of the sworn officers and support staff who work there. The building is woefully inadequate.

When the building was constructed in 1988, the Police Department employed about 50 personnel. The Police Department staff and the Albany population have since doubled. The building has been internally reconfigured in multiple attempts to meet changing space requirements. All members of the Committee have toured the building and conclude that nothing else can be done within the existing building envelope; the status quo is not acceptable for current or future needs.

The Committee's recommendation is based in part on the following findings:

- The very small public lobby creates unexpected contact for residents, business representatives, children and other building visitors with offenders, such as sex offenders who are required to report to the building to register, creating unacceptable risks for the public and liability to the City.
- The building does not have sufficient backup power to operate during an emergency and to continue to provide necessary services during a critical incident.
- The building does not have secure interview or holding rooms.
- Years of retrofit have virtually eliminated training and meeting spaces.
- Storage is not sufficient for the keeping of critical evidence.
- The heating and cooling system, which must operate 24 hours a day because of the building's use, is completely inefficient because of the extensive reconfiguration. The Police Department is the biggest user of electricity of any City building.
- Current configuration requires many employees to change clothes in private offices or in shared work spaces. Additional space is required for lockers and storage.
- Crime prevention volunteers need work space.
- Restrooms for the public and staff are inadequate.
- Parking is completely inadequate for the public and employees.
- The current building configuration creates barriers to effective communication among work groups, especially detectives and patrol officers. Most all work stations are inadequate due to space constraints.

The City of Albany needs a single police department location where all the services to the public are housed. The department currently utilizes some offsite storage of larger items and evidence vehicles; however, no personnel are stationed offsite. Dividing out services and personnel to multiple buildings creates frustration for the public and increases operational and personnel costs and creates logistic and supervisory issues for the department. The police department would need additional personnel to operate multiple facilities. The Committee recommends one central station.

April 30, 2014

The committee has reviewed a comparative cost analysis, prepared by the City, for expanding the existing facility versus relocation to the Pacific Boulevard property. The Committee finds that the current location is the preferred site.

The comparative cost analysis for the existing location reflects the acquisition of additional property with three options:

Option 1: additional .45 acres

Options 1 and 2: together provide an additional 1.5 acres

Options 1, 2, and 3: together provide an additional 2.2 acres

The total of Options 1 and 2, along with the existing property, yield 3.19 acres and the comparative cost of 1 and 2 are marginally less than the cost of building new on Pacific Boulevard. The purchase of Options 1, 2, and 3 together yield a total 3.89 acres and will add approximately \$1 million above the Pacific Boulevard option. Notwithstanding the increased cost of Option 3, the Committee believes this is the preferred option and measures must be taken to mitigate the increased cost. The Committee recommends that the city immediately enter into negotiations to acquire those properties through option agreements which would allow sufficient time to work through all the program and design criteria. The committee believes it is important to know as soon as possible if purchase of these properties is viable.

The Pacific Boulevard site should be held as a backup option if the City is unable to successfully negotiate the purchase of necessary properties at the Jackson Street site. Therefore, the committee recommends making immediate application to the Oregon Department of Transportation for a permit to allow access from the site onto Pacific Boulevard.

The Department has reviewed the previous needs assessments and has found that there could be reductions in such areas as meeting rooms, restrooms, lockers and office room sizes. In addition, it is believed that the city population will not grow as fast as originally projected. Instead of 2% annual growth rate, it is now predicted in range of 1.4%, which will impact the number of staff needed and reduce the future size of the building. In order to take these changes into account, the Committee recommends that the City hire an architectural firm to work with Police staff to re-evaluate programming needs and bring a new programming document to the Committee for review.

When the new programming document has been reviewed, the architect should be asked to provide conceptual drawings and cost estimates for the current site. The committee recommends the City include an option in the RFP for conceptual design and cost estimates for the Pacific Boulevard property. The Committee recommends the design criteria reflect building needs for 20 years with sufficient land available to meet needs in 40 years. As with the Fire Station, the design should incorporate energy-efficient systems to keep lifecycle costs affordable.

FLM,DKB:mms

# AN OWNER'S GUIDE TO PROJECT DELIVERY METHODS



Advancing Professional Construction and  
Program Management Worldwide

## ACKNOWLEDGMENTS

CMAA gratefully acknowledges the time and efforts of those who served as contributing editors in developing this *Owner's Guide to Project Delivery Methods*. Without the collective efforts of these individuals, this document would not have been possible.

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## Preface

This document is an introductory guide for owners who face the choice of delivery methods for their projects, and for the construction and program managers whose role it is to advise owners and to manage the design and construction process utilizing the most appropriate method.

While not intended to be an exhaustive analysis of each delivery method, this guide provides a comparison among the various available methods, an outline of the pros and cons of each, and an overview of the role of a program manager or agency construction manager in each delivery method.

There are many delivery methods in use today, but virtually all of them are variations of the four most common methods that are the subject of this document. Closely related to project delivery methods are procurement strategies, contractual arrangements, and compensation methods. While not the focus of this document, there is a brief discussion that touches on how these contract strategies align with the various delivery methods.

Project delivery methods will continue to evolve. This guide is thus a reflection of today's construction market, and will be periodically updated to reflect future developments. The characteristics of each delivery method are objectively presented in keeping with CMAA's policy of remaining delivery method neutral.

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## Executive Summary

How the project will be designed and constructed, or the project delivery method, is one of the most important decisions made by every owner embarking on a construction project. With a variety of delivery methods in use today across the design and construction industry, it is possible to tailor a delivery method that best meets the unique needs of each owner and each project.

Several fundamental project considerations are directly impacted by the delivery method selected. These considerations include the need to adhere to a realistic budget, a schedule that accurately presents the performance period, a responsive and efficient design process that leads to a quality set of documents, a thorough risk assessment followed by the proper allocation of risk by the owner, and a recognition of the level of expertise within the owner's organization or available to it.

There is a wealth of information in the public domain regarding alternative delivery methods. Most treatments divide the various options into three basic categories: Design-Bid-Build, Construction Management At Risk, and Design-Build. Recent discussions, including the discussion in this guide, add a fourth method, Integrated Project Delivery. Other delivery methods are variations of these four, and are treated as such for our purposes.

The project delivery methods examined are:

***Design-Bid-Build (DBB)*** – The traditional U.S. project delivery method, which customarily involves three sequential project phases: design, procurement, and construction.

***Construction Management At Risk (CMAR)*** – A project delivery method in which the Construction Manager acts as a consultant to the owner in the development and design phases, but assumes the risk for construction performance as the equivalent of a general contractor holding all trade subcontracts during the construction phase. This delivery method is also known as CM/GC.

***Design-Build (DB)*** – A project delivery method that combines architectural and engineering design services with construction performance under one contract.

***Integrated Project Delivery (IPD)*** – A project delivery method that contractually requires collaboration among the primary parties – owner, designer, and builder – so that the risk, responsibility and liability for project delivery are collectively managed and appropriately shared.

Each of these project delivery methods carries a different level of risk for the owner. Generally, the level of control retained by the owner correlates with the level of risk, and those levels typically have an inverse relationship to the risk and control levels of the contractor.

None of these delivery methods is right for every project. For each situation, there will be advantages and disadvantages in the use of any specific method. The owner needs to carefully assess its particular project requirements, goals, and potential challenges and find the delivery

method that offers the best opportunity for success.

Construction Management is a discipline uniquely tailored to the planning, design, and construction process of capital projects. *Agency Construction Management* is a management process whereby the owner utilizes a construction manager (CM) as its principal agent to advise on or manage the process over the life of the project, or during specific phases of the project. The use of agency construction management, whether through an in-house resource to the owner or from a third-party firm, has proven effective regardless of the chosen contract form or project delivery method. The role of the CM on each project delivery method is discussed in this document.

Whether provided through owner staffing or a third-party firm, the CM should be engaged as early in the project as possible to guide and assist the owner through all phases of delivering the project. In fact, the CM can be an invaluable source of advice and counsel to the owner when choosing the optimum delivery method for a project. The CM may also act as the owner's representative to the rest of the project team, being the point of contact for the designer, contractor, and other specialty consultants engaged in the project by the owner.

Contracting and compensation methods for professional services and construction services will generally fall into one of three categories: Lump Sum/Fixed Price (LS), Guaranteed Maximum Price (GMP), or Reimbursable. These methods are not specific to any particular delivery method, and may be applied to contracting for professional services, such as design, engineering, and construction management, as well as contracting for construction services.

Procurement of professional and construction services will generally be accomplished in one of three methods: price-based, qualifications-based, or a combination of both. Procurement may also involve a single project award or multiple project award. Like contracting methods, these procurement methods are not specific to any particular delivery method.

Every construction project or program is unique, and for each, there is an optimum project delivery method. It requires expertise and experience to select the right delivery method for a particular situation.

## 1.0 Introduction

Every owner responsible for the implementation of a construction project must make an early and important decision regarding the method by which the project will be designed and constructed—the project delivery method. This decision has become more difficult in recent years as several alternative delivery methods have been developed to address potential weaknesses in the traditional design-bid-build scenario. Methods that have gained in popularity include construction management at-risk, multiple prime contracting, design-build, and the latest, Integrated Project Delivery. Proponents of particular alternative methods advocate or promise improvements over the traditional system in terms of project schedule and cost control, and the number of disputes.

For the owner, with a wealth of choices available, the ultimate decision can be both good and bad. The downside is that with the variety of delivery systems, along with the accompanying assurances of the superiority of one method over another, confusion is inevitable. The good news is the increased number of alternatives offers the owner or developer more flexibility to choose an appropriate and effective system for its particular project.

*Construction Management* is a discipline uniquely tailored to the planning, design and construction process of capital projects. It has proven effective regardless of the chosen contract form or project delivery method. Indeed, owners have utilized construction management successfully in all contracting methods and delivery systems, using either internal staffing or third-party firms. It is particularly helpful for owners who do not continuously maintain a CM staff in numbers or qualifications necessary to deal with the complex responsibilities involved in the management of major projects.

A companion CMAA document, *An Owner's Guide to Construction and Program Management* defines CM and PM as follows:

**Construction Management** is a professional management practice applied to construction projects from project inception to completion for the purpose of controlling time, cost, scope and quality.

**Program Management** is the practice of professional Construction Management applied to a capital improvement program of one or more projects from inception to completion. Comprehensive Construction Management services are used to integrate the different facets of the construction process—planning, design, procurement, construction and commissioning—for the purpose of providing standardized technical and management expertise on each project.

Construction management comes in two general, but very different forms, agency construction management (CMA) and construction management-at-risk (CMAR or CM@R). Outside of this

document, the abbreviation “CM” can be used to mean many things. For clarity, the following abbreviations will be used for the remainder of the discussion to distinguish between various uses of the CM abbreviation:

CMA	Agency Construction Management– a management process.
CMAR	Construction Management at Risk – a delivery method.
CM	Construction Manager – a person or firm acting in an agency role.
CMR	Construction Manager at Risk – a person or firm acting in an at-risk role.

*Agency Construction Management*, a management process, can be implemented regardless of the project delivery method. In CMA, the owner utilizes a CM as its principal agent to advise on or manage the process over the life of the project, or specific phases of the project.

Program Management (PM), also a management process, is the practice of professional Construction Management applied to a capital improvement program of one or more projects. For the purposes of this document, only CMA will be discussed since the CMA discussion also can be applied to program management.

*Construction management at risk*, a delivery system, is similar in many ways to the Design-Bid-Build system, in that the CMR acts as a general contractor during construction. The CMR holds the risk of subletting the construction work to trade contractors and typically guaranteeing completion of the project for a fixed, negotiated price following completion of the design. However, in this arrangement, the CMR also provides advisory management assistance to the owner prior to construction, offering schedule, budget and constructibility advice during the project planning and design phases. Thus, instead of a traditional general contractor, the owner deals with a hybrid CM/general contractor.

## 2.0 Considerations in Selecting a Delivery Method

### 2.1 Owner's Requirements and Risk Considerations

An owner has several areas of concern when embarking on a construction program or project. It is necessary to choose an overall project delivery and contracting strategy that effectively and efficiently delivers the project. The following are some of the key considerations that will influence the selection of the project delivery method for a project:

#### Budget

Determining a realistic budget before design to evaluate project feasibility, to secure financing, to evaluate risk, and as a tool to choose from among alternative designs or site locations is a primary need. Once the budget is determined, the owner requires that the project be completed at or near the established budget figure. Owners must decide how quickly they need to establish final project costs and with what risk level of exceeding this cost.

#### Design

Of foremost importance to the owner is that the desired facility function as envisioned while successfully fulfilling the needs of the owner and users. Therefore, the design team should be well qualified in the type of facility being designed. In addition, the owner must ensure that the program needs are clearly conveyed to the design team. Since the design of the facility must be buildable and design intent must be properly communicated, the owner requires that the design documents are constructible, complete, clear and coordinated. The documents should properly incorporate unique features of the site to include subsurface conditions, interfaces with adjoining properties, access, and other characteristics. Owners must decide how much control they need to have over the design elements of a project.

#### Schedule

The owner has similar needs in the area of scheduling. The dates of design commencement, construction completion and ultimately the operation of a new facility can be critical, either in terms of generating revenue from the facility, or in terms of providing needed functional space by a particular deadline. Therefore, a realistic assessment of project duration and sequencing needs to be performed early in the planning process. The schedule must then be monitored and updated throughout the design, construction and pre-occupancy phases to achieve the desired goal. An owner must decide how critical it is to minimize schedule duration for a project.

#### Risk Assessment

In construction, issues of risk are closely tied to the status of the local construction market, on-site

safety, the schedule and the budget. The owner requires an understanding of the risks involved in construction, and should make a conscientious decision regarding allocation of these risks among project participants, so that all areas of exposure are properly understood. In considering risk allocation, the owner should strive to assign risks to those parties that can best exercise control over those aspects. For example, it would typically be problematic to require that the contractor correct problems due to design errors or changes at no extra cost since a contractor generally has little control over the cause or magnitude of such errors or changes. An owner must decide how much project risk they are comfortable in assuming.

#### Owner's Level of Expertise:

The owner's familiarity with the construction process and level of in-house management capability has a large influence over the amount of outside assistance required during the process, and may guide the owner in determining the appropriate project delivery method. An owner must make an assessment of its ability to properly perform under the various delivery methods.

## 2.2 Project Delivery Methods Available to Owners

A *project delivery method* is a system designed to achieve the satisfactory completion of a construction project from conception to occupancy. A project delivery method may employ any one or more contracting formats to achieve the delivery.

Because of financial, organizational and time constraints, various project delivery methods have evolved to fit particular project and owner needs. Most delivery methods used today are variations of three methods: Design-Bid-Build, Construction Management At Risk, and Design-Build. A fourth method, Integrated Project Delivery, although to date only used on a negligible number of projects, is included here due to the attention it is getting and the interest in understanding the concept. The four methods and the primary variations are:

***Design-Bid-Build (DBB)*** – The traditional U.S. project delivery method, which typically involves three sequential project phases: The design phase, which requires the services of a designer who will design the project; the bid phase, when a contractor is procured; and a build or construction phase, when the project is built by the contractor. This sequence usually leads to the sealed bid, fixed price contract. A common variation is:

- ***Multiple Primes*** – An owner contracts directly with separate trade contractors for specific and designated elements of the work, rather than with a single general or prime contractor.

***Construction Management At Risk (CMAR) (also called CM at Risk and CM/GC)*** – A delivery method that entails a commitment by the CMR for construction performance to deliver the project within a defined schedule and price, either fixed or a Guaranteed Maximum Price (GMP). The CMR acts as consultant to the owner in the development and design phases, but as the legal

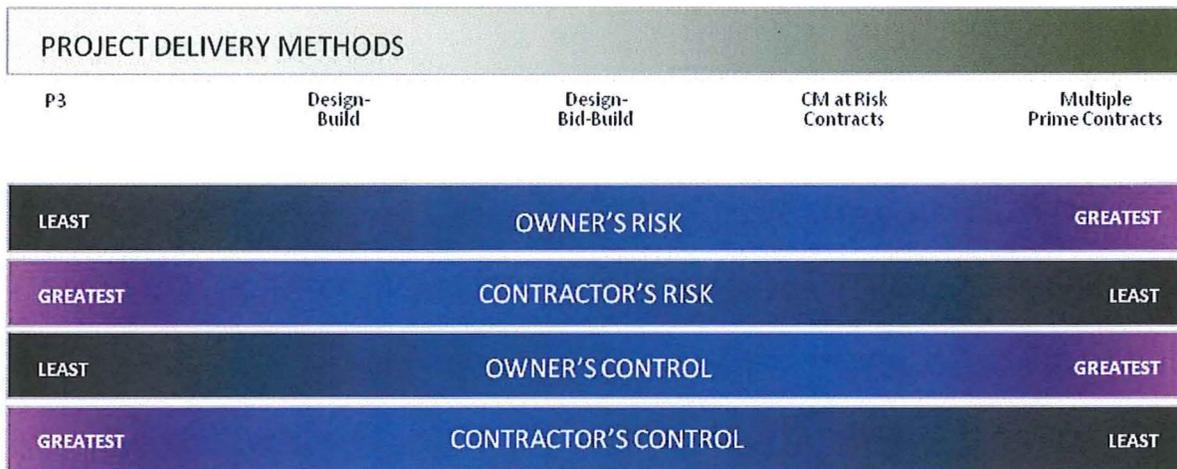
equivalent of a general contractor during the construction phase.

**Design-Build (DB)** – A project delivery method which combines architectural and engineering design services with construction performance under one contract. Variations include:

- *Bridging* – A designer is retained by the owner to develop the design documents to a specific point (usually schematic level) prior to engaging the Design-Build contractor, who then finishes the design and constructs the project.
- *Public Private Partnership (P3)* – A private entity or consortium of investors provides some or all of the required capital with a commitment to deliver a completed project for a public sector owner in exchange for revenue that the completed facility is anticipated to generate.

**Integrated Project Delivery (IPD)** – A project delivery method that attempts to spread the risk, responsibility and liability for project delivery equally among the primary parties—the owner, the designer, and the builder, whether through partnership agreements or multi-party contracts.

Each of these project delivery methods carries a different level of risk for the owner. Generally, the level of control provided to the owner correlates with the level of risk, as illustrated in the following chart.



Integrated Project Delivery does not fit cleanly on the above chart because the basis of IPD is shared risk among all parties, or an aligned relationship rather than an inverse relationship of risk between the owner and contractor.

In today's U.S. construction market, the prevalence of each of the methods described in this guide varies between the vertical construction market and the horizontal construction market. In the

vertical construction market, the breakdown is approximately as follows:

- Design-Bid-Build (DBB) 60%
- Construction Management at Risk (CMAR) 25%
- Design-Build (DB) 15%
- Integrated Project Delivery (IPD) <1%

The recent trend has been an increasing use of CMAR and Design-Build, with a corresponding decline in the use of the Design-Bid-Build method. There has been a great deal of recent attention to IPD. However, the formalization of IPD as a distinct delivery method is still relatively new and still lacks an overall industry consensus. There are only a limited number of projects that have actually employed the multi-party contractual arrangements that IPD proponents use to define IPD as a delivery method as opposed to a collaborative management approach or philosophy.

In the horizontal infrastructure market, DBB is still most prevalent. DB is also used, particularly in large public-private partnership infrastructure projects. One noticeable difference in horizontal construction is that CMAR is seldom utilized in this market.

CMAA promotes a policy of project advocacy that requires being delivery method neutral. Owners who are unfamiliar with alternate delivery methods should consult with a professional CM/PM to determine what specific delivery method is best for them and their project.

## 2.3 The Role of the CM

There are benefits and trade-offs that come with various delivery methods, and it can be invaluable for the owner to have professional CM advice to determine what makes the most sense for any given project or program. For example, one owner may value the speed to completion and the potential for design innovation that Design-Build promises while another owner may not wish to accept the reduction in owner control of final design that accompanies Design-Build delivery. In addition, many alternate delivery methods require the owner to have sufficiently experienced staff resources to fully define the project or be willing to allow another entity to define it. The owner must also be able to make decisions, handle inquiries, and manage other processes quickly enough to take full advantage of the accelerations offered by some alternate delivery methods.

Regardless of the delivery method utilized, the professional CM can play a pivotal role throughout all phases of project implementation. In each section of this document describing a delivery method, the role of the CM is discussed.

## 2.4 Contracting Alternatives

Contracting and compensation methods for professional services and construction services will generally fall into one of three categories:

1. Fixed Price or Lump Sum (LS)
2. Guaranteed Maximum Price (GMP)
3. Reimbursable

These methods are not specific to any particular delivery method, and may be applied to contracting for professional services, such as design, engineering, and construction management, as well as contracting for construction services.

Lump Sum contracting, also called Fixed Price, is when an owner contracts with an entity to perform a fixed scope of work in exchange for an agreed lump sum payment for the specified services. This method is one of the most commonly used.

Guaranteed Maximum Price contracting is an arrangement in which an owner contracts with an entity to perform a fixed scope of work in exchange for a price that is guaranteed to not exceed a stated maximum price. The GMP will typically include a base cost along with several allowances and contingencies that, depending on their ultimate use, may result in a final cost below the stated GMP. These “savings” may fall to the owner or may be shared with the entity providing the GMP.

Reimbursable contracts come in a variety of forms, and are sometimes coupled with a not-to-exceed maximum price. With a reimbursable contract, an owner contracts with an entity to perform a fixed or variable scope of work in exchange for a payment based on some agreed calculation method. The forms of reimbursable contracts include:

- Unit Price – payment is based on actual quantities at set unit prices.
- Cost Plus Fixed Fee – payment is based on actual cost plus a fixed fee.
- Cost Plus Incentive Fee – payment is based on actual cost plus an incentive based fee.
- Cost Plus Award Fee – payment is based on actual cost plus a performance based fee.
- Time Spent – payment is based on actual hours spent at set billing rates.
- Time and Materials – payment is based on actual costs with a fixed markup on costs.

Project Delivery Method	Design-Bid-Build (DBB)	Construction Management at Risk (CMAR)	Design Build (DB)	Integrated Project Delivery (IPD)
<b>Contracting Methods</b>				
<b>Lump Sum</b>	Common	Common	Common	Rare
<b>Guaranteed Maximum Price</b>	Rare	Common	Common	Rare
<b>Reimbursable</b>	Rare	Rare - Common	Rare	Common

## 2.5 Procurement Alternatives

Procurement of professional services and construction services will generally be accomplished in one of three ways:

1. Priced based
2. Qualifications based
3. Best value (combination of 1 and 2)

Procurements may also involve a one-step process, in which there is just a single round of submittals that determine the selection, or a two-step process, which may include a qualifications submittal as the first step and then a price proposal as the second step.

For the procurement of construction services, the chart below illustrates the use of the various options.

Selection Criteria	Low Bidder	Best Value	Best Qualifications
	<b>Project Delivery Method</b>	Selection is based solely on Price	Selection is based on a weighted combination of Price and Qualifications
<b>Design-Bid-Build</b>	Most Common	Common; Price evaluation based on Construction Cost	Rare
<b>Construction Management at Risk</b>	Rare	Most Common; Price evaluation based on CMAR Fees and General Conditions	Common
<b>Design/Build</b>	Common	Most Common; Price evaluation based on fees and GCs; may or may not include Construction Cost	Common
<b>Integrated Project Delivery</b>	Rare	Common	Most Common

Services will be procured for a single project or for multiple projects within a single procurement. By far, the most common procurement method is the single project award. In this method, an owner has a specific project and they procure services specifically for, and only for, that project.

The other procurement option is the multiple project award method, of which there are several variations. This method can be utilized to procure both professional services and construction services. With this method, an owner procures the services of one or more firms to perform a series of projects, also sometimes referred to as tasks. Each project is priced separately, but a

single contract vehicle is used for all projects.

The various types of multiple project (task) awards include:

- Indefinite Delivery / Indefinite Quantity (IDIQ)
- Multiple Award Task Order Contract (MATOC)
- Single Award Task Order Contract (SATOC)
- Job Order Contracts (JOC)

The IDIQ award is commonly used with professional services. With an IDIQ, an owner will select one or more firms and award an IDIQ contract to these firms. Billing rates are generally pre-established in the IDIQ contract, and as subsequent projects or tasks are identified, the IDIQ firm(s) will submit a proposal to the owner based on the requirements and prices set forth in the master IDIQ agreement. When multiple firms hold the same IDIQ contract, they will generally be competing for subsequent projects and tasks. IDIQ contracts are typically awarded for a 3-5 year period of time, often with renewal options.

A MATOC is very similar to the IDIQ contract and actually is a form of IDIQ contract. It will always involve multiple firms and typically be used for design-build or construction related work. The MATOC contract is very common in government contracting. Similar to a MATOC, the SATOC operates in the same manner but will only be awarded to a single firm.

Job Order Contracting (JOC) is another form of an IDIQ contract and is typically used to complete large numbers of smaller projects or tasks. A single JOC contractor is selected and a contract is executed based on a pricing guide (e.g. RS Means) which is used as the basis for payment. As tasks are assigned to the contractor, pricing proposals are generated based on the rates in the pricing guide multiplied by a fixed pricing factor, which is established with the contractor in the contract.

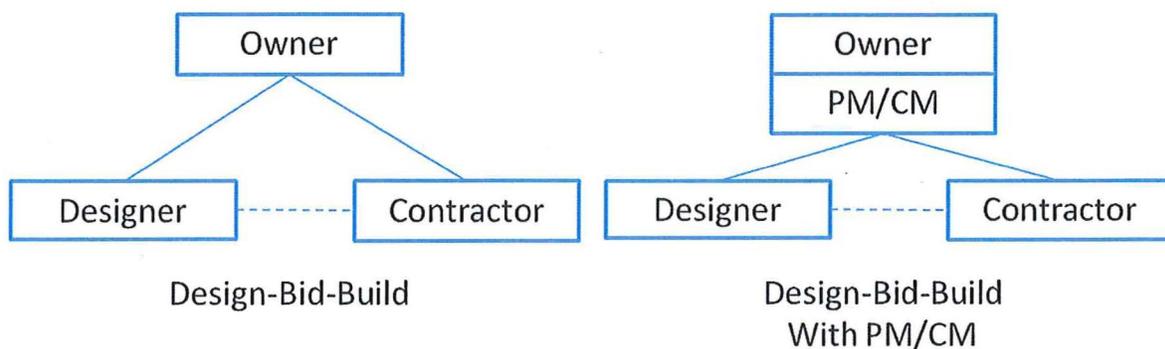
## 3.0 Project Delivery Methods

### 3.1 Design-Bid-Build (DBB)

#### Description

The Design-Bid-Build system remains the most frequently used delivery method for construction projects. Using this method, the owner engages a designer to prepare the design of the project, including construction drawings, and specifications. The designer may also provide additional services including environmental investigation, permitting, right-of-way purchase documents, hearings for public approval, and submissions for project funding.

Once completed, the bid package, including the design and bidder's information packet, is presented to interested contractors, who prepare and submit their bids for the work. The owner will select a contractor, usually based on the lowest responsive and responsible bid (for most all public work), or some hybrid of price and technical merit. The selected general contractor will then execute contracts with subcontractors to construct various specialty items. The contractor is responsible for constructing the facility in accordance with the contract documents. The designer typically maintains limited oversight of the work and responds to questions about the design on behalf of the owner. If a CM is not involved in the process, the designer may also assist the owner in administering the construction contract, including determination of project progress, for validation of interim payments made to the general contractor.



#### Risk Analysis

The DBB delivery method has been the standard delivery method for many years. This method gives the owner reliable price information for the project before construction starts. With proper design oversight and budgeting of the total project, costs are somewhat predictable for the owner once the bids are received. In DBB, the owner has more control over the design content, relative to other delivery methods.

However, this method typically involves a longer time period to execute, in that construction may not begin until the design and procurement phases are complete. DBB is prone to creating

more adversarial relationships between all parties when issues develop, as there is no contractual relationship between the contractor and the designer and no opportunity for collaboration during the design phase.

Advantages:

- This method is widely applicable, well understood, and has well-established and clearly defined roles for the parties involved.
- This method is the most common approach for public owners having to comply with local, state or federal procurement statutes.
- The owner has a significant amount of control over the end product, particularly since the facility's features are fully determined and specified prior to selection of the contractor.

Disadvantages:

- The process may have a longer duration when compared to other delivery methods since all design work must be completed prior to solicitation of the construction contract.
- The designer may have limited ability to assess scheduling and cost ramifications as the design is developed, which can lead to a more costly final product.
- The owner generally faces exposure to contractor change orders and claims over design and constructibility issues since the owner accepts liability for design in its contract with the contractor.
- This traditional approach, in some cases, may promote more adversarial relationships rather than cooperation or coordination among the contractor, the designer and the owner.
- If the owner uses the fixed price bidding and compensation method, the contractor may pursue a least-cost approach to completing the project and the owner may receive less scope or lesser quality than expected for the price, requiring increased oversight and quality review by the owner. If the owner uses the unit price bidding and compensation method, the contractor may pursue an increased-scope approach to maximize revenue from the contract, while providing the owner more scope than expected.
- The absence of construction input into the project design may limit the effectiveness and constructibility of the design. Important design decisions affecting both the types of materials specified and the means and methods of construction may be made without full consideration from a construction perspective.
- Technological and programmatic obsolescence can be a problem for very large, long lasting project. The owner may be at a disadvantage negotiating programmatic and technological changes in a DBB vehicle.

The disadvantages listed above assume that the owner does not have experienced Certified Construction Managers (CCM) on staff, and has not retained the services of a CCM during the design phase of the project.

### Contracting and Procurement Methods

Numerous variations in procurement exist when using the DBB method. The most common approach to bidding a project in vertical construction – a building or treatment facility – is for general contractors to submit a sealed lump-sum or fixed price bid. In most horizontal projects such as transportation, the most common approach to bidding is unit price, line item bids, where quantities are easily measured during construction and the owner pays only for what is installed.

When allowed by governing procurement policy, many owners take some effort to pre-qualify contractors, either through invitation or an objective set of criteria considering construction experience and financial capability. Pre-qualification helps assure the owner that the contractor is capable of performing the scope of work specific to the project at hand. Once the field of bidders is established, an owner will require sealed bids, wherein the lowest responsive and responsible bidder will earn the right to perform the work.

Public owners, where public funds mandate open competition by statute, are unable to develop an invited bidders' list, and are only allowed to eliminate contractors from bidding if the contractor has not qualified for or has been removed from the agency's approved bidder's list.

Some private owners prefer to negotiate bids with pre-selected GCs. This can be an especially powerful technique if the owner considers qualifications, history of claims and experience in related work along with price in its evaluation. What the owner should really be seeking is the best value for its money, not necessarily the lowest initial cost. Through a careful negotiation and contractor evaluation, the owner can maintain the maximum amount of control over the resulting construction portion of the project.

### Role of the CM

In the past, most owners relied on the experience of the designer to provide a complete and responsible set of contract documents. Recently, more and more owners have found the value in utilizing the advice and expertise of those with overall process, program and construction management knowledge during the design phase.

Whether provided through owner staffing or a third-party firm, the CM should be engaged as early in the project as possible to guide and assist the owner through all phases of delivering the project. The CM may also act as the owner's representative with the other members of the project team, being the point of contact for the designer, contractor, and any other specialty consultants engaged in the project by the owner.

In a Design-Bid-Build delivery, in addition to overall management expertise, the CM must also provide construction expertise and advice to the project team during all pre-construction phases since the contractor will not be involved on the project until the construction phase.

In the pre-design phase, the CM's role may include development and evaluation of the project, defining the overall program and scope of work, development of project budgets and schedules, evaluation of project delivery methods, procurement of the design consultant, and development of project procedures and standards. The CM may also develop contract language for use during later procurement phases.

During the design phase, the CM's role will continue to include tasks started in the pre-design phase, and may include oversight of the designer, review of design documents, generation of cost estimates, value engineering, budget and schedule management, and development of overall phasing and contracting approaches.

In the procurement phase, the CM's role may include generation of bidder interest, pre-qualification of bidders (if used), management of bid document and addenda distribution, conducting the pre-bid meeting and bid opening, and production of executed contracts.

As a project shifts into construction phase, the CM's role may include representing the owner's interests through a system of project controls that include conducting periodic progress meetings, document control, cost tracking and management, evaluation of payment requests, change order management, quality management, schedule control, monitoring of contractor's safety efforts, commissioning and generation of the punchlist.

During the post-construction phase, the CM's role may include commissioning, coordination of occupancy procedures, the assembly and review of record documents and manuals, warranty management, and final project close-out.

### 3.1.1 Multiple-Prime Contracting

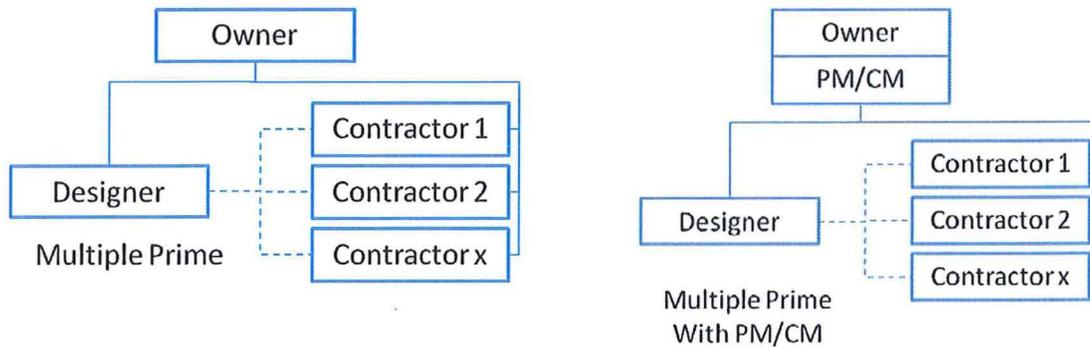
#### Description

An important variation of Design-Bid-Build is multiple prime contracting, in which the owner holds separate contracts with contractors of various construction work disciplines, such as general construction, earthwork, structural, mechanical, and electrical. In this system, the owner, or its CM, manages the overall schedule and budget

This system, which some owners are required to use, gained favor in part as another method of "fast-tracking" construction. Work in each construction discipline is bid separately, allowing the flexibility of awarding construction contracts on the first portions of the project as soon as the respective aspect of design is completed. This fast-track approach can be a highly desirable feature of this method of procurement when time of performance is critical.

Furthermore, the delivery system allows the owner to have more control over the project schedule, since the owner sets the timeline for bidding individual portions of the work. For example, if an initial phase of construction (such as foundation construction) is delayed, the

owner may reduce liability for delays by postponing the bidding of follow-on work. Another advantage of this system is that the owner has the potential to realize savings by directly procuring major material items, such as structural steel or major mechanical equipment, and avoiding contractor mark-ups.



### Risk Analysis

The very nature of this delivery system causes its primary disadvantages. To work properly, there is a need for increased coordination in the development of the separate bidding and contract packages for each separate prime, leading to the potential that work scope will be omitted or duplicated. Additionally, the final cost of the project is not known until the final prime contract is procured. In addition, there have been numerous cases when this method did not work well due to the absence of overall authority and coordination among the prime contractors once construction was underway. The problems primarily arise from lack of coordination and contractor delay issues. While the general construction prime contractor is often given contractual responsibility to coordinate the work among trades, including schedule, this contractor generally lacks the direct contractual authority to dictate the schedule of another prime contractor.

#### Advantages:

- The ability to “fast-track” early components of construction prior to full completion of design.

#### Disadvantages:

- No central point of contractor coordination and responsibility for all trades. By default, the owner assumes this responsibility.
- Potential for numerous claims between various contractors.

### Role of the CM

The role of the CM in a multiple prime contracting delivery system is very similar to the role of the CM in a design-bid-build delivery. Whether provided through owner staffing or a third-

party, the CM is engaged as early in the project as possible and guides and assists the owner through all phases of delivering a project. The CM also acts as the owner's representative with the rest of the project team, acting as the point of contact for the designer, contractors, and other specialty consultants engaged in the project by the owner.

The primary difference involves the fact that in most instances there is not a single prime general contractor involved to oversee and manage the activities of all of the various trades. Instead, in a multiple prime environment, all trades are contracted directly with the owner. The CM, acting as the owner's representative, may be required to actively coordinate and manage all trade contractors on the project.

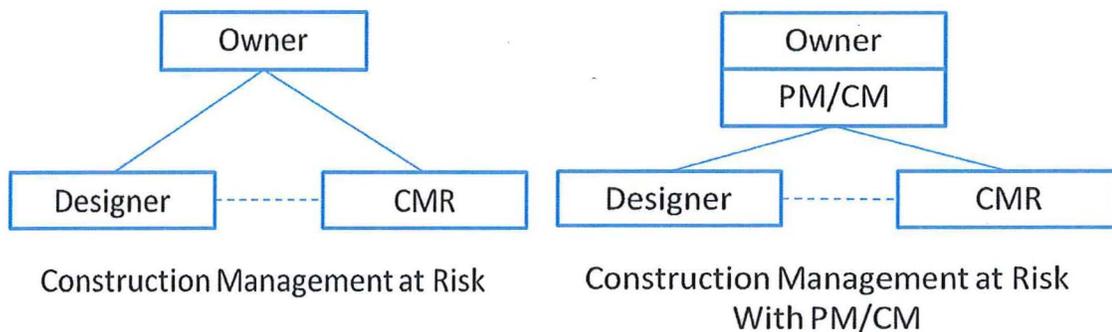
This effort involves increased levels of scheduling, since the CM role changes from managing a single schedule from the general contractor to consolidating and managing the schedules of multiple firms. Any schedule slip or design issue will potentially need to be addressed with multiple trades simultaneously, so the level of effort can increase significantly for the CM.

### 3.2 Construction Management at Risk (CMAR)

#### Description

This delivery system is similar in many ways to the Design-Bid-Build system, in that the Construction Manager at Risk (CMR) acts as a general contractor during construction. That is, the CMR holds the risk of construction performance and guarantees completion of the project for a negotiated price which is usually established when the design is somewhere between 50 percent and 90 percent developed. However, in this scenario, the CMR also provides advisory professional management assistance to the owner prior to construction, offering schedule, budget and constructibility advice during the project planning and design phases. Thus, instead of a traditional general contractor, the owner deals with a hybrid construction manager/general contractor.

In addition to providing the owner with the benefit of pre-construction services which may result in advantageous changes to the project, the Construction Management at Risk scenario offers the opportunity to begin construction prior to completion of the design. The CMR can bid and subcontract portions of the work with an approved design at any time, often while design of unrelated portions is still not complete. In this circumstance, the CMR and owner often negotiate a guaranteed maximum price (GMP) based on a partially completed design, which includes the CMR's estimate of the cost for the remaining design features. Furthermore, CMR may allow performance specifications or reduced specifications to be used, since the CMR's input can lead to early agreement on preferred materials, equipment types and other project features.



#### Risk Analysis

The primary disadvantages cited in the CMAR system involve the contractual relationship among designer, CMR and owner once the price is fixed. The CMR then converts from a professional advisory role of the construction manager to the contractual role of the general contractor. At that time, tensions over construction quality, the completeness of the design, and impacts to schedule and budget can arise. Interests and stake holding can become similar to the design-bid-build system, and adversarial relationships may result. While the established

GMP is supposed to address the remaining unfinished aspects of the design, this can in fact increase disputes over assumptions of what remaining design features could have been anticipated at the time of the negotiated bid.

One mitigating approach to this problem is for the CMR to open its books and share with the owner its subcontractor bids, ensuring transparency in the process. The CMR may further assume risk by taking some responsibility for design errors discovered during construction, if it was involved in the review of the design prior to establishing the GMP. In addition, arrangements can be made regarding risk sharing and profit sharing if there are over-runs or under-runs in the GMP.

Advantages:

- The owner gains the benefit of having the opportunity to incorporate a contractor's perspective and input to planning and design decisions.
- The ability to "fast-track" early components of construction prior to full completion of design

Disadvantages:

- A premium is placed on the proper selection of the CMR, based on the CMR's particular skills and experience, to provide the best value to the owner.
- While the CMR provides the owner with professional advisory management assistance during design, this same assistance is not present during the construction phase, as the CMR is in an "at-risk" position during construction.

### Contracting and Procurement Methods

A common contracting approach in the Construction Management at Risk delivery method is to enter initially into an agreement with the CMR for a fixed-fee contract for pre-construction and General Conditions costs, along with an agreed contractor's markup fee as a percentage of construction costs.

Once the design has progressed to a point where a GMP can be established, the contract is converted to a GMP contract, with all remaining fixed costs rolled into the GMP.

On the procurement side, the selection process is either a one-step or two-step process. In a one-step process, an RFP is issued and proposals are received that will include qualifications of the team, along with price proposals for the pre-construction costs, General Conditions costs, and construction fee as a percentage. The owner will make their evaluations based on the submitted information.

In a two-step process, step one will involve a Request for Qualifications (RFQ) and firms will only submit their qualifications. The owner will then establish a short list of firms and a Request for Proposals (RFP) will be issued to these firms, requesting the same cost information submitted in the one-step process. The owner will then make a selection based on a combination of qualifications and pricing.

As with Design-Bid-Build, private owners may choose to negotiate directly with pre-selected CMRs.

### Role of the CM

The role of the CM in a CMAR delivery system is sometimes considered redundant. However, there is still a vital role for the CM to play, whether the CM is from within the owner's staffing or from a third-party CM.

As in other delivery methods, it is important to engage the CM as early in the project as possible to guide and assist the owner through all phases of project delivery. The CM will still act as the owner's representative with the rest of the project team, acting as the point of contact for the designer, CMR, and any other specialty consultants engaged in the project by the owner.

The CM's role in a CMAR delivery method is similar to the CM's role in a Design-Bid-Build delivery with one major difference: the CM may not be the primary provider of construction expertise and advice to the project team during the pre-construction phases once the CMR firm is engaged by the owner, and as such may not be called upon to perform as many tasks. An example of this would be that the CM might not provide estimating or constructibility reviews during design phases if the owner relies on the CMR to perform these tasks.

Tasks that will remain with the CM include verification of schedule, overall project cost tracking, quality control, administration of all contracts, and coordination with all owner stakeholders.

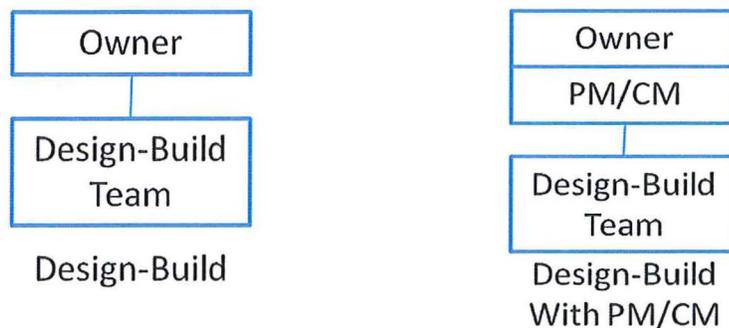
### 3.3 Design-Build (DB)

#### Description

The design-build (DB) project delivery system has grown in popularity, and is seen by some in the industry as a solution for addressing the limitations of other methods. For an owner, the primary benefit is the simplicity of having one party responsible for the design and construction of the project. While the other delivery systems often give rise to disputes among various project participants, with the owner acting as referee (or party ultimately to blame), in DB many of these disputes become internal DB team issues which may not affect the owner.

Under this system, the owner contracts with a DB team, which can be a joint venture of a contractor and a designer, a contractor with a designer as a subconsultant, a designer-led team with a contractor as a subcontracted entity, or a single firm capable of performing both design and construction. Since contractors are most comfortable in the role of risking corporate capital in performing projects, they usually are the lead members of this sort of team. One variation of the typical DB team structure, known as fee-paid developer, involves the owner engaging a developer, which then selects its own designer and contractor partners. However formulated, the DB team performs the complete design of the facility, usually based on a preliminary scope or design presented by the owner.

At some point early in the process, through a prescribed process, the DB team will establish a fixed price to complete the design and construction of the facility. Once underway, the DB team is then responsible for construction of the project, and for all coordination between design and construction.



#### Risk Analysis

Since the design-build team is working together from the outset, DB offers the opportunity to save time and money. However, the advantages of the system are offset by a significant loss of control and involvement by the owner and other stakeholders. Accordingly, it is difficult for the owner to verify that it is receiving the best value for its money without having a great deal of transparency in the DB team.

The primary caution for an owner considering DB is that the owner should carefully consider the level of involvement it requires for a successful project. First, the owner needs to recognize the effort and completeness that must be behind its initial scope/preliminary design which forms the basis of its contract with the design-builder. Often, the owner will require additional consultants to help it develop the scope or preliminary design, in the role of a traditional design firm.

Owners with highly specialized program needs may not find it advantageous to turn over responsibility to an outside DB team without ensuring adequate levels of oversight and communication. For example, a government owner constructed a high-technology research facility involving highly specialized equipment using the DB delivery method. During project development, the DB team made several key design and equipment selection decisions without full involvement of the owner, resulting in an unsatisfactory facility that required costly changes before the facility could be used as intended.

With this lesson in mind, DB is best suited to conventional projects for which project requirements can be clearly defined and for which expertise is widely available. For example, an office facility might be a project ideally suited for DB. In a project of this type, the owner is not assuming undue risk in conceding control over the project, and may benefit from the advantages of DB.

Another primary consideration of the owner is proper selection of the DB team. Since the owner selects a team that has been created prior to selection, it may be difficult for the owner to maintain the proper balance of design expertise, financial capability, construction experience, and experience in DB team roles. In particular, the owner should strongly favor DB teams with a successful track record working together on previous similar projects in the same DB roles. More so than in any other delivery system, the success of a DB project may hinge on the initial selection process.

#### Advantages:

- DB can produce a project more quickly than a conventional DBB.
- There is a single point of accountability for design and construction.
- Cost efficiencies can be achieved since the contractor and designer are working together throughout the entire process.
- Change orders would typically arise primarily from owner changes.

#### Disadvantages:

- Less design control and involvement by the owner and stakeholders.
- Owner must be highly responsive in its decision making to take full advantage of the speed of DB.
- The owner does not receive the benefit of the checks and balances that exist when it contracts separately with a designer and a general contractor.
- May be problematic when there is a requirement for multiple agency design approvals.

- May be inappropriate if the owner is looking for an unusual or iconic design.

### Contracting and Procurement Methods

One common contracting method in the Design-Build delivery method is to initially enter into an agreement with the DB team for a fixed-fee contract for design and pre-construction costs and an agreed General Conditions costs and construction fee given as a percentage of total construction costs.

Once the design has progressed to a point where a Guaranteed Maximum Price (GMP) can be established, the contract is converted to a GMP contract, with all fixed costs rolled into the GMP.

Another method used is to enter into a fixed price sum agreement for the entire DB effort.

On the procurement side, the selection process is typically a two-step process. In a two-step process, step one will involve an RFQ and teams will only submit their qualifications. The owner will then establish a short list of teams and an RFP will be issued to these teams, requesting cost information and a technical proposal which defines the project scope along with the firms' innovations, schedule and details that define the quality of the delivered project. The owner will then make a selection based on a combination of qualifications, approach and pricing.

As with other delivery methods, private owners may choose to negotiate directly with pre-selected DB teams at any point in the process above.

### Role of the CM

The role of the Construction Manager in a Design-Build delivery system is different than in the CMAR delivery method during the design phase, primarily due to the differing relationships. In DB, the designer is part of the builder's team, rather than under direct contract with the owner. There continues to be an important role for the CM, whether provided through the owner's staffing or through a third-party firm. This role is particularly critical if the owner does not have experience with the DB delivery method.

Owners with deliberate and time-consuming decision-making processes may find themselves particularly pressured in DB, since the speed of execution offered by this delivery method relies on the owner's promptness and responsiveness.

As in all delivery methods, it is important to engage the CM as early in the project as possible to guide and assist the owner through all phases of project delivery. It is particularly important in Design-Build because the program of requirements must be thoroughly analyzed and tightly documented. The contractor will ultimately be held to delivering the requirements of these program documents that are the basis for the DB proposal.

In a DB environment, the CM will act as the owner's representative with the rest of the project team, acting as the point of contact for the DB team and any other specialty consultants engaged in the project by the owner.

The CM's role in a Design-Build delivery method begins early in the project, assisting with the development of the owner's project requirements and the important selection of the DB team. The role then becomes similar to the CM's role in a CMAR delivery method with a few differences: since the owner's control over design is not as tight as in other delivery methods, the CM's reviews of the design will need to focus on compliance with the owner's project requirements and overall cost compliance.

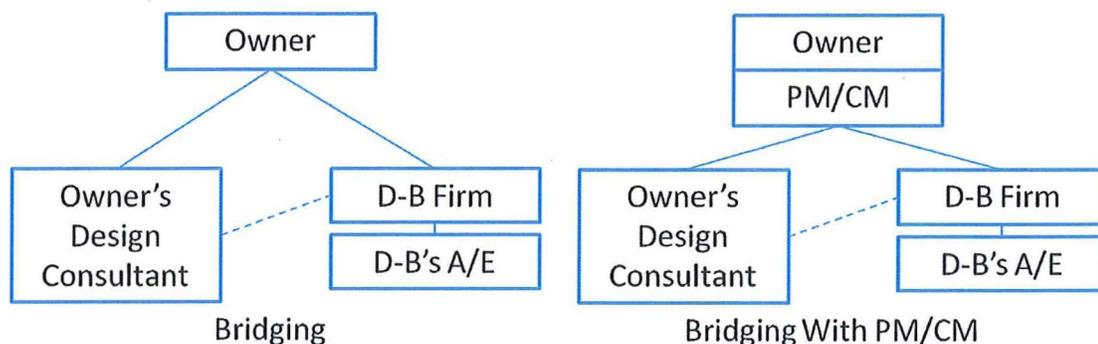
### 3.3.1 Bridging

#### Description

Bridging is not Design-Build in the typical sense but makes use of a design-build form of agreement between the owner and the contractor. In Bridging, the owner has its own "bridging architect" (also referred to as the "owner's design consultant" or "ODC"). The ODC and its consulting engineers, working with the owner, prepare preliminary design documents along with bid documents for a "Design-Build" form of agreement.

The ODC, and/or the owner's CM, will assist the owner in obtaining proposals and award of the Design-Build contract, later review the construction documents prepared by the contractor's designer for payment recommendation, and represent the owner throughout the construction with full typical construction phase services as design consultants normally provide except for the detailed checking of shop drawings.

The Design-Build contractor, along with a design subconsultant or an in-house design division, prepares the final construction documents. The construction documents may be thought of as an enormous set of shop drawings and should not be confused with the bridging contract documents.



#### Risk Analysis

The Bridging approach provides a good alternate for owners who like the benefits that the DB approach can bring to a project, but who would like more control over the ultimate design of the project.

Significant advantages of Bridging arise from the method's focus on communicating the owner's intentions for the project. Other potential advantages are that the owner obtains a firm price for the construction in less time and less design cost as compared with typical Design-Bid-Build pricing, and reduced exposure for the owner to contractor initiated change orders and claims. With bridging the owner has an opportunity to retain the desired level of control of the design, design details, quality of engineering and quality of construction.

### Role of the CM

The role of the Construction Manager in a Bridging delivery system will fall somewhere between the CM's role in a CMAR delivery system and in a Design-Build delivery system. This role can be filled either through owner's staffing or through a third-party firm.

Tasks that will remain with the CM include verification of schedule, overall project cost tracking, quality control, administration of all contracts, and coordination with all owner stakeholders.

### 3.3.2 Public Private Partnership (P3 or PPP)

#### Description

Public Private Partnership is a delivery method whereby a public entity partners with a private entity for the purpose of delivering public infrastructure. The National Council for Public-Private Partnerships identifies 18 variations of P3s. In the most typical of these variations, the private entity will be comprised of a design-build team, a maintenance firm, and a lending firm. This entity will design, build, finance, maintain and/or operate the facility for a set number of years, agreeing to meet specified performance criteria in exchange for lease payments or some other compensation. At the end of the specified period, the facility is returned to the public entity.

Various forms of P3 compensation include a fee contract, in which the P3 firm receives its compensation through a fee charged to the owner, and a concession contract, in which the P3 firm receives its compensation directly from the consumers rather than the owner.

#### Risk Analysis

P3 has gained much attention due to its ability to provide a funding option for public entities that may be struggling to identify adequate sources of capital. While this approach is a good option as a means of bringing a project to reality, it is also a very complicated and deliberate process that needs to be carefully considered.

P3 can benefit public projects in the following ways:

- Targets alternative revenue and funding sources to close a funding gap
- Allows use of low cost tax-exempt or taxable financing

- Transfers risk to the private sector
- Not subject to capital budget allocations or voter referendums
  - Accelerates construction starts
  - Reduces construction cost and interest rate risks
- Takes advantage of private-sector efficiencies and innovations in construction, scheduling, and financing
- Provides efficiencies in long-term operations and maintenance
- Presents an opportunity to combine public and private uses in mixed-use developments to leverage economic development

Disadvantages of P3 include:

- The owner may experience higher total life cycle costs.
- The proposal process can be very expensive for all involved.
- A high level of expertise is required to execute a P3 project.

#### Role of the CM

The role of the CM in a P3 delivery system will be very similar to the CM's role in any other Design-Build delivery system, although often there is much more of a program management focus. It would be important for the CM to have experience specific to PPP projects since there are many unique characteristics related to this process.

As always, this role can be filled with qualified personnel either through owner's staffing or through a third-party firm. The CM tasks will include verification of schedule, overall project cost tracking, quality assurance, administration of all contracts, and coordination with all owner stakeholders.

#### 3.3.3 Other Variations

There are numerous other variations of Design-Build and/or P3 delivery systems. The National Council for Public-Private Partnerships publishes a list that includes:

- Operations and Maintenance (O&M) – A public entity contracts with a private entity to provide operations and maintenance of a public asset.
- Operations, Maintenance, Management (OMM) - A public entity contracts with a private entity to operate, maintain and manage a public asset.
- Design-Build-Maintain (DBM) – Similar to a design-build contract on a public project, but the private entity is also contracted to maintain the public asset for some defined period.

- Design-Build-Operate (DBO) - A public entity contracts with a private entity to design, build and operate a public asset.
- Design-Build-Operate-Maintain (DBOM) - A public entity contracts with a private entity to design, build, operate, and maintain a public asset.
- Design-Build-Finance-Operate-Maintain (DBFOM) - A public entity contracts with a private entity to design, build, operate, and maintain a public asset. Additionally, the private entity will also finance the project in exchange for either user fees, lease payments or some other revenue stream.

### 3.4 Integrated project delivery (IPD)

#### Description

Integrated Project Delivery contracts are a relatively new entry into the U.S. marketplace and very few projects have been carried out using these contracts; however, the concepts of IPD have been around for many years. Pure IPD, in its contractual sense, requires a multiparty agreement among the prime players in the design and construction process – at least the owner, the designer and the builder – but this agreement can include many of the important subconsultants and subcontractors as well. The intention of the multiparty contract – or the closely integrated family of contracts – is a team-based approach that, according to Integrated Project Delivery, A Working Definition, Version 2, AIA California Council and McGraw Hill Construction, 6/13/2007:

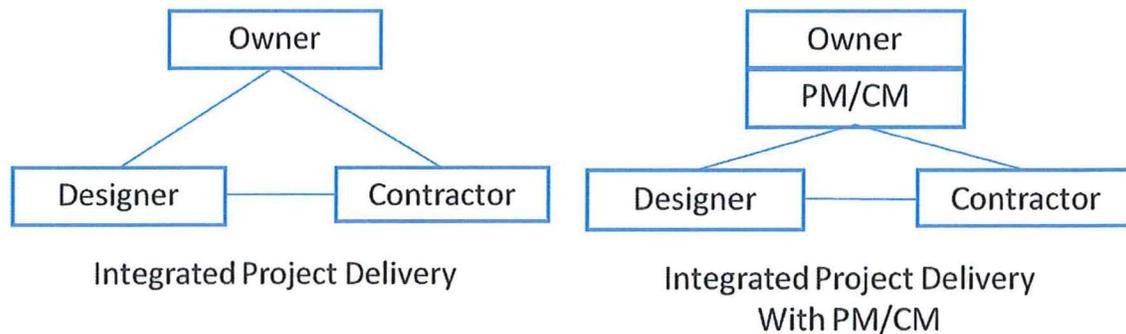
*... integrates people, systems, business structures and practices into a process that collaboratively harnesses the talents and insights of all participants to reduce waste and optimize efficiency through all phases of design, fabrication and construction.*

IPD is an attempt to properly reflect, in contract, the working relationships and efforts that are possible when a team is working in an integrated fashion to complete a design and construction project.

Compensation for parties in the IPD delivery method, other than the owner, is typically comprised of three components: *Cost reimbursement* to cover costs, *incentive* for achieving or bettering agreed project cost targets, and *rewards* for accomplishing set project goals. Ideally all costs, bases of costs, and cost inputs from all parties to the contract(s) are fully open-book in nature; and all incentive and goal achievement compensation will be agreed to by the team and incorporated in the contracts in advance.

As the entire project team is equally (or similarly) incentivized to achieve the same set of goals, which they have been party to setting or agreeing to, IPD requires the owner to assemble the major players into a contracted team at the very earliest opportunity, ideally as early as project inception and feasibility.

This early creation and agreement of project goals results in earlier engagement of the project team than in other delivery methods. During the pre-design phase, the IPD team designates all of the criteria it will be bound under contract to deliver.



### Risk Analysis

All of the advantages of the CMAR and DB project delivery approaches would apply under an IPD approach. At the same time, the IPD approach addresses the issues discussed related to tensions created by the completion of design, the setting of the GMP and the execution of the construction phase of a CMAR project.

IPD creates a different set of tensions and issues for the owner, not present in the CMAR approach. These tensions include making a team selection that can be based as much on behavioral characteristics as on ability and on belief in total cost more than initial costs.

#### Advantages:

- The owner gains all the advantages of DB or CMAR
- The entire team's interests are aligned with the project goals making the chance of success, once underway, extremely high.

#### Disadvantages:

- Actual agreement on the criteria and the final IPD contract can be very difficult and can take an inordinate amount of time and effort, for which the owner may be paying, if not in money then in time.
- Industry inexperience with working in non-adversarial team relationships makes the chance of failure most dependent on the behavior of individuals within the team. Damaging behavior is very difficult to control or to correct and can cause the breakdown of collaborative processes that are critical to success.
- Objective selection of the team is very difficult to achieve and can rely on little more than instinct for an owner who does not already have a team or teams that it knows and works with well.
- While team members are paid at cost for the work they do, prediction of and control of the effort comprising "cost" is difficult at the time the team is selected and even after the contract with fully agreed criteria is executed.

- IPD contracts have not yet been tested in law, so the result of a failure within the team is unpredictable.

### Contracting and Procurement Methods

The most common contracting method in an Integrated Project Delivery approach is a joint agreement that includes the design firm, the construction firm, and the owner. The typical contract is a cost-plus-incentive-based contract built around target costs for all elements of the project and on the achievement of non-cost-related project goals.

On the procurement side, the selection process is generally a qualifications-based selection, consistent with the objective of making sure all team members make good team partners to enhance the likelihood of the success of this approach.

The selected team enters into a pre-design phase and together creates and agrees on the project's target cost, program and definition, achievement goals, schedule, other critical players to bring into the team (and the timing of entry) and other contract basics. At this point, the contract is fully executed and the project process proceeds.

### Role of the CM

The role of the Construction Manager in an IPD delivery system will be very similar to the CM's role in the CMAR and DB delivery approach in providing the industry and management expertise to represent the owner within the IPD team, whether the CM comes from within the owner's staff or from a third party.

In addition to the owner representation, successful IPD teams require an integrator and leader to keep the team on track, focused on project goals, and to facilitate the IPD behaviors necessary to carry the team to success. This role would encompass initial leadership of the IPD project management team, developing protocols to perform and then managing everyday tasks, such as making recommendations on payment of invoices, managing disputes, resolving issues and the like.

The CM, as owner's representative, may or may not be party to the IPD agreement. The CM, if playing the role of integrator, would typically be a party to the agreement and would share in the common risk and reward of the contract to an appropriate extent.

## 4.0 Conclusion

One of the most important decisions made by any owner embarking on a construction project is the choice of the project delivery method – how the project will be designed and constructed. There are many options for delivery methods and many variations within those options.

An owner faced with choosing a project delivery method should consider several factors in making the decision, including:

- Project size
- Type of project
- Legislative and regulatory requirements
- Tolerance for risk
- Schedule
- Local market knowledge
- Desired level of involvement
- Owner's resources and capabilities

When these factors are properly evaluated, a good decision can be made on the selection of a project delivery method that best fits the goals and requirements of the owner and the project.

The use of a *qualified* Construction Manager can greatly help in developing a project and in making the decision on project delivery methods, regardless of whether this expertise comes from internal staff or from a third-party provider.

## Public Safety Facilities Review Committee

### Consensus Findings

January 28, 2014

- Adopt survey process
- Reach decisions by consensus

February 11, 2014

- Adopted January 28 minutes
- Adopted mission statement
- Fire Station 11 needs to be replaced.
- Station 11 replacement should be on existing site.

March 11, 2014

- Adopted February 11, 2014 minutes
- Discuss capital financing and operational costs for both facilities toward the end of committee work
- Adopt “Fire Station 11 Issues and Concerns” as findings.
- Recommend to the City Council to get conceptual plans or drawings for a new fire station at Sixth Avenue and Lyon Street, allowing for possible vacation of Sixth Avenue.

April 8, 2014

- Adopted March 11, 2014 minutes
- Develop common population projections for 2034 and 2064.
- Ask Mark Shepard to do modeling on removing utilities from Sixth Avenue.
- Commission conceptual drawings for a new main fire station with programming as outlined in Chief Bradner’s memo and within a range of 25,500 to 29,386 square feet.
- Add “incorporate energy-efficient systems to keep lifecycle costs and operating costs affordable” to final sentence of Fire Station recommendation.
- Agree that the Police Department needs more space than it currently has.

April 22, 2014

- Language in draft Fire Station recommendation as reflected in the minutes.
- Get estimates of cost to purchase properties to the east of the existing Police building on 13<sup>th</sup> Avenue and the west side of Thurston Street SE.
- Add meetings on May 7, May 15, and May 20; conclude committee work for the summer on June 10.
- Reconvene committee in the fall to review Fire Station RFP.

April 29, 2014

- Adopt Option 3 to keep the Police Department at the Jackson Street location with remodel and addition, incorporating additional properties on 13<sup>th</sup> Avenue and Thurston Street SE.
- City should apply to the Oregon Department of Transportation for a highway access permit for the Pacific Boulevard property.
- Adopted Fire Station 11 recommendation to City Council.

## Questions and Issues

May 7, 2014

- What other issues will be on the ballot?
- Ballot timing
- How was future staffing ~~and City population~~ computed?
- Can the building(s) be remodeled?
  - *Fire – no (2-11-14)*
- Can the building(s) be expanded on site?
- Are parking regulations flexible?
- Other parking options
  - Agreement with Lee Enterprises?
- What are building restrictions costing in staff efficiencies?
- What can be done with the Ralston Dodge dealership building?
- ~~What are annual maintenance/operation costs of facilities?~~
  - Any worker's comp claim as a result of building deficiencies?
- ~~Issues with flow and communication in existing buildings?~~
- What is cost breakdown?
- What is to be done with existing sites if no remodel?
- ~~What works well on existing sites?~~
- Costs of other recent buildings
- Property across the street from the jail?
- ~~Review potential sites~~
- Site criteria?
- Financial alternatives
  - Other revenue sources? i.e. Pepsi, CARA
- ~~Level of severity?~~
- Understand four ways to execute the project; pros and cons