Project Procurement Considerations for the City Yard

The city yard project is a priority for city staff and council to get completed. This white paper outlines four procurement options that the city could use to complete the project:

1) Design-Bid-Build
2) CM at Risk
3) Progressive Design-Build
4) Stipulated Sum Design Build

One important consideration is that there's currently not a plan of finance for the entire city yard project however there are funds available that could advance design. That funding could be used to advance design in any of the procurement methods discussed below, with the possible exception of a Stipulated Sum Design-Build, where the project funding will need to be in place shortly after firm fixed price bids are received. Overall it is staff's recommendation to proceed with the Progressive-Design-Build procurement because :

- It is the most expedient form of procurement and will therefore accelerate the project.
- It does not require the city to invest considerable sums in up front design specifications, bidding documents or stipends for losing teams.
- There's cost certainty through the design process due to early builder involvement.
- Builder involvement during the design allows for real time value engineering as plans are developed.
- An experienced design-build team will work collaboratively with city staff through this complex project identifying and mitigating such risks such as:
  - defining the program,
  - phasing and logistics during the construction cycle,
  - constructability,
  - environmental contamination clean up methods, and
  - finding creative ways to improve workflow.

Also it is important to note that, given the size and scope of the project and the owner's rep would be needed to supplement to city staff for any of the procurement methods however the role of the owner advisor will be slightly different but depending on the procurement method chosen.

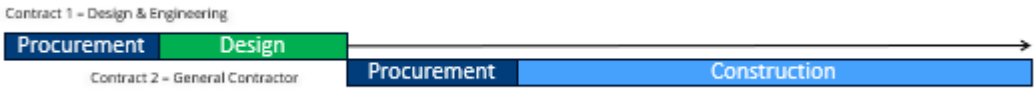
1) Design-Bid-Build ("DBB")

Design-Bid-Build is the most common delivery method for public improvements. It is commonly accepted because it drives to the lowest construction price based on open competition, supporting the premise that the city is being a good fiduciary of public funds. Often referred to as low bid this procurement method is the default contracting method for California General Law cities and many other agencies under section 20162 of the public contract code. The DBB process is as follows:

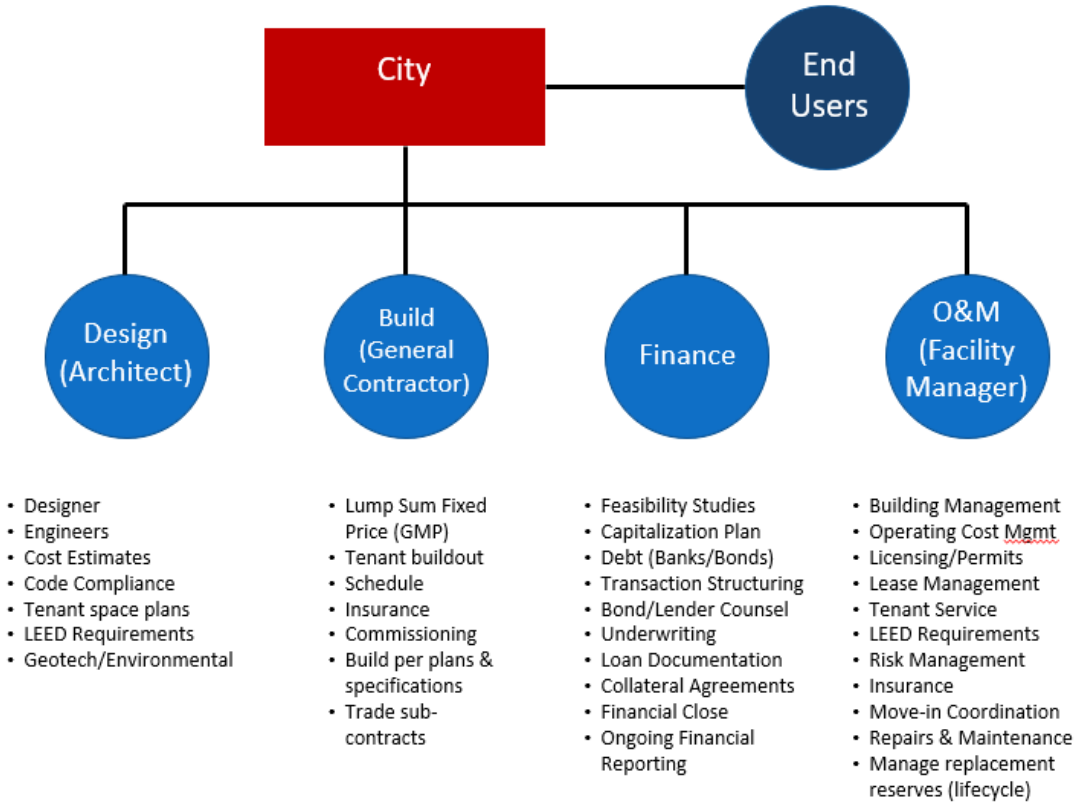
1) The city would hire a design firm to collaborate with city staff in determining the program, then design the building and site improvements, then complete the architectural plans and obtain building permits.
2) The permit drawings would then be the basis for general contractors to bid on. The city would select the lowest responsible bidder to complete the project.

3) During the construction of the project the architect would typically have a construction management contract to review shop drawings and any change orders as well as conduct inspections to make sure the buildings are being built according to the permit drawings.
4) Any deviation from the plans or errors in the drawings or omissions would result in additional change orders to the city.
5) The city would have full ownership of the project throughout the process and be responsible for long-term maintenance once the project is completed.

The DBB process is a linear path as follows.



Under a DBB process each function of the project is separately contracted. A summary of the management tasks under each contract is as follows:



The primary advantages of using a DBB procurement are:

- ❖ Competitive tension in the bidding process ensures the city is getting the lowest possible price for the plans they have designed.
- ❖ politically it is easy to defend the low bid.

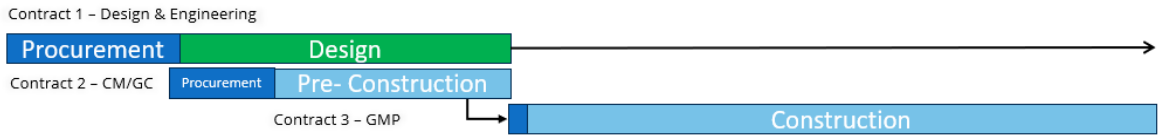
The owner's rep role in a DBB procurement is to help draft the multiple RFPs for services and manage the contracts during the construction phase. The owner's rep helps ensure there are no scope gaps between the various contracts. The owner's rep or architect is also charged with field inspections, test & measurement, reviewing shop drawings and building commissioning unless there are separate contracts for those services. Finally, the owner's rep assists city staff with reviewing change orders for reasonableness and validity.

2) Construction Manager at Risk CMAR)

The CMAR contract structure is also commonly used as a methodology to bring early builder involvement into a project to provide cost certainty well still preserving an ability to run low bid procurement after the predevelopment phase. Under this contract structure the city would hire a design team and simultaneously hire a contractor under a pre-development contract. During the pre-development phase the builder / CM would provide input to the design team including cost estimating, constructability feedback, value engineering, and logistics planning. Typically, this input is valuable in reducing project construction costs.

At the end of the pre-development period the builder would submit a guaranteed maximum price. The city could at that point choose to engage the builder to complete the project or otherwise pay for the predevelopment work and then take the plans to the market and hire the low bidder. Because there are two separate contracts for the predevelopment and the development work

The CM at Risk process is a linear path as follows.

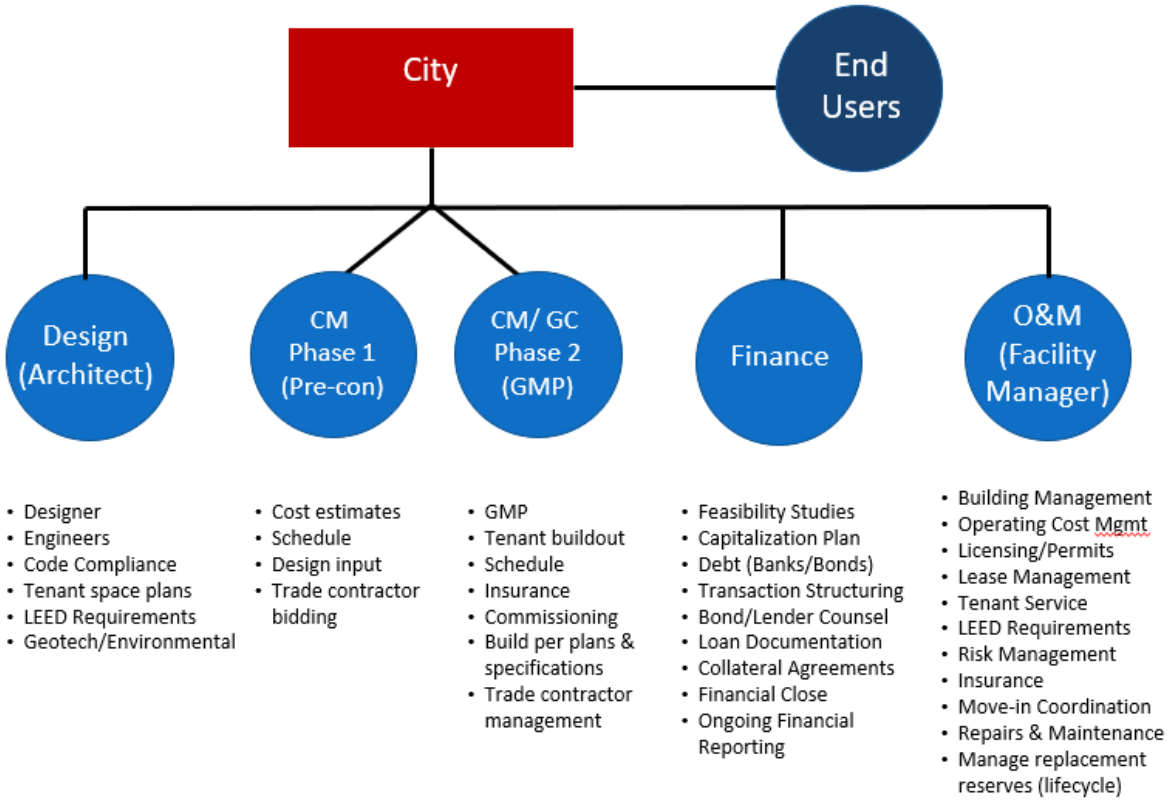


Using the CMAR project delivery method, the CMAR Firm will support the design process and construct the Project in two phases.

1. Preconstruction Phase: The City will issue a contract with the CMAR Firm to provide Preconstruction Phase Services (as generally described in Attachment B, Scope of CMAR Services) to support the City's Design Engineer in developing the design for the Project. During this phase, the Design Engineer will advance the design to the level of completion necessary to define the Project and will provide construction-ready documents prior to the initiation of the Construction Phase Services. When the Design Engineer's design reaches approximately 60 percent completion, the CMAR Firm will present a construction schedule and an open book Guaranteed Maximum Price (GMP) to the City in accordance with the CMAR Agreement. The GMP will include the cost of the Construction Phase Work through commissioning and start-up, general conditions pricing, overhead, and profit as a percentage of the cost of the Construction Phase Work.

2. Construction Phase: Should the City and CMAR Firm agree on the GMP, the Construction Phase Services will be authorized and initiated following City Council approval of an amendment to the CMAR Agreement. The CMAR Firm will procure all subcontractors and vendors, and will be responsible for the Project's construction, startup, commissioning, operator training, performance testing, and warranty services as described in the CMAR Agreement. Should the City and the CMAR Firm be unable to agree on a price for the Construction Phase Services, the City reserves the right to terminate the existing CMAR Agreement and begin negotiations with another CMAR Firm or direct the Design Engineer to complete the design and prepare construction documents for public bidding of the Project

Under a CMAR process each function of the project is separately contracted, similar to a DBB process. A summary of the management tasks under each contract is as follows:



The primary advantages of using CMAR procurement are:

- ❖ Early contractor involvement to provide cost input during the design process.
- ❖ Expedient procurement, which can accelerate the project.
- ❖ No investment in upfront plans or specifications for bidding purposes required prior to beginning of the progressive process

The owner's rep role in a CMAR process is a little lighter than their role in a DBB procurement since the builder is under a pre-construction contract during the design development. The owner's rep will advise city staff in selecting the best qualified builder and architect and

negotiating their contract. During construction they may have many of the same tasks as in a DBB process:

- field inspections,
- test & measurement,
- reviewing shop drawings,
- building commissioning, and
- assisting city staff with reviewing change orders for reasonableness and validity.

3) Progressive Design Build (PDB)

The PDB contract structure is allowed for local municipalities under California general law section 22185.1. This legislation specifically allows cities to select their design build team for project based on a best value process. Under the PDB process the city would hire a design build team based largely on their qualifications and track record in prior projects. This type of RFQ is faster and cheaper than going through a traditional RFQ / RFP process.

Once the design build team is on board, they would work collaboratively with city staff to define the program, phasing, and logistics. As the architectural plans were developed the contractor would provide regular updates on project costs so the city was well informed of how design choices were impacting the budget in real time.

It is important to note that the city retains the right to approve or reject the final plans under a design-build process if they don't meet the project needs. A progressive design-build process mitigates the risk that plans will be rejected because city staff at the table throughout the design development. Additionally having an integrated design build team provides deep experience in value engineering constructability and the best form of cost control through the development process.

The point at which a guaranteed maximum price is specified by the builder is ultimately negotiable however as the plans are more fully developed the contingency that a builder includes in the price will drop down significantly. Under most progressive design build processes the GMP is specified relatively late in the process (usually shortly before or after building permits are obtained) to reduce contingency in the costs for the project.

At several points during the design process as plans are developed the construction manager will solicit bids from key trades getting updates along the way for real time accurate costing information which will allow the city to avoid cost overruns. Another key risk mitigator is that having builder involvement early on helps prevent errors and omissions in the plans and it ensures that the design is optimized for constructability and appropriately value engineered.

What are the phases of progressive design-build?

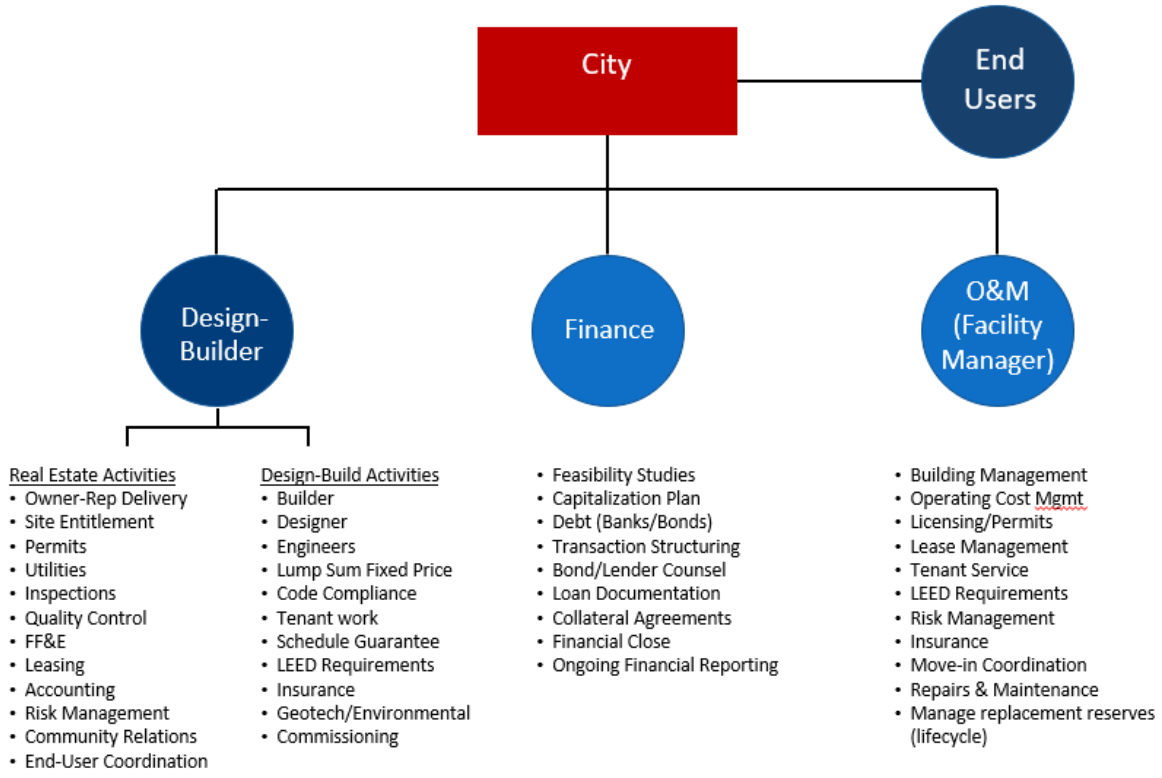
Phase 1: Preliminary design & land use/entitlements, early budgeting

Phase 2: Design completion, early procurement & final budgeting

Phase 3: Construction

The PDB process is an expedited process as follows:

Under a PDB process the city can terminate at any point in the design by simply paying the team for planning and design costs incurred. For this reason the city could use a PDB process to advance the project and if building funds are not ultimately available, they could cancel the project without recourse. Under a PDB process the design and construction tasks are integrated under one contract reducing risk and simplifying the process for the city over a typical DBB process. A summary of the management tasks under each contract is as follows:



The primary advantages of using a PDB procurement are:

- ❖ A fundamental advantage of progressive design-build is early collaboration with key partners. Builder, engineer, and architect cooperation at the beginning of the project enables them to uniquely work together to identify hurdles from the start, helping to reduce risk for the owner.
- ❖ Early contractor involvement to provide cost input during the design process.
- ❖ Real time feedback on constructability and value engineering alternatives as plans are developed
- ❖ Genuine bids from sub-trades throughout the process providing an additional level of cost certainty.
- ❖ Expedient procurement, which can accelerate the project.
- ❖ No investment in upfront plans or specifications for bidding purposes required prior to beginning of the progressive process.
- ❖ Additionally, engagement between the professional services team and the owner can inspire innovation and better bake the needs of the end user into the building.

The owner's rep role in a PDB process is similar to their role in a CMAR. The owner's rep will advise city staff in selecting the best qualified design-build team and negotiating their contract. During construction the role of the owner's rep is a little lighter than in a CMAR or DBB process because of the risk transfer to the design builder. The owner's rep's tasks during construction would include:

- reviewing design packages and shop drawings for completeness and program compliance,
- assisting city staff with reviewing change orders for reasonableness and validity, and
- coordinating building commissioning and moving.

4) Stipulated Sum Design Build (DB)

The DB contract structure is allowed for local municipalities under California general law section 22164. This legislation specifically allows cities to select their design build team for project on a best value process. The primary difference between a DB and PDB process is that under DB the city would need to develop a detailed program and output specifications. Under the DB process this is usually done by an owner's Rep once the owners are out of business elected they would work with city staff to define the program and create a clear list of requirements that designers would need to incorporate in their plans that includes basic things like square footage and adjacencies as well as more detailed technical specifications like provisions for compressed air tools mechanical lifts etcetera.

Once the detailed specifications were developed they would be used as the basis for bidding. This ensures that the city's program would be met by all of the respondent teams and allows for a competitive bidding process much earlier in the project before plans were drawn. Bids are bonded and the price is fixed from the beginning. As in a PDB process, the city would retain approval rights over the plans.

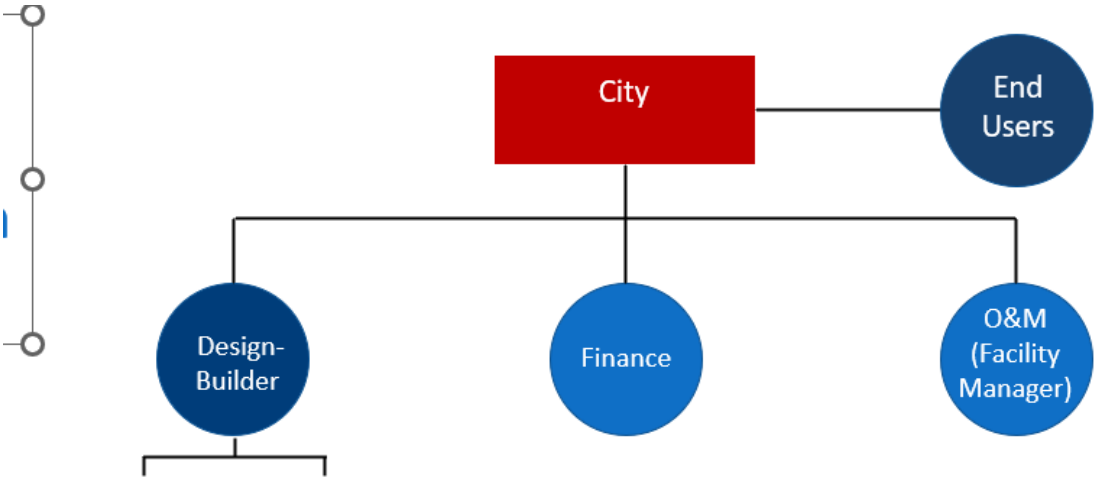
The primary advantage of this stipulated some DB process is that it can create a design competition under a typical process the city would solicit an RFQ for shortlist for design build

teams they would then shortlist from that pool the top view design build teams each of those teams would then submit a firm fixed price bid based on the plans and specifications the output specifications provided the DB teams would further take risk in design development and ensuring their no scope gaps and construction pricing escalation during the build process. A DB procurement would be advantageous in that it would produce design innovations, however design competitions generally require a stipend to loosing teams so the city would essentially be paying for the design initial design two to three times given the smaller size of the project and limited available funding this could be a challenge for the city art project as a standalone.

One importance consideration is that the city would need to have funding in place for the entire project (not just the design) under and DB contract, because contractors would bid a firm fixed price based on an expedited construction schedule and they would begin incurring significant cots immediately.

DB is an expedited process as follows, but not as fast as PDB due to the need to develop specifications and program for the bids:

A DB contract integrates design and construction under one contract reducing risk and simplifying the process for the city over a typical DBB process. A summary of the management tasks under each contract is as follows:



Real Estate Activities
- Owner-Rep Delivery
- Site Entitlement
- Permits
- Utilities
- Inspections
- Quality Control
- FF&E
- Leasing
- Accounting
- Risk Management
- Community Relations
- End-User Coordination

Design-Build Activities
- Builder
- Designer
- Engineers
- Lump Sum Fixed Price
- Code Compliance
- Tenant work
- Schedule Guarantee
- LEED Requirements
- Insurance
- Geotech/Environmental
- Commissioning

- Feasibility Studies
- Capitalization Plan
- Debt (Banks/Bonds)
- Transaction Structuring
- Bond/Lender Counsel
- Loan Documentation
- Collateral Agreements
- Financial Close
- Ongoing Financial Reporting

- Building Management
- Operating Cost Mgmt
- Licensing/Permits
- Lease Management
- Tenant Service
- LEED Requirements
- Risk Management
- Insurance
- Move-in Coordination
- Repairs & Maintenance
- Manage replacement reserves (lifecycle)

The primary advantages of using a DB procurement are:

- Upfront firm fixed price.
- Contractor manages the design to ensure it meets price throughout the design process.

The owner's rep role in a stipulated sum DB process is more involved than in a PDB process. The owners Rep would typically help the city develop the technical specs output specifications for the project as part of the procurement documents for the design builder. During procurement they would also evaluate the technical compliance of the proposed designs against those standards and continue that role throughout the design development process as design packages were submitted. As in the other procurement methods the owner's Rep would also assist city staff with reviewing change orders for reasonableness and validity, keeping in mind that there are typically much less change orders in a stipulated sume DB process due to the risk transfer and upfront pricing commitment.

Differences Between PDP and DB Procurement

Aspect	*Design Build*	*Progressive Design Build*
Design Build Approach	Design-Builder introduced after developing basis of design	Design-Builder introduced at an early stage, works with owner to create design basis
Collaboration	Limited collaboration	Fosters collaborative environment early in the project
Pricing Model	Lump-Sum Price Proposal	Open-Book Accounting
Decision Making	Owner makes decisions based on documents and consultant input	Owner makes value-based decisions supported by builder's cost and schedule models
Risk Allocation	Owner retains Spearin liability	Transfers risk from owner to Design-Builder
Subcontractor Selection	Owners are not involved in procurement and selection of subcontractors	Owners can choose to be actively involved in subcontractor procurement and selection
Selection Methodology	Price-Based Selection	Qualifications-Based Selection
Change Orders Susceptibility	Susceptible to Change Orders	Guaranteed Maximum Price (GMP) ensures Cost Reliability
Off-Ramping	Easier Off-Ramping	Riskier Off-Ramping

A key distinction of PDB from traditional design-build is the collaboration of the owner, builder, architect, and engineer during the preliminary design phase to establish the project scope.

As the project advances, work is awarded progressively to additional trade partners based on the scope jointly agreed upon by the owner, builder, and designers.

One of the key drawbacks to traditional DB is the reliance on the lump-sum price proposed by the winning team, which includes significant contingencies to cover unknown project risks. With PDB, the contractor and key subcontractors are involved early in the design to recommend the most cost effective systems, materials, and methods. When the owner and design-builder are confident the design reflects the project goals and risks have been reduced, usually between 50% and 75% design completion, the parties then negotiate a guaranteed maximum price (GMP) that reflects the lowered risk. Since the contractor and key subs have been involved in the design process from the start, they will have had many opportunities to identify/mitigate risk and evaluate the constructability of the design. Thus, PDB reduces the likelihood of change orders, provided that the owner does not change the scope after the Guaranteed Maximum Proce (GMP) is fixed