Construction Manager-General Contractor
Delivery Method

California Department of Transportation
Design-Bid-Build (DBB)

Traditional delivery method where design and construction are performed by two separate entities. Design can be performed “in-house” or can be contracted.

- Design must be complete
- Awarded to the lowest responsible bidder
A delivery method that allows an owner to engage a construction manager to provide input during the design process. At an agreed upon point, the owner and construction manager negotiate a price for construction of the project and the construction manager becomes the general contractor.
Two-Phase Contract

What is CMGC?

**Pre-Construction Services**
- Cost Estimating
- Subcontracting Plan
- Scheduling
- Material Procurement
- Utility Coordination
- Construction Phasing
- Constructability Review
- Risk Analysis
- Quantity Verification
- Third Party Negotiation

**Construction Services**
- Price Agreement

**CONSTRUCTION**
- General Contractor

**PRE-CONSTRUCTION**
- Construction Manager
CMGC Authority

Assembly Bill 2498 (Gordon)
- Signed September 2012
- Added Section 6700 et seq. to Public Contract Code
- Authorized 6 project pilot program

Senate Bill 1262 (Beall)
- Signed September 2018
- Granted unlimited authority
- Projects must be greater than $10 million
Why Use CMGC?

- Faster Delivery
- Cost Certainty
- Constructability
- Risk Mitigation
- Innovation
CMGC Process

1. <30% Design
2. Request for Qualifications
3. Award (Preconstruction Services)
4. Design
5. Price Agreement
6. Award (Construction Services)
7. Construct
CMGC Process (Packages)

1. < 30% Design
2. Request for Qualifications
3. Award (Preconstruction Services)
4. Design
   - Price Agreement (Package 1)
     - Award (Construction Services)
     - Construct (Package 1)
   - Price Agreement (Package 2)
     - Award (Construction Services)
     - Construct (Package 2)
   - Price Agreement (Package 3)
     - Award (Construction Services)
     - Construct (Package 3)
## Benefits Over Time

<table>
<thead>
<tr>
<th>Design (%)</th>
<th>Key Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-30%</td>
<td>Cost, Risk, Innovation</td>
</tr>
<tr>
<td>30-60%</td>
<td>Cost, Risk, Innovation</td>
</tr>
<tr>
<td>60-90%</td>
<td>Cost, Risk, Innovation</td>
</tr>
<tr>
<td>&gt;90%</td>
<td>Cost, Risk, Innovation</td>
</tr>
</tbody>
</table>

- **Cost**: Higher in earlier stages, decreases as design progresses.
- **Risk**: Decreases with design progress.
- **Innovation**: Increases with design progress.

The chart illustrates how the benefits of cost, risk, and innovation evolve as the design progresses from 0-30% to >90%.
Request for Qualifications

Proposers are evaluated based on:

- Past Performance
- Key Personnel Requirements
- Project Understanding and Approach
Independent Cost Estimator (ICE)

Qualifications of ICE
- Experienced contractor estimator
- No conflict of interest
- Qualifications based selection

Role of ICE
- Participate during the design
- Provide project cost estimates
- Assist in negotiations
- Validate fair price
CMGC “Bid” Process

When design of project or portion (package) is complete:

Three Estimates:
1. Engineer’s Estimate
2. Construction Manager’s Cost Estimate
3. Independent Cost Estimate (ICE)

Two Possible Outcomes:
1. Caltrans gets fair price – Proceed with build
2. Caltrans doesn’t get fair price – Proceed to bid
Benefits/Challenges of CMGC

Benefits
- Improved constructability
- Innovation
- Caltrans maintains control over design
- Project can be delivered in packages
- Contractor selected based on qualifications
- Earlier cost certainty
- Less cost growth during construction
- Improved risk allocation/mitigation
- Assist with permits/3rd party approvals

Challenges
- Higher support costs (contractor and ICE)
- Redesign to implement contractor suggestions
- Estimate reconciliation (bid-based vs. cost-based estimates)
- Keeping bid option open
- Delivering project under procedures developed for design-bid-build
Questions?