

PROJECT DELIVERY

PROJECT LIFECYCLE & DELIVERY METHODS

Educational Workshop

June 6, 2025

THANK YOU, WORKSHOP SPONSOR

HDR

Presenters



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Agenda

- Introduction
- **Project Delivery Life Cycle**
 - Project Lifecycle
 - Assume Design Bid Build (DBB) Model
- **Project Delivery Models**
 - Design Build (DB)
 - Construction Management / General Contractor (CM/GC)
 - Progressive Design Build (PDB)



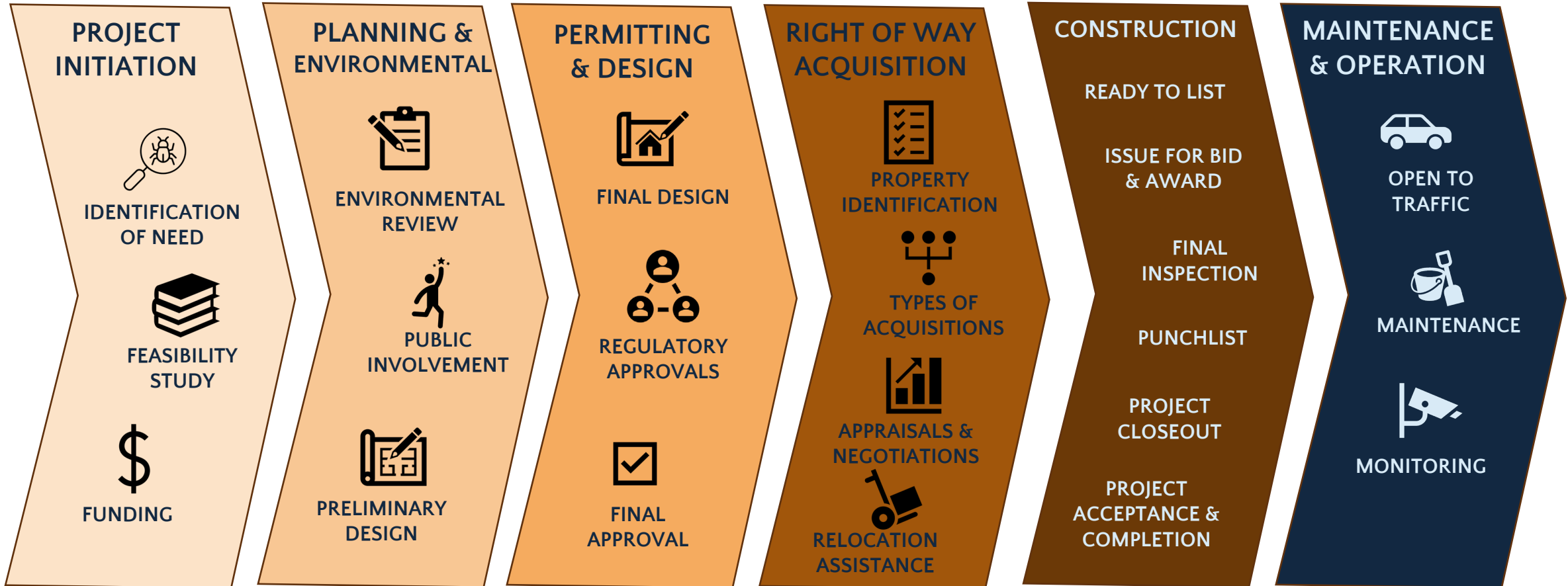
LIFE CYCLE

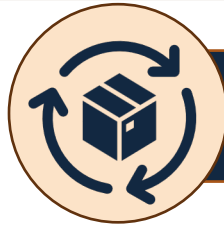
Assume Traditional DBB

PROJECT DELIVERY



Project Delivery | Lifecycle





Project Initiation

PROJECT INITIATION



IDENTIFICATION
OF NEED



FEASIBILITY
STUDY



FUNDING

- **Identification of Need:** The need for the project is identified based on traffic studies, congestion levels, and future growth projections.
- **Feasibility Study:** Conduct a feasibility study to assess the project's viability, including cost estimates, environmental impact, and potential benefits.
- **Funding:** Secure funding from federal, state, and local sources. This may include grants, bonds, and public-private partnerships.

Traffic Studies
Congestion Analysis
Growth Projections

Project Initiation Document (PID)
Project Design Study (PDS)
Project Study Report (PSR)

Funding Applications
Grant Proposals
Budget Plans / Capital
Improvement Plans



Planning & Environmental

PLANNING & ENVIRONMENTAL



ENVIRONMENTAL REVIEW



PUBLIC INVOLVEMENT



PRELIMINARY DESIGN

- **Environmental Review:** Conduct an environmental impact assessment to identify potential impacts on the environment and propose mitigation measures.
- **Public Involvement:** Engage with the public through meetings, workshops, and surveys to gather input and address concerns.
- **Preliminary Design:** Develop preliminary design plans, including roadway alignment, lane configurations, and interchange modifications

Project Assessment &
Environmental
Document (PA/ED)
CEQA / NEPA

Public Outreach
Workshops
Meeting Materials
Survey Results

Project Report (PR)
30% Preliminary Design



Permitting & Design

PERMITTING & DESIGN



FINAL DESIGN



REGULATORY APPROVALS



FINAL APPROVAL

- **Final Design:** Complete detailed design plans, including construction drawings, specifications, and cost estimates.
- **Regulatory Approvals:** Obtain necessary permits and approvals from regulatory agencies, including environmental permits, construction permits, and utility permits.
- **Final Approval:** Secure final approval from relevant authorities, such as the California Department of Transportation (Caltrans) and local government agencies.

Regulatory Permits
City Permits
Agency Permits

60% Plans, Specs & Estimate
90% Plans, Specs & Estimate
100% Plans, Specs & Estimate
Project Approval



Right-of-Way Acquisition

RIGHT OF WAY ACQUISITION



PROPERTY IDENTIFICATION



TYPES OF ACQUISITIONS



APPRAISALS & NEGOTIATIONS



RELOCATION ASSISTANCE

- **Property Identification:** Identify properties that need to be acquired for the project.
- **Types of Acquisitions** – License Agreements, Temporary Construction Easements, Partial Takes, Full Takes, Eminent Domain
- **Property Appraisal, Negotiation and Acquisition:** Conduct property appraisals and negotiate with property owners for acquisition.
- **Relocation Assistance:** Provide relocation assistance to displaced residents and businesses.

PD-26 Right of Way
Requirements to
build project

Title Reports
Platts & Legals

Appraisals & Reviews
Offer Letters /
Just Compensation
Negotiations Escrow

Relocation
Assistance Plans



Construction

CONSTRUCTION

READY TO LIST

ISSUE FOR BID
& AWARD

CONSTRUCTION

PUNCHLIST

PROJECT
CLOSEOUT

PROJECT
ACCEPTANCE &
COMPLETION

- **Ready to List:** Permits, Right of Way Certification (includes Utility Relocations), etc.
- **Issue for Bid & Award:** Lowest responsible bidder recommended for approval.
- **Construction:** Build the Project.
- **Punch List:** Address any remaining issues or deficiencies identified during the final inspection.
- **Project Closeout:** Complete project closeout activities, including final documentation and financial reconciliation.
- **Project Acceptance / Completion**

Owner

Engineer of Record
(Design Support During
Construction)

Construction
Management

Contractor



Maintenance & Operations

MAINTENANCE & OPERATION



OPEN TO
TRAFFIC



MAINTENANCE



MONITORING

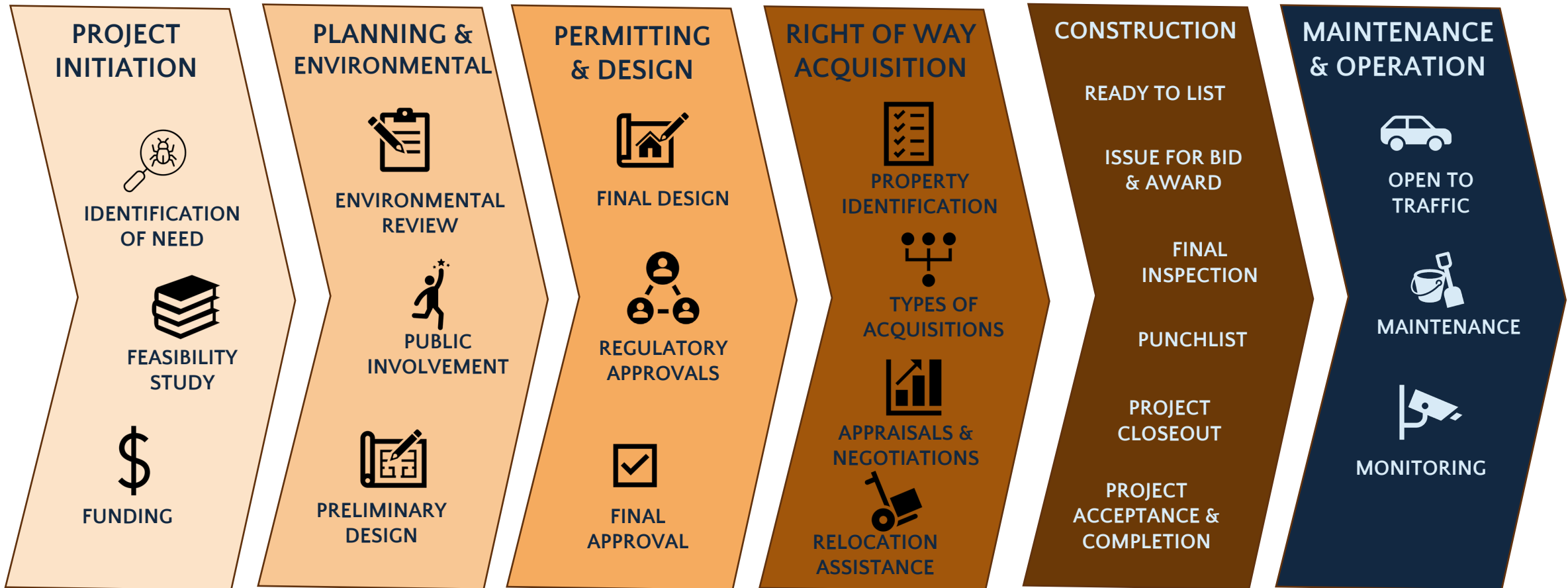
- **Opening to Traffic:** Open the widened freeway to traffic and monitor initial performance.
- **Routine Maintenance:** Perform routine maintenance activities, such as pavement repairs, landscaping, and cleaning.
- **Performance Monitoring:** Continuously monitor the freeway's performance, including traffic flow, safety, and condition.
- **Long-Term Maintenance:** Plan and implement long-term maintenance and rehabilitation activities to ensure the freeway remains in good condition

Asset Management
Software / GIS
Artificial Intelligence

Project Initiation Document
(close the cycle)
Example (405/73
widening...405 express lanes
changed those projects)



Project Delivery | Lifecycle





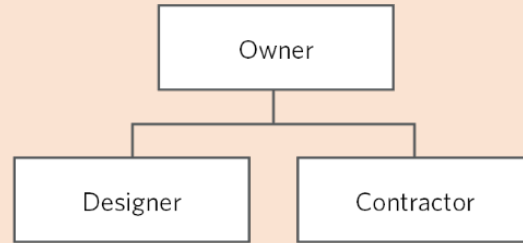
METHODS

DBB, DB, PDB, & CM/GC

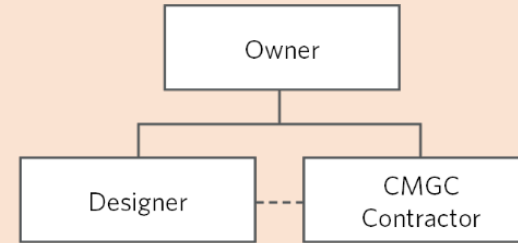
PROJECT DELIVERY

PROJECT DELIVERY METHODS

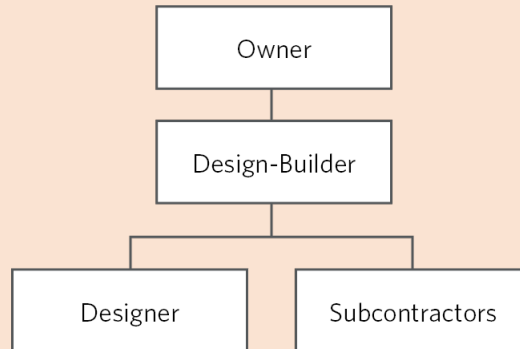
DBB



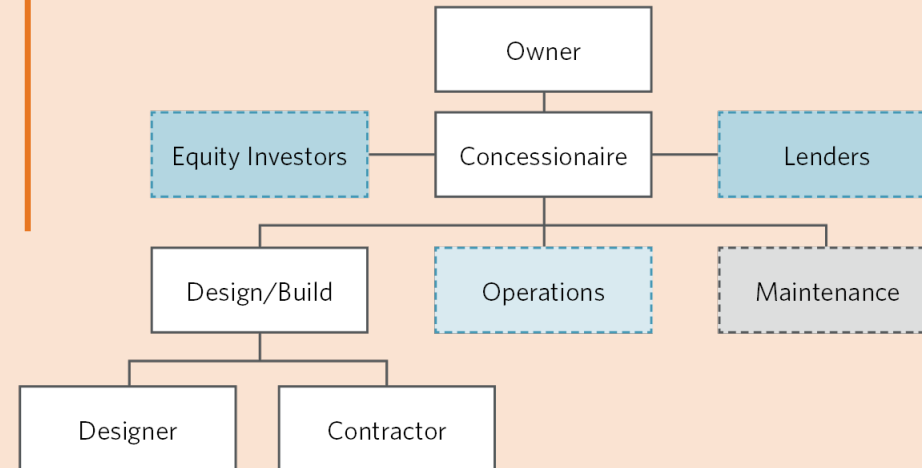
CMGC



DB and PDB



P3



Contract Structure



Architectural and Engineering - Construction

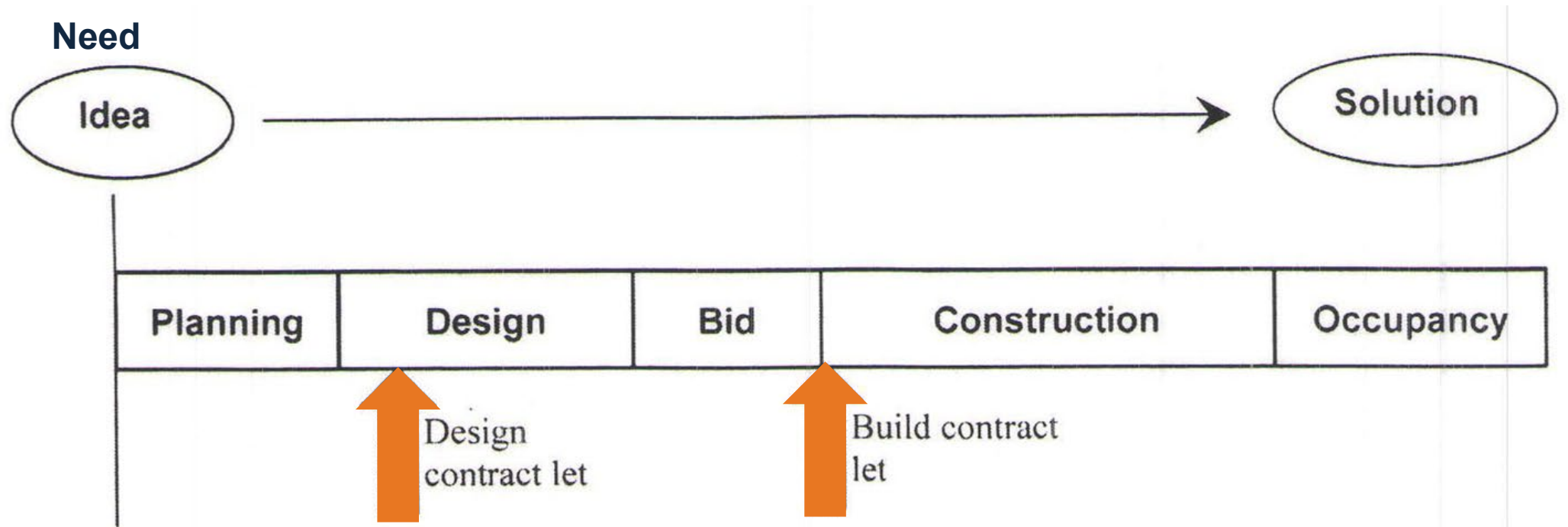


Figure 1.3: Design-Bid-Build Process

Contract Structure

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Architectural and Engineering - Construction

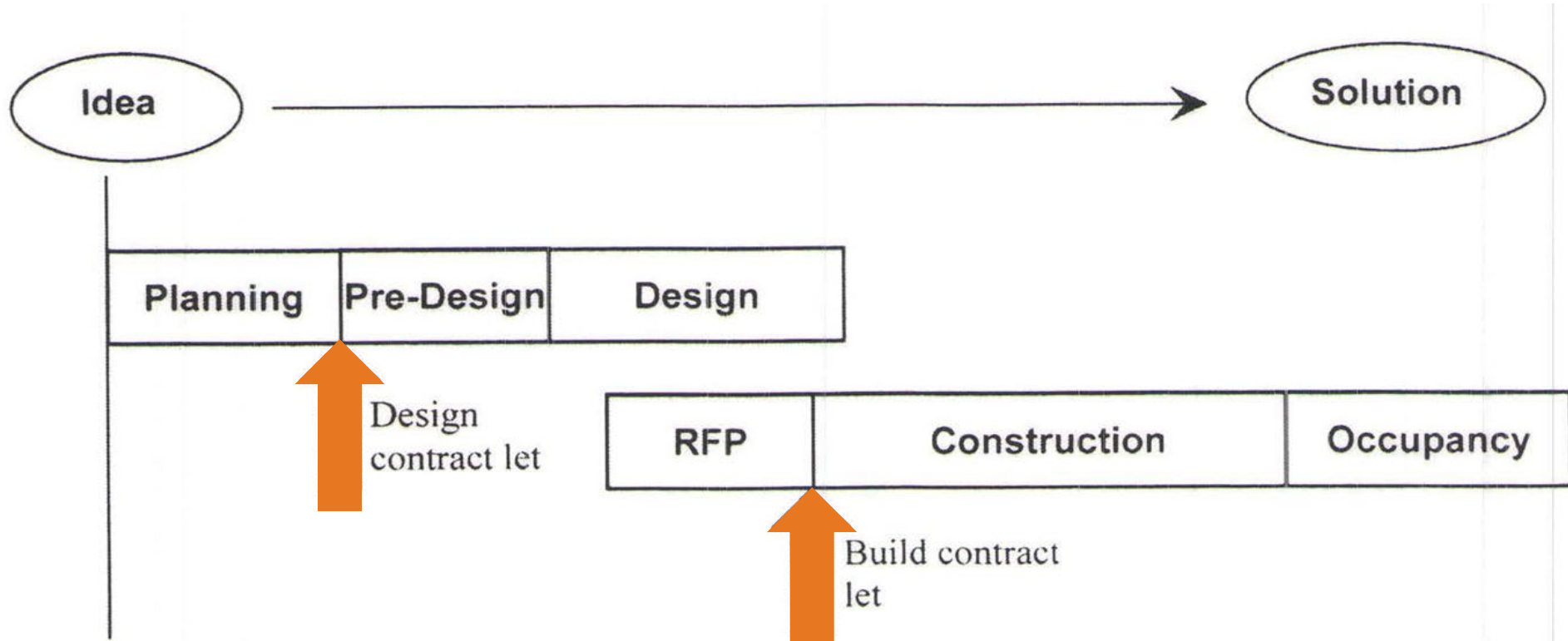


Figure 1.4: CM/GC Process

RFP – Request for Proposals

Contract Structure



Architectural and Engineering - Construction

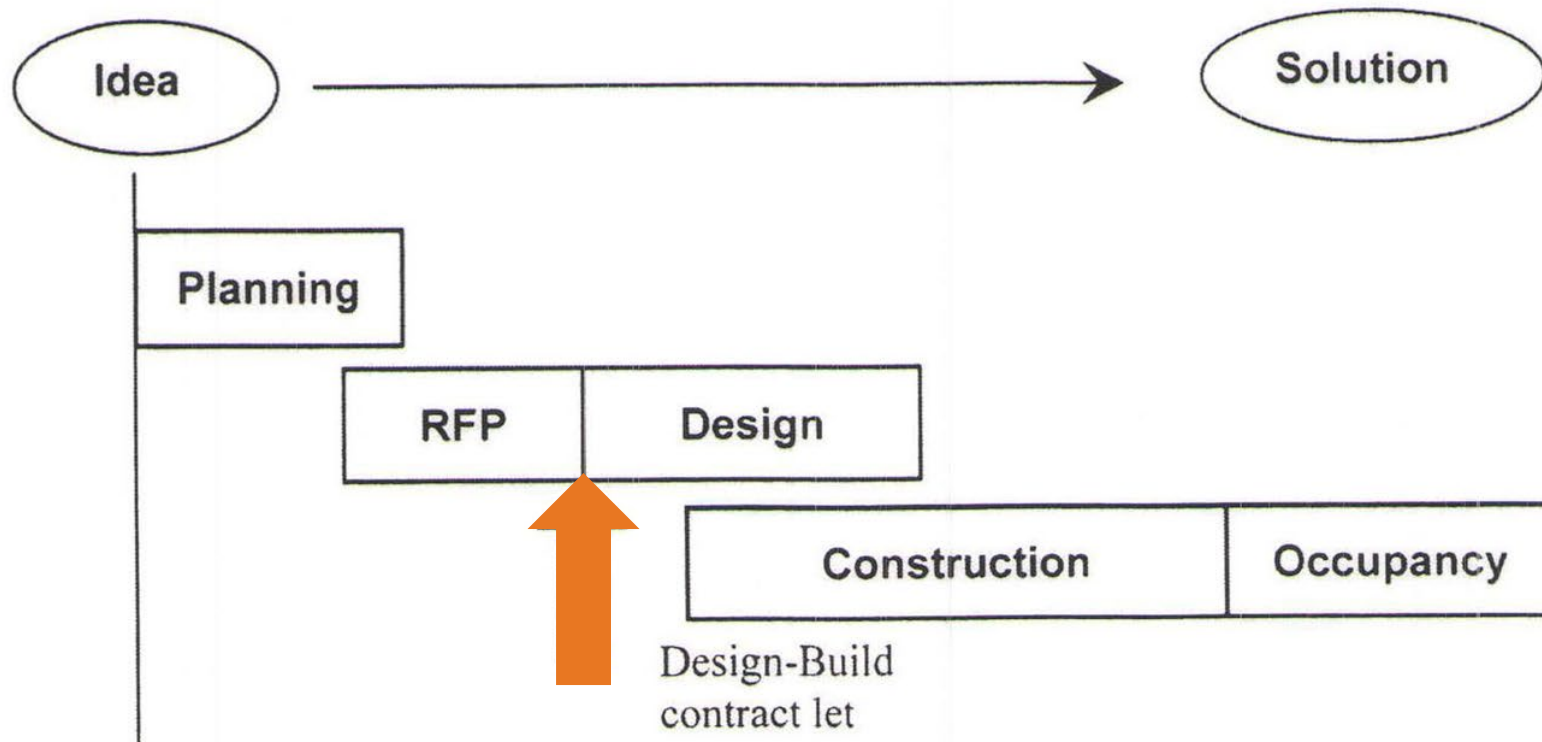


Figure 1.5: Design-Build Process / Progressive Design Build

➤ **Design-bid-build (DBB) vs Design-build (DB)**

• **Owner/Agency Benefits**

- Faster Delivery?
- Cost Savings?
- Better Quality?
- Singular Responsibility?
- Decreased Administrative Burden?
- Reduced Risk?
- Reduced Litigation Claims?

• **Practitioner Benefits**

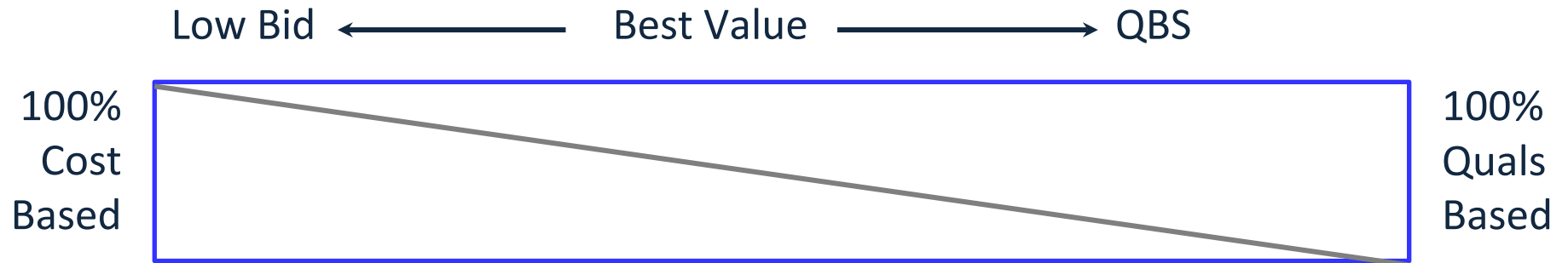
- Higher Profit Margins?
- Decreased Administrative Burden?
- Reduced Litigation?
- Increase Market Share?
- Do you want to work for a contractor?
- Can you be unbiased?

Contract Structure



SELECTION PROCESS

- **Low bid: cost only**
- **Best Value: Cost and qualifications**
- **QBS: qualification only**



SELECTION PROCESS

➤ **Low bid: cost only**

- Complete set of construction documents ready
- Advertise (for Bid)
- Bids
- Low Bid
- Execute contract

- **Best value: combination of quals and cost**
 - Define scope
 - RFP – Request for Proposal
 - Project description
 - Selection criteria
 - Submit Proposals
 - Evaluation
 - Qualifications (subjective)
 - Cost (objective)

➤ **QBS – Qualifications based selection**

- Define scope
- RFQ – Request for qualifications
- Submit qualifications
- Submittal ranking by owner
- Negotiate
- If agreement with highest ranked firm can't be made, move to 2nd and so on



Q&A



THANK YOU!!!