

# Life Cycle of a Public Works Engineering Project

## *How Each Project Begins:*



### **Needs identified**

City needs are identified, including studies, high level scope of work, and budget required.



### **Project presented to City Manager**

Proposed projects are presented to the City Manager, where needs and priorities are evaluated.



### **City Council approves Capital Improvement Plan (CIP) budget**

The City Manager's Proposed Budget is presented to Mayor and Council for approval, which includes CIP's.



### **Procurement type identified**

Engineering team will decide if services will be procured via CMAR, JOC, Bid, or Design Build. Projects are further carried out differently depending on the procurement type (delivery method) chosen.

***Projects are then carried out in one of following ways:***

# Construction Manager at Risk (CMAR)

Most common delivery method utilized by the city

## Design services Request for Qualifications (RFQ) written and published

RFQ to be published for solicitation is written. This includes scope of work (design services, in this case) and submittal requirements for firms/Contractors

## Request for Council Action (RCA) submitted for approval

Approval package that includes funding source, selected firm/contractor information, and justification is sent through AgendaQuick for inter-departmental review and approval for a City Council Meeting

## At approximately 30% design completion, CMAR is chosen through RFQ

At 30% completion of project design services, the RFQ process (last 4 steps) is repeated to select a contractor to serve as a CMAR. This contractor is selected based on qualifications, not price.

## Pre-construction phase

Meet with stakeholders & city public works team to define priority tasks, schedules, and permits/inspections needed.

## Post-construction and closeout

As-builts, final reports, inspection walk-throughs, etc.



## Submittals received, reviewed, & firm selected

Panel is selected to review submittals from firms/contractors that are received. Once firm has been selected, all firms are notified and a proposal is requested.

## Ordinance or resolution approved & design begins

Request for approval is presented to Mayor and City Council. If approved, Contract documents sent to firm/contractor to be signed, PO is generated, and firm begins design process

## CMAR develops first GMP

The CMAR will work closely with the design team and produce a GMP (guaranteed maximum price) for pre-construction services (potholing, surveying, long lead items).

## GMP #2 developed & Construction phase

GMP for construction services is developed and construction on project commences. Weekly meetings & inspections with the city.

# Design-Bid-Build (Hard Bid)

## Design services Request for Qualifications (RFQ) written and published

RFQ to be published for solicitation is written. This includes scope of work (design services, in this case) and submittal requirements for firms/Contractors

## Request for Council Action (RCA) submitted for approval

Approval package that includes funding source, selected firm/contractor information, and justification is sent through AgendaQuick for inter-departmental review and approval for a City Council Meeting

## Design developed and completed

firm works with internal design team until 100% design plans reviewed by city and approved.

## Pre-construction phase

Contractor meets with stakeholders & city public works team to define priority tasks, schedules, and permits/inspections needed.

## Post-construction and closeout

As-builts, final reports, inspection walk-throughs, etc.



## Submittals received, reviewed, & firm selected

Panel is selected to review submittals from firms/contractors that are received. Once firm has been selected, all firms are notified and a proposal is requested.

## Ordinance or resolution approved & design begins

Request for approval is presented to Mayor and City Council. If approved, Contract documents sent to firm/contractor to be signed, PO is generated, and firm begins design process

## Project bidding

City releases bid notice with final design plans, construction contractors submit bid packages, and a contractor is selected based on lowest price

## Construction phase

Construction on the project commences and meetings are held regularly until completion.

# Design-Build/Progressive Design-Build

The main difference between the two is that in DB, contractors are selected based on price, while in PDB, contractors are selected based on qualifications.



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## Project Request for Qualifications (RFQ) written and published

RFQ containing a full description of the scope and goals of the project, along with any concept reports. In design build, it contains a detailed enough description or a budget for contractors to come up with a price

## Request for Council Action (RCA) submitted for approval

Approval package that includes funding source, selected firm/contractor information, and justification is sent through AgendaQuick for inter-departmental review and approval for a City Council Meeting

## Contractor selects firm/team for engineering & design services

Contractor will internally select a team for engineering/design services either through a subcontractor or using in-house engineers.

## Construction phase

Construction on the project commences and meetings are held regularly until completion.

## Post-construction and closeout

As-builts, final reports, inspection walk-throughs, etc.

## Submittals received, reviewed, & contractor selected

In design-build, a contractor is selected based on price. In a progressive design-build, a contractor is selected based on qualifications

## Ordinance or resolution approved & project begins

Request for approval is presented to Mayor and City Council. If approved, Contract documents sent to firm/contractor to be signed, PO is generated, and contractor begins the project

## Design & pre-construction phase

30%, 60%, 90% design deliverables, risk management, meeting with stakeholders, close collaboration with city, permits/inspections/surveying. In PDB, GMP is negotiated in this phase.



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# Glossary

**CIP:** Capital Improvement Project

**CMAR:** Construction Manager at Risk

**JOC:** Job Order Contract

**RFQ:** Request for Qualifications

**SOQ:** Statement of Qualifications

**RCA:** Request for Council Action

**NTP:** Notice to Proceed

**Stakeholders:** Individuals/groups/businesses/etc. affected by or involved with a project (e.g. nearby businesses, farm owners, utility companies)

**AgendaQuick:** Portal used to submit contracts for inter-departmental review

**GMP:** Guaranteed Maximum Price

**Scope & Fee:** Services and charges that will be done or needed for project completion

**PO:** Purchase Order

**Procurement:** How services are secured

**As-Built:** Drawings/outlines of the final buildout of a project.

## Any Questions?



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