ARIZONA DEPARTMENT OF TRANSPORTATION

PROJECT DELIVERY ACADEMY

Project Advertising and Construction: Module-5

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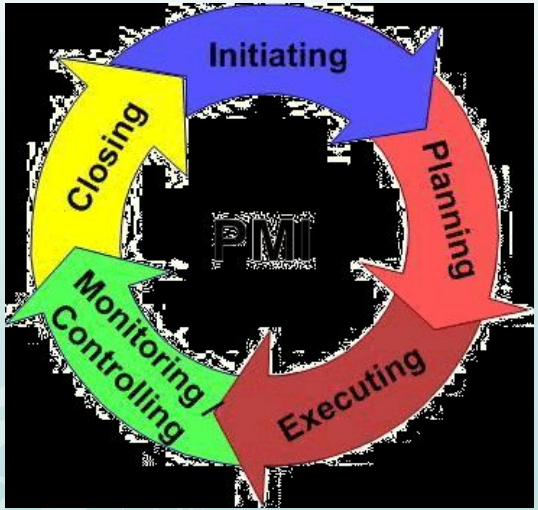
Contracts and Specifications

November 04, 2026

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Project Life Cycle:

- Initiation
- Planning
- Design
- Construction
- Operations & Maintenance



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C&S Responsibility & Project Development:

- Review Design Submittals (PS&E) :Biddable, Awardable, Constructible
  - FHWA guidance states that plans and specifications must describe the location and design features and the construction requirements in sufficient detail to allow accurate bids, to facilitate construction and enable the State to control the contract.
- Cost estimating/ Build engineer's estimate
- Initiate FHWA authorization package for the project
- Submit - DBE Goal Request for FHWA funded projects
- Advertise project

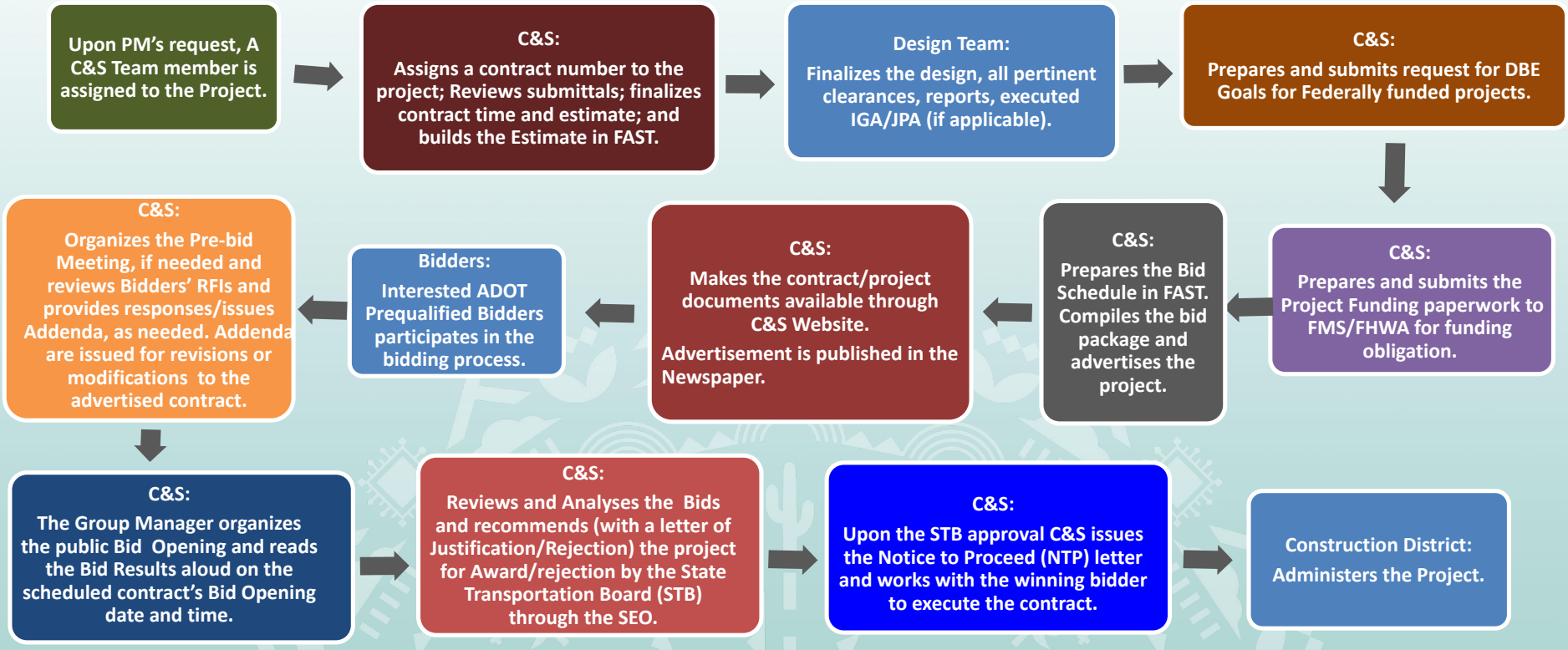
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C&S Responsibility & Project Development:

- Address/answer contractors questions/RFIs and concerns during bidding period
- Issue addendums if needed
- Open Bids
- Review Bid Tabulations
- Write justifications, if needed
- Make award/rejection recommendation to STB
- Work on bid protests with SEO

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Typical C&S Workflow:



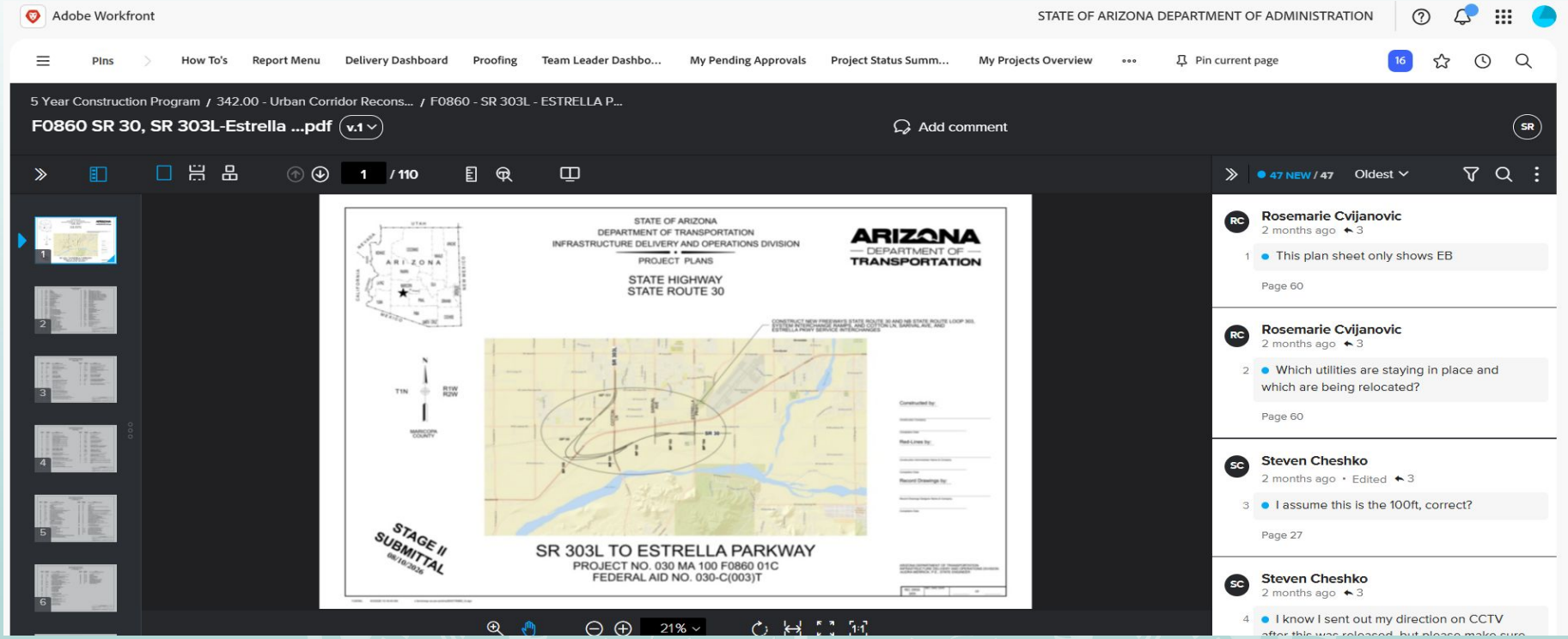
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Ensure a Quality Bid Package:

- **Biddable:**
  - Errors, omissions, conflicts
  - Uncertainty, quantified
- **Awardable:**
  - Responsible bidder must submit a responsive bid, there should not be any technical, legal or financial constraints that may hinder the award process
- **Constructible:**
  - Clear and feasible construction techniques

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Workfront Is Used to Review Project Documents:



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Importance of QC/QA During Design and Construction:



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Effective Internal QC:

- It is a prerequisite for a quality submittal
- Will reduce missing items from bid Documents
- Improve the Company reputation
- Reduce owner review time & unnecessary back & forth
- Avoid risk of rejection
- Create win-win situation for all parties involved

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Common C&S Challenges:

- Before a project can be authorized and advertised, it must be cleared by Utility & Railroads Group, the Right of Way Group, and the Environmental Planning Group.
- Requirements from these clearances are incorporated into the project Special Provisions.
- Use of Conditional Clearances

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Common C&S Challenges:

- Post advertisement activities are ignored
- Addendum
  - Look towards District/Designer/PM
  - Postpone the project
  - Schedule messed up
- Late Changes at Stage IV or later
- Communication gap between C&S and others
- Comments are not addressed
- MDR not available at Stage III
- Conditional Clearances

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Importance & Challenges of Alternative Delivery Projects:

- Urgent or Emergency Projects
- Uniqueness of Each Project
- Time Constraint
- Need More Collaboration, expertise & Resources
- Complex and Unconventional
- Commitment Vs the Reality

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Constraints:

- Fast track projects with very tight deadlines
- Inadequate Design Budget/LPA Projects
- Unexpected/late scope changes
- Implementation of new regulations/requirements
- Changes of key individuals
- Inadequate feedback or late comments
- LPA administered Design Projects

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Specifications:

- Provide written direction to contractors
  - (Constitute most important documents to inform the contractor of the work to be performed)
- Agency established conditions and restrictions concerning work performance
- Quality and quantity measurement for the work to be performed
- Compensation for the work
- Standard, stored, and item specifications

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Specifications:

- Project Specific General Requirements
- Start of Construction (Fixed/ Quick Start/Typical)
- Contract Time (WDs /CDs)/End of Construction (Fixed)
- Applicable Liquidated Damages
- Hours of Operation (typical shifts, day or night)
- Holidays and Special Events
- Full Closure, Lane Closures, Detour
- Coordination with other ongoing projects in the Area
- Designated Staging Area/ Material Source Restrictions
- Access Road

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Contractor Prequalification:

- ADOT prequalifies contractors for a maximum programmed amount and for the type of work.

- See the link below for ADOT's Prequalification Contractors:
- https://azdot.gov/business/contracts-and-specifications/prequalified-contractors

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Project Advertisement:

- Advertises construction projects
  - State funded
  - Federally funded (100% or with matching)
  - Local Public Agency projects (Non-CA)
  - Mixed Funds (Eligibility)
- Does not Advertise
  - Procurement Projects
  - Certification Acceptance Agency projects

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Estimate for Construction Costs:

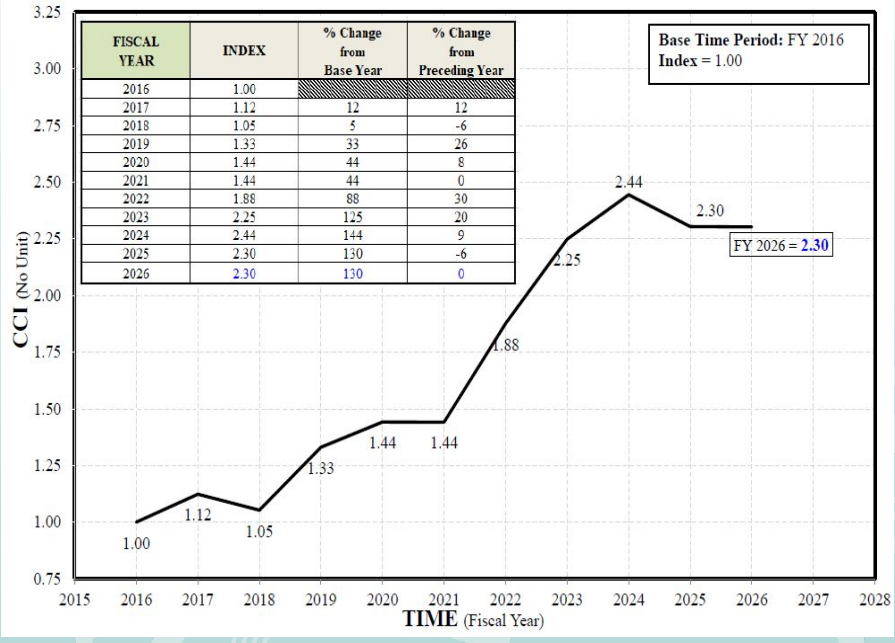
- Cost-based estimating & Bid Based Estimating
- Contacting materials sources/suppliers
- Estimate for Budget/Program and Fund Obligation



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Cost Index: August 2026

FISCAL YEAR	INDEX	% Change from Base Year	% Change from Preceding Year
2016	1.00		
2017	1.12	12	12
2018	1.05	5	-6
2019	1.33	33	26
2020	1.44	44	8
2021	1.44	44	0
2022	1.88	88	30
2023	2.25	125	20
2024	2.44	144	9
2025	2.30	130	-6
2026	2.30	130	0



CCI Tracking - Provides guidance to external stakeholders

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Justification of Award of Contract or Rejection of Bids:

If the apparent low bid is more than 10% above or 15% below the Engineer's Estimate, C&S prepares a Justification Memo.

The memo is:

- **Written to the State Engineer**
- **Explains the differences between the low bid and Engineer's Estimate**
- **Recommends:**
  - **Award to the low bidder,**
  - **Rejection of low bid and award to second low bidder, or**
  - **Rejection of all bids**

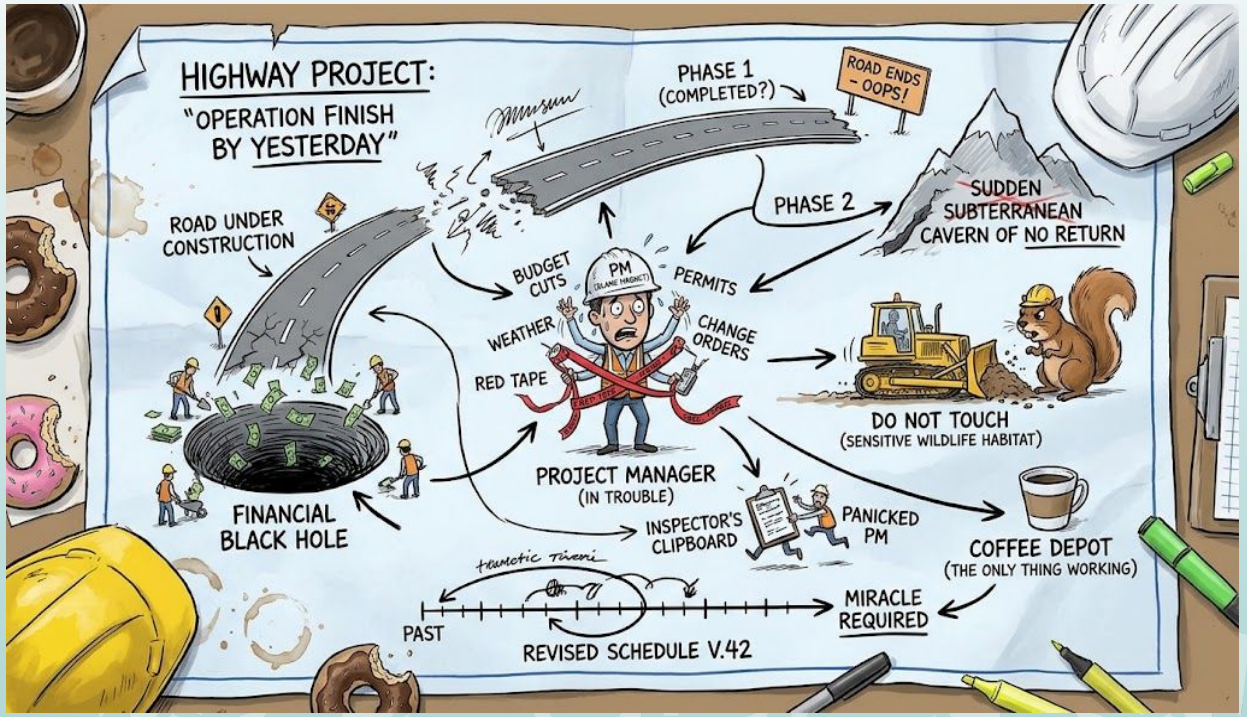
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Execute Construction Contracts:

- Prepare and execute construction contracts in accordance with the Department's requirements, rules, and regulations, and the special provisions for the project
- Ten days for contractor
- Ten days for the Department
- Challenges – inquiries from Stakeholders
- Quick start

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Building A Project:



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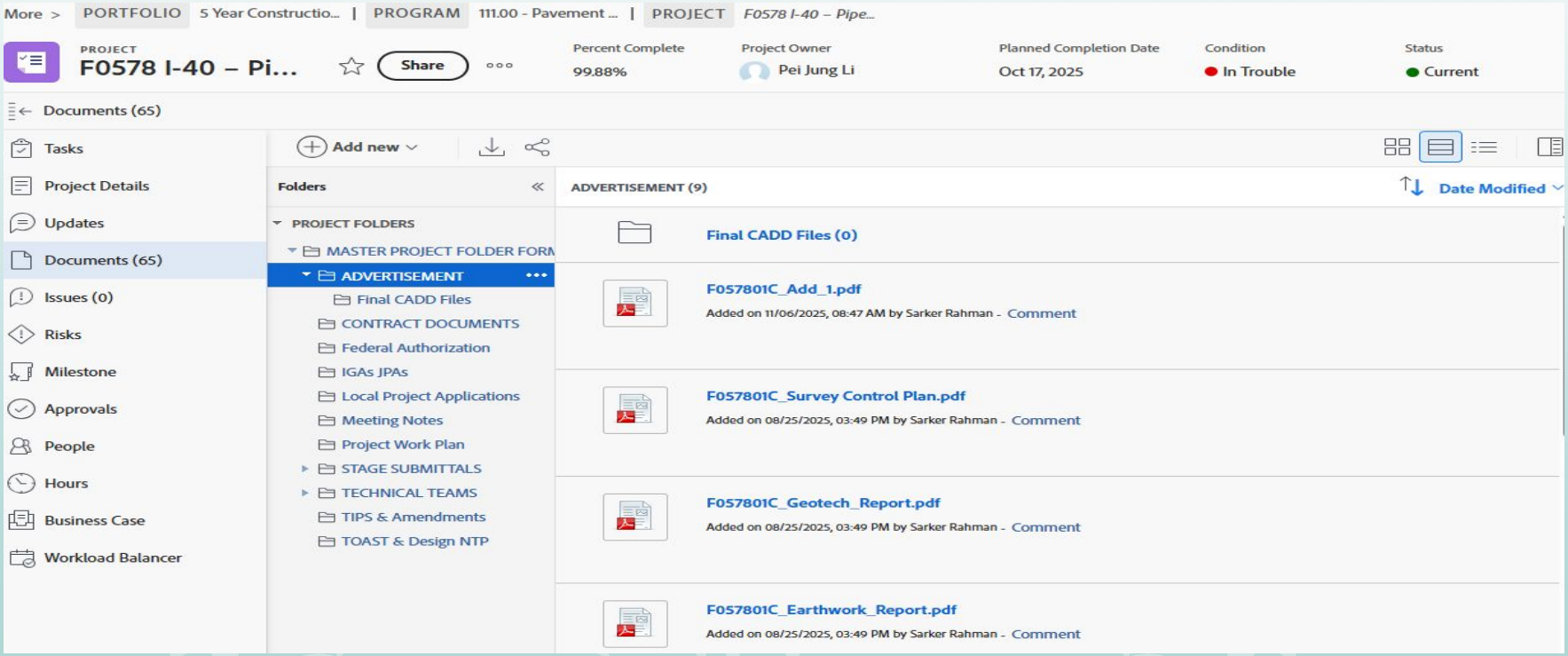
Hierarchy of Project Documents:

Subsection: 105.06

- **Supplemental Agreements**
  - ★ Generated in the field by the Resident Engineer
- **Special Provisions**
- **Project Plans**
- **Standard Drawings**
  - ★ Standard Specifications

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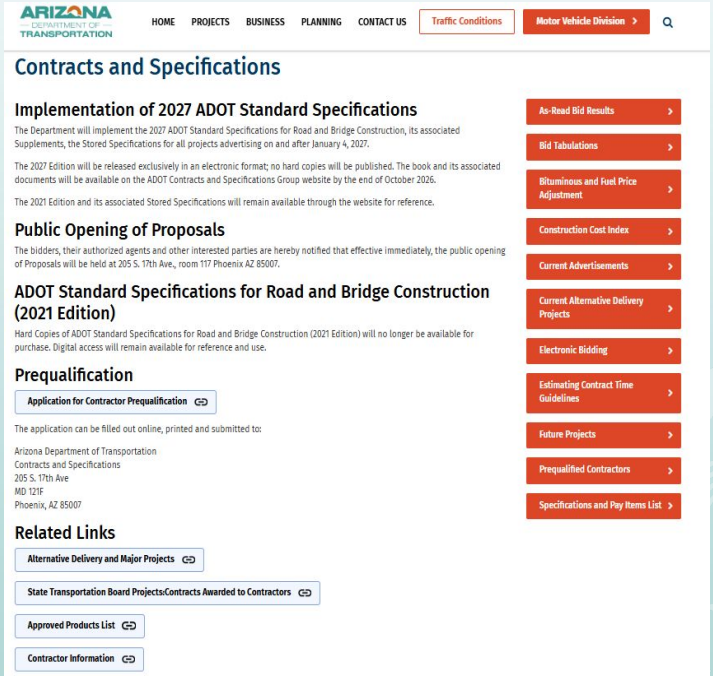
Documents Retention in Workfront:



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Subscribe for updates:

https://azdot.gov/business/contracts-and-specifications



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FY 26 STATS

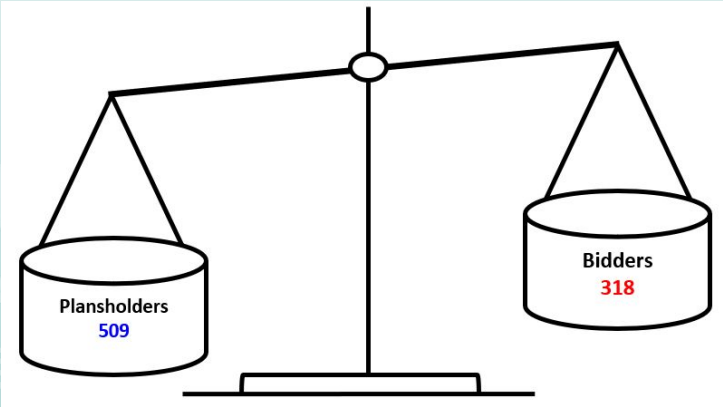
Advertised Contracts	93
Projects Opened	92
Awarded Projects	111
Program Size	$2.5B

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FY 2026 - TAKEAWAYS

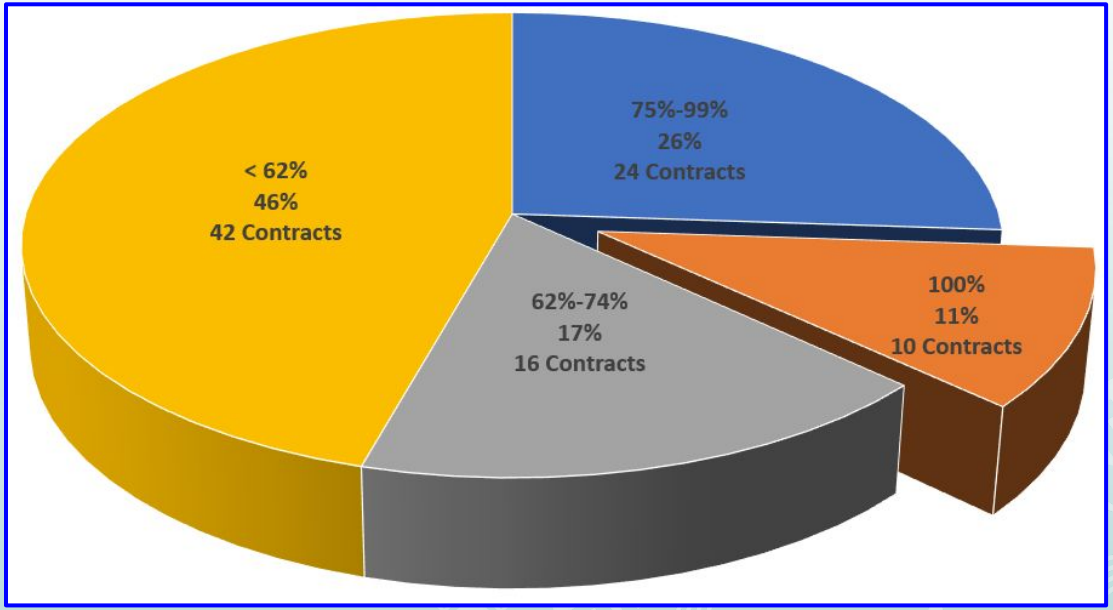
62%

$$Participation\ of\ Plansholders\ (\%) = No.\ of\ \frac{Bidders}{Plansholders}\ x\ 100$$



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FY 2026 - TAKEAWAYS



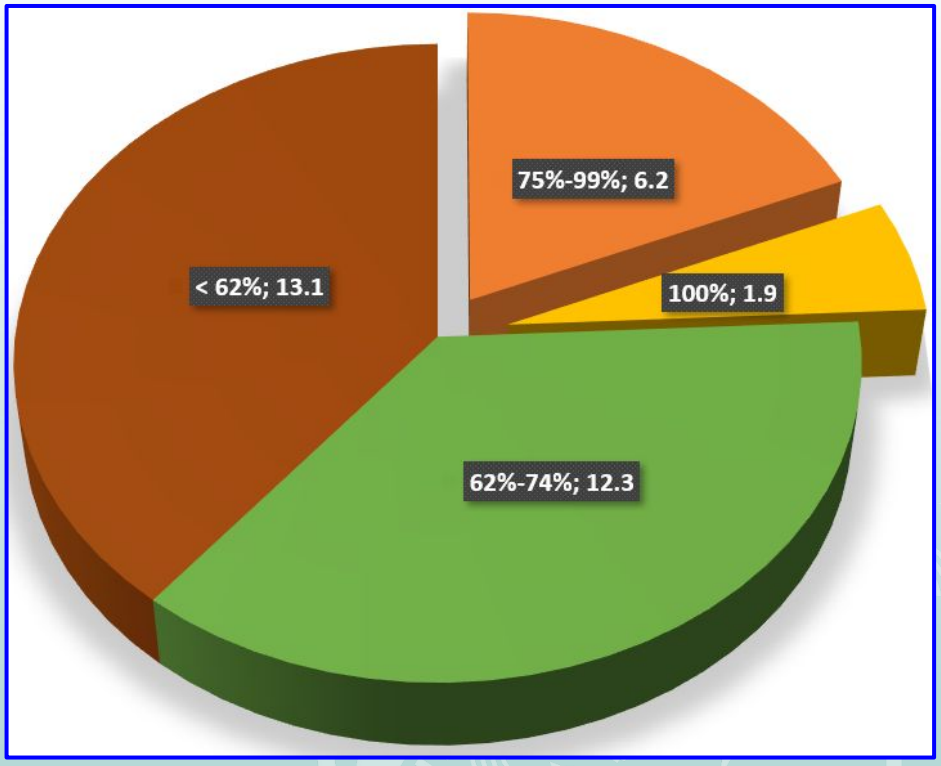
62%

of the 92 contracts that were opened....

$$Participation\ of\ Plansholders\ (\%) = No.\ of\ \frac{Bidders}{Plansholders}\ x\ 100$$

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FY 2026 - TAKEAWAYS



916

Average: 10 Questions/Contract

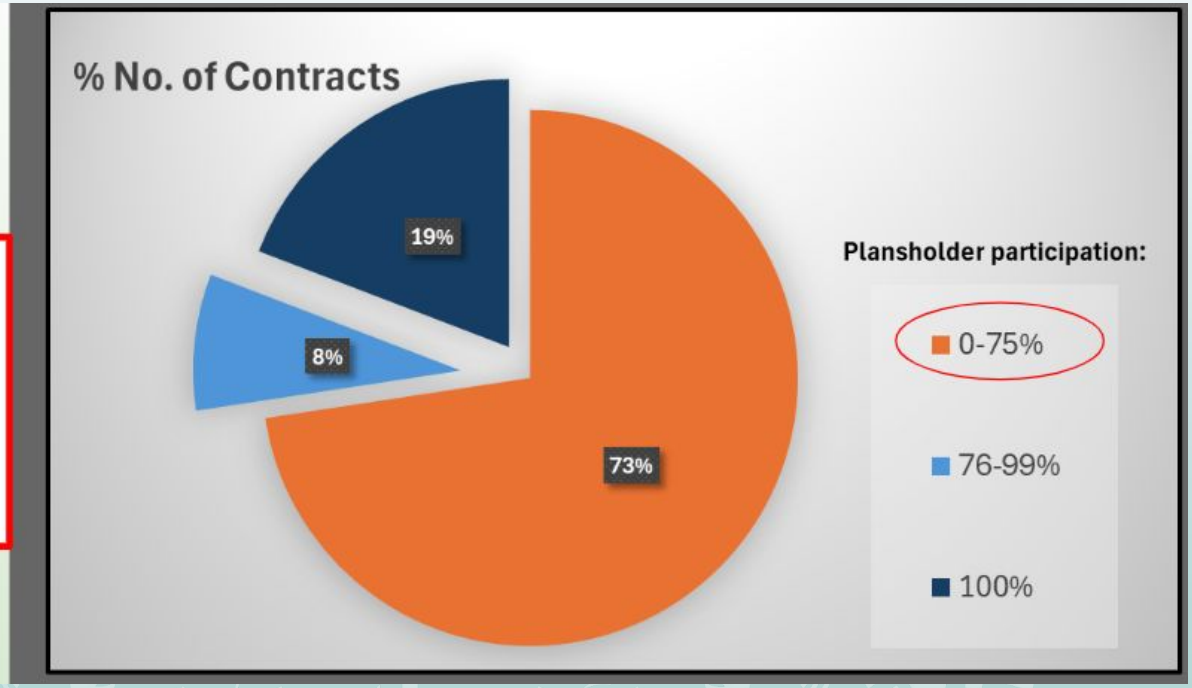
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FY 2026 - TAKEAWAYS

FY 2023 - A similar trend

*Total No. of Projects Awarded = **73***

Majority of projects: ***low plansholder participation***

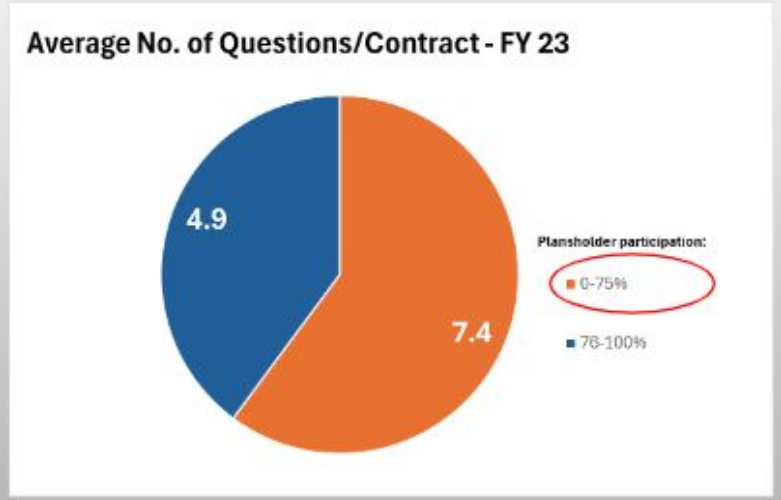


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FY 2026 - TAKEAWAYS

FY 2023 - A similar trend

Contracts with a **low bidder-to-plansholder ratio** tended to have a **higher number of questions on the project.**



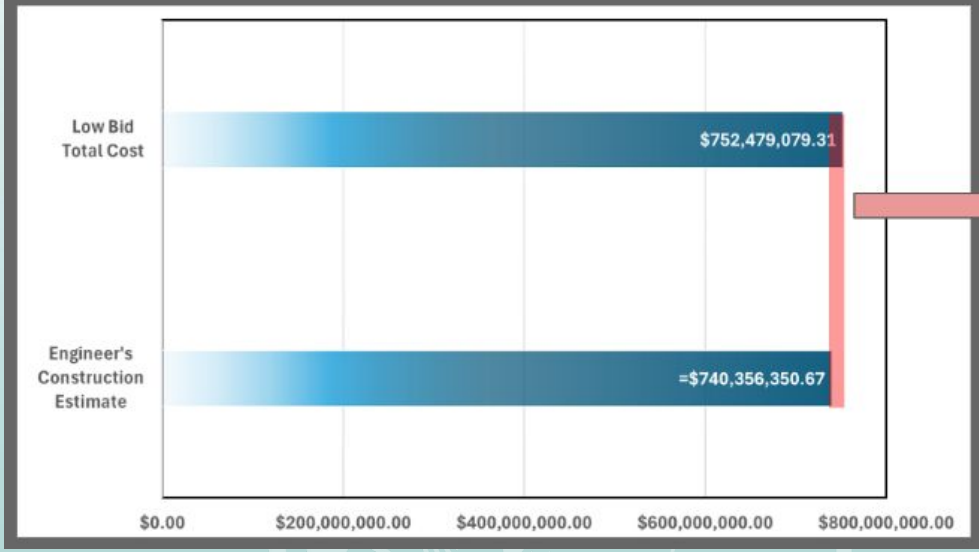


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FY 2026 - TAKEAWAYS

FY 2023 - Based on the observations - Economic Impact

Economic Impact of lack of full participation: Total Bid Cost exceeded anticipated construction cost



ADOT Estimate vs. Low Bid = *-$12.1M difference (1.64%)*

FY 2022 - A similar trend was observed. (exceeded by about 6.49%)

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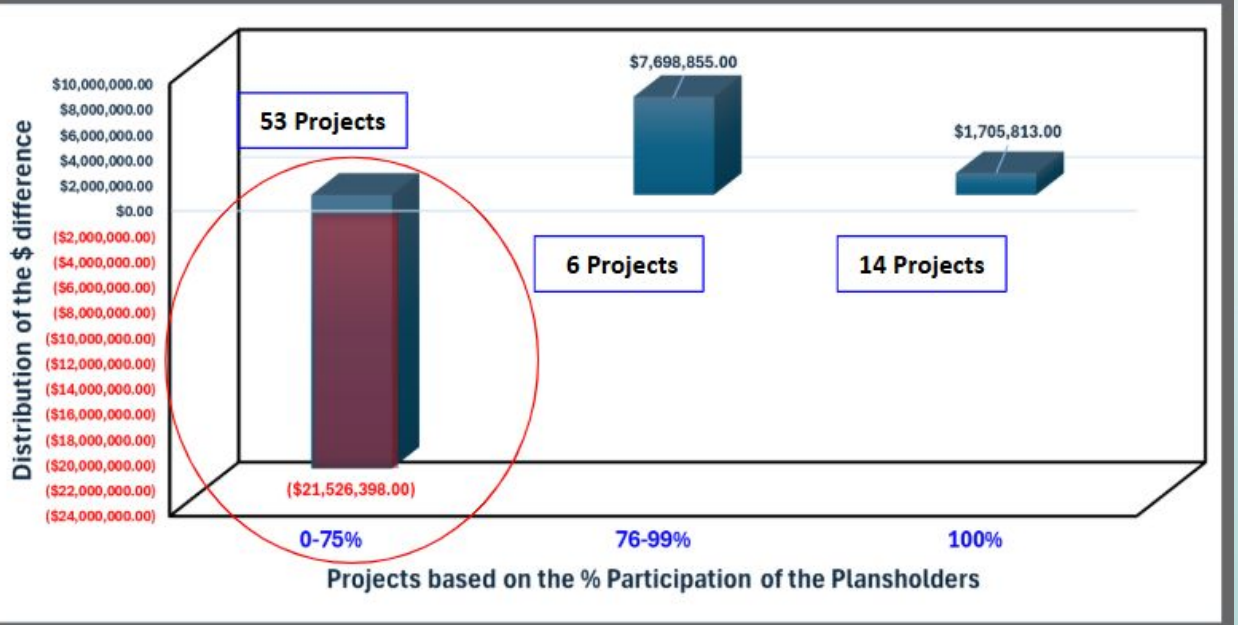
FY 2026 - TAKEAWAYS

FY 2023 - Based on the observations - Economic Impact

Projects with lower plansholder participation:

Higher *difference from ADOT estimate*

-$12.1M =
-$21,526,398
+$7,698,855
+$1,705,813



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FY 27 LOOKAHEAD

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FY 27 LOOK AHEAD

CPDS: Capital Project Delivery System (Phase 1)

A set of consistent processes to support the pre-construction activities

Solution: Implementation of…

aurigo MASTERWORKS CLOUD

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UPDATED STANDARD SPECS

STANDARD SPECIFICATIONS

for

ROAD AND BRIDGE CONSTRUCTION

2021

January 4, 2027
October 2026

STANDARD SPECIFICATIONS

for

ROAD AND BRIDGE CONSTRUCTION

2027

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UPDATED STANDARD SPECS

Two Supplemental Specifications:
Federal
Item Specs



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SUPPLEMENT SPECIFICATIONS

FOR

THE ADOT STANDARD SPECIFICATIONS

FOR

ROAD AND BRIDGE CONSTRUCTION (2027 EDITION)

FEDERAL AID SPECIFICATIONS

SUPPLEMENT SPECIFICATIONS

FOR

THE ADOT STANDARD SPECIFICATIONS

FOR

ROAD AND BRIDGE CONSTRUCTION (2027 EDITION)

ITEMS SPECIFICATIONS

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FY 27 FORECAST



Advertise Contracts	~70
ADMP	~3-4
Program Size	~$2.4B
Major	SR30

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CONSTRUCTION SITE VISIT



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Appreciate ADOT Highway System



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PROJECT DELIVERY ACADEMY

Project Advertising and Construction:

Contracts and Specifications
Phone: 602-712-7221

Questions and Comments:

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