

PROJECT DELIVERY ACADEMY

MODULE 5: PROJECT ADVERTISING AND CONSTRUCTION CONSTRUCTION (District Coordination)

Presented by:

Andrew Roth

Assistant District Engineer
Northwest District



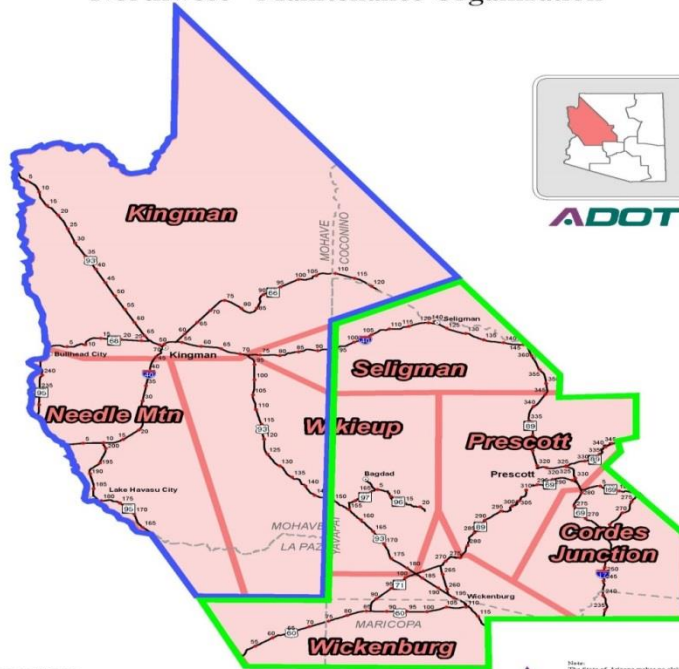
PROJECT DELIVERY ACADEMY

MODULE 5: CONSTRUCTION

ADOT Engineering and Maintenance District Northwest - Maintenance Organization

Mohave Area

Todd Steinberger - Asst. DE - Development
Luke Brazdys - Senior RE
Darin Dryden - RE
John Casey - Senior Trans. Engr.
Nathan Escoffier - Dev. TES
Gabe Alvarado - Maintenance Supt.
Sam Massey - Permits Supvr.
Michele Beggs - Community Relations



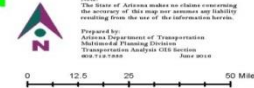
- ⊙ Cities and Towns
- Mileposts
- State Highway System
- County Boundary
- Maintenance Organization



Yavapai Area

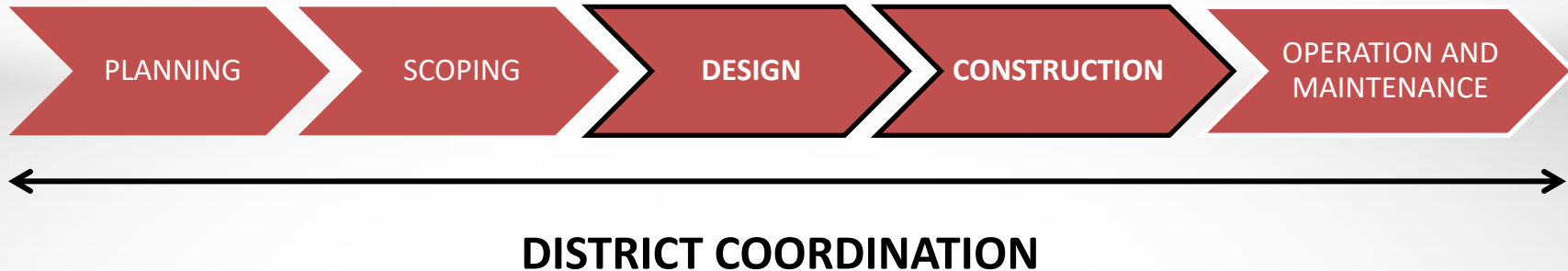
Alvin Stump - District Engineer

Andrew Roth - Asst. DE - Construction
Joshua Wentzlof - Senior RE
Kara Lavertue - RE
John Litteer - Senior Trans. Engr.
Toni Middleton - Dev. TES
Bruce Cooper - Maintenance Supt.
Richard Perez - Permits Supvr.
Deborah Miller - Community Relations
Chuck Budinger - Environ. Coordinator
Robert LaJeunesse - Northern Region
Traffic Engineer



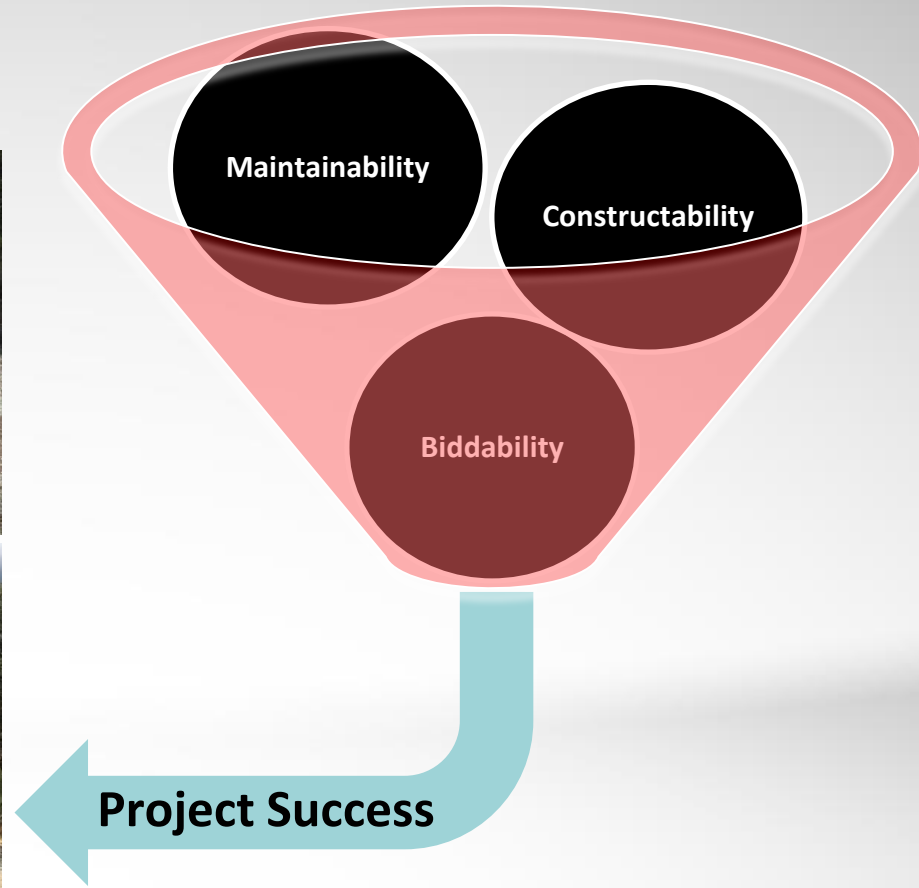
INTRODUCTION

The goal of this session is to cover construction district coordination during project development and during construction.



PROJECT DELIVERY ACADEMY

MODULE 5: CONSTRUCTION



PRESENTATION CONTENT

District Coordination During Project Development

Clearances and Agreements

Project Advertisement and Post-Award

Construction Administration and Post Design

Supplemental Agreements

Project Manager Roles and Responsibilities

District Coordination During Project Development

- Input on Design Alternatives and Project Delivery Method
- Constructability Reviews and Maintenance Concerns
- Specifications and Contract Requirements
- Traffic Control - Closures, Restrictions
- Schedule / Contract Time / Seasonal Shutdowns
- Phasing and Sequencing
- Liquidated Damages / Intermediate Milestones
- Earthwork Coordination / Material Sources / Suppliers
- ADA Issues / ADA Transition Plan

PROJECT DELIVERY ACADEMY

MODULE 5: CONSTRUCTION



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MODULE 5: CONSTRUCTION



District Coordination During Project Development

- Field Reviews
- Value Engineering
- Permits
- Environmental Mitigation Measures
- Agreements – Utility, ROW, Environmental, JPA's / IGA's, etc.
- Other: Sole Source Products, Warranty Requirements, etc.

Clearances and Agreements

- Utility Clearance and Utility Agreements
- Railroad Agreements and Permits
- Environmental Clearance
- Right-of-Way Clearance
- Joint Project Agreements / Intergovernmental Agreements
- Tribal Agreements

Project Advertisement and Post Award

Plans, Specifications and Estimate (PS&E)

- Advertisement Coordination
- Quantity Breakdown / Calculations
- Reports (Geotechnical, Drainage, Noise, Asbestos Containing Material and Lead-based Paint), Cross Sections, etc.
- Cost Risk Assessment – Risk Register
- Addendums and attachments to the Special Provisions
- Post Design Contract
- CE Costs / Below the Line Costs

PROJECT DELIVERY ACADEMY

MODULE 5: CONSTRUCTION

AGREEMENT ESTIMATE RECAPITULATION

CREATED:

REVISED:

ENGINEER:

DESCRIPTION	FHWA CODE	CONTRACTOR'S BID	FEDERAL PARTICIPATION	FEDERAL FUNDS 94.30%	STATE FUNDS 5.70%	LENGTH IN MI
ROADWAY	4	1,467,525.58	1,467,525.58	1,383,876.62	83,648.96	1.260
PATH	28	734,006.12	734,006.12	692,167.77	41,838.35	
TRAINEES	42					
SUBTOTAL		2,201,531.70	2,201,531.70	2,076,044.39	125,487.31	1.260
CONSTRUCTION ENGINEERING 14%	17	308,214.43	308,214.43	290,646.20	17,568.23	
CONSULTANT SERVICES 1%	17	22,015.32	22,015.32	20,760.45	1,254.87	
CONSTRUCTION CONTINGENCY 5%		110,076.59	110,076.59	103,802.22	6,274.37	
PAVEMENT INCENTIVES						
AC SMOOTHNESS \$9,000.00 per Lane-Mile						
AC QUALITY LOT \$1.50 per Ton						
PCCP SMOOTHNESS \$7,000.00 per Lane-Mile						
PCC QUALITY LOT \$1.50 per Sq. Yd.						
OTHER INCENTIVES						
FLAGGING SERVICES						
DPS OFFICERS	21					
RAILROAD/OTHER	21					
OTHER						
PROJECT TOTAL:		2,641,838.04	2,641,838.04	2,491,253.26	150,584.78	1.260

Project Advertisement and Post Award

Post Award – Construction Office Needs

- Approved Post Design Contract
- Quantity Breakdown / Calculations
- Reports (Geotechnical, Drainage, Noise, Asbestos Containing Material and Lead-based Paint), Cross Sections, etc.
- Agreement Estimate (Recalculate / Verify all line item costs)

PROJECT DELIVERY ACADEMY

MODULE 5: CONSTRUCTION

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AGREEMENT ESTIMATE

Page 3 of 3

PROJECT : XXXXXXXXXX
SECTION : **1 (21)** CHIP SEAL COAT

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Amount
7040077	PAVEMENT SYMBOL (EXTRUDED THERMOPLASTIC)(ALKYD)(0.120")	EACH	1	\$135.00	\$135.00
7060015	PAVEMENT MARKER, RAISED, TYPE D	EACH	15	\$25.00	\$375.00
7080001	PERMANENT PAVEMENT MARKING (PAINTED) (WHITE)	L.F.T.	360,000	\$.08	\$28,800.00
7080011	PERMANENT PAVEMENT MARKING (PAINTED) (YELLOW)	L.F.T.	360,000	\$.08	\$28,800.00
7080101	PERMANENT PAVEMENT MARKING (PAINTED SYMBOL)	EACH	1	\$280.00	\$280.00
9010001	MOBILIZATION	L.SUM	1	\$46,630.00	\$46,630.00
9250001	CONSTRUCTION SURVEYING AND LAYOUT	L.SUM	1	\$26,060.00	\$26,060.00
9280036	GROUND-IN RUMBLE STRIP (8 INCH)	L.F.T.	29,000	\$.33	\$9,570.00

Part Subtotal :

Section Subtotal CHIP SEAL COAT:

PROJECT TOTAL:

Construction Administration

- Construction Kickoff - Partnering and Preconstruction Meetings
- Construction Progress Meetings
- Coordination with RE's, adjacent projects, and others
- Post Design Process
- Supplemental Agreements

Post Design Services

Post Design Services are the services provided by the designer of record after Board award of the project to the Contractor until project closeout.

Past Process:

PDS Budget is established at :

- 1% for Projects < \$ 20M
- 0.5% for Projects > \$20M
- Other - Special Circumstances

Post Design Services

Current Process:

PDS Budget needs to be developed and requested

- No longer automatic percentage of contract
- Can request budget for fixed amount
 - ❖ e.g. contracts with specialty inspections (Structural Steel)
- Approval of Contract Mods
 - ❖ Within budget – generally no issues
 - ❖ Over budget – need to discuss with State Construction Engineer prior to submitting

Post Design Services

Post Design Scope of Work

- Meetings and Site Visits
- Review and Approve
 - ❖ RFI's
 - ❖ Shop Drawings and Submittals
- Design Revisions and Modifications
- Coordination with Stakeholders, Utility Companies, Technical Groups, and Other Designers
- Record Drawings (As-Builts)

Supplemental Agreements

A written agreement between the Department and the Contractor covering work not otherwise provided for in the contract, for extensions or reductions of contract time or revisions in or amendments to the terms of the contract. A Supplemental Agreement becomes a part of the contract when signed by the Contractor and the Department.

Supplemental Agreements

Types of Supplemental Agreements

- Letter of Agreements
- Change Orders (including Procedural Change Orders)
- Force Accounts
- Time Extensions

Supplemental Agreements

Supplemental Agreement Reason Codes

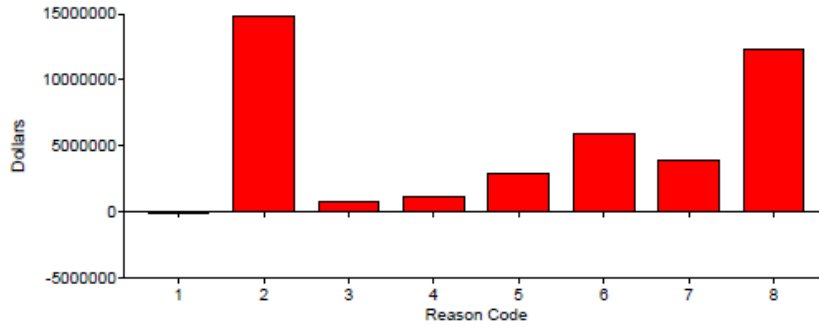
1. Value Engineering
2. Work Out of Scope (ADOT)
3. Work Out of Scope (Other Jurisdiction)
4. Quantity Omissions
5. Plans Revisions / Oversights
6. Changed Condition
7. Penalties or Bonuses
8. Other

PROJECT DELIVERY ACADEMY

MODULE 5: CONSTRUCTION

Cost by Supplemental Agreement Reason Code

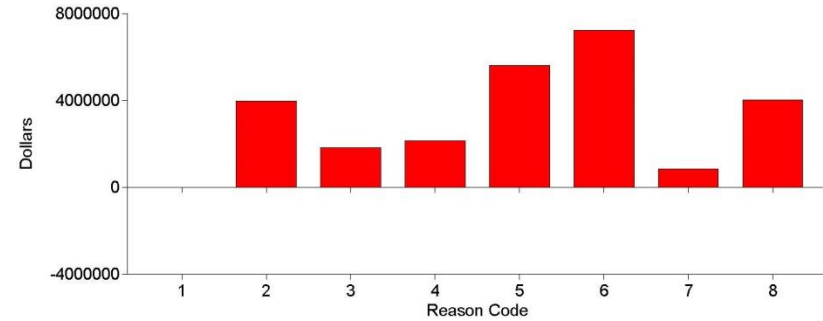
From: 07/01/2019 Thru 06/30/2020 with 757 supplemental agreements
Supplemental agreements include change orders, force accounts, and letters of agreement



SA Reason	Total	Total Number
1 Value Engineering	-110,822.95	5
2 Work Out of Scope (ADOT)	14,872,807.93	42
3 Work Out of Scope (Other Jurisdiction)	723,862.70	10
4 Quantity Omissions	1,170,008.01	37
5 Plans, Revisions, and Oversights	2,827,181.66	336
6 Changed Condition	5,878,830.17	161
7 Penalties or Bonuses	3,949,400.88	5
8 Other	12,256,133.12	161
Grand Total	41,567,401.52	757

Cost by Supplemental Agreement Reason Code

From: 07/01/2020 Thru 05/11/2021 with 512 supplemental agreements
Supplemental agreements include change orders, force accounts, and letters of agreement



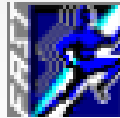
SA Reason	Total	Total Number
1 Value Engineering	-11,757.12	1
2 Work Out of Scope (ADOT)	3,958,338.82	34
3 Work Out of Scope (Other Jurisdiction)	1,826,624.72	6
4 Quantity Omissions	2,148,891.82	18
5 Plans, Revisions, and Oversights	5,612,091.13	188
6 Changed Condition	7,216,407.74	112
7 Penalties or Bonuses	844,957.58	6
8 Other	4,023,164.84	147
Grand Total	25,618,719.53	512

Project Manager Roles and Responsibilities

- Review SA's and provide input / approval
- Assist RE's during post design process with design changes and specification changes
- Technical group's coordination
- Construction Bulletin 04-01 – Consultation with Technical Managers on Proposed Supplemental Agreements
- Acceptance and Maintenance Handoff

Supplemental Agreement Tracking System (SATS)

FAST – Supplemental Agreement Tracking System (SATS)



Desktop.exe



Sats.exe

Reports

- SA Tracking by Project
- Detailed CO / LOA / FA Project Report
- SA Reports and Graphs by Reason Code
- Error and Omission Report

CONSTRUCTION (District Coordination)

QUESTIONS



PROJECT DELIVERY ACADEMY

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CONSTRUCTION (District Coordination)

THANK YOU