AECOM Delivering a better world

US 93, BIG JIM WASH and US 93, VISTA ROYALE

Design and Construct Four-Lane Divided Highways

June 25, 2024

Dear Selection Panel Members:

AECOM has extensive history in the US 93 corridor, having designed eight segments totaling 39.8 miles. **We are familiar with the Big Jim Wash segment and the challenges that will be encountered during final design. Our project approach addresses these challenges and results in significant cost and schedule savings to efficiently deliver this project on time and on budget.**

Our project manager, Dale Wiggins, PE, has led the design of five segments of US 93; all of these projects were delivered on time and on budget. Our key team members bring relevant knowledge from the recently delivered US 93 Cane Springs project. We understand the technical elements within this corridor, including the importance of effective construction sequencing and maintenance of traffic given the heavy traffic volumes and high speeds. Our team includes subconsultants we have partnered with on past US 93 projects and bring a strong understanding of the project's existing conditions and design requirements.

AECOM commits the key personnel identified herein to the extent necessary to meet ADOT's quality and schedule expectations. AECOM is not a certified Disadvantaged Business Enterprise (DBE); our team includes one DBE subconsultant.

AECOM prefers the following rank order for the two contracts/projects:

1. 2024-019.01 • US 93, Big Jim Wash
2. 2024-019.02 • US 93, Vista Royale

AECOM is interested in being selected for this project, and we look forward to continuing our work with ADOT to achieve the ultimate goal of improving the full US 93 corridor to a four-lane facility.

Sincerely,

AECOM Technical Services, Inc.

Jennifer Bixby, PE (AZ #33782), PTOE
Vice President, Principal-in-Charge
480.363.0447
jennifer.bixby@aecom.com
Authorized SOQ Signer

Dale Wiggins, PE (AZ #26609)
Project (Contract) Manager
602.648.2458
dale.wiggins@aecom.com

AECOM provides the following benefits to ADOT to successfully deliver this project:

THE RIGHT TEAM

Our extensive corridor experience and existing subconsultant relationships results in design efficiencies and innovative solutions. Our PM, Dale, has designed 22.9 miles of US 93 and more than 450 miles of rural and urban roadways in Arizona, including the recently completed US 93 Cane Springs project. ☑ **We propose to use the same team that just delivered the US 93 Cane Springs project in less than 9 months and under the programmed amount.** This experience translates into cost and schedule savings to ADOT and a thorough understanding of stakeholder requirements, including the U.S. Bureau of Land Management, the Arizona State Land Department (ASLD), U.S. Army Corps of Engineers, Western Area Power Association, and others.

COST EFFICIENCIES

Based on our experience and understanding of the Big Jim Wash segment, we developed several horizontal and vertical alignment revisions that reduce earthwork volumes, provide effective bank protection for the bridge crossings, optimize the future Santa Maria traffic interchange design to preserve new access control right-of-way, and simplify construction phasing and maintenance of traffic costs. ☑ **Our design enhancements provide a total construction cost savings of $6.2M and a 28-acre reduction of new right-of-way (R/W) from ASLD lands.** Our design refinements will:

- Reduce excavation volume by approximately 215,000 cubic yards ($2.6M)
- Change the bridge type and shorten the bridge lengths ($2.5M)
- Shorten the length of soil-cement bank protection between bridges ($400K)
- Eliminate the need for Smart Work Zone ($700K)
- Reduce new R/W needed from the ASLD by approximately 28 acres

Prepared for:
Arizona Department of Transportation
Engineering Consultants Section
205 South 17th Avenue, Mail Drop 616E
Phoenix, Arizona 85007




Engineering Consultants Section
SOQ Proposal Certifications Form

Contract #: **2024-019.01 and 2024-019.02** Consultant Name: **AECOM Technical Services, Inc.**

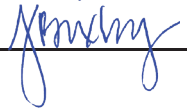
Please read the fifteen (15) statements below. The statements are to ensure Consultants are aware and in agreement with Federal, State and ECS guidelines related to the award of this contract. Consultants shall submit the specific Certification form attached to each RFQ advertised, as revisions to the form may occur from time to time. Failure to sign and submit the certification form specified in the RFQ with the SOQ proposal will result in the SOQ proposal being rejected.

Submission of the SOQ by the Consultant certifies that to the best of its knowledge:

1.	The Consultant and its subconsultants have not engaged in collusion with respect to the contract under consideration.
2.	The Consultant, its principals and subconsultants have not been suspended or debarred from doing business with any government entity.
3.	The Consultant shall have the proper Arizona license(s) and registration(s) for services to be performed under this contract. Furthermore, the Consultant shall ensure that all subconsultants have the proper Arizona license(s) and registration(s) for services to be performed under this contract.
4.	The Consultant's signature on any SOQ proposal, negotiation document or contract constitutes that a responsible officer of the Consultant has read and understands its contents and is empowered any duly authorized on behalf of the Consultant to do so.
5.	The Consultant's Project Team members are employed by the Consultant on the date of submittal.
6.	All information and statements written in the proposal are true and accurate and that ADOT reserves the right to investigate, as deemed appropriate, to verify information contained in proposals.
7.	Key members of the Project Team, including subconsultants, are currently licensed to provide the required services as requested in the RFQ package.
8.	All members of the Project Team who are former ADOT employees did not have or provide information that gives the Consultant a competitive advantage; and either (1) concluded their employment with ADOT at least 12 months before the date of the SOQ or (2) have not made any material decisions about this project while employed by ADOT.
9.	Work, equating **at least 51%** of the contract value, shall be completed by the Consultant unless otherwise specified in the SOQ or contract.
10	No Federally appropriated funds have been paid or shall be paid, by or on behalf of the Consultant for the purpose of lobbying.
11.	The Consultant understands that it is required to have a compliant accounting system, in accordance with Generally Accepted Accounting Principles (GAAP), Federal Acquisition Regulation (FAR) of Title 48, Code of Federal Regulations (CFR)-Part 31, applicable Cost Accounting Standards (CAS), and ADOT Advance Agreement Guideline.
12.	If project is funded with Federal Aid funds, the Consultant affirmatively ensures that in any subcontract entered into pursuant to this advertisement, Disadvantaged Business Enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award, in accordance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations.
13.	The Consultant shall utilize all Project Team members, subconsultants and DBE firms, if applicable, submitted in the SOQ, and shall not add other Project Team members or subconsultants, unless the Consultant has received prior written approval from ADOT.
14.	The Consultant shall either meet its DBE goal commitment and any other DBE commitments or make Good Faith Efforts to meet the DBE goal commitments as stated in its SOQ proposal or Cost Proposal and shall report on a timely basis its DBE utilization as detailed in the contract.
15.	If selected, the Consultant is committed to satisfactorily carry out the Consultant's commitments as detailed in the contract and its SOQ proposal.

I hereby certify that I have read and agree to adhere to the fifteen (15) statements above and/or that the statements are true to the best of my knowledge as a condition of award of this contract.

Print Name: **Jennifer Bixby, PE, PTOE** Title: **Vice President**

Signature:  Date: **June 25, 2024**

Revised 2/11/2022

ARIZONA DEPARTMENT OF TRANSPORTATION
ENGINEERING CONSULTANTS SECTION
PARTICIPATION IN BOYCOTT OF ISRAEL - CONSULTANT CERTIFICATION FORM
ADOT ECS Contract No.: 2024-019.01 and 2024-019.02

This Certification is required in response to legislation enacted to prohibit the State from contracting with companies currently engaged in a boycott of Israel. To ensure compliance with A.R.S. §35-393, this form must be completed and returned with any response to a solicitation (SOQ), Contract Cost Proposals, and Contract Time Extensions. The Consultant understands that this response will become public record and may be subject to public inspection.

Please note that if any of the following apply to this Solicitation, Contract, or Contractor, then the Offeror shall select the "Exempt Solicitation, Contract, or Contractor" option below:

- The Solicitation or Contract has an estimated value of less than $100,000;
- Contractor is a sole proprietorship;
- Contractor has fewer than ten (10) employees; OR
- Contractor is a non-profit organization.

Pursuant to A.R.S. §35-393.01, public entities are prohibited from entering into contracts "unless the contract includes a written certification that the company is not currently engaged in, and agrees for the duration of the contract to not engage in, a boycott of goods or services from Israel."

Under A.R.S. §35-393:

1. "Boycott" means engaging in a refusal to deal, terminating business activities or performing other actions that are intended to limit commercial relations with entities doing business in Israel or in territories controlled by Israel, if those actions are taken either:

   (a) Based in part on the fact that the entity does business in Israel or in territories controlled by Israel.
   (b) In a manner that discriminates on the basis of nationality, national origin or religion and that is not based on a valid business reason.

2. "Company" means an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company or other entity or business association, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate, that engages in for-profit activity and that has ten or more full-time employees.

…

5. "Public entity" means this State, a political subdivision of this State or an agency, board, commission or department of this State or a political subdivision of this State.

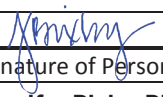
The certification below does not include boycotts prohibited by 50 United States Code Section 4842 or a regulation issued pursuant to that section. *See* A.R.S. §35-393.03.

In compliance with A.R.S. §§35-393 *et seq*., all offerors must select one of the following:

☑ The Company submitting this Offer **does not** participate in, and agrees not to participate in during the term of the contract, a boycott of Israel in accordance with A.R.S. §§35-393 *et seq*. I understand that my entire response will become public record in accordance with A.A.C. R2-7-C317.

☐ The Company submitting this Offer **does** participate in a boycott of Israel as described in A.R.S. §§35-393 *et seq*.

☐ **Exempt Solicitation, Contract, or Contractor.**
Indicate which of the following statements applies to this Contract:
☐ Solicitation or Contract has an estimated value of less than $100,000;
☐ Contractor is a sole proprietorship;
☐ Contractor has fewer than ten (10) employees; and/or
☐ Contractor is a non-profit organization.

AECOM Technical Services, Inc. Company Name	 Signature of Person Authorized to Sign
7720 North 16th Street, Suite 100 Address	**Jennifer Bixby, PE, PTOE** Printed Name
Phoenix **AZ** **85020** City State Zip	**Vice President** **June 25, 2024** Title Date

Participation in Boycott of Israel – Consultant Certification
Form Revised - 4/28/2020

ADOT Infrastructure Delivery and Operations

FORCED LABOR OF ETHNIC UYGHURS BAN Certification Form

Forced Labor of Ethnic Uyghurs Ban

Please note that if any of the following apply to the Consultant, then the Offeror shall select the "Exempt Consultant" option below:

- Consultant is a sole proprietorship;
- Consultant has fewer than ten (10) employees; OR
- Consultant is a non-profit organization.

Pursuant to A.R.S. § 35-394, the State of Arizona prohibits a public entity from entering into or renewing a contract with a company unless the contract includes written certification that the company does not use the forced labor, or any goods or services produced by the forced labor, or use any consultants, subconsultants, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

Under A.R.S. §35-394:

1. "Company" means an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company or other entity or business association, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate, that engages in for-profit activity and that has ten or more full-time employees.

   (a) Based in part on the fact that the entity does business in Israel or in territories controlled by Israel.
   (b) In a manner that discriminates on the basis of nationality, national origin or religion and that is not based on a valid business reason.

2. "Public entity" means this State, a political subdivision of this State or an agency, board, commission or department of this State or a political subdivision of this State.

In compliance with A.R.S. §§ 35-394 et seq., all offerors must select one of the following:

☑	The Company submitting this Offer does not use, and agrees not to use during the term of the contract, any of the following: • Forced labor of ethnic Uyghurs in the People's Republic of China; • Any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or • Any Consultants, Subconsultants, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.
☐	The Company submitting this Offer **does** participate in use of Forced Uyghurs Labor as described in A.R.S. § 35-394.
☐	**Exempt Consultant.** Indicate which of the following statements applies to this Consultant (may be more than one): ☐ Consultant is a sole proprietorship; ☐ Consultant has fewer than ten (10) employees; and/or ☐ Consultant is a non-profit organization.

AECOM Technical Services, Inc.
Company Name

7720 North 16th Street, Suite 100
Address

Phoenix | **AZ** | **85020**
City | State | Zip

Signature of Person Authorized to Sign — **June 25, 2024**

Jennifer Bixby, PE, PTOE
Printed Name

Vice President
Title

ADOT ECS Contract No: **2024-019.01 and 2024-019.02**

Forced Labor of Ethnic Uyghurs Ban Certification Form *(rev 10-2022)*

1 • PROJECT UNDERSTANDING & APPROACH

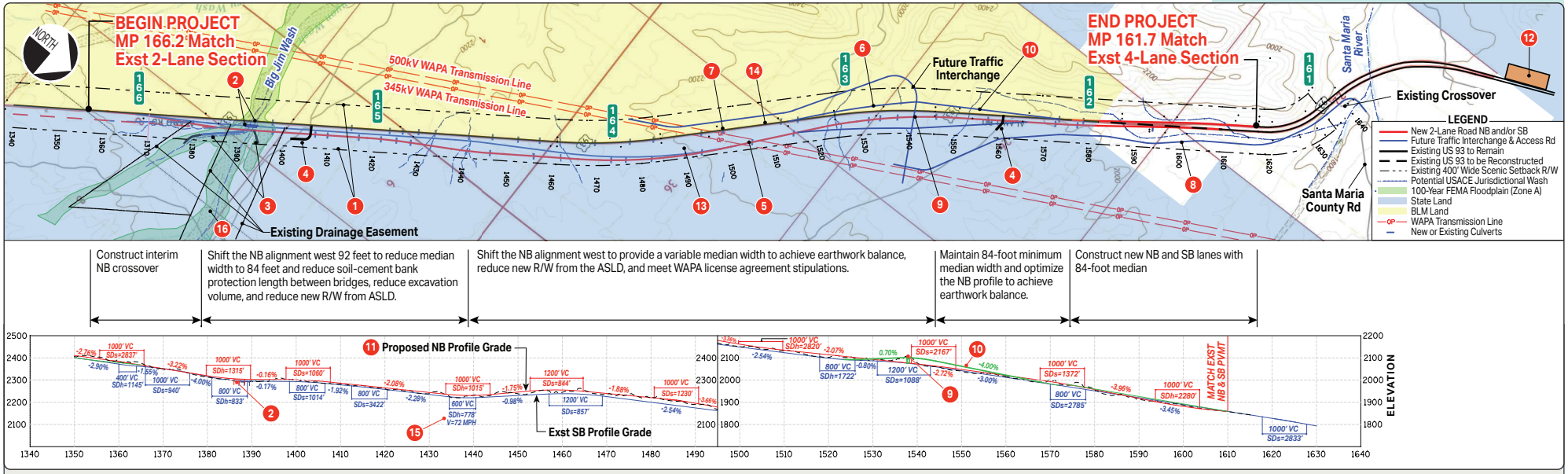
PROJECT OVERVIEW

US 93 is part of the National Highway System that provides a commercial and recreational link between the Phoenix metropolitan area, Las Vegas, and northwestern Arizona. It is also an important trade corridor that links the Mexican border and Arizona's major cities to I-15, which connects to the Canadian border. US 93 has also been designated as the future Interstate 11 (I-11) to provide an access-controlled freeway between Phoenix and Las Vegas.

The goal of the US 93 Big Jim Wash project is to design and construct a four-lane divided roadway from Milepost (MP) 161.7 to MP 166.2 by constructing two new northbound (NB) lanes and using the existing US 93 for southbound (SB) traffic. The project will connect on the north end to the four-lane divided Santa Maria Section, completed in 2000, and on the south end provide an interim crossover to tie back into the existing US 93 two-lane section. This project continues the improvements between Wickenburg and Santa Maria River that began in 2012. It will improve capacity, safety, and operational characteristics of the existing highway while minimizing environmental effects during and after construction.

Figure 1 shows the project's major scope elements, issues, and our proposed value-added enhancements. *We identified several key issues based on our previous experience on US 93 and information from field reviews. We discuss specific key issues per discipline in the following pages, describing our approach to addressing these issues and the benefits to ADOT.*

FIGURE 1 | MAJOR SCOPE ELEMENTS, ISSUES, & VALUE-ADDED ENHANCEMENTS



1. 400-foot-wide (from existing R/W) scenic setback R/W will need to be reapplied to the Parkways, Historic and Scenic Road Advisory Committee.
2. Reduce L/DCR bridge length to optimize scour and headwater
3. Existing railbank protection requires ongoing repairs and is scour-susceptible; use soil-cement bank protection for new bridges.
4. Construct a new crossover for ranch road access and emergency crossover (MP 162.3 and MP 165.3).
5. Refine NB horizontal and vertical alignments under WAPA lines to adhere to WAPA clearance criteria.
6. Layout horizontal and vertical alignments for future Santa Maria interchange to determine access control R/W.
7. Extend existing unprotected culverts and flatten slopes to eliminate the need for guardrail.
8. Design the future access road to Santa Maria County Road to delineate access control R/W.
9. Locate the future TI bridge along the ridge line to reduce embankment needed for the future crossroad.
10. The future SB exit ramp will require an elongated 3,200-foot-long ramp due to 4% maximum ramp grade and 3% existing SB grade.
11. Refine the NB profile to achieve earthwork balance.
12. The existing contractor use site on ASLD land is currently used for the US 93 Pavement Preservation between Nothing and SR 97. This site can be used to reduce pavement hauling costs for this project and provide aggregate for pavement.
13. Develop salvaging and transplanting requirements to replant Joshua Trees.
14. Design exception required for existing 5-foot shoulders. Determine the feasibility of widening the outside shoulder and ditches to meet current design criteria.
15. Only vertical curve requiring a design exception for not meeting the 75 mph design speed.
16. Clear vegetation upstream from new bridges within the drainage easement to improve bridge hydraulics.

SPECIAL ISSUES & OPPORTUNITIES

This widening project is based on the approved 2006 Location/Design Concept Report (L/DCR) and the 2005 Final Environmental Assessment (EA) and Finding of No Significant Impact. To fully understand this project's issues, constraints, and opportunities, the AECOM team reviewed available reports, studies, and as-builts; conducted field reconnaissance; and discussed the project with key stakeholders, including ADOT; Arizona State Land Department (ASLD); U.S. Bureau of Land Management (BLM); Parkways, Historic and Scenic Roads Advisory Committee (PHSRAC); Arizona Game and Fish Department (AZGFD); Yavapai County; and Western Area Power Association (WAPA). The following list identifies the project's major goals and concerns.

PROJECT GOALS & CONCERNS

Project Management
- Deliver a quality project by late Q3 of FY 27 to meet programming constraints
- Obtain environmental clearance right after Stage III confirmation of the construction limits
- Accurate cost estimates with unit prices derived from latest labor and material costs

Roadway & Drainage Design
- Remove and replace guard to meet current MASH standards
- Extend culverts to eliminate need for guardrail
- Develop creative solutions to solve culvert sedimentation issues
- Minimize encroachment into the floodplain and avoid the need for an Individual 404 permit
- Provide roadway and median ditch scour protection in areas where roadway slopes are steep
- L/DCR alignments need refinement to balance earthwork for each construction phase
- Design the drainage system to minimize maintenance and erosion
- The existing US 93 pavement needs to be rehabilitated; determine feasibility to include rehabilitation as part of the project

Bridge Design
- Reduce the number of piers in the wash to improve hydraulic performance and reduce debris collection
- Remove existing scour slab and bridge piers 5 feet below existing ground
- Consider a girder erection plan and crane access to the site

Roadside Development
- Coordinate with PHSRAC regarding changes to the scenic setback right-of-way (R/W)
- Replant salvaged plants at the same density based on zones
- Develop salvaging and transplanting requirements to replant Joshua Trees
- Round and contour slopes to match the adjacent landforms
- Develop environmental plans to show mitigation requirements are met
- Install permanent erosion control measures as soon as possible

Environmental
- EA re-evaluation to include expanded clearance limits for future traffic interchange access control R/W, scenic setback R/W, contractor staging yards, nursery sites, stockpile areas, material pits, and utility relocations
- Submit draft EA Re-evaluation Report right after Stage III to obtain clearance to begin R/W acquisition
- Determine the U.S. Army Corps of Engineers (USACE) jurisdictional delineation and Section 404 permit requirements by 30% design

Right-of-Way
- Determine ultimate access control R/W limits for the future Santa Maria TI and access road

MAJOR TASKS & TECHNICAL & INSTITUTIONAL ELEMENTS

- **Survey and mapping |** ADOT will provide new 1-foot contour topographic mapping and AECOM will perform supplemental surveys
- **Roadway, traffic, and bridge design**, including implementing performance-based practical design (PBPD)
- **Technical reports**, including roadway drainage, bridge hydraulics, AASHTO Report, Traffic Report with 2050 design year traffic volumes, Bridge Selection Report, materials and pavement design, and earthwork; ADOT will prepare the Geotechnical Design Report
- **Utility coordination** to obtain relocation requirements and easements early and obtain clearance
- **EA re-evaluation**, including technical studies and obtaining clearance
- **Landscape/SWPPP**, including cacti and Joshua Tree salvage, replanting, slope warping
- **Determine ultimate access control R/W** and easement needs and obtaining clearance
- **Stakeholder coordination**, seamless and proactive with ASLD, BLM, and WAPA
- **Construction bid documents** plans, specifications, and estimates [PS&E]
- **3D modeling & visualization** to develop a contextual 3D model, which can be progressed into 4D/5D applications

APPROACH TO TASKS & TECHNICAL & INSTITUTIONAL ELEMENTS

Our team is highly experienced in preparing final design solutions and PS&E documents for projects similar to US 93 Big Jim Wash. In this section, we present our approach to the corridor's more unique and significant design challenges.

ROADWAY DESIGN

☑ **Our team developed several roadway design enhancements and value-added solutions that improve upon the L/DCR to reduce project costs, balance earthwork, and reduce new R/W requirements.** We developed these roadway design enhancements using the L/DCR InRoads alignments and the L/DCR existing 5-foot contour DTM. **Figure 1** (Page 5) shows the limits of our proposed roadway design enhancements that will be refined during final design with updated 1-foot contour mapping.

ISSUE • ***Insufficient clear zone at existing culverts.*** Nearly all of the existing 22 pipe culverts and six box culverts do not meet clear zone requirements and are not protected by guardrail.

Existing culvert headwall with a damaged hazard marker within the clear zone.

APPROACH • We will use ADOT's Guardrail and Slope Flattening Procedure to determine the best option to develop a cost comparison between extending the culverts and flattening the approach fill slopes or installing guardrail. Extending culverts and slope flattening is viable if the cost ratio is 3:1. ***BENEFIT*** • This procedure will determine the most cost-effective method to protect existing culverts, minimize maintenance, and improve safety along the existing SB roadway.

AECOM designed seven sections of US 93 totaling 39.8 miles, more than any other firm*, as shown in* **Figure 6** *(Page 12). Our project manager (PM), Dale Wiggins, managed five of the US 93 projects: Cane Springs, Kaiser Spring, Boulders, Burro Creek, and Cottonwood Canyon/Bridle Creek, totaling 19.5 miles.*

☑ **This experience gives the AECOM team unmatched corridor knowledge and the ability to provide context-sensitive design, cost-effective construction concepts, effective stakeholder coordination, and corridor consistency.**

ROADWAY DESIGN (CONTINUED)

ISSUE • ***Reduce excavation and bank protection volumes, and reduce new R/W from ASLD.*** At the project's south end from Sta. 1370+00 to 1480+00, the median width is 186 feet crossing ASLD lands and the NB alignment crosses several steep ridge lines. This will require new R/W from ASLD and increased excavation volumes. The wide median width also occurs at the Big Jim Wash bridge crossing, requiring additional bank protection between the bridges.

APPROACH • Between Sta. 1370+00 and 1500+00, we propose to shift the NB alignment west to reduce the median width from 176 feet to 84 feet, as shown in **Figure 1**. This reduces the roadway excavation volume since the ridge line heights are less, which reduces the amount of new R/W from ASLD. This also reduces the length of new bank protection between the two new bridges and allow for a better upstream bank protection transition back into the existing wash bank. ***BENEFIT*** • ☑ **These refinements reduce the excavation volume by approximately 215,000 CY (reducing construction costs by $2.6M), reduce the new R/W needed from ASLD by approximately 28 acres, and reduce the bank protection by 1450 CY.** These design refinements will be optimized for the roadway excavation to provide a balanced earthwork, taking into account shrinkage and material requirements for soil-cement, pipe excavation and backfill, structural excavation and backfill, drainage excavation, berms, and aggregate base for pavement. The upstream south bank protection will maintain the existing alignment until it meets the new abutment bank protection, to minimize direct impact to the new NB roadway.

ISSUE • ***Determine new access control R/W for the future Santa Maria Traffic Interchange (SMTI) and access road to Santa Maria Road.*** The L/DCR concept for the new SMTI will need to be developed to a 30% design level to determine the new access control R/W limits to acquire the new R/W for the future SMTI as part of this project.

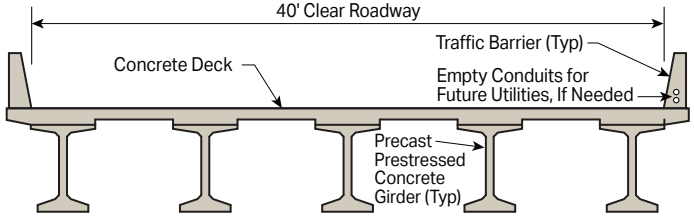
APPROACH • We developed a preliminary layout of the SMTI and access road. We determined that the SB exit and NB entrance ramps will need to be extended by up to 3,200 feet due the 4% maximum grades allowed on the ramp vs. the +3% grade on both NB and SB roadways. We located the crossroad at a ridgeline that would facilitate a bridge crossing over both NB and SB roadways. We will coordinate with ASLD, BLM, and Yavapai County early to determine their access requirements. ***BENEFIT*** • ☑ **This will optimize the SMTI geometrics to determine and preserve the new access control R/W now for the future SMTI.**

DRAINAGE & BRIDGE DESIGN

ISSUE • ***The existing seven-span, 202-foot-long bridge at Big Jim Wash is undersized for the 50-year storm (7,268 cfs) and any storm exceeding that flow.*** Our HEC-RAS evaluation of the existing bridge determined it does not meet freeboard criteria for the 50-year storm and will be overtopped by the 100-year and 500-year storms, so the bridge opening must be increased.

APPROACH • We used our preliminary HEC-RAS evaluation to optimize the length of the new "twin" bridges and determined that the existing SB roadway profile grade does not need to be raised. Our evaluation shows that the L/DCR seven-span continuous slab, 275-foot-long bridges can be changed to three-span, 240-foot-long bridges to meet ADOT's 3-foot freeboard criteria to the low point of the bridge superstructure. We anticipate the three-span bridge to be constructed with precast, prestressed concrete bulb-T shapes, as shown in **Figure 2**. Bridges will be supported on drilled shaft foundations.

FIGURE 2 | BRIDGE TYPICAL SECTION (NB)



BENEFIT • The new NB roadway profile will closely follow the existing roadway and the low chords of both new bridges will be set to provide at least 3 feet of freeboard from the low chord to 50-year water surfaces. Longer and fewer spans will improve the hydraulic opening. Drilled shaft foundations are effective at resisting scour effects at the piers. ☑ **The proposed change in bridge type will shorten the bridge lengths, saving approximately $2.5M.**

ISSUE • ***Existing CMP culverts are nearing the limit of their service life.*** The existing culverts were originally constructed in 1959 and are nearing the limit of their 75-year typical service life.

APPROACH • We will follow the FHWA's *Culvert Inspection Manual* (1986) to assess the condition of the existing culverts and extend the life of the pipe culverts by either repairing, replacing, or slip-lining the existing culverts. We will consult the FHWA's *Culvert Pipe Liner Guide and Specifications* to determine the best culvert lining technique to use, if determined to be the desired option. New culverts will be sized for the 50-year storm and checked for the 100-year storm flow. ***BENEFIT*** • All new pipe culverts will provide a 75-year minimum service life and the service life of the existing pipe culverts will be extended.

ISSUE • ***The L/DCR-proposed ADOT-standard rail bank protection will not adequately protect the new Big Jim Wash bridges from scour.*** The L/DCR proposed ADOT-standard rail bank protection to be used for the new bridges at Big Jim Wash. The existing abutment bank protection is primarily rail bank slope protection that was repaired in several locations in 2019. In addition, the existing scour slab and the downstream rail bank cut-off wall has blocked the wash from its natural degradation.

Removing the failing existing rail bank cut-off wall will result in long-term scour to reach equilibrium slope.

APPROACH • Based on our HEC-RAS evaluation, we performed a scour analysis and determined that the proposed L/DCR rail bank projection will not adequately protect the new bridges from 500-year total scour depths. Based on this, we propose using soil-cement bank lining to protect the bridge abutments from scour. The new soil-cement will be designed with a 2:1 side slope and have gabion mattresses at the toe of the soil-cement.

The effects of the abandoned driven piles for the existing bridge do not noticeably increase the pier scour at the new SB bridge piers. The deepest scour depths calculate to be at the abutments, rather than at the new piers. When the bridge opening is increased and the scour slab and cutoff wall removed, there will likely be long-term scour as the streambed reaches a new equilibrium slope. The design of the soil-cement bank lining will account for the long-term channel degradation, , which we will model using Zeller-Fullerton method.

BENEFIT • This will provide additional scour prevention for storms exceeding the 100-year flow (10,293 cfs). Because the improved channel will be operating as a sub-critical flow regime, the top of the new bank lining will provide at least 1 foot of freeboard. The toe down will be set based on the local bank scour calculations for the channel and long-term channel degradation. ☑ **The proposed reduced median width will shorten the length of soil-cement, saving approximately $400K.**

GEOTECHNICAL DESIGN

ISSUE • ***Determine cut slope design, pavement and bridge foundation requirements.*** In general, this area is dominated by thick deposits of variably cemented alluvial sand and gravel deposits, and there are pockets of high plasticity and potentially expansive clay soils that will affect the cut slope design and pavement requirements. No potential expansive clays were observed in exposed cuts during a recent site visit. Within the Big Jim Wash, the existing bridge record drawings foundation data sheets show that the subsurface soils are recent alluvium consisting primarily of course sand and fine gravel and cemented sand and gravel down to 30 feet.

APPROACH • We anticipate the subsurface investigation will encounter alluvial basin fill deposits that have characteristics of both hard and soft soils. This will allow the roadway cut slopes to be designed with a slope of 1:1; however, with the varying hardness, it is recommended that the cut slopes be designed to 2:1 for stability and reduce erosion potential of the slopes.

For bridge foundations, the existing alluvium deposits will require drilled shaft foundations at all substructure locations. The borings will require drill rig access and grading an access road from the existing US 93. ADOT, in coordination with our team, will develop draft and final geotechnical investigation reports for roadway and structural elements based on the results of the investigation and laboratory testing. AECOM will prepare the Pavement Design Report and Materials Design Report.

BENEFIT • We will coordinate with ADOT Geotechnical Design Services to use onsite material handling techniques (e.g., blending with clayey site materials to surface condition embankment slopes) and armoring or other protective measures to control erosion and sedimentation, and to design for mitigation of the hazards associated with expansive and collapsible soils along the washes.

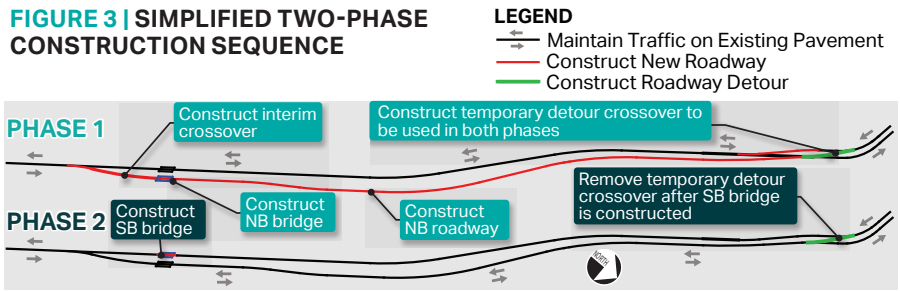
AECOM

TRAFFIC CONTROL/MOT

ISSUE • ***Implement effective traffic control.*** This will be one of the most important items for safe and successful construction. AECOM is aware of the high speeds and the high traffic volumes on weekends and on Mondays and Fridays due to weekend travel to/from Las Vegas and freight movements.

APPROACH • Our traffic control approach includes a simplified two-phase construction sequence (see **Figure 3**). In Phase 1, traffic will be maintained on existing lanes while the proposed NB lanes and the NB bridge are constructed and the south interim and north detour crossovers are paved. The detour crossover at the north end will be designed so it can be used for both phases. To optimize traffic operations and safety through the work zone, we recommend no construction activities that will impact traffic be allowed on weekends when traffic volumes are highest. On our recent US 93 Cane Springs project, which has a very similar two-phase construction sequence, Smart Work Zone (SWZ) technology was not implemented because it was not warranted to provide significant benefits based on the ADOT *Smart Work Zone Feasibility Worksheet*. This was validated after extensive coordination with ADOT C&S and ADOT Northwest District. The key traffic control intricacies on this project involve maintaining access to isolated driveways and minor cross streets. This is done with careful design of temporary pavement connections, traffic control devices, and local outreach. For traffic control on mainline US 93, over-signing to catch the attention of drivers is also highly important. ***BENEFIT*** • **The simple two-phase construction does not need the costly implementation of SWZ technology, saving approximately $700K.**

FIGURE 3 | SIMPLIFIED TWO-PHASE CONSTRUCTION SEQUENCE



UTILITY COORDINATION

ISSUE • ***Utility coordination.*** The only utilities within the project limits are two WAPA transmission lines that cross the project at MP 163.6 at a high-degree skew. No conflicts with either the 345kV or the 500kV transmission lines are anticipated, but the construction underneath will require a license agreement.

APPROACH • We will start coordination early to identify WAPA's prior rights, access and easement requirements, and license agreement stipulations, and provide early utility clearance by the Stage III submittal to allow adequate time to finalize the license agreement between WAPA and ADOT. ***BENEFIT*** • **Identifying WAPA's requirements early in the project is critical to obtain utility clearance by Stage IV design.** We successfully completed this license agreement process on several previous projects, including our current US 95 Imperial Dam Road to Aberdeen Road project.

ENVIRONMENTAL

This project will require a formal EA Re-evaluation of the approved 2005 Final EA (FEA). Technical documentation to support the EA will include agency scoping, biological report, cultural resources survey and report, a brief traffic noise analysis, Clean Water Act (CWA) delineation and permitting (if required) and hazardous materials investigations. National Environmental Policy Act (NEPA) agency scoping will include ASLD, AZGFD (for wildlife connectivity and desert tortoise concerns), and the BLM. All technical disciplines in the 2005 FEA will be revisited.

A project challenge will be the need to move forward with environmental studies while the design team is working through refinements that might affect the project footprint. Our approach includes early interdisciplinary coordination with the design team, BLM, and ASLD to identify conservative environmental clearance limits inclusive of potential design changes, as well as conducting environmental reviews of design plans at design milestones and as plans are being developed.

☑ **We understand the ADOT EP guidance and procedures required for this project, and have identified an approach that proactively addresses the key issues of cultural resources survey and Section 404 permitting.**

▸Agency Coordination

New R/W will be needed from the BLM and ASLD; coordination will be critical elements in the environmental review. It is anticipated ADOT will be the lead agency in the NEPA review for the EA Re-evaluation (under 327 MOU), and the BLM will be invited as a cooperating agency. ASLD review and authorization will be needed on certain technical reports, such as the jurisdictional delineation. In accordance with the mitigation measures from the 2005 FEA, coordination with grazing lease holders, AZGFD, ADEQ, AZDA, and Yavapai County Flood Control District will also be required.

ENVIRONMENTAL (CONTINUED)

▸Geotechnical Clearances

Similar to our recent experience on the US 93 Cane Springs project, we anticipate that the geotechnical clearance will require a brief memo to document compliance with CWA Section 404 Nationwide Permit 6, a biological evaluation (due to detailed analysis of the Monarch butterfly and Sonoran desert tortoise), and a hazardous materials Preliminary Initial Site Assessment report. If geotechnical testing locations are outside the existing ADOT R/W, geotechnical clearance will require coordination with BLM and/or ASLD.

▸Cultural Resources

Because prior surveys of the study area were conducted more than a decade ago, a resurvey (including additional R/W and temporary construction easements) will be required. A preliminary review of the AZSITE database indicates there are several ineligible sites within the project limits, as well as two eligible archaeological sites near the southern project limits that could be avoided. Updated survey of the expanded study area could refine cultural site mapping or identify previously unknown sites.

▸Clean Water Act Compliance

While the 2005 FEA identified the need for Section 404/401 permits, recent regulatory changes in the definition of a Water of the U.S. (WOTUS) are likely to result in finding that the drainages in the study area are not jurisdictional. Our recent experience successfully obtaining a USACE-issued Approved Jurisdictional Delineation (AJD) on the US 93 Cane Springs project provides us with background technical data, as well as direct recent experience preparing AJD packages, that we can leverage to streamline this process.

▸Biology

An updated search of AZGFD and U.S. Fish and Wildlife Service databases indicate no critical habitat in the study area, but several bird species and the Monarch butterfly may occur in the vicinity. Numerous species afforded protection under Arizona Native Plant Law (saguaro, barrel cactus, Joshua Tree) will be impacted by construction; we will develop a plan for the inventory and salvage of these species. The plan will follow the specific transplanting requirements for Joshua Trees.

2 • PROJECT RISKS & SCHEDULE

RISK MITIGATION

Our Risk Register (see **Table 1**) highlights some of the key risks our team has identified, along with potential mitigation measures. We will discuss these and other risks at the project kickoff meeting. The register will be updated and discussed at each monthly project meeting. New risks will be added as identified. We will work with ADOT and the project stakeholders to track each risk with the goal of retiring them as we progress through the project design. Our design and reviews will consider these risks and the more inclusive list developed at the kickoff meeting.

TABLE 1 | RISK ASSESSMENT & POTENTIAL MITIGATION

Risk Ratings: Low, Medium, High

Potential Risk	Pre-Mitigation	Impacts: Scope	Impacts: Schedule	Impacts: Budget	Impacts: Safety	Mitigation Strategies	Post-Mitigation
Inflationary increases to material and construction costs	M		✓	✓		• Implement the cost estimating strategy, keeping continuous focus on unit prices and future trends. Subconsultant Infrastructure Mavens will track material and labor costs and evaluate unit costs at each design stage.	L
Delayed Section 404 delineation process by the USACE	H	✓	✓	✓		• Submit the AJD within 2 months of NTP. • Minimize impact within potential WOTUS to less than 1 acre in case AJD or regulations change.	M
Site access for geotechnical investigations (ability to perform necessary field testing)	M	✓	✓	✓	✓	• Identify potential access routes during cost proposal development to accurately cost the type of drilling rigs to use while considering safety.	L
Schedule delay due to environmental clearance for geotechnical field work	H	✓	✓	✓		• Develop an investigation plan within the first month and include in the environmental clearance footprint. • Determine if geotechnical activities will require new cultural survey prior to NTP, and conduct geotechnical-specific cultural survey as early as possible. • Adjust the geotechnical investigation plan to avoid impacts to cultural sites and other sensitive environmental resources.	L
Temporary access to Big Jim Wash will be required to construct the bridges	M	✓	✓	✓	✓	• Determine construction access and include it in the environmental clearance footprint.	L
Timely R/W acquisition from the ASLD & BLM	H	✓	✓	✓		• Prioritize and determine access and R/W needs on ASLD and BLM lands early • Accelerate the Stage III submittal to confirm construction limits to obtain environmental clearance to complete the R/W acquisition process to advertise in FY 27 • Early and continuous coordination with ASLD and BLM	M
Existing culverts are at the end of their service life and may fail	L	✓		✓	✓	• Check the condition of existing culverts • Check the revised hydrology to confirm if upsizing is needed • Determine cost-effective options to extend the life of culverts	L
Environmental/ Cultural Resources	M	✓	✓	✓		• Conduct updated cultural survey early to better understand the site locations of the eligible sites and confirm they will not be impacted by this project • If impacts cannot be avoided, identify potential mitigation requirements and build into the project schedule	L
Design refinements could result in identification of additional clearance areas not known at the beginning	M	✓	✓	✓		• Dedicate the first 2 weeks following NTP to interdisciplinary collaboration to define the environmental clearance limits, identifying and including areas of where the footprint could potentially expand.	L

SCHEDULE MANAGEMENT

Our proposed schedule (**Figure 4**) meets the ADOT goal of bid advertisement in FY 2026 Q3; the critical path items are indicated in the legend. To bid the project by the end of April 2026 (FY 26), the project funds need to be obligated by FHWA by March 2026. The AECOM team has the resources to complete this project within FY 26. Our project manager, Dale Wiggins, will take ownership of the schedule and hold weekly internal meetings with discipline leads, including subconsultants, to review project goals, critical tasks, and interim milestones. If changes to the schedule are needed, they will be documented and submitted to ADOT for approval through Workfront, ADOT's web-based project and work management portal. Any challenges to achieving the schedule will be discussed with ADOT PMG with a plan to keep the project on track.

Strategies to Avoid Schedule Slippage

Critical Path Item

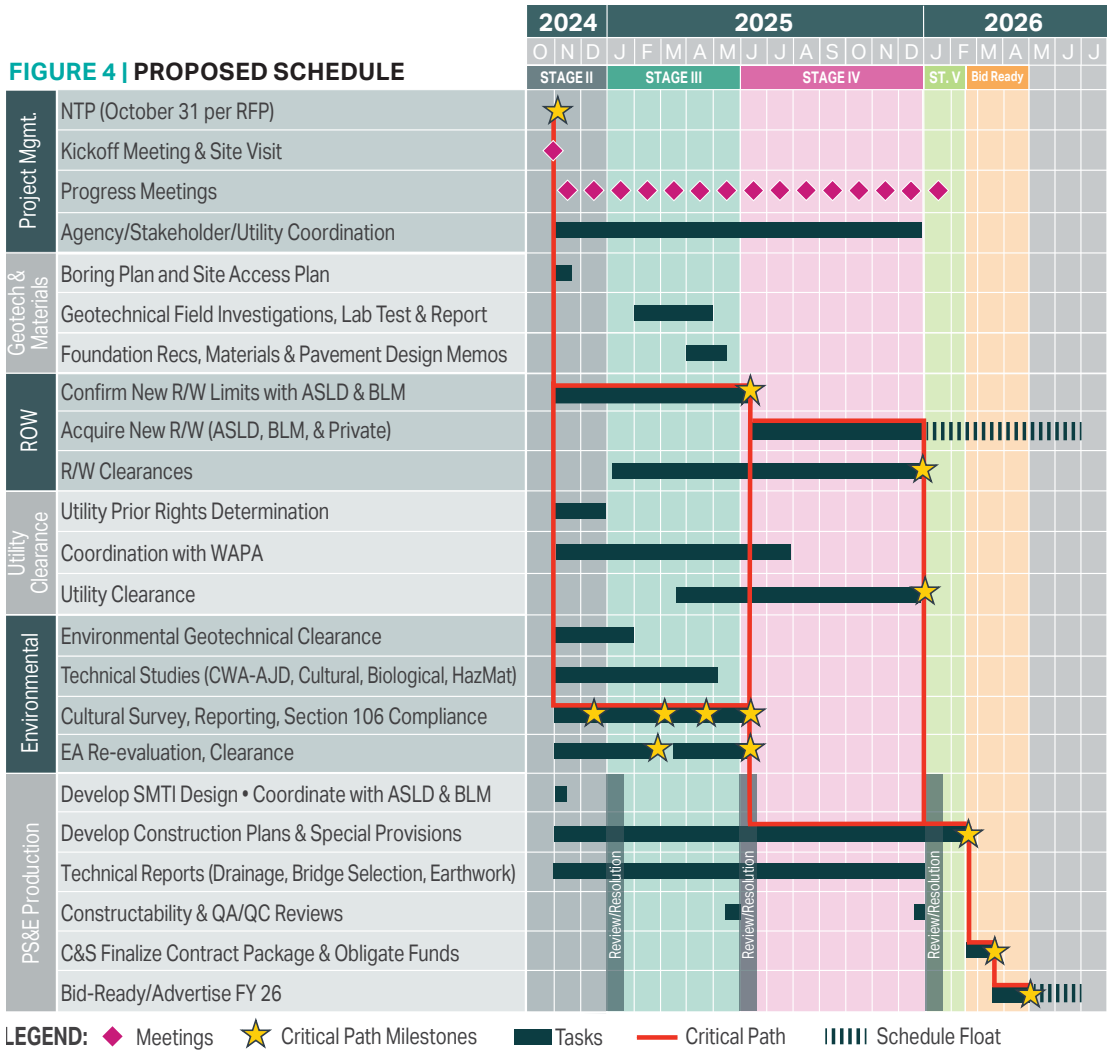
Our team will take the following key steps to meet the project schedule:

- Develop a comprehensive scope and resolve outstanding items at the project start
- Hold bi-weekly meetings with the ADOT PM to communicate critical decision dates to ADOT early so appropriate priority can be assigned to resolving issues
- Use 1-month and 3-month look-ahead schedules to summarize technical, internal, and external coordination to keep focus and resolve issues
- Start coordination with ASLD and BLM early to identify R/W and access requirements by Stage II
- Obtain environmental clearance shortly after Stage III to start R/W acquisition from ASLD and BLM
- Use a risk management plan and tracking log to track, anticipate, and mitigate issues
- Integrate our NEPA planners early with the design team to identify environmental impacts during 30% design review
- Build float into the preliminary schedule so the overall schedule will remain intact if issues delay progress
- Start coordination with WAPA early to identify WAPA's prior rights, easement requirements, license agreement stipulations, and provide early utility clearance by Stage III
- Identify and prioritize potential issues early, and communicate, track, and resolve issues before they become problems; we will give special attention to issues that might jeopardize the project schedule
- Coordinate with ADOT C&S prior to each submittal to facilitate PS&E reviews and keep the advertisement on schedule with no last-minute changes

Strategies to Make Up Schedule Slippage

- Use the contingency built into this schedule for unforeseen items
- Review task dependencies to start future tasks sooner
- Apply additional resources to accelerate tasks if they fall behind schedule; we have ample resources within the project team to make up time

FIGURE 4 | PROPOSED SCHEDULE



Willow Creek Bridge

"AECOM has done an A++ job completing the Willow Creek Bridges project on schedule, within budget, and with an outstanding level of quality. AECOM also prepared and presented a quality project handoff document for this project. This document was recommended by Northwest District for use as an example on another project. AECOM provided excellent customer service." • ***Rashidul Haque, ADOT Project Manager***

3 • PROJECT TEAM EXPERIENCE & AVAILABILITY

75%

KEY PERSONNEL QUALIFICATIONS

DALE WIGGINS, PE

PROJECT (CONTRACT) MANAGER

Three US 93 design projects, led by Dale Wiggins as project manager, received four awards:

- 2001 • **APWA Public Works Project of the Year** • US 93 Kaiser Spring Section
- 2002 • **APWA Public Works Project of the Year** • US 93 Boulders Section
- 2003 • **Gold Level Winner NPHQ Achievement Award** • US 93 Boulders Section
- 2007 • **APWA Public Works Project of the Year** • US 93 Burro Creek Section

38 Years • BSCE • PE AZ #26609

Dale's Value to ADOT | Dale excels as a project manager and brings the following value to ADOT:

- ☑ *Senior project manager with extensive transportation experience, including 33 years of managing ADOT predesign and final design projects*
- ☑ *Transportation experience includes scoping and final design of more than 450 miles of rural and urban roads and highways facilities across Arizona*
- ☑ *Extensive drainage experience, including hydrologic and hydraulic analysis and design of structures, storm drains, and drainage channels to handle stormwater flows*

Dale's Experience | Dale exceeded quality, schedule, and responsiveness expectations on the following projects:

- *PM, ADOT US 93 Cane Springs Roadway Widening Final Design (delivered the project in 9 months to meet FY 24 program funding constraints)*
- *PM, ADOT US 93 PS&E, Kaiser Spring, Boulders, Burro Creek, and Cottonwood and Bridle Creek Segments, BLM lands (19.5 miles)*
- *PM, ADOT US 60, Show Low to 40th Street*
- *PM, ADOT SR 69, Prescott Lakes Parkway to Heather Heights*
- *PM, ADOT SR 95, Central Avenue to Marina Boulevard*
- *PM, ADOT I-40, Rancho Santa Fe Parkway TI DCR & Final Design*
- *PM, ADOT I-40, Kingman Crossing TI DCR & Final Design*

Dale's Current Commitments | *75% Availability*

- ADOT SR 69, Prescott Lakes Parkway to Heather Heights (5% for post-design)
- ADOT/City of Kingman, I-40, Rancho Santa Fe Parkway TI Post-Design, Bid in summer 2024 (5%)
- ADOT/Developer, I-40, Kingman Crossing TI Post-Design, Bid in late summer 2024 (5%)

AGENCY COORDINATION

ADOT
- Utilities and Railroad
- Environmental Planning
- Right-of-Way Group
- Roadway & Drainage
- Bridge Group
- Geotechnical & Pavement
- Northwest District

FHWA **BLM**
ASLD **WAPA**

FIGURE 5 | TEAM ORGANIZATION

ADOT

PROJECT MANAGER
Tricia Brown, PE

PROJECT PRINCIPAL
Jennifer Bixby, PE, PTOE

PROJECT MANAGER
Dale Wiggins, PE

QUALITY ASSURANCE
Chris Labye, PE

SUBCONSULTANTS
Ethos Engineering, LLC (DBE)
Infrastructure Mavens, LLC (SBC)
Logan Simpson

DESIGN TEAM

Roadway Niel King, PE **Drainage** Billie Denetdale, PE	**Structures** Russ Stuart, PE **Utilities** AECOM	**Constructability/ Cost Estimating** Mark Heisler (IMavens)	**Survey/Mapping** AECOM/ADOT **Traffic MOT** Craig Ricketts, Jr., PE	**Geotechnical** ADOT/ Jesse Huston, PE (Ethos) **Environmental** Jessica Rietz	**Landscape/ SWPPP** Logan Simpson

TABLE 2 | AECOM TEAM QUALIFICATIONS & EXPERIENCE *% Available/Committed to Project*

Key Personnel • Credentials	Value to ADOT
 **Chris Labye** • *10%* Quality Manager 26 Years • BSCE • PE #37863	• AECOM-certified Quality Assurance Reviewer for more than 17 years (Phoenix and Tucson offices) • Quality manager for ADOT roadway and bridge projects, DCR/ED studies, and final design projects
 **Niel King** • *90%* Roadway 17 Years • BSCE PE AZ #53204	• Roadway lead on the US 93 Cane Springs and Deluge Wash segments • Experienced in ADOT roadway design, including alternative modeling, geometry, exhibit and plan production, earthwork calculations, and cost estimating
 **Billie Denetdale** • *70%* Drainage Lead 23 Years • BSCE • PE AZ #48264	• Drainage lead on the US 93 Cane Springs Section, and provided drainage design on nearly a dozen ADOT projects • Expertise in 1D/2D hydrology and hydraulics, flood control channels, detention basins, storm drain systems, culvert design, bridge hydraulics
 **Craig Ricketts, Jr.** • *80%* Traffic/MOT Lead 12 Years • BSCE • PE AZ #64542 • RSP$_{1}$ #1079	• Traffic lead on the US 93 Cane Springs Section; also provided MOT and signing and marking plans for numerous ADOT projects • Knowledgeable of trending smart work zone technologies and safe traffic control practices
 **Russ Stuart** • *70%* Structures 29 Years • MSCE • PE AZ #32342	• Structures lead for numerous ADOT projects, including the US 93 Cane Springs Section and several other sections of US 93 • Knowledgeable about bridge types and retaining walls commonly used in Arizona, as well as shallow and deep foundations for bridges and walls
 **Mark Heisler (IMavens)** • *40%* Constructability/Cost Review 46 Years • BSCE	• Provides constructability review, cost estimating, phasing, scheduling, and value engineering for ADOT projects, including US 93 Cane Springs • 46 years of ADOT experience, including managing construction on urban freeway, major highway and street, and flood control projects
 **Jesse Huston (Ethos)** • *50%* Geotechnical Lead 22 Years • MSCE • PE #47791	• Familiar with the project area; performed geotechnical investigations for multiple segments of US 93, including the recent Cane Springs segment • Works often with ADOT Roadway Section (Pavement Design Group) and Bridge Section (Geotechnical Group) on similar ADOT highway projects
 **Jessica Rietz** • *40%* Environmental Lead 18 Years • BS Env. Sciences	• Seasoned environmental lead with experience coordinating multidiscipline environmental teams, including the US 93 Cane Springs EA re-evaluation • Understands the EA and EA re-evaluation process, coordination with BLM/ ASLD, and managing projects with complex biology or cultural issues

RELEVANT PROJECT EXPERIENCE

TABLE 3 | AECOM TEAM'S RELEVANT EXPERIENCE

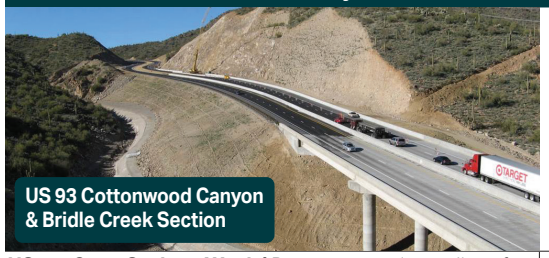
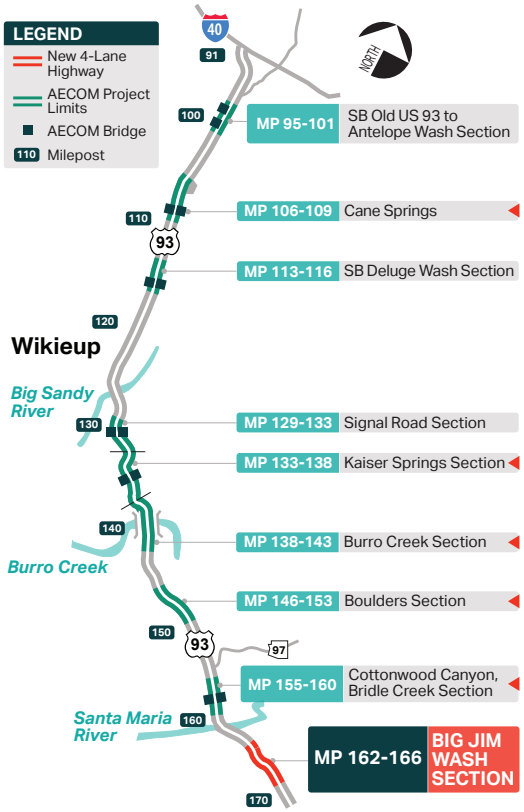
Project Details				Technical Elements									Team Involvement									
 US 93 Cottonwood Canyon & Bridle Creek Section	AECOM Contract	Owner	Firm Role	Roadway Widening	Geometric Optimization	Structures, Walls	Traffic, MOT/Phasing	Drainage	Section 404 Permitting	Geotechnical	Environmental	Constructability	Dale Wiggins	Chris Labye	Niel King	Billie Denetdale	Russ Stuart	Craig Ricketts	Jessica Rietz	Ethos	IMavens	Logan Simpson
US 93, Cane Springs Wash | Reconstructed 3.4 miles of rural two-lane highway to a new divided four-lane highway with a variable median width, including two bridges.	$3.6M	ADOT	Prime	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
US 93, Cottonwood Canyon & Bridle Creek | Widened 4 miles of rural two-lane highway to a divided four-lane highway, including a new three-span bridge over Cottonwood Creek	$2.59M	ADOT	Prime	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓					✓
US 93, Southbound Deluge Wash | Widened 4.5 miles by constructing a new SB roadway, keeping existing for NB, and designing two bridges over Deluge Wash	$1.5M	ADOT	Prime	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓					✓		✓
SR 69, Prescott Lakes Parkway to Heather Heights | Widening 1 mile from a four-lane rural section to a six-lane urban section with curb and gutter and median	$975K	ADOT	Prime	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		
US 191, Cochise Railroad Overpass | Replacing a three-span steel girder bridge crossing UPRR with a new precast girder bridge, built on a new roadway alignment	$975K	ADOT	Prime	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	
SR 79, Gila River Bridge | Phased construction to replace the existing bridge using a bridge slide method of construction.	$2.5M	ADOT	Prime	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓		✓
SR 77, Tangerine Road to Pinal County Line | Widened 6.12 miles of four-lane to six-lane urban/fringe urban state highway along SR 77 (Oracle Road).	$4M	ADOT	Prime	✓	✓	✓	✓	✓	✓	✓	✓	✓					✓					
SR 77, Calle Concordia to Tangerine Road | Widened 4.7 miles of four-lane to six-lane urban/fringe urban state highway along SR 77 (Oracle Road).	$2M	ADOT	Prime	✓	✓	✓	✓	✓	✓	✓	✓						✓					

FIGURE 6 | AECOM'S US 93 EXPERIENCE

AECOM designed eight sections of US 93 totaling 39.8 miles, more than any other firm. Our PM, Dale Wiggins, managed five of these projects (shown below), totaling 22.91 miles.



SPECIALTY SUBCONSULTANTS

The AECOM team includes three specialty subconsultants with which we have current and/or previous teaming relationships on US 93 projects. Each firm brings technical experience and notable expertise, specialized resources, staffing capacity, and an outstanding record of performance regarding quality of work, meeting schedules, and responsiveness.

Ethos Engineering, LLC

GEOTECHNICAL • Ethos staff bring expertise dealing with past challenges throughout the US 93 corridor, such as expansive soils and difficult drilling conditions. • Ethos staff provided geotechnical engineering design services for more than 500 ADOT projects, including several US 93 segments: Cane Springs Wash and Deluge Wash (both with AECOM), as well as Carrow–Stephens, Kaiser Springs, Boulders, Tompkins Canyon, and Burro Creek.

DBE

Infrastructure Mavens, LLC

CONSTRUCTABILITY • COST REVIEW • IMavens teamed with AECOM on the US 93 Cane Springs Wash project and performed two VE studies along US 93: One north of Wickenburg and one at the US 93/I-40 TI. • IMavens has teamed with AECOM on ADOT projects to review constructability, value engineering, risk analysis, and cost estimates and trends. Its team members bring a combined 110 years of ADOT construction experience.

Logan Simpson

LANDSCAPE/SWPPP • SCHEDULE • Logan Simpson has provided services for nearly 20 ADOT projects on US 93 • Logan Simpson brings a thorough knowledge of the environmental, design, construction, and maintenance practices associated with the US 93 corridor through work on the Cane Springs Wash (with AECOM), Deluge Wash, Boulders, Kaiser Spring, Burrow Creek, Antelope Wash, Ranch Road, and Wagon Bow design segments, among others.

DALE WIGGINS, PE
PROJECT (CONTRACT) MANAGER

75%

Education:
- BS, Civil Engineering, University of Arizona

Registrations:
- Professional Engineer, AZ #26609
- Professional Engineer, CA #46342

Years of Experience: 38

Company Title: **Senior Project Manager**, responsible for managing roadway projects and performing roadway design

VALUE TO ADOT

- *Extensive experience managing final design projects on the US 93 corridor*
- *38 years of transportation experience, including scoping and final design of more than 450 miles of rural and urban highway and freeway facilities across Arizona*
- *Knows ADOT project delivery and internal/external processes as a result of ADOT Supplemental Services PM contract assignment*

PROJECT EXPERIENCE

☑ *Dale's record of accomplishment includes managing the development of four design sections of US 93 that required consensus-building skills and multi-agency coordination. He was instrumental in helping ADOT build consensus among multiple agencies, stakeholders, and the public with competing priorities to successfully complete the development of the four US 93 projects.* ***Dale's proven ability to respond and deliver these projects under challenging circumstances with aggressive schedules contributed to three of the US 93 projects winning the APWA Project of the Year award and one winning the Gold Level NPHQ Achievement***

US 93, Cane Springs Roadway Final Design, ADOT. *Project Manager.* Dale managed this project to reconstruct 3.4 miles of rural two-lane highway to a new divided four-lane highway with a variable median. It includes designing two new SB lanes and reconstructing the existing US 93 to two lanes for NB traffic. This project continues the improvements between Wikieup and I-40 that began in 2005. It will improve capacity, safety, and operational characteristics of the existing highway while minimizing environmental effects during and after construction. **Dale and his team delivered this project in 9 months to meet FY 24 program funding constraints.**

US 93, Four Separate Design Sections (Kaiser Spring, Boulders, Burro Creek & Cottonwood/Bridle Creek), Arizona, ADOT. *Project Manager.* Dale managed the final design of four separate design sections of rural highway through mountainous terrain on US 93 that crosses over BLM lands (19.5 miles). The four projects consisted of reconstructing the existing two-lane rural roadway section to a four-lane divided highway. Project elements included roadway geometric design, bridge design, hydrology and hydraulic design of cross drainage, construction phasing analysis report, signing and striping, traffic control plans, retaining wall plans, landscape/slope warping mitigation and blasting plans. The total construction cost was $93M.

SR 69, Prescott Lakes Parkway to Heather Heights, ADOT. *Project Manager.* Dale managed the preparation of final design PS&E to widen a 1-mile section of SR 69 asymmetrically from a rural four-lane section to a six-lane urban section with curb and gutter, 10-foot multi-use pathway, and a raised curbed median. Work included storm drain design, traffic signing and marking, traffic control, geotechnical investigation, and environmental clearance studies.

I-40, Rancho Santa Fe Parkway TI, Kingman, AZ, ADOT/City of Kingman. *Project Manager.* Dale managed the evaluation of design concepts and final design services to provide a new TI and 3.5 miles of arterial street connections to improve access to the east Kingman area and relieve congestion at the existing I-40/SR 66 TI. As part of the project, AECOM prepared a preliminary drainage report, traffic report, change of access report, and categorical exclusion documents.

I-40, Kingman Crossing TI, Kingman, AZ, City of Kingman. *Project Manager.* Dale managed the preparation of the DCR to develop and evaluate options to provide a new TI and arterial street connections to improve access to the east Kingman area and relieve congestion at the I-40/SR 66 TI. The project is located 1.5 miles east I-40/SR 66 TI and 1.5 miles west of the Rancho Santa Fe Parkway TI. As part of the project, AECOM prepared a Preliminary Drainage Report, a Traffic Report, Change of Access Report, and CE documents. Dale also managed the final design of the TI project, including roadway, storm drain, traffic signing and marking, traffic control, geotechnical investigation and updating the environmental clearance.

Kingman Crossing Boulevard, City of Kingman, AZ. *Project Manager.* Dale managed the final design PS&E for 1.4 miles new roadway and two roundabouts that will connect two existing city streets to the future Kingman Crossing Traffic Interchange (KCTI). The project also included updating the DCR, Change of Access Report, and environmental documents for the KCTI that were completed in 2009.

I-10 East Willcox TI Underpass Bridge Rehabilitation, Willcox, AZ, ADOT. *Roadway Lead.* This bridge rehabilitation project is to complete a scoping document and final design for placing a polyester polymer concrete (PPC) overlay on the existing bridge deck and approach slabs and to replace the existing deck joints, abutment bearings and miscellaneous barrier and slope paving repairs. The project included ROW, utility, and environmental clearances.

US 60 Waterfall Canyon Bridge Replacement, Superior, AZ, ADOT. *Roadway Lead.* This bridge replacement project will use phased construction to replace the existing t-beam bridge with new non-standard box culvert structures. The new structures will be built under the existing bridge to minimize impacts to traffic.

CHRIS LABYE, PE
QUALITY MANAGER

10%

Education:
- BSE, Civil Engineering (emphasis in structural engineering and post-graduate work in geotechnical engineering), University of Colorado at Boulder

Registrations:
- Professional Engineer, AZ #37863

Years of Experience: 27

Company Title: Senior Bridge Engineer, Lead Quality Manager, responsible for quality assurance reviews, establishing AECOM QA/QC policies, assisting with QA/QC audits, and providing QA/QC training

VALUE TO ADOT

- *AECOM-certified Quality Assurance Reviewer for more than 17 years*
- *Lead Quality Manager for Phoenix and Tucson offices*
- *Design concept, bridge selection report, and final design experience for 50+ miles of regional freeway as well as statewide project assessment and final design experience, which includes phased MOT to accommodate construction activities*
- *Design experience includes full bridge design work on 10 wash crossings (7 in Arizona)*

PROJECT EXPERIENCE

US 93, Cane Springs Roadway Final Design, ADOT. *Quality Manager.* This project will reconstruct 3.4 miles of rural two-lane highway to a new divided four-lane highway with a variable median. It includes designing two new SB lanes and reconstructing the existing US 93 to two lanes for NB traffic. This project continues the improvements between Wikieup and I-40 that began in 2005. It will improve capacity, safety, and operational characteristics of the existing highway while minimizing environmental effects during and after construction.

US 191 Cochise Railroad Overpass Bridge Replacement, Cochise, AZ, ADOT. *Quality Manager.* This project replaces the existing three-span steel girder bridge crossing UPRR with a new precast girder bridge. The structure is built on a new roadway alignment to eliminate impacts to traffic. The project also includes a new bridge over the Walnut Wash. The existing soils in the area have excessive settlement and are highly corrosive. Protective measures are required to minimize settlement, especially around the existing railroad tracks. The project includes ROW, utility, and environmental clearances. Section 404 permitting is required to allow construction access in the creek.

I-17/I-40 System Interchange Deck Replacement & Bridge Rehabilitation, Flagstaff, AZ, ADOT. *Design Engineer/ Quality Control Reviewer.* This $10.1M project included replacing bridge decks on the I-40 WB bridge over I-17, I-40 WB bridge over Beulah Boulevard/Sinclair Wash, and the I-40 EB bridge over Beulah Boulevard/ Sinclair Wash. Also included is a deck rehabilitation of the I-10 EB Bridge over I-17 with a polyester polymer concrete overlay and miscellaneous upgrades. The project involves complex shoring of the existing bridges and phased traffic control as well as an evaluation for hinge removals to increase the EB and WB Beulah lifespan, by minimizing ingress/egress paths for corrosive deicing salts. A Section 404 permit was obtained for the construction in Sinclair Wash. **AECOM received an average client survey score of 10 out of 10. Chris provided phase sequences, falsework tower locations, and jacking to provide positive support for the concrete box girder bridge structure while the deck was removed/replaced.**

I-10 East Willcox TI Underpass Bridge Rehabilitation, Willcox, AZ, ADOT. *Quality Reviewer.* This project will complete a scoping document and final design for placing a polyester polymer concrete (PPC) overlay on the existing bridge deck and approach slabs and to replace the existing deck joints, abutment bearings and miscellaneous barrier and slope paving repairs. The project included ROW, utility, and environmental clearances. **Chris provided QC reviews for the bridge plans, as well as calculations pertaining to hydraulically jacking the superstructure to replace rocker bearings with elastomeric bearing pads.**

I-40 EB Willow Creek Bridges 1, 3, 4 and 5 Deck Rehabilitations, Arizona, ADOT. *Design Engineer/Quality Control Reviewer.* This $7M project replaced or rehabilitated the existing bridge decks of the Willow Creek Bridges 1, 3, 4, and 5. The improvements at Bridge 1 included a longitudinal and transverse joint repair; Bridge 3 received an epoxy overlay; Bridges 4 and 5 received full deck replacements that were phased with single-lane closures. The abutment bearings were replaced at all bridges. **Chris developed a "checkerboard" deck removal/replacement concept because the existing hammerhead pier columns (some over 50 feet high) were not designed to accommodate a full-width deck removal on one side of the bridge. The deck removal and replacement was phased according to positive and negative moment zone deck pours and temporary concrete barriers were used as additional counterweights to ensure the columns were not overloaded.**

South Central Light Rail Extension, Phoenix, AZ, Valley Metro. *Quality Manager.* This $33M project extended the existing light rail system through South Phoenix. Chris coordinated the development of an 84-page quality control document and implemented a quality control training and management program for AECOM and its 15 subconsultants. He provided quality assurance reviews for more than 3,500 plan sheets and specification sheets, auditing 15 subconsultants twice a year. Quality management activities continue with any plan revisions during construction and contract modifications, including the addition of Salt River Bridge aesthetic treatments. **Chris received top marks in all three audits conducted by Valley Metro.**

☑ *Chris served as Quality Manager on several of the above representative projects. In this role, he performed QA reviews of all deliverables prior to submittal to the client to confirm QC processes were implemented and review comments were addressed.*

NIEL KING, PE
ROADWAY LEAD

90%

Education:
- BS, Civil Engineering, University of Wyoming

Registrations:
- Professional Engineer, AZ #53204

Years of Experience: 17

Company Title: Roadway Engineer, responsible for performing roadway design

VALUE TO ADOT

- *Experienced as roadway lead for ADOT projects, including final design projects on the US 93 corridor*
- *Extensive experience preparing final design documents for local roadways*
- *Well-versed in ADOT and federal roadway design guidelines and standards*

PROJECT EXPERIENCE

US 93, Cane Springs Roadway Final Design, ADOT. *Roadway Lead.* This project will reconstruct 3.4 miles of rural two-lane highway to a new divided four-lane highway with a variable median. It includes designing two new SB lanes and reconstructing the existing US 93 to two lanes for NB traffic. This project continues the improvements between Wikieup and I-40 that began in 2005. It will improve capacity, safety, and operational characteristics of the existing highway while minimizing environmental effects during and after construction. Niel led the roadway design efforts, including 3D modeling and earthwork calculations, assisted with utility coordination, and prepared final design documents. **The project was delivered in 9 months to meet FY 24 program funding constraints.**

US 93, Deluge Wash, ADOT. *Design Engineer.* Niel was responsible for roadway design, 3D modeling, plan production, cost estimating, and was involved in drainage design, including box culvert and pipe extensions, median drainage, channels, and ditches. He played a major role in earthwork, plan production, and cost estimate. The project involved the addition of a southbound roadway, two structures over Deluge Wash, new access and frontage roads, median crossovers, and temporary connections between each side of the divided highway.

SR 69, Prescott Lakes Parkway to Heather Heights, ADOT. *Design Engineer.* This final design project will widen a 1-mile section of SR 69 asymmetrically from a rural four-lane section to a six-lane urban section with curb and gutter, 10-foot multi-use pathway, and a raised curbed median. The project includes structures design, storm drain design, traffic signing and marking, traffic control, geotechnical investigation, and environmental clearance studies. Niel provided roadway design and QA/QC reviews.

I-40/4th Street Bridge Replacement & Butler Avenue Bridge Rehabilitation, Flagstaff, AZ, ADOT. *Design Engineer.* This project used phased construction and cross-over traffic control on I-40 to replace two bridges on 4th street and place a bridge deck overlay on the Butler Avenue bridges. The bridge replacements used accelerated bridge construction with a bridge slide to reduce closure durations on 4th Street to only 2 weeks. Niel provided roadway design and QA/QC reviews. **The team produced the PS&E package (NTP to bid advertisement) in 10 months, 1 week ahead of schedule.**

SR 89A Transportation Study, SR 89 to Robert Road, Yavapai County, AZ, ADOT. *Design Engineer.* This project involved alternative evaluation and 15% design to improve SR 89A and the various interchanges along the corridor. Niel provided roadway design, 3D modeling, cost estimating, and preliminary design documents.

US 60, Show Low to 40th Street, Show Low, AZ, ADOT. *Design Engineer.* This project provided final design documents for roadway widening, drainage improvements, and a traffic signal on US 60 on the east side of Show Low. Niel provided roadway design, 3D modeling, cost estimating, and earthwork report, and final design documents.

I-10 Fairway Drive TI, Phoenix, AZ, ADOT. *Design Engineer.* Niel was responsible for the preparation of final design documents to construct a new TI on I-10 between Dysart Road and Avondale Boulevard. The project includes a new two-span bridge over I-10, more than 41,000 square feet of retaining walls, new auxiliary lanes on I-10, 900 linear feet of arterial roadway and associated drainage, signal, FMS, and lighting improvements.

I-10/Prince Road TI Final Design, Tucson, AZ, ADOT. *Design Engineer.* This project involved the final design of a diamond interchange along with the reconstruction of 2.0 miles of eastbound and westbound I-10 mainline, and 1.0 mile of five-lane urban roadway along Prince Road. Niel provided roadway design, 3D modeling, an earthwork report, and final design documents.

SR 101L GPL Widening DB, I-17 to Pima Road, Phoenix, AZ, ADOT. *Design Engineer.* This project is adding one GPL to both directions of this 13-mile segment of SR 101L, within the cities of Phoenix and Scottsdale. AECOM is a major subconsultant, providing final design for the segment from I-17 to SR 51. AECOM's scope includes roadway design, widening seven bridge structures, roadway lighting upgrades, traffic control plans, signing and pavement marking plans, and design of over 300,000 square feet of retaining and noise walls. Niel provided roadway design, roadway modeling, wall design, QA/QC, and prepared final design documents.

SR 101L DB, Baseline Road to SR 202L, Chandler and Tempe, AZ, ADOT. *Design Engineer.* This 6-mile project added one additional outside GPL in each direction along SR 101L between Baseline Road and Frye Road, and upgraded features to current ADA standards at all intersections and along the existing frontage roads. The project included bridge widenings, drainage modifications, and environmental analyses. Niel provided roadway design and QA/QC reviews.

BILLIE DENETDALE, PE
DRAINAGE LEAD

70%

Education:
- BS, Civil Engineering, Arizona State University

Registrations:
- Professional Engineer, AZ #48264

Years of Experience: 23

Company Title: Senior Drainage Engineer, responsible for overseeing drainage staff on highway projects, producing drainage reports, and providing quality control of drainage final design documents

VALUE TO ADOT

- *Provided drainage analysis and design on nearly a dozen ADOT projects*
- *Experienced in drainage analysis and design for street and roadway projects, rural highways, river channelization, regional flood control, and bridge crossings of major waterways*
- *Brings expertise in hydrology and hydraulics, flood control channels, detention basins, storm drain systems, culvert design, highway and street drainage, bridge hydraulics, erosion control measures, and drainage reports*

PROJECT EXPERIENCE

US 93, Cane Springs Roadway Final Design, ADOT. *Drainage Engineer.* This project will reconstruct 3.4 miles of rural two-lane highway to a new divided four-lane highway with a variable median. It includes designing two new SB lanes and reconstructing the existing US 93 to two lanes for NB traffic. This project continues the improvements between Wikieup and I-40 that began in 2005. It will improve capacity, safety, and operational characteristics of the existing highway while minimizing environmental effects during and after construction. Billie was responsible for drainage plans, profiles, and drainage reports between the 30% design and final submittal.

SR 79 Gila River Bridge Replacement, AZ, ADOT. *Drainage Engineer.* This CMAR project assessed the condition of the superstructure and recommended replacing the existing 1,507-foot-long, 30-span bridge built in 1957. ABC methods were evaluated. The recommended alternative is a multi-span bridge replacement with wider shoulders and a sidewalk using the bridge slide method of construction. The project includes modifying a canal owned by the San Carlos Irrigation and Drainage District and relocating utilities. Billie was responsible for the drainage design, profiles, drainage reports, and quantity and cost estimations.

SR 101L System TI Improvements with I-10, DCR, Environmental Document, and Final Design ADOT. *Drainage Engineer.* This DCR addressed traffic congestion at the SR 101L and I-10 system TI. Billie was responsible for the drainage systems on I-10, associated ramps, and the DHOV, including quantities, estimates, and drainage report. She served as drainage lead for the final design project, responsible for the drainage systems on SR101L, associated ramps, and the DHOV, including drainage plans and profile.

I-40/4th Street Bridge Replacement & Butler Avenue Bridge Rehabilitation, Flagstaff, AZ, ADOT. *Drainage Engineer.* This project used phased construction and cross-over traffic control on I-40 to replace two bridges on 4th street and place a bridge deck overlay on the Butler Avenue bridges. The bridge replacements used accelerated bridge construction with a bridge slide to reduce closure durations on 4th Street to only 2 weeks. Billie was responsible for quality review of the drainage design up to the final submittal. **The team produced the PS&E package (NTP to bid advertisement) in 10 months, 1 week ahead of schedule.**

US 191 Cochise Railroad Overpass Bridge Replacement, Cochise, AZ, ADOT. *Drainage Engineer.* This project replaces the existing three-span steel girder bridge crossing UPRR with a new precast girder bridge. The structure is built on a new roadway alignment to eliminate impacts to traffic. The project also includes a new bridge over the Walnut Wash. The existing soils in the area have excessive settlement and are highly corrosive. Protective measures are required to minimize settlement, especially around the existing railroad tracks. The project includes ROW, utility, and environmental clearances. Section 404 permitting is required to allow construction access in the creek. Billie was responsible for quality review of the drainage design at the bridge crossing.

Lower Buckeye Road, 67th Avenue to 71st Avenue, Buckeye, AZ, MCDOT. *Drainage Engineer.* This project widened Lower Buckeye Road from 67th Avenue to 71st Avenue. The project was extended to include the intersection at 72nd Avenue. The road widening added vertical curb for the length of the project. Billie performed onsite drainage design, which included several catch basins, new storm drain trunk line and laterals. The new storm drain will connect to the existing 96-inch storm drain under 67th Avenue. The drainage design required coordination of irrigation drainage structures and delivery/tailwater ditches for ongoing farming operations.

Northern Parkway Program On-Call Management Consultant Services, MCDOT. *Drainage Design Lead.* This project consisted of a planned 12-mile-long, partially controlled-access parkway facility located in the urbanized area of Maricopa County between SR 303L freeway and US 60. Billie was responsible for the final drainage and flood control channel design from Sarival Avenue to Dysart Road, including drainage plans, profiles, channel plans, drainage reports, quantity, and cost estimations.

Trujillo Canyon, BR1666 SRH-2D Modeling, NMDOT. *Drainage Engineer.* This project replaced two existing bridges at the Trujillo Canyon crossing. Billie assisted the team lead with the SRH-2D bridge hydraulic model for two bridge alternatives.

Matanza Arroyo Culvert NM-1 Rehabilitation, NMDOT. *Drainage Engineer.* This culvert rehabilitation project included guideway bank rehabilitation, pavement replacement, guardrails, new roadway drainage, and hillside regrading. Billie was responsible for the roadway drainage and channel guideway bank rehabilitation design.

Nogal Canyon, BR6776 and BR6777 SRH-2D Modeling, NMDOT. *Drainage Engineer.* This project replaced two existing bridges at the Nogal Canyon crossing. Billie was responsible for assisting the team lead with hydrology and SRH-2D bridge hydraulic model for bridge replacement alternatives and selection.

CRAIG RICKETTS, JR., PE, RSP[1]

TRAFFIC/MOT LEAD

80%

Education:
- BS, Civil Engineering, Pennsylvania State University

Registrations:
- Professional Engineer, AZ #64542
- Road Safety Professional 1 #1079

Years of Experience: 12

Company Title: Senior Traffic Engineer, responsible for developing effective traffic control, signing and marking plans, street lighting plans, traffic signal plans, and ITS

VALUE TO ADOT

- *Experience developing ADOT signing and marking and travel control plans on a variety of state roadways in both urban and rural locations*
- *Prioritizes safety and schedule when developing traffic control phasing*
- *Experience coordinating on complex projects and recognized for responsive communication*

PROJECT EXPERIENCE

US 93, Cane Springs Roadway Final Design, ADOT. *Traffic/MOT Lead.* This project will reconstruct 3.4 miles of rural two-lane highway to a new divided four-lane highway with a variable median. It includes designing two new SB lanes and reconstructing the existing US 93 to two lanes for NB traffic. This project continues the improvements between Wikieup and I-40 that began in 2005. It will improve capacity, safety, and operational characteristics of the existing highway while minimizing environmental effects during and after construction. Craig served as task lead for the development of the signing and marking and traffic control plans, which finished under budget.

SR 79, Gila River Bridge Replacement, AZ, ADOT. *Traffic Engineer.* Craig led the development of signing and marking and traffic control plan sheets. This CMAR project assessed the condition of the superstructure and recommended replacing the existing 1,507-foot-long, 30-span bridge built in 1957. ABC methods were evaluated. The recommended alternative is a multi-span bridge replacement with wider shoulders and a sidewalk using the bridge slide method of construction.

SR 101L (Price) Baseline Road to SR 202L (Santan) Design-Build, ADOT. *Traffic Lead.* This project included design and construction for general purpose lanes on SR 101L in both travel directions. The work included design and construction of pavement, bridge structures, retaining walls, barriers, drainage facilities, signing, pavement markings, street lighting, traffic signal modifications, ITS, utilities relocation, landscape restoration, and rubberized friction course. Craig provided traffic control and signing and marking plans. He led weekly traffic task force meetings with the contractor and ADOT. The traffic design work was completed under budget.

Dysart Road, Van Buren Street to I-10, ADOT. *Traffic Lead.* Craig led the development of signed and sealed traffic control plans and cost estimate along a half-mile of Dysart Road with coordination between the City of Avondale and ADOT. He also provided a QA/QC role of the ITS plan sheets, which included the installation of new conduit and pull boxes, 96-strand fiber optic cable, new CCTV cameras, and new traffic signal controllers at four intersections.

I-10 Fairway Drive TI, Avondale, AZ, ADOT. *Traffic Engineer.* Craig led the development of signing and marking plan sheets, traffic control plan sheets, and cost estimate for the construction of a new diamond traffic interchange for Fairway Drive over the I-10 Freeway between Dysart Road and Avondale Boulevard. The project includes a new two-span bridge over I-10, more than 41,000 square feet of retaining walls, new auxiliary lanes on I-10, 900 linear feet of arterial roadway and associated drainage, signal, FMS, and lighting improvements. The new TI will improve commercial truck access to I-10 for warehouses south of I-10.

US 60, Show Low to Little Mormon Lake Road, Arizona, ADOT. *Traffic Engineer.* Craig developed final design signing and marking, traffic control, traffic signal plans, and cost estimate for the widening of over 1.5 miles of US 60 from two lanes to five lanes. The design included a new traffic signal at the intersection of SR 77 and US 60.

SR 101L, General Purpose Lanes Widening Final Design, ADOT. *Traffic Engineer.* This project included the development of a PS&E package for the addition of two general-purpose lanes along a 5-mile segment of SR 101L in Scottsdale between Shea Boulevard and Chaparral Road. Craig served as a traffic designer for the development of signing and marking plans, traffic control plans, and cost estimate. He also provided support to the contractor for RFIs during the post-design process.

Road Safety Assessment (RSA) along Ironwood Drive, ADOT. *Project Manager.* Craig led a multidisciplinary team to conduct a safety, performance review of Ironwood Drive between Germann Road and Ocotillo Road in the Town of Queen Creek. Ironwood Drive serves as one of the primary arterial routes connecting the Town of Queen Creek and Pinal County to US 60 located 7.5 miles north of the corridor. Five years of crash data was analyzed along with collected traffic volumes. Field reviews were conducted during peak/off peak periods as well as nighttime/daytime conditions. A formal RSA report was delivered on time, providing opportunities for improvement, which were classified as high-priority, moderate-priority, and low priority, as well as documenting maintenance observations.

Lower Buckeye Road 71st Avenue to 67th Avenue, MCDOT. *Traffic Engineer.* This project includes the widening of Lower Buckeye Road from two lanes to five lanes between 67th Avenue and 71st Avenue. Craig served as a traffic engineer for the development of final design plans for signing and marking, street lighting, traffic signals, and traffic control.

Battaglia Drive and Sunland Gin Road Intersection Improvements, Pinal County, AZ. *Traffic Lead.* Craig signed and sealed final design signing and marking plans and traffic signal plans for intersection improvements at Sunland Gin Road and Battaglia Drive Intersection improvements included the addition of a new right-turn lane and modifications to two street corners, including new traffic signal equipment and a new controller.

RUSS STUART, PE
STRUCTURES LEAD

70%

Education:
- MS, Civil Engineering, Iowa State University of Science and Technology
- BS, Civil Engineering, Arizona State University

Registrations:
- Professional Engineer, AZ #32342

Years of Experience: 29

Company Title: Arizona Structures Team Leader, responsible for managing structures design staff and providing design reviews

VALUE TO ADOT

- *Structures Team Lead for 30+ ADOT projects and 20+ bridges over watercourses, including the recent 1,500-foot-long SR 79 Gila River Bridge Replacement*
- *Experienced with phased construction and precast concrete bridge components*

PROJECT EXPERIENCE

US 93, Cane Springs Roadway Final Design, ADOT. *Structures Lead.* This project will reconstruct 3.4 miles of rural two-lane highway to a new divided four-lane highway with a variable median. It includes designing two new SB lanes and reconstructing the existing US 93 to two lanes for NB traffic. This project continues the improvements between Wikieup and I-40 that began in 2005. It will improve capacity, safety, and operational characteristics of the existing highway while minimizing environmental effects during and after construction. Russ and his team prepared calculations and plans for the NB and SB bridges over Cane Springs Wash.

US 93, Cottonwood Canyon and Bridle Creek Section, Yavapai County, AZ, ADOT. *Structures Engineer.* AECOM prepared final design and contract documents for a 4-mile segment of rural highway over BLM lands. The project included structural design of a new three-span bridge over Cottonwood Creek. The bridge superstructure consists of a reinforced concrete deck supported on AASHTO Type VI prestressed concrete girders. Piers are twin-column bents founded on large-diameter drilled shafts. Russ performed quality control checks on bridge design and plans.

SR 79, Gila River Bridge Replacement, AZ, ADOT. *Structures Engineer.* This CMAR project included an assessment of the existing 1,507-foot-long, 30-span bridge built in 1957 and an evaluation of full bridge replacement. The recommended alternative was a 14-span bridge replacement using an FHWA ABC lateral slide technique that significantly reduces impacts to traffic during construction. The replacement structure includes wider shoulders and a sidewalk. The project includes reconstruction of approach roadways, modification to a canal owned by the San Carlos Irrigation and Drainage District, and utility relocations.

Russ guided the design team through technical challenges related to the bridge slide and performed quality reviews for the replacement bridge at every submittal stage.

US 191 Cochise Railroad Overpass Bridge Replacement, Cochise, AZ, ADOT. *Structures Lead.* This bridge replacement project will replace the existing 3-span steel girder bridge crossing UPRR with a new precast girder bridge. The structure is built on a new roadway alignment to eliminate impacts to traffic. A new structure will also be constructed to cross over the Walnut Wash. The existing soils in the area have excessive settlement and are highly corrosive. Protective measures are required to minimize settlement, especially around the existing railroad tracks. The project includes ROW, utility, and environmental clearances. Section 404 permitting is required to allow construction access in the creek.

SR 69, Prescott Lakes Parkway to Heather Heights, ADOT. *Structures Lead.* This final design project will widen a 1-mile section of SR 69 asymmetrically from a rural four-lane section to a six-lane urban section with curb and gutter, 10-foot multi-use pathway, and a raised curbed median. The project includes structures design, storm drain design, traffic signing and marking, traffic control, geotechnical investigation, and environmental clearance studies.

SR 77 (Oracle Road), Tangerine Road to Pinal County Line, Pima County, AZ, ADOT. *Structures Engineer.* This project improved traffic operations and safety along a 6.19-mile segment of SR 77. Russ performed QC tasks for the bridge widening and developed connection details for the artistic pedestrian railing. During planning stages, Russ and his team developed concepts for three wildlife crossings that would allow wildlife to safely cross the highway and maintain the connectivity between habitats on opposite sides of the highway. During final design, budget constraints limited the project to two wildlife crossings, for which Russ and his team developed construction plans.

La Cholla Boulevard, Magee Road to Overton Road, Tucson, AZ, PCDOT. *Structures Engineer.* This $16M RTA-funded project included arterial roadway design of approximately 4.9 miles of La Cholla Boulevard from a two-lane roadway to a four-lane arterial roadway between Magee Road and Overton Road. Major design features include a 600-foot bridge crossing the Cañada del Oro Wash, retaining walls, sound and screen walls, asphaltic concrete pavement, curb and gutter, sidewalks, storm drainage systems, utility relocations, signing and marking, and traffic signals. Russ performed QC tasks for the bridge widening and developed connection details for the artistic pedestrian railing.

Beaver Dam Wash Bridge Replacement, Mohave County, AZ. *Lead Structures Engineer.* The existing scour-vulnerable and flood-damaged bridge needed to be replaced. The project included channelization of Beaver Dam Wash, replacing the existing bridge with a new four-span bridge, phased construction to maintain traffic flow, reconstructing approximately a half-mile of approach roadways, utility relocations, ROW acquisition, and coordination with the USACE for wetland mitigation. Russ and his team prepared design calculations and construction plans for the bridge.

MARK HEISLER
CONSTRUCTABILITY/COST REVIEW

40%

Education:
- BS, Construction Engineering, Arizona State University

Licenses and Training:
- CMAR (ACE)
- Dust Control
- OSHA Competent Person
- Erosion Control
- OSHA 30 Hour Construction
- CPR/First Aid Certified

Years of Experience: 46

Company Title: Independent Construction Expert, responsible for leading constructability tasks; assisting with construction phasing, scheduling, and other forms of constructability review; costing; and value engineering

VALUE TO ADOT

- *Extensive heavy civil construction experience, including urban freeways, roadways, and underground infrastructure*
- *Preconstruction expertise includes cost estimating, value engineering analysis, and reviews for constructability, scheduling/phasing, and bid documents*
- *Routinely provides reviews for ICE, value engineering, contractor schedules, change orders, manpower/equipment, and claims*

PROJECT EXPERIENCE

US 93, Cane Springs Roadway Final Design, ADOT. *Constructability/Cost Reviews.* This project will reconstruct 3.4 miles of rural two-lane highway to a new divided four-lane highway with a variable median. It includes designing two new SB lanes and reconstructing the existing US 93 to two lanes for NB traffic. This project continues the improvements between Wikieup and I-40 that began in 2005. It will improve capacity, safety, and operational characteristics of the existing highway while minimizing environmental effects during and after construction.

SR 303L, Peoria Avenue to Mountain View Boulevard, ADOT. *Construction Manager.* This project constructed 5 miles of new urban divided freeway with overpass structures at Cactus Road and Waddell Road, and an underpass at Greenway Road. Major items of work included 3M CY of earthwork, five cast-in-place post-tensioned concrete box girder bridges, PCCP and AC pavements, and concrete-lined drainage channel and sound walls.

SR 101L (Price Freeway) DB, Baseline Road to SR 202L, Chandler, AZ, ADOT. *Construction Manager.* This project widened 6 miles of SR 101L from SR 202L to US 60, adding the fourth GPL in both directions. Major project features include subgrade stabilization, drainage and catch basin modifications, new lighting and signs, widen freeway bridge at Chandler Boulevard, utility relocations, PCCP, concrete barrier, curb and gutter, sound and retaining walls, PCCP finish pavement grinding, landscape restoration.

I-10 (Papago), SR 303L System TI, ADOT. *Construction Manager.* This project reconstructed 3.4 miles of I-10, 1.3 miles of SR 303L, and 14 bridges with multi-span freeway ramps 75 feet above existing grade, seven box culverts, two irrigation box culverts, and an FMS system.

SR 101L (Price), Guadalupe Road to Warner Road, ADOT. *Construction Manager.* Managed construction of 3 miles of the original SR 101L freeway. Major project features include subgrade stabilization, drainage and catch basin modifications, new lighting and signs, utility relocations, PCCP, concrete barrier, curb and gutter, sound and retaining walls, and bridges.

SR 101L (Pima Freeway), Shea Boulevard to SR 202L (Red Mountain), ADOT, Scottsdale, AZ. *Construction Manager.* This project widened 11 miles of SR 101L from Shea Boulevard to SR 202L (Red Mountain Freeway), adding a fourth GPL in both directions. Major project features include subgrade stabilization, drainage and catch basin modifications, new lighting and signs, widen freeway bridges, utility relocations, PCCP, concrete barrier, curb and gutter, sound and retaining walls, AR-ACFC paving, and landscape restoration.

SR 101L Freeway, 64th Street TI, ADOT, Phoenix, AZ, ADOT. *Construction Manager.* Construction involved the widening of 1.47 miles of the SR 101L and construction of the 64th Street Traffic Interchange. The work included 395,000 cubic yards of earthwork, concrete pavement with asphaltic rubber friction course, two prestressed concrete girder bridges, retaining walls, five existing reinforced concrete box culverts extensions, and channel reconstruction.

SR 101L, SR 202L (Red Mountain) to SR 202L (Santan), ADOT. *Area Operation Manager.* Mark provided oversight for the construction of 10 miles to add new HOV lanes in both directions. Major project features include subgrade stabilization, drainage and catch basin modifications, new lighting and signs, utility relocations, PCCP, concrete barrier, curb and gutter, sound and retaining walls, AR-ACFC Paving, and landscape restoration.

SR 101L (Price), Baseline Road to Guadalupe Road, ADOT. *Construction Manager.* Managed construction of 1 mile of the original SR 101L freeway. Major project features include subgrade stabilization, drainage and catch basin modifications, new lighting and signs, utility relocations, PCCP, concrete barrier, curb and gutter, sound and retaining walls, and bridge.

SR 202 (Santan), Arizona Avenue to Gilbert Road, ADOT. *Construction Manager.* This project constructed 4 miles of new urban freeway with overpass structures at UPRR, McQueen Road, Consolidated Canal, Cooper Road, and Gilbert Road. Major items of work included 1.2 million CY of earthwork, a concrete-lined canal, box culverts, two pump stations, drainage, PCCP, and AR-ACFC paving.

SR 202L (Red Mountain), SR 101L to Broadway Road, ADOT. *Construction Manager.* This project widening included adding 8 miles of fourth GPL and 12 miles of new HOV lanes in both directions. Major features include subgrade stabilization, drainage and catch basin modifications, new lighting and signs, widening freeway bridges, utility relocations, PCCP, concrete barrier, curb and gutter, sound and retaining walls, AR-ACFC paving, and landscape restoration.

JESSE HUSTON, PE
GEOTECHNICAL LEAD

50%

Education:
- MS, Civil Engineering (Geotechnical Emphasis) Arizona State University
- BS, Civil Engineering, Northern Arizona University

Registrations/Certifications:
- Professional Engineer, AZ #47791
- ICC Reinforced Concrete – Special Inspector
- ICC Pre-Stressed Concrete – Special Inspector

Years of Experience: 22

Company Title: Senior Geotechnical Engineer, responsible for managing geotechnical and pavement design services for ADOT and local municipality transportation projects

VALUE TO ADOT

- *Routinely works with and has open communication with ADOT's Bridge Section (Geotechnical Group) and Roadway Section (Pavement Design Group)*
- *Experienced in geotechnical design and investigations, including special inspections, pavement design, technical report preparation, subgrade stabilization techniques, and the evaluation of slopes and stability analysis*

PROJECT EXPERIENCE

US 93, Cane Springs Widening Final Design, Mohave County, AZ, ADOT. *Geotechnical Lead.* The project included design of a 3.5-mile segment of US 93 from the existing two-lane undivided roadway configuration to a four-lane divided highway, as is currently planned for the Big Jim Wash and Vista Royale design segments. The project included design of two new twin bridges at the Cane Springs Wash crossing. The geotechnical scope included procurement of the drilling contractor, development of field and laboratory testing programs, evaluation of subgrade parameters for pavement design, slope stability, foundation design, and development of related geotechnical engineering recommendations. The project was completed on a compressed schedule of approximately 6 months from NTP to final plans.

I-40 at Rancho Santa Fe Parkway, Mohave County, AZ, City of Kingman. *Geotechnical Lead.* Jesse, as a subconsultant to AECOM, led the recent update to the geotechnical investigation for this new planned traffic interchange along I-40 at Rancho Santa Fe Parkway. The project will include constructing two new I-40 overpass bridges, one in the eastbound (EB) and one in the westbound (WB) direction, and associated improvements at the future parkway location. The geotechnical scope included procurement of the drilling subcontractor, development of the field and laboratory testing program, and engineering analysis associated with support of the planned center piers of spread footing foundations.

US 93, Imperial Dam Road to Aberdeen Road, Yuma County, AZ, ADOT. *Senior Geotechnical Engineer.* Jesse, as a subconsultant to AECOM, served provided geotechnical design for this project that will widen US 93 from the current two-lane highway to a four-lane divided highway. The geotechnical scope included subsurface investigation, development of field and laboratory testing programs, design of new pavements, and rehabilitation design of the existing pavements. Ethos coordinated with ADOT to obtain pavement core and falling weight deflectometer (FWD) data for the rehabilitation design of the existing travel lanes.

I-10, Gila River to Dirk Lay Road, Pinal County, AZ, ADOT. *Project Manager/ Senior Geotechnical Engineer.* Jesse managed the geotechnical design for the planned widening of I-10 to the ultimate configuration of three lanes in each direction over an approximate 7-mile segment of I-10, which included multiple bridges and traffic interchanges. The project included foundation design for two bridge replacements, one bridge widening, and two new bridges. The project included coordination with ADOT and the Gila River Indian Community for access to the site and cultural monitoring of the field exploration activities. The geotechnical investigation included field exploration using percussion hammer and auger drilling methods, laboratory testing, engineering analysis of the results pavement design of the I-10 mainline and crossroads, engineering design for MSE walls, and development of drilled shaft axial capacity design charts, and related geotechnical engineering recommendations.

I-10 Bridges over the Gila River, Pinal County, AZ, ADOT. *Geotechnical Task Lead.* Jesse led this on-call task order assignment from ADOT for the planned replacement of the bridges along I-10 at the Gila River. The project included coordination with ADOT and the Gila River Indian Community for access to the site and cultural monitoring of the field exploration activities. The geotechnical investigation included field exploration using percussion hammer and roto-sonic drilling methods with both truck-mounted and track-mounted equipment, laboratory testing, engineering analysis of the results to develop a subsurface profile for engineering design, and development of drilled shaft axial capacity design charts. The subsurface profile was variable along the lengths of the bridges and included drilled shaft capacities using intermediate geo-material, beta, and alpha methods along with scour.

Old Highway 66 and Fort Rock Road, Yavapai County, AZ, ADOT. *Senior Geotechnical Engineer.* This project included a geotechnical investigation for new turn lanes along Route 66 at the intersection of Fort Rock Road. The safety improvement project was administered by ADOT. The geotechnical scope included site reconnaissance, subsurface investigation, subgrade evaluation, and pavement thickness and materials design.

Northern Parkway, Agua Fria River to 99th Avenue, Maricopa County/Peoria, AZ, MCDOT. *Senior Geotechnical Engineer.* Jesse provided geotechnical design for this segment of the planned Northern Parkway project through the City of Peoria. The project included design for the planned ultimate parkway configuration of Northern Avenue, including a new bridge at New River. The work included performance of a geotechnical investigation and development of engineering recommendations for pavement thicknesses and materials, deep foundations for the bridge crossing at New River, and spread footings for planned sound walls. The work included coordination of several stakeholder design requirements (i.e., MCDOT, Peoria, and Glendale).

JESSICA RIETZ
ENVIRONMENTAL LEAD

40%

Education:
- BS, Environmental Sciences, minor in Communications, Northern Arizona University

Years of Experience: 17

Company Title: Environmental Planning Lead responsible for managing the Environmental Planning Team in Arizona

VALUE TO ADOT

- *Seasoned environmental lead with an extensive understanding of the NEPA process and experience coordinating multidisciplinary environmental teams*
- *Technical experience with complex Section 404 and Clean Water Act delineations and permitting*
- *Manages risks and is proactive in identifying potential environmental compliance issues that could affect on-time project delivery*

PROJECT EXPERIENCE

US 93, Cane Springs Roadway Final Design, ADOT. *Environmental Lead.* This project will reconstruct 3.4 miles of rural two-lane highway to a new divided four-lane highway with a variable median. It includes designing two new SB lanes and reconstructing the existing US 93 to two lanes for NB traffic. This project continues the improvements between Wikieup and I-40 that began in 2005. It will improve capacity, safety, and operational characteristics of the existing highway while minimizing environmental effects during and after construction. Jessica was responsible for senior oversight, guidance, and review of environmental deliverables.

I-11 Corridor Alternative Selection Report and Tier 1 EIS; Arizona, ADOT. *Deputy Project Manager.* This study involved conducting alternatives analysis and preparing a Tier 1 EIS to assess a new 280-mile high-capacity, access-controlled transportation corridor from Nogales to Wickenburg. **Jessica's management of this project is an example of her ability to bring all aspects of planning together while coordinating with stakeholders across the state.** She was responsible for day-to-day management of the project team and various moving parts, as well as supporting the environmental lead in preparing the EIS.

I-10 East Willcox TI Underpass Bridge Rehabilitation, Willcox, AZ, ADOT. *Environmental Lead.* This bridge rehabilitation project is to complete a scoping document and final design for placing a polyester polymer concrete (PPC) overlay on the existing bridge deck and approach slabs and to replace the existing deck joints, abutment bearings and miscellaneous barrier and slope paving repairs. The project included ROW, utility, and environmental clearances.

I-17 Auxiliary Lane Improvements, I-10 Split to 19th Avenue, Phoenix, AZ, ADOT. *Environmental Lead.* A Categorical Exclusion (CE) was prepared in compliance with the National Environmental Policy Act and approved in June 2015. Since then, there has been a change in project footprint to include additional areas along 19th Avenue and other major cross streets.

SR 79 Gila River Bridge, Florence, AZ, ADOT. *Environmental Lead.* This CMAR project assessed the condition of the superstructure and recommended replacing the existing 1,507-foot-long, 30-span bridge built in 1957. ABC methods were evaluated. The recommended alternative is a multi-span bridge replacement with wider shoulders and a sidewalk using the bridge slide method of construction. Jessica led the environmental effort for the consultant team on this project. Key technical considerations include Section 106 consultation and coordination with the San Carlos Irrigation District, a Preconstruction Notification for Regional General Permit 96, and preparation of a CE.

US 95, Avenue 9E to Fortuna Wash EA Re-evaluation, Yuma County, AZ, ADOT. *Environmental Planner.* An EA and Finding of No Significant Impact were previously prepared to cover improvements in a larger project area on US 95 in Yuma, inclusive of the current project limits. Significant design changes required an EA Re-evaluation. Key issues included acquisition of new R/W from private, BOR, and ASLD; new cultural resources survey and eligibility recommendations; a Section 4(f) *de minimis* finding on the Gila Gravity Main Canal; a jurisdictional delineation and Individual Permit under Section 404 of the Clean Water Act; and involvement of multiple stakeholder agencies (BOR, ASLD, various irrigation districts, WAPA, and the USACE). The project also required clearance of geotechnical testing and utility potholing in advance of the overall NEPA approval. The EA re-evaluation was signed by ADOT and FHWA in August 2014. Jessica managed the environmental effort, led the traffic noise analysis, and prepared the Section 404 Individual Permit.

Environmental Planning Statewide Environmental Investigations, Phoenix, AZ, ADOT. *Task Manager.* This project is comprised of multiple tasks conducted on an on-call basis. Jessica was responsible for managing several tasks, which involve obtaining environmental clearance for small-scale, fast-paced transportation projects. She also provided background technical data and writing for the environmental clearance documents, including CEs, environmental compliances for geotechnical investigations, and biological reviews and evaluations.

Management Consultant Contract, Phoenix, AZ, ADOT. *Environmental Planner.* Jessica worked on environmental investigations and NEPA documentation for various transportation projects within the Phoenix metropolitan area, including roadway widening projects, TI reconfigurations, and access changes. A majority of the projects involve minor environmental impacts with mitigation and have been documented by a CE.

Transportation Enhancement On-Call Contract, Phoenix, AZ, ADOT. *Environmental Planner.* Jessica led or participated on the environmental component of various transportation enhancement projects throughout Arizona. A majority of the projects do not involve significant impacts and are documented by a categorical exclusion. These projects typically include landscaping features at traffic interchanges, new multi-use pathways, and sidewalks.

From: ADOT Business Engagement and Compliance Office <AZUTRACS-Support@azdot.gov>
Sent: Friday, June 21, 2024 7:29 PM
To: Lassiter, Genie
Cc: ContractorCompliance@azdot.gov
Subject: Bidders List for AECOM Technical Services 01

AECOM Technical Services 01, AZUTRACS Number: 10053 has submitted a Bidder/Proposer list for **2024-019** on 06/21/2024 at 6:28 PM MST (UTC - 07:00).

Bidders/Proposers for this firm include:

Firm Name	AZUTRACS #	Expiration Date	Email Address	Phone Number
Cooper Aerial	16537	03/27/2027	Phil@cooperaerial.com	602-678-5111
Ethos Engineering, LLC	10363	06/04/2027	pgarza@ethosengineers.com	480-326-8487
Infrastructure Mavens, LLC	10537	04/25/2026	sbasila@infrastructuremavens.com	602-376-3782
Logan Simpson Design, Inc.	10647	10/19/2024	marketing@logansimpson.com	480-967-1343

Per RFQ requirement, this list includes any firm that discussed teaming with AECOM, regardless of final teaming agreements.

ADOT
Engineering Consultants Section

Our True North: ***Safely Home***

Date: June 18, 2024

TO: ALL INTERESTED PARTIES

SUBJECT: AMENDMENT NUMBER 01

REFERENCE: REQUEST FOR QUALIFICATIONS
CONTRACT NUMBER 2024-019.01 and 2024-019.02
CONTRACT DESCRIPTION US 93, Big Jim Wash and US 93, Vista Royale
Design and Construct Four-Lane Divided Highway

The following questions have been asked in reference to the above Request for Qualifications package:

Question:
Please confirm if key personnel resumes are limited to 2 pages each (per RFQ Page 6), or 1 page each (per RFQ pages 10 and 12).

Answer:
Key personnel resumes are limited to one page each with no photos.

Jessica McCall

Jessica McCall
Contract Specialist
Engineering Consultants Section

AN OFFEROR MUST ACKNOWLEDGE RECEIPT OF THIS AMENDMENT BY SIGNING BELOW AND INCLUDING ALL PAGES OF THIS AMENDMENT IN THE SOQ SUBMITTAL. FAILURE TO DO SO SHALL RESULT IN REJECTION OF THE PROPOSAL.

AECOM Technical Services, Inc.
CONSULTANT NAME

SIGNATURE

* This amendment is not included in the total page count in the Statement of Qualification submittal.

CONSULTANT INFORMATION PAGES (CIP)

CONTRACT NO.: **2024-019.01 and 2024-019.02**

CONTACT PERSON: **Jennifer Bixby, PE, PTOE**

E-MAIL ADDRESS: **jennifer.bixby@aecom.com**

TITLE: **Vice President**

CONSULTANT FIRM: **AECOM Technical Services, Inc.**

ADDRESS: **7720 North 16th Street, Suite 100**

CITY, STATE ZIP: **Phoenix, AZ 85020**

TELEPHONE: **480.363.0447**

FAX NUMBER: **602.371.1615**

DUNS #: **00-318-4462**

ADOT CERTIFIED DBE FIRM? (YES/NO)

No

SUBCONSULTANT(S):	TYPE OF WORK	ADOT CERTIFIED DBE FIRM (YES/NO)
Ethos Engineering, LLC	**Geotechnical Investigation**	**Yes**
Infrastructure Mavens, LLC	**Constructability/Cost Control**	**No**
Logan Simpson	**Landscaping/SWPPP**	**No**

NOTE: This page is not evaluated by the Selection Panel but is used by Engineering Consultants Section for administrative purposes.

Revised 11/23/2021

SUBCONSULTANT(S) TABLE:

SUBCONSULTANT FIRM NAME:	**Ethos Engineering, LLC**
CONTACT PERSON:	**Francisco "Pancho" Garza**
E-MAIL ADDRESS:	**pgarza@ethosengineers.com**
TITLE:	**President**
ADDRESS:	**9180 South Kyrene Road**
	Suite 104
CITY, STATE ZIP:	**Tempe, AZ 85284**
TELEPHONE:	**480.275.7332**
FAX NUMBER:	**N/A**
DUNS #:	**03-082-8918**

SUBCONSULTANT FIRM NAME:	**Infrastructure Mavens, LLC**
CONTACT PERSON:	**Andrew Flecky**
E-MAIL ADDRESS:	**afleckya@infrastructuremavens.com**
TITLE:	**Manager/Independent Construction Expert**
ADDRESS:	**21001 North Tatum Boulevard**
	Suite 1630-603
CITY, STATE ZIP:	**Phoenix, AZ 85050**
TELEPHONE:	**602.721.3853**
FAX NUMBER:	**N/A**
DUNS #:	**00-972-7112**

NOTE: Each Subconsultant listed in the SOQ must be included in the Subconsultant Table of the CIP. Add additional Subconsultant Table pages as necessary. The CIP is not evaluated by the Selection Panel but is used by Engineering Consultants Section for administrative purposes.

SUBCONSULTANT(S) TABLE:

SUBCONSULTANT FIRM NAME:	**Logan Simpson**
CONTACT PERSON:	**Wayne Colebank, PLA**
E-MAIL ADDRESS:	**wcolebank@logansimpson.com**
TITLE:	**Principal**
ADDRESS:	**51 West 3rd Street**
	Suite 450
CITY, STATE ZIP:	**Tempe, AZ 85281**
TELEPHONE:	**480.967.1343**
FAX NUMBER:	**480.966.9232**
DUNS #:	**00-433-7148**

SUBCONSULTANT FIRM NAME:	**N/A**
CONTACT PERSON:	
E-MAIL ADDRESS:	
TITLE:	
ADDRESS:	
CITY, STATE ZIP:	
TELEPHONE:	
FAX NUMBER:	
DUNS #:	

NOTE: Each Subconsultant listed in the SOQ must be included in the Subconsultant Table of the CIP. Add additional Subconsultant Table pages as necessary. The CIP is not evaluated by the Selection Panel but is used by Engineering Consultants Section for administrative purposes.

*Please confirm that each Subconsultant listed is in the eCMS database. If a Subconsultant's name is not in the eCMS database, contact ECS at E2@azdot.gov and allow two (2) business days to have the Subconsultant added to eCMS. Click Here check the eCMS database or go to ECS Website.

DBE GOAL ASSURANCE/DECLARATION

This Contract is Race Neutral (No DBE Goal-DBE use encouraged).

By signing below, and in order to submit an SOQ proposal and be considered to be awarded for this contract, in addition to all other pre-award requirement, the consultant/Proposer certifies that they will meet the established DBE goal or will make good faith efforts to meet the goal for the contract and that arrangements with certified DBEs have been made prior to SOQ and/or Cost Proposal submission. The proposer will meet the established DBE goal or will make good faith efforts to meet the goal on each Task Order assignment associated with the contract and that arrangements with certified DBEs have been made prior to SOQ and/or Task Order proposal submission.

Signature	**June 25, 2024** Date
Jennifer Bixby, PE, PTOE Printed Name	**Vice President** Title

SOQ SUBMITTAL CHECKLIST

Place a check mark on the left side of the table indicating compliance with the following:

✓	Required Page Limit Met
✓	One PDF Document no larger than 15 MB
✓	All Amendments Included
✓	Introduction Letter (Including all required elements/statements)
✓	SOQ Proposal Formatted According to Requirements Listed in Part C and any applicable amendments
✓	Correct SOQ Certification List Signed and Dated by a Principal or Officer of the Firm
✓	Completed Consultant Information Page (Including listing DBE firms, if applicable)
	Supplemental Services Disclosure Form (REQUIRED for Supplemental Services Contract)
✓	All Subconsultants & Proposed Work Type (Including listing DBE firms, if applicable)
✓	Any Additional Required Documents (Specific Requirements in RFQ such as Resumes, etc.)
✓	Commenting or User Rights Feature Enabled in SOQ PDF Document
✓	DBE Goal Assurance/Goal Declaration completed

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