Premier Engineering Corporation (Premier) was founded in 1995 as a home-based firm specializing in structural design. We have since grown into one of the most reputable engineering consulting firms in the Phoenix metropolitan area. Today, Premier is a multi-disciplinary firm with in-house capabilities to complete general civil, structural, transportation, aviation and water resources engineering; land survey; and construction management projects for federal, state and local government agencies as well as private sectors.

Although our staff has grown to include a number of excellent project managers, Premier’s principals continue to play key roles as both project and quality control managers assuring that our clients receive optimal products. We have earned the confidence of our clients over the years due to our employees’ passion, integrity, and responsiveness. Our goal is to solve your program and project challenges with our unmatched level of enthusiasm and commitment to high-quality service within the required budgetary and schedule requirements.

Services
Premier’s professional staff develops cost-effective solutions that are functional, efficient and focused on exceeding client expectations. We have the capability and experience to provide the following services:

- Aviation
- Construction Management
- Federal Programs
- Site Civil Design
- Structural
- Survey/GIS
- Transportation
- Water Resources Engineering

Aviation
Premier’s Aviation professionals provide engineering services for general and commercial aviation projects. Our accomplished staff offers extensive experience in all phases of aviation design including project management, preliminary design concepts and final design. Premier’s in-house capabilities include the resources to complete the following tasks:

- Runway Design
- Taxiway Design
- Parking Apron Design
- Access Roadway/Street Design
- Parking Facilities/Security Fencing
- Hangars
- Right-of-Way Analysis
- Utility Design and Relocation
- Grading and Drainage Design
- Construction Administration
Construction Management
Premier provides quality construction management services to help our clients in managing the construction process. Our professional staff monitors construction activities to ensure compliance with contract documents, coordinate site activities, and review change orders on behalf of our clients. Additional Construction Management services include:

- Schedule and Budget Evaluations
- Value Engineering
- Constructability Reviews
- Cost Estimate Accuracy Checks
- Monitoring and Coordinating Daily Construction Activities

Federal Programs
Premier’s Federal Programs professionals integrate the technical disciplines for our federal clients, tailored to the specified need of each agency. Services include program management, project management, technical staffing and the services provided in each of Premier’s departments such as construction management, site civil design, structural and water resources engineering. Our ability to satisfy and exceed client expectations originates in a collaborative culture supported by the entire team. Premier is uniquely qualified to provide services to our Federal Clients with the following staff credentials:

- Design by LEED® Accredited Professionals
- Survey Support by Certified Federal Surveyor
- Project Management by PMI® credentialed PMP

Site Civil Design
Premier’s Site Civil Design professionals provide functional, efficient, and cost-effective site development solutions using sustainable design practices. Our LEED® accredited engineers transform land into viable projects, creating a responsible fit between physical site constraints, public expectations, fiscal requirements, and environmental considerations. Our staff has the experience and capabilities to develop commercial/industrial sites, residential/commercial subdivisions, educational facilities (K-12 schools, community colleges and universities), hospitals/medical centers, churches/worship centers, golf courses and public parks, apartment complexes, and pedestrian and bicycle facilities. Services include:

- Site Demolition
- Site Planning
- Grading and Drainage
- Paving and Horizontal Control
- Design Reports
- Quantity and Cost Estimates
- Special Provisions
- Bidding Assistance
- Post-Design Services
- Storm Water Pollution Prevention Plans (SWPPP)
Structural
Premier’s Structural staff provides planning and engineering services for bridges, retaining and sound walls, pump stations, and drainage structures. Our professionals offer extensive experience in all phases of structural projects, including project management, studies, concept and structure selection reports, final design and inspections. Premier’s bridge expertise encompasses the entire spectrum from bridge concepts to final design and construction administration and from bridge inspection to repair designs. We also provide design of other transportation related structures. Services include:

- Bridge and Wall Type Selection Studies
- Bridge Design (Traffic, Railroad, Bicycle and Pedestrian)
- Bridge Inspection Services
- Pump Station/Drainage Structure Design
- Retaining/Noise/Combination Wall Design
- Special Box Culverts and Junction Structures
- Miscellaneous Structures

Survey/GIS
Premier’s Survey staff provides a wide range of land surveying services to both private and public clients. Our fully-equipped survey crews, using Global Positioning System (GPS) technology and a total dedication to quality and service, meet all our clients’ land surveying needs. Our survey professionals provide services in the following areas/disciplines:

- Construction Staking
- ALTA/ACSM Surveys
- Boundary Surveys
- Right-of-Way Mapping
- Topographic Surveys
- Aerial Mapping Control
- Base Map Preparation
- Cadastral Surveys
- Utility Records Research and Mapping
- Final Platting
- Preparation of Legal Descriptions
- Exhibits for Right-of-Way/Easement Dedication
- Geographic Information Systems (GIS)
- Building Information Modeling/Management (BIM)

Transportation
Premier’s Transportation professionals provide planning and engineering services for roadway and major streets, freeways and transit projects. Our accomplished staff offers extensive experience in all phases of transportation projects, including project management, studies, planning, preliminary design concepts and final design. We strive to provide innovative and cost-effective solutions for the transportation needs of our clients. Premier’s in-house capabilities include the resources to complete the following tasks:

- Corridor/Route Studies
- Design Concept Reports
- Freeway/Highway Design
- Arterial/Street Design
- Right-of-Way Analysis and Planning
- Utility Design and Relocation
- Transit Related Facilities Design

Aviation | Construction Management | Federal Programs | Site Civil Design | Structural | Survey/GIS | Transportation | Water Resources

Premier Engineering Corporation
Firm Overview
Premier Engineering Corporation
Firm Overview

Water Resources
Premier’s dedicated staff of engineers and hydrologists is well qualified to evaluate and project all levels of water resources needs/demands and provide innovative buildable project solutions. Our professionals will guide your project through the protection and management of water resources as they flow and move through the various natural and man-made conduits and collection systems to the treatment plants and distribution systems necessary for your project. Premier’s water resources capabilities include:

- Master Drainage Studies
- Floodplain Delineation and Studies
- Hydrologic/Hydraulic/Sediment Transport Analyses and Modeling
- Pavement Drainage Design
- Storm Drain Studies and Design
- Retention/Detention Basin Facility Design
- Water Distribution System Analysis and Design
- Bridge/Culvert Hydraulics and River Mechanics
- 401/404 Permits
- Due Diligence Studies
- Flood Insurance Rate Maps and Studies
- Regional Flood Control Planning/Regional Flood Control Design
- FEMA Letters of Map Revision (LOMR)
- Water Resources Planning and Asset Management
- Watershed Management/Wetlands
- Stream Stabilization/Restoration
- Scour Evaluation and Erosion Control
- Dams and Levees

Quality Assurance/Quality Control (QA/QC)
Premier’s quality management plan establishes a continuous process to ensure quality on a firm-wide basis and at a project-specific level. Premier has developed and adopted a global QA/QC plan that outlines separate procedures for the various tasks typically associated with engineering studies, design work and preparation of construction documents. Prior to client submittal, the QC package containing all pertinent documents is reviewed by the Project Manager and the QA/QC Officer identified for that project. This audit confirms that Premier’s QA/QC plan has been followed in preparation of the reports and the Plans, Specifications and Estimate documents minimizing work product errors and omissions.

Technology
Premier’s technological infrastructure consists of high-performance workstations connected through a Microsoft Windows Server network. We are able to communicate and share electronic information with our clients rapidly and securely through our broadband internet connection. Our computers are custom-built to meet the high demands of today’s leading graphics and analysis software. Premier maintains ongoing software subscriptions to Autodesk, Bentley and other leading names, utilizing the latest releases of titles such as AutoCAD, Civil 3D, Microstation, and InRoads for the purposes of design and drafting. We use the Adobe suite of products for high-end press-quality publications. Along with the standard suite of Microsoft Office products for documents and emails, our Newforma Project Center software keeps us organized, providing easy methods to file project emails, track action items, and collaborate with our clients through its FTP-like file-sharing system. Premier also has the in-house ability to produce full-size prints, copies, and scans, in both color and black-white.

Safety
Premier strives to have zero safety incidents on each and every project. Our solid safety performance results in reduced costs and increased productivity. We recognize that accidents are costly and can have a significant negative impact by affecting employees, subcontractors, and public image as well as a project’s overall cost and schedule. Premier’s health and safety program includes job-specific safety training and site-specific Safety Plans to identify and reduce potential hazards. Our program focuses on safety behavior and empowerment of employees to recognize, report, and correct unsafe acts and/or conditions. As a result of our efforts, we have never had a reportable incident on a project.
Premier’s reputation is based on our commitment to our clients as well as to the details, innovation and quality reflected in our projects. As proof that our commitment is paying off, Premier has been locally and nationally recognized for our project innovation and excellence through the receipt of 15 awards from various professional organizations including the American Council of Engineering Companies (ACEC), American Public Works Association (APWA), Associated General Contractors of America (AGC), the American Concrete Institute (ACI) and Arizona’s Valley Forward Association.

**Award Winning Projects**

**Camelback Road Pedestrian Underpass**
- ACI AZ Chapter 2009 Overall Award Commercial, Exposing the Best in Concrete
- ACI AZ Chapter 2009 Award for Transportation, Exposing the Best in Concrete
- ACI 2008 Concrete Infrastructure Award
- ACEC 2008 National Recognition Award
- APWA 2008 Public Works Projects of the Year in Transportation ($2-$10M) Category
- Valley Forward 2008 Environmental Excellence Award for Outstanding Environmental Achievement
- AGC 2007 Build Arizona Award, Public Highway Construction Under $10M
- ACEC AZ 2007 Grand Award (Transportation Category)
- Phoenix Commission on Disabilities Issues, Ability Counts Award Program (Architectural Accessibility Award for New Facilities (2007))
- Southwest Contractor Best of 2007 Arizona Award Winners Transportation Projects

**CP/EV LRT Facilities**
- ACEC 2009 Engineering Excellence Grand Award

**40 Sunshine BNSF RR Deck Replacement**
- ACEC 2006 Grand Award for Structural Engineering

**U.S. SR 93 Wikieup Streets**
- AGC AZ Chapter “Build AZ 2006” Under $10M Public Highway
- APWA AZ Chapter 2005 Project of the Year Transportation $2-$10M

**SR 51 Bell Road to Pima (101L)**
- AGC 2004 Marvin M. Black Excellence in Partnering Award

**Deer Valley Road Improvements: 83rd to 91st Avenues**
- ACEC 2011 Engineering Excellence Honor Award
- ACEC 2011 Clifford C. Sawyer Achievement Award
Premier provided specialized engineering and project management services for Michael Baker, Jr., Inc. on their US Border Patrol Tactical Infrastructure projects under development by the United States Army Corps of Engineers (USACE). Premier was retained to provide specialized engineering and project management services that included project review, quality assurance review, and quality control review, technical guidance and assistance with military deployments and construction management. Premier provided these services systemically for several projects within Tucson and San Diego Sectors. This included project integration review for the combination of the Tucson Sector, Douglas Station Primary Fence Replacement project with the International Ditch Phase III into one project. Design and constructability review was performed along with engineering and design compliance with NEPA documents for the project.

Client
Michael Baker Jr., Inc.
2929 North Central Avenue
Suite 800
Phoenix, AZ 85012

Owner
US Federal Government
Department of Homeland Security

Project Value
Project Construction Cost: $12,000,000
Project Completion Date: 2012 (est)

Services provided on this project: General Civil, Structural, Survey, and Water Resources
Premier was contracted by the 56th Contracting Squadron at Luke Air Force Base to survey and assess the bridge located on Luke AFB, AZ and input data into the National Bridge Institute Standards (NBIS) database.

This task order required capturing all information required to be compliance with the current NBIS requirements, UFC 3-310-08 Non-Expeditionary Bridge Inspection, Maintenance and Repair, and ETL 07-5, Bridge Inspections. Deliverables included:

- Final Data Collection Report
- Bridge inspection reports including field notes, photos, load ratings, damage identified, and Structural Inventory and Appraisal (S.I. &A.) forms
- Fracture Critical Member Identification Plan
- Scour Critical Bridge Identification Plan
- Bridge Damage Report
- Bridge Load Rating Report that presented recommended load rating for the structure

Services provided on this project: Structural
This project included design of approximately 25 miles of vehicle barriers to be constructed along the international border with Mexico in Yuma County, as well as an additional 15 miles of construction access roads. Premier performed all survey services for the project, including establishment of horizontal and vertical control, placement and measurement of aerial mapping control, supplemental topographic survey, determination/measurement of the international boundary, and Public Land Survey system section surveys. Coordination with multiple agencies was necessary, including the Corps of Engineers, U.S. Customs and Border Patrol, U.S. Marine Corps, U.S. Fish & Wildlife, and the Cabeza Prieta National Wildlife Refuge.

Client
Sugu Suguness
Prime Engineering
3000 Corporate Exchange Drive, Suite 600
Columbus, OH 43231
(614) 839-0250

Owner
Kevin Davee
U.S. Army Corps. of Engineers (Fort Worth)
819 Taylor Street
Fort Worth, TX 76102
(817) 564-3408

Project Value
Project Construction Cost: $40,000,000 (est)
Project Completion Date: 2008

Services provided on this project: Federal Programs and Survey
The 6.89-mile Sonoran Boulevard project begins at 15th Avenue and terminates at Cave Creek Road. The City selected Premier as the Lead Consultant to provide Preliminary Design Services for the entire length of the project and Final Design Services for the 2.42-mile Central Segment, including the design of three new precast, prestressed AASHTO girder bridges. Premier also designed an over 5-mile-long 10-foot-wide shared-use path (SUP) along the north side of the roadway. Ten wash crossing bridges were designed as part of the SUP. The scope of this major project included topographical survey, right-of-way (R/W) maps, hydrological and hydraulic analysis, culverts and storm drain system design, floodplain/floodway analysis, CLOMR/LOMR application and permitting, environmental/archeological investigation and permitting, Section 404 analysis, permitting and mitigation, landscaping design, geotechnical explorations, and post-design services.

Client
City of Phoenix
1034 East Madison Street
Phoenix, AZ 85004
(602) 495-2050

Project Facts
Project Construction Cost: $40,000,000 (est)
Project Completion Date: 2012 (est)

Services provided on this project: General Civil, Structural, Survey, Transportation and Water Resources
Premier was retained by the City of Phoenix to prepare a Design Concept Report and Environmental Determination Report for this highly visible and complex project in the most prestigious business neighborhood in Phoenix. After preliminary evaluation of alternatives, the underpass option with an aesthetically enhanced plaza at each entrance was recommended. The City then requested that Premier complete the final design of the recommended alternative.

The entire roadway segment from 24th to 26th Streets was geometrically revised in order to design the underpass as a shallow crossing. The vertical profile of Camelback Road was raised by about six feet at the underpass location and matched to the existing grades just east and west of the 24th and 26th Street intersections, respectively. The horizontal alignment of the roadway was significantly changed to create additional plaza area on the south side of Camelback Road.

The complex structural design incorporated unique architectural and aesthetic features. Drainage design included analyzing off-site contributing runoff using HEC-1 and storm drain reconstruction in order to lower the existing storm drain to pass under the new pedestrian underpass. Utility relocation (including fiber optic duct banks) and construction sequencing in one of the busiest sections of Phoenix made the underpass design very challenging. Due to the complexity of the project, Premier conducted numerous design workshops and public meetings.

The Camelback Road Pedestrian Underpass Project has won 10 local and national awards to date.

Services provided on this project: Structural, Survey, Transportation and Water Resources
Premier prepared the DCR to recommend the most feasible alternative for the roadway and drainage improvements to Deer Valley Road between 83rd and 91st Avenues, including intersection improvements at 83rd Avenue. The City of Peoria widened Deer Valley Road to accommodate two lanes in each direction with a continuous two-way left-turn lane. The two alternatives evaluated were to provide either bike lanes or a 10-foot-wide multi-use path, with the option of a frontage road added between 87th and 91st Avenues. The drainage analysis associated with this DCR required extensive research and development of alternatives to address and resolve the off-site flow concerns along the corridor.

The study included focus group meetings as well as one formal public meeting. Coordination with MCDOT was an integral part of the study due to their funding participation, provided largely because the north half of the roadway R/W and fronting parcels are in the unincorporated area of the county.

Upon completion of the DCR, the City extended Premier’s contract to complete the final construction documents in two packages separating the Deer Valley Road improvements from the 83rd Avenue and Deer Valley Road intersection improvements.

Services provided on this project: Construction Management, Structural, Survey, Transportation and Water Resources

Client
Karl Zook, PE
Tom Larson, PE
City of Peoria
9875 North 85th Avenue
Peoria, AZ 85345
(623) 773-7212

Owner
See above.

Project Value
Project Construction Cost: $5,150,000
Project Completion Date: 2009
Project Experience:

Phoenix-Goodyear Airport
Taxiway A Intersections | Goodyear, AZ

The City of Phoenix selected Premier as the D modifications to the Taxiway A intersections at Phoenix Goodyear Airport (GYR) as part of esign Manager to prepare construction plans for the Achen-Gardner /Premier Engineering Design-Build (D/B) team.

Utilizing the D-B Alternate Project Delivery Method (APDM), GYR replaced, widened and added new taxiway intersections to Taxiway A to meet Group IV category aircraft operations per the GYR Master Plan and Federal Aviation Administration standards. Premier prepared the design to reconfigure the geometry to current acute angle exit geometry, strengthen the pavement to meet proposed usage, relocate existing connector holdbars, and reconfigure and redesign the associated airfield signage to reflect the improvements. The scope of services also included topographic survey, field mapping and construction management (CM) services.

As a continuation of this project, Phases 2 and 3 include 100% design documents and construction administration of two acute angle taxiway exits. The scope of services also includes topographic survey, field mapping and CM services. Premier’s CM services will include construction staking/survey, attending the pre-construction conference, review and approval of equipment and materials submittals, Requests for Information (RFI) review, attending weekly construction progress meetings, regular field visits/construction site observation reports, approval and processing of documentation for change orders, preliminary and final walk-through, punch list preparation, as-built preparation, project close-out and final acceptance.

Services provided on this project: Aviation, Construction Management and Survey

Client
Achen Gardner Construction
550 South 79th Street
Chandler, AZ 85226
(480) 403-9432

Owner
City of Phoenix
Aviation Department
1658 South Litchfield Road
Goodyear, AZ 85338
(623) 932-1200

Project Value
Project Construction Cost: $4,800,000
Project Completion Date: 2011
Due to the rapid growth within the Town of Queen Creek and in the entire Southeast Maricopa County/Northern Pinal County area, the need to improve the transportation corridors near the Town Center has become a vital issue. In order to alleviate the traffic congestion, the Town Council has approved the design of Ellsworth Loop Road from Queen Creek Road to Chandler Heights Road as a six-lane roadway with raised medians, sidewalks and landscaping.

As part of this effort, Premier Engineering Corporation prepared the bridge type selection and Plans, Specifications and Estimate package for the north-bound and south-bound Queen Creek Wash bridges, retaining walls and a pump station for the Ellsworth Loop Road Improvement District. A bridge type selection study was performed as part of this project. The bridges are two-span pre-cast, pre-stressed AASHTO girders and a cast-in-place concrete deck supported on drilled shafts with an out-to-out width of 53 feet and length of 208 feet. The geometry of the bridges was complex due to the skew of the wash and the curved roadway alignment. The concrete retaining walls are designed to allow Ellsworth Loop Road and Rittenhouse Road to be depressed at the north end of the project limits to accommodate a Union Pacific Railroad crossing over the roadways.

The pump station was designed to accommodate four main submersible pumps, 135-HP each, and one secondary low flow submersible pump at the wet well. This reinforced concrete pump structure consisted of a 27-foot wide by 36-foot long underground vault extending to 45 feet deep.

**Services provided on this project:** Structural
Premier is preparing the Plans, Specifications and Estimates for the 3.5-mile State Route (SR) 303L (Estrella Freeway) segment beginning at Waddell Road and ending at Mountain View Boulevard. The SR 303L mainline consists of three lanes in each direction separated by an open median with a cable barrier. The SR 303L mainline is designed to be partially depressed under Greenway Road, fully depressed under Bell Road returning to grade north of Bell Road and continuing at grade matching into the existing SR 303L at Mountain View Boulevard. This project includes two traffic service interchanges (TI) at Greenway Road and Bell Road.

Premier’s scope of work includes the design of the SR 303L mainline, TIs including crossroad improvements at Greenway Road, sound and retaining walls, on- and off-site drainage, utility relocations and survey. As the prime consultant, Premier is responsible for coordinating with the Arizona Department of Transportation, Federal Highway Administration, Maricopa Department of Transportation, Flood Control District of Maricopa County, private developers and utility companies.

**Client**
Mohammad Zaid, PE
Dennis Crandall, PE
ADOT
1611 West Jackson
Phoenix, AZ 85007
(602) 712-8555

**Owner**
See above.

**Project Facts**
Project Construction Cost: $100,000,000
Project Completion Date: 2012 (est.)

Services provided on this project: **Structural, Survey, Transportation and Water Resources**
Premier provided engineering services for part of this three-level system-to-system flyover interchange that connects existing I-10 to the Santan Freeway (Loop 202), including preparation of the Plans, Specifications and Estimates (PS&E) for the Ramp N-W, a curved directional ramp. The structure, carrying northbound I-10 traffic to westbound Loop 202, is an eight-span structure with a total length of approximately 950 feet. This cast-in-place post-tensioned concrete box girder bridge was designed as a two-frame hinge system and has an out-to-out width of 31’-2”. The abutments and piers are supported on spread footings. In addition, Premier was responsible for the off-site drainage design, including hydrologic analyses, as well as storm drain and channel design.

Premier also prepared the PS&E package for the storm drain pump station located in the southwest quadrant of the I-10/Santan Freeway traffic interchange. The four-level reinforced concrete structure consists of three underground levels extending 58 feet deep and a masonry building at ground level. The pump station was designed to accommodate three natural gas pumps with direct drive engines, one submersible electrically operated pump and a discharge box configured to include a splitter weir. Studies were performed to analyze the hydraulic operation of the station and optimize the pump and storage pipe design.
Experience Summary
CG is the President of Premier Engineering Corporation and has 28 years of extensive structural engineering experience in the design of buildings, bridges, earth retaining structures and noise/retaining walls. A certified bridge inspector, CG has inspected more than 300 bridges throughout Arizona. He has served as Project Principal for the majority of public works projects completed by Premier and has full authority to commit the necessary resources for successful completion of Premier’s projects.

ROADWAYS / HIGHWAYS
- SR 303L: Waddell Road to Mountain View Boulevard (Segment 6); Surprise, AZ
- City of Phoenix Bridge Inspection Program (2003 – 2005); Phoenix, AZ
- Cave Creek Road: Beardsley Road to Rose Garden Lane; Phoenix, AZ
- 24th Avenue/Camelback Road Drainage Improvements; Phoenix, AZ
- 83rd Avenue Bridge at New River; Glendale, AZ
- First Avenue Bridge over Canyon Del Oro Wash; Oro Valley, AZ
- Ramp N-W at I-10/Santan Freeway (Loop 202) System Interchange; Phoenix, AZ
- Bechtel and La Palma Road Bridges; Pinal County, AZ
- Pusch View Lane Bridge over Canyon Del Oro Wash; Oro Valley, AZ
- 6th Avenue Bridge at I-10; Tucson, AZ
- 7th Street Bridge at Arizona Canal; Phoenix, AZ
- 51st Avenue Bridge at Skunk Creek; Phoenix, AZ
- Buckeye Road Underpass; Phoenix, AZ
- East Papago and Hohokam Traffic Interchange; Phoenix, AZ
- Houghton Road Bridge; Tucson, AZ

PEDESTRIAN/BICYCLE FACILITIES
- Peoria and Olive Avenue Underpasses at New River DCR and EDR; Peoria, AZ
- Camelback Road Pedestrian Underpass; Phoenix, AZ
- 29th Avenue Bicycle Bridge; Phoenix, AZ
- Skunk Creek Multi-Use Path Improvements at Bell Road and Union Hills; Glendale, AZ

WALL STRUCTURES
- Chandler Boulevard Screenwall and Streetscape; Phoenix, AZ
- SR 101 Price Freeway - Warner to Frye; Tempe, AZ
- Concept Study: I-17 Corridor Design: Thomas Road TI to Thunderbird Road TI; Phoenix, AZ
- I-17 Mainline Widening: Thomas Road to Camelback Road; Phoenix, AZ
- Squaw Peak Parkway: 29th Street/Shea Boulevard; Phoenix, AZ
- Squaw Peak and Bethany Home Road Interchange; Phoenix, AZ
- Charleston Highway Junction Structure; Cochise County, AZ

FREEWAY MANAGEMENT SYSTEMS
- Freeway Management System, Phase V; Phoenix, AZ
- Freeway Management System, Phase IV; Phoenix, AZ
- Freeway Management System; Tucson, AZ

PARK FACILITIES
- Cave Creek Wash Regional Parks; Phoenix, AZ
- Earl Edgar Recreational Facility; Buckeye, AZ
TIM MORRISON, PE, PMP, LEED® GREEN ASSOCIATE
Federal Program Manager

**Experience Summary**
Tim has 22 years of experience in infrastructure program management, water resources engineering, public administration and general civil design for public projects and the private sector. As the Tucson Sector Tactical Infrastructure Program Manager (USACE - Contractor), he managed the entire life cycle of projects including channel improvements, bridges, vehicle barriers and fencing, lighting, water wells, patrol roads and operations and maintenance along the international boundary with Mexico. His responsibilities also included planning, funding development, NEPA and environmental documents, design, construction, commissioning and maintenance and repair. Construction of the TI was via Design-Build, Design-Bid-Build, and military deployment with projects ranging from $100,000 to $20,000,000 construction cost.

### Education
- BS Civil Engineering, 1987
  University of Arizona

### Registrations
- Professional Engineer
  State of Arizona
  (Civil – 1990 #24007)

### Certifications
- Project Management Professional
  (2010 - 1325081)

- LEED® Green Associate

### Associations
- National Institute of Building Sciences, Scientific Resolution Panel Cadre of Experts
- Society of American Military Engineers
- Project Management Institute (2010 - 1325081)

### Years of Experience
- 22

### Years with Firm
- 1

---

### INFRASTRUCTURE PROGRAM MANAGEMENT
- Tucson Sector Tactical Infrastructure Program Manager (Contractor);
  International Boundary with Mexico, AZ
- International Ditch and Service Road – Phase 1; Douglas, AZ
- International Ditch and Service Road – Phase 2; Douglas, AZ
- Whitewater Draw Patrol Road; Douglas, AZ
- Baboquivari Project Access Road Design - SBI Project 1029; Sasabe, AZ
- Naco-Douglas Railroad Phase 1 Environmental Survey Assessment; Bisbee, AZ
- Papago Farms Water Well – Law Enforcement Center; Sells, AZ
- Design Concept Report - Tactical Infrastructure for Western Arizona Project 5; Organ Pipe Cactus National Monument, AZ
- PF70 Project - TCA Operation Jump Start 3; Douglas, AZ
- PF70 Project - TCA Operation Jump Start 5; Naco, AZ
- VF300 Project DV-3a & DV-4b; Sells, AZ o.
- VF300 Project FV-1a; Douglas, AZ
- VF300 Project EV-1a; Sonoita, AZ
- Secure Border Initiative (SBI) Project 1026-1; Naco, AZ
- SBI Project 1029-1; Naco, AZ
- SBI Project 1032-1; Nogales, AZ
- Nogales Officer Safety Road; Nogales, AZ
- Lighting Relocation - Secure Border Initiative (SBI) Project 1033-1; Nogales, AZ
- SBI Project 1036-1; Sonoita, AZ
- Tucson and Yuma Sectors Fence Maintenance;
  International Boundary with Mexico, AZ

### WATER RESOURCES ENGINEERING
- Pima Freeway (101L) Segment 9a; Scottsdale, AZ
- Pima Road Multi-use Path; Scottsdale, AZ
- Vee Quiva Casino Drainage Study; Gila River Indian Community, AZ
- On-Call General Engineering Services; Maricopa County, AZ
- Aguila Area Drainage Master Plan; Maricopa County, AZ
- Saint Rose Parkway (SR-146) Phase 1; Las Vegas, NV
- Tucson Stormwater Management Study; Tucson, AZ
- Gila River Hydraulic Design, 116th Avenue Bridge Crossing; Maricopa County, AZ
- Indian Bend Wash Floodplain Delineation; Scottsdale, AZ
Experience Summary
Sam has 27 years of progressive civil engineering, survey and project management experience in design and field engineering of large private developments and public infrastructure projects. He has been responsible for the survey and design of numerous civil engineering projects including urban/rural highways, airports, drainage structures, culverts, channels, floodways, retention/detention facilities, pump stations and storm drain systems.

Education
Graduate Studies Civil Engineering (Structural), 1983
Arizona State University

BS, Civil Engineering, 1981
Arizona State University

BS, Physics, 1977
Esfahan University, Iran

ROADWAYS/HIGHWAYS
• Bullard Avenue Widening; Paradise Lane to Bell Road; Surprise, AZ
• 24th Avenue/Camelback Road Drainage Improvements; Phoenix, AZ
• Cave Creek Road; Beardsley Road to Rose Garden Lane; Phoenix, AZ
• Northern Avenue Storm Drain; 45th to 63rd Avenues; Glendale, AZ
• Deer Valley Road; 83rd to 91st Avenues; Peoria, AZ
• Deck Replacement; Holbrook, AZ
• Sonoran Boulevard; 15th Avenue to Cave Creek Road; Phoenix, AZ
• VF-300 Secure Border Initiative; Yuma, AZ

EDUCATIONAL FACILITIES
• Broadmor Elementary Replacement School; Tempe, AZ
• Roosevelt Elementary School District; Bond Projects; Phoenix, AZ
• Magma Ranch K-8; Florence, AZ
• Isaac School District No. 5; Zito School Campus Feasibility Study; Phoenix, AZ
• Isaac School District No. 5; Deficiency Correction Projects; Phoenix, AZ
• Arizona School Administrators (ASA) Corporate Office; Phoenix, AZ
• Mountain Pointe High School, Parking Lot Renovation; Phoenix, AZ

PARK/RECREATIONAL FACILITIES
• Heritage Park; El Mirage, AZ
• Earl Edgar Recreation Facility Renovation; Buckeye, AZ
• Grand Canyon National Park; Multiple Projects; Grand Canyon, AZ
• Santa Maria Park (71st Avenue and Elwood Community Park); Phoenix, AZ
• City of Avondale, Parks; Avondale, AZ
• 71st Avenue and Elwood Park; Phoenix, AZ

TRANSIT PARKING LOTS
• CP/EV LRT – Final Design of 7 Park-and-Ride Facilities; Mesa/Tempe/Phoenix, AZ
• Tempe Employee Parking Facility; Tempe, AZ
• 5th Street/Farmer Avenue Replacement Parking Facility; Tempe, AZ

MUNICIPAL FACILITIES
• Arabian Library Phase II; Scottsdale, AZ
• Quincie Douglas Branch Library; Tucson, AZ
• Desert View Northeast Library; Phoenix, AZ
• Motor Pool Facility Phase I and II, 16th Avenue and Madison; Phoenix, AZ

MEDICAL FACILITIES
• VA Medical Center; Outpatient Ambulatory Clinic Addition; Phoenix, AZ
• John C. Lincoln Hospital; Phoenix, AZ
• Chandler Regional Hospital; Chandler, AZ
• Valley Lutheran Hospital; Banner Health System; Mesa, AZ
Experience Summary
Kim has 16 years of experience in civil engineering design. She performs engineering, project administration and client coordination for a variety of civil engineering projects. Her experience includes street, grading/drainage, erosion control, utility systems, and pavement design; project specifications; site development; cost estimating; and project bid and award assistance. Kim is particularly skilled in roadway and street design, coordination of multiple disciplines, parking layouts, public and stakeholder involvement and project controls including schedules and budgets. She has a proven track record of successful delivery of a wide variety of projects.

Education
BS, Civil Engineering, 1993
Northern Arizona University

Registrations
Professional Engineer
State of Arizona
(Civil – 1998 #32837)

Certifications
LEED® Accredited Professional

Years of Experience
16

Years with Firm
8

ROADWAYS/HIGHWAYS
• Peoria and Olive Avenue Underpasses at New River DCR and EDR; Peoria, AZ
• Cave Creek Road: Beardsley Road to Rose Garden Lane; Phoenix, AZ
• Deer Valley Road: 83rd Avenue to 91st Avenue; Peoria, AZ
• ADOT Statewide On-Call District Minor Projects; Statewide, AZ
• Sonoran Boulevard: 15th Avenue to Cave Creek Road; Phoenix, AZ
• Bullard Avenue Widening: Paradise Lane to Bell Road; Surprise, AZ

EDUCATIONAL FACILITIES
• Peoria Unified School District #11: Bond Improvement Projects; Peoria, AZ
• Isaac School District No. 5: Zito School Campus Feasibility Study; Phoenix, AZ
• Elementary School District: Bond Projects; Phoenix, AZ
• New Hangar for Aviation Maintenance Program at the Williams Center of Chandler-Gilbert Community College; Gilbert, AZ

MUNICIPAL FACILITIES
• City of Tempe Employee Parking Facility; Tempe, AZ
• ADOT North Phoenix Maintenance Yard, 23rd Avenue and Pinnacle Peak Road; Phoenix, AZ
• Forensic Science Center; Phoenix, AZ
• City of Phoenix Police Training Academy Expansion Access Road; Phoenix, AZ

PARK/RECREATION FACILITIES
• Heritage Park; El Mirage, AZ
• Earl Edgar Recreation Facility Renovation; Buckeye, AZ
• Chandler Regional Park; Chandler, AZ
• City of Avondale Parks; Avondale, AZ

RESIDENTIAL/COMMERCIAL FACILITIES
• Magma Ranch Subdivision; Pinal County, AZ (AREAD)
• Dobbins Creek Subdivision, Paving Plans; Phoenix, AZ
• Highline Vista Estates, Paving Plans; Phoenix, AZ
• Roadway Improvements, Safeway Store #1637; Mesa, AZ

MEDICAL FACILITIES
• Alternative Medicine Center for Pain Management; Mesa, AZ
• VA. Medical Center Expansion
• Mayo Clinic Administration Building
• Chandler Regional Hospital; Chandler, AZ
• Scottsdale Memorial Hospital – Osborn Campus; Scottsdale, AZ
• Scottsdale Memorial Hospital – North Campus; Scottsdale, AZ
Experience Summary
Dan has eight years civil engineering experience in infrastructure and site improvement projects for public and private clients. His projects encompass freeway and roadway design, utility relocation, grading and drainage, stormwater management and parking lot design for public agencies, academic facilities as well as residential and commercial developments. Dan has extensive knowledge in the use of AutoCAD, MicroStation, InRoads, and Microsoft Office software. He also uses Flowmaster for drainage design. In addition, Dan has construction inspection experience with ADOT and is trained in structural steel inspection, concrete and asphalt sampling, testing and overall general work inspection.

Education
BS, Civil Engineering, 2002
Arizona State University

Registrations
Professional Engineer
State of Arizona
(Civil – 2009 #50080)

Certifications
Safety Inspection of In Service Bridges (FHWA NH1-130055)

Years of Experience
8

Years with Firm
7

ROADWAYS/HIGHWAYS
• SR 303L: Waddell Road to Mountain View Boulevard (Segment 6); Surprise, AZ
• SR 24: Gateway Freeway between SR 202L and Ellsworth Road; Mesa, AZ
• 27th Avenue and Baseline Road Park-and-Ride; Phoenix, AZ
• 38th Street Extension; Phoenix, AZ
• 24th Avenue/Camelback Road Drainage Improvements; Phoenix, AZ
• Deer Valley Road: 83rd to 91st Avenues; Peoria, AZ
• Bullard Avenue Widening; Paradise Lane to Bell Road; Surprise, AZ
• Sonoran Boulevard: 15th Avenue to Cave Creek Road; Phoenix, AZ
• ADOT General Consultant and Management Consultant Plus Contracts; Maricopa County, AZ

TRANSIT FACILITIES
• CP/EV LRT– Final Design of 7 Park-and-Ride Facilities; Mesa/Temp/Phoenix, AZ

RESIDENTIAL/COMMERCIAL FACILITIES
• Magma Ranch Subdivision; Pinal County, AZ

PEDESTRIAN/BICYCLE FACILITIES
• Camelback Road Pedestrian Underpass; Phoenix, AZ
• Peoria and Olive Avenue Underpasses at New River DCR and EDR; Peoria, AZ
• Skunk Creek Multi-Use Path Improvements at Bell Road and Union Hills; Glendale, AZ

EDUCATIONAL FACILITIES
• Kyrene de la Colina Elementary School/Kyrene Centennial Middle School Parking Lot Improvements; Phoenix, AZ
• New Hangar for Aviation Maintenance Program at the Williams Center of Chandler-Gilbert Community College; Gilbert, AZ
• Magma Ranch K-8; Florence, AZ
• Roosevelt Elementary School District: Bond Projects; Phoenix, AZ
• Peoria Unified School District #11: Bond Improvement Projects; Peoria, AZ

CHURCH FACILITIES
• LDS Santa Rita Church; Mesa, AZ

AIRPORT FACILITIES
• Phoenix-Goodyear Airport – Taxiway A Intersections Improvements - Phase 1; Goodyear, AZ
• Phoenix-Goodyear Airport – Taxiway A Intersections Improvements - Phases 2/3; Goodyear, AZ
CARLOS CARRIAGA, PhD, PE  
Senior Project Manager (Water Resources)

Experience Summary
Carlos has more than 30 years of experience in the fields of hydrology, hydraulics, erosion control and sediment transport, dam and public safety, optimization, water and wastewater, and Geographic Information Systems (GIS). With his extensive background in optimization, Carlos offers innovative approaches to solving drainage and flood control problems involving the identification of optimum project design that offers cost-saving solutions rarely identified by conventional methods. In recent years, Carlos has been implementing GIS to several of his engineering projects such as stream navigability studies, hydrologic and hydraulic modeling in water and wastewater systems, asset management, water utilities inventory, dam and public safety, flood damage and risk assessments, area drainage master studies, watercourse and storm water master plans, and 2D flow hydraulics.

Education
PhD, Civil Engineering, 1993, Arizona State University
BS, Agricultural Engineering, 1979, Central Luzon State Un.

Registrations
Professional Engineer  
State of Arizona  
(Civil – 1996 #30003)

Associations
American Society of Civil Engineers  
Association of State Dam Safety Officials  
Arizona Geographic Information Council  
Association of State Floodplain Managers  
Arizona Floodplain Management Association  
Arizona Public Works Association  
Arizona Society of Civil Engineers  
Past Chairman, Water Resources Technical Committee

Years of Experience
32

Years with Firm
1

DRAINAGE PROJECTS
• Rainbow Valley Area Drainage Master Plan; Maricopa County, AZ (URS Corp/FCDMC)
• 52nd Street and Storm Drain Improvements McDowell Road to Thomas Road; Phoenix, AZ (City of Phoenix)
• Design of Emergency Spillway, Florence Retarding Dam; Florence, AZ (Florence Area Watershed Flood Control District)
• City of Show Low Low Comprehensive Storm Water Master Plan; Show Low, AZ (City of Show Low)
• City of Sedona Storm Water Master Plan; Sedona, AZ (City of Sedona)
• Rio Verde Area Drainage Master Plan; Maricopa County, AZ (FCDMC)
• Florence Retarding Dam – Benefit/Cost Analysis (Phase I); Florence, AZ (Florence Area Watershed Flood Control District)
• Florence Retarding Dam – Emergency Action Plan (Phase II); Florence, AZ (Florence Area Watershed Flood Control District)
• Smucker Park Dam Emergency Action Plan; Yuma, AZ (City of Yuma)
• Risk Assessment Analysis for New River Dam; Maricopa County, AZ (FCDMC)
• Skunk Creek Watercourse Master Plan Study; Maricopa County, AZ (FCDMC)
• Thunderbird Park Reservoir (Phase II - Emergency Action Plan); Glendale, AZ (City of Glendale)
• Thunderbird Park Reservoir (Phase I – Dam Failure Analysis); Glendale, AZ (City of Glendale)
• Small and Minor Watercourses Analysis; State of Arizona (ASLD)
• Stream Navigability Investigation for Little Colorado River (Sunrise to Colorado River Confluence)/Blue River (State Line to San Francisco River Confluence); State of Arizona (ASLD)
• Stream Navigability Studies for Sonoita Creek and Cienega Creek; State of Arizona (ASLD)
• Stream Navigability Investigation for Little Colorado River (Sunrise to Colorado River Confluence)/Blue River (State Line to San Francisco River Confluence); State of Arizona (ASLD)
• Stream Navigability Studies for Sonoita Creek and Cienega Creek; State of Arizona (ASLD)
• Small and Minor Watercourses Pilot Study; State of Arizona (Arizona Navigable Streams Adjudication Commission)
• Upper Cave Creek Watercourse Master Plan Study; Maricopa County, AZ (FCDMC)
• San Manuel Airport Drainage Master Plan; Pinal County, AZ (Pinal County)
BHARAT JAYSWAL, PE, LEED® AP, CFM
Civil/Water Resources Engineer

Experience Summary
Bharat has 23 years of professional experience performing a variety of civil engineering and project management functions for public and private clients. His extensive experience includes hydraulic and hydrology modeling and design as well as design of streets/roadways, grading/drainage, utility systems and water/wastewater systems. Bharat has served as project manager on projects requiring extensive coordination efforts with municipalities and private utility companies. He is a hands-on engineer proficient in the use of the latest versions of design and CADD software including HEC-1, HEC-RAS, WaterCAD, StormCAD, MicroStation and AutoCAD-Civil 3D.

### Education
- **BS, Engineering, 1986**
- **M. S. University of Baroda, India**

### Registrations
- **Professional Engineer**
- **State of Arizona**
  (Civil – 2004 #40988)

### Certifications
- **LEED® Accredited Professional**
- **ASFPM Certified Floodplain Manager**
  (Association of State Floodplain Managers
  (# US 09 04665))

### Associations
- **Association of State Floodplain Managers**

### Years of Experience
- **24**

### Years with Firm
- **3**

### ROADWAYS/HIGHWAYS
- **27th Avenue and Baseline Road Park-and-Ride; Phoenix, AZ**
- **Avenida Rio Salado/Broadway Road: 51st to 43rd Avenues; Phoenix, AZ**
- **Southern Avenue and Meridian Road Drainage Improvements; Maricopa County, AZ**
- **MCDOT General Engineering On-Call: Scoping Report for El Mirage Road at Gila River; Maricopa County, AZ**
- **MCDOT General Engineering On-Call; Maricopa County, AZ**
- **Skunk Creek Multi-Use Path Improvements at Bell Road and Union Hills; Glendale, AZ**
- **Sonoran Boulevard from 15th Avenue to Cave Creek Road; Phoenix, AZ**
- **Cave Creek Road: Beardsley Road to Rose Garden Lane; Phoenix, AZ**
- **ADOT Management Consultant Contract: SR 143/L 202 Traffic Interchange; Phoenix Metropolitan, AZ**
- **Bullard Avenue Widening: Paradise Lane to Bell Road; Surprise, AZ**
- **Fain Road – SR 69 to SR 89A; Yavapai County**
- **ADOT Statewide On-Call Bridge and Drainage Design (2008 – 2011): I-19 Bridge Scour PA; Statewide, AZ**
- **Villageo Elementary School (New School); Casa Grande, AZ**
- **Northern Avenue Storm Drain: 47th to 63rd Avenues; Glendale, AZ**
- **Grace Neal Parkway Temporary Channel; Kingman, AZ**

### RESIDENTIAL/COMMERCIAL FACILITIES
- **Villa at Agua Fria; Peoria, AZ**
- **Carmel Village Plaza; Chandler, AZ**
- **Camelback 101 Plaza; Phoenix, AZ**

### EDUCATIONAL FACILITIES
- **Roosevelt Elementary School District: Bond Projects; Phoenix, AZ**

### OTHER
- **International Projects; India**
Experience Summary
Raj Shrestha has eight years of experience as a Civil Engineer/Designer. He has worked on a variety of projects including roadways, residential and commercial site development, drainage, and utilities. He is capable of performing hydrology and hydraulic analysis of master planned communities; bridge hydraulics, scour analysis, and bank protection design; and sediment transport analysis.

Education
MS, Civil Engineering, 2003
Lamar University

BS, Civil Engineering, 2000
Tribhuvan University

Registrations
Professional Engineer
State of Arizona
(Civil – 2009 #49122)

Certifications
ASFPM Certified Floodplain Manager: Association of State Floodplain Managers (# US 09 04663)

Years of Experience
8

Years with Firm
7

ROADWAYS/HIGHWAYS
• Avenida Rio Salado/Broadway Road: 51st to 43rd Avenues; Phoenix, AZ
• Southern Avenue and Meridian Road Drainage Improvements; Maricopa County, AZ
• 27th Avenue and Baseline Road Park-and-Ride; Phoenix, AZ
• MCDOT General Engineering On-Call: Scoping Report for El Mirage Road at Gila River; Maricopa County, AZ
• MCDOT General Engineering On-Call; Maricopa County, AZ
• Missouri Water Main Extension; Glendale, AZ
• Cave Creek Road: Beardsley Road to Rose Garden Lane; Phoenix, AZ
• Bullard Avenue Widening: Paradise Lane to Bell Road; Surprise, AZ
• Northern Avenue Storm Drain: 47th to 63rd Avenues; Glendale, AZ
• Deer Valley Road: 83rd to 91st Avenues; Peoria, AZ
• 7th Street: Carefree Highway to Desert Hills; Maricopa County, AZ
• Fain Road – SR 69 to SR 89A; Yavapai County
• Sonoran Boulevard: 15th Avenue to Cave Creek Road; Phoenix, AZ

TRANSIT PARKING LOTS
• CP/EV LRT– Final Design of 7 Park-and-Ride Facilities; Mesa/Tempe/Phoenix, AZ
• Tempe Employee Parking Facility; Tempe, AZ

PEDESTRIAN/BICYCLE FACILITIES
• Camelback Road Pedestrian Underpass; Phoenix, AZ
• Peoria and Olive Avenue Underpasses at New River DCR and EDR; Peoria, AZ
• Skunk Creek Multi-Use Path Improvements at Bell Road and Union Hills; Glendale, AZ

RESIDENTIAL/COMMERCIAL FACILITIES
• Magma Ranch Subdivision; Pinal County, AZ

EDUCATIONAL FACILITIES
• Broadmor Elementary Replacement School; Tempe, AZ
• Villago Elementary School (New School); Casa Grande, AZ
• Isaac School District No. 5: Zito School Campus Feasibility Study; Phoenix, AZ
• Magma Ranch K-8; Florence, AZ
• Peoria Unified School District #11: Bond Improvement Projects; Peoria, AZ
• Roosevelt Elementary School District: Bond Projects; Phoenix, AZ

CHURCH FACILITIES
• LDS Santa Rita Church; Mesa, AZ
Experience Summary
Fadi has 26 years of professional experience in project management, design and construction of various types of bridges, special highway structures, earth retaining structures, sound walls, and buildings. Fadi has managed and coordinated a number of final bridge design and transportation related projects for the Arizona Department of Transportation, Maricopa County, Flood Control District of Maricopa County, City of Phoenix and other local agencies. His proven design and construction experience includes the successful completion of more than 50 bridge projects statewide. Fadi’s recent affiliation with the Arizona Department of Transportation makes him familiar with current standards and policies.

Education
MS, Structural Engineering, 1985
University of Michigan, Ann Arbor

BS, Civil Engineering, 1983
University of Michigan, Ann Arbor

Registrations
Professional Engineer
State of Arizona
(Civil – 1990 #24338)
(Structural – 1990 #24472)

State of Nevada
(Civil – 2000 #14357)

State of Utah
(Civil – 2009 #722088)

State of New Mexico
(Civil – 1999 #14647 - Inactive)

Certifications
Safety Inspection of in Service Bridges (FHWA NH1-130055)

Associations
American Council of Engineering Companies

American Institute of Steel Construction

Years of Experience
26

Years with Firm
13

FEDERAL INFRASTRUCTURE
• Luke Air Force Base Bridge Inspection; Glendale, AZ

STRUCTURES/BRIDGES
• Wheatfields Area Phase I (SR 188), Murray Wash Bridge; Gila County, AZ
• Oak Creek Canyon Bridge, SR 89A; Sedona, AZ
• SR 87 Segment F; Maricopa County, AZ
• Big Bug Creek Bridges, SR 69; Cordes Junction, AZ
• Cedar Canyon Bridge, US 60; Apache County, AZ
• Fortuna Wash Bridge Seismic Retrofit, I-8; Yuma, AZ
• Gila River Bridge, SR 95; Yuma, AZ
• Salt River Canyon “Apache” Bridge, US 60; Apache County, AZ
• Upper Screw Tail Bridge, SR 87; Maricopa County, AZ
• Verde River Bridge Northbound and Southbound, SR 87; Maricopa County, AZ
• Nutrioso Creek Bridge, US 180; Alpine, AZ
• California Wash Bridge, I-10; Bowie, AZ
• 4th Avenue Bridge Widening over Arizona Canal; Yuma, AZ
• Indian School Road Bridge at Grand Avenue; Phoenix, AZ
• Roosevelt Lake Bridge, SR 88; Gila County, AZ
• Expansion Joint Replacement at 5 locations; Phoenix, AZ
• I-10 Bridge over the Salt River; Phoenix, AZ
• Mill Avenue Viaduct, Loop 202; Tempe, AZ
• SR 95 Bridge over I-10; Quartzsite, AZ
• Aviation Corridor SR 210; Tucson, AZ
• Big Lithodendron River Bridges; Holbrook, AZ
• US 191, Scour Retrofit; 4 locations; Douglas, AZ
• 59th Avenue Bridge Over Grand Canal; Phoenix, AZ
• Greenway Parkway Bridge over Cave Creek Wash; Phoenix, AZ
• 16th Street SPRR Overpass; Yuma, AZ
• 27th Avenue TIOP, Loop 101; Phoenix, AZ
• Dead Horse Ranch Bridge, SR 89A; Cottonwood, AZ
• Gila River Bridge, SR 85; Buckeye, AZ
• McKellips Road TIOP, LOOP 101; Phoenix, AZ

WALL STRUCTURES
• Santan Freeway (202L) from Kyrene Road to McClintock Drive; Chandler, AZ
• Retaining Walls and Sound Barrier Walls along the Pima Freeway; Phoenix, AZ
• Chandler Boulevard Screen Wall; Phoenix, AZ
• Mesa Screen Wall at the Commons; Mesa, AZ
Experience Summary
Sergio is a Structural Bridge Engineer with 25 years of experience in the design and construction of bridges and large structural concrete projects. His unique combination of design and construction experience has allowed him the opportunity to work in heavy highway, public works, flood control and private projects. His extensive experience includes the construction and design of various types of bridges for traffic interchanges, system traffic interchanges, river and canal crossings and pedestrian bridges. Sergio has served in the role of project manager on pre-design and final design projects. His expertise is extremely valuable concerning constructability reviews, sequencing issues, time analysis studies and cost estimates on complex projects.

Education
BS, Civil Engineering, 1985
North Dakota State University

Registrations
Professional Engineer
State of Arizona
(Civil – 2003 #39510)

State of Utah
(Civil – 2008 #7218156)

Certifications
Safety Inspection of in Service Bridges (FHWA NH1-130055)

Associations
American Council of Engineering Companies

Years of Experience
25

Years with Firm
3

ROADWAYS/HIGHWAYS
- Sonoran Boulevard: 15th Avenue to Cave Creek Road; Phoenix, AZ
- SR 303L: Waddell Road to Mountain View Boulevard (Segment 6); Surprise, AZ
- ADOT Management Consultant Contract: SR 143/L 202 Traffic Interchange; Phoenix Metropolitan, AZ
- Ocotillo Road Improvements: Arizona Avenue to McQueen Road (CMAR); Chandler, AZ
- ADOT Management Consultant: SR 303L – US 60 to Happy Valley Road; Phoenix, AZ
- Deer Valley Road: 83rd to 91st Avenues; Peoria, AZ
- Bell Road over the Hassayampa River, Douglas Ranch; Buckeye, AZ
- ADOT Statewide On-Call Bridge and Drainage Design (2008 – 2011); Statewide, AZ
  - Santa Cruz River Bridge Deck Rehabilitation; PA and Final Design
  - I-40, Babbitts Tank Bridge; Final design services to replace the EB bridge and provide scour retrofit for the WB bridge
  - Tanner Wash Bridge; Final design services to replace the WB bridge and provide scour retrofit for the EB bridge
  - Canyon Diablo Wash Bridge; PA and final design services to provide scour retrofit for the EB and WB bridges
  - I-40/Keams Canyon Bridge Deck Rehabilitation; PA and Final Design
- ADOT On-Call Bridge and Drainage (2008-2011): SR 85 at Gila Bend; Maricopa County, AZ
- ADOT Freeway Dynamic Message Sign Analysis; Phoenix, AZ
- ADOT Freeway Dynamic Message Sign Analysis; Heber, AZ
- ADOT Statewide On-Call Bridge Inspection (2009 – 2011); Statewide, AZ
- Bell Road over the CAP Canal, Douglas Ranch; Buckeye, AZ
- Mavis Wash Bridge, Presidio de Tubac; Tubac, AZ

PEDESTRIAN/BICYCLE FACILITIES
- Peoria and Olive Avenue Underpasses at New River DCR and EDR; Peoria, AZ
- South Mountain Community College Pedestrian Crossing; Phoenix, AZ

TRANSIT/RAIL FACILITIES
- Automated Train at Sky Harbor International Airport (Sky Train Guideway); Phoenix, AZ
- Automated Train at Sky Harbor International Airport (Soil Nail Walls); Phoenix, AZ
- Tempe Employee Parking Facility; Tempe, AZ

PARK/RECREATIONAL FACILITIES
- Earl Edgar Recreation Facility Renovation; Buckeye, AZ
Experience Summary
Brian has 12 years of experience in the design, construction and inspection of structural steel and concrete bridges. He has served as the Bridge Inspection Team Leader for the ADOT Statewide On-Call Bridge Inspection (2006-2009) and was responsible for routine inspection of 218 bridges. Brian has also inspected and performed load rating computations for more than 50 steel bridges for Pennsylvania DOT (PDOT). His diverse bridge design experience includes concrete and steel bridges for ADOT, PDOT, Maryland DOT, and New Mexico DOT.

Education
BS, Engineering, 1999
Pennsylvania State University

BA, Physics, 1999
Slippery Rock University of Pennsylvania

Registrations
Professional Engineer
State of Arizona
(Civil – 2006 #44976)

State of Maryland
(Civil – 2004 #29905)

Certifications
National Highway Institute Certified Bridge Inspector

Safety Inspection of In Service Bridges (FHWA NH1-130055)

Years of Experience
12

Years with Firm
2

FEDERAL INFRASTRUCTURE
• Luke Air Force Base Bridge Inspection; Glendale, AZ

ROADWAYS/HIGHWAYS
• Peoria Avenue Bridge over New River; Peoria, AZ
• SR 24: Gateway Freeway between SR 202L and Ellsworth Road; Mesa, AZ
• Sonoran Boulevard: 15th Avenue to Cave Creek Road; Phoenix, AZ
• Ocotillo Road Improvements: Arizona Avenue to McQueen Road (CMAR); Chandler, AZ
• SR 303L: Waddell Road to Mountain View Boulevard (Segment 6); Surprise, AZ
• US 93: Hoover Dam to MP 17; Mohave County, AZ
• ADOT On-Call Bridge and Drainage (2008-2011): Babbitts Tank Wash Bridge EB; Coconino County, AZ
• ADOT On-Call Bridge and Drainage (2008-2011): Babbitts Tank Wash Bridge WB; Coconino County, AZ
• ADOT On-Call Bridge and Drainage (2008-2011): SR 85 at Gila Bend; Maricopa County, AZ
• ADOT Statewide On-Call Bridge Inspection (2009-2011); Statewide, AZ
• ADOT Statewide On-Call Bridge Inspection (2006-2009); Statewide, AZ
• Northern Avenue Storm Drain: 45th - 63rd Avenues; Glendale, AZ
• I-40/West Central Interchange; Albuquerque, NM
• MD 5 Branch Avenue Metro Access (MD 5/I-495 Interchange); Montgomery County, MD
• MD 70 over Weems Creek; Annapolis, MD
• MD 4/MD 260 Interchange; Calvert County, MD
• MD 32 over River Road, Patapsco River, and CSX Railroad; Sykesville, MD

TRANSIT STRUCTURES
• Automated Train at Sky Harbor International Airport (Sky Train Guideway); Phoenix, AZ
• Automated Train at Sky Harbor International Airport (Soil Nail Walls); Phoenix, AZ

PEDESTRIAN/BICYCLE STRUCTURES
• Peoria and Olive Avenue Underpasses at New River DCR and EDR; Peoria, AZ
• South Mountain Community College Pedestrian Crossing; Phoenix, AZ
• Scottsdale Road: Frank Lloyd Wright Boulevard to Thompson Peak Parkway; Scottsdale, AZ
• MD 261 Timber Boardwalk; Chesapeake Beach, MD

SOLAR
• T0 Tracker Solar System Design Services; Pima County, AZ
Experience Summary
Kevin has 16 years of experience in engineering design, construction management and construction field testing. He has been the Design Engineer and Project Manager on freeway and roadway projects as well as Utility Coordinator for numerous public projects. Kevin has prepared final design plans, specifications and cost estimates; utility conflict identification and relocation; design concept reports and project assessments. Many of his projects require extensive coordination with City, County and State agencies.

Education
BS, Civil Engineering, 1996
Arizona State University

Registrations
Professional Engineer
State of Arizona
City of Henderson Municipal Airport; Henderson, NV

Associations
American Society of Civil Engineers
Arizona Society of Civil Engineers

Years of Experience
16

Years with Firm
2

ROADWAYS/HIGHWAYS
- Avenida Rio Salado/Broadway Road: 51st to 43rd Avenues; Phoenix, AZ
- Sonoran Boulevard: 15th Avenue to Cave Creek Road; Phoenix, AZ
- SR 303L: Waddell Road to Mountain View Boulevard (Segment 6); Surprise, AZ
- SR 303L: US 60 to Happy Valley Road; Phoenix, AZ
- ADOT Statewide On-Call Bridge and Drainage Design (2008-2011); Statewide, AZ
- ADOT Management Consultant: SR 303L – US 60 to Happy Valley Road; Phoenix, AZ
- ADOT Roadway On-Call and Pre-Design On-Call Services; Various, AZ
- Deer Valley Road Bridge Across New River; Phoenix, AZ
- Pre-Design Services; Scottsdale, AZ
- Plans Review Service; Phoenix, AZ
- I-40 Climbing Lane EB; AZ
- I-17/Munds Park TI Design Concept Report; Munds Park, AZ
- SR 66 Multi-Use Path; Peach Springs, AZ

AIRPORT FACILITIES
- Phoenix-Goodyear Airport – Taxiway A Intersections Improvements; Goodyear, AZ
- Automated Train at Sky Harbor International Airport (Sky Train Guideway); Phoenix, AZ
- City of Henderson Municipal Airport; Henderson, NV

OTHER
- Underground Utility On-Call Services; AZ
**Experience Summary**
Jesse has 12 years of experience in engineering and land surveying with a primary emphasis on surveying in support of public works projects. The majority of his work has involved supervision of surveying and mapping for the design of transportation and site development projects such as highways, streets, bridges, schools, and parking facilities. He has extensive experience in the staking of construction projects, including numerous large-scale residential subdivisions, master-planned communities, commercial developments, underground utilities relocation, airport runway extensions, and all phases of construction for widening major arterials. Jesse has performed and managed topographic and planimetric surveys, aerial photogrammetric mapping control surveys, high-order horizontal and vertical control surveys, roadway alignment surveys, floodplain delineation surveys, right-of-way and easements mapping, ALTA and property boundary surveys, utilities mapping, construction layout and related surveys, GIS analysis, and international border determinations.

**Education**
- BS, Mechanical Engineering, 1999
  University of Arizona

**Registrations**
- Registered Land Surveyor
  State of Arizona
  *(Survey – 2005 #42937)*
- Engineer-in-Training
  State of Arizona
  *(EIT – 2008 #10365)*

**Associations**
- Arizona Professional Land Surveyors

**Years of Experience**
- 12

**Years with Firm**
- 7

### ROADWAYS/HIGHWAYS
- 38th Street Extension; Phoenix, AZ
- Sonoran Boulevard: 15th Avenue to Cave Creek Road; Phoenix, AZ
- 24th Avenue/Camelback Road Drainage Improvements; Phoenix, AZ
- Signal Butte and Elliott Road Street Improvements; Mesa, AZ
- VF-300 Secure Border Initiative; Yuma, AZ
- Kimzey Road ALTA/ACSM Land Title Survey; Cochise County, AZ
- Maricopa-Casa Grande Highway - Intersection Improvements; City of Maricopa, AZ
- Honeycutt Road Design Improvements; City of Maricopa, AZ
- Deer Valley Road: 83rd to 91st Avenues; Peoria, AZ
- McDonald Road Improvements; Scottsdale, AZ
- Spur Cross Floodplain Delineation Study; Cave Creek, AZ
- Loop 101 Frontage Road – Scottsdale to Hayden; Scottsdale, AZ
- Thunderbird Road Intersection Improvements/Scottsdale Road Corridor Drainage Project; Scottsdale
- Lift Station Flow Capacity Study; Phoenix, Arizona
- Isaac Pedestrian Bridge at 35th Avenue and McDowell Road; Phoenix, AZ

### PARK/RECREATION FACILITIES
- Julian K-8 School; Phoenix, AZ
- Heritage Park; El Mirage, AZ
- Earl Edgar Recreation Facility Renovation; Buckeye, AZ
- 71st Avenue and Elwood Park; Phoenix, AZ

### EDUCATIONAL FACILITIES
- Village Elementary School (New School); Casa Grande, AZ
- Broadmor Elementary Replacement School; Tempe, AZ
- Magma Ranch K-8; Florence, AZ
- New Hangar for Aviation Maintenance Program at the Williams Center of Chandler-Gilbert Community College; Gilbert, AZ
- Peoria Unified School District #11: Bond Improvement Projects; Peoria, AZ

### AIRPORT FACILITIES
- Williams Gateway Freeway (SR 802): Santan Freeway (202L) at Hawes Road to Ironwood Road; ADOT
- Williams Gateway Airport Lot 23 (CGCC Hangar); Mesa, Arizona
- Buckeye Airport Runway Extension/Improvements; Buckeye, AZ
Experience Summary
Mark has 24 years of experience in land survey for both private and public projects. His technical capabilities include ALTA/ACSM Land Title Surveys, right-of-way and utility route surveys, construction surveys, topographic surveys, aerial target surveys, cemetery plats, condominium plats, control and boundary surveys, hydrographic surveys, elevations certificates, legal descriptions and subdivisions.

ROADWAYS/HIGHWAYS
- El Mirage Road: Bell to Deer Valley Roads; Maricopa County, AZ
- City of Avondale On-Call; Avondale, AZ
- ADOT Traffic Enhancements and Safety On-Call; St. David/Tombstone/Globe, AZ
- Van Buren Street: La Jolla Boulevard to Dysart Road; Avondale, AZ
- Sonoran Boulevard: 15th Avenue to Cave Creek Road; Phoenix, AZ
- El Mirage Road: Bell to Deer Valley Roads; Maricopa County, AZ
- 75th Avenue and Thunderbird Road Widening; Peoria, AZ
- Forest Highway 51: Tonto National Forest; Payson, AZ
- I-10/Tortolita Boulevard Traffic Interchange (TI); Marana, AZ
- Sarival Avenue Six-Mile Adaman Water Pipeline; Goodyear, AZ
- Estrella Parkway Water Pipeline; Goodyear, AZ
- 27th Avenue and Baseline Road PNR; Phoenix, AZ
- Avenida Rio Salado; Phoenix, AZ
- 32nd Avenue: McDowell Road to Encanto Boulevard; Scottsdale, AZ

AIRPORT FACILITIES
- Phoenix Sky Harbor Taxiway “A”; Phoenix, AZ

EDUCATIONAL FACILITIES
- Martin Luther King Elementary; Phoenix, AZ
- Percy L. Julian School; Phoenix, AZ
- Julian K-8 School; Phoenix, AZ

RESIDENTIAL FACILITIES
- Optima Camelview Condominium; Scottsdale, AZ

CEMETERY FACILITIES
- Topographic, Construction, and Cemetery Plats; Statewide, AZ
  - Mariposa Gardens
  - Green Acres
  - Valley of the Sun
  - Greenwood
  - East Resthaven
  - West Resthaven
  - Camino Del Sol
  - Phoenix Memorial
  - Various Additions
Experience Summary
Scott has over 20 years of experience specializing in project management, design and construction administration of both large scale international airports and smaller general aviation airports throughout the states of Arizona, California and Washington. Scott’s technical expertise includes the design and preparation of construction plans and specifications, construction phasing and construction administration. Additionally, he has held responsible roles during the construction phase of various projects. Scott understands how to take design drawings and implement those in the field during construction. As a Project Manager, he provides continuity from the design phase through the construction phase that ensures a quality product.

Education
BS Civil Engineering, 1990
Oregon State University

Registrations
Professional Engineer
State of Arizona
(Civil – 1997 #31385)
State of Washington
(Civil – 1994 #31802)

Associations
Arizona Airports Association
Southwest Chapter of the American Association of Airport Executives

Years of Experience
20

Years with Firm
1

AIRPORT FACILITIES
- Phoenix-Goodyear Airport – Taxiway A Intersections Improvements - Phases 2/3; Goodyear, AZ
- Passenger Loading Bridges at Terminals 2 and 3 at Phoenix Sky Harbor International Airport; Phoenix, AZ
- Contingency A380 Operating Plan at Phoenix Sky Harbor International Airport; Phoenix, AZ
- Automated Vehicle Identification System at Phoenix Sky Harbor International Airport; Phoenix, AZ
- Third Runway and Associated Taxiways (Design Phase Services) at Phoenix Sky Harbor International Airport; Phoenix, AZ
- Third Runway and Associated Taxiways (Construction Phase Services) at Phoenix Sky Harbor International Airport; Phoenix, AZ
- South Air Cargo Apron Project (Construction Phase Services) at Phoenix Sky Harbor International Airport; Phoenix, AZ
- Runway and Taxiway Overlay (Construction Phase Services) at Phoenix - Goodyear Airport; Goodyear, AZ
- Reconstruction of Taxiway B10, C10 and Demolition of Taxiway B9 at Fresno Yosemite International Airport; Fresno, CA
- Taxiway G and Taxiway G and M Intersection at Colorado Springs Airport; Colorado Springs, CA
- Terminal C Expansion at John Wayne Airport; Santa Ana, CA

FEDERAL AIRPORT FACILITIES
- Patrol Road and Munitions Road at Luke Air Force Base; Phoenix, AZ
- Aircraft Processing Ramp at Davis Monthan Air Force Base; Tucson, AZ
- Repair Aircraft Parking Ramp at Channel Islands Air National Guard Station; Point Mugu, CA

FEDERAL FACILITIES
- Project Management Oversight at Federal Transit Authority; Valley Metro Rail; Phoenix, AZ
- Yuma Sector Border Infrastructure System, US Army Corps of Engineers; Yuma, AZ
- Tactical Infrastructure Western Arizona (TTWAZ), US Army Corp of Engineer; Western, AZ
Experience Summary
David has 19 years of experience in engineering, land surveying and planning with a primary emphasis on land development for public works, military and private development. The majority of his work has involved land planning and civil/survey design for roadways, residential subdivisions, master planned communities, utility relocation and development, military installations, and commercial and industrial developments. David has performed and/or managed civil site planning and design, wet utility designs and mapping, roadway designs, rezoning projects, annexations, ALTA and boundary surveys, topographic surveys and right-of-way and easement surveys.

Education
AS, Specialized Technology, 1992, ITT Technical Institute
AS, Surveying, 1998, Mesa Community College

Years of Experience
19

Years with Firm
01

Camp Navajo Combat Pistol/Military Police Qualification Course; Beaumont, AZ (Arizona Department of Emergency and Military Affairs)
Project Manager/Civil Designer. Multi-disciplined project included structural, mechanical, architectural, electrical and civil services for the design of a 15-lane pistol qualification course and support buildings including an observation tower, ammunition building, covered bleacher, mess and training classroom. This was the “first of its kind” qualification course due to its location and available space. The location required innovative drainage design to eliminate standing water and equipment failure. Facility modifications, which required approval for deviation from the National Guard Bureau, were implemented for efficiency and cost savings while maintaining a state-of-the-art facility.

Ops Center Relocation: Silver Bell Army Heliport to Florence Military Reservation; Marana and Florence, AZ (Arizona Department of Emergency and Military Affairs)
Project Manager/Planner/Civil Designer. Provided site planning and preliminary civil design for the relocation of an existing operations facility at Silver Bell Army Heliport in Marana to the Florence Military Reservation in Florence. The relocation project required the site redesign of an existing facility in Florence to accommodate an operations building that will be transformed into a soldier barracks from the Silver Bell Heliport. The site planning required the incorporation of UFC 4-010-01 Anti-terrorism Standards, preliminary grading and drainage design and preliminary water and sewer design for usage with the existing infrastructure.

Avenida Rio Salado/Broadway Road; Phoenix, AZ (City of Phoenix)
Senior CADD Designer. Premier is preparing the PS&E for a new six-lane urban arterial roadway from 51st Avenue to 43rd Avenue as part of the Rio Salado/Broadway Road project located in the southwest Phoenix Metropolitan Area. The design will provide three-lanes of travel in each direction with a raised median where, at this time, there is no existing roadway. Premier performed multiple land survey tasks in support of the design, including horizontal and vertical control verifications, supplemental topographic survey, right-of-way mapping and utility mapping. Challenges related to cadastral control and property boundary lines such as right-of-way and parcel lines were encountered. Discrepancies in record documents and a lack of found monumentation in the field contributed to complexities in determining roadway alignments and other controlling line locations. Premier is tasked with preparing right-of-way strip maps for each design submittal, as well as final area calculations and exhibits for acquisitions and easement dedications.

SR 24: Gateway Freeway between SR 202L and Ellsworth Road; Mesa, AZ (Stanley Consultants/ADOT)
Senior CADD Designer. SR 24 is part of the Maricopa Association of Governments Regional Transportation Plan Freeway Program and extends from the Santan Freeway (SR 202L) to the Maricopa County line at Meridian Road. Phase 1 of this project includes the construction of the first freeway project in the SR 24 corridor to provide access from Ellsworth Road to and from SR 202L. Premier’s survey services include establishing survey control, performing alignment staking, locating geotechnical borings, pavement tie-in/edge surveys, pothole survey and high order accuracy, and vertical survey of deck grades on Sossaman bridge for widening design.
“Growth of our people, Satisfaction of our clients...All else follows”