

**RFQ# ADSPO14-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

(If a firm has branch offices, complete for each specific branch office seeking work.)

1. REVISED ADSPO13-00003465: Annual Request for Qualifications

a.	FIRM (OR BRANCH OFFICE) NAME:	Kimley-Horn and Associates, Inc.
b.	FIRM (OR BRANCH OFFICE) STREET:	333 E. Wetmore, Road, Suite 280
c.	FIRM (OR BRANCH OFFICE) CITY:	Tucson
d.	FIRM (OR BRANCH OFFICE) STATE:	AZ
e.	FIRM (OR BRANCH OFFICE) ZIP CODE:	85705

f.	YEAR ESTABLISHED:	1998
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(g1).	OWNERSHIP - TYPE:	Corporation
(g2)	OWNERSHIP - SMALL BUSINESS STATUS:	No

h.	POINT OF CONTACT NAME AND TITLE:	Bob Eichinger, P.E., CFM, Vice President
i.	POINT OF CONTACT TELEPHONE NUMBER:	(602) 906-1182
j.	POINT OF CONTACT E-MAIL ADDRESS:	bob.eichinger@kimley-horn.com

k.	NAME OF FIRM <i>(If block 1a is a branch office):</i>	APHC, Inc.
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2. EMPLOYEES BY DISCIPLINE

a. Discipline Title	b. Function: Primary (P) or Secondary (S)	c. No. of Employees - Firm	d. No. of Employees - Branch
Technician/Analyst	P	368	7
Civil Engineer	P	542	5
Project Manager	P	208	2
Transportation Engineer	P	224	2
Landscape Architect	P	58	2
CADD Technician	P	79	1
Water Resources Engineer	P	26	1
Environmental Scientist	P	14	0
Other Employees	P	418	2
Total		1937	22

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3. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST YEAR

a. Approximate No. of Projects	b. Experience	c. Revenue Index Number (see below)
45	Highways; Streets; Airfield Paving; Parking Lots	5
75	Traffic & Transportation Engineering	4
5	Recreational Facilities (Parks, Marinas, Etc.)	3
3	Forensic Engineering	3
2	Railroad and Rapid Transit	2
1	Water Supply, Treatment and Distribution	2
13	Landscape Architecture	2
2	Educational Facilities; Classrooms	2
3	Water Resources; Hydrology; Ground Water	1
8	Codes; Standards; Ordinances	1
3	Construction Management	1
1	Environmental Impact Studies, Assessments or Statements	1
2	Housing (Residential, Multifamily, Apartments, Condominiums)	1
2	Garages; Vehicle Maintenance Facilities; Parking	1
2	Airports; Nav aids; Airport Lighting; Aircraft Fueling	1
3	Urban Renewals; Community Development	1

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

- | | |
|---|---|
| 1. Less than \$100,000 | 6. \$2 million to less than \$5 million |
| 2. \$100,000 to less than \$250,000 | 7. \$5 million to less than \$10 million |
| 3. \$250,000 to less than \$500,000 | 8. \$10 million to less than \$25 million |
| 4. \$500,000 to less than \$1 million | 9. \$25 million to less than \$50 million |
| 5. \$1 million to less than \$2 million | 10. \$50 million or greater |

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4. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section 4 for each key person.)

a. NAME Robert A. Eichinger, P.E., CFM	b. ROLE IN THIS CONTRACT Project Manager / Drainage / Flood Control / Dam Safety	c. YEARS EXPERIENCE	
		1. TOTAL 27	2. WITH CURRENT FIRM 17
d. FIRM NAME AND LOCATION (City and State) Kimley-Horn and Associates, Inc., Phoenix, AZ			
e. EDUCATION (DEGREE AND SPECIALIZATION) Master of Science / Civil Engineering Bachelor of Science / Civil Engineering		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) AZ / Professional Engineer / 24767	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Bob Eichinger has more than 27 years of experience in projects related to stormwater management, drainage, and flood control. He has extensive experience in the areas of hydrology/hydraulics analysis, evaluation of scour, sediment transport and sediment yield, river mechanics, levee design and bank protection, fluvial geomorphology, hydraulic analysis and sizing of culverts, storm drain systems, detention basins, open channels, pump stations, and weirs. He has directed engineering and inspection activities, interpreted construction plans and specifications, directed contractor activities, and conducted meetings with city, county, state, and federal representatives.			

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
1.	(1) TITLE AND LOCATION (City and State) Crossroads East Drainage Alternatives Study Review, Scottsdale, AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. The City of Scottsdale is preparing a drainage master plan for a 960-acre property known as Crossroads East, which is located along Loop 101 between Pima Road and Scottsdale Road. The property is State Trust lands owned by the Arizona State Land Department. The Arizona State Land Department retained Kimley-Horn to conduct a review of the City's drainage master plan on behalf of the Department. Kimley-Horn reviewed and prepared comments on the City of Scottsdale's drainage alternatives formulation and evaluation; alternative hydraulics including FLO-2d, HEC-RAS, and storm drain hydraulics; the preferred drainage alternative hydraulics; and the Crossroad East Design Concept Report.	<input checked="" type="checkbox"/> Check if project performed with current firm	
2.	(1) TITLE AND LOCATION (City and State) Powerline, Vineyard Road, and Rittenhouse FRS Rehabilitation or Replacement Project (PVR), Maricopa County, AZ	PROFESSIONAL SERVICES 2013	CONSTRUCTION (If Applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. Kimley-Horn conducted a detailed three-level alternatives formulation process, screening and selecting a recommended plan to rehabilitate or replace three earth embankment flood control dams. The project included an environmental overview, evaluation of social impacts, economics evaluation, geotechnical and geo-hazard investigations and assessments, FMEA, Value Analysis, preparation of NRCS Work Plan/EA, significant stakeholder and public involvement, and preparation of 30% preliminary design plans for the selected alternative.	<input checked="" type="checkbox"/> Check if project performed with current firm	
3.	(1) TITLE AND LOCATION (City and State) San Tan West ADMS, Phoenix, AZ	PROFESSIONAL SERVICES 2013	CONSTRUCTION (If Applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE QC/QA Reviewer. Kimley-Horn is preparing an Area Drainage Master Study (ADMS) for the San Tan West study area. The study area includes properties within the jurisdictions of Queen Creek, Gilbert, Pinal County, the Gila River Indian Community, and unincorporated Maricopa County. The purpose of the San Tan West ADMS is two-fold: 1) develop a robust two-dimensional integrated hydrology and hydraulics model (FLO-2D) for the watershed and 2) use the model to identify and quantify flooding problems and flood hazards in the study area to ensure public safety for residents and property owners.	<input checked="" type="checkbox"/> Check if project performed with current firm	
4.	(1) TITLE AND LOCATION (City and State) Dove Valley Parkway Feasibility Study, Phoenix, AZ	PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. This study consists of preparing a feasibility study that will provide local jurisdictions and property owners with guidelines to preserve a 200-foot-wide right-of-way corridor to accommodate the planned Dove Valley Parkway. The scope of services includes an assessment of current and future conditions, and environmental overview, a drainage overview, development and evaluation of feasible alternatives, and detailed drawings at a scale of 1 inch=200feet, depicting the preferred parkway alignment.	<input checked="" type="checkbox"/> Check if project performed with current firm	
5.	(1) TITLE AND LOCATION (City and State) Campbell Avenue Channel Repair, Flagstaff, AZ	PROFESSIONAL SERVICES 2012	CONSTRUCTION (If Applicable) 2012
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE QC/QA Reviewer. Kimley-Horn developed channel stabilization alternatives to restore the Campbell Avenue channel's flood control function, which had suffered severe damage and partial failure due to a major flooding event emanating from the Schultz Forest Fire burn area. Kimley-Horn developed and designed a modified channel cross section that included embedding the toe of the lower gabions 18 inches below the channel invert as a scour countermeasure. Kimley-Horn prepared repair alternatives and costs estimates and worked in conjunction with the contractor selected by Coconino County to construct the recommended improvements.	<input checked="" type="checkbox"/> Check if project performed with current firm	

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4. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section 4 for each key person.)

a. NAME David D. Perkins, P.E.	b. ROLE IN THIS CONTRACT Transportation Planning	c. YEARS EXPERIENCE	
		1. TOTAL 39	2. WITH CURRENT FIRM 14
d. FIRM NAME AND LOCATION (City and State) Kimley-Horn and Associates, Inc., Tucson, AZ			
e. EDUCATION (DEGREE AND SPECIALIZATION) Master of Science / Civil Engineering Bachelor of Science / Civil Engineering		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) AZ / Professional Engineer / 17751 AZ / Pro Traffic Ops Engineer / 1071	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) David Perkins has over 35 years of transportation engineering, planning and project management experience. He has conducted and/or directed a variety of challenging assignments including interstate and arterial corridor studies, traffic operations and design projects, environment assessments, transportation planning studies, highway inventories, and highway safety research. He has successfully developed and implemented public involvement plans for controversial roadway projects.			

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
1)	Yuma MPO Regional Transportation Plan Update 2037 Yuma, AZ	2013	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. Kimley-Horn was selected to update the Yuma MPO Regional Transportation Plan to a horizon year of 2037. The study includes calibration and application of the TransCAD regional travel demand model, development and evaluation of multimodal transportation system alternatives, air quality conformity analysis, freight considerations, border issues with Mexico and California, and extensive public participation through a Technical Advisory Committee and a series of public open houses.		
2)	PAG Regionally Significant Corridors Study, Tucson, AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. The RSC Study is a technical assessment of existing, planned, and proposed future major transportation corridors in the PAG region. The RSC Study will recommend a network of regionally significant corridors. The RSC network may be retrofits and upgrades to existing corridors, corridor extensions, or entirely new routes. The RSC network will serve as input to the PAG Regional Transportation Plan (RTP) process, whereby individual routes in the RSC network could become part of the RTP then could be programmed as projects to advance relative to available funding and regional priorities.		
3)	Dove Valley Parkway Feasibility Study, Phoenix, AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. This study consists of preparing a feasibility study that will provide local jurisdictions and property owners with guidelines to preserve a 200-foot-wide right-of-way corridor to accommodate the planned Dove Valley Parkway. The scope of services includes an assessment of current and future conditions, and environmental overview, a drainage overview, development and evaluation of feasible alternatives, and detailed drawings at a scale of 1 inch=200feet, depicting the preferred parkway alignment.		
4)	ADOT State-Specific Crash Prediction Models (MPD 068-13), AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Principal-in-Charge. Kimley-Horn was recently selected by ADOT to research the need to develop Arizona-specific crash prediction models versus calibration of the models provided in the Highway Safety Manual (HSM). Kimley-Horn will complete a research study identifying the magnitude and distribution of variations in the general level of crash frequencies from one jurisdiction to another. The study will determine the necessity for follow-up research on developing state-specific Safety Performance Functions (SPFs) and calibration factors. Kimley-Horn will perform an evaluation of the most effective use of crash severity categories, considering Arizona Strategic Highway Safety Plan (SHSP) goals and MAP-21 performance measures.		
5)	Grant Road/Oracle Road Intersection Improvements Tucson, AZ	2013	2013
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. Kimley-Horn is preparing 60% design plans for this innovative intersection, which is the City of Tucson's first indirect left-turn. Our services included drainage design, major utility relocations, intersection layouts, signing plans, striping plans, signal plans, landscape design, streetscape design, right-of-way plans, and water harvesting. The intersection design included signalized pedestrian crossings at the median U-turn locations.		

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4. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section 4 for each key person.)

a. NAME Bruce G. Beenken, P.E., RLS	b. ROLE IN THIS CONTRACT Roadway Design	c. YEARS EXPERIENCE	
		1. TOTAL 37	2. WITH CURRENT FIRM 7
d. FIRM NAME AND LOCATION (City and State) Kimley-Horn and Associates, Inc., Tucson, AZ			
e. EDUCATION (DEGREE AND SPECIALIZATION) Bachelor of Science / Civil Engineering		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) AZ / Professional Engineer / 14593; MN / Professional Engineer / 13873; VA / Professional Engineer / 16297; OR / Professional Engineer / 16486; NM / Professional Engineer / 14574; NV / Professional Engineer / 14841	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Bruce Beenken is a professional engineer who has specialized in transportation planning and design for more than 30 years. His broad project experience includes: concept, preliminary, and final design of roadways and freeways; utilities relocation/coordination and design; site development projects; traffic engineering; transportation planning; construction management; and general civil engineering. He also manages the design and development of roadways, intersections, and interchange improvements. He has a thorough understanding of state and federal design and permitting requirements. Bruce brings extensive experience in DCR, large roadway design (PS&E), and traffic interchange projects.			

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Grant Road/Oracle Road Intersection Improvements, Tucson, AZ	(2) YEAR COMPLETED	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. Kimley-Horn prepared 60% design plans for this innovative intersection, which is one of the City of Tucson's first indirect left-turns. Our services included drainage design, major utility relocations, intersection layouts, signing plans, striping plans, signal plans, landscape design, streetscape design, right-of-way plans, and water harvesting. The intersection design included signalized pedestrian crossings at the median U-turn locations.	PROFESSIONAL SERVICES 2013	CONSTRUCTION (If Applicable) 2013
2)	(1) TITLE AND LOCATION (City and State) SR 92 Canyon De Flores to Glenn Road, Sells, AZ	(2) YEAR COMPLETED	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. As part of a Highway Safety Improvement Project (HSIP), raised medians were constructed to convert a five-lane section to a four-land-divided roadway. The construction of medians restricted access to business to right-in/right-out access. Large truck deliveries are not able to make U-turns at the intersections to reverse their direction of travel. As part of this project, a new jug handle and roundabout were constructed on adjacent local streets to accommodate large truck U-turns. Key features of the project are a new two lane roundabout with accommodations for large trucks, pedestrian and bicycle facilities, lighting, signing and pavement marking, construction phasing and maintenance of traffic, and utility coordination.	PROFESSIONAL SERVICES 2013	CONSTRUCTION (If Applicable)
3)	(1) TITLE AND LOCATION (City and State) Calle Torim Enhancement, Tucson, AZ	(2) YEAR COMPLETED	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE QC/QA Reviewer. Kimley-Horn prepared the final scoping report and final design documents for this one-mile segment of roadway reconstruction between Camino de Oeste and Sheridan Road. The key project design features include a two-lane curbed roadway section, architectural roadway lighting, a parallel drainage channel lined with hand-placed grouted rip-rap, water harvesting pockets that contain drainage weirs that both retain and pass drainage flows, architectural drainage scuppers, improved drainage infrastructure, and a ConSpan structure consistent with the Pascua Yaqui Master Drainage Plan.	PROFESSIONAL SERVICES 2012	CONSTRUCTION (If Applicable)
4)	(1) TITLE AND LOCATION (City and State) ADOT SR 101L (Chaparral Road to SR 202L) General Purpose Lanes Design, Scottsdale, AZ	(2) YEAR COMPLETED	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. Kimley-Horn was selected to design much-needed additional general purpose lane capacity on the Pima Freeway (SR 101L) between Chaparral Road and SR 202L. The project scope included roadway design, drainage design, traffic control, lighting, traffic design, survey, geotechnical engineering, structural engineering, environmental engineering, landscape architecture, landscape, aesthetics, erosion control, utilities, and public involvement support.	PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
5)	(1) TITLE AND LOCATION (City and State) Peters & Nall Road Improvements, Maricopa / Ak-Chin Tribal Land, AZ	(2) YEAR COMPLETED	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Principal-in-Charge/QA/QC Reviewer. The Ak-Chin Indian Community selected Kimley-Horn for this planning and final design project reconstructing three miles of Peters & Nall Road from State Route 347 (SR347) to White & Parker Road. Kimley-Horn is assisting the Ak-Chin Indian Community with planning the proposed improvements including significant. Design responsibilities include developing pavement replacement options, preparation of a drainage study for Smith Wash and roadside drainage, design of box culvert improvements at Smith Wash, and preparation of final construction documents.	PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)

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4. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section 4 for each key person.)

a. NAME Brent C. Crowther, P.E.	b. ROLE IN THIS CONTRACT Transportation Planning	c. YEARS EXPERIENCE	
		1. TOTAL 12	2. WITH CURRENT FIRM 12
d. FIRM NAME AND LOCATION (City and State) Kimley-Horn and Associates, Inc., Tucson, AZ			
e. EDUCATION (DEGREE AND SPECIALIZATION) Master of Science / Civil Engineering Bachelor of Science / Civil Engineering		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) AZ / Professional Engineer / 41366 CA / Professional Engineer / C67125 UT / Professional Engineer / 368482-2202	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Brent Crowther is a professional engineer and project manager whose focus is in the areas of transportation planning, traffic engineering, and alternative mode transportation planning and design. Brent has expertise using GIS platforms, macro travel demand models such as TransCAD, and operational software including Highway Capacity Software (HCS), CORSIM, and Synchro.			

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
1)	ADOT Flagstaff Regional Transportation Plan (PARA), Flagstaff, AZ	2013	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. ADOT and the City of Flagstaff selected Kimley-Horn to support the ongoing Flagstaff Regional Plan 2012, which will update the 2001 City of Flagstaff Regional Land Use and Transportation Plan. Specifically, Kimley-Horn is supporting development of three land use scenarios that are being evaluated using Community Viz. Kimley-Horn developed indicators ranging from population, employment, average density, open space, proximity to parks, water consumption, revenue, daily trip generation, and vehicle miles traveled for each land use scenario. Kimley-Horn will assist the City and FMPO to select a preferred land use scenario.		
2)	ADOT Flagstaff Regional 5-Year and Long-Range Transit Plan Flagstaff, AZ	2013	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. Kimley-Horn was selected to manage development of a refined Transit Plan with recommendations over five-, 10-, and 20-year periods. The primary objective of the Plan is to develop reasonable, implementable, and community-supported alternatives with specific improvements for short-range (0-5 years), mid-range (6-10 years), and long-range (11-20 years) horizons. These prioritized improvements will address the needs identified throughout the planning process – including those identified through active community outreach and stakeholder interviews.		
3)	PAG University of Arizona Area Bicycle and Pedestrian Study Tucson, AZ	2013	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. Kimley-Horn, as a subconsultant, is supporting the Pima Association of Governments and the University of Arizona to develop the University of Arizona Area Bicycle and Pedestrian Plan. The Plan recommendations address four types of improvements: 1) on-campus bicycle and pedestrian infrastructure improvements, 2) bicycle and pedestrian improvements within a ¼-mile radius of campus, 3) bicycle improvements within three to five miles of campus, and 4) programmatic improvements including education and enforcement within the City of Tucson.		
4)	Church Ave Road Diet, Tucson, AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. The purpose of this project is to support the City of Tucson to implement a road diet on Church Avenue between 6th Street and 14th Street, a distance of approximately .78 miles. The Church Ave road diet will reconfigure or reduce the number of through lanes in the roadway cross-section, enabling the provision of bicycle lanes.		
5)	UA-UAHSC Circulation Study, Tucson, AZ	2013	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. Kimley-Horn, under contract to The University of Arizona Planning, Design and Construction, conducted a traffic circulation study for the UAHSC Campus. The UAHSC Traffic Study evaluated the impact of the 2020 Capital Program and Comprehensive Campus Plan on the existing transportation network and identified the transportation infrastructure projects and right-of-way needed to accommodate the planned capital program. Improvements were identified for the mid-term, long-term, and full build-out of the UAHSC campus.		

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4. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section 4 for each key person.)

a. NAME Scott J. Altherr, P.E., CFM	b. ROLE IN THIS CONTRACT Drainage / Flood Control / Floodplains	c. YEARS EXPERIENCE	
		1. TOTAL 15	2. WITH CURRENT FIRM 3
d. FIRM NAME AND LOCATION (City and State) Kimley-Horn and Associates, Inc., Tucson, AZ			
e. EDUCATION (DEGREE AND SPECIALIZATION) Bachelor of Science / Hydrology		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) AZ / Cert Floodplain Mgr / US-01-00340 AZ / Professional Engineer / 43795	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Scott Altherr has a combined 15 years of experience in private and public sector civil engineering service specializing in drainage, flood control design and analysis, and floodplain management. Scott has served in the capacity of Division Manager, Project Manager, and Task Manager in the private sector and as Flood Control District General Manager, Director, and County Engineer in the public sector. He maintains a hands-on approach to design and analysis during projects and continues to be proficient in the latest hydrology and hydraulics modeling software. In addition to specializing in the field of hydrology/hydraulics, Scott has served in many multidisciplinary roles, including municipal services, land development project manager, and transportation projects.			

H. RELEVANT PROJECTS

1)	(1) TITLE AND LOCATION (City and State) Pima County Julian Wash Linear Park Diversion Channel Tucson, AZ	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. Kimley-Horn is currently providing Clean Water Act Compliance for this project including identifying and establishing boundaries for areas considered jurisdictional under Section 404 of the Clean Water Act. Compliance-related tasks included utilizing methodology approved by the U.S. Army Corps of Engineers (Corps) for establishing the Ordinary High Water Mark (OHWM) for waters of the U.S. located within the project area and submitting a Preliminary Jurisdictional Delineation (PJD) to the Corps for concurrence. [X] Check if project performed with current firm		
2)	(1) TITLE AND LOCATION (City and State) Greenlee County On-Call Floodplain Mapping Services Tucson, AZ	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. Project includes an ongoing re-study of 17 miles of watercourses in Southern Greenlee County comprised of 8 miles of tributary and 9 miles of mainline Gila River. Study includes determining the 0.1% chance event hydrology and hydraulics using detailed methods to support a Letter of Map Revision for Flood Insurance Rate Map Panel 750. [X] Check if project performed with current firm		
3)	(1) TITLE AND LOCATION (City and State) Camino de Oeste/Los Reales Reconstruction Project, Tucson, AZ	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. Kimley-Horn conducted a 2-D Flood Analysis showing the distribution of alluvial flooding from the Black Wash along the perimeter of the Pascua Yaqui Tribe roads, specifically Camino De Oeste and Los Reales Road. Analysis included inputting a hydrograph from a Pima County approved watershed model into a 2-D grid and identifying the distribution of flooding for collector channel and cross-culvert design purposes. [X] Check if project performed with current firm		
4)	(1) TITLE AND LOCATION (City and State) SR 92 Canyon De Flores to Glenn Road. Sells, AZ	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2013	CONSTRUCTION (If Applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. As part of a Highway Safety Improvement Project (HSIP), raised medians were constructed to convert a five-lane section to a four-lane divided roadway. The construction of medians restricted access to business to right-in/right-out access. Large truck deliveries are not able to make U-turns at the intersections to reverse their direction of travel. As part of this project, a new jug handle and roundabout were constructed on adjacent local streets to accommodate large truck U-turns. Key features of the project are a new two lane roundabout with accommodations for large trucks, pedestrian and bicycle facilities, lighting, signing and pavement marking, construction phasing and maintenance of traffic, and utility coordination. [X] Check if project performed with current firm		
5)	(1) TITLE AND LOCATION (City and State) Corazon Tres Rios Del Norte As Needed Services, Tucson, AZ	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager. Project included identification of "high risk" and "standard" erosion hazard setbacks, Quality Control reviews of District's hydraulic model of the Santa Cruz, and preparation of 30% Soil Cement Bank Protection plans and Cost Estimate for the Santa Cruz River along the Orange Grove Sand and Gravel Pit. Additionally the project includes grading concepts for reclamation of the Orange Grove and Sunset Pits, and developing a Strategic Implementation Plan for recreation, linear parks, and capital projects in the corridor. Ultimate goal of project is to define costs for reclamation and implementation of a recreational/restorative corridor. [X] Check if project performed with current firm		

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4. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT (Complete one Section 4 for each key person.)

a. NAME Kevin Payne, P.E.	b. ROLE IN THIS CONTRACT Drainage / Flood Control	c. YEARS EXPERIENCE	
		1. TOTAL 7	2. WITH CURRENT FIRM <1
d. FIRM NAME AND LOCATION (City and State) Kimley-Horn and Associates, Inc., Tucson, AZ			
e. EDUCATION (DEGREE AND SPECIALIZATION) Bachelor of Science / Agricultural and Biosystems Engineering		f. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) AZ / Professional Engineer / 51478	
g. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Kevin Payne has over seven years of civil engineering experience specializing in drainage and flood control design and analysis, including hydrology and hydraulics, as well as erosion and sedimentation. His experience includes drainage analysis and design for public roadways, parks, and linear trails along with private residential, commercial, industrial, and institutional land development. Kevin is also experienced in the processing of Conditional Letter of Map Revisions (CLOMR) and Letter of Map Revisions (LOMR) through FEMA. Kevin has been instrumental in the success of numerous projects.			

H. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If Applicable)
1)	Camino de Oeste/Los Reales Reconstruction Project Tucson, AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. Kimley-Horn conducted a 2-D Flood Analysis showing the distribution of alluvial flooding from the Black Wash along the perimeter of the Pascua Yaqui Tribe roads, specifically Camino De Oeste and Los Reales Road. Analysis included inputting a hydrograph from a Pima County approved watershed model into a 2-D grid and identifying the distribution of flooding for collector channel and cross-culvert design purposes.		
2)	Pima County Julian Wash Linear Park Diversion Channel Tucson, AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. Kimley-Horn is currently providing Clean Water Act Compliance for this project including identifying and establishing boundaries for areas considered jurisdictional under Section 404 of the Clean Water Act. Compliance-related tasks included utilizing methodology approved by the U.S. Army Corps of Engineers (Corps) for establishing the Ordinary High Water Mark (OHWM) for waters of the U.S. located within the project area and submitting a Preliminary Jurisdictional Delineation (PJD) to the Corps for concurrence.		
3)	Corazon Tres Rios Del Norte As Needed Services, Tucson, AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. Project included identification of "high risk" and "standard" erosion hazard setbacks, Quality Control reviews of District's hydraulic model of the Santa Cruz, and preparation of 30% Soil Cement Bank Protection plans and Cost Estimate for the Santa Cruz River along the Orange Grove Sand and Gravel Pit. Additionally the project includes grading concepts for reclamation of the Orange Grove and Sunset Pits, and developing a Strategic Implementation Plan for recreation, linear parks, and capital projects in the corridor. Ultimate goal of project is to define costs for reclamation and implementation of a recreational/restorative corridor.		
4)	SR 86, Camino De Oeste, Tucson, AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. This project consisted of intersection improvements and traffic signal construction. Currently, the intersection of SR 86 and Camino De Oeste is a three-leg intersection. The future fourth leg would be a connection to the Kinney Road Bypass. The proposed improvements consisted of constructing a new traffic signal, constructing curb radii and returns, widening the south leg to accommodate a new thru/right turn lane, constructing a north leg stub-out to tie into the Kinney Road Bypass, relocating an existing 24-inch pipe culvert, and relocating an existing water line for Tucson Water.		
5)	Airport Wash Basin Management Study (South), Pima County, AZ		
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Engineer. As a subconsultant, Kimley-Horn is providing riverine hydraulic modeling of 15.5 miles of the Hughes Wash and tributaries. Additional tasks include data collection, inventory, and alternatives analyses.		

**RFQ# ADSPO14-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

5. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present no more than five (5) projects. Complete one Section 5 for each project.)</i>
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a. TITLE AND LOCATION <i>(City and State)</i> Crossroads East Drainage Alternatives Study Review Scottsdale, AZ	b. YEAR COMPLETED <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 2px;">PROFESSIONAL SERVICES</td> <td style="width:50%; padding: 2px;">CONSTRUCTION <i>(If applicable)</i></td> </tr> </table>	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>
PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>		

23. PROJECT OWNER'S INFORMATION
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c. PROJECT OWNER Arizona State Land Department	d. DOLLAR AMOUNT OF PROJECT \$16,000	e. TOTAL COST OF PROJECT \$16,000
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

The City of Scottsdale is preparing a drainage master plan for a 960-acre property known as Crossroads East, which is located along Loop 101 between Pima Road and Scottsdale Road. The property is State Trust lands owned by the Arizona State Land Department. The Arizona State Land Department retained Kimley-Horn to conduct a review of the City's drainage master plan on behalf of the Department. Kimley-Horn reviewed and prepared comments on the City of Scottsdale's drainage alternatives formulation and evaluation; alternative hydraulics including FLO-2d, HEC-RAS, and storm drain hydraulics; the preferred drainage alternative hydraulics; and the Crossroads East Design Concept Report.

**RFQ# ADSPO14-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

5. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present no more than five (5) projects. Complete one Section 5 for each project.)

a. TITLE AND LOCATION <i>(City and State)</i> Preliminary Assessment of State Lands, Lake Havasu City, AZ	b. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2008	CONSTRUCTION <i>(If applicable)</i>

23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER Arizona State Land Department	d. DOLLAR AMOUNT OF PROJECT \$60,000	e. TOTAL COST OF PROJECT \$60,000
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Kimley-Horn was selected by the Arizona State Land Department to conduct a preliminary assessment of the development-readiness of State Land parcels in the Lake Havasu City area. The preliminary assessment reviewed public infrastructure including existing roadways, water and sewer, drainage conditions, Section 404 jurisdictional delineations, and other available utilities such as power/electric and gas that could—in the near to long-term—service the State Land parcels. Kimley-Horn conducted the assessment for over 12 square miles of State Lands, evaluating these parcels for existing conditions as well as future planned infrastructure. The goal of the assessment was to identify and recommend, on a preliminary planning level, candidate State Land parcels that could be programmed for eventual auction in the short- and long-term. Kimley-Horn prepared an assessment report with comprehensive planning exhibits showing existing and future planned roadway and transportation corridors adjacent and through the State Land parcels, as well as utilities. Of specific concern were a number of small earthen levees that exist on several parcels, which were constructed to keep stormwater flows from entering the Lake Havasu City boundaries.

**RFQ# ADSPO14-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

5. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present no more than five (5) projects. Complete one Section 5 for each project.)</i>	
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a. TITLE AND LOCATION <i>(City and State)</i> White Tank Mountain Jurisdictional Delineation, Maricopa County, AZ	b. YEAR COMPLETED <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">PROFESSIONAL SERVICES 2008</td> <td style="width:50%;">CONSTRUCTION <i>(If applicable)</i></td> </tr> </table>	PROFESSIONAL SERVICES 2008	CONSTRUCTION <i>(If applicable)</i>
PROFESSIONAL SERVICES 2008	CONSTRUCTION <i>(If applicable)</i>		

23. PROJECT OWNER'S INFORMATION		
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c. PROJECT OWNER Arizona State Land Department	d. DOLLAR AMOUNT OF PROJECT \$183,000	e. TOTAL COST OF PROJECT \$183,000
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Kimley-Horn was selected by the Arizona State Land Department to complete a large-scale Jurisdictional Delineation (JD) to identify waters of the U.S. for roughly 12,740 acres (19.9 square miles) of State Trust land located west of the White Tank Mountains Regional Park in an unincorporated area of Maricopa County east of the Town of Buckeye. The scope of the JD report included identifying type and location of past and present land disturbance activities, such as buildings, trails, roads, and other infrastructure. It also included review of CWA Section 404 permits and available JD reports for lands adjacent or near the White Tanks Project and discussions of the flow regime, geomorphic features, surface flow, and other indicators.

**RFQ# ADSPO14-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

5. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present no more than five (5) projects. Complete one Section 5 for each project.)</i>	
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a. TITLE AND LOCATION <i>(City and State)</i> Fredonia Flood Retarding Structure (FRS) Dambreak Study, Fredonia, AZ	b. YEAR COMPLETED <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">PROFESSIONAL SERVICES 2005</td> <td style="width:50%;">CONSTRUCTION <i>(If applicable)</i></td> </tr> </table>	PROFESSIONAL SERVICES 2005	CONSTRUCTION <i>(If applicable)</i>
PROFESSIONAL SERVICES 2005	CONSTRUCTION <i>(If applicable)</i>		

23. PROJECT OWNER'S INFORMATION		
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c. PROJECT OWNER Town of Fredonia	d. DOLLAR AMOUNT OF PROJECT \$60,000	e. TOTAL COST OF PROJECT \$60,000
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Kimley-Horn completed a dam breach and inundation analysis for inclusion in the Emergency Action Plan for the Fredonia Flood Retarding Structure. The dam is 9,456 feet long and has a structural height of 49 feet and a crest width of 14 feet. A dam breach analysis was completed for the dam at three locations where the effects would be the most significant on the downstream area. Inundation mapping was also prepared for all three scenarios. The analysis was completed using the US Army Corps of Engineers HEC-GeoRAS software and GIS.

**RFQ# ADSPO14-00003465, Annual Request for Qualifications and Experience
REVISED - Attachment I – General Qualifications**

5. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present no more than five (5) projects. Complete one Section 5 for each project.)

a. TITLE AND LOCATION <i>(City and State)</i> Powerline, Vineyard Road, and Rittenhouse FRS Rehabilitation or Replacement Project (PVR), Maricopa County, AZ	b. YEAR COMPLETED PROFESSIONAL SERVICES 2013 CONSTRUCTION <i>(If applicable)</i>	
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23. PROJECT OWNER'S INFORMATION

c. PROJECT OWNER Flood Control District of Maricopa County	d. DOLLAR AMOUNT OF PROJECT \$1,465,000	e. TOTAL COST OF PROJECT \$1,465,000
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f. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and length of project)

Kimley-Horn completed a detailed three-level alternatives formulation process, screening, and selection of a recommended plan to rehabilitate and/or replace three earthen embankment flood control dams. For this project we developed an environmental overview; evaluated social impacts and economic benefits/costs evaluation; performed significant geotechnical and geohazard investigations and assessments, landscape assessment and site inventory, and Failure Modes and Effects Analysis (FMEA); prepared two NRCS Supplemental Watershed Plan/Environmental Assessments; provided and supported significant stakeholder and public outreach including coordinating with the Arizona State Land Department; and prepared concept plan sections for the recommended plan. Kimley-Horn conducted extensive hydrology and hydraulics analyses of potential alternatives for the rehabilitation or replacement of the dams and prepared concept plan schematics and cross sections for the recommended alternative.

6. ADDITIONAL INFORMATION

a. PROVIDE ANY ADDITIONAL INFORMATION YOU FEEL MAY BE NECESSARY TO DESCRIBE YOUR FIRMS QUALIFICATIONS. (ATTACH ADDITIONAL SHEETS AS NEEDED.)

Firm Qualifications

With over 1,900 employees nationwide, Kimley-Horn can draw from a large pool of resources to respond to the ADOA's specific needs. Our professionals are experienced in solving complex design and planning issues for both public and private clients.

The principals, associates, and technical directors at Kimley-Horn have formed successful and long-lasting relationships with our clients because we believe in solid firm management combined with technical excellence. In addition to project work, each individual plays a role in maintaining the policies and practices that have helped us build an experienced and stable professional staff, a strong project management system, and a close professional rapport with clients and public officials. We have built a reputation in Arizona and nationwide for providing the following high-quality consulting services:

- Aviation services
- Biological surveys
- Commercial building
- Construction observation
- Cultural resources
- Dams and levees
- Design of flood control structures and pumps
- Drainage master plans
- Environmental permitting, assessment, and remediation
- Geographic information systems (GIS)
- Hydraulic and hydrologic modeling
- Intelligent transportation systems (ITS) design
- Jurisdictional delineation (waters of the U.S.)
- Land development and planning services
- Landscape architecture and urban design
- Lighting and electrical engineering
- Paving and drainage design and rehabilitation
- Program development
- Roadway, bridge, utility, and drainage design
- Sediment and erosion control
- Site planning and area master planning
- Structural engineering
- Structured parking design and planning
- Surface water management design
- Survey and mapping
- Traffic impact and operations analysis
- Traffic signal and signing and pavement marking design
- Transportation planning
- Water and wastewater engineering
- Water and wastewater systems

We know that responsiveness to your needs is vitally important. Accordingly, we operate a business-based professional engineering practice. Kimley-Horn's philosophy of providing professional engineering services is based on client service and technical expertise. This philosophy is especially applicable for projects that encompass a broad variety of disciplines and experience, yet require a common point of contact. Therefore, we provide all our clients with teams of client-centered professionals and staff who are empowered with the flexibility needed to respond quickly to both administrative requirements and scheduling needs. Much of our success over the last 44 years is directly related to our ability to provide high-quality, timely services.

Scope of Services

Aviation

Since the late 1960s, Kimley-Horn's airport practice has focused on local, state, and Federal Aviation Administration (FAA) AIP-funded projects including engineering, planning, environmental, and construction expertise. We pride ourselves on our ability to provide comprehensive airside and landside services for our clients' specific needs. Our track record includes helping airport owners and sponsors obtain grants from the FAA and state departments of transportation to finance their airport improvement projects. We are familiar with the procedures and requirements of the FAA and other review and permitting agencies whose approval is required for planning and construction of airport projects.

Construction Administration

Kimley-Horn takes pride in designing "buildable" plans, and our knowledge of construction issues and Kimley-Horn's outstanding record of on-time and on-budget completions attests to our knowledge of construction issues and costs. Construction phase services include cost estimating, pre-bid services, and construction administration and observation.

In addition to ensuring that you receive the benefit of our inspectors' experience during construction observation, our construction phase personnel can attend pre-construction conferences and regular project meetings, and provide review and approval of pay estimates and all other activities required to make sure that you achieve well-coordinated construction of proposed improvements.

Drainage/Flood Control/Dam Safety

Kimley-Horn is a leader in Arizona, the Southwest, and the nation in stormwater management and flood control. Our expertise includes hydrological and hydraulic analyses, surveying, planning, permitting, stormwater quantity and quality issues, and the design of all stormwater control structures ranging from dams, levees, pipes, culverts, and canals to major water control and pump structures.

Our staff has conducted numerous drainage studies and prepared 12 major stormwater, drainage, and watercourse master plans over the last 10 years. Kimley-Horn has prepared technical drainage reports for small and large sites, conducted channel hydraulics and stability analyses, completed sediment transport studies, developed flood control systems, integrated environmental remediation, and conducted public outreach programs in conjunction with these major projects.

Our drainage design experience includes detention/retention basins, storm drains, and channel improvements ranging from small washes with design flows of 50 cfs, to large concrete-lined channels with design flows of 3,000 cfs. We have conducted structure assessments on more than 26 dams in the last 13 years. We have conducted agency training, developed town-wide stormwater master plans, assisted with the modification of design manuals, and evaluated drainage policies, standards, and ordinances.

Kimley-Horn has extensive experience in dam and levee rehabilitation and dam and levee replacement projects across the country, regionally in the Southwest, and locally throughout Maricopa County and Arizona. Kimley-Horn has established a core dam safety group of water resource engineering planners, dam safety engineers, hydrologists, hydraulic engineers, civil engineers, environmental scientists, and cultural specialists to specifically address issues surrounding aging dams and rehabilitation of those dams. Kimley-Horn is a leader in the dam safety industry. Additionally, we have been an active member of the Association of State Dam Safety Officials since 1998. As a testament to our dedication to the Arizona dam safety community, we conducted a statewide Dam Safety Seminar attended by 30 agencies and owners.

Electrical Engineering

Kimley-Horn understands that electrical engineering is often a critical component of designing a project. We are often faced with several design considerations including determining the power source; determining if the power will need to be metered or unmetered; and investigating if the power will be shared with existing lighting circuits. We are also intimately familiar with the National Electric Code (NEC) and will bring that expertise to the project team. There are many requirements that govern the installation of electrical conduit and we will incorporate those requirements into our designs.

When developing final design packages, one of the first tasks will be to coordinate with the serving utility to determine what power is available and in what form. Often in rural locations power is not readily available near the location of the proposed field equipment. Based on this coordination we will then prepare voltage drop calculations to determine if transformers will be required. Sometimes right-of-way or easements need to be developed to bring the power into the public right-of-way. Our team staff is thoroughly experienced in all of the electrical engineering considerations that may be included in your project(s) and we bring a local understanding of the coordination with local utilities and power service provided.

Environmental Impact Studies (EIS), Environmental Assessments (EA), or Statements

Our Environmental Services Group can provide complete natural resource regulatory compliance services for public and private land development projects. Our team of biologists, ecologists, and environmental scientists are well versed in all aspects of the development process from preliminary Phase I Site Assessments to National Environmental Policy Act (NEPA) documentation. They can take a project from conception to final build out. An in-house environmental services group offers the advantage of closer coordination with the design team. There are no problems with miscommunication or coordination because the two groups work side by side every day. The environmental specialist and the engineers have learned to speak the same language and can work together for a successful project. Kimley-Horn's Environmental Services Group can provide the following services:

- Contamination assessments
- NEPA-level documentation (categorical exclusion, EA, & EIS)
- Section 404 regulatory compliance (jurisdictional delineation, permit -application, and mitigation design)
- NPDES compliance (Section 402 NOI, NOTs, BMPs, SWPPPs)
- Water quality permits (Section 402 point source discharge)
- Water quality certification (Section 401)
- Water rights issues
- Groundwater permits (injection wells, dry wells, aquifer -protection)
- Protected species surveys (desert tortoise, southwestern willow flycatcher, burrowing owl, and other Arizona species)
- Vegetation and habitat evaluations
- Noise evaluations
- Visual assessments
- GIS analysis
- Air quality permits/modeling
- Cultural resources/historic preservation

Geotechnical Engineering

Our team can perform a detailed analysis of the geotechnical information in order to closely coordinate with the ADOA concerning proposed structural requirements for bridges and retaining walls, and the proposed roadway pavement design or rehabilitation methodology. Project-specific pavement design is critical to maintaining the life cycle expectations of ADOA. We also will identify potential “edge effect” improvements and identify potential drainage improvements required not only for flood protection but also to protect the roadway’s subgrade and pavement.

GIS Programs

Recognizing the value and importance of GIS technology in environmental analysis, water resources, and land-use planning fields, Kimley-Horn has developed a multidisciplinary team of GIS professionals that offer GIS services to both public and private sector clients. This multidisciplinary expertise enables Kimley-Horn to develop a GIS that is tailored to the specific requirements of the project objectives. We can identify the level and types of data needed to gain the maximum possible benefit from the analytical capabilities of our GIS system. Ground truthing, ecosystem analysis, and impact evaluation can be combined with the GIS to provide a functional land use planning tool.

Intelligent Transportation Systems (ITS)

ITS technology is based on the understanding that transportation systems are more than infrastructure. At Kimley-Horn, we understand this and specialize in integrating the components of the total system – the road, the vehicle, and the traveler – to make getting around safer and more efficient.

Signal design and construction is one of the cornerstones of Kimley-Horn’s professional practice. Over the past four decades, we have developed signal systems for thousands of signalized intersections for state departments of transportation and municipalities nationwide. In addition to comprehensive master planning for traffic signalization, our engineers have designed numerous plans to standardize traffic control systems and provide comprehensive systems communications. Advanced traffic management projects include citywide signal system designs, transportation control centers, electronic toll facilities and revenue control systems, and innovative transit and public transportation systems. Each of our systems is designed not only to address current needs, but also to accommodate future growth and advances in technology.

As a founding member of ITS America, our engineers are specialists in the planning, design, and implementation of standard practice transportation systems, and we have remained at the forefront of systems design and transportation technology for more than a quarter century.

Our ITS services include:

- Freeway and corridor management system design and -deployment
- Strategic planning and early deployment of ITS -technologies
- Traveler information systems and services
- Communications systems and ITS architecture development
- Technology assessment and life cycle costing
- Intermodal transportation access and interface
- ITS construction support
- Rural ITS corridor studies and operational tests
- Software development and integration
- Network simulation and analysis
- Innovative funding for ITS improvements
- Partnership development and maintenance
- Signal system design and implementation
- Public involvement processes

Landscape Architecture/Planning

As metropolitan urban areas continue to grow, urban design, streetscape design, and landscape architecture have become integral components of roadway and transportation system designs and infrastructure improvements in general. Revitalizing commercial districts, controlling traffic flows, and providing recreational areas and pedestrian and bicycle facilities in increasingly congested areas are some of the solutions designed by our landscape architects and planners. We provide services in feasibility studies, master planning, design, permitting, public participation and consensus building, and construction administration.

The firm’s landscape architects and urban planners have extensive public- and private-sector experience, ranging from multi-family residential developments to municipal streetscapes and road area improvements. Our planners and landscape architects emphasize the development of a pleasing visual environment, meaningful theme, distinctive image, and strong sense of place, while being sensitive to the client’s budget and long-term maintenance obligation.

Plan Review

Kimley-Horn’s professional staff has participated with a number of local municipal clients to provide plan checking services. Typically, plans checked are related to new development within a city. Our staff provides such services, including checking plans to verify compliance with city standards, providing the city with tracking of revised plans and

status of plans in the plan check process, supporting developers and their engineers in their efforts to get plan approvals per city standards, and general support to city engineering and public works staff.

Roadway Design

Roadway design and planning is one of the mainstays of our firm's professional practice. Collectively, our engineers have been responsible for the design of thousands of miles of roadway. We have provided these services for urban, rural, primary, secondary, and interstate roadways for clients ranging from municipalities to state departments of transportation to private developers. We are well equipped to address all related aspects of roadway design projects, such as intersection geometrics, utility relocations, traffic control, signalization, structural/bridge design, and other features.

Paving and drainage services are often an integral part of our roadway design projects, and our substantial experience in dealing with regulatory and other agencies enables us to secure the necessary permits and approvals for building and upgrading roadway facilities.

Security Systems

Many of Kimley-Horn's professionals are nationally recognized experts in the field of system design including closed circuit television (CCTV) surveillance, security detection systems, access control systems, and central control server platforms with video recording and alarm monitoring distributed enterprise-wide. Kimley-Horn is also well versed in security technologies such as video detection processing; microwave detection, acoustic detection, ground radar, optical detection, and cable detection systems as well as many types of surveillance cameras and video recorders.

Kimley-Horn's PS&E design experience includes evaluating security improvement alternatives, developing design concepts, detail design engineering of the systems including conduit and cabling plant infrastructure, system integration, value engineering, system testing, system trouble-shooting, and many other types of support services.

Structural Design/Special Structures

Structural engineering is often integral to full-service civil engineering, and our in-house structural engineers are experienced in bridge design, warehouse and industrial facilities planning, stormwater and water management structures, as well as design for municipal facilities and transportation-related structures. Our experience with a variety of structural systems, including steel beam and girder structures, post-tensioned box girder, and precast and conventional reinforced concrete, enables us to readily address your needs, schedule, and budget.

Our firm offers you expertise in design, construction inspection, and evaluation of buildings, parking facilities, water control structures, bridges, and roadway structures. Our structural experience includes a variety of facilities, maintenance areas, the design of over 700 bridges, and inspection of nearly 3,000 bridges for programs in several states.

Transportation Planning and Traffic Engineering

Our team members possess over 150 years of combined transportation planning and traffic engineering experience. Kimley-Horn was founded in 1967 by transportation planners and traffic operations experts. Kimley-Horn provides services in virtually every aspect of transportation systems planning, analysis, and design, including conceptual through final roadway, intersection, and roundabout design, traffic signal and pavement marking design, ITS design and implementation, construction document (PS&E) production, circulation master planning, master street plans, operational feasibility studies, traffic impact studies, and traffic forecasting. We have completed thousands of traffic engineering projects in association with both public works and private land development, ranging from single intersection design and analysis to major area-wide systems involving hundreds of intersections.

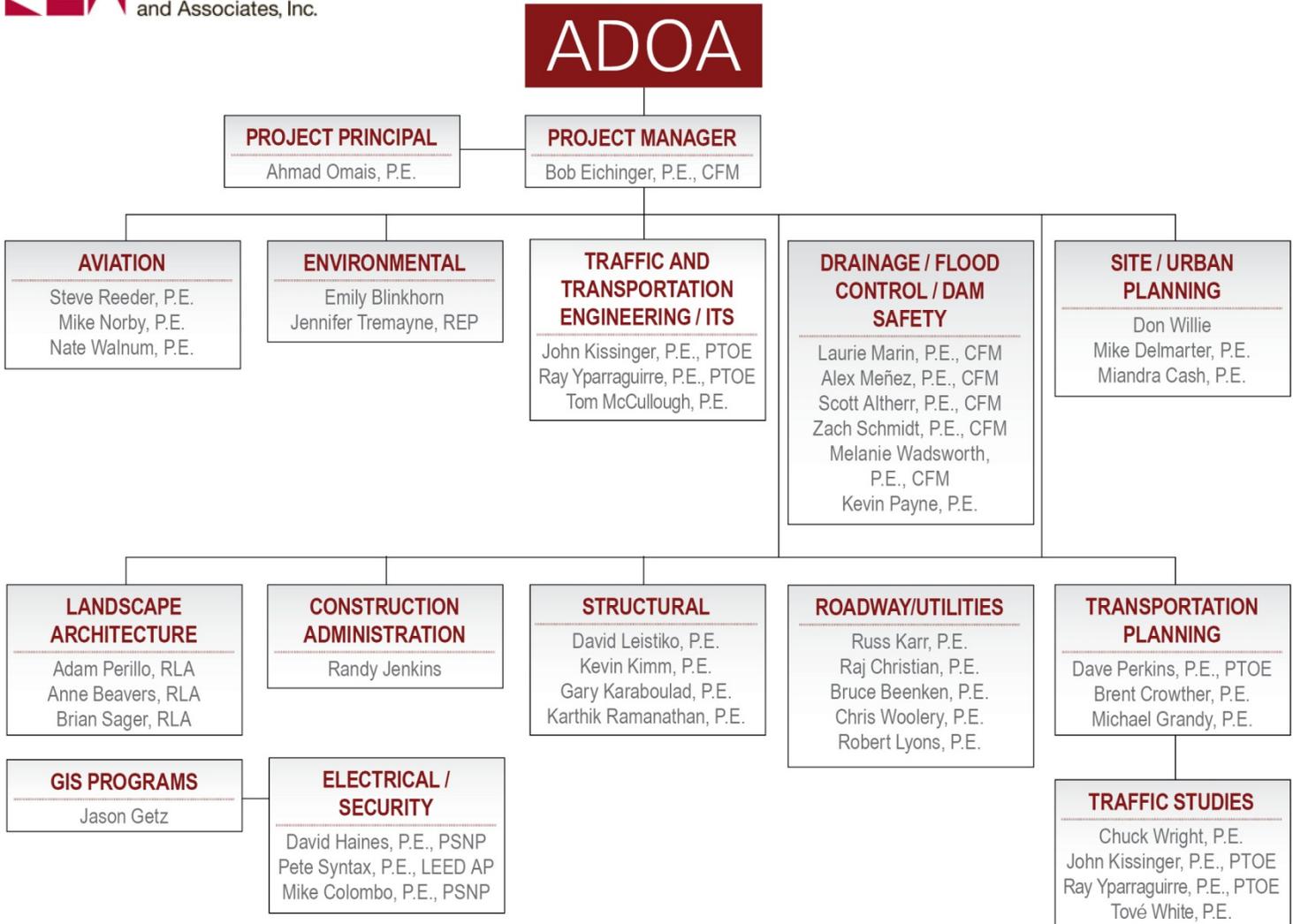
As it relates to transportation planning, Kimley-Horn is dedicated to ensuring that new developments, particularly in urban areas, form a part of the commercial/residential fabric of the community in terms of design, functionality, and safety. Our staff has the experience to meet this challenge by bridging business plans with neighborhood aspirations. This partnership is realized through arranging and managing community consensus meetings, ensuring early discussions with local government officials, and planning and designing neighborhood-friendly features such as traffic calming elements and traffic regulation adjustments.

Water Supply, Treatment, and Distribution

The firm's water treatment and distribution capabilities encompass all planning, design, permitting, and construction observation services required from the onset of a project through the approval process to plant startup and operational testimony. Kimley-Horn's staff professionals have award-winning experience in the design of water treatment and distribution systems. We have a growing list of design projects, including reverse osmosis and membrane softening systems, wells, master pumping stations, metering stations, and water storage facilities location and design. Most of our infrastructure improvement projects require our services for on-site water and for connections to citywide distribution systems. This work includes designing to avoid underground conflicts with existing utilities, on-site system layout, and regulatory compliance.

Key Personnel

We offer a team of professionals that are highly skilled and experienced in drainage, flood control, roadway design, structural, aviation, traffic engineering, transportation systems, environmental services, and land planning. Based upon this experience, we understand the level of responsiveness required to perform projects in multiple service categories. The ADOA can be confident Kimley-Horn has extensive staff resources available to complete your projects. We have assembled an experienced resource pool of highly qualified and skilled engineers who have provided unmatched services on several successful related projects. Each team member offers the ADOA excellent technical credentials and project experience. An organizational chart is depicted below.



7. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

a. Percentage of Total Work Attributable to State, Federal and Municipal Government Work:	72%
b. Percentage of Total Work Attributable to Non-Government Work:	28%

8. AUTHORIZED REPRESENTATIVE. The foregoing is a statement of facts.

Signature: Robert A. Eichinger

Date: December 11, 2013

Name: Robert A. Eichinger, P.E., CFM

Title: Vice President