Stantec

RFSQ# 20-24-BOX-01

UTILITY ENGINEERING PLAN – DOUGLAS, ARIZONA PORT OF ENTRY

COCHISE COUNTY

December 20, 2019

MARIPOSA LAND PORT OF ENTRY, NOGALES, ARIZONA
ARCHITECT JONES STUDIO INC.

Stantec Consulting Services Inc.
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December 20, 2019

Attention: Anne Coppola
Contracts Administrator
Cochise County Procurement Department
1415 Melody Land, Building C
Bisbee, Arizona 85603

Reference: Utility Engineering Plan – Douglas, Arizona Port of Entry

Dear Selection Committee,

Cochise County is on the cusp of new expansion, growth, and development opportunities. This masterplan is the first step towards achieving the goal of a commercial, cross border hub that serves Cochise County and the border region at large. A new commercial port of entry will alleviate traffic congestion in downtown Douglas, increase safety for the downtown community, and facilitate improved utility services, not only for new border patrol facilities, but also for future commercial expansion along James Ranch Road. Stantec's combined background in providing water and wastewater planning/engineering services, community development and border development services, fits well with the goals for this project. We understand both water and sewer systems on a municipal scale and the intricacies of the border region and culture. We understand how to gain support from a wide range of stakeholders to construct the infrastructure needed.

Starting with the Arizona-Sonora Border Master Plan, Stantec has solved water and wastewater capacity questions and issues in Lukeville; studied, planned, and implemented solutions for the commercial port at Mariposa in Nogales; and completed water and wastewater master planning and engineering projects all over the world. We have the expertise to help plan for this next phase of growth for Cochise County.

In addition to our technical expertise in water and wastewater infrastructure development, Stantec's funding services team specializes in securing the funding that is critical to executing projects which advance the quality of life in our communities. By engaging these professionals early in the project, we can tailor our design to maximize the potential funding assistance available to secure the area's potential.

Your project will be managed locally and completed by a team who are experienced with the border region developments and can be there when you need us. With more than 57 water and wastewater professionals in Arizona, including our community development experts, transportation engineers, we have the team ready to assist Cochise County move forward confidently during this unique opportunity.

Sincerely,
Stantec Consulting Services Inc.

Colleen Ruiz, PE, CFM | Principal
colleen.ruiz@stantec.com | (602) 315-1432

Stantec

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Stantec

A. Qualification Statement

Stantec has a long history performing water, wastewater, and ports of entry related services in the State of Arizona and across the Southwest. We see more than a pipe, building, or border crossing—we see an opportunity to make lasting connections with the people and places we serve. With more than 300 professionals working out of our Chandler and Tucson offices, we're able to provide a breadth of multidisciplinary services to meet project goals. If needed, we can tap into our larger Stantec community, which unites approximately 22,000 employees working in more than 400 locations across six continents. This global reach, coupled with our familiarity of local conditions on the border and knowledge of Arizona and Federal regulatory requirements, means we can collaboration with our clients to deliver a multidisciplinary approach for project solutions.

Our experience with water projects spans decades. Within Arizona, we've worked with municipalities of almost every size. This has fine-tuned our expertise, deepened our knowledge of water infrastructure challenges, and allows us to efficiently study and plan for new and upgraded interconnected water systems. Our water specialties include:

- Treatment
- Groundwater
- Groundwater collection systems
- Water Treatment Facilities
- Pump stations
- Transmission/Distribution
  - Raw water and potable transmission conveyance design
  - Water recharge, reuse water
  - Pipeline Condition Assessment
  - Hydraulic modeling and studies
  - Large capacity canal conveyance and distribution systems
- Potable water reservoirs
- Hydrologic & hydraulic (H&H) modeling
- SCADA/Controls

Systems to move and treat sanitary sewage and reclaimed water are increasingly more complex as our communities grow larger. We're at the forefront of developing creative solutions to improve and expand this critical infrastructure. From the Nogales International Wastewater Treatment Plant, a 14.74 MGD facility, to the City of Chandler's Old Pecos Lift Station, a two MGD lift station, we've worked with all components of wastewater systems. Our wastewater/reclaimed specialties include:

Collections

- Sanitary sewer design
- Trenchless technologies/tunneling
- Biosolids and residuals handling
- Flow monitoring/micro monitoring
- Master planning
- Odor and corrosion control
- Assessment and rehabilitation
- Construction support services
- H&H modeling
- Infiltration & inflow/CSO
- Master planning
- Storage
- System evaluation

Treatment

- Domestic WW treatment
- Industrial WW treatment
- Membrane treatment
- Nutrient removal
- Odor and corrosion control
- WW disinfection
- Energy recovery
- Facility design and upgrades

Pumping

- Force mains
- Lift stations

Utility Relocation

- Utility field survey and utility boring coordination
- Wet utility relocation design
- Dry utility relocation coordination
- Construction support services
- As-built survey and CAD drawings

Stantec's knowledge of the border industry runs deep; we know ports. We know the surrounding communities, the local political climate, and the policies that impact this project's progress, so we can guide you through the development and planning process. Key members of our team as well as supporting members offer expertise in successfully coordinating multiple bi-national border improvement projects. Some of those projects are:

- Professional Services for the Proposed Douglas Commercial Port of Entry
- Arizona-Sonora Border Master Plan
- New Mexico-Chihuahua Border Master Plan
- Expansion and Modernization of the Mariposa Land Port of Entry
- ADOT Truck Weigh and Credential Processing Facility – Mariposa Land Port of Entry
- San Ysidro Land Port of Entry, Phase II
- Raul Hector Castro Regional Feasibility Study

Project Understanding and Approach

Stantec understands that the primary purpose of this effort is to evaluate and consider options and costs to provide potable water and sanitary sewer service for a new commercial port of entry (POE) planned approximately 4.6 miles west of the existing Douglas Port of Entry, in downtown city of Douglas (City). The new commercial land crossing will be located a James Ranch Road and a new expanded section of road will be constructed from Highway 80 to the new POE. This new crossing will allow the City to expand the current facilities, improve the capacity for commercial traffic, and alleviate existing downtown congestion in the City due to the current POE.

Our team understands the types of facilities and infrastructure that may be required at the new POE, including, but not limited to, the water, wastewater, environmental, hydrological, and even security requirements for these types of facilities. Our local Arizona team has recently completed the design and successful construction of the POE expansions at both Mariposa and San Ysidro which included water and sewer servicing of varying complexities.

Beyond the initial driver of the port, our team understands that the heart of this specific project is really a water/wastewater system analysis to determine current and future capacity needs for Cochise County and the City. Currently we are performing similar services in the area surrounding University of Arizona.

Based on the scope of work and our understanding of this project our initial approach to this project will include the following tasks:

- **Define the anticipated water demands and sewage flows** for the new facility. This will have to consider the new full-time employees, commercial support businesses, additional population and residences to support the new facility, and the crossing traffic.

- **Determine the water demands and sewage flows** for any existing adjacent facilities which are not currently connected to the public utilities and could potentially connect to the new lines along proposed alignments. This would include the US Border Patrol Site, the Cochise Community College and the Bisbee-Douglas International Airport, as listed in the Request for Proposal, but it may also include other potential users such as residential or commercial developments currently on a septic system. The future growth would be determined in close consultation with Cochise County and the potential for cost sharing would be considered.

- **Assess the water and sewer system options.** The attached issues/options map on page five illustrates some of the items to be considered. Options will include connecting the existing Border Patrol site, a potential for new systems (sewerage or water supply) at the new POE and a connection to the existing City systems. Future planning for utility expansion to connect the Border Patrol facilities, Cochise Community College, residential and commercial developments, as well as Bisbee-Douglas Airport will also be considered from an overall cost standpoint:

    - **Connect to the existing City's water system**. The capacity of the water supply and treatment system, as well as main sizes will need to be assessed. The connection point would depend on the capacity of the system at that location, as well as the preferred pipeline route. It is likely due to the distance of the site from the City that additional storage for domestic use and fire protection will be required. The connection would eliminate the need for a water supply and treatment system at the site. Alternate pipe routes could potentially be available between the new POE site and the City for the water supply pipeline.

    - **Connect to the City's wastewater system**. The capacity of the treatment system, as well as the pipes downstream of the proposed connection point, will need to be assessed. Expansion of the existing treatment system or replacement of piping could be required. Alternate routes could potentially be available between the new POE site and the City for the wastewater disposal pipeline. It is anticipated that due to the distance between the City and the new POE that a lift station and forcemain would likely be required, but gravity pipe options would be explored to eliminate the maintenance for a lift station and provide more flexibility for future connections.

    - **A new on or near-site water system** which would include a water supply, one or more groundwater wells, treatment, and storage. Piping would be installed at the site to supply domestic water and provide fire protection to all new buildings. A pump station will be required for both the domestic water and the fire system. As this would be a GSA system, the fire protection system would be a separate system meeting federal standards.

    - **A new or near-site sanitary sewer system** for the port which would include a wastewater treatment facility with effluent disposal. Various treatment and disposal methods would be considered depending on the anticipated flows. Low maintenance requirements would be a consideration for the treatment options. Reuse of the water for landscaping irrigation could be a possibility. A gravity collection system would be constructed to serve all the new buildings.

- The details for each of the options we explore will be presented, with preliminary cost estimates, to aid in evaluating the option that best fits the proposed development. The options would be evaluated and consider immediate need, as well as a potential "build-out" scenario.

- The proposed options will be assessed by our funding team to determine eligibility for grants and other funding options which may heavily impact which options become the preferred alternatives.

- The recommended options will be further defined, including a discussion of system capacity and preparation of life-cycle costs that look at both capital and operating and maintenance costs.

- Evaluate the cost-benefit to potentially connecting Cochise College and Bisbee Douglas International Airport as part of the project.

- Should connection to the City's system become the preferred alternative, and if upgrading the existing systems is required to serve the new POE, we would work with the City to determine potential ways to make the existing system more efficient, promote water conservation, and be more cost effective.

- We would finish the project with preparation of a study report that summarized the results of all the analyses and present the recommended options with a preliminary plan and cost estimates.

Funding Services

We recognize that securing funding is a critical component of executing projects that advance the quality of life in communities. For 30+ years, Stantec has partnered with our clients to successfully apply for grants and loans and have helped our clients secure over $4 billion in funding.

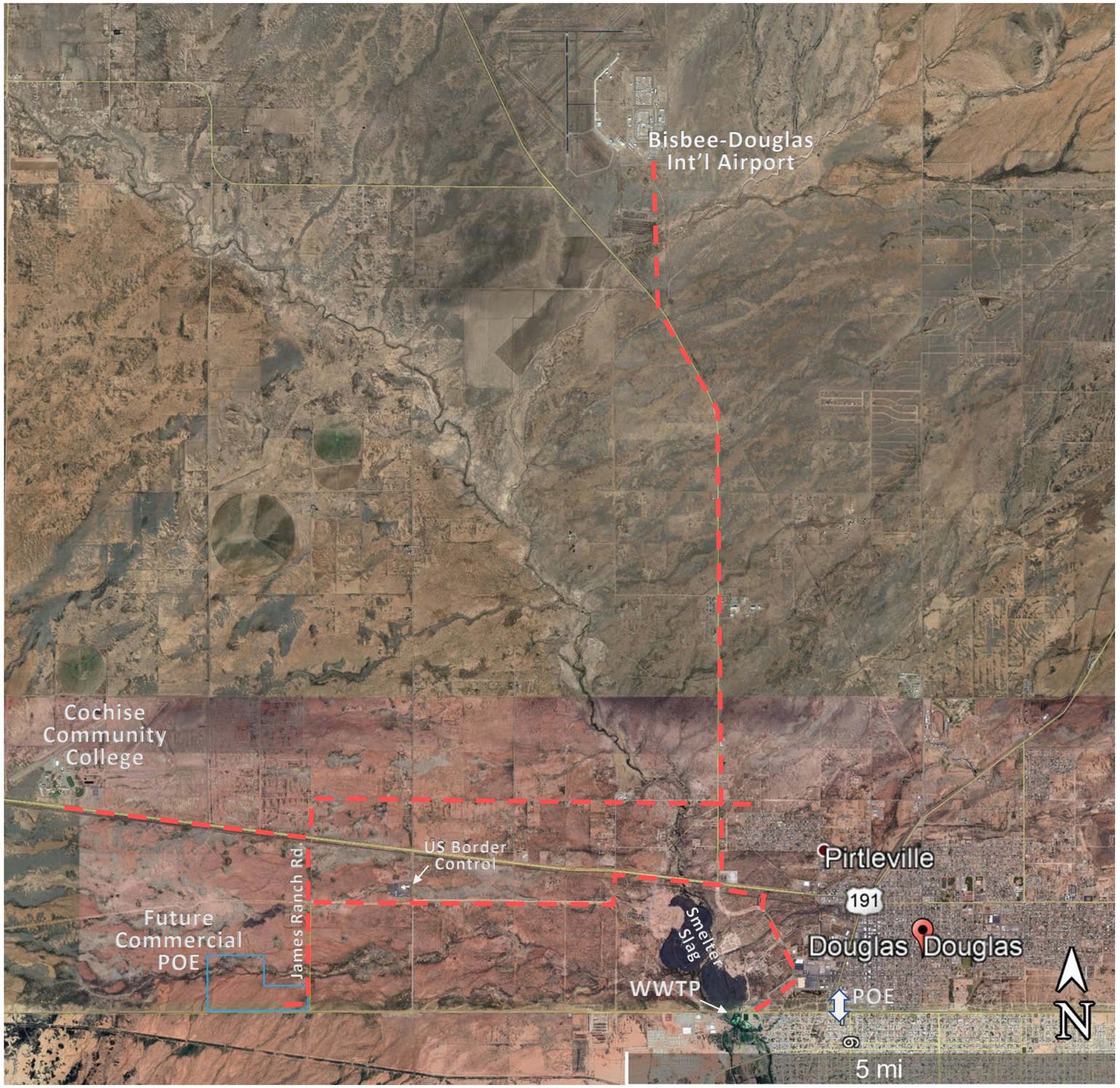
Funding services is a natural and complementary extension of the other technical and professional services we offer as a firm. With Stantec, from concept to construction you have an integrated team of resources at your fingertips – not only grant writers, but over 120 funding experts, experienced financial consultants, urban planners, engineers, landscape architects, transportation designers, and GIS analysts. We've compiled a team of funding advisors that have decades of experience developing financial plans and securing grants and loans for communities. We have successfully leveraged our technical offerings into our funding services to create robust applications that Wow.

Engineering Services (PS&Es)

After a thorough analysis of the existing systems, selection of the preferred alternatives, and receipt of funding for design and/or construction by grant or other sources; Stantec's local teams have a deep bench of professional service capabilities to design the necessary improvements. Our experts can assist you in the preparation of plans, specifications, and detailed estimates (PS&Es) to build for your future. We can see you through from design to construction and operation.

"Stantec has provided a diverse team of disciplines and a desire to work through the details to get it right and serve the client's needs. [They have] been a strong partner in adjusting to changes in the project through design decisions, added scope requirements, and changing client needs. They are focused and dedicated to step in and do what is needed to finish the project."

– **Jill Manzi, Project Manager, General Services Administration**



UTILITY OPPORTUNITIES AND CONSTRAINTS

> New Sewer & Water systems at new Port of Entry (POE)
- Costs of multiple options
- Water systems to include supply, treatment, distribution, pumping and storage
- Sewer system to include collection, pumping, treatment and disposal
- Ownership, can the POE own water and sewer systems?
- Maintenance responsibilities

> Connection to City of Douglas utility systems
- Pipeline routing options, various options are available. Need to consider length, preferred connection point and land ownership
- Lift Station at POE and forcemain to Douglas likely required
- City system upgrades may be required for piping, treatment and disposal systems
- Cost comparisons for various routes and system upgrades
- Capacity of existing systems & whether they have capacity to meet immediate and future growth needs

> Connection of Other Facilities (College, Airport & US Border Facility)
- Pipeline routing options, as above multiple considerations, including ROW
- Need for lift stations
- Cost sharing / Funding Opportunities
- Capacity of systems

LEGEND

Potential Utility Corridor

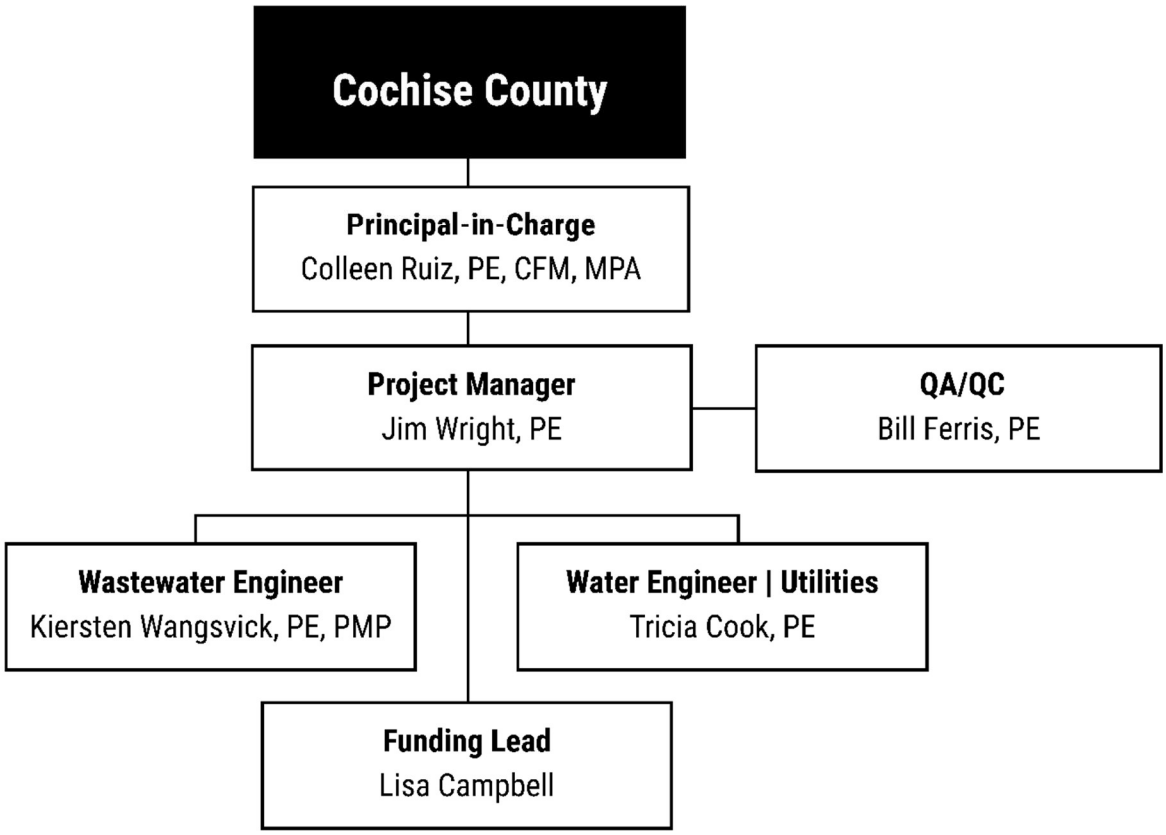
Project Team

To highlight our firm's qualifications to complete this project, an organizational chart of our key discipline leads is shown below. We have also provided brief descriptions of their experience and capabilities. Our team brings extensive expertise with water/wastewater planning and knows how POE infrastructure impacts commercial development in the communities surrounding such facilities.

These key members will be joined, as needed, by some of our more than 300 staff members in Arizona, including other regional resources, to provide the most qualified team to meet the immediate needs of the project. Our community of dedicated professionals is ready and committed to helping you plan for the future.

Please see full resumes for our key team members following the Section D, Reference Listing.

Organizational Chart



Colleen Ruiz, PE, CFM, MPA | Principal-in-Charge

Colleen offers 23 years of professional experience in project development. She has a wide range of technical and leadership skills with core competencies in residential, commercial, industrial, federal, and municipal capital improvement design as well as municipal review of engineering plans and plats. Colleen collaborates with community stakeholders to understand their needs and achieve their goals. Colleen has vast experience managing masterplans for planned communities including water, wastewater, and transportation projects. Her management skills include community outreach, contract administration, due diligence, project management, quality control, and team building. Colleen's primary goals are to complete safe, quality projects on time and within budget to make better communities.

Colleen will oversee the project as the project principal and ensure that adequate resources are available to the team to complete the project on time and on budget.

Jim Wright, PE | Project Manager

Jim has more than 14 years of experience at Stantec working on and managing a wide variety of challenging and diverse projects. His broad range of expertise includes water and wastewater infrastructure design, roadway design, civil site design, airport design, and construction administration. He excels at fostering communicate across all members of a team to keep projects moving forward to meet client's goals.

As project manager, Jim will serve as the primary contact for Cochise County and will lead our integrated multi-disciplinary team of professionals. He is ultimately responsibility for all deliverables and for keeping the schedule and budget on track.

Bill Ferris, PE | Border Expert

Bill is a senior principal with Stantec's civil/transportation department. During his 32 years at Stantec, Bill has been responsible for the management, planning, and design of numerous complex civil/transportation and border improvement projects. Bill was the project manager for the Arizona Sonoran Border Master Plan and is very familiar with the issues Cochise County and Douglas face with the existing Port of Entry. His recent responsibilities have included managing the design for the expansion and modernization of GSA's Mariposa Port of Entry, the Morley Gate Land Port of Entry and most recently the San Ysidro Port of Entry in San Diego.

Bill will provide his knowledge and understanding of the border infrastructure issues as well as senior review and input to the team specifically as it relates to Border and Port of Entry concerns and issues.

Kiersten Wangsvick, PE | Wastewater Engineer

Kiersten has more than 16 years of water and wastewater engineering experience on a wide variety of public and private funded projects. She has worked on designs for gravity sewers, sewer pump stations, force mains, transmission mains, water distribution lines, tanks, and well sites. Kiersten is also experienced in developing preliminary engineering reports and feasibility studies for water and wastewater infrastructure projects. She recently developed wastewater feasibility studies for the Town of Wellton, Arizona, for Ryan Airfield in Tucson, Arizona, and for Orange Grove Rancho Mesa Verde near Yuma, Arizona. Kiersten served as project manager for the University of Arizona Sewer Feasibility and Alignment Study Report Parts I & II for Pima County Regional Wastewater Reclamation Department (RWRD) which analyzed the existing system and developed CIP recommendations to correct capacity issues and plan for future growth.

Kiersten will lead the wastewater assessment for this project. As listed above, Kiersten brings substantial experience looking at wastewater system options.

Tricia Cook, PE | Water Engineer – Utilities/Water Engineer

Tricia is a project engineer with more than 38 years of experience in design and construction management of civil projects. She has been involved in the conceptual design, planning, and design of municipal infrastructure systems including water, wastewater, roads, and stormwater. She has been involved in the evaluation, preliminary design, design and project management for water supply, water distribution, and water treatment projects all over the world.

Tricia will lead the design for the water system assessment and serve as Jim's second on the project. She is currently the lead engineer for the Tacna Water Study and was part of the team for the Community Water System and Luke projects listed, as well as the Mariposa and San Ysidro Port of Entry projects.

Lisa Campbell | Funding Lead

Bridging our clients with desperately needed funding sources is a passion for Lisa. She is our dedicated grant specialists and administers grants from various programs such as the Small Cities Community Development Block Grant Program (CDBG) Build Grant funding, FHWA (Federal Highway Administration) funding, USDA/RD funding, Environmental Protection Agency, Economic Development Administration, Border Environmental Cooperation Commission (BECC) / North American Development Bank (NADBANK) and USDA/Rural Utilities Service. She understands the grant process, available buckets of funding and the best way to approach complicated application requirements. Lisa has built professional relationships with state and federal funding agencies and staff, allowing her to serve as a voice for clients navigating the application process. She is familiar with federal and state agency requirements for bidding, contract management and construction of these programs. Lisa provides operational tools to confirm meeting technical, budgetary, and scheduling requirements of projects, as well as effective communication with the general public and government agencies.

B. Project Listing

The following list of projects showcases Stantec's wastewater/water work on similar jobs as listed in Attachment Two – Scope of Work. Please see detailed descriptions of each of the projects listed below in Section C. Past Performance Statement. We have identified the key elements to your project and shown which of our showcased projects include that element.

Project	Project Size (Study/Design) $1,000	Master Planning	Port of Entry / Border Facility	Federal	Water	Sewer	Cost Analyses	Life Cycle Costs	Pipeline Routing/ ROW Considerations	Water Conservation	On Budget/ On Schedule
Expansion and Modernization of the Mariposa Land Port of Entry	10,000	X	X	X	X	X				X	X
Arizona-Sonoran Border Master Plan	500	X	X	X				X			X
Ryan Airfield Sanitary Sewer Study	60	X				X	X		X		X
Town of Wellton Wastewater Collection and Treatment Feasibility Study	150	X				X	X	X			X
Orange Grove/Rancho Mesa Verde Preliminary Engineering Report	150	X				X	X	X	X		X
University of Arizona Sewer Feasibility and Alignment Study Parts I + II	250	X				X	X		X		X
Luke Air Force Base Sewer Collection System Improvements	120	X		X		X	X		X	X	X
Luke Air Force Base Water Study and Distribution System Design	500	X		X	X						X
Ajo Customs and Border Protection Housing	200	X	X			X	X				X
Tacna Water Study	125	X			X		X	X	X		X
Community Water Company Water System Improvement Design Plan Update and Asset Management Plan	N/A	X			X		X				X

C. Past Performance Statement

The following projects demonstrate our team's past successful experiences that are relevant to Cochise County's goals and the City of Douglas' needs for an infrastructure expansion masterplan to address enhanced federal presence and potential population growth:

Expansion and Modernization of the Mariposa Land Port of Entry | Nogales, Arizona

Award winning project:

- 2016 GSA Design Excellence Award, *Final Design – Honor Award*
- 2015 ENR Global, Project of the Year, Runner up − *Airports/Ports*
- 2015 ENR Southwest, Project of the Year – *Airports/Ports*
- 2015 Building Design + Construction's Building Team Awards – *Silver*
- 2015 American Public Works Association (APWA) – Arizona Chapter – 2015 Public Works
- Project of the Year, *Public Works Project of the Year in Transportation*
- 2014 Arizona Department of Transportation – *Arizona Transportation*
- *Partnering Excellence Award* 2010 General Services Administration (GSA)
- Design Excellence Awards, *On the Boards Award, Communication Design*

Stantec redesigned the extremely constrained Mariposa Land Port of Entry.The 43-acre site was expanded by 12.6-acres necessary to accomodate growth in cross border traffic. The major focus of the project was in the heart of the compound, which was completely reconstructed, including nine buildings and over a mile each of storm/sanitary sewer and potable water infrastructure. We developed a four-phase construction plan that allows continuous port operations with minimal disruptions. We also identified, during the initial phases of the project, the various constraints that must be addressed, including environmental/permitting issues and those that are a result of the surrounding terrain (e.g., waters of the US, 50-foot fill areas, border wall/fence). We were responsible for survey, site civil, utility, traffic, drainage, land acquisition mapping, building information modeling, communication systems, and transportation design for the demolition of the existing facilities.

Relevance:

- This project demonstrates Stantec's qualifications for POE masterplan design, including survey, water, sewer, grading, and transportation design.
- Coordination with Federal Agencies (Customs and Border Protection (CBP), General Services Administration (GSA), Federal Protective Services).
- Coordination with local stakeholders (Public Utilities, City of Nogales, etc.).

Arizona-Sonora Border Master Plan | San Luis to Douglas, Arizona

Stantec was contracted by the Arizona Department of Transportation (ADOT) to provide an integrated master plan targeting an improvement in the efficiency and effectiveness of Arizona-Sonora cross border traffic. Our team identified areas that would be highly impacted by the traffic to and from the border. As an example, Yuma and Yuma County are highly impacted because of their proximity to the San Luis Land POEs. Following the data collection effort and analyses a logical project list was prepared. The ensuing tasks included the dissemination of the data, the development of the criteria, its weighting, and ultimately the ranking of the project list. The true challenge was the consensus building amongst GSA, Department of Homeland Secuirty (DHS), CBP, FHWA, each of the border municipalities, the Port Authorities, the Cocopah Indian Tribe, and the Governor's office. A feat that was completed in just one year.

Relevance:

- Stantec has extensive experience designing POE masterplans.
- Coordination of complex multiple stakeholder relationships to achieve a shared project vision.

Ryan Airfield Sewer Study | Tucson, Arizona

An important regional airfield was facing development growth with an outdated septic system. An on-call, multi-faceted wastewater feasibility study helped the client plan for the future. The airfield was operating with several older septic systems for wastewater treatment and disposal. We investigated and evaluated options for managing existing and future wastewater flows. Our team studied alternatives, including construction of a new on-site wastewater treatment plant, construction of new septic systems, or construction of a new airfield collection system. A new collection system would include new pump stations, force main, and gravity sewer connecting to Pima County Regional Wastewater Reclamation Department's existing conveyance system. We ultimately recommended the airfield connect to the existing County sewer system via new pump stations and a gravity sewer as the most cost effective, low maintenance alternative. As part of the study, we gathered information on the current septic systems, evaluated options for managing wastewater under sustained growth, developed cost estimates and possible engineering/construction

schedules for the key alternatives, and provided recommendations for future wastewater management performance demands.

Relevance:

- Consideration of the client's budget and long-term maintenance costs, as well as growth expectations, guided Stantec's design for wastewater solutions that met local, state, and federal requirements.

Tacna Water Study | Yuma County, Arizona

Stantec is currently preparing a study for Yuma County's Tacna Water System. We are completing a preliminary engineering report (PER) and environmental report (ER) for the system per USDA Rural Development standards, to allow Yuma County to apply for CDBG funding for the project. The existing water system includes 175 service connections. The water system includes a groundwater well, storage, pumps and distribution piping. The system is in violation of ADEQ requirements for arsenic and the water quality has very high total dissolved solids, so it is very poor quality. The purpose of the study is to determine the best long-term solution for the community that provides a safe and reliable water system. Both surface water and groundwater are being evaluated, as well as various treatment techniques. The report includes life cycle cost analyses for the potential alternatives, including both capital and O&M considerations. This study will be complete in January 2020.

Relevance:

- Experience analyzing water quality, water supply alternative, pipeline routing, meeting local and federal water requirements, providing life cycle analysis for multiple alternatives, and helping to acquire federal funding for municipalities illustrates Stantec's expertise and commitment to community water systems.

Town of Wellton Wastewater Collection and Treatment Feasibility Study | Wellton, Arizona

Stantec developed the wastewater collection and treatment feasibility study for the Town of Wellton for a Grove Rancho Mesa Verde Sanitary Sewer Collection System. The purpose of the future sewer project is to provide sewer service to the 604 parcels of the proposed Town of Wellton wastewater improvement service area, a 775-acre low-income zone located in Yuma County. This project analyzed alternatives for a regional Town of Wellton wastewater collection and treatment system.

Relevance:

- Masterplan analysis of wastewater collection and treatment systems, cost estimates, as well as alternate solutions, are techniques that Stantec uses to help communities understand and plan for needed improvements.

Orange Grove/Rancho Mesa Verde Preliminary Engineering Report | Yuma County, Arizona

Stantec wrote a preliminary engineering report (PER) for the Orange Grove/Rancho Mesa Verde sanitary sewer collection system. This sewer connection project will provide sewer service to the 332 parcels of the proposed Orange Grove/Rancho Mesa Verde (OGRMV) Improvement District, located in Yuma County, east of the City of Somerton, in Arizona. The properties within the OGRMV low-income subdivision have septic tanks and/or cesspools for wastewater disposal. The PER analyzed alternatives for collecting wastewater within the two subdivisions for routing a sewer connection from the ORGMV subdivisions to the City of Somerton, and for connecting to the existing City of Somerton sanitary sewer systems. Our team performed a capacity analysis of the City of Somerton collection system at potential connection points and analyzed impacts of the additional flow to existing downstream wastewater lift stations. The recommended project will include a new sewer lift station and force main for sewer conveyance on the south side of US 95, as well as upgrades to an existing City of Somerton lift station.

Relevance:

- Stantec's ability to analyze wastewater flows, collection system, and pipeline routing provides communities with the data needed to plan for future improvements to their sanitary sewer systems.

University of Arizona Sewer Feasibility and Alignment Study Parts I + II | Tucson, Arizona

The University of Arizona, in Tucson, Arizona, is rapidly expanding into the surrounding neighborhoods, raising questions about the service capacity of the existing sanitary sewer system. A two-phase feasibility study provided recommendations for increased sewer capacity to support future development in the study area.

Phase I of the study identified known planned, imminent, and potential future developments in the study boundary area. The capacity of the existing sewer lines was evaluated to determine whether the sewer could meet the existing and future development flows.

In phase II, we evaluated downstream sewer capacity of the system beyond the one-square-mile study boundary. An Innovyze Infoworks ICM hydraulic model identified three downstream reaches where the current sewer collection system would be under-capacity, if subjected to the estimated future build-out flow conditions. Additional sewer capacity upgrades were recommended for the downstream segments of the Drachman, Mabel, and Second Streets sewersheds. Alternative pipeline routes for each sewershed were evaluated using a weighted ranking evaluation criteria analysis. The overall project also included utility composite maps, preliminary plan sheets for recommended sewer augmentation, and engineer's opinion of cost for the recommended sewer improvements.

Relevance:

- Sewer capacity and growth evaluations, as well as modeling to identify locations of future capacity issues, provide clients with accurate evaluations to prioritize and fund projects.
- Cost analysis and multiple options can be provided to recommend long-term solutions for infrastructure improvements.

Luke Air Force Base Sewer Collection System Improvements | Glendale, Arizona

Previous studies noted that certain portions of the Luke Air Force Base (AFB) sewer collection system require replacement. Luke Air Force Base sought sewer collection system improvements to bed-down the F-35 Joint Strike Fighter (JSF) F-35A Lightning II (F-35). The objective of this project was to review the existing sanitary sewer collection system flow requirements, determine future flow requirements, evaluate potential sewer collection system layouts, and provide recommendations for replacement of the existing system for the areas of concern. The team analyzed survey data and conducted sewer capacity modeling for existing Luke AFB sanitary sewer facilities.

Relevance:

- Stantec has sewer flow calculations, modeling future flow requirements, and evaluating multiple solutions experience to determine the best possible recommendations within site constraints for federal clients and facilities.

Luke AFB Water System Study and Water Line Replacements | Glendale, Arizona

Stantec updated and calibrated the water model for the two-square mile water system. We evaluated the age, pipe material, and break data to determine areas of concern before prioritizing and preparing a capital improvements project list.

Three areas of the base were selected for waterline replacements, 1300 Area, 100-400 Area, and the 900 Area. The waterline for the 1300 Area was selected for replacement because it is the primary water supply line for the low-pressure portion of the water system and was a 40-year old asbestos cement pipeline. We designed a replacement pipeline that required coordination with base operations due to its proximity with the runway and clear zones. The 100-400 Area is the oldest area of the base with pipelines from the 1940s. These pipelines have valves that have not been exercised, and when replacement has been attempted, the pipelines have failed. We designed 8- through 12-inch replacement lines throughout this area. The 900 Area was constructed in phases as the base expanded. Much of the 40-year old asbestos cement pipe has a history of failure and was undersized. The Study and design were started in 2011 and completed in phases in 2015.

Relevance:

- Water system pressure analysis, design, and consideration of construction constraints for large-scale federal projects and facilities.

Community Water Company Water System Improvement Design Plan Update and Asset Management Plan | Green Valley, Arizona

Stantec recently teamed with Green Valley to update their Community Water Company (CWC) Water System Improvement Design Plan from 2009. CWC serves approximately 13,100 customers through distribution system with water liens ranging from three-inch to 16-inch diameter. Updated items included characterization of the CWC water system, the replacement value of CWC system, existing and future water demands, evaluation of the existing and future systems, and the capital improvement program. In addition to the update, a 100-year groundwater well plan and asset management plan were completed. The 100-year groundwater well plan evaluated and provided input concerning replacement of existing well facilities. The asset management plan allows CWC to anticipate future funding and operational needs to maintain the desired level of service and present the plan to the Arizona Corporation Commission to justify water system rates needed to maintain the CWC water system.

Relevance:

- Evaluating water systems and groundwater availability to determine future funding and operational needs for municipalities.

Ajo Customs and Border Protection Housing | Ajo, Arizona,

Stantec provided survey, land development engineering, concept planning, hydrology, landscaping, irrigation, mechanical/electrical, and LEED planning for the 35% design bridging documents and specifications for a new US Customs and Border Protection (CDP) home development on an 11-acre site in Ajo, Arizona. Our team designed utilities and produced sewer and water plans, site electrical and utility unit service plans, site electrical lighting plans, and landscape and irrigation plans. During construction, we provided construction administrative and observation services on behalf of the GSA.

Relevance:

- Working along the US and Mexico border and collaborating with GSA and CDP on a range of engineering disciplines.
- Assisting border communities to address aging infrastructure and plan for new development.

D. Reference Listing

References

South Campus Study | University of Arizona, Tucson, Arizona
Owner: Greg Hitt, Senior Program Manager,
PCRWRD Planning and Engineering,
greg.hitt@pima.gov, (520) 724-6567

Ryan Airfield Sewer Study | Ryan Airfield, Tucson, Arizona
Owner: Mike Smejkal, Director of Engineering,
Tucson Airport Authority,
msmejkal@flytucson.com, (520) 573-4856

Tacna Water Study | Yuma, Arizona
Owner: Nancy Njai, Yuma County Community Planning
Supervisor, Yuma County,
Nancy.ngai@yumacountyaz.gov, (928) 373-1114

Town of Wellton Wastewater Collection and Treatment Feasibility Study + Orange Grove/Rancho Mesa Verde Preliminary Engineering Report | Yuma, Arizona
Owner: Rachel Stallworth, Yuma County Improvements Districts,
rachel.stallworth.yumacountyaz.gov, (928) 341-2500

Expansion and Modernization of the Mariposa Land Port of Entry | Nogales, Arizona
Owner: Jill Manzi, Project Manager – Design and Construction
Division, GSA – Pacific Rim Region, (602) 307-5827

Colleen Ruiz PE, MPA, CFM

Principal-in-Charge

Colleen offers 22 years of professional experience in community development engineering. She has a wide range of technical and leadership skills with core competencies in residential, commercial, industrial, federal, and municipal capital improvement design as well as municipal review of engineering plans and plats. Colleen excels at collaboration with community stakeholders to understand their needs and achieve project goals. She has vast experience managing masterplans for water, wastewater, development, and transportation projects. Her management skills include community outreach, contract administration, due diligence, project management, quality control, and team building.

EDUCATION

Master of Public Administration, Grand Canyon University, Phoenix, Arizona, 2019

Bachelors of Science in Civil Engineering, New Mexico State University, Las Cruces, New Mexico, 2007

REGISTRATIONS

Certified Floodplain Manager #US-18-10456, Association of State Floodplain Managers

Professional Engineer #62529, State of Arizona

Professional Engineer #16240, State of New Mexico

MEMBERSHIPS

Member, American Public Works Association (Arizona)

AzTAP Committee Member, Urban Land Institute

Member, Valley Partnership

Member, NAIOP Commercial Real Estate Development Association

Member, Arizona Floodplain Management Association

AWARDS

2019 Arizona City/County Manager Esser Scholarship, Tuition assistance from Arizona City/County Managers towards a Master's in Public Administration at Grand Canyon University

PROJECT EXPERIENCE

GOVERNMENT

Chandler Airport Runway and Taxiway Drainage Improvements | Chandler, AZ | Civil Plan Review

Colleen reviewed construction plans to improve drainage, including grading, drainage analysis, and installation of culverts, on several of the runways on the Chandler Airport. She provided feedback concerning floodplain requirements, pavement sections, drainage analysis, and survey data.

Los Alamos National Laboratory - Utility Corridor* | Los Alamos, New Mexico, United States | Project Engineer

Colleen worked with staff at Los Alamos National Laboratories to design a utility corridor for future building expansions and to locate existing, undocumented utilities to update the site's mapping and avoid future utility conflicts.

Kirtland Air Force Base - Entry Gates, Shooting Range, Bunker, Parking Lots* | Albuquerque, New Mexico, United States | Project Engineer

Colleen redesigned Kirtland Air Force Base's entry gates after 9/11 to minimize terrorists' threats. Design changes included access routes, detection equipment, additional barriers, and drainage improvements. She also designed a shooting range, several parking lots, access roads, and a nuclear bunker to meet the Air Force's specifications.

Sandia National Laboratories - MESA Project, Telecommunication Corridor, & Site Design* | Albuquerque, NM, United States | Project Engineer

Colleen was the civil engineer of record for the Micro-systems and Engineering Science Application (MESA) facility, the largest construction project ever constructed by Sandia National Laboratories. The design-build project budget was $300 million and included five new buildings within the campus design, including grading and drainage, parking lot design, and a utility corridor design. She led the design team for this three-year design process through multiple, fast-paced phased schedules and also provided construction administration. Sandia National Laboratory was pleased with the MESA project design and contracted with Colleen to work on a site-wide telecommunications duct-bank project involving thousands of utility potholes and extensive utility locating. She completed several other design projects for Sandia National Laboratories, including landscaping and drainage projects, parking lot expansions, roadway improvements, and drainage design.

** denotes projects completed with other firms*

WASTEWATER / STORMWATER / RECLAIMED WATER

Grants, NM Wastewater Treatment Facility Improvements* | Grants, New Mexico | Project Engineer

Colleen and the City of Grants, NM teamed together to prepare a preliminary engineering report to address effluent reuse and disposal of the City's wastewater to correct exceedances to their groundwater discharge permit due to on-compliant facilities. The engineering report was approved, and the projects were funded. She worked with a team of engineers to rehabilitate the wastewater treatment facilities headworks, including screen replacement, renovation of discharge channel, and rehabilitation of the electrical control room. New aeration treatment facilities were constructed for sedimentation and sludge de-watering. An emergency generator was installed, existing facilities were removed and disposed of, and the existing lagoons were closed to bring the site back into compliance.

Los Alamos County, Reclaimed Water System Improvements* | Los Alamos, New Mexico, United States | Project Manager

The Los Alamos community and Colleen worked together to provide grey water irrigation for the municipal golf course. She was the project manager for a town-wide reclaimed water irrigation system that included lead abatement for a water storage tank, golf course, SCADA upgrades, several miles of transmission line, and a booster pump system. Colleen provided specifications, calculated the cost, provided bidding services, coordinated regular project progress meetings, specification review, construction administration, and submitted as-built record drawings for the project. This project crossed several neighborhoods and designated open spaces, as well as the only golf course in town. Community involvement and communication were key to the success of this sustainable project.

INDUSTRIAL

Intel Civil Improvements* | Chandler, Arizona, United States | Civil Review and Approval

Colleen was assigned municipal review and approval responsibilities of all Intel civil projects associated with site expansion and improvements, including a drainage master plan that re-routed a 600-acre site’s drainage, multiple parking lots, access road widening, miles of utilities, and a new water treatment facility. She fast tracked these reviews and worked with multiple engineers and Intel personnel to deliver cost-savings and quality control.

Northrup Grumman Chandler Campus* | Chandler, AZ, United States | Civil Review

Colleen provided civil engineering review and construction management for the Northrup Grumman site on Price Road in Chandler, Arizona. This review included extensive drainage improvements, utilities, offsite paving, and the final plat. Project was fast tracked with expedited review times and provided 617,000-square feet in two buildings on a 47-acre campus, with manufacturing taking 261,000-square feet of the building space.

TRANSPORTATION

Ocotillo Road Widening* | Chandler, AZ, United States | Senior Civil Plan Reviewer

Colleen provided civil engineering review for the Ocotillo Road widening capital improvements project (CIP). She confirmed that city code and design requirements were met and coordinated an off-site, private development project with ties to each side of the CIP project to confirm continuity, drainage, irrigation, and utility conflicts were addressed on both improvement plans.

Commonwealth Street Widening and Irrigation Canal Improvements* | Chandler, AZ | Senior Civil Plan Reviewer

Colleen reviewed and approved plans to widen Commonwealth Boulevard and upgrade an existing historic drainage ditch in Chandler's downtown area. She worked with the designer and CIP manager to solve drainage issues, create bypass solutions, coordinate utility crossings, address ADA issues, and coordinate multi-disciplinary reviews to provide consistent feedback.

POWER TRANSMISSION & DISTRIBUTION, SUBSTATIONS

SRP Knox Substation* | Chandler, Arizona, United States | Senior Civil Plan Reviewer

Colleen provided civil engineering review and approval of SRP's Knox substation on Price Road in Chandler.

SRP 230KV Under-Grounding, Price Corridor* | Chandler, AZ | Senior Civil Plans Reviewer

Colleen worked with the City of Chandler's Economic Development team for justifications for under-grounding a 230-kV transmission line. She also provided civil engineering review for a CIP utility relocation project to make room for the large ductbanks through several miles of roadway. Additionally, Colleen provided civil review of SRP's plans to confirm consistency between the CIP and SRP improvements. This was a fast paced, successful project that led to a collaborative relationship between SRP and the City of Chandler.

COMMERCIAL DEVELOPMENT

Chandler, AZ Commercial Development Review* | Chandler, AZ, United States | Senior Civil Plan Reviewer

Colleen reviewed hundreds civil improvement plans and plats for commercial projects within this City of Chandler ranging in size from a single Starbucks to large commercial shopping centers for over 1,000 acres of total development. She made sure that local and regional code and regulations were met and that sound engineering practices were followed. Colleen also reviewed erosion and sediment control plans.

Chandler Regional Hospital Expansion | Chandler, Arizona | Project Manager

Colleen provided construction administration for Chandler Regional Medical Center's expansion. These $192 million improvements include a new parking garage, a new hospital tower with 96 beds, loading dock, paving, drainage, and utility improvements.

** denotes projects completed with other firms*

James Wright PE

Project Manager

Jim has more than 14 years of experience at Stantec working on and managing a wide variety of challenging and diverse projects. His broad range of expertise includes water and wastewater infrastructure design, roadway design, civil site design, airport design, and construction administration. As project manager, Jim will serve as the primary contact for Cochise County and will lead our integrated multi-disciplinary team of professionals. He is ultimately responsibility for all deliverables and for keeping the schedule and budget on track. Jim excels at fostering communicate across all members of the team to keep his projects moving forward to meet client's goals.

EDUCATION

BS, Civil Engineering Technology, Rochester Institute of Technology, Rochester, New York, 2007

REGISTRATIONS

Professional Engineer #53424, State of Arizona

MEMBERSHIPS

Chairperson; Occupational Program External Advisory Committee, Computer-Aided Design, Pima Community College

Member, Society of American Military Engineers, Southern Arizona Post

PROJECT EXPERIENCE

BORDER CROSSINGS

San Ysidro Land Port of Entry | San Diego, California | Project Engineer/Construction Administrator

This design-build project is for the expansion and modernization of the largest land port of entry in western hemisphere with a cost of $135 million. Jim, as project engineer, is providing coordination between the contractor, the architect, utility designers, structural engineers, storm drain designers, and landscape architects. He is also responsible for coordinating the site design throughout duration of the project. Jim is currently overseeing the civil portions of the project as a construction administrator, responding to RFIs, reviewing submittals, addressing unanticipated field conditions in real time, and providing periodic inspection of new construction. This project is scheduled for completion in early 2019.

TRANSPORTATION BORDER CROSSINGS

Virginia Avenue Transit Center | San Diego, California | Project Engineer

A fast-tracked design-build project that was needed in order to open the San Ysidro international port crossing on time. Jim was the project engineer in charge of overseeing design team efforts and coordinating with the design-build contractor. The project was fast tracked because prior to demolition of the Northbound Pedestrian Processing Facility, at the busiest land port in the western hemisphere, alternative arrangements were required for the inspection of northbound pedestrian traffic. With a new processing facility nearing completion west of the port, multimodal options were required for the approximately 15,000 pedestrian travelers a day. Taking on this challenge, the design-build team of Stantec and Hensel Phelps designed, permitted, and constructed the Virginia Avenue Transit Center in just nine months, allowing the new West Pedestrian Center to open on time.

WASTEWATER

ROMP Water and Energy Sustainability Center | Tucson, Arizona, US | Project Engineer

Stantec provided site civil, hydrology, traffic, landscape, electric site lighting, on-site and off-site utilities for water and sewer, and paving for the Pima County Regional Wastewater Reclamation Department Central Lab on a six-acre parcel just west of I-10, and South of El Camino De Cerro, and north of the new Roger Road Wastewater Treatment Facility. Jim was responsible for developing the site plan and all site design related issues, including access roadways, parking lots, and wet and dry utility design and coordination. He also oversaw the construction administration, holding weekly meetings, responding to RFI's and submittals, and providing final documentation to the County for close out of the project. The ROMP project won the MPA Common Ground Award.

WATER

EPCOR Water, Water Main Extension – Sarival Rd. to Luke AFB, Phoenix, Arizona (Project Engineer)

Stantec provided construction documents for 2.4 miles of new 12-inch water main along Sarival Avenue and Northern Avenue to a storage tank at Luke Air Force Base. The new connection allowed additional water system capacity from EPCOR's public service to augment the existing Luke AFB system and ensure a reliable water supply for the base. Jim was responsible for the design of the extension which included jack and bores to reduce traffic impacts at intersections during construction.

Rosemont Mine Water Supply System, Pima County, Arizona (Project Engineer)

The Well Water Collection System and Fresh Water Delivery System includes the development of eight groundwater wells, approximately 78,000-feet of 20-inch steel and high-density polyethylene (HDPE) pipe, and five 7.2-MGD (5,000 gpm) booster pump stations to lift the raw water 2,000 feet over the Santa Rita Mountains. Since Rosemont Copper's peak water demand was identified at 7.2 MGD (5,000) gpm, the wellfield and water supply pipelines have been designed to produce and deliver the matching capacity. The project was value engineered in 2018 to reduce the number of pump stations from four to two, saving Rosemont millions of dollars in infrastructure cost. Five duty booster pumps were designed for each of the two pump stations at 1.44 MGD (1,000 gpm) both at 750 psi. They each incorporate 600-horsepower vertical turbine pumps into their design. The project is currently near design completion and is anticipated to be completed by early 2020. Jim was responsible for design and alignment of the maintenance and access road needed for the construction from the second pump station to the connection with the tank at the mine site.

PEDESTRIAN CROSSINGS

Grant Road and Arcadia Avenue Bike HAWK | Tucson, Arizona | Project Manager

Jim was responsible for the design of a joint pedestrian and bike HAWK crossing on Grant road at Arcadia Avenue. The HAWK crossing included the design of a new ADA compliant sidewalk and ramp improvements and new signalization and bicycle lane striping on Arcadia. This project was part of a City of Tucson on-call contract.

22nd Street and Belvedere Avenue HAWK | Tucson, Arizona | Project Manager

Jim was responsible for the design of a pedestrian HAWK crossing on 22nd Street at Belvedere Avenue. The HAWK crossing included the design of new ADA compliant sidewalk and ramp improvements and new signalization. This project was part of a City of Tucson on-call contract.

Speedway and Richey Boulevards HAWK | Tucson, Arizona | Project Manager

Jim was responsible for the design of a pedestrian HAWK crossing on Speedway at Richey Boulevards. The HAWK crossing includes the design of new ADA compliant sidewalk and ramp improvements and new signalization. This project was part of a City of Tucson on-call contract.

SINGLE FAMILY RESIDENTIAL

Ajo Customs and Border Protection Housing | Ajo, Arizona, United States | Project Engineer

Project was for a new US Customs and Border Protection home development on an 11-acre site in Ajo, Arizona. Jim was the project engineer on the Stantec team which provided survey, land development engineering, concept planning, hydrology, landscaping, irrigation, mechanical/electrical, and LEED planning for the 35% design bridging documents and specifications. The project included review of construction documents produced by the design-build team and inspection of the construction on behalf of GSA. The project was certified LEED Platinum.

AIRPORTS & AVIATION

Tucson International Airport RON Apron Expansion | Tucson, Arizona, United States | Project Engineer

Stantec provided design and construction administration services on this highly successful CMAR delivery project at the Tucson International Airport (TIA). Jim was the project engineer responsible for the design of the main terminal apron reconstruction, including the replacement of over 170,000-square yards of PCCP; the redesign of existing apron grades to comply with current codes; redesign of the apron storm drainage facilities; retrofit and replacement of the sanitary sewer system; and new pavement markings. He also assisted the airport with coordination of aircraft movement around the construction site during the 14-phases of the project, as well as overall project phasing. Jim moved from design to construction administration and performed on site construction management services throughout the duration of the project.

CONSTRUCTION ADMINISTRATION

Tucson International Airport - Main Terminal Apron Reconstruction | Tucson, Arizona | Construction Administrator

Jim oversaw the construction of the Main Terminal at Tucson International Airport (TIA) during this two-year project and acted as the owner's representative. He oversaw weekly project meetings with the contractor, reviewed and addressed contractor RFI's and submittals, and ensured that paperwork documenting the construction was complete in accordance with Federal Government (FAA) criteria. Jim also performed field observations and provided field direction to address unanticipated conditions as they arose on the job. This project was performed under the CMAR delivery model.

Bill Ferris, Jr. PE

QA/QC

Bill is a senior principal and business operations manager for Stantec in Arizona, following his tenure managing the civil/transportation staff in the New York and Pennsylvania offices. He was recently appointed as the transit sector leader for Stantec's efforts in the Southwest.

During his 32 years at Stantec, Bill has been responsible for the management, planning, and design of numerous complex civil/transportation improvement projects from rural/urban arterials to expressways and interchanges. In total, he has led design teams on 30 capital projects totaling over $1.1 billion in construction costs. His responsibilities have included managing design for the expansion and modernization of GSA's Mariposa ($200M) and Morley Gate Land Port of Entries. Bill is comfortable and experienced with directing large civil projects, including management of three sequential construction contracts for a $144 million system interchange and expressway reconstruction project in Corning, New York and the design-build of the first Light Rail Extension in a suburb of Phoenix, Arizona ($130M). He is also adept at building consensus on an array of topics as demonstrated through the development of a bi-national Arizona-Sonora Border Master Plan, which involves numerous federal, state, and local agencies from Phoenix to Mexico City and Washington DC to San Diego.

EDUCATION

BS, Civil and Environmental Engineering, Clarkson University, Potsdam, New York, 1988

Construction Claims, Saddle Island Institute, New York, 2004

Plan and Design of Service Interchanges, American Society of Civil Engineers, Arizona, 2007

Effective Management for Engineers, American Society of Civil Engineers, New York, 2001

Project Management, American Society of Civil Engineers, New York, 2000

Modeling of Mobile Source Air Quality Impacts, University of Central Florida, Florida, 1999

REGISTRATIONS

Professional Engineer #43292, State of Arizona

MEMBERSHIPS

Board Member, American Council of Engineering Companies (Arizona)

Member, Chi Epsilon National Civil Engineering Honor Society

PROJECT EXPERIENCE

BORDER CROSSINGS

Expansion and Modernization of the Mariposa Land Port of Entry | Nogales, Arizona, US | Project Manager

Managed multidisciplinary team to completely redesign the extremely constrained site. Responsible for survey, site civil, utility, traffic, drainage, land acquisition mapping, building information modeling, communication systems, and transportation design for the demolition of the existing facilities (43-acre site) and expansion (12.6 acres) necessary to accommodate the growth in cross border traffic. To effectively expand the footprint, over one-mile of retaining wall and 600,000 cubic yards of imported fill were implemented to overcome a 50-foot fall to the adjacent valley floor. The heart of the compound was completely reconstructed, including nine buildings and over a mile each of storm/sanitary sewer and potable water infrastructure. Developed a four-phase construction plan (majority of civil – Phase I) that allowed continuous operations with minimal disruptions. The Mariposa Land Port of Entry is the largest commercial border crossing in Arizona accommodating over 1.5 million vehicles per year ($156 M).

Arizona-Sonora Border Master Plan | San Luis to Douglas, Arizona, US | Project Manager

This comprehensive study, funded by FHWA, focused on developing and implementing a plan to identify, prioritize and promote Land Port of Entry and multi-modal transportation infrastructure projects in close proximity to the border that improve cross border travel efficiencies. The study included the design of a process to ensure that relevant stakeholder agencies participated in the planning of the port and transportation projects. The bi-national participants included: Department of State, FHWA, GSA, Homeland Security, Customs and Border Protection, IBWC, Union Pacific Railroad, ADOT, Arizona Office of Tourism, local counties, municipalities and metropolitan planning organizations and each of their counterpart agencies from Mexico ($1.1M fee).

San Ysidro Land Port of Entry | San Diego, California, US | Project Manager

Initial project efforts focused on the new Virginia Avenue Transit Center and a temporary office complex allowing for the relocation of the majority of GSA and CBP staff. The VATC provides transportation options for the daily influx of 20,000 pedestrian travelers, including bus, taxi, pedi-cab and general-purpose pick-up/drop-off. This effort was designed, permitted, and constructed in just nine months. Additional project elements include planning, reprogramming, and design of the new 102,000-sf northbound pedestrian processing facility; new overhead pedestrian bridges (connecting to the operations center); and significant renovations to the Historic Customs House. When all of the San Ysidro Expansion and Configuration projects are completed, the improvements will yield a 100 percent-plus increase in the infrastructure to process U.S. bound travelers.

ADOT Truck Weigh and Credential Processing Facility – Mariposa Land Port of Entry | Nogales, Arizona, US | Principal

Served as Principal-in-Charge for the design of a new Truck Weigh and Credential Processing Facility adjacent to the Mariposa Land Port of Entry. Improvements included seven inspection booths; a new administration building at the existing Arizona State Inspection Facility; dynamic message signing; slow speed weigh-in motion scales; new Portland cement concrete paving; storm drain; and ancillary water, sewer, fire suppression, electrical, data, and communications infrastructure.

Mariposa Pedestrian Pickup/Drop-off Facility Study | Principal

Because of a concern regarding the safe passage of pedestrians between the Mariposa LPOE and the adjacent road network, GSA requested that Bill develop alternatives for the creation of a pedestrian pick-up/drop-off facility. The study reviewed truck, car, and pedestrian circulation patterns with specific emphasis on the free-flow truck exit from the port. Bill hosted a workshop with all of the key stakeholders and analyzed potential locations, parking layouts, and vehicle size accommodations (bus, van-pool, car only scenarios).

Outbound (Southbound) Inspection Facility Study, Mariposa Land Port of Entry | Nogales, Arizona | Principal

Because of the change in CBP protocols necessitating the inspection of southbound traffic, GSA requested that Mr. Ferris review conceptual plans generated by GSA and recommend additions, deletions, modifications, and/or alternatives. Bill generated alternatives to better accommodate transportation improvements, truck docks, and internal circulation for the first new Outbound Inspection Facility in the US ($7.5M Design/Build). Following the planning study, Bill directed the design team in the completion of the final construction documents.

Mariposa Pedestrian Tunnel | Principal

Bill is directing final design plans for the new pedestrian tunnel that will pass under the truck-only exit (1,400 vehicles per day) of the largest port in Arizona.

Morley Gate Land Port of Entry Pedestrian Re-Engineering | Nogales, Arizona | Project Manager

Managed the engineering elements necessary to improve this outdoor, pedestrian only border crossing between Sonora, Mexico and Nogales, Arizona. Improvements included a new canopy structure and chilled air for officer/pedestrian comfort, wayfinding elements (both structural and through signage), outbound inspection facilities, upgraded electrical, drainage, and communication infrastructure ($1M).

San Luis I Pedestrian Enhancement Study | San Luis, Arizona | Senior Oversight

Bill coordinated with the prime architect to develop a plan that eliminated the tandem inspection layout in lieu of a series of stations with preliminary kiosks to more effectively process visitors.

San Luis II Gantry Building | San Luis, Arizona | Senior Oversight

Bill coordinated with the prime architect to design a new Non-Invasion Investigation (NII) facility at the commercial-only port.

Kiersten Wangsvick PE, PMP

Wastewater Engineer

Kiersten has more than 16 years of water and wastewater engineering experience on a wide variety of public and private funded projects. She has worked on designs for gravity sewers, sewer pump stations, force mains, transmission mains, water distribution lines, tanks, and well sites. Kiersten also has solid experience developing preliminary engineering reports and feasibility studies for water and wastewater infrastructure projects. She recently developed wastewater feasibility studies for the Town of Wellton, Arizona, for Ryan Airfield in Tucson, Arizona, and for Orange Grove Rancho Mesa Verde near Yuma, Arizona. Kiersten served as project manager for the University of Arizona Sewer Feasibility and Alignment Study Report Parts I & II for Pima County Regional Wastewater Reclamation Department (RWRD).

EDUCATION

MS, Agricultural & Bioresource Engineering, Colorado State University, Fort Collins, Colorado, 1997

BS, Agricultural Engineering, Colorado State University, Fort Collins, Colorado, 1995

REGISTRATIONS

Pipeline Assessment & Certification Program (PACP) #U-716-07004845, National Association of Sewer Service Companies

Professional Engineer #39530, State of Arizona

Wastewater Operator Class 2 #OP011469, Arizona Department of Environmental Quality

Project Management Professional (PMP)® #1764298, Project Management Institute

PROJECT EXPERIENCE

WASTEWATER

Town of Wellton Wastewater Collection and Treatment Feasibility Study | Town of Wellton, Arizona | Project Engineer/Assistant Project Manager

Kiersten developed the wastewater collection and treatment feasibility study for the Town of Wellton for a Grove Rancho Mesa Verde Sanitary Sewer Collection System. The purpose of the future sewer project is to provide sewer service to the 604 parcels of the proposed Town of Wellton Wastewater Improvement Service Area, a 775-acre low-income zone located in Yuma County. This project analyzed alternatives for a regional Town of Wellton wastewater collection and treatment system.

University of Arizona Sewer Feasibility and Alignment Study Report Parts I & II | Tucson, Arizona | Project Hydraulic Engineer (Part I) and Project Manager (Part II)

Project evaluated sewer capacities around the University of Arizona (UofA). Future development buildout flows have potential to exceed existing sewer capacities. Sizing upgrades and alignment recommendations were provided. Project included utility composite maps, preliminary plan sheets, and Engineer's Opinion of Cost for the recommended sewer improvements. For Part I, Kiersten performed the hydraulic analysis on seven sewersheds and three of these were identified as undercapacity to convey future buildout flows and performed the development parcel build-out flow calculations. For Part II, Kiersten was the project manager. Part I of the project identified both known planned imminent development and potential future development in the one-square mile study boundary area. The capacity of the existing sewer lines within this study area was evaluated to determine whether sewer would meet the existing and future development flow demands. The sewer trunk lines were evaluated, and detailed sizing upgrades and alignment recommendations were provided. In Part II of the project, Stantec evaluated downstream sewer capacity of the sanitary sewer system beyond the one-square mile study area boundary. An Innovyze Infoworks ICM hydraulic model identified three downstream reaches where the current sewer collection system would be under-capacity for the estimated future build-out flow conditions. Additional sewer capacity upgrades were recommended for the downstream segments of these sewersheds to ensure the collection system meets the future development build-out flow conditions.

Orange Grove/Rancho Mesa Verde Preliminary Engineering Report | Yuma County, Arizona | Project Engineer/Assistant Project Manager

Kiersten developed the Preliminary Engineering Report (PER) for the Orange Grove Rancho Mesa Verde Sanitary Sewer Collection System. This sewer connection project will provide sewer service to the 332 parcels of the proposed Orange Grove/Rancho Mesa Verde (OGRMV) Improvement District, located in Yuma County, east of the City of Somerton in Arizona. The properties within the OGRMV low-income subdivision have septic tanks and/or cesspools for wastewater disposal. The PER analyzed alternatives for collecting wastewater within the two subdivisions, for routing a sewer connection from the ORGMV subdivisions to the City of Somerton, and for connecting to the existing City of Somerton sanitary sewer systems. Our team performed a capacity analysis of the City of Somerton collection system at Potential connection points and analyzed impacts of the additional flow to existing downstream wastewater lift stations. The

recommended project will include a new sewer lift station and force main for the sewer conveyance on the south side of US 95, as well as upgrades to an existing City of Somerton lift station.

Ryan Airfield Sanitary Sewer Study | Tucson, Arizona | Project Engineer/Assistant Project Manager

Kiersten investigated and evaluation of approaches to manage the existing and future wastewater at Ryan Airfield for this sanitary sewer study. The Tucson Airport Authority (TAA) operates and maintains Ryan Airfield, an important general aviation reliever airport to Tucson International Airport. Ryan Airfield currently utilizes numerous older septic systems to provide wastewater treatment and disposal. This sewer feasibility report recommended alternatives for wastewater collection and treatment at Ryan Airfield to accommodate anticipated growth. Project tasks included collecting information about existing septic systems, evaluation of options for managing wastewater for sustained growth, developed cost estimates, projected engineering/construction schedules for key alternatives, and provided a recommendation for managing wastewater for future growth at the airfield.

Tangerine-Downtown Sewer Improvement Project | Marana, Arizona | Project Engineer/Assistant Project Manager

Project included modifications to the existing 803 gpm pump station, as well as design of 5,181-linear feet 8-inch DR11 HDPE force main, 9,370- linear feet 15-inch SDR 35 PVC gravity sewer, 11,145-linear feet 18-inch SDR35 PVC gravity sewer, and 51 manholes. Project required disconnecting Saguaro Bloom Lift Station (originally designed by Stantec in 2005) from Pima

County sewer collection system and connecting it to the Marana wastewater collection system at a point northeast of the Santa Cruz River. To complete the project, crossing the Santa Cruz River via horizontal directional drilling, working within a narrow utility corridor, and coordinating with diverse jurisdictions was required. Evaluated components of sewer project for alternatives evaluation and performed engineering hydraulic analysis. Developed Engineering Design Report and engineering cost estimates.

Luke Air Force Base Sewer Collection System Improvements | Glendale, Arizona | Project Engineer

Previous studies noted that certain portions of the Luke Air Force Base (AFB) sewer collection system require replacement. Luke Air Force Base sought sewer collection system improvements to bed-down the F-35 Joint Strike Fighter (JSF) F-35A Lightning II (F-35). The objective of this project was to review the existing sanitary sewer collection system flow requirements, determine future flow requirements, evaluate potential sewer collection system layouts, and provide recommendations for replacement of the existing system for the areas of concern. Kiersten analyzed survey data and conducted sewer capacity modeling for existing Luke AFB sanitary sewer facilities.

Avondale Sewer System Repair Project: 107th Ave. at Garden Lakes Parkway | Avondale, Arizona | Project Manager

The existing 12-inch sewer segment that crosses a major intersection commonly experienced flow backups and required frequent flushing. The existing sewer line had multiple sags, low spots, and adverse grades, particularly near the manhole in the center of the intersection. Project provided improved wastewater conveyance for a sewer segment near Garden Lakes Parkway, located within the City of Avondale, in Maricopa County, Arizona. Stantec coordinated CCTV inspection, flow monitoring for bypass pumping, potholing, geotechnical borings, and utility clearances. Final design included four new manholes, 370-linear feet of new 12-inch PVC sewer, and 175-linear feet of 12-inch sewer installed via jack and bore under the intersection, SRP canal and RID canals.

City of Phoenix Basin N & L Sanitary Sewer Collection System Study | Phoenix, Arizona | QA/QC Independent Reviewer

Stantec completed a study of Phoenix sanitary sewer Basins N and L which are located outside of the City's boundaries in a portion of Paradise Valley. The purpose of the study was to clarify which commercial and residential buildings are connected to the City's sanitary sewer system. We then verified that all connected properties were being billed and unconnected properties were not. A combination of billing data, GIS data, CCTV inspection, and smoke testing were reviewed as part of the assessment. Kiersten performed the QA/QC Independent Review for the project.

WASTEWATER TREATMENT

Tres Rios WRF Sludge Holding Tank System Modifications and Site Civil Improvements | Pima County, Arizona | Project Manager

Project included the feasibility study for redesign the bladder system to include a completely new storage structure and truck filling pump station to move eight percent biosolids (thickened sludge) from the centrifuge building to the truck loading stand. Preliminary options considered a new biosolids storage tank and truck filling pump station to improve operations. RWRD later requested study of an option to replace the bladder and the truck filling pump station and site civil improvements at Facility 22 (the bladder tank site) that included drainage improvements, a new gravity drain line, extension of a service water line, replacement of a foul air line, and elevation of a transformer.

Tricia Cook PE

Water Engineer | Utilities

Tricia is a project engineer with more than 38 years of experience in design and construction management of civil projects. She has been involved in the conceptual design, planning, and design of municipal infrastructure systems including water, wastewater, roads, and stormwater.

Tricia has experience with computer analyses, computer modeling, report preparation, contract preparation, and permit applications. She has been involved in the design and project management for water supply, water distribution, water treatment, wastewater collection, wastewater pumping, and wastewater treatment. Tricia also has roads and drainage experience with operation and maintenance requirements including providing operator assistance and training.

EDUCATION

MBA, University of British Columbia, Vancouver, British Columbia, 1991

BS, Civil Engineering, Queens University, Kingston, Ontario, 1981

REGISTRATIONS

Professional Engineer #34417, State of Arizona

Professional Engineer #47519, State of Washington

MEMBERSHIPS

Member, Engineers and Geoscientists British Columbia

PROJECT EXPERIENCE

WATER

Expansion and Modernization of the Mariposa Land Port of Entry | Nogales, Arizona, US | QC/Project Engineer

Tricia provided QC for the design for the water sewer servicing at the site including the new meter and connection to the Nogales water system. Tricia also provided design and permitting services for the water system that provided fire protection for the site, working closely with the Fire Protection Engineer. The fire protection system was designed per GSA and NFPA requirements. In addition to providing design services for the fire protection system, Tricia provided inspection services for the completed system.

San Ysidro Land Port of Entry | San Diego, California, US | Utility Design Lead

Tricia was the lead designer for the water, sewer, reuse and storm drain lines to serve the expansion and modernization of the largest land port of entry in western hemisphere. The scope included connection to the existing wastewater treatment system, modifications to an existing lift station and construction of a new lift station. Tricia worked closely with the other disciplines and Contractor throughout construction.

Tacna Water Study | Yuma County | Project Manager/Engineer

Stantec is currently completing a study for Yuma County for the Tacna Water System. We are completing a preliminary engineering report (PER) and Environmental Report (ER) for the system per USDA Rural Development standards, to allow Yuma County to apply for CDBG funding for the project. The existing water system includes 175 service connections. The water system includes a groundwater well, storage, pumps and distribution piping. The system is in violation of ADEQ requirements for arsenic and the water quality has very high total dissolved solids, so it is very poor quality. The purpose of the study is to determine the best long-term solution for the community to provide a safe and reliable water system. Both surface water and groundwater are being evaluated as wells various treatment techniques. The report includes life cycle cost analyses for the potential alternatives including both capital and O&M considerations. This study will be complete in January 2020.

Luke Air Force Base Water Study | Glendale, Arizona | Project Manager/Engineer

Stantec has worked with Luke AFB for more than 20 years on numerous utility projects that branched into planning, transportation, architectural, and MPE projects, in addition to the water and wastewater projects. As part of the planning for the F-35, we have recently completed both water and wastewater master plans, and design for replacement of aging waterlines on base. The water system assessment considered water supply, water treatment, water storage and water distribution. Various options for water supply including the potential to connect to neighboring communities were assessed. Treatment options to address the declining quality of groundwater wells in the area were also considered. A detailed hydraulic model for the water system was prepared and used to assess available flows for domestic needs and fire flows to determine future pipe sizes. The wastewater assessments considered routing for the gravity collection system and options to reduce the number of lift stations as well as ways to improve the wastewater treatment

operations. The potential for a connection to neighboring communities was also assessed.

Following the study, three areas of the base were selected for waterline replacements, 1300 Area, 100-400 Area, and the 900 Area. We designed replacement for 8- through 24-inch water lines throughout these three areas. The new pipe will mostly replace 40-year old asbestos cement and cast-iron pipe. The replacement design has considered the hydraulics and current fire protection requirements for the buildings. Many of the existing lines were upsized to meet current criteria. The Study and design were started in 2011 and completed in phases in 2015.

Chaparral City Water Company Water Master Plan | Fountain Hills, Arizona | Project Manager

Tricia prepared a comprehensive water master plan for the City of Fountain Hills water system, which is owned and operated by the Chaparral City Water Company (CCWC). The CCWC water system includes surface and groundwater supplies, five pressure zones, pump stations, and reservoirs. The project included modeling and preparation of a detailed report with recommendations to improve the current system and upgrade as the community grows.

Navajo County Public Works Complex Well, Storage, and Pump Station Facilities | Navajo County, Arizona | Lead Design Engineer

Stantec completed a fast-tracked design for a new water system to serve the new County Public Works complex. The system included a new groundwater well, booster pump system, fire pump system, reservoir and connection to the existing distribution system. The system has been sized to accommodate future commercial development adjacent to complex. The new well is 700-feet deep and will be equipped with a 40 HP submersible well pump to provide 425 gpm, with disinfection and back-up power. The pump station includes both a booster pump system which has 3 multi-stage vertical centrifugal pumps, and a diesel driven fire pump to provide 1500 gallons at 80 psi. The storage tank is a glass lined steel bolted 200,000-gallon tank, with a Grid B to improve circulation.

|Ryan Airfield Sanitary Sewer Study | Tucson, Arizona | Senior Review

Stantec conducted an investigation and evaluation of approaches to manage the existing and future wastewater at Ryan Airfield for this sanitary sewer study. The Tucson Airport Authority (TAA) operates and maintains Ryan Airfield, an important general aviation reliever airport to Tucson International Airport. Ryan Airfield currently utilizes numerous older septic systems to provide wastewater treatment and disposal. This sewer feasibility report recommended alternatives for wastewater collection and treatment at Ryan Airfield to accommodate anticipated growth. Project tasks included collecting information about existing septic systems, evaluation of options for managing wastewater for sustained growth, developed cost estimates, projected engineering/construction schedules for key alternatives, and provided a recommendation for managing wastewater for future growth at the airfield.

Yuma City Waterline Project | Yuma, Arizona | QA/QC

Stantec completed the design for multiple reaches of waterline through old Yuma. Trenchless technologies were evaluated and included in the scope to compare to traditional pipe installations. In addition, three different pipe materials were examined for use: ductile iron, PVC, and HDPE.

Community Water Company Water System Improvements Design Plan Update and Asset Management Plan | Green Valley, Arizona | Senior Review

Tricia assisted with the update to the Community Water Company (CWC) Water System Improvement Design Plan, which was last updated in July 2009. CWC serves approximately 13,100 customers through a 3-inch to 16-inch diameter distribution system. Updated items included characterization of the CWC water system, the replacement value of CWC system, existing and future water demands, evaluation of the existing and future systems, and the capital improvement program. In addition to the update, a 100-year groundwater well plan and asset management plan were completed. The 100-year groundwater well plan evaluated and provided input concerning replacement of existing well facilities. The asset management plan allows CWC to anticipate future funding and operational needs to maintain the desired level of service and present the plan to the Arizona Corporation Commission to justify water system rates needed to maintain the CWC water system.

Orange Grove/Rancho Mesa Verde Preliminary Engineering Report | Yuma County, Arizona | Senior Review

Stantec prepared a Preliminary Engineering Report (PER) for the Orange Grove Rancho Mesa Verde Sanitary Sewer Collection System. This sewer connection project will provide sewer service to the 332 parcels of the proposed Orange Grove/Rancho Mesa Verde (OGRMV) Improvement District, located in Yuma County, east of the City of Somerton in Arizona. The properties within the OGRMV low-income subdivision have septic tanks and/or cesspools for wastewater disposal. The PER analyzed alternatives for collecting wastewater within the two subdivisions, for routing a sewer connection from the ORGMV subdivisions to the City of Somerton, and for connecting to the existing City of Somerton sanitary sewer systems. Our team performed a capacity analysis of the City of Somerton collection system at Potential connection points and analyzed impacts of the additional flow to existing downstream wastewater lift stations. The recommended project will include a new sewer lift station and force main for the sewer conveyance on the south side of US 95, as well as upgrades to an existing City of Somerton lift station.

University of Arizona Sewer Feasibility and Alignment Study Report Parts I & II | Tucson, Arizona | QC

This project evaluated sewer capacities around the University of Arizona. Future development buildout flows have potential to exceed existing sewer capacities. Sizing upgrades and alignment recommendations were provided. Project included utility composite maps, preliminary plan sheets, and Engineers Opinion of Cost for the recommended sewer improvements.

Lisa Campbell

Grant Administrator

Bridging our clients with desperately needed funding sources is a passion for Lisa. She is our dedicated grant specialists and administers grants from various programs such as the Small Cities Community Development Block Grant Program (CDBG) Build Grant funding, FHWA (Federal Highway Administration) funding, USDA/RD funding, Environmental Protection Agency, Economic Development Administration, Border Environmental Cooperation Commission (BECC) / North American Development Bank (NADBANK) and USDA/Rural Utilities Service. She understands the grant process, available buckets of funding, and the best way to approach complicated application requirements. Lisa has built professional relationships with state and federal funding agencies and staff, allowing her to serve as a voice for clients navigating the application process. She is familiar with federal and state agency requirements for bidding, contract management, and construction of these programs. Lisa provides operational tools to meet technical, budgetary, and scheduling requirements of projects, as well as provides effective communication with the general public and government agencies.

EDUCATION

Bachelor of Business Management, Western New Mexico University, Silver City New Mexico, Silver City, New Mexico, 2006

PROJECT EXPERIENCE

FUNDING ADMINISTRATION

Water Trust Board Grants*

New Mexico communities can apply for water infrastructure funding to the New Mexico Water Trust Board. The Water Trust Board is managed under the New Mexico Finance Authority and allocates about $24 million of funding each year to communities facing challenges for residents to have clean, safe drinking water. The appropriations are made through the New Mexico legislature. Applications for funding are often cumbersome for smaller, rural communities who lack full time staff dedicated to public works. Lisa, in support of the client and project manager, provides crucial support in the detailed application process. Her current work includes two applications for the City of Santa Rosa, the City of Portales, and the Village of Wagon Mound.

Colonias Funds*

The US Department of Housing and Urban Development (HUD) defines colonias as rural communities close to the US-Mexico border that lack access to basic services, including water and sewer. These communities struggle to access funding that could improvement infrastructure. New Mexico adopted a Colonias Infractructure Act to ensure adequate financial resources for infrastructure development for colonia recognized communities, provide for the planning and development of infrastructure in an efficient and cost-effective manner, develop infrastructure projects to improve quality of life, and encourage economic development. Lisa, in support of the client and project manager, provides crucial support during the detailed application process.

Various Grants*

Funding streams available to rural communities often extend beyond New Mexico Water Trust Board and Community Development Block Grants, but require time and detailed attention to navigation the application process and bureaucratic challenges. Lisa, in support of the client and project manager, provides crucial support during the detailed application process. Recent clients include the Village of Cloudcroft seeking NMFA-Asset Management funding, San Miguel County seeking a Clean Diesel Act and Tiger Application, and Eddy County application for a BUILD Transportation Grant.

Community Development Block Grants*

Community Development Block grants (CDBG) provide annual funding on a formula basis to cities and counties in need of decent, affordable housing, to provide services to the most vulnerable residents in those communities, and to create jobs through the expansion and retention of businesses. Lisa, in support of the client and project manager, provides crucial support during the detailed application process. Recent clients include the City of Moriarty, Quay County, City of Tucumcari, City of Deming, Town of Clayton, City of Las Vegas, and Mora County.

Cottonwood Rural Water Association*

Lisa assisted the Cottonwood Rural Water Association Water System during the grant application specific to the system improvements. Grants included United States Department of Agriculture Rural Development Water System Improvements grant totaling $3,625,100 and a loan totaling $649,000. She also helped this client secure a legislative grant (14-1627-STB) in the amount of $366,000 and helped to secure connection fees of $33,800.

** denotes projects completed with other firms*

Timberon Water & Sanitation District *

Lisa assisted the Timberon Water and Sanitation District through grant application support specific to the Carissa Spring Project 3363-Colinias Infrastructure Funds Board with a final award of $236,929. She also assisted this client through the process of applying for a United States Department of Agriculture Rural Development Water System Improvements grant. Lisa provided support with other funding sources, including $100,000 from the 2018 Colonia Infrastructure Projects fund; $72,080 from a legislative grant; $308,000 from a RCAC grant; $3,031.000 from the United States Department of Agriculture Rural Development grants; $50,000 for asset management; and $50,000 for a water conservation plan.

City of Deming*

Lisa assisted the City of Deming, New Mexico to secure grants from the New Mexico Department of Transportation (NMDOT)/Federal Highway Administration (FWA) for an amount of $652,449. The City sought these funds to provide street and drainage improvements to Cedar Street and to provide 8th Street with both street and drainage improvements. She also helped to secure $352,044 grants from the NNMDOT/FWA. Lisa continued to assist the City of Deming in grant administration support securing $1,358,374 for Buckeye and Iron Street for drainage improvements from Community Development Block Grants (CDBG) and New Mexico Colonias Funds.

Stantec

Design with community in mind