A. Firm Description

For over 25 years, WHPacific has provided government and private sector clientele with a wide variety of exceptional professional services that are second to none. We are consistently ranked among the nation's top 500 design companies by Engineering News Record, with our ranking for 2008 at number 143.

WHPacific is a 100% Alaska Native-owned company, and is a subsidiary of NANA, an Alaska-Native Corporation established under the 1971 Alaska Native Claims Settlement Act, which is currently the largest Alaska Native owned engineering and architectural firm in the United States. Being owned by the Inupiat people of Alaska's North Slope, the company employs many Native Americans and people of varying cultures, and prides itself on particular emphasis on recognizing and respecting the various cultures and traditions of its clients.

WHPacific is a professional services company providing architecture; planning; and civil, structural, mechanical, and electrical engineering services. The mission of WHPacific is to deliver high quality professional service through a multidiscipline team approach. We aspire to be recognized as being a premier architectural, planning, and engineering firm, dedicated to providing personal attention to our clients' needs and to their satisfaction. Additionally, our Rocky Mountain Regional offices have additional staff and services to add to any of your projects, if needed. These disciplines include land, transportation, education, and master planners; architects; civil, transportation and drainage engineers; mechanical, electrical, and structural engineers; interior designers; surveyors; construction managers; biologists; oceanographers; hydrologists, hydrogeologists, geologists; and certified asbestos management planners.

Our approach to every project is based upon providing qualified, attentive personnel that diligently respond to client needs and requests. The project team, which includes active participation from the firm's senior architects, remains constant with the project from inception to conclusion. We believe in excellent design, and have received numerous awards for our projects—most notably by authorities outside the design profession. We take pride in creating designs that are imaginative and sensitive to the environment, the users and the culture served.

B. Capabilities

Through our extensive experience, we have developed an excellent reputation. WHPacific continues to back up this reputation with an extremely high quality product–on schedule and within budget. The number of clients who return to us for professional engineering and architectural services also support this reputation. We feel the high number of repeat clients is a measure of our quality and directly related to our technical expertise and customer service.

We provide complete services in the areas of aviation; general civil; water and wastewater; mechanical, electrical, and structural engineering; planning; architectural services; construction management; environmental science; surveying and transportation. WHPacific has the capacity to meet multiple, stringent project milestones, as well as an expansion in any project or the acceleration of any project schedule. Our diverse resources encompass the appropriate disciplines necessary to produce a quality product on time and within budget.

C. Relevant Experience

1. Educational Facilities

Schools

Sunnyslope Elementary School
Washington Elementary School District, Phoenix, Arizona (Completed in 2007)

The Washington Elementary School District retained WHPacific to design a replacement school for an aged, out-dated facility that was considered functionally obsolete. The result is a new design of a four-building campus on approximately 9.1 acres in north central Phoenix. Due to the compact nature of the campus, WHPacific designed a linear design orienting the buildings on a linear court used for circulation and as a visual control technique for security. The kindergarten building is self-contained with play areas immediately adjacent and separated from other areas of the campus. The centrally-located multipurpose and cafeteria buildings anchor the linear court layout and provide direct access to

the soccer play fields and play courts. The cafeteria has a self-contained full-sized commercial kitchen. The two-story classroom building forms the frontage of the campus and contains thirty classrooms. The site allowed for segregated vehicular traffic with school bus access completely separated from private vehicle drop-off and pick-up.

Maryvale High School Additions
Phoenix Union High School District, Phoenix, Arizona (Ongoing)

WHPacific has been involved with on-going campus development at Cesar Chavez High School since its inception. The latest project included the construction of a new Reserve Officers' Training Corps facility. The new building was integrated into the campus architecture and consisted of classrooms, offices, a security vault, storage and multipurpose area used for various training activities. The building infrastructure and utilities were also connected with the central campus facilities, which required extension of the campus utilities systems to the new facility.

The project was completed using the Construction Manager at Risk (CM@R) delivery system. This project's latest construction was under a campus multi-phase development program.

Libraries

Apache County Libraries
Four Locations in Apache County, Arizona (Ongoing)

Four new libraries are being developed for the Apache County Library System. The program is being developed by the county in conjunction with the program management team from Pinnacle One of Tempe, Arizona. Whiteriver Construction Co. of Lakeside and WHPacific of Mesa, are the Design/Build (DB) team selected by the county to design and construct the new facilities. A 10,000 sf library will be constructed in St. Johns and Round Valley, while the communities of Concho and Alpine will receive a new 3,000 sf facility. The facilities will include stack areas, community meeting rooms, computer labs, and office and workroom space for staff. A design team of community members along with library and county staff are working with the team to develop the plans. All designs will respond to the context of the community in which they are placed. County voters approved the bond issue in November for $7M to build and equip the new libraries.

2. LEED

WHPacific is a member in good standing with the US Green Building Council. We have performed many contracts that have made use of recovered or recycled materials, and made improvements in design, efficiency, and energy consumption. We routinely refer to the LEED Rating System and Project Checklist when developing a design – it is simply good, responsible design to do so.

Currently, our company has a total of seventeen LEED Accredited personnel.

Vehicle Maintenance Complex
Department of Emergency & Military Affairs, Florence, AZ

WHPacific was contracted to provide design and construction documents for a Field Maintenance Shop (FMS) for the Arizona Army National Guard. This is the first project at the Florence Military Reservation. Within the next five years, two readiness centers, barracks and other facilities will be constructed. The FMS is presently under construction. The 19,800 SF building includes eight work bays, including a lubrication bay and a 15-ton crane. Supporting building spaces include tool and supply rooms, storage, offices, physical training room, classroom and locker rooms. Cost effective energy conserving features are incorporated into the design. The Florence Field project is LEED® Certified, per the project manager, they are pursuing a LEED® Gold.

Exterior supporting facilities include main access roadway into the facility from the State Highway, private owned vehicle parking, military parking, vehicle wash platform, loading ramp, flammable storage area, and controlled waste handling facility.

All utilities (power, communication, water, sewer and gas) are being brought into the site. Physical security measures are being incorporated into the design including maximum feasible standoff distance from roads, parking areas, and vehicle unloading areas.

3. Planning

Master Planning

East Valley Institute of Technology (EVIT)
Mesa, Arizona (Completed in 2006)

WHPacific initially assisted the District in preparing Facility Guidelines and Standards upon which all current and future school assessments and capital planning were to be based. Using that guideline, we created a district-specific assessment tool. Standards for the State of AZ Public Facilities were integrated into the tool and scoring ranges were established to meet minimum guidelines. WHPacific also assisted EVIT in preparing a demographics study, with the assistance of a local demographer. Using GIS, the district then created a growth map to determine new attendance boundaries.

Finally, WHPacific integrated growth, capacity and utilization analyses, and capital improvement needs to create a 10-year Capital Outlay Plan. With the assistance of district financial personnel, we assisted the district in preparing a plan for funding future growth. All information was incorporated into a working database for ongoing facility project planning.

Site Planning

Site planning and design is a process of intervention involving the location of roads, trails, structures, and utilities to make natural and cultural resources and values available to people. To reflect the principles of sustainable design, planners and designers should assume an accountability to the environment. Both ecosystem dynamics and resource carrying capacities should be understood so that resource values are preserved and disruption of the natural system is minimized.

Alternative sustainable design strategies should be evaluated for functional and performance deficiencies and for potential impacts on natural and cultural resource values. Adaptation, recycling, reuse and energy conservation should be promoted in site design.

Southwestern College
Phoenix, Arizona (Ongoing)

In 2007 WHPacific was contracted to provide a site development analysis and develop a conceptual site plan that will outline a process for developing the campus over the next ten years. Existing documents provided by the college, were reviewed and a comprehensive site plan was created that could be used to locate as much of the utility infrastructure as possible. A comprehensive utility locator service should be used to locate exact underground utilities before moving forward with any new construction in the future. Creation of this document also provided the design team the ability to locate all the existing structures on site based on college supplied historic documents.

The college staff provided the team with information proposing that the size of the college in the future would not exceed a student population of 750-1200. This information helped the design team to determine the number of classrooms that will be needed in the future to handle the new student population. A capacity study will be completed at a later date as part of a formal master plan.

The design team was directed to not be constrained by the existing buildings presently on the campus, except the new residence hall and the student center building located at the center of the campus—these structures will remain. A fresh new look for the campus was the goal of the committee.

4. Design/Build

WHPacific's DB experience encompasses a ten-year history, incorporating both large and small projects. We have been involved as a consultant, partner, and even functioned as the prime in the DB area, and understand the roles and responsibilities of each participant.

We provide highly qualified and very experienced Project Managers to lead the DB effort. Communication with all the participants, including the clients, on a regular basis helps to build the trust. Accurate, concise and timely documents assure that the builder has confidence in the design portion of the effort.

The design effort is accomplished with the assistance of the builder to assure all the elements and details are constructible. This over-the-shoulder review also provides the aspect of value engineering into the project.

Winslow Highschool
Winslow, Arizona (Completed in 2004)

WHPacific designed a new high school using the DB delivery process, for the Winslow Unified School District in Winslow, Arizona. The funding for the project was by the Arizona Schools Facilities Board and included the first phase of a new high school for the town. The first phase of the school was approximately 54,000 sf., and included a new auditorium, 30 new classrooms, and a new high school and district administration facility.

The second phase of the project was funded with district bonds and included the addition of 10 new science classrooms and a new Student Union building. The project consisted of the construction of additions to the new high school—a new addition to the Auditorium Building (Choral Room), a new addition to the Resource Center (Library), a new classroom wing, and the renovation of the existing metal building into a new Student Union Building.

5. Construction Manager at Risk (CM@R)

WHPacific has recent experience working on numerous CM@R and DB construction delivery projects. We have also participated in the selection of the CM where the CM was retained after the architectural/ engineering contract was awarded.

Techniques to Accommodate Changes in Costs - WHPacific is very aware that, even with extreme scrutiny and care, unforeseen conditions may exist, for which the contractor did not estimate. With remodeling and retrofitting of existing space and buildings, this is a very high probability. Initial strategy is to research existing conditions as much as possible. In many instances, minor destructive testing and analysis is undertaken to identify hidden construction conditions. Where ambiguity remains, these areas are identified on the construction drawings and specifications, as a caution to the contractor.

One technique that has proven very successful by WHPacific is the strategy of meeting with the owner and construction manager to discuss the areas of possible contention and where existing conditions are difficult to determine. A reasonable construction contingency is identified, and the project is bid with the instructions that the contractor is to provide for such contingency in their Schedule of Values. When conditions are uncovered that were not foreseen, the costs to remedy the construction is then negotiated with the contractor, construction manager, and owner's representative. This system has worked extremely well for our clients, and eliminates much of the contention that often develops in such scenarios.

Past Performance – CM@R

- Human Services Campus, Maricopa County, Phoenix, AZ
  Contractor: DL Withers Construction Inc.
- Jack Barnes Elementary School, Queen Creek Unified School District, AZ
  Contractor: Haydon Building Corporation
- East Valley Institute of Technology, Health Sciences Center, Mesa, AZ
  Contractor: Sundt Construction Inc.
- Apache Junction Replacement Gymnasium & Classroom Building, Apache Junction Unified School District, Apache Junction, AZ
  Contractor: Redden Construction
- Frank Borman Middle School Additions, Cartwright Elementary School District, Phoenix, AZ
  Contractor: McGrew & Associates

6. Aviation

Our architectural and engineering design professionals provide a variety of services, including:

- Airport Master Planning
- Runway/Taxiway/Apron Design
- Construction Administration
- Airport Lighting Design
- Storm Water Management Plans
- Drainage Studies
- Flood Studies
- Airport Relocations
- Commercial and Private Aviation Hangars, Offices, and Related Buildings

Grand Canyon Airport Master Plan
Grand Canyon, Arizona

WHPacific prepared a Master Plan for the state-owned Grand Canyon Airport. A local advisory group provided input to, and review of, each phase of the Master Plan. The plan consisted of five basic sections:

- Inventory of facilities, operation, and airport history
- Computerized model of economic and historical use for projections
- Airport requirements to meet future demand
- Environmental review of planned development
- Financial planning to accomplish planned improvements

Key elements included a review of current airport developments, field survey of existing drainage facilities, hydrologic and hydraulic review of the storm drain system, identification of proposed improvement including a strategy for water quality enhancements, and an implementation for long and short term improvements. The plan included a ten percent conceptual drawing of proposed improvements identifying component sizing, location, and potential conflicts.

Albuquerque International Sunport
Albuquerque, New Mexico (Ongoing)

Since 1979, we have been providing design services for the Albuquerque International Sunport, and continue to provide planning, programming, design, and engineering support. Often these projects involve the airlines and other tenants, and sometimes they were directly for the Aviation Department. The Master Plan Expansion Program is still the largest public works facility constructed in New Mexico. Over the past 28 years, the following projects have been worked on:

- Taxiway and Apron Replacement
- Optimization Projects
- Drainage Master Plan
- Commissioning Services
- Consolidated Rental Car Center
- Yale Bridge
- East Concourse Expansion
- Air Cargo Building
- Vehicle Maintenance and Storage Building
- Main Terminal Building
- Parking Structure
- Master Plan
- Miscellaneous Improvements: US Customs & Immigration Gate, Remodeled Flight Services Station, Renovated Building T-22, Constructed Frontier Airlines New Operations Area, Constructed United Airlines Ticket & Operations, Installed New Baggage Conveyor Belt, Constructed Pacific Southwest New Operations Area, Constructed Delta Airlines New Operations Area, Constructed America West New Operations Area, Relocated Host International Gift Shop, Installed Automatic Sliding Entry Doors, Refinished Exterior of Terminal Building, Developed Design Directive for Expansion Program, Landside Access Roadways, Apron & Service Roads, Extension of George Road, Prepared Tenant Development Manual, Airline Provisioning Building, American Airlines Tenant Development, Airport Maintenance Building, Southwest Airlines Gate Modifications, UPS Tenant Development, Renovated Southwest Airlines Ramp Ops, Landside Master Plan, and Sandia Labs Hangar Improvements.

7. Office Buildings

Dennis Chavez Federal Building
Albuquerque, New Mexico (Ongoing)

The 13-story facility is a reinforced concrete structure with a full basement and penthouse that was constructed in 1964-1965. Since 1995 we have provided renovation services for the GSA to the Dennis Chavez Federal Building in downtown Albuquerque under an open-end contract. This 300,000 sf rectangular office building had been home to the US District Courts along with over 15 federal agencies. We performed a prospective development study to fill floors 10-13 once the District Courts moved into a brand new building. The Bankruptcy Courts, Defense Contract Audit Agency, Marshal Service, Office of the Trustee, Office of Surface Mining, Fish and Wildlife Service, Health Unit, VA, and USPS now use this space. The existing courtrooms and Judge's Chambers were modified for the Bankruptcy Courthouses. The study also called for renovating the remaining floors by upgrading finishes, modifying toilets, abating asbestos, and becoming ADA compliant, and also called for an independent boiler and chiller system. Construction was completed in 2000. Our design included a comprehensive phasing plan, which allowed the building to remain occupied during construction and maintain a maximum level of comfort throughout construction without compromising safety concerns.

Harold Runnels Office Building
Santa Fe, NM

Santa Fe's Harold L. Runnels office building is designed to integrate a large, modern facility into the Southwestern context of New Mexico's historic capital. The densely landscaped site provides a parklike atmosphere for employees and visitors, and parking areas are effectively hidden from street views.

In order to comply with Santa Fe's rigid design guidelines, the building is visually broken into many smaller masses that step back on one another, providing a gradual scaling down of the building to the street. The four-story height is further minimized by positioning the first floor below street grade, which creates an entry courtyard between the new and the existing building central to both parking lots. A large multiuse auditorium, located at the building's entry, reflects the round forms of Indian Kivas found in nearby pueblos.

In response to the users' desire for maximum daylight, the office spaces are organized around two large interior atria's, a concept derived from the enclosed courtyards common throughout the region. Each atrium permits warm, natural light to penetrate the interior office, while the smaller exterior windows allow perimeter office daylight as well as views of the nearby Sangre de Cristo and Jemez mountains.

An earthtone synthetic stucco is the predominant exterior wall material, and brick pavers provide a durable flooring in high traffic areas, both inside and out. Exterior mechanical rooms on each level offer flexible and efficient heating and cooling air distribution while isolating noise, vibration and service access.

8. Medical & Health Facilities

FHP Health Clinic
Phoenix, Arizona

WHPacific designed a new medical office facility for FHP Incorporated's expansion into the North Phoenix Metro Area. Consistent with FHP's philosophy of providing convenience and comfort for its membership, the facility contains medical examination rooms, treatment rooms, x-ray facilities, optical examination, dental examination, a laboratory and pharmacy.

FHP believes in providing efficient service to its members in as comfortable and attractive an atmosphere as possible. Thus, all medical services are accessible directly from the central lobby. Examination "pods" of twelve rooms each were created for effective "team" treatment and service for each patient. The lobby is accentuated with abundant natural light from clerestory windows and custom artwork.

Leisure World Fitness & Wellness Center
Mesa, Arizona

WHPacific was retained to design a new fitness and wellness center for the retirement community of Leisure World in east Mesa. There were many challenges to the design team. The client required the wellness center to be an addition to the existing recreation center, located in a tight project site contained by the existing swimming pool, golf course, and parking area, while having architecture designed to match the existing facility so the new addition appeared as though constructed with the original design.

WHPacific added approximately 10,000 sf of new fitness space including areas for free-weight training, resistance and cardiovascular training machines, and new locker facilities. Additionally, existing space within the recreation center was remodeled to add space for classrooms and space to conduct health screenings and education workshops on fitness, diet, and relaxation.

9. Clean Rooms and Labs

WHPacific has specialized in the design of facilities with complex environments. Many of these projects have been provided for the national laboratories including Los Alamos National Laboratory, Sandia National Laboratories and Idaho National Engineering Laboratory.

Additionally, WHPacific has designed complex industrial projects for General Electric Aircraft Engine Company, US West Communications, Allied-Signal Corporation, Motorola Inc., Honeywell Corporation, AT&T Communications and Intel Corporation. Most of these projects involved HVAC systems with a variety of service requirements. Many have clean rooms, from Class 10,000 to Class 1. Some of the projects use the HVAC system for environmental containment of hazardous and/or radioactive materials.

Projects that have been completed in the past are listed below:

- C-2 Sort Floor, Class 1000 Clean Room, Intel Corporation, Chandler, Arizona
- C-4 Assembly Floor Fit-Up, Class 1000 Clean Room, Intel Corporation, Chandler, Arizona
- FAB 6 Modifications, Class 100 Clean Room, Intel Corporation, Chandler, Arizona
- FAB 7 Modifications, Class 100 Clean Room, Intel Corporation, Rio Rancho, New Mexico
- FAB 9 Modifications, Class 10 Clean Room, Intel Corporation, Rio Rancho, New Mexico
- Space Systems Fabrication Building, Class 100 Clean Room TA-3, LANL, Los Alamos, New Mexico
- Process Development Laboratory, Class 1000 Clean Rooms, Building 878, Sandia National Laboratory (SNL), Albuquerque - also metallurgical processes, thin films, microcircuit, and ceramic laboratories.
- CAPS Assembly, Class 1000 Clean Room, Building 841, SNL, Albuquerque, New Mexico
- Composite Clean Room Operations, Class 1,000 Clean Room, General Electric Aircraft Engine Plant, Albuquerque, New Mexico

C4 Acid Waste Neutralization Modifications, Intel Corporation
Chandler, Arizona

WHPacific provided Intel with recommendations, engineering analysis and design, and construction documents to add capacity and other improvements to their existing C4 AWN. There were many improvements that included the construction of a filter cleaning and barrel rinsing station, bulk caustic tank piping and valve replacement, and installation of an automated fill system to prevent the over filling of the reagent day tank. Modifications of the Programmable Logic Controller to allow environmental and operation trending as well as automatic plating line shutoff for chemical dumping added a recirculation system to provide an onstant pressure in the caustic reagent supply line. Also, a first stage metal bearing treatment plant for PH adjustment was installed. Several additions were also included, of which are: a 25,000 gallon DI water storage link with a nitrogen blanket system, a UV sterilization unit, a new filter press with a bulk collection unit and dewatering device, a 5,000 gallon steel tank with a phenolic liner for the bulk storage of sulfuric acid, and a 1,000 gallon tank for ferric chloride with an air operated pumping system to pump the chemicals from the bulk tanks to the day tanks automatically.

GE Aircraft Engines - Building 21 Complex
Albuquerque, New Mexico (Ongoing)

This project, on the north side of the overall plant site, involved approximately 92,000 sf of office, laboratory fabrication, and process space in a one level high bay structure. Facility design included specialized structural foundations and utility services for GE specified and installed equipment; clean room considerations; handling of toxic, flammable and corrosive materials; and close tolerance temperature and humidity control. Service utilities included closed loop chilled water, argon, treated water, compressed air, gas, intercom, vacuum, communications, fire alarm, fire sprinkler, corrosive containment, systems alarms, and hazardous fume exhaust. Also included was a machine/metal work shop. Electrical design included rerouting and replacement of a power distribution system for the plant complex including new distribution panels. The work included substation relocation and new underground primary power feed to onsite substations with associated ductwork and manholes. Interior graphics were designed to provide a more aesthetic work environment.

10. Land Development

Las Sendas Community Vision
Mesa, Arizona

The Sonoran Land Group contracted WHPacific to create a community development plan for a 2,400 acre site on the northeast edge of Mesa, Arizona. The request was to modify the existing Las Sendas Development Master Plan (DMP) and create a new DMP for an adjacent site, Las Sendas Mountain.

This area of Mesa is part of the Desert Uplands Sub-Area. Due to the fragile nature of this land, our planning team was charged with creating a community which would respect natural features by providing ample open space, protecting natural desert washes, and creating an extensive network of pedestrian and bike trails.

The team's efforts resulted in DMP's which met or exceeded development guidelines for the Desert Uplands Sub-Area and received the Mesa planning department's approval. Among the amenities included were 638 acres of open space, an 18-hole championship golf course, three school sites and various parks. The overall density was less than 2 dwelling units per acre.

11. Secure Compartmentalized Information Facilities (SCIF)

Albuquerque International Sunport - Main Terminal Building
Albuquerque, New Mexico

The Master Plan projected a need to double the 1964 terminal size because of increasing passenger counts. The existing 225,000 sf were remodeled, and 200,000 sf were added simultaneously with ongoing 24-hour operations by the Sunport and its tenants. Preserving the existing great hall and pueblo-style architecture keep the Albuquerque International Sunport unique. Additions included $1M of new furnishings, casework, interior design, and artwork, and $5K of artwork security. Design features included 19 new apron drive passenger loading bridges, two-level access drives for passenger vehicle loading and unloading, flight information digital displays, baggage claims digital displays, airport signage and wayfinding graphics. Additionally, the CCTV security, access control, fire alarm, maintenance control, and baggage claims systems were upgraded and consolidated for monitoring from the Central Communications Center and Emergency Operations Center. The facilities are located within a structurally secure area of the terminal, accessible only via multiple secure, controlled passageways. The center includes custom command center consoles and emergency power systems , and are staffed 24/7/365.

12. Correctional Facilities

WHPacific has years of experience with corrections facilities and buildings requiring extensive security design. We have provided services to the Corrections Department in the development of a Master Plan for the Santa Fe prison facilities. This project required a project team consisting of an architect, structural, mechanical, and electrical engineer analyzing each building of the Main Prison complex and developing reports identifying problems and corrective measures.

Hualapai Juvenile Detention Facility
Peach Springs, Arizona (Completed in 2007)

Designed with input from the tribal council, this 30 bed facility will house both male and female detainees. There are three separate cell blocks with twenty beds for male and two cell blocks with 5 beds each that can be separated for use by female or special populations. All blocks have their own dayroom, offices for case workers, and shower and laundry areas located inside the secure cell block areas. There is a vehicle sally-port, a secure holding room area at the intake, along with medical facilities. The central control room has a clear view of all exterior court areas. The administrative area has a reception area for families, conference training area, records storage and workrooms and locker rooms for the director and his/her staff. There is also a cultural learning center with four flexible educational rooms, counseling rooms, behavior health and interview rooms. A full service kitchen is included capable of providing all meals for detainees and staff. The exterior exercise area has a multifunctional play court and totally enclosed court areas for outdoor exercise programs.

13. Courthouses

Since 1991 WHPacific has provided the US General Services Administration with numerous projects under three different Supplemental A/E Service contracts. Because of their twelve years of work for GSA, WHPacific is very familiar with the GSA Facilities Standards for the Public Buildings Service (PBS-P100), the US Courts Design Guide, and the US Marshals Service Design Guide. Many of WHPacific's GSA projects have been for the US Courts.

Courthouse projects produced by WHPacific include the following:

- Mesa Justice Center, Maricopa County, Mesa, AZ
- District Judge Courtroom & Chambers, United States Courthouse, El Paso, TX
- Magistrate Judge Hearing Room & Chambers, United States Courthouse, El Paso, TX
- District Clerk's Office Expansion, United States Courthouse, El Paso, TX
- District Judge Courtroom & Chambers, United States Courthouse, Amarillo, TX
- Magistrate Judge Courtroom & Chambers, United States Courthouse, Amarillo, TX
- Three Judges Chambers, United States Courthouse, Santa Fe, NM
- Marshals Service Area, United States Courthouse, Santa Fe, NM
- Visiting District Judge Courtroom, United States Courthouse, 500 Gold SW, Albuquerque, NM
- Probation Offices Relocation, United States Courthouse, 500 Gold SW, Albuquerque, NM
- Bankruptcy Judge Courtroom & Chambers, United States Courthouse, 421 Gold SW, Albuquerque, NM
- Criminal Justice Complex, Feasibility Study, Bernalillo County, Albuquerque, NM
- Metropolitan Courthouse, Parking Structure, Albuquerque, NM
- Prospectus Development Study, United States Courthouse Annex, Las Cruces, NM
- Courts Technologies Infrastructure, United States Courthouse, Las Cruces, NM
- District Judge Courtroom & Chambers, United States Courthouse, Las Cruces, NM
- Magistrate Judge Courtroom & Chambers, United States Courthouse, Las Cruces, NM

14. Anti-terrorism/Force Protection

WHPacific is familiar with Force Protection criteria. We have designed facilities that incorporate standards as identified in the "Interim Department of Defense Antiterrorism/Force Protection Construction Standards, December 15, 1999 edition." We also use and have on hand a copy of the latest version of standards, the United Facilities Criteria (UFC) DOD minimum Anit-Terrorism Standards for building, July 31, 2002.

Department of Emergency and Military Affairs (DEMA) Tempe Readiness Center - Army National Guard
Tempe, AZ

WHPacific was contracted to renovate an existing fire house into a Readiness Center for the Army National Guard. The facility is utilized by the medical corp and a recruiting office. The existing two-story office portion of the building was remodeled with new flooring, ceiling and lights. New restrooms and showers were provided along with a new commercial kitchen. The existing bay portion houses specialty storage areas and a maintenance bay. The original mechanical system was brought up to code, and a new fire sprinkler system was installed along with new electrical services. The facility now has the latest in building and site security, and technology installations. Security perimeter fencing/walls and gates surround the site.

Dennis Chavez Federal Building
Albuquerque, NM

WHPacific provided architectural and engineering design services for the renovation of the Dennis Chavez Federal Building in downtown Albuquerque. This project was completed under an open-end contract for the General Services Administration. This 300,000 sf rectangular office building houses more than 15 federal agencies on 13 stories. The facility is a reinforced concrete structure with a full basement and penthouse. It was constructed in 1964-1965 and has undergone many building remodels and alterations. These modifications have greatly changed the original design, and as such, require major mechanical and electrical modifications to meet current building codes. In addition, new codes have been adopted dealing with seismic issues. This was not a concern when the building was originally designed.

In order to meet current seismic code requirements, a dynamic analysis of the building's structure was performed. The results indicated the building had a soft and weak first story. Several options were evaluated in terms of construction cost, disruption of building occupants, and ease of construction. The solution that best met these criteria was to add concrete shear walls at the lobby and basement levels. The design required the lobby to be modified to accommodate the new walls, yet not detract from the building facade. In addition, new safety glass was installed in the lobby storefront.

15. Surveying & Right-of-Way

WHPacific provides a wide range of land, precision control, and offshore surveying services. Our full complement of professional surveyors and field support personnel utilize the most advanced equipment including Global Positioning Systems, Auto Tracking Systems, total stations, laser scanners, digital levels, and data collection systems. We currently have six Licensed Professional Land Surveyors on staff with over 120 years combined surveying experience. Our survey staff has extensive experience performing the following types of surveys:

- **GPS surveys** - Static, rapid-static and real time kinematic surveys for control densification, aerial photography control, boundary surveys and topographic surveys.
- **Boundary Surveys** - Boundary surveys from small parcel surveys to right-of-way acquisition surveys for hundreds of miles of highways.
- **Cadastral Surveys** - Survey of the Public Lands of the United States. ASTS personnel have performed more than 3,000 line miles of survey of the Public Land Survey System.
- **Route Surveys** - Over 1,500 miles of route surveys for petroleum pipelines, utility lines, roadways and power transmission lines.
- **Site Selection and Topographic Surveys** - Surveys for housing projects, commercial developments, utility projects and other surveys needed for engineering and architectural designs.

16. Transportation & Traffic Engineering

Transportation Planning - WHPacific has completed over 200 Transportation Planning Studies on Indian Reservations throughout the United States. These 20-year plans consist of identifying and evaluating present and future transportation needs in relation to the Tribe's social, economic and

development goals. These plans include extensive road inventories of the transportation network, documentation of traffic safety problems and identification of betterment projects that address tribal land use and economic objectives. Preliminary cost estimates are prepared for each improvement project, and projects are ranked for implementation according to their relative need. Transportation Planning Reports include: mechanical/manual traffic counts, turn-movement counts, land use inventories, reservation data, and accident location data.

Transportation & Roadway Design - WHPacific's experience and capabilities in the area of Surface Transportation Engineering include all aspects of roadway design and traffic engineering. Our staff has conducted alignment and corridor studies, performed all aspects of geometric design, applied traffic engineering solutions to operational and safety problems, prepared plans, specifications and estimates for roadway construction projects, and supported many of the projects through construction completion. Our roadway design expertise encompasses the full compliment of roadway facilities, including two and multi-lane highways, urban and rural interchanges and arterial roads.

17. Structural Engineering

WHPacific has built its practice for the last 60 years designing structures including bridges, drainage facilities, sophisticated research laboratories, offices, schools, and industrial facilities. We offer services from conceptual studies of design alternates, cost estimates, economic evaluations to preliminary and final design, equipment foundation design using state-of-the-art element analysis, drafting, construction drawings, and construction monitoring and inspection. Our structural staff is experienced in analysis, rehabilitation, strengthening, and design. Engineers are often placed in the field to promote an understanding of what constitutes constructible details and to gain a feel for the interrelationship of the structure to the other disciplines' activities.

18. Mechanical Engineering

Since 1984, WHPacific has been providing mechanical engineering services including piping, HVAC, control systems, and fire protection design. Project experience has encompassed field investigation, utility interfacing, building load analysis, heating and cooling design, domestic and process piping design, HVAC controls, waste and dust collection systems, specification of retrofits and upgrades, development of design alternatives, and cost/benefit analysis. Building commissioning services are also available.

19. Electrical Engineering

The WHPacific Electrical Engineering Department provides a wide range of electrical design services. Our department staff have performed design for power distribution at voltages up to 13.8kV, medium voltage substations and service to large wells and pump stations, low voltage (below 600kV) systems, new building designs, and renovation work in existing buildings. Our staff also have expertise in special systems design such as fire alarm, intercom and public address systems. In addition, we have special knowledge and experience performing studies and preparing reports for code compliance issues and energy audits.

20. Water/Wastewater Engineering

WHPacific staff has a wide variety of experience in civil projects ranging from small site grading or utility projects to large storm drain or street projects. This capability enables us to assign highly qualified and experienced staff to any civil-related project.

Water System Experience - Includes rate studies, water system modeling, planning studies, public meetings, equipment evaluations, utility coordination, facility design, and construction support.

Wastewater Experience - Includes preparing treatment plant evaluations, effluent disposal studies, wastewater facility plans and preliminary engineering reports, facilities design, construction phase support, and assistance with effluent discharge permitting. We have designed over 75 wastewater treatment plants in many Southwest and Western states, and have won numerous awards for innovations with our wastewater treatment designs. The plants consistently produce effluents that meet state standards, in spite of highly variable hydraulic loads and extreme winter weather conditions.

In addition, we have extensive experience and knowledge of federal and state grant and loan programs used to fund community infrastructure projects. This includes USDA-Rural Utility Services grant and loan funds, EPA grants, CDBG grants, FA grant and loans, EDA grants, and other funding sources. We prepare reports and studies in the specific format required by potential funding agencies.

21. Environmental

WHPacific offers a full range of environmental services including: contaminated soils investigations; compliance audits; asbestos, lead based paint, Phase I and II Site Assessments; and underground storage tanks (UST) and above ground storage tanks (AST) investigations. Tasks include: the initial site assessment to determine the extent of contamination utilizing drill rigs, sampling the subsurface soils and groundwater, installation of monitor wells, observation and inspection services for UST removals, monitoring and sample collection of groundwater, performance and evaluation of pump tests to determine aquifer characteristics, evaluation, design, and preparation of specifications, plans, and contract documents for installation and construction inspection services for remedial systems. Experience includes:

- NEPA Environmental Assessments
- Phase I Environmental Site Assessments
- Phase II Environmental Assessments
- Radon Gas Monitoring
- Testing for Lead-Based Paint/Lead in Drinking Water
- Initial Response
- UST Removal Oversight
- Subsurface Investigations/Remedial Design and Implementation