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AUTOMOTIVE

CADILLAC/HUMMER/SAAB – *Glendale and Scottsdale, Arizona*

Project design for these two (2) signature Dealerships began during the spring of 2007. Each Dealership location shall have a 40,000 sf Showroom Area and ancillary spaces. Each location shall also have a 40,000 sf state-of-the-art Service Center and Photo Booth Facility.

COYOTE HONDA – *Avondale, Arizona*

This motorcycle dealership includes Sales, Service and Tire Storage Areas. All portions of the building were automatically sprinklered.

COLORADO RIVER FORD - *Kingman, Arizona*

Multi-story 31,900 sf dealership including six (6) covered Detail Bays, sixteen (16) Service Bays, eight (8) RV/Truck Service Bays, two (2) Lane Quick Lube, one (1) Service Canopy, one (1) Outdoor Display Area, Parts Area, Break Room, Electrical Room, Sales Areas, Offices, and Showroom.

DISCOUNT TIRE – *Arizona, Colorado, Texas, California, Florida, North Carolina, South Carolina, Illinois, Georgia, Washington, Indiana, Utah and Michigan*

High-piled tire storage standards, NFPA, International and UFC codes were referenced extensively in the engineered system for these prototypical buildings. Overall water supply analysis is completed for each individual location. ESFR, storage application sprinklers and standard quick response sprinklers are utilized in the various locations as required.

ANDERSON CHRYSLER - *Lake Havasu City, Arizona*

Multi-story dealership (building footprint is 27,000 sf) including one (1) Car Wash Bay, nineteen (19) Service Bays, one (1) Elevator, Compressor Room, Break Room, Electrical Room, Sales Areas, Offices, Display, etc.

GORDY'S AUTOBODY SHOP – *Bullhead City, Arizona*

23,800 sf project included Paint Booth automatic sprinkler provisions.
(FP Contractor Client)

BRAKE MASTERS – *Stores located throughout the metropolitan Phoenix area*

Buildings include both Retail and Service Areas, ranging from 5,000 sf to 11,000 sf.

FLETCHER'S TIRE AND AUTO – *Stores located throughout the state of Arizona*

New 7,000 sf buildings used for Automotive Maintenance and Tire Sales.



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AUTOZONE – *Stores located throughout the metropolitan Phoenix area*
New 6,000 sf buildings used for Retail Sales of Automotive Parts. (*FP Contractor Client*)

JERRY'S AUTO LUBE – *Peoria, Arizona*
New 1,800 sf building used for Automotive Maintenance and Repair.

BIG O TIRES – *Phoenix, Arizona*
New 6,800 sf building included areas for Tire Sales, Automotive Maintenance and Repair. (*FP Contractor Client*)

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Updated May 2008



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AVIATION

CHINA LAKE NAVAL AIR STATION - *China Lake, California*

Complete overhead sprinkler system replacement/retrofit and a new in-floor AFFF (Aqueous Film Forming Foam) Suppression System for a 40,000 sf Hangar (Hangar Number 1) Area in a 50,000 sf historic Hangar Building. Project included demolition plans of the existing sprinkler system. AFFF tanks and equipment selection provided for the project. Only twenty (20) such systems have ever been previously engineered. Project was tested for the Navy and Factory Mutual Research Corporation. All testing passed and project was completed in April 2003. The cost of construction for the Fire Protection portion of this project was below the budget of \$3,200,000. (*FP Contractor Client*)

MARINE CORPS AIR STATION – *Yuma, Arizona*

Completed two (2) Hangar (Hangars 109 and 146) Retrofits of a new AFFF Under-Wing Protection System for the Marine AV-8B Harrier Jet. The area of AFFF operation was approximately 13,000 sf in each Hangar. Installation was completed in Fall 2000 for each of these duplex Fire Pump Unit Hangar Systems. The cost of construction for the Fire Protection portion of this project was \$1,500,000. (*FP Contractor Client*)

LUKE AIR FORCE BASE – *Glendale, Arizona*

Full Fire Protection drawings were for the Air Traffic Control Tower created for a Fire Protection Contractor/Client to meet the Army Corps of Engineers requirements. Fire Protection documents required metric dimensioning, sizing and hydraulic calculations, all of which were completed in house for this new 13-story tower structure with a building footprint of 700 sf. (*FP Contractor Client*)

SKY HARBOR INTERNATIONAL AIRPORT – *Phoenix, Arizona*

This Communications Building project included providing Fire Protection consulting engineering for a Pre-Action System to protect a multi-million dollar Communications Building. The communications equipment housed in each room is of extremely high value and downtime is crucial. Protection for this building is imperative.

FALCON JET HANGAR – *Mesa, Arizona*

This twelve (12) Plane Group 3 Hangar Facility boasts taxiway access to Falcon Field Airport. The nearly 36,000 sf Hangar Building is state-of-the-art in every manner. The Automatic Fire Suppression System exceeds the Group 3 requirements for the more demanding Group 2 Hangar design parameters in concert with the City of Mesa Fire Department without the need for a Fire Pump Unit.



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KINGMAN AIRPORT – *Kingman, Arizona*

Closed-Sprinkler, Wet-Pipe Systems were utilized for this new Aero-Flite Hangar (36,800 sf). (*FP Contractor Client*)

SCOTTSDALE AIRPORT – *Scottsdale, Arizona*

Provided Fire Protection consulting engineering through the coordination of efforts between the Fire Protection Contractor and Architect to meet the requirements set forth by the AHJ. Scottsdale Airport Executive Terminal Hangar 1 also had a large Canopy, Column Fire Protection and Passive Fire Protection.

BUCKLEY AIR FORCE BASE – *Buckley, Colorado*

Provided Fire Protection consulting engineering and coordination to meet the requirements set forth by the AHJ for Munitions Building as well as various other occupancies in this Cold-Weather (dry pipe) System.

LAKE HAVASU CITY AIRPORT – *Lake Havasu City, Arizona*

Provided Fire Protection construction documents for two (2) 5,000 sf buildings each with three (3) Hangars. (*FP Contractor Client*)

YUMA INTERNATIONAL AIRPORT – *Yuma, Arizona*

Fire Protection construction documents for four (4) new Hangars for the City of Yuma totaling 58,000 sf. Approximately 800 sprinklers and one (1) mile of pipe connected to a new 1,500 GPM Fire Pump Unit. Provisions were made for additional Hangars in the future.

LAUGHLIN/BULLHEAD INTERNATIONAL AIRPORT – *Bullhead, Arizona*

Fire Protection for approximately 10,200 sf of new Terminal Space including areas for T.S.A, Offices, Hold Rooms, Airline Suites, etc.

WILLIAMS AIR FORCE BASE – *Chandler, Arizona*

MCDONNELL DOUGLAS APACHE HELICOPTER ORDNANCE FACILITY

– *Mesa, Arizona*

HOLLOMAN AIR FORCE BASE – *Holloman, New Mexico*

NELLIS AIR FORCE BASE – *Nellis, Nevada*



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CASINOS

GILA RIVER CASINO – VEE QUIVA – *Laveen, Arizona*

Fire Protection consulting engineering services including full design of the entire Casino project. Special aesthetic consideration was given to the Porte-Cochere Entry, Security Offices, etc. (John Echeverri designed this project while employed by another Engineering Firm in the late 1990's).

CASINO OF THE SUN – *Tucson, Arizona*

Fire Protection consulting engineering services including full design of the entire Casino project for the Pascua Yaqui Tribe. (John Echeverri designed this project while employed by another Engineering Firm in the late 1990's).

KEWADIN CASINO – SAULT STE. MARIE – *Sault Ste. Marie, Michigan*

Fire Protection consulting engineering services including full design of the Main Casino Building. This project also included a complete Automatic Fire Suppression System for a Temporary Building in excess of 24,000 sf. (John Echeverri designed this project while employed by another Engineering Firm in the mid 1990's).

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CLEAN AGENT

PHOENIX CITY HALL – *Phoenix, Arizona*

Provided a new Incipient Stage Early-Warning System for this Communication Center (1,100 sf) located in a secured area of City Hall. Also modified the existing Clean Agent and Pre-Action Systems.

DIRECT ALLIANCE CORPORATION DISTRIBUTION CENTER – *Tempe, Arizona*

Construction Documents for a 130,000 sf Tenant Improvement to an existing Open Warehouse consisting of 60,000 sf of, 2-story Office Spaces and 70,000 sf of Distribution Center. Office Area included an Open Call Center, Support Office Areas, Training Centers and Break Areas. Fire Protection System modifications included the addition of a new 2-story within the existing Contiguous High-Volume Warehouse Space and a new FM-200 Clean Agent System with a Redundant Pre-Action System backup in the Computer Server Room. Modifications to the existing Fire Pump supplied ESFR System in the 70,000 sf Distribution Center and field observations were also included.

PLAUT CONSULTING AT COTTON CENTER – *Phoenix, Arizona*

Provided drawings for a new “Level 1” Data Center for a national consulting firm. The Data Center is supported by a complex program of spaces and times including: Corporate Image Lobby, Conference Rooms, Offices, Open Office Area, Breakdown Area (doubles as expansion area for Data Center), unique Command Center/ Help Desk Area with special acoustic treatment, UPS backup systems with hydrogen detection and spill containment. EJ Engineering engineered Pre-Action and Clean Agent Suppression Systems for a new 5,000 sf Data Room and a future 3,700 sf Data Room. This project also included a new Pre-Action System in an 11,000 sf area and a Wet System addition. The total estimated cost of this Tenant Improvement totaled \$3,000,000.

JDA SOFTWARE – *Scottsdale, Arizona*

Complete Construction Documents for a 2,300 sf Clean Agent (FM-200) System in 2001 and 1,000 sf Clean Agent (FM-200) System during 2003.

SALT RIVER PROJECT – *Tempe, Arizona*

Complete Construction Documents for a Retrofit to a new Server Room in an existing Administration Building (335 sf Server Room) including a new Pre-Action System and FM-200 Clean Agent System. Demolition plans to the existing Wet-Pipe Sprinkler System were also included for the new Server Room Area.



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SALT RIVER PROJECT – *Tempe, Phoenix, Scottsdale and Pinal County, Arizona*
Numerous projects for this client have been engineered since the inception of EJ Engineering. Due to the critical nature of most, they are not listed herein.

ARIZONA STATE SAVINGS AND LOAN – *Glendale, Arizona*
Complete Construction Documents for a new FM-200 System in a 520 sf Data Room.

SCOTTSDALE PUMP STATION NO. 42 – *Scottsdale, Arizona*
Provided Engineered, print-ready, Clean Agent (FM-200) Construction Documents, which included layout, dimensions, a reference site plan and necessary details for a 1,068 sf area.

CANYON TRAILS RESERVOIR & PUMP STATION – *Goodyear, Arizona*
Clean Agent (FM-200) and Wet Automatic Sprinkler System documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

FESTIVAL RANCH BOOSTER PUMP STATION – *Buckeye, Arizona*
Clean Agent (FM-200) and Wet Automatic Sprinkler System documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

TERRAZO WATER TREATMENT PLANT – *Buckeye, Arizona*
Clean Agent (FM-200) and Wet Automatic Sprinkler System documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

RANCHO MIRAGE WATER TREATMENT PLANT – *City of Maricopa, Arizona*
Clean Agent (FM-200) and Wet Automatic Sprinkler System documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

ELIANTO VILLAGE I WATER TREATMENT PLANT – *Buckeye, Arizona*
Clean Agent (FM-200) and Wet Automatic Sprinkler System documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

ELIANTO VILLAGE I & IV BOOSTER PUMP STATIONS – *Buckeye, Arizona*
Clean Agent was utilized exclusively as a fire suppression medium for each of the two (2) stand-alone facilities.

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GREER RANCH CHLORINE ROOM ENCLOSURE – *Surprise, Arizona*
Clean Agent (FM-200) and Wet Automatic Sprinkler System documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

FARALLON BOOSTER PUMP STATION – *Buckeye, Arizona*
Clean Agent was utilized to protect all areas of this Booster Pump Station.

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COMPUTER AND CLEANROOM FACILITIES

PHOENIX CITY HALL – Phoenix, Arizona

Provided a new Incipient Stage Early-Warning System for this Communication Center (1,100 sf) located in a secured area of City Hall. Also modified the existing Clean Agent and Pre-Action Systems.

DIRECT ALLIANCE CORPORATION HEADQUARTERS – Tempe, Arizona

Office Tenant Improvement including: Cafeterias, Open Office Area, Executive Offices, Server and Telecommunications Rooms, and Conference Room. EJ Engineering provided Performance Engineering and Design Documents for a 130,000 sf project the total estimated cost for this project was \$5,000,000.

DIRECT ALLIANCE CORPORATION DISTRIBUTION CENTER – Tempe, Arizona

Construction Documents for a 130,000 sf Tenant Improvement to an existing Open Warehouse consisting of 60,000 sf of 2-story Office Space and 70,000 sf of Distribution Center. Office Area included Open Call Center, Support Office Areas, Training Centers and Break Areas. Fire Protection System modifications included the addition of a new 2-story within the existing Contiguous High-Volume Warehouse Space and a new FM-200 Clean Agent System with a Redundant Pre-Action System backup in the Computer Server Room. Modifications to the existing Fire Pump supplied ESFR System in the 70,000 sf Distribution Center and field observations were also included.

ALLTEL CALL CENTER – Phoenix, Arizona

A 70,000 sf Tenant Improvement to an existing Office/Warehouse Gray Shell consisting of 40,000 sf of new Open Structure Call Center and 30,000 sf of Office/Support including 2,000 sf of state-of-the-art Telecommunication/Data Room. Provided complete, fabrication-ready Automatic Sprinkler System Construction Documents and a new Pre-Action System in the new Server Room.

PLAUT CONSULTING AT COTTON CENTER – Phoenix, Arizona

Provided drawings for a new “Level 1” Data Center for a national consulting firm. The Data Center is supported by a complex program of spaces and times including: Corporate Image Lobby, Conference Rooms, Offices, Open Office Area, Breakdown Area (doubles as Expansion Area for Data Center), unique Command Center/ Help Desk Area with special Acoustic Treatment, over 100 percent Redundant Electrical Distribution, UPS backup systems with hydrogen detection and spill containment, emergency power generation, dual OC-48 fiber distribution. EJ Engineering engineered Pre-Action and Clean Agent Suppression Systems for a new 5,000 sf Data



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Room and a future 3,700 sf Data Room. This project also included a new Pre-Action System in an 11,000 sf area and a Wet Tenant Improvement to the existing system. The total estimated cost of this tenant improvement totaled \$3,000,000.

NEXTEL DISTRIBUTION WARHOUSE/CALL CENTER – Irvine, California
Conducted Due Diligence with report for this existing facility. UFC, NFPA and UBC referencing as well as Local AHJ and Nextel Management interface were required to determine current and future goals and expectations of the Client and existing space capabilities for expansion and renovations. This project required a field verification visit and as-built review.

COMPUNET – Lake Havasu City, Arizona
Phase I included a new 25,000 sf 2-story Office Building. Phase II included complete design of Tenant Improvements consisting of 12,500 sf.

JDA SOFTWARE – Scottsdale, Arizona
Complete Construction Documents for a 2,300 sf Clean Agent (FM-200) System in 2001 and 1,000 sf Clean Agent (FM-200) System during 2003.

ARIZONA PUBLIC SERVICE DEER VALLEY COMPUTER CENTER – Phoenix, Arizona
Conducted Due Diligence with report for the existing 18,000 sf Computer Center Facility that is the Main Computer Lab for all Arizona Public Service operations within Arizona. The goal of the study was to ensure that quick operation (60-seconds or less) of the Pre-Action System serving the Computer Area was maintained in the event of a fire. Review of the existing system sizing and accelerators, field verification, and as-built review with a potential Fire Protection Contractor were included. (Project was commissioned directly through Pinnacle West)

SALT RIVER PROJECT – Tempe, Arizona
Complete Construction Documents for a retrofit to a new Server Room in an existing Administration Building (335 sf server room) including a new Pre-Action System and FM-200 Clean Agent System. Demolition plans to the existing Wet-Pipe Sprinkler System were also included for the new Server Room Area.

SALT RIVER PROJECT – Tempe, Phoenix, Scottsdale and Pinal County, Arizona
Numerous projects for this client have been engineered since the inception of EJ Engineering. Due to the critical nature of most, they are not listed herein.

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FREESCALE SEMICONDUCTOR – *Tempe, Arizona*

A new Cleanroom Addition to an existing building. Sprinkler protection included pendent protection within the Cleanroom, upright protection in the plenum space and below ductwork within the plenum space and sprinkler protection within the exhaust ductwork.

SUN CITY GRAND CCD BUILDING – *Surprise, Arizona*

Complete Construction Documents for a retrofit in an existing building (2,000 sf), new sprinklers in an addition (3,500 sf), and a new Pre-Action System for the Server Room; this room is the worldwide network hub for Del Webb Corporation (subsidiary of Pulte). (*FP Contractor Client*)

PEORIA SCHOOL DISTRICT MDF BUILDING – *Peoria, Arizona*

A new 600 sf building with a raised floor was protected with a Pre-Action System at both room level and below the raised floor.

ARIZONA STATE SAVINGS AND LOAN – *Glendale, Arizona*

Complete Construction Documents for a new FM-200 System in a 520 sf Data Room.

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DUE DILIGENCE

APRIA HEATH CARE – Phoenix, Arizona

Conducted Due Diligence with report and Construction Documents for this existing facility. UFC, NFPA and UBC referencing as well as City of Phoenix Fire Prevention interface were required to determine current and future space utilization of the Bulk Oxygen Cylinder Storage Room. This project required a field verification visit with our FP Contractor/Client.

DURANGO JAIL – Phoenix, Arizona

A complete Fire Protection study involving this existing Maricopa Sheriff's Office was completed to ascertain existing conditions for a possible expansion.

SUN CITY FIRE DEPARTMENT ADMINISTRATION – Sun City, Arizona

Conducted a Due Diligence study of this existing building for feasibility. Once the building was purchased, the entire team engineered a new Fire Suppression System for this critical use building and followed up through the construction phase via field observations.

PGA TOURNAMENT PLAYERS CLUB – Scottsdale, Arizona

A complete Due Diligence of the existing Clubhouse occurred just prior to the 2005 Phoenix Open Golf Tournament to ensure the safety of all patrons. The Clubhouse Building houses a Golf Pro Shop, Restaurant, Cart Storage and other ancillary spaces as this is the primary building utilized for this prestigious annual sporting event.

HALLE RESIDENCE – Paradise Valley, Arizona

Due Diligence and Fire Investigation of a portion of this mansion was required. Significant chlorine odors emanating from the pool storage area and a small fire had initiated the owner to review this aspect of the year-round residence. Significant items were discovered during the investigation. Options and recommendations were made to resolve the issue and the report included a probable cost estimate to make the changes to this home.

DELTA DENTAL HEADQUARTERS – Phoenix, Arizona

This Multi-Building Complex was completely reviewed, including all Office and Support Areas, including the Computer Room Clean Agent and Pre-Action System. Recommendations including system retrofit of quick response Automatic Fire Sprinklers.



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CITY OF PHOENIX CONVENTION CENTER – Phoenix, Arizona

EJ Engineering Group was asked, along with another Fire Protection engineering firm, to review the newly completed Atrium and adjacent spaces prior to completion of the Phase I Construction. System reviews and recommendations included Wet and Pre-Action Systems as well as Window Sprinkler Applications. Also included in the review of this system; Escalators designed to move patrons to and from the basement level Parking Garage into the Meeting, Atria and adjacent Symphony Hall spaces.

UNIVERSITY OF ARIZONA COLLEGE OF ARCHITECTURE & LANDSCAPE ARCHITECTURE – Tucson, Arizona

This circa 1964 building consisted of three (3) floors at the time we toured the facility. During the Due Diligence review it was noted that the building was protected by a partial Wet Automatic Fire Sprinkler System augmented by a Dry Standpipe System. A complete survey was completed, options provided and recommendations with probable costs given.

CROSSROADS TOWNE CENTER – Surprise, Arizona

Approximately 74,658 sf (47%) of the building areas were protected by, Automatic Fire Sprinkler Systems at the time of the report. The balance of the circa 1984 project remained non-sprinklered (approximately 79,858 sf (53%) of the building areas). The larger tenants were generally sprinklered whereas the small tenant suites were not. EJ Engineering Group was already the Engineer of record for the automatically sprinklered 99Cent Only Store; our knowledge, photographs, etc., specific to this store were already substantial. Together with the Property Owner and Surprise Fire Department, a plan was created for a gradual retrofit of the entire Shopping Center over a wide period of time. This allowed the Owner to retrofit the spaces as they became vacated and replaced with different tenants. This also allowed the Owner to budget for the retrofit over time without causing construction disturbances due to a retrofit of an operating tenant. The local AHJ would benefit as additional square footage became fully sprinklered year-by-year.

RURAL METRO FACILITES – Scottsdale, Arizona

This Due Diligence was conducted to ascertain the feasibility of an expansion near Rural Metro Headquarters.



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EDUCATIONAL FACILITIES

PEORIA HIGH SCHOOL – Peoria, Arizona

This campus has been undergoing a phased renovation since 2003. New Classroom Building “A” (2-story classroom building consisting of 46,160 sf). New Classroom Building “B” (2-story classroom building consisting of 71,000 sf), Existing Gym remodel and fire sprinkler system retrofit and new Practice Gym (gym project consisting of 51,845 sf including Concessions). Other projects at this site included the new Culinary Arts Addition, Dance Room Addition and the Administration and Media Center.

DYSART SCHOOL DISTRICT – Surprise and El Mirage, Arizona

Complete Fire Protection for all schools throughout the district including new campuses or significant renovations to existing campuses. This is the fastest growing school district in Arizona; it has more than tripled in size since 2000. This district includes 140-square miles of the northwest portion of the Valley of the Sun. Projects include Dysart Preschool, Surprise Farms Preschool; various High Schools including Dysart High School, Valley Vista High School, Willow Canyon High School and Dysart High School #4; various Elementary Schools including Ashton Ranch, Cimarron Springs, Countryside, Dysart, El Mirage, Kingswood, Luke, Marley Park, Rancho Gabriela, Sunset Hills, Surprise, Thompson Ranch, West Point Elementary, Western Peak, Parkview, Elementary School #17, Elementary School #18 and Elementary School #19. Other notable projects in this district include the 33,000 sf Willow Canyon High School Baccalaureate Building. The Willow Canyon High School project totaled more than 225,000 with a total cost of \$29.7M.

MOHAVE HIGH SCHOOL AUDITORIUM - Bullhead City, Arizona

Approximately 24,000 sf of sprinkler system retrofit.

RIVER VALLEY HIGH SCHOOL - Mohave Valley, Arizona

Approximately 3,825 sf of Vestibule addition and Kiln Covering.

TOLLESON UNION HIGH SCHOOL DISTRICT OFFICE COMPLEX –

Tolleson, Arizona

New three (3) building Administrative Complex of nearly 48,000 sf.

NOAH WEBSTER BASIC SCHOOL – Mesa, Arizona

New school campus for this Charter School consisting of eight (8) buildings. Three (3) buildings are 2-story Classrooms all of combustible construction (approximately 80,000 sf).



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SAN SIMON GRADE SCHOOL – Sells, Arizona

This was a complete fire sprinkler retrofit of the existing school for the Bureau of Indian Affairs on a Tohono O'odom Nation site. Work included interfacing with the selected General Contractor and creating as-built drawings of the buildings.

GRACE NEAL PRESCHOOL & LEARNING CENTER – Kingman, Arizona

This new 6,700 sf project was engineered for the St. Johns United Methodist Church in Kingman.

GLENDALE AMERICAN SCHOOL – Glendale, Arizona

12,750 sf addition to this existing school building required renovation of the existing fire sprinkler system. Project was engineered for an FP Contractor Client.

HORIZON HIGH SCHOOL – Scottsdale, Arizona

This project involved a new 8,200 sf Education Area addition to an existing building on this existing campus. Project was engineered for an FP Contractor Client.

SANTA ROSA BOARDING AND DAY SCHOOL – Santa Rosa, Arizona

This existing school campus underwent a complete fire sprinkler system retrofit in all the buildings for a combined area exceeding 60,000 sf. The project was completed in collaboration with the Bureau of Indian Affairs. The campus is on a Tohono O'odom Nation site. Work included interfacing with the selected General Contractor and creating as-built drawings of the buildings.

PEORIA UNIFIED SCHOOL DISTRICT – Peoria and Glendale, Arizona

Fire Protection for many schools throughout the district including significant renovations to the following existing campuses:

- Desert Valley Elementary and Ira Murphy are two (2) of the campuses that received new 15,355 sf Multi-Purpose Buildings.
- Canyon Elementary: Engineered construction documents for a new 15,355 sf Multi-Purpose Building.
- Copperwood Elementary: Included the conversion of an existing Cafeteria into a 20,100 sf Multi-Purpose Area.
- Foothills Elementary: Included a new 8,755 sf Technology Classroom Building and renovations to the existing 12,300 sf Multi-Purpose Building.
- Oakwood Elementary: New 9,030 sf stand-alone Classroom Building and a new Multi-Purpose Building.
- Sky View Elementary: New 8,096 sf Classroom Building and new 4,872 sf Technology Center as well as a new Multi-Purpose Building.
- Oasis Elementary: Conversion of an existing Cafeteria into a 15,400 sf Multi-Purpose Area. Added a new 12,486 sf Classroom Building.
- Peoria Elementary: Conversion of an existing Cafeteria into an 18,775 sf Multi-Purpose Area. Added a new 20,606 sf Technology Building.



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- Pioneer Elementary: Added a new Classroom Building.
- Desert Palms included a new 7,850 sf Classroom Building, 6,350 sf Technology Building, 7,000 sf Remodel of existing areas and a new Multi-Purpose Building.

ARIZONA SCHOOL OF HEALTH SCIENCES – Mesa, Arizona

Phase I consisted of complete automatic sprinkler system construction documents for a 85,000 sf, 3-story building. Phase II consisted of Tenant Improvements for nearly 50,000 sf. The cost of construction for the Fire Protection portion of this project was \$120,000.

PENDERGAST #11 - Glendale, Arizona

New Elementary School with multiple buildings totaling approximately 72,500 sf.

WESTWIND ELEMENTARY SCHOOL – Phoenix, Arizona

Prepared Construction Documents for the fire sprinkler system for 74,000 sf of new two-story Elementary School. (FP Contractor Client)

HENDRIX JR. HIGH – Chandler, Arizona

Provided new and retrofit automatic sprinkler system construction documents for approximately 45,000 sf consisting of a new 25,000 sf area and 20,000 sf of previously unsprinklered area. Improvements of over 20,000 additional sf on the Campus have also been completed.

CEDAR HILLS ELEMENTARY SCHOOL - Kingman, Arizona

Engineered Construction Documents for a new 16,556 sf building on this existing Campus.

RANCHO SANTA FE ELEMENTARY SCHOOL – Avondale, Arizona

New 24,000 sf Classroom Building was added to this Campus increasing the Campus size tremendously. Coordinated extensively with the Civil Engineer concerning the existing utilities in and around the new foundation. (FP Contractor Client)

VISTA DEL SUR ELEMENTARY SCHOOL - Phoenix, Arizona

Provided complete Fire Protection construction documents for a new 27,600 sf Classroom Building at this existing Campus.

TOLLESON EARLY CHILDHOOD CENTER - Phoenix, Arizona

Provided Engineered, automatic fire sprinkler system construction documents for two (2) new stand-alone buildings of approximately 37,000 sf.

WELLS AUDITORIUM AT LONGVIEW ELEMENTARY – Phoenix, Arizona

Remodel of existing 11,500 sf Auditorium. The scope did not include the Canopy Area attached to the Auditorium or any other buildings at the site.



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DESERT SHORES SCHOOL – Bullhead City, Arizona

Engineered complete Fire Protection Construction Documents for a 7,600 sf Multipurpose Building. 4,000 sf Kindergarten, 6,800 sf of Administration and 7,700 sf of Classrooms totaling 23,100 sf. (FP Contractor Client)

SUNRISE ELEMENTARY SCHOOL – Bullhead City, Arizona

Four (4) new buildings totaling 15,000 sf. (FP Contractor Client)

MOHAVE COMMUNITY COLLEGE - Lake Havasu City and Mohave Valley, Arizona

Engineered Construction Documents for Building “1”, 3,605 sf, Building “2” 15,919 sf, and other miscellaneous areas 10,955 sf at the Lake Havasu Campus. Engineered Construction Documents for 6,265 sf of Classrooms, and a 12,825 sf Library totaling 20,090 sf at the Mohave Valley Campus.

UNION ELEMENTARY SCHOOL - Tolleson, Arizona

Engineered construction documents for a new 26,000 sf building with Classrooms, Administration, Library/Media Center, Multipurpose and miscellaneous areas.

FRANKLIN SCHOOL - Mesa, Arizona

Provided automatic sprinkler system construction documents including hydraulic calculations suitable for submittal to City of Mesa for a new 25,000 sf building area with steel joists. In addition, engineered the retrofit of 20,000 sf of previously unsprinklered area.

CPLC HEAD START CENTER – Yuma and San Luis, Arizona

Provided complete automatic fire sprinkler system design, specification, and construction documents for each 9,800 total sf, single level school facility.

MURPHY SCHOOL DISTRICT PORTABLES – Phoenix, Arizona

Three (3) new Modular Buildings for the Murphy School District, including: Sullivan 5,800 sf, Hamilton 5,000 sf, and Garcia 3,000 sf.

LEARNING MATTERS CHARTER SCHOOL – Surprise, Arizona

Ten (10) portable buildings consisting of Classrooms, Administration, and Restrooms totaling 13,000 sf.

YAVAPAI COLLEGE – Chino Valley, Arizona

Two (2) dry-pipe systems and two (2) wet systems were provided for this 16,000 sf Science/Lab project on the existing Campus. (FP Contractor Client)

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SKYWAY ELEMENTARY SCHOOL – Goodyear, Arizona

This 35,000 sf project completed in 2006 was designed directly for a Fire Protection contractor via the shop drawing process, as pre-engineered drawings had not been completed.

EAGLE RIDGE ELEMENTARY SCHOOL – Phoenix, Arizona

Remodel of an existing Elementary School to accommodate expanded Kindergarten Classrooms and a more accessible Administration Area.

MERCURY MINE ELEMENTARY SCHOOL – Phoenix, Arizona

Two (2) new buildings were engineered in this project including a new Classroom Building and a new Multi-Purpose Building.

KING RIDGE ELEMENTARY SCHOOL – Phoenix, Arizona

This project consisted of a new Field House that included a Gymnasium and additional Classrooms and Storage.

RIVERSIDE ELEMENTARY SCHOOL – Phoenix, Arizona

This project consisted of a new Field House that included a Gymnasium and additional Classrooms and Storage.

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FLOW TESTS

Multiple locations throughout the U.S.

We've conducted multiple Flow Tests in accordance with NFPA-291 for each of the following types of clients: Civil Engineers, Plumbing Engineers, Architects, Landscape Architects, Land Developers, Contractors, and Business Owners. Flow Tests are utilized to obtain quantity (in gallons per minute) and pressure available from a given water supply system. Typically, two (2) hydrants are used for a Flow Test; one (1) hydrant is used to measure pressure while the other obtains quantity.

As of January 1, 2007 all Flow Tests are conducted through our sister company **EJ Flow Tests, LLC**. Please visit their website at www.ejflowtests.com for more information.

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FIRE DEPARTMENT SERVICES

SURPRISE FIRE STATION – Surprise, Arizona

Provided complete automatic fire sprinkler system design, specification, construction documents for Fire Station No. 3, a one-story, 10,000 sf building with three (3) Apparatus Bays. Other projects for Surprise Fire Department include Station No. 302 Remodel and new Stations No. 305, 306 and 307.

PHOENIX FIRE STATION NO. 52 – Phoenix, Arizona

Engineered Fire Protection plans for a new 14,150 sf Station. (FP Contractor Client)

PHOENIX FIRE STATION NO. 60 – Phoenix, Arizona

Engineered Fire Protection plans for a new 9,217 sf Station.

SCOTTSDALE ARFF FIRE STATION NO. 609 (812) – Scottsdale, Arizona

8,867 sf new Airport Rescue Fire Fighting Station located at 14970 North 78th Way; Scottsdale Municipal Airport. The Station included three (3) Apparatus Bays, Turnout, and Living Areas.

FIRE STATION NO. 1 - Bullhead City, Arizona

Engineered the Fire Protection for a new 8,365 sf Fire Station. (FP Contractor Client)

LAKE HAVASU FIRE STATION NO 1. – Lake Havasu City, Arizona

A new 2,500 sf, Wood Frame, Storage Building to be used in conjunction with the new Fire Station.

GOLDER RANCH FIRE STATION – Oro Valley, Arizona

New 7,000 sf Station located at 12625 Woodburn Avenue.

SUN CITY FIRE STATION NO. 131 – Sun City, Arizona

Retrofit of a new automatic sprinkler system for the existing building structure total of 14,500 sf.

CITY OF SCOTTSDALE POLICE AND FIRE TRAINING – Tempe, Arizona

6,500 sf automatic sprinkler system addition to the existing sprinkled building.

CITY OF CHANDLER FIRE TRAINING ACADEMY – Chandler, Arizona

New automatic sprinkler system for all new buildings on this site since the site inception. This includes Classrooms, Recreation, Training Center Offices, Apparatus Bays, etc. The most recent 8,200 sf phase includes Buildings 1, 2 and 3.



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CHANDLER FIRE DEPARTMENT ADMINISTRATION BUILDING –

Chandler, Arizona

New automatic sprinkler system for all a new 13,500 sf building including Clean Agent Protection of a 2,500 sf E.O.C. Area.

SUN CITY FIRE DEPARTMENT ADMINISTRATION – *Sun City, Arizona*

Conducted a Due Diligence study of this existing building for feasibility. Once the building was purchased, the entire team engineered a new Fire Suppression System for this critical use building and followed up through the construction phase via field observations.

HALL OF FLAME – *Phoenix, Arizona*

New automatic fire sprinklered 20,000 sf Fire Department Apparatus Vehicle Storage and Display Addition to the Museum. The Museum boasts a large and ever-expanding, collection of fire trucks and fire fighting equipment.

SHOW LOW ARFF FIRE STATION – *Show Low, Arizona*

This consulting-only project occurred near the end of construction. The municipality asked our firm to review the installation to-date to ensure that all aspects of this snow-ready Aircraft Rescue Fire Fighting Station were properly installed.

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HOSPITALITY

HOLIDAY INN EXPRESS – Kingman, Arizona

A 45,000 sf, 3-story Hotel and Suites. *(FP Contractor Client)*

HOLIDAY INN – Lake Havasu City, Arizona

Engineered Fire Protection drawings for a 3-story, one hundred forty four (144) Room Hotel and Retail Space, totaling 83,000 sf. *(FP Contractor Client)*

HOLIDAY INN (HAMPTON INN CONVERSION) – Lake Havasu City, Arizona

Engineered Fire Protection Retrofit drawings for a 4-story, 16,000 sf per floor, Hotel and Retail Spaces totaling 64,000 sf. *(FP Contractor Client)*

NAUTICAL INN – Lake Havasu City, Arizona

Fully sprinklered the new 3-story Lodge, Maintenance Building, and Restaurant/Bar for on this prominent property located on the Colorado River. Total project area exceeded 62,000 sf. *(FP Contractor Client)*

SOUTHGATE PHASE I – Lake Havasu City, Arizona

Multiple-story Condominiums with Garages, approximately 23,000 sf, were fully sprinklered in accordance with AHJ requirements. *(FP Contractor Client)*

SOUTHGATE PHASE 2 – Lake Havasu City, Arizona

Engineered Fire Protection drawings for a Hotel and Retail Spaces on a sloping site totaling 20,000 sf. *(FP Contractor Client)*



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HOSPITALS AND MEDICAL OFFICE BUILDINGS

GOOD SAMARITAN REGIONAL MEDICAL CENTER – Phoenix, Arizona

Complete Fire Protection fabrication documents for the new Basement and First Floor Renovations (130,000 sf) as well as 3-story Building Addition (60,000 sf) on the southeast corner of the site. The total expansion cost is \$90 million. Scope included extensive field verification of existing conditions, new combination wet-standpipes, multiple pre-action subsystems, connection to the existing fire pump unit and City of Phoenix Fire Department AFP submittal and permit during the initial review. Project consisted of approximately four (4) miles of new piping and 2,232 sprinklers.

COLORADO RIVER MEDICAL CENTER – Fort Mohave, Arizona

104,500 sf, fully sprinklered project with Wet, Dry and Pre-action Systems. Included Emergency Area, Operations, Labs, Exam Rooms and MRI Unit. (FP Contractor Client)

PARADISE VALLEY MEDICAL OFFICE BUILDING – Phoenix, Arizona

5-story Medical Office Building totaling 100,000 sf.

SUPERSTITION POINT OFFICES – Mesa, Arizona

2-story Medical Office Building totaling 35,500 sf.

SURPRISE MEDICAL OFFICE BUILDING – Surprise, Arizona

This single story project encompasses 104,912 sf of Medical Shell Offices in three (3) buildings.

SUN CITY WEST MEDICAL COMPLEX – Sun City West, Arizona

Three (3) new buildings totaling 15,860 sf. (FP Contractor Client)

HAVASU SURGERY CENTER – Lake Havasu City, Arizona

A single, 17,000 sf stand-alone building included Operatory, Administrative, Examination and Laboratory Areas. (FP Contractor Client).

DREISBACH BUILDING – Lake Havasu City, Arizona

21,610 sf Medical Office Building. (FP Contractor Client)

CLAREMONT ASSISTED LIVING ADDITION – Lake Havasu City, Arizona

7,000 sf addition to the existing facility (FP Contractor Client)

ST. LUKE'S HOSPITAL – Phoenix, Arizona

Renovations to existing fire protected areas and retrofit of the Surgery Rooms in the Main Building. (FP Contractor Client)



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MEDICAL OFFICE PARK – *Chandler, Arizona*
Shell Building Medical Facility consisting of two (2) buildings, each 7,000 sf.

SOUTHEAST NATUROPATHIC MEDICAL CENTER – *Scottsdale, Arizona*
5,000 sf (*FP Contractor Client*)

ARIZONA DESERT DERMATOLOGY – *Kingman, Arizona*
2,600 sf (*FP Contractor Client*)

EYES OF ARIZONA VISION & SURGERY CENTER – *Lake Havasu City, Arizona*
20,500 sf (*FP Contractor Client*)

PHOENIX REHAB CLINIC – *Phoenix, Arizona*
4,300 sf (*FP Contractor Client*)

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INFRASTRUCTURE FACILITIES

SCOTTSDALE PUMP STATION NO. 42 – Scottsdale, Arizona

Provided Engineered, print-ready, Clean Agent (FM-200) Construction Documents, which included layout, dimensions, a reference site plan and necessary details for a 1,068 sf Electrical Room.

SIERRA MONTAÑA BOOSTER PUMP STATION – Surprise, Arizona

Single story 2,000 sf Electrical Room.

LAKE HAVASU CITY WATER TREATMENT FACILITY – Lake Havasu City, Arizona

4,160 sf (FP Contractor Client)

CANYON TRAILS RESERVOIR & PUMP STATION – Goodyear, Arizona

Clean Agent (FM-200) and wet automatic sprinkler system documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

FESTIVAL RANCH BOOSTER PUMP STATION – Buckeye, Arizona

Clean Agent (FM-200) and wet automatic sprinkler system documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

TERRAZO WATER TREATMENT PLANT – Buckeye, Arizona

Clean Agent (FM-200) and wet automatic sprinkler system documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

RANCHO MIRAGE WATER TREATMENT PLANT – City of Maricopa, Arizona

Clean Agent (FM-200) and wet automatic sprinkler system documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

ELIANTO VILLAGE I WATER TREATMENT PLANT – Buckeye, Arizona

Clean Agent (FM-200) and wet automatic sprinkler system documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.

GREER RANCH CHLORINE ROOM ENCLOSURE – Surprise, Arizona

Clean Agent (FM-200) and wet automatic sprinkler system documents were prepared for this project. The Clean Agent System protects the primary electrical service serving the project.



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ELIANTO VILLAGE I & IV BOOSTER PUMP STATIONS – *Buckeye, Arizona*

Clean Agent was utilized exclusively as a fire suppression medium for each of the two (2) stand-alone facilities.

FARALLON BOOSTER PUMP STATION – *Buckeye, Arizona*

Clean Agent was utilized to protect all areas of this Booster Pump Station.

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INSTITUTIONAL, POLICE AND COURT FACILITIES

MARICOPA COUNTY SOUTHEAST DETENTION CENTER – *Mesa, Arizona*
Renovations of 9,000 sf (existing Courtroom/Administration Facility) and a new 75,000 sf Detention Facility at this existing site. The cost of construction for the Fire Protection portion of this project was \$220,000. The total cost of construction for this project was \$224 million dollars.

POLICE EVIDENCE FREEZER – *Mesa, Arizona*
Provided a new FE-13 Clean Agent System for the new Evidence Storage Walk in Refrigerator and Freezer. Also provided a Redundant Pre-Action System for both areas. 4,100 sf.

GLENDALE POLICE COMMUNICATION BUILDING – *Glendale, Arizona*
This project included providing Fire Protection consulting engineering for a Pre-Action System to protect a multi-million dollar Communication Building. The communications equipment housed in each room is of extremely high value and downtime is crucial. Protection for these rooms is imperative.

DURANGO JAIL – *Phoenix, Arizona*
A complete Fire Protection study involving this existing Maricopa Sheriff's Office was completed to ascertain existing conditions for a possible expansion.

CAVE CREEK TOWN HALL – *Cave Creek, Arizona*
Complete Construction Documents for a new 7,400 sf Town Hall Building. Building included a multi-use Court/Council Room, File Storage Areas and Office Space. (*FP Contractor Client*)

LAW ENFORCEMENT DETENTION SERVICES CENTER – *Whiteriver, Arizona*
This retrofit of a new automatic fire sprinkler system was prepared for the Bureau of Indian Affairs and required extensive field creation of the existing facility, as original architectural plans were not available. Field verification work occurred during the week of Christmas and the Client was the General Contractor.



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LIBRARIES

CESAR CHAVEZ LIBRARY – Phoenix, Arizona

This 25,000 sf facility is one of the three (3) Regional Libraries in the Phoenix Library System. It is the fifteenth City of Phoenix Library. It consists of large open Reading and Media Spaces distinguished by aesthetic clouds and comfortable outdoor spaces. The building has been designed to utilize the surrounding areas by being located partially underground and incorporating natural light in many areas.

ARABIAN LIBRARY – Scottsdale, Arizona

This aesthetically pleasing 20,000 sf Library incorporates UL Listed flexible pipe to nearly all of the ceiling sprinklers. Over ninety five (95%) of the ceilings are installed on significant slopes. The flexible fittings allowed for an efficient and effective method of supplying the quick response sprinklers in a ceiling additionally notable through the use of unique materials.

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LOW RISE COMMERCIAL BUILDINGS AND RETAIL SHOPS

99 CENT ONLY STORES – *Chandler, Glendale, Mesa, and Surprise, Arizona*
Tenant Improvements ranging from 40,000 sf to 42,000 sf.

TARGET GREATLAND – *Chandler, Arizona*

New 145,000 sf building, nearly 800 sprinklers and two (2) miles of piping were utilized with extended coverage sprinklers. (FP Contractor Client)

DESERT CANYON RETAIL SHELL – *Scottsdale, Arizona*

Multiple buildings were engineered to be sprinklered for this project. This Shell Building design and installation included small Pad Buildings and Major Shells.

DRUGSTORES - WALGREEN'S, OSCO & CVS ECKARD – *Phoenix Metro Area, Arizona*

New stand-alone Buildings for various corporations. Typical project is approximately 15,000 sf in size.

WALMART SUPERCENTER – *Gilbert, Arizona*

Approximately 145,000 sf of new Grocery and Mercantile Areas and an Outdoor Garden Center. All areas were completely sprinklered in accordance with specific Owner and Insurance Carrier Reviewing Agency requirements.

LOOKOUT MOUNTAIN RETAIL CENTER – *Pinal County, Arizona*

New Office/Retail Buildings, which includes Shops totaling 38,318 sf.

GILBERT RETAIL BUILDING – *Gilbert, Arizona*

8,500 sf of Shell Mercantile.

BIG 5 SPORTING GOODS – *Kingman, Arizona*

10,800 sf of Retail Tenant Improvements.

SUMMIT AT CHANDLER HEIGHTS – *Chandler, Arizona*

8,320 sf of Gray Shell.

CACTUS AND BULLARD RETAIL – *Surprise, Arizona*

Approximately 27,680 sf of ground up Retail/Office Spaces.

PLAZA SHOPS AT POWER MARKETPLACE II – *Queen Creek, Arizona*

A planned Retail Center, which will be anchored by L.A. Fitness with approximately 27,750 sf of additional Shop Space.



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ARROWHEAD GATEWAY – Glendale, Arizona

Shell Retail Buildings with future Pads and Shops totaling approximately 50,990 sf of Retail Spaces including 2,250 sf Chico's and a 20,900 sf Total Wine & More, a upscale Wine and Beverage Retail Outlet.

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MANUFACTURING PLANTS

AMERICAN WOODMARK – Kingman, Arizona

A 167,000 ft addition to an existing Woodworking Facility. In addition to the Storage and Manufacturing Fire Protection requirements, more than twenty (20) individual pieces of equipment were internally protected. Also, protected dust collection and special equipment.

KARSTEN MANUFACTURING – Phoenix, Arizona

Field verification and engineered Construction Documents for the existing automatic sprinkler system in the open volume future golf production area (approximately 25,000 SF) and engineered Construction Documents for the existing automatic sprinkler system in the Storage and Manufacturing Area (approximately 46,600 SF). System engineering parameters included FM Global requirements. Existing Fire Protection system documents were not available.

STERILITE CORPORATION – Lake Havasu City, Arizona

A 150,000 sf ESFR Sprinkler System Retrofit with an existing Fire Pump Unit. The cost of this Fire Protection project was \$169,000. (FP Contractor Client)

SOUTHERN FINISHING – Kingman, Arizona

Full Fire Protection, including a Fire Pump Unit and ESFR System for a 40,000 sf building.

PRAXAIR SEMICONDUCTOR MATERIALS – Kingman, Arizona

The specialty Gas Manufacturing Facility has a multi-acre campus of buildings and exterior Canopies. Numerous projects involving Wet and Dry Systems have been engineered for this Arsine/Phosphine Manufacturing Plant. Additional areas include Silane Transfilling, Trichlorosilane Filling, Cylinder Transfill Areas, and Cylinder Maintenance Areas.



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OFFICE AND MISCELLANEOUS BUILDINGS

ESTRELLA TECH CENTER – Phoenix, Arizona

Nine (9) new buildings totaling approximately 322,000 sf. The Fire Protection design utilized approximately five (5) miles of piping and 4,000 sprinklers. The total construction cost of this project was \$7,200,000 and the automatic sprinkler installation cost for the portion EJ Engineering designed was \$220,000. (FP Contractor Client)

BOULDER HILLS POST OFFICE – Phoenix, Arizona

42,000 sf stand-alone United States Postal Service building north of Loop 101 near Cave Creek Road. Numerous federal requirements were met or exceeded for this new Postal Center. (FP Contractor Client)

STUDIO 5C–Tempe, Arizona

Provided complete Fire Protection Construction Documents for a new 3-story 30,455 sf Office Building. Building needed an automatic Fire Sprinkler System in compliance with NFPA 13 Commercial System Criteria and city ordinances. The submitted drawings included overhead piping rough-in, system riser, and fire department connection.

ODYSSEY PROFESSIONAL CENTER – Scottsdale, Arizona

Fire Protection consulting engineering services for eight (8) new buildings totaling 73,400 sf. (FP Contractor Client)

PARKSIDE PROFESSIONAL OFFICE PLAZA – Chandler, Arizona

Low-rise Residential Scale Medical Office Complex in planned area district. Approximately 25,000 sf consisting of four (4) separate buildings (two 5,000 sf and two 7,400 sf) and a total estimated cost of \$2,500,000.

CITY OF MESA ELECTRIC CONTROL BUILDING – Mesa, Arizona

First phase included Fire Protection Construction Documents for an approximately 7,040 sf single story building renovations. Second phase included 2,700 sf.

PEORIA BUILDING AND SAFETY – Peoria, Arizona

10,100 sf Modular Building housing the Fire Department Administrative Offices. (FP Contractor Client)

ET VENTURES – Mesa, Arizona

Project scope includes three (3) identical 1-story, Gray Shell Office Buildings, 3,590 sf each, all on the same site.



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HORIZON COMMUNITY BANK – *Lake Havasu City, Arizona*
2-story, 10,000 sf Bank with a wood frame.

MOHAVE STATE BANK – *Lake Havasu City, Arizona*
New building approximately 5,700 sf.

THREE FALLS BUSINESS CENTER – *Mesa, Arizona*
Interior Tenant Improvement to existing build-out Shell Building, approximately 3,400 sf, to include four (4) new finished tenant spaces for lease by Owner with a shared Conference Room, Restrooms, Lobby, and Break/Storage Area.

QUATRO VIENTROS – *Lake Havasu City, Arizona*
Three (3) new buildings with wood frames & trusses, totaling approximately 14,745 sf with a partial Parking Garage below one (1) of the Shell Buildings.

BNC NATIONAL BANK – *Scottsdale, Arizona*
New 6,900 sf stand-alone Bank located in North Scottsdale. (FP Contractor Client)

SCOTTSDALE AUTO SALON – *Scottsdale, Arizona*
More than 22,000 sf of Car Wash Facilities, including Retail Shop, Wash Tunnels, Detail Bays and Offices encompassed in this 2-story facility. Steel and Cloth Canopies and Overhangs were also incorporated into this fully sprinklered wet automatic fire sprinkler system.

SANTAN 3 RETAIL OFFICES – *Maricopa County, Arizona*
35,590 sf of fire sprinklered spaces for a wide variety of tenant uses.

BLUE CROSS & BLUE SHIELD OF ARIZONA – *Phoenix, Arizona*
New 100,000 sf building consisting of four stories. The building serves as the Corporate Headquarters for the Arizona branch of this national insurance provider. Combination standpipes serve the fire sprinklers on each of the floor-controlled areas of this fully sprinklered building. Also incorporated, are window sprinklers in a rated corridor.

AMC THEATERS AT DESERT RIDGE – *Phoenix, Arizona*
93,111 sf, sixteen (16) Plex Theater Complex near Tatum Boulevard and Loop 101.
(FP Contractor Client)

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ARROWHEAD PARK PLACE III – *Glendale, Arizona*

Four (4) buildings offer 25,000 sf Shell Office Space for future tenants.

MIDFIRST BANKS – *Phoenix Metro Area, Arizona*

Each of these stand-alone Banks is approximately 5,200 sf. As of August 2006, MidFirst was the third largest privately owned Banking Institution in the Nation.

ARROWHEAD BUSINESS COMMONS – *Glendale, Arizona*

50,560 sf of Shell Office Condominiums.

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PARKING GARAGES AND VEHICLE MAINTENANCE FACILITIES

DIRECT ALLIANCE PARKING GARAGE – Tempe, Arizona

Pre-cast Concrete Parking Garage (728 spaces with three (3) levels) totaling 189,000 sf with a total estimated cost of \$3,800,000. This project won the “City of Tempe Beautification Award.”

PARKING GARAGE AT TUCSON INTERNATIONAL AIRPORT – Tucson, Arizona

Dry-standpipes for a new 210,000 sf, three (3) level, Precast Parking Structure (1,400 total spaces) and a wet pipe system for 1,800 sf Office Building for Toll Booth personnel.

TESD WAREHOUSE AND TRANSPORTATION FACILITY – Tolleson, Arizona

Fire Protection consulting engineering services for a new Warehouse and Transportation Facility for the Tolleson Elementary School District. The 15,500 sf building is on 4.2 acres.

TOWN OF GILBERT MAINTENANCE FACILITY – Gilbert, Arizona

Submitted Fire Protection Construction Documents to the local authority having jurisdiction, for renovations to an approximately 7,800 sf Garage and Office Area.
(FP Contractor Client)



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PLACES OF WORSHIP

MOUNTAIN VIEW PRESBYTERIAN CHURCH – *Scottsdale, Arizona*

This 8,350 sf addition to the existing Church Administration Building required a complete retrofit of the entire building (approximately 13,000 sf total).

RED MOUNTAIN CHRISTIAN CENTER – *Mesa, Arizona*

This was a new Multi-Story Building addition to an existing Campus. Also, other buildings received renovations.

LAS BRISAS KINGDOM HALL – *North Las Vegas, Nevada*

This was a new Worship Center, fully sprinklered throughout with wet and dry systems.

STONE RIDGE CHURCH – *Yuma, Arizona*

This 2-story building addition to an existing Campus included a new Worship Center. Choir, Music and Education Facilities were also added. This fully sprinklered Church sits on a precipice overlooking the desert valley below.

WORD OF GRACE LUTHERAN CHURCH – *Mesa, Arizona*

The Leadership Center is a new two-story, stand-alone Building, 19,900 sf, including Flexible Use Areas, General Office, Conference Rooms, Restrooms, and Counseling Areas. The Daycare Facility is a new partial 2-story building with basement of 32,800 sf, including high volume open Gathering Area with Raised Platform, Shop Area, Moveable Partitions, Meeting Rooms, Café, Classrooms, Office Areas, Restrooms, and Storage.

CHAPARRAL CHRISTIAN - *Scottsdale, Arizona*

Furnished automatic sprinkler system construction documents for a new 27,159 sf stand-alone Sanctuary Building and a new 3,095 sf stand-alone Classroom Building.

CHURCH OF THE MASTER – *Mesa, Arizona*

Prepared Construction Documents for a new 2-story, 17,600 sf, Educational Building.
(FP Contractor Client)

SAINT ANDREW THE APOSTLE CATHOLIC CHURCH – *Chandler, Arizona*

Project included Remodel and Addition to the Nursery/Teen Center/Administration, Caring Ministries and Adult Center, totaling approximately 14,000 sf.



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NORTH SCOTTSDALE UNITED METHODIST CHURCH – *Scottsdale, Arizona*
New 16,991 sf Sanctuary for existing Campus located at the corner of Scottsdale Road and Jenan Drive. Renovations to existing structure included a Worship Center/Fellowship Hall, two (2) Education Wings, a Kitchen and an Administration Wing.

LIVING WATER LUTHERAN CHURCH – *Scottsdale, Arizona*
Provided full Fire Protection design for a new Clerestory Worship Building with a footprint of 7,700 sf, an Administration Building of 1,400 sf and an Educational Building of 4,000 sf.

THE EPISCOPAL CHURCH OF THE EPIPHANY – *Tempe, Arizona*
Sprinkler layout for aesthetic cohesion of architectural elements. Flow test, specification and review of shop drawings for 8,900 sf Sanctuary space (2001) and additional building areas in 2006.

CANAAN BAPTIST CHURCH NEW WORSHIP CENTER – *Mesa, Arizona*

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RECREATION FACILITIES

DIABLO STADIUM – *Tempe, Arizona*

Provided complete automatic fire sprinkler system design for approximately 49,500 sf of Major and Minor League Clubhouse Additions and Renovations, Auxiliary Building, Concession and Batting Tunnel.

CITY OF GLENDALE STADIUM/PENDERGAST YOUTH FIELDS – *Glendale, Arizona*

2,500 seats for Field and On Field Parking, two (2) Grandstands (14,448 sf) and a bridge type Press Box.

YMCA – *Phoenix, Mesa, and Chandler, Arizona*

Complete Fire Protection Construction Documents for the renovation and expansion of facilities ranging from 4,900 sf to 29,300 sf and a 19,000 sf addition to the Chandler Facility.

GLENDALE ADULT CENTER – *Glendale, Arizona*

Provide complete automatic fire sprinkler system design, specification, construction documents for a 2-story, 48,000 sf building. The first floor is 31,000 sf and will be an Adult Center. The second floor is 17,000 sf and has been designed as a gray shell.

THE GOLF CLUB – *Scottsdale, Arizona*

A new Golf Club House with approximately 20,000 sf above ground including Pro-shop, Lockers, Mixed Grille, Administration, Men's and Women's Grilles, etc. Approximately 12,000 sf of below grade Cart Storage and Support Space.

GANADO SPORTS PAVILION – *Ganado, Arizona*

Fully sprinklered three (3) buildings, a total of 68,945 sf. This BIA project on Indian Reservation land included areas below and above mezzanines.

LHC HEALTH CLUB – *Lake Havasu City, Arizona*

New 21,000 sf Multipurpose Health Club, including Offices, Workout Areas, Lockers, and Showers.

YOUNG LIFE LOST CANYON RECREATION CENTER - *Williams, Arizona*

A new Dry-Pipe System; 17,350 sf Recreation Facility including a Gymnasium, Game Room, Snack Bar and Storage Areas.



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ESTRELLA NORTH LAKE COMMUNITY CENTER – *Goodyear, Arizona*

Provide automatic sprinkler system Construction Documents including hydraulic calculations suitable for submittal to Goodyear Fire Prevention for an existing Pavilion Building approximately 3,940 sf and new Community Center Building approximately 6,900 sf.

COUNTRYSIDE RECREATION CENTER – *Surprise, Arizona*

New 15,000 sf addition to the existing Multipurpose Building.

WORLD GYM FITNESS & AEROBICS – *Mesa, Arizona*

Tenant Improvement to approximately 44,091 sf into 27,140 sf of Gym and 16,951 sf of Retail Space.

POINTE SOUTH MOUNTAIN GOLF & TENNIS CLUB HOUSE – *Phoenix, Arizona*

Provide complete automatic fire sprinkler system design, specification, construction documents for a 1,800 sf building with a 3,325 sf roof area.

STONEGATE EQUESTRIAN PARK – *Scottsdale, Arizona*

Engineered Fire Protection construction documents for a new 1,800 sf building consisting of Restrooms, Storage Area and a Meeting Room for the City of Scottsdale. (FP Contractor Client)

HAVASU RV RESORT CLUBHOUSE – *Lake Havasu City, Arizona*

New 6,000 sf Club house. (FP Contractor Client)

SUNDANCE GOLF CLUBHOUSE – *Buckeye, Arizona*

8,650 sf Golf Club house with Dining and Pro-Shop Retail Sales. (FP Contractor Client)

REFUGE GOLF COURSE MAINTENANCE BUILDING – *Mohave, Arizona*

8,200 sf Golf Cart Storage and Maintenance Building for this new Golf Course Facility. (FP Contractor Client)

QUAILWOOD MEADOWS CLUBHOUSE – *Prescott Valley, Arizona*

A new 18,300 sf Golf Clubhouse with Lobby, Reception Area, Lounge, Bar, Office, detached Restroom Area, Meeting Rooms and Locker Rooms.

CHILI DAVIS – PREMIER BASEBALL – *Rio Vista Park, Peoria, Arizona*

A new standalone building of approximately 1,520 sf, which included a Starbucks Area, Storage Room and Restrooms.

CLUBHOUSE FACILITY FOR WILLIAM LYONS HOMES – *Gilbert, Arizona*

2,650 sf of Kitchen, Storage Area and Restroom Facilities.

E J ENGINEERING
GROUP, INC.
21505 N. 78th Ave.
Suite 125
Peoria, AZ 85382
Phone: 623.362.1400
Fax: 623.362.1403
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Updated May 2008



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TUSCANY FALLS ARTS & TECH CENTER – *Goodyear, Arizona*
Approximately 14,202 sf of an Arts and Crafts Center and Computer Education Facility.

CITY OF PHOENIX NORTH MOUNTAIN INTERPRETIVE CENTER –
Phoenix, Arizona

10,000 sf building in the heart of North Mountain. The Multi-Purpose, Classroom, Resource Room and Interpretive Display areas are all inside the building. The exterior spaces allow for a smooth transition to the trails that lead to and from the center.

MOUNTAIN GATE COMMUNITY CENTER – *Clarkdale, Arizona*

This Community Center is located in Northern Arizona and it includes a Banquet Room, Trailhead Pavilion, Outdoor Patios and a Multi-Purpose Room.

LA FITNESS – *Scottsdale, Arizona*

This was essentially a new building as the existing building exterior walls were the only items retained for this newly roofed 43,000 sf Fitness Center.

INTERIM USE ONLY



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RESTAURANTS

CLAIM JUMPER – *Scottsdale, Arizona*

Created Fire Protection construction documents for a new 15,500 sf Restaurant. (FP Contractor Client)

FLEMINGS STEAK HOUSE – *Chandler, Arizona*

Engineering Fire Protection drawings for a new, stand-alone, 7,500 sf Restaurant.

BUCA DI BEPPO – *Mesa and Peoria, Arizona*

Provided complete Fire Protection construction documents for each Restaurant, each approximately 8,000 sf. (FP Contractor Client).

BLACK ANGUS – *Goodyear and Phoenix, Arizona*

Fully engineered these two (2) 6,500 sf Restaurants. (FP Contractor Client)

ROMANO'S MACARONI GRILL – *Goodyear, Arizona*

Engineered Fire Protection plans for a new 7,300 sf Restaurant. (FP Contractor Client)

HOOTER'S/OWL'S NEST – *Peoria, Arizona*

4,000 sf Hooter's Restaurant, 3,000 sf Bar and 900 sf of covered outside dining. (Installation Fall 2002)

IN-N-OUT BURGER – *Scottsdale, Tempe and Phoenix, Arizona*

Fully sprinklered these small (3,160 sf) stand-alone Fast-Food Buildings. Though prototypical in basic design each project required modifications to meet local AHJ requirements, including additional draft-stops in Scottsdale. (FP Contractor Client)

CHINA BUFFET – *Lake Havasu City, Arizona*

Tenant Improvement for approximately 6,200 sf for this Chinese Restaurant. (FP Contractor Client)

INTERNATIONAL HOUSE OF PANCAKES – *Lake Havasu City, Arizona*

New 5,000 sf Restaurant. (FP Contractor Client)

BUSTER'S RESTAURANT – *Mesa, Arizona*

A 6,000 sf Tenant Improvement.

ON THE BORDER AT DESERT RIDGE – *Phoenix, Arizona*

5,700 sf stand-alone Restaurant. (FP Contractor Client)



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WIENERSCHNITZEL – *Bullhead City, Arizona*
6,000 sf (*FP Contractor Client*)

RED ROBIN – *Tempe, Arizona*
New 7,320 sf stand-alone building. This is a gourmet burger and spirits restaurant. All portions of the building were fire sprinklered.

MACAYO'S DEPOT CANTINA PATIO ADDITIONS – *Tempe, Arizona*
3,000 sf of exterior covered Patio Additions, all requiring automatic fire sprinklers. This project hoped to capture a new spirit along the new Light Rail Line that passes directly in front of this historic property.

OLIVE GARDEN – *Yuma, Arizona*
A new stand-alone Restaurant.

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Senior Living Residences

CLASSIC RESIDENCE BY HYATT AT GRAYHAWK – *Scottsdale, Arizona*

This project was designed while John worked for a previous employer in the 1990's. The project was approximately 600,000 sf.

CLAREMONT ASSISTED LIVING ADDITION – *Lake Havasu City, Arizona*
7,000 sf addition to the existing facility (FP Contractor Client).

DEVONSHIRE SENIOR CENTER – *Phoenix, Arizona*

15,000 sf of existing facility and 9,000 sf of new addition to the facility.

SOLTERRA ASSISTED LIVING – *Chandler, Arizona*

New 2-story facility, which includes one hundred (100) Units, 48,800 sf for the first floor and 36,700 sf for the second floor. Also included is 12,800 sf of Common Area.

CLASSIC RESIDENCE BY HYATT AT SILVERSTONE – *Scottsdale, Arizona*

Project design for this new Senior Living Community is scheduled to open in the year 2010. This project includes approximately 365,000 sf for a 4-story Main Lodge with two hundred and three (203) Units and two (2) Guest Units with an Underground Garage. There will be a 2-story Care Center with fifty-eight (58) units (approximately 53,000 sf) and approximately 141,000 sf of Villa Units (sixty duplex and seven single).



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TENANT IMPROVEMENTS

Tenant Improvement projects have been completed for hundreds of projects since our inception in 2000. Each Tenant Improvement is unique. Tenant Improvements range from Office and Medical to Industrial, Paint Booth and Warehouse Storage. All Tenant Improvements require us to visit the existing project site, whether a just-completed shell building or an existing space improved upon during a first or second-generation tenant. As such, the Client shall provide contact and suite access information for this visit as early as possible in the design schedule. Shell building as-built drawings are always required, as the information contained therein must be applied to the Fire Protection Tenant Improvement construction documents. Additionally, access to the shell system Fire Protection documents allow the required field visit prior to commencement of the design to be cost-efficient. All Tenant Improvement projects require the Client to provide our team with a Space Plan and Reflective Ceiling Plan. These plans must indicate all ceilings, soffits and ceiling heights. We have included a partial list of our Dental Office Tenant Improvements below. This is but a small reflection of how many Tenant Improvement projects may occur in a single niche market. A similar list can be provided for Industrial Warehouse, Office, Hospital Tenant Improvement projects or general renovation projects completed since 2000.

- **DR. DANIEL G. KLINE, DDS** – *Chandler, Arizona*
- **DR. CEYHAN, DDS** – *Glendale, Arizona*
- **DR. MAHSHID ASRARI, DDS** – *Gilbert, Arizona*
- **DR. CYNTHIA COLSON** – *Gilbert, Arizona*
- **DR. HILLARY A. DOUGLAS, DDS** – *Chandler, Arizona*
- **DR. KELLY J. COOK, DDS** – *Chandler, Arizona*
- **DR. GRABOW, ENDONTICS** – *Chandler, Arizona*
- **DR. KELLEY B. WETTSTEIN, DMD, IMPRESSIONS DENTAL** – *Chandler, Arizona*
- **DR. SANDA G. REYES** – *Mesa, Arizona*
- **DR. MATTHEW DUNN, DDS, MS & DR. COURTNEY DUNN, DDS, MS** – *Litchfield Park, Arizona*
- **DR. MICHAEL K. GREDING, LIFETIME FAMILY DENTAL** – *Gilbert, Arizona*
- **DR. JEFFREY WELLMAN, CANYON SPRINGS DENTAL** – *Surprise, Arizona*



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WAREHOUSES

LOOP 101 COMMERCE PARK – Peoria, Arizona

181,325 sf of Industrial Office/Warehouse Shell spaces. Project consisted of two (2) phases and three (3) buildings. Most of the Fire Protection Tenant Improvements for these projects have been engineered as well since the Certificates of Completion for the Shell Buildings were issued in early 2006.

MULBERRY BUSINESS PARK – Mesa, Arizona

We have designed this project for the same client since its inception (the initial phase was designed while John worked for a previous employer in the 1990's). Phase I (32,000 sf), Phase II (71,000 sf), Phase III (58,500 sf, including mezzanines). This client is one of many long-term clients we have. We cherish each and every client relationship with an eye to working with them for decades, not just a single project. In addition to the Shell aspect of this multi-phased Warehouse Project, we have engineered nearly every single one of the Tenant Improvements for all of the completed buildings in this 161,500 sf project.

ARROWHEAD RANCH INDUSTRIAL PARK – Peoria, Arizona

39,000 sf of Office/Warehouse Condominium Shell Buildings. Three (3) buildings encompassed this Phase II portion of the project site.

SANTA FE WAREHOUSE – Kingman, Arizona

Hualapai Fire District is the AHJ for Phase I of 27,900 sf and Phase II, of 13,500 sf of Warehouse located in the Kingman Airpark.

SWIRE COCA-COLA WAREHOUSE – Kingman, Arizona

35,000 sf Warehouse for this beverage manufacturer.

91ST & MCDOWELL SELF STORAGE – Glendale, Arizona

Provide Fire Protection engineering plans for a 2-story building with 33,150 sf per floor during the first phase. The second phase consisted of eight (8) buildings totaling approximately 77,000 sf, including a Manager's Office and Residence. This project required approximately nine hundred (900) sprinklers and three (3) miles of piping.



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BELL 19 WAREHOUSES – *Scottsdale, Arizona*

Four (4) Speculative Warehouse Buildings on a single site. Bldg “A” is 23,800 sf with an additional 6,800 sf mezzanine. Bldg “B” is 19,800 sf with a 6,500 sf mezzanine area. Bldg “C” is 11,650 sf and Bldg “D” is 20,000 sf. Minimum densities and areas of operation were based on Stock Pile Disclosure Data in association with Rural/Metro Fire Department and NFPA requirements. This project included 2-1/2-inch hose valves for Fire Department use, 11.2 K-factor sprinklers and capped outlets for future possible Tenant Improvements (future ceilings). These wet-automatic sprinkler systems were primarily engineered as grids with associated hydraulic calculations. Team coordination with the Civil Engineer, Fire Department, General Contractor and the Architect were key to this successful project. The total cost of this project was approximately \$2,500,000. *(FP Contractor Client)*

SALT RIVER PROJECT WAREHOUSE – *Tempe, Arizona*

New 32,800 sf building, including Canopy.

TR ORR CONTRACTING WAREHOUSE - *Kingman, Arizona*

This prominent northwest Arizona General Contractor was the Client. This 20,000 sf building was engineered in two (2) phases for a variety of uses including Offices and Storage. *(FP Contractor Client)*

TOBY ORR WAREHOUSE – *Kingman, Arizona*

Provide Fire Protection construction documents for a new 30,000 sf building, including reverse Fire Protection engineering to maximize the available water supply vs. storage height.

PRAXAIR GAS VESSEL STORAGE – *Ontario, California; Phoenix & Mohave Valley, Arizona*

Complete Fire Protection construction documents for each of these two (2) high-pressure Gas Cylinder Storage facilities including sway bracing details.

ZOELLNER WAREHOUSE – *Scottsdale, Arizona*

Fully sprinklered this 60,000 sf Speculative Warehouse in the Rural-Metro/Scottsdale Jurisdiction. Bushed outlets were provided for the future Tenant Improvements. In fact all the tenant improvements were engineered by this firm. *(FP Contractor Client)*

WESTGATE PROFESSIONAL & WAREHOUSE BUILDING – *Surprise, Arizona*

Tenant Improvements to an existing building in three (3) separate Suites totaling 9,000 sf.

CANYON PIPE & SUPPLY – *Prescott Valley, Arizona,*

New Warehouse and Office Facility for this plumbing supplier *(FP & Plumbing Contractor Client)*



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BILLY BOAT WAREHOUSE – Phoenix, Arizona

16,300 sf new building was engineered for this prominent local Indy-car race driver.
(FP Contractor Client)

PENTHOUSE STORAGE – Lake Havasu City, Arizona

18,897 sf (FP Contractor Client)

IRONCLAD BOAT STORAGE – Lake Havasu City, Arizona

Fully sprinklered approximately 80,000 sf of Boat and Recreational Vehicle Storage. Multiple buildings were provided with 2-1/2-inch hose valves in accordance with Lake Havasu City Fire Department. (FP Contractor Client)

CEDAR CREEK BOAT STORAGE – Lake Havasu City, Arizona

Fully sprinklered approximately 90,000 sf of Boat and Recreational Vehicle Storage. Multiple buildings were provided with 2-1/2-inch hose valves in accordance with Lake Havasu City Fire Department. (FP Contractor Client)

ADVANTAGE BOAT STORAGE – Lake Havasu City, Arizona

Fully sprinklered approximately 85,000 sf of Boat and Recreational Vehicle Storage for this prominent Boat Manufacturer. Multiple buildings were provided with 2-1/2-inch hose valves in accordance with Lake Havasu City Fire Department. (FP Contractor Client)

PREMIER BOAT STORAGE – Yuma, Arizona

Approximately 130,000 sf during two (2) phases (FP Contractor Client)

VISTA DEL LAGO BOAT STORAGE – Lake Havasu City, Arizona

New twenty-seven (27) unit Storage Building, constructed of steel, approximately 23,000 sf. (FP Contractor Client)

DESERT LAKE STORAGE – Mohave Valley, Arizona

New 24,000 sf steel building with Purlin Construction. The building is open storage for RV/Boat/Personal Water Craft Parking.

SOLANO BOAT STORAGE – Fort Mohave, Arizona

25,000 sf (FP Contractor Client)