City of Phoenix Booster Pump Stations and Reservoirs

Project Name: City of Phoenix Booster Pump Stations and Reservoirs
- Zones 1, 1A, and 2 Booster Pump Station
- Rio Salado RTU Replacement & Control Rehabilitation
- Upper Camelback BPS
- Camelback Heights BPS
- Phoenician BPS
- Mummy Mountain BPS
- Lower Coral Gables Booster Pump Station
- Upper Coral Gables Booster Pump Station
- Osborn Booster Pump Station
- Lincoln Booster Pump Station
- Meig Booster Pump Station
- Lower Cloud Croft Booster Pump Station
- Lincoln Booster Pump Station
- Hayden Crossover Pump Station
- 52nd Street Booster Pump Station
- Anthem Booster Pump Station
- Dynamite Road PRV Station
- Tatum Blvd PRV Station
- Highline Booster Pump Station
- Reservoir Chlorination Facilities

Location: City of Phoenix, Arizona
Owner: City of Phoenix, Water Services Department
Project Construction Cost: $500,000 to $11M

Various booster pump stations were designed to incorporate the following equipment and systems:
- 3 to 5 pumps between 15HP to 200HP in parallel pumping water into a pressurized system
- Depending on system operation pumps were designed across the line, with solid state soft starter, or variable frequency drives
- These well pumps were equipped with waste and fill valves (automated) in order to fill reservoirs
- Well pump motors from 100HP to 350 HP on solid state soft starters
- Chlorination system was provided for chlorinating the discharge water into the reservoir(s)
- Flow, pressure, and level instruments were used for monitoring as well as controlling the well pumps
- SCADA system including PLCs and radios were designed for remote monitoring and control of the site

Pumps to Pressurized Systems:
- These well pumps were equipped to pump directly into the water system
- Well pump motors from 100HP to 350 HP on variable frequency drives
• Chlorination system was provided for chlorinating the discharge water into the system
• Flow, pressure, and level instruments were used for monitoring as well as controlling the well pumps
• SCADA system including PLCs and radios were designed for remote monitoring and control of the site
• These sites were equipped with hydro-pneumatic systems with compressors and level and pressure controls