

**Design   Planning   Development   Management**  
**Tucson   Phoenix   Elko**

# Hanlon Engineering + Architecture

Design-Planning-Development-Management  
proudly serving the manufacturing and industrial communities since 1999

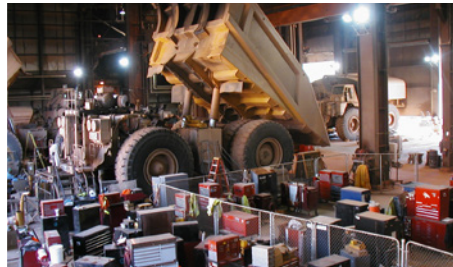
## ***ARCHITECTURE***

COMMERCIAL  
CORPORATE  
INDUSTRIAL  
INSTITUTIONAL  
MIXED -USE  
RELIGIOUS



## ***ENGINEERING***

CIVIL  
CONCRETE  
STRUCTURAL  
MECHANICAL  
PIPING  
ELECTRICAL  
INSTRUMENTATION  
CONTROLS SYSTEM  
PROCESS



## ***MANAGEMENT***

PROJECT  
CONSTRUCTION  
ADMINISTRATIVE SUPPORT



**E**stablished in 1999 with Corporate in Tucson, Arizona we have since opened branch offices in Phoenix, Arizona and Elko, Nevada. HEA's success is built on the fundamental model of a full-service in-house Multi-Disciplinary Engineering, Architecture and Management Firm supporting Commercial, Corporate, Industrial, Institutional, Mixed-Use and Religious Architecture.

**N**ationally recognized, a significant portion of our work involves renovation and modernization of existing facilities throughout the United States, Canada, Central and South America. We have achieved recognition by dedicating experienced individuals/teams whose task is to maintain the attention to detail for a project duration resulting in an on time and within budget delivery.

**I**n addition to the Standard Services we also offer Procurement, Capital/Operational Cost Estimating, and our Construction Management program generates up-to-date Executive Reports on Budget, Schedule, and Compliance with Projections through completion.

**HEA** maintains Business Licenses in 7 States to better serve local Clients. We also have individual licensure in 9 states allowing for project mobility. Key Individuals possess National Certifications in Architecture and/or Engineering to quickly obtain licenses in other states as dictated by Client requirements.

**C**omprised of 60 employees, our team has Multi-Disciplinary Engineers, Architects, Interns and Technical Staff. Many Staff have 25 or more years of experience to offer to our Clients. Since its establishment in 1999 we have logged over 1,425 completed Projects that carry a constructed value of over \$1B

# Hanlon



## Contact

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www.hanlonengineering.com

**SINGLE SOURCE** Single Sourcing for Professional A&E Services maintains better Quality Assurance/Quality Control through communication and efficiency. As Industry Experts with cutting edge production and modeling tools we are your single source firm.

## ***ARCHITECTURE, ENGINEERING, MANAGEMENT***

BIM LEED

FEASIBILITY STUDIES

DUE DILIGENCE

PROGRAM DEVELOPMENT

SITE DESIGN

CODE COMPLIANCE

LAYOUT

CONSULTANT COORDINATION

CONSTRUCTION DOCUMENTATION

ADMINISTRATION

MANAGEMENT

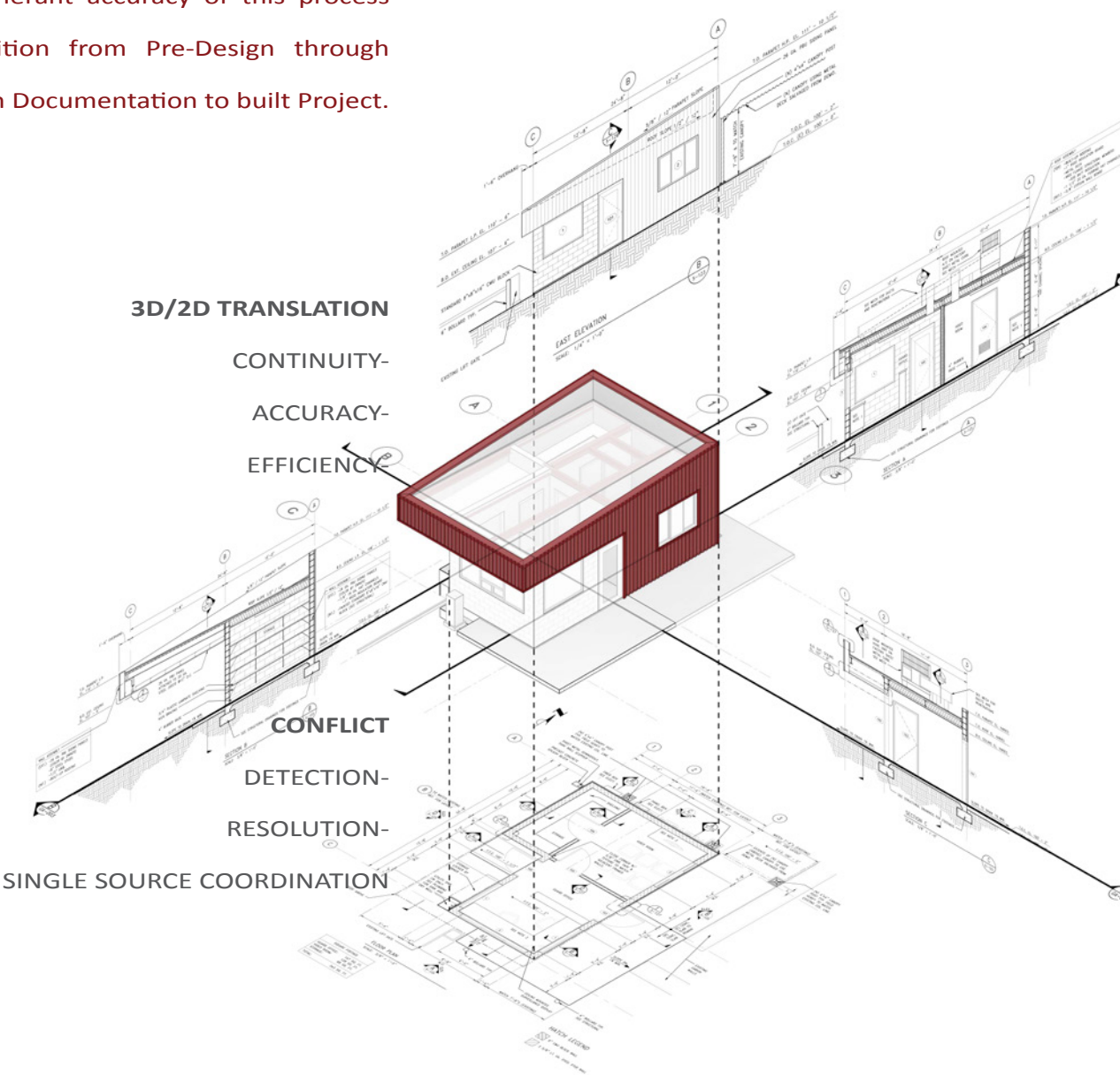
CLOSE-OUTS





Our Professionals use Building Information Modeling software (B.I.M.) to design Projects efficiently and effectively. B.I.M. allows our Team to work simultaneously creating an all-inclusive, information based 3 Dimensional digital model. The inherent accuracy of this process streamlines the transition from Pre-Design through Construction Documentation to built Project.

B.I.M.



**PROJECT**

DEVELOPMENT-

DESIGN COMMUNICATION-

VISUALIZATION-

PRESENTATION-

**CONSTRUCTION DOCUMENTATION**



# HANLON ENGINEERING & ARCHITECTURE

## HEA PROJECT MANAGEMENT FUNCTIONS

- Project Planning and Management
- Cost Management
- Schedule Management
- Scope Management
- Quality Management
- Safety/Risk Program Management
- Contract Administration
- Leadership

## HEA PROJECT MANAGEMENT FOCUS

- Control time, scope, cost and quality
- Apply integrated systems and procedures to achieve the Owner's goals
- Encourage professionalism, teamwork, and "ownership"

## HEA PROJECT MANAGEMENT TOOLS

- Construction Management Plan
- Project Procedures Manual
- Quality Management Plan
- Procurement Plan
- Contracts and Agreements
- Laws
- Standards of Care

## HEA VALUE ENGINEERING

- Value Improvement
- o Value = Functional Benefit/Cost
- Work With Owner to Determine Functional Benefits, Understand

## HEA HOW VALUE ENGINEERING IS MEASURED

- Sensitive to Life Cycle Impacts
- Understand the Owner's Criteria and Standards
- Understand Functional and Operational Requirements
- Drill Down on the Project Specific Issues
- Develop Cost Model





# HANLON ENGINEERING & ARCHITECTURE

## Mining – Mineral Resources

HEA provides process engineering, engineering analysis and design, and construction management services to the Base Metals (copper, lead, zinc, aluminum...), Precious Metals (gold, silver, platinum, palladium...) and Industrial Minerals (lime, cement, feldspar, clays, high purity silica sands...) industries. HEA can develop a project from conception, to feasibility study and detail engineering phases, through construction.



## Power Transmission & Distribution

We provide engineering calculations and designs utilizing ETAP Electrical Power System Design Software for the design and optimization of power transmission and distribution systems, including arc flash, load flow, short circuit and transient stability analysis. We use PLS-CADD software to design the transmission line and optimize pole locations, sag and tension. HEA's plans and specifications will conform to local building and electrical codes and MSHA health and safety requirements.



## Alternative Energy - Solar, Wind & Geothermal

HEA provides services ranging from resource evaluation, process design & detail engineering, through procurement, construction management and commissioning to a variety of industry sectors. Our team offers support through the planning, implementation and maintenance of renewable energy facilities and working environments. A significant portion of our work involves the renovation, modernization and optimization of existing facilities and systems.



## Industrial, Manufacturing & Facilities Engineering

We provide engineering, procurement and construction management to a variety of industry sectors. Our team offers support through the planning, implementation and maintenance of processes, facilities and working environments. A significant portion of HEA's work involves the renovation, modernization and optimization of existing facilities and systems.



# HANLON ENGINEERING & ARCHITECTURE

## Technology

We provide our technological clients with A/E and facility engineering, procurement, and construction management services. We support our clients and optimize their systems to remain competitive by applying our design expertise, project management team integration, and rapid responsiveness. We provide tool installation design, base build expansions, retrofits, facility maintenance, and a variety of small capital improvement projects.



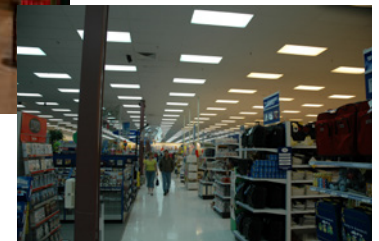
## Telecommunications

HEA provides our clients with engineering services that maintain constant communication on and off sites. Through our professional support we optimize telecommunication systems to remain safe and efficient by applying our project expertise, integrated management practices, and client response. We provide feasibility studies, equipment installation design, network master expansions, retrofits, facility maintenance programs, and a variety of quality economic solutions for all size projects.



## Food & Consumer Products

Our Team provides our clients with A/E and facility engineering, procurement, and construction management services. With complete engineering services and our specialized expertise we provide innovative solutions for automation and line efficiency to system installation design, expansions, retrofits, facility maintenance, and a variety of small capital improvement projects.



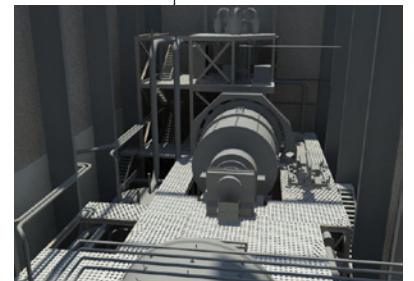
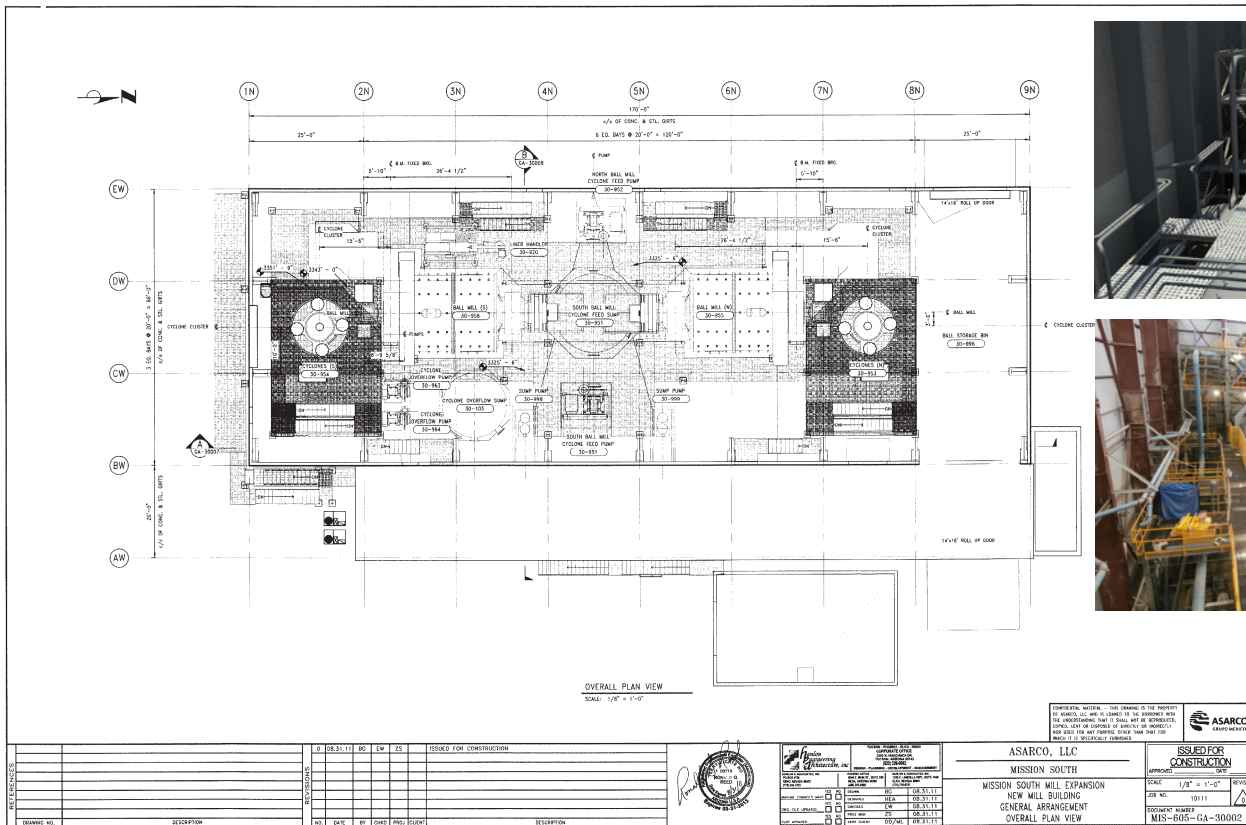
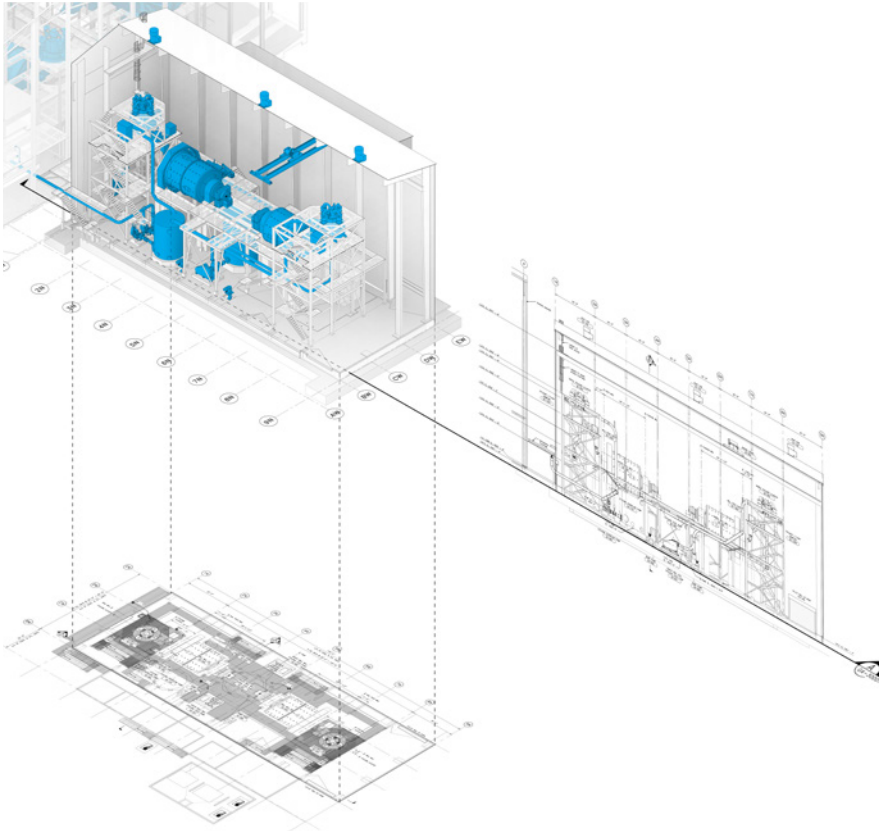
## Water, Wastewater & Water Resources

We specializes in providing engineering, procurement and construction management services to our private and municipal clients. We assemble a team of experienced and knowledgeable scientists, engineers, and process and regulatory specialists to provide practical, proactive solutions. Our water supply team provides services from initial concept to final commissioning for treatment, filtrations, distribution, pumping and storage. In addition, our team is meeting the enhanced accountability requirements through automated reporting, SCADA systems designs and improvements.





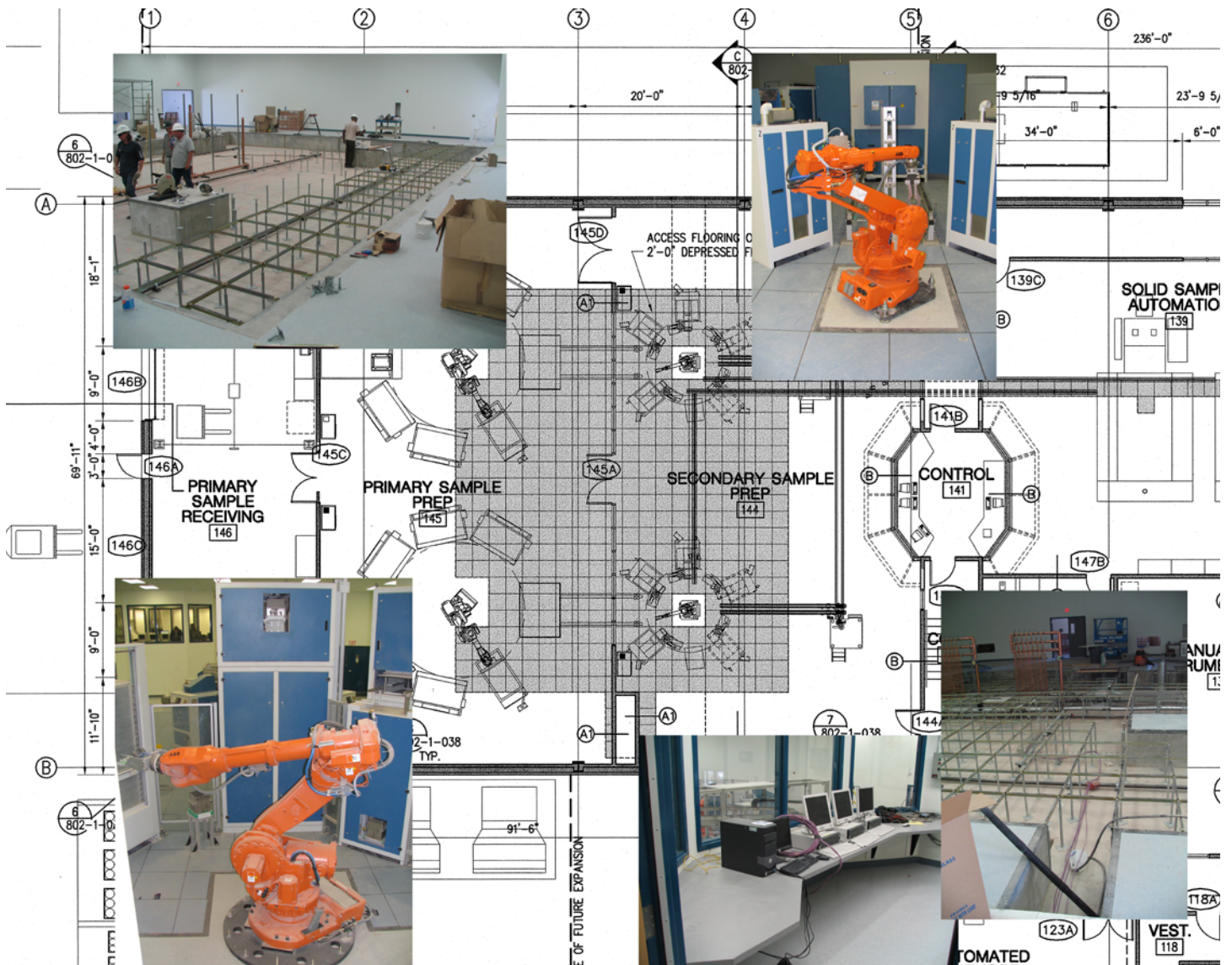
# HANLON ENGINEERING & ARCHITECTURE



**PLANT EXPANSIONS**  
COMPLETED 2013  
SOUTHERN ARIZONA

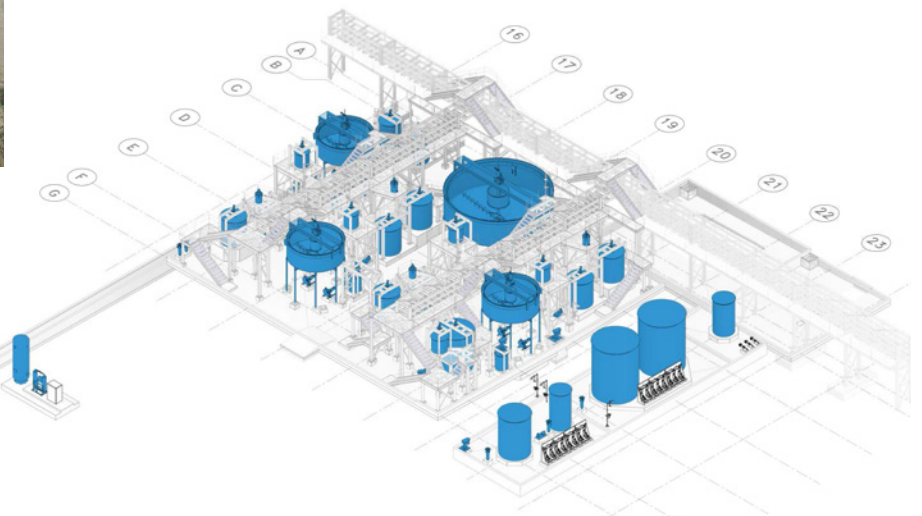


# HANLON ENGINEERING & ARCHITECTURE



## CORPORATE MINE TESTING LAB FACILITY

COMPLETED IN 2006 ARIZONA



## PROCESSING GROUNDWATER PLANT

COMPLETED 2010 ARIZONA



# HANLON ENGINEERING & ARCHITECTURE

## Buildings

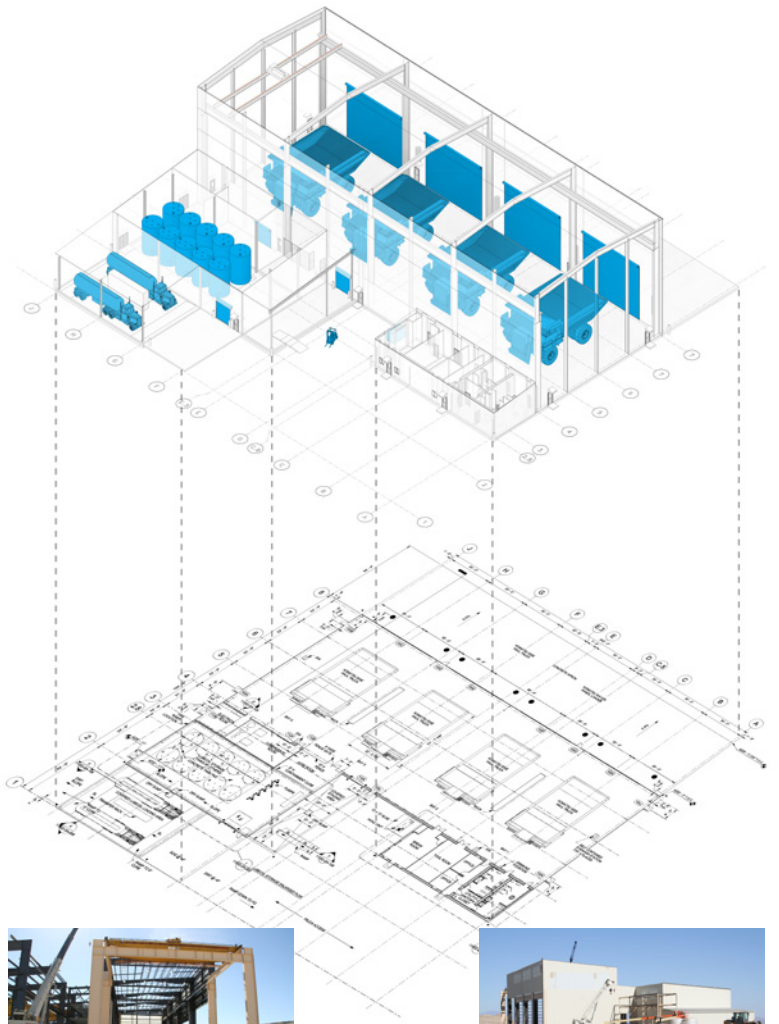
Hanlon Engineering & Architecture, Inc. designs on average 50 building and renovations per year. This includes standalone, complete engineering A/E services for a building from ground up; pre-engineered building; and renovations of existing building and facilities. HEA has the in-house staff to complete all aspects of building/facilities layout and design.

## Program & Project Management

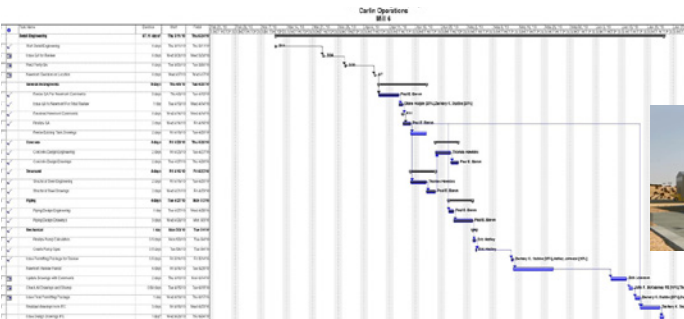
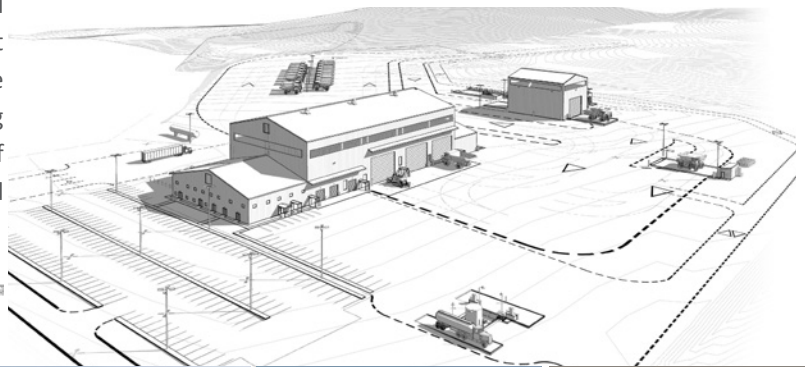
We provide our clients with A/E and facility engineering, architecture, procurement and construction management services. We support our clients and optimize their systems to remain competitive by applying our design expertise, project team integration, and rapid responsiveness. We provide system installation design, facility expansions, retrofits, facility maintenance, and a variety of small capital improvement projects.

## Project & Construction Management Services

Our Team has provided project and construction management services on projects ranging from thousands of dollars to over thirty million dollars. The essence of our services is to provide planning and control of activities to achieve the objectives of performance (scope), schedule, and cost. Services are tailored to the requirements of the client that range from project management for the overall direction of multiple projects to the management of specific components of one project. Utilizing our own project control systems and methods, the extent of these services is tailored to suit the client's organization and procedures.



**HAUL TRUCK MAINTENANCE**  
COMPLETED 2011 NEVADA



**MINE SITE MAINTENANCE**  
**ADMINISTRATION & SHOPS**  
COMPLETED 2010 NEVADA

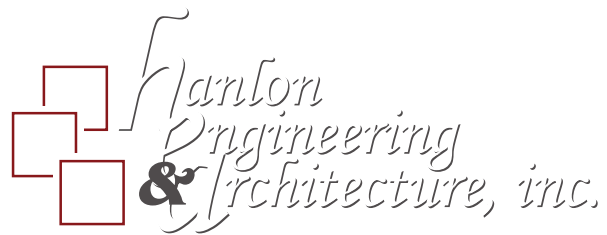


Design

Planning

Development

Management



**Tucson**

Phoenix

Elko

 [www.hanlonengineering.com](http://www.hanlonengineering.com) |