



GLHN

BUILDING INFORMATION MODELING (BIM)

DESIGNING IN THREE DIMENSIONS

ANTICIPATING ADVANCEMENTS AND MAKING THE COMMITMENT

The most significant technological development at GLHN in recent years has occurred in the area of 3D design. GLHN anticipated a move toward BIM technology in the governmental and higher educational sectors years ago and committed itself to a firm-wide technological advancement. GLHN believes BIM is the future of the design and construction industry and has transitioned from 2D CAD production to fully-integrated 3D design, using the Autodesk Revit and Civil3D platforms. All architectural and engineering staff including technicians, designers, professionals, and managers are provided with appropriate BIM and CAD capability, software, and training. GLHN also uses many discipline-specific software platforms, from Trane Trace for mechanical systems, HEC for hydraulic modeling in our Civil Engineering Department, Google Sketchup for architectural renderings, and SKM PowerTools for electrical models and analyses.

GLHN used BIM in the design of Phases II and III of the \$50 million City of Tucson Sun Tran Bus Storage, Maintenance, and Fueling Facility. The multi-building complex is located on a 25-acre site and includes more than 70,000 sf of building space and site utilities. Phase II received LEED Gold certification and Phase III is expected to achieve the same. GLHN is Architect and Engineer of Record. The use of 3D technology is particularly helpful for clients to interpret 2D CADD images and understand the project in three-dimensional form.



The \$18 million City of Tucson Streetcar Maintenance and Storage Facility, designed using BIM technology, is complete construction in 2013. GLHN is Architect and Engineer of Record



The \$24 million New Mexico State University Campus Chilled Water Improvements project includes construction of a new satellite chilled water plant and campus-wide underground utility distribution. The use of BIM is critical to the quality control process during the design phases and in identifying possible collisions. GLHN is Architect and Engineer of Record. Construction will be completed in 2013.



The \$43 million ENR2 facility will be the centerpiece of the University of Arizona's Environmental and Natural Resources program. GLHN is Architect and Engineer of Record, working in collaboration with Design Architect richard + bauer. The university and the design team are committed to the use of BIM and dedicated to exploring innovative sustainable design options. Construction Documents will be completed in 2013.

