

## JOEL G. MONA, PE RESIDENT ENGINEER

Since 1984, Joel Mona has been involved in the construction and construction management of complex public works projects including water treatment facilities, dams, tunnels and shafts, large hydraulic structures, roads and bridges. Joel's principal responsibilities as a Resident Engineer include the overall execution and administration of projects, management of on-site engineering and inspection staff and direct accountability for quality, schedule, project cost and safety performance.

- **Resident Engineer, MCDOT, Chandler Heights Bridge at Sonoqui Wash, Queen Creek, Arizona.** Responsible for construction management, inspection and on-site construction engineering services for this three-span, cast in place and post tensioned box girder bridge on Chandler Heights Road. This project included a five-lane bridge over Sonoqui Wash in coordination with the Flood Control District of Maricopa County and Sonoqui Wash Channelization effort. Duties included inspections to confirm contractor's compliance with the plans and specifications, shop drawing review, RFI review and response, liaison between the owner and contractors, pay request verification and processing, issuance and resolution of change orders, conducting weekly construction meetings, field reporting and community involvement.
- **Special Structural and Geotechnical Inspection Manager, Valley Metro Rail, Tempe, Mesa and Phoenix, Arizona.** Designated registered engineer responsible for UBC/IBC required special structural and geotechnical inspections. This included all special inspections for five line section contracts and a stations contract (93 separate building permits in Phoenix and Mesa).
- **Updating Design Criteria and Standards, Valley Metro Rail, Tempe, Mesa and Phoenix, Arizona.** Reviewed and updated technical and administrative specifications to be used as a Master Specifications for future projects. The process incorporated lessons learned from past projects and streamlined submittal requirements as well as updating specification to match best current practice.
- **Resident Engineer, Valley Metro Rail, Town Lake Bridge, Tempe, Arizona.** Resident Engineer for the \$21 million Tempe Town Lake Bridge project, which included a 1500-ft steel truss rail bridge crossing the town lake, 72-inch diameter drilled shafts constructed on land and within the lake, reinforced concrete guideway for direct fixation track, utility and roadway relocations, and 2300-ft of cast-in-place retaining walls. This project is part of Valley Metro Rail's light rail project that provides the first light rail service to the Phoenix Metropolitan Area. This project required extensive coordination with Valley Metro Rail, Project Design Team, Tempe, UPRR, ADOT and Maricopa County.
- **Civil Engineer, USBR, Central Arizona Project (CAP), Phoenix Arizona.** Assignments on the CAP included; Picacho Pump Plant and Operating Facilities Building. Duties included office engineering, structural, mechanical and civil inspections, CPM scheduling and concrete dam finite element analysis. Directed exploratory core drilling.
- **Field Engineer, US Bureau of Reclamation (USBR), Roosevelt Dam Modification, Roosevelt, Arizona.** Field Engineer providing supervision, inspection and technical support for approximately \$140 million in contracts at the Roosevelt Dam. Construction activities included: sheriff substation and a 3-mile long roadway alignment; 400,000-yd<sup>3</sup> concrete dam raise and spillway replacement; access and drainage tunnels; zoned earth fill breakwater; cellular cofferdams; foundation grouting; penstock and outlet works replacement; removal and replacement of a 36 Mw turbine and generator; and residential demolition contracts to remove structures from within future reservoir limits. Also included extensive coordination with US Forest Service, ADOT, Department of Fish and Game, and local residents.
- **Resident Engineer, MWD, Inlet/Outlet Tower, Eastside Reservoir Project, California.** This \$53 million dollar contract involved construction of a 270-ft tall reinforced concrete structure containing 95,000-yd<sup>3</sup> of concrete, eighteen 84-inch diameter hydraulically operated butterfly valves, fixed wheel emergency gate, fishscreens, gantry crane, 1,300 kip multi-strand tendons and steel girder access bridge. Project completed on schedule without claims at 5% over original bid amount.

### EDUCATION

Bachelor of Science – Civil Engineering,  
University of Arizona, Tucson

### PROFESSIONAL ENGINEERING REGISTRATIONS

- Arizona – 57483
- California – 24006

### CERTIFICATIONS / TRAINING

- Dust Control – Maricopa County
- ATSSA Traffic Control Supervisor