

**TJC**

and ASSOCIATES, Inc.

# The TJCAA Quarterly

[www.tjcaa.com](http://www.tjcaa.com)

## Message from the President

### Industry News -

### Photovoltaic Support Systems

## Did you know?

### Industry News - Renewable Energy

### Featured Project - Ridgemark WWTP

## Message from the President Gianna Zappettini

January 2012 marked the 14th Anniversary for TJC and Associates, Inc. Since 1998, when we founded TJCAA as a structural engineering company, we have expanded our services to include electrical, instrumentation, and controls engineering; guidance and support for product evaluation processes; cost estimating; and computer-aided drafting and design. Companies like ours do not make it to their 14th year without qualified staff and excellent clients. Our thanks go out to each and every one of you who are a part of our continued success.

## Industry News - TJCAA Helps Usher in the first Evaluation Services Report for Photovoltaic Support Systems

ICC-ES has issued Evaluation Services Report (ESR) 3083, Unirac Solarmount™ (E)volution Flush Mount Modular Framing System, the first ESR ever issued for photovoltaic support systems. TJCAA supported and guided Albuquerque-based Unirac Inc. during the ESR product review process—a service that we have provided to many clients during our 14 years in business.

TJCAA recently formalized its long-standing, productive relationship with ICC-ES by becoming a member of the ICC-ES Partner Program, an honor reserved for only a handful of companies. Our industry knowledge and our engineering and testing expertise give us the ability to guide our clients through an expedited product review process. We were well suited to this effort, as we assisted in the development of AC428, the criteria against which the racking system was judged. Unirac's system is the first to be recognized in an ICC-ES report for compliance with AC428.

## Did you know that TJCAA can provide cost estimating?

James San Filippo, has been gaining experience since 1974 in all aspects of construction planning, management, and administration,

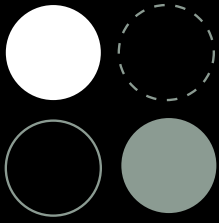
and we enjoy teaming with him. A veteran construction professional, Mr. San Filippo has managed construction projects with combined values exceeding \$800 million. He has provided conceptual and detailed cost estimating, management, and field supervision for a variety of industrial, commercial, and residential projects, including structures, support facilities, and infrastructure.

## Industry News - Drop in Renewable Energy Bid Prices

The California Public Utilities Commission' Renewables Portfolio Standard Quarterly Report (CPUC 2/3/2012) indicates that new contract bids, submitted last year, were "significantly lower than bids from the past few years." This drop in bid prices may represent a combination of reduced photovoltaic panel prices and higher levels of representation in the maturing renewable energy market, with providers lining up to help meet the recently increased, state-mandated targets for the inclusion of renewable energy sources. Large solar farms (20+ MW and up) may feel the impact of this shift when submitting bids for long-term contracts, which may need to be negotiated at lower rates than previously anticipated.

## Featured Project - Ridgemark WWTP

Thick concrete and unusual backfill are going into place as the Sunnyslope County Water District constructs an expansion to its Ridgemark Wastewater Treatment Plant. These features are responses to concerns regarding a nearby fault—a challenge faced by the design team for the Ridgemark facility. TJCAA provided structural engineering design for the expansion as part of a team led by RMC Water and Environment of Walnut Creek. Improvements to the facility, which serves Ridgemark, Oak Creek, and Quail Hollow areas, were required in order to meet regulatory requirements and provide the basis for a recycled water supply in the future. As part of this multiple discipline project, TJCAA provided structural engineering support for the



# TJC

and ASSOCIATES, INC.

## Got CADD?

## Entertainment Review

## Dates to Note

### TJCAA's Business Certifications

- Alameda County Small, Local Emerging Business
- City of Oakland Local Business Enterprise
- California DGS Micro Business (SB (micro))
- Port of Long Beach SBE
- San Diego County Water Authority SBE
- SoCal Network SBE
- CA PUC WBE
- City of Sacramento SBE

# The TJCAA Quarterly

www.tjcaa.com

modification and expansion of the headworks, membrane bioreactors, blower building, solids storage tank, and sequential batch reactor (SBR). Because the selected locations of the structures could not be changed, TJCAA was required to design them to be capable of withstanding a rupture of the nearby Calaveras Fault, a strike-slip (shear) fault, and others.



TJCAA's design for the solids storage tank, a 362,000 gallon cast-in-place circular tank, features stepped walls, and the SBR design uses sloped walls. Both the tank and the SBR will be backfilled with several feet of pea gravel, which is anticipated to act like a liquid during a seismic event, effectively dissipating the loads on the structures themselves.

In addition to specifying a unique backfill, TJCAA addressed the fault rupture concern by designing the structures to bridge the potential gap that a seismic event could cause. The designs use foundation slabs that act as diaphragms. The robust slab for the SBR, for example, is 36 inches thick, and features 47 #7 bars as chord members on the perimeter. "The thick slabs and walls have generated a lot of interest," notes TJCAA structural engineer Richard Thow. "The buildings are significantly larger than you might otherwise see."

TJCAA is providing engineering services during construction of the plant, which is in Hollister, California. Construction updates and project info are available at [tinyurl.com/wwtpconstruction](http://tinyurl.com/wwtpconstruction).

## Got CADD?

TJCAA's CADD group offers a variety of services that can help you meet your drafting needs. Our experienced staff not only has the ability to provide drafting in AutoCAD and Microstation, but also can produce 3D Sketchup renderings that can enhance your ability to share information about your project. Contact us if you would like to temporarily augment your staff with our proficient, dependable CADD professionals.

## Entertainment Review

Back when I was doing taxes at one of the public accounting firms, March always brought a conflict. Corporate returns are due on the 15th. However, our daytime productivity was near zero during the first weekend of March Madness. As of this writing, the games are just beginning. Hopefully, you all have a few teams left in the dance.

## Dates to Note

- March 20 - The Vernal Equinox; see <http://www.almanac.com/content/first-day-spring-vernal-equinox>
- March 25 - Formula 1 Malaysia Grand Prix in Kuala Lumpur (the second race in the 20-race season, which opened on March 18)
- March 30 - Junius Courtney Big Band at Berkeley's Freight and Salvage
- April 5-8 - Golf - The Masters
- April 29 to May 8 - ICC Code Development Hearings
- June 5-7 - Los Angeles, California meeting for the ICC-ES Committee
- June 10-14 - American Water Works Association Annual Conference and Exposition in Dallas
- June 14-17 - Golf - The US Open
- June 27 - Junius Courtney Big Band Summer Solstice Concert at Yoshi's Oakland
- July 9-12 - InterSolar Conference and Exposition in San Francisco

Copyright 2012 TJCAA and Associates, Inc. All Rights Reserved

• Structural Engineering • SCADA • Electrical Engineering • Instrumentation and Controls •