



# ACEC *Arizona*

American Council of Engineering  
Companies of Arizona

28<sup>th</sup> Annual  
Engineering Excellence Awards

Saturday, November 15, 2008  
La Paloma Resort, Tucson

The "Judges Choice Award" is given to the engineering project receiving the highest overall score based on:

- ✚ Original or Innovative Application of New or Existing Techniques
- ✚ Future Value to the Engineering Profession and Perception by the Public
- ✚ Social, Economic, and Sustainable Design Considerations
- ✚ Complexity
- ✚ Exceeding Client/Owner Needs

The 2008 "Judges Choice Award" was presented to ...

## Stanley Consultants, Inc.

Client: Arizona Department  
of Transportation  
*Red Mountain Freeway –*

The Judges Choice Award goes to Stanley Consultants, Inc. for completing the 4.8 mile segment of Red Mountain Freeway, deemed "The Golden Spike of Our Regional Freeway System." Included were 2 unique straddle substructure bridges; 22 structures; 4 interchanges; new freeway protection levee and flood alert system; existing dam rehabilitation; pump station; a vast drainage system; and intricate utility relocation.



The uniquely engineered straddle substructure made it possible to economically bridge an arterial roadway and the CAP canal at a difficult angle. The bridge is the first of its kind in Arizona. The project cost savings allowed the inclusion of a fourth general use lane each way. Congratulations Stanley Consultants Inc. for delivering this exceptional engineering project under budget and ahead of schedule!!!

### "Thank You" Judges

Quent Augspurger, Augspurger Komm \*\* Mike Bonar, Entellus \*\* A.Wayne Collins, Huitt-Zollars  
Gregg Creaser, Speedie & Assoc. \*\* Andrew G. DiLeo, DiLeo Engineering \*\* Jim Dowell, Wilson Engineers  
C. Gnanasambanthan, Premier Engineering \*\* Roger Greaves, Burns & McDonnell  
Eric Laurin, Coe & Van Loo Consultants, Inc. \*\* Bill Linck, Entellus \*\* Sam Malekooti, Premier Engineering  
Tony Mardam, CH2M Hill \*\* Bill McMullen, LEAP Director \*\* Pete Kunka, Kunka Engineering  
Ron Schreier, Gannett Fleming \*\* Allan Smolko, City of Phoenix \*\* Bob Stanley, Nabar Stanley Brown Inc.  
Sharon Wavering, CH2M Hill \*\* Cindy White, City of Phoenix \*\* Andrzej Wojakiewicz, Maricopa County

# 2008 "Grand Award" Winning Projects

## Black & Veatch Corporation

Client: City of Glendale  
*Glendale Oasis Water Campus –*

The Oasis Water Treatment Plant is the first major surface WTP in Arizona to partner with Salt River Project utilizing their existing irrigation laterals for raw water conveyance for SRP's Arizona Canal. Black & Veatch exceeded expectations in combining cutting-edge and traditional

treatment technologies to reliably meet Glendale's water quality goals including particulate removal, taste and odor control, and minimizing disinfection byproduct formation. Thanks to Black & Veatch, Oasis has been master planned to create value today and in the future for SRP and the City of Glendale.



## Burns & McDonnell

Client: Arizona Public Service  
Owner: PacifiCorp  
*Cholla Station Unit 4 AQCS Upgrade –*

A planned switch in the coal supply for Cholla Unit 4 located near Joseph City required an extensive retrofit of air quality control equipment. Burns & McDonnell selected a wet flue gas desulfurization and fabric filter system to meet emission requirements. The capacity of the waste disposal system was increased using three positive displacement pumps – the first application of these pumps for this service in the US. "Thanks" Burns & McDonnell for exceeding guaranteed results reducing particulate and SO<sub>2</sub> emissions while providing improved inherent mercury control.





## 2008 Grand Award Winning Projects ...

### Gannett Fleming, Inc.

Client: City of Phoenix  
*Strengthening a Bridge, Connecting a City –*

After 62 years, the 19<sup>th</sup> Avenue Grand Canal Bridge had reached the end of its service life. Gannett Fleming, Inc. developed a rapid and economical solution that could rehabilitate the bridge with minimal disruption to the 30,000 daily motorists. Using carbon fiber reinforced polymers they were able to provide a cost-effective and robust solution. This is the first bridge in the state to be strengthened using CFRP composites and the first "smart structure" allowing for continuous, real-time performance monitoring. "Thank you" Gannett Fleming for being first in innovation!



### Jacobs Engineering Group, Inc.

Client: City of Glendale Transit  
Owner: City of Glendale  
Transportation Department  
*Glendale Park & Ride –*



With a goal to design and construct a transit facility to curb the urban heat island effect, the City of Glendale retained Jacobs to design their Park-and-Ride facility. Jacobs incorporated pervious concrete in parking areas, drought resistant landscape design, angled profile, high solar reflectance shade canopies, and a "green design" security building. This sets a new standard for a user-friendly, environmentally sensitive

park-and-ride facility. The 12.7 acre facility has 388 parking spaces and has become highly successful. Congratulations Jacobs Engineering Group, Inc.!

## Kennedy/Jenks Consultants

Client: City of Phoenix

*Pervious Concrete Pavement –*

Residents in an older neighborhood suffered from flooding whenever it rained because their homes were lower than street level.

Kennedy/Jenks Consultants designed a unique, low-impact development solution for stormwater drainage problems that uses pervious concrete to replace conventional paving materials. The pervious concrete controls flooding, removes pollutants from the stormwater, and increases groundwater recharge. Plus, it reduces the urban heat island effect. Great job, Kennedy/Jenks and a great contribution to sustainability!



## Kimley-Horn and Associates, Inc.

Client: Pinal County Department of Public Works

*Ironwood-Gantzel Roadway –*



When you have 30,000 commuters using a two-lane road as their primary route to work, you need to improve not only the capacity, but public safety and operational characteristics of the roadway. Pinal County opted to use the construction manager at risk method of project delivery choosing Kimley-Horn and Associates, Inc. to provide preliminary and final design services for 15.5 miles of roadway widening and Sundt Construction Inc. as the contractor. It was a winning combination and \$13.6M was saved. Congratulations Kimley-Horn for partnering excellence!



## 2008 Grand Award Winning Projects ...

### LSW Engineers Arizona, Inc.

Client: Arizona State Health Lab  
Owner: Arizona Department of Administration  
*Innovative Lab Strategies –*

The Arizona Department of Health Services suffered from severe "sticker shock" when their annual utility bills approached \$750,000. LSW Engineers Arizona, Inc. was called to the rescue. LSW studied the design, systems, controls and installation. Their report proposes a number of innovative and complex recommendations incorporating environmental sensitivity and lab safety. Projected savings upon full implementation will be 40% of the annual utility cost with a simple payback of three years. ADHS and Arizona taxpayers say "Thank You" LSW!



### Malcolm Pirnie, Inc.

Client: City of Scottsdale  
*Scottsdale CAP GAC Facility –*



Faced with stringent federal drinking water quality rules, the City of Scottsdale asked Malcolm Pirnie, Inc. to engineer an innovative post-filtration treatment facility. Malcolm Pirnie recognized state-of-the-art granular activated carbon adsorption technology is the most effective way to reduce organic precursors that form disinfection by-products. The \$44.8 million facility with a 75 mgd capacity, is one of the largest of its type in the US. This is a highly sustainable project. The facility also

allows the City to fully utilize its CAP allocation, a renewable resource. Great job, Malcolm Pirnie, Inc.!

## URS Corporation

Client: APS Palo Verde  
*Cooling Water Reservoirs –*

When Arizona Public Service Company determined the 80-acre cooling water reservoir needed to be rehabilitated, they called upon URS Corporation for innovative design techniques. Palo Verde is the first and only nuclear power plant in the US to use treated effluent for cooling water, a sustainable practice that advances a positive public image of engineering excellence. Thanks to URS Corporation and APS working closely as design partners on a fast-track schedule, the project was completed one month ahead of schedule and \$1 million under estimated cost.



## ACEC of Arizona Professional Development Award

The American Council of Engineering Companies of Arizona is proud to present the 2008 Professional Development Award to CMX. CMX makes every effort to foster growth in their employees – to ultimately provide value, challenges, and incentives in their everyday tasks.

The CMX "Applied Experience In Skills" Rotation Program provides hands-on cross-training. Their XCEL Program is dedicated to discussing, improving, and promoting the work and culture of CMX through education, innovation, awareness and action. The Associate Program rewards, retains, and motivates key employees. And the CMX Community Foundation gives back to our community through charitable donations and participation in community programs.

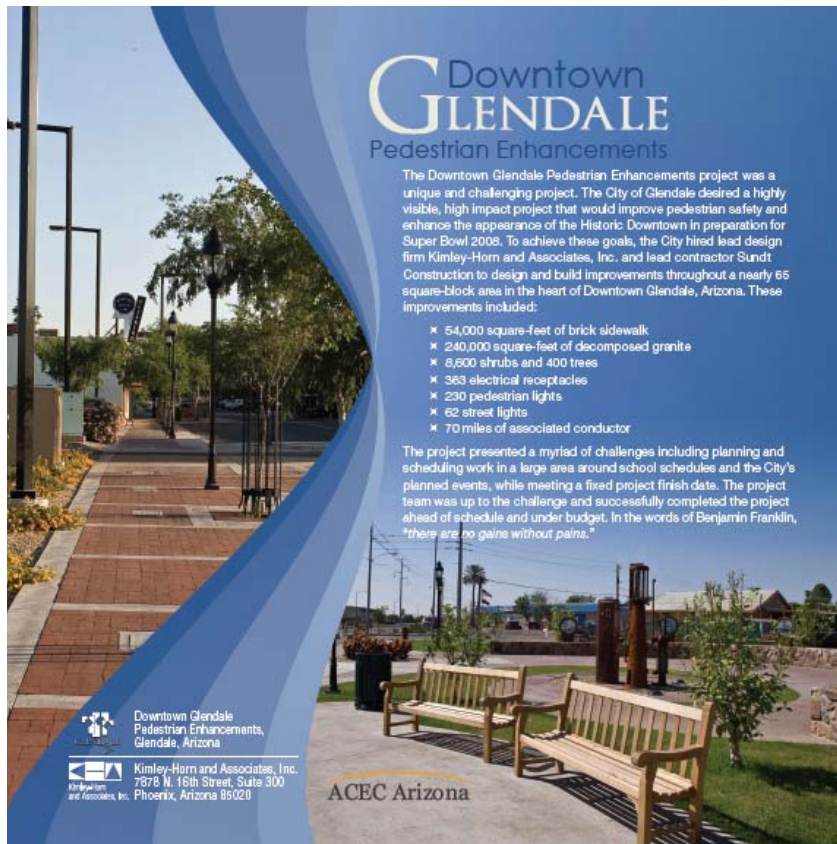
"Thank You" CMX for making a  
real difference in people's lives!



CMX

# The Clifford Sawyer Achievement Award

For Promoting Communication of Engineering Excellence



The best way to communicate to the public the value of engineering is through projects they can relate to.

The "Downtown Glendale Pedestrian Enhancements" panel by Kimley-Horn and Associates Inc. is perfect!

The panel outlines the project goal ... the project requirements ... and the project expectations. Once read, the viewer can easily understand the value of the project to society.

"Thank You" Kimley-Horn and Associates, Inc. for communicating the importance of engineering excellence!

## "Thank You" to the Key Sponsors of the 28<sup>th</sup> Annual Awards Program

AMEC ..... Black & Veatch ..... Burns & McDonnell  
Kennedy/Jenks Consultants ..... Kimley-Horn & Associates  
Stanley Consultants ..... URS Corporation

And to "Friends Celebrating Engineering Excellence"

CMX ..... Entellus, Inc. ....Kleinfelder  
Speedie & Associates ..... Stuckey Insurance



# 2008 Honor Awardees

## CMX, LLC

Client: Barclay Creswin Tucson Spectrum, L.P.  
Owner: City of Tucson  
*Parque de Santa Cruz –  
Mitigating the river channel's lateral movement.*



## Engineering and Environmental Consultants, Inc.

Client: Pima County Regional Wastewater Reclamation Department  
*Mt. Lemmon Watershed Study & Wastewater Plan – Rebuilding and meeting  
the needs of the Summerhaven community.*

## Engineering and Environmental Consultants, Inc.

Client: Pima County Department of Transportation  
*Craycroft Road, River Road to Sunrise Drive –  
An environmentally sensitive roadway design.*



## Gannett Fleming, Inc.

Client: City of Phoenix  
*Phoenix Pipe Bursting Project/Sanitary Sewer Relief and  
Replacement Program – By utilizing pipe bursting, project  
costs and needs were balanced.*

## Greeley & Hansen, LLC

Client: Pima County Wastewater Reclamation Department  
*Optimization Master Plan–  
A complex, pro-active, long-term plan for  
water treatment and conveyance.*



*2008 Honor Awardees ...*

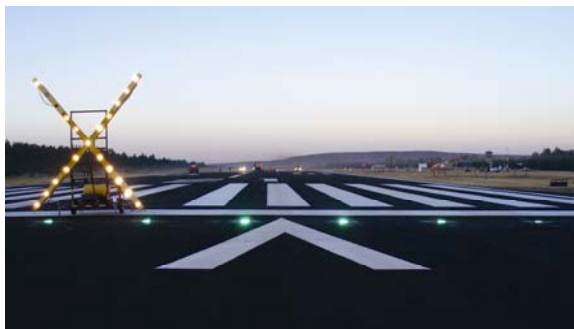


**HDR Engineering Inc.**

Client: Metropolitan Domestic Water Improvement District  
*James M. Tripp Reservoir –  
A neighborhood friendly high quality public works project.*

**Kimley-Horn and Associates, Inc.**

Client: City of Glendale  
*Downtown Pedestrian Enhancements –  
Refurbishing 65 square blocks into a city  
gateway entrance feature.*



**Kimley-Horn and Associates, Inc.**

Client: City of Flagstaff  
*Runway and Taxiway Extension –  
Accommodating larger aircraft and new  
service from Los Angeles.*

**Kleinfelder, Inc.**

Client: Yuma County Department of Public Works  
*ADAIR Park Brownfield Remediation –  
Turning a hazardous wasteland into a  
cherished Archery Club.*



**Michael Baker Jr., Inc.**

Client: Maricopa County  
*Cotton Lane MC85 to Estrella Parkway –  
Alleviating traffic congestion while preserving  
rich environmental elements.*



*2008 Honor Awardees ...*



**Psomas**

Client: Town of Marana

*Tangerine Farms Road Improvement District –*

*A successful blueprint for large-scale infrastructure projects.*

**RBF Consulting**

Town of Cave Creek

*Cave Creek Water Upgrades –*

*Providing reliable water service to customers.*



**Stanley Consultants Inc.**

Client: Flood Control District of Maricopa County

*Sonoqui Wash Channel –*

*A multi-use recreational pathway for hiking, biking and equestrian use.*

**Structural Grace, Inc.**

Client: DMB Associates, Inc.

*Stone Stacked Walls – Utilizing native material for natural beauty, efficiency, and economy.*



**T.Y. Lin International**

Client: Valley Metro Rail

*Tempe Town Lake Light Rail Bridge –*

*Modern technology combining the past with the present.*