

# NEWS



## Engineering Excellence Awards 2005

### PARSONS BRINCKERHOFF, DAVID EVANS TAKE PROJECT OF THE YEAR FOR MAX

*Interstate MAX Light Rail Extension lauded as one of the top transportation projects in the country.*

The \$350-million, 5.8-mile Interstate MAX Light Rail Transit Extension, now known as the Yellow Line— includes 10 stations between the Rose Quarter in Portland's Lloyd District and the Expo Center in North Portland. By taking a careful look at the original alignment developed during the previous

South-North Light Rail planning efforts, 123 business and residential properties were saved that had been originally slated for

acquisition; the result: no homes or businesses were displaced to make way for the construction.

Many design and delivery innovations were made possible through the partnering of owner, designers, and contractors, resulting in savings of millions of dollars and opening of the line four months early.

Engineering challenges included connecting to the existing Blue Line at the Rose Quarter while minimizing disruption of light rail service, reconstruction of Interstate Avenue while maintaining access to adjacent

businesses and minimizing traffic impacts. Congratulations to Parsons Brinckerhoff and David Evans and Associates, Inc.!

# ACEC

American Council  
of Engineering  
Companies  
of Oregon

## Spring 2005

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Member of the  
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### PROJECT OF THE YEAR: Parsons Brinckerhoff and David Evans and Associates, Inc. for Interstate MAX Light Rail Extension for TriMet

Pictured, from left, are Dave Moyano, Joel Tubbs and Steve Metz from David Evans and Associates, Inc; John Bollier, Stacy Witbeck; Bob Post, URS Corporation; John Lackey, David Evans and Associates, Inc.; Dwight Hardin, GRI Geotechnical & Environmental Consultants; Neil McFarlane and Bob Hastings, TriMet; Robin McKnight, Parsons Brinckerhoff; Ron Stewart, ZGF -Partnership; Ted Aadland, F.E. Ward; unidentified; Brian McCarter, ZGF; and Ken Krieger, Otak, Inc.



## MORE ENGINEERING EXCELLENCE WINNERS AND PHOTOS INSIDE!

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## FROM THE PRESIDENT

by Cynthia Lowe, P.E.

This spring has been busy between ongoing discussions with OBDP and ODOT in addition to our legislative efforts to protect and improve QBS. While each of these issues has required significant time commitments from our members, I will attempt to provide a brief update on each one.



**Cynthia Lowe  
Parsons  
Brinckerhoff**

On March 15, ACEC Oregon met with OBDP for more than four hours to discuss our concerns regarding their contract terms and conditions. While our comments covered several pages, most of the comments related to one of four major issues:

- 1) Contract language that creates an uninsurable warranty, such as use of the word *ensure*, places both firms and OBDP at risk;
- 2) Firms cannot accept the business risk of performing work at the direction of OBDP that ODOT has not (and may not) authorize. The risk of not being paid is unfairly placed on the engineers;
- 3) Waivers of subrogation cannot extend to professional liability, and ACEC Oregon requests that OBDP mirror ODOT's requirement; and
- 4) ACEC Oregon requests that OBDP mirror ODOT's indemnity contract provisions since we consider OBDP's request for a higher standard of indemnity to be unreasonable.

OBDP plans to provide ACEC Oregon with revised contract language by next week, and I will have Alison sent out an email update once the revisions have been reviewed. I would like to thank **Marguerite King** with **USI Northwest** for attending the OBDP meeting and providing valuable input on insurable versus uninsurable contract language.

I would also like to recognize and thank **Randy McCourt** for his work in leading ACEC Oregon's efforts to provide ODOT with comments on the (*President's column continued, page 7*)



# Engineering Excellence Awards 2005

## FIVE FIRMS GARNER GRAND AWARDS

### **DEGENKOLB ENGINEERS University of Oregon Lillis Business Complex**

*Construction finished ahead of schedule and under budget.*

The Lillis Business Complex bridges two historic buildings with state-of-the-art design and technology. Providing an abundance of natural light, the building's four-story glass atrium showcases the most visible structural elements – the curved roof supported by steel “tree” columns and the curved stair that cantilevers from the atrium.

Using structural steel enabled the team to create an open, light environment for learning while helping achieve the University's sustainability objectives. With construction finished ahead of schedule and costs under budget, the Lillis Business Complex is a tangible sustainable example for the University and community at large.



**GRAND AWARD: Degenkolb Engineers, University of Oregon Lillis Business Complex** Pictured, from left, are **Jake Stept, Degenkolb Engineers; Kent Duffy, SRG Partnership; Chris Thompson, Degenkolb Engineers; Greg Williams, SRG Partnership; Bart Ricketts, Lease Crutcher Lewis; and Hussein Mirza, SRG Partnership.**

### **GRI GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS**

#### **Oregon Health & Science University Patient Care Facility**

*Innovative use of lightweight expanded polystyrene fill supports the drive and creates an inexpensive area that will become a public plaza.*

Engineering resulted in the innovative use of lightweight expanded polystyrene fill for the \$216 million project. This unique fill was used to support the relocated Campus Drive and also to create an inexpensive, unshored laydown area that will later become a permanent public plaza. (*Grand Awards continued, top of page 3*)



**GRAND AWARD: GRI Geotechnical & Environmental Consultants, Oregon Health & Science University Patient Care Facility** Pictured, from left, are **Mike Reed and Tova Peltz of GRI; Janine Stanton with the owner, Oregon Health & Science University; and Scott Schlecter, GRI.**



**GRAND AWARD: Harper Houf Peterson Righellis, Inc. for Sunnyside Road Improvements (Phase 1)** Pictured, from left, are **Chuck Harper, Dan Houf and Neil Waibel, Harper Houf Peterson Righellis, Inc.;** **Jody Yates representing their client, Clackamas County;** and **Ken Ackerman, Mark Mutch, Brian Henson and Ben Austin, Harper Houf Peterson Righellis, Inc.**

**HARPER HOUF PETERSON RIGHELLIS INC. Sunnyside Road Improvements (Phase 1)**

*Improvements made a significant contribution to relieving traffic congestion and improving safety along Sunnyside Road.*

As Happy Valley and other portions of Clackamas County developed over the years, the existing three-lane Sunnyside Road became more congested. In addition to the traffic congestion, numerous safety issues existed along the roadway. Harper Houf Peterson Righellis Inc. was hired to design final plans for the improvement to Sunnyside Road. The completed Sunnyside Road project features five lanes from I-205 to the new Sunnybrook Boulevard and a seven-lane section from Sunnybrook east to 122<sup>nd</sup> Avenue. Sidewalks, bike lanes, a bridge across Mt. Scott Creek, creek restoration, wetland mitigation,

streetlights, sound walls, raised landscape medians, eight signalized intersections, and many reconstructed local access points were all a part of the project. The improvements to Sunnyside Road have made a significant contribution to relieving traffic congestion and have provided drivers, pedestrians and bicyclists with a safer trip along Sunnyside Road.

**HDR ENGINEERING, INC. I-84 Quarry Bridges Design/Build**

*Innovative construction staging removed the bridge weight restrictions seven months sooner than scheduled and significantly benefited the economy.*

ODOT's design-build contract called for the reconstruction of a section of Interstate 84 and replacement of four bridges across the Grande Ronde River at Upper Quarry and Lower Quarry west of La Grande.

The site's features are very complex. I-84 is characterized by series of sweeping curves that hug the Grande Ronde through a narrow canyon straddled by rocky bluffs. Twin bridges carry I-84 and cross the Grande Ronde and two active Union Pacific Rail Road tracks. The Upper Quarry bridges had to be constructed side-by-side on a sweeping curve next to the Union Pacific bridge crossing of the Grande Ronde at a 40 degree angle with a significant cross slope.



**GRAND AWARD: HDR Engineering, Inc. for I-84 Quarry Bridges Design/Build** Pictured, from left, are **Mark Shippen and Claude Sakr with HDR Engineering, Inc.**



**GRAND AWARD: KPFF Consulting Engineers for Clean Water Services Administration Building Complex** Pictured, from left, are **John Mayer with KPFF Consulting Engineers;** and **Skip Stanaway and Kent Duffy with SRG Partnership.**

**KPFF CONSULTING ENGINEERS**

**Clean Water Services Administration Building Complex**

*The project is a model for cost-effective green architecture and environmental engineering.*

The Clean Water Services Administration Building Complex consolidates staff from four facilities into a single location, and creates a water resources campus at the entrance to the Jackson Bottom Wetlands Preserve. The building artfully integrates these materials to showcase the structural design.

Through the use of low-flow fixtures and an innovative rainwater harvesting system, the complex will use 66 percent less water than a comparable office building. The project is anticipating LEED Gold certification, and once achieved, will be the first in Washington County, and only the fourth in Oregon, to hold this prestigious designation.

*(Engineering Excellence continued, see Honor Awards, page 4)*



# Engineering Excellence Awards 2005

## TEN FIRMS TAKE HOME HONOR AWARDS

### **BROWN AND CALDWELL**

#### **Water Treatment Plant Expansion with Biological Iron Removal**

*Brown and Caldwell identified a unique removal process solution that filtered and removed more than 90 percent of the dissolved iron from the treated water.*

### **CH2M HILL, INC.**

#### **Martin-Cornelius-Schefflin Road Roundabout Project**

*This project employed an alternative solution: the roundabout.*

### **CORNFORTH CONSULTANTS, INC.**

#### **Depoe Bay Shear Pile Wall Landslide Stabilization**

*Construction was successfully completed within budget and schedule. Measurements indicate that the landslide has been stopped.*

### **INTERFACE ENGINEERING, INC.**

#### **Saving Energy in Office Buildings Report: Energy Measure Impacts on HVAC**

*The paper discusses energy codes, new technologies, and competitive pricing for energy saving measures to reduce the amount of energy used in buildings.*

### **KLEINFELDER, INC.**

#### **Clackamas County Brownfields Program**

*The program is nationally recognized as a model for economic revitalization.*

### **KPFF CONSULTING ENGINEERS**

#### **Portland State University**

#### **Stephen Epler Hall**

*Stephen Epler Hall is the first mixed-use, LEED certified building in Portland.*

### **OTAK, INC.**

#### **South Waterfront (SoWa) Stream Bank Restoration**

*This is the first time a fully bioengineered design approach was applied on the Willamette River on a large scale.*

#### **Sunnyside Village Green Park**

*Multiuse facility integrates regional storm water management facilities with a new park.*

#### **West Main Street Improvements**

*Improvements accommodate pedestrians while minimizing environmental impacts.*

### **W & H PACIFIC**

#### **Oregon Bridge Assessment Engineering Baseline Report**

*Complex evaluation saves the public approximately \$20 million.*