

Design Installation Systems, Inc.
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DESIGN INSTALLATION SYSTEMS, INC.

re:news

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IN THIS ISSUE:

- **THE WORLD OF CONCRETE 2006**
- **FOUNDATIONS**
- **PAUL KREATSOULAS**
- **STRUCTURAL ELEMENTS**



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At
**DESIGN
 INSTALLATION
 SYSTEMS,**
 our **REPUTATION**
 is in our **WORK.**

THIS MONTH'S FEATURES:

- **THE WORLD OF CONCRETE 2006**
- **FOUNDATIONS**
- **PAUL KREATSOULAS**
- **STRUCTURAL ELEMENTS**



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INTRODUCTION

THE WORLD OF CONCRETE 2006



In January, Design Installation Systems sent a group of 27 people to the World of Concrete trade show in Las Vegas. We have come to expect the World of Concrete to be bigger and better every year, and this year was not a letdown.

This year's event was by far the largest World of Concrete trade show in its 32-year history. With 800,000 square feet of exhibition space and over 1,800 exhibitors, the more than 80,000 registered attendees had plenty to keep them busy. Outside the exhibit halls was the "Mega-Demo" area, where the big equipment and full-scale mock-ups shine. In this outside showroom, manufacturers put building equipment, demolition equipment, materials and techniques to the test. This also is where the decorative concrete, mason's challenge and OPCMIA competition took place.

In addition to full-size mock-ups, new equipment displays, and everything from fasteners to software available for hands-on examination, the World of Concrete offered continuing education opportunities for everyone. Seminars were conducted daily by building professionals and included basic restoration concepts through technical materials testing and failure analysis. Also, near the main entrance, a bookstore offered outstanding reference materials for sale. As in the past, we anticipate next year's World of Concrete to be even larger. Planned for January 23-27, the 2007 World of Concrete most likely will expand on the Technology in Construction theme presented this year.



CONSTRUCTION NOTES

During the course of the past two decades, Steve Hillmann, DIS project manager and newsletter contributor, has been fortunate enough to have worked on both sides of the construction fence—in the 1980s, working for a respected architect as a Building Systems and Materials Consultant, and more recently working with DIS. The following is Hillmann's observation of the evolving restoration industry and how the relationship among the building owner, the architect/engineer and the contractor has changed over the years.

Back in the '80s and early '90s, the idea of a 100 percent, hands-on building facade inspection was just a dream. No building owner would give serious consideration to rigging scaffolds twice to complete one project. The relationship between the architect/engineer (A/E) and the contractor was strengthened by a mutual need to define the project without having all the required information.

In those years, your best shot included unit prices and contingency plans based on “what if” scenarios. The contractor's emphasis was on completion of the project, while the architect concentrated on leading the building owner through the process. Everyone waited and hoped that estimated quantities were within reasonable ranges. Clearly, from all perspectives, expectations have changed, and relationships among the contractor, the building owner and the A/E have shifted.

Based on the building owner's need for a more accurate picture of the overall condition of the building, and driven by long-term budgeting considerations, the design professional is now given the opportunity to complete detailed and accurate facade surveys. Sometimes building surveys and facade assessments are made as a matter of course, driven by building department requirements. Regardless of the reason for the inspections, these surveys are being done today with greater-than-ever regularity. In the preparation of construction documents, real-time on-site conditions can be taken into account. With survey information in hand, the A/E is less dependent on the contractor's experience or input. This has led to a degradation of the trust factor between the A/E and the contractor but helped to bolster the relationship between the owner and the designer.

The A/E is now much more a member of the building owner's “team” and is considered less of an outside consultant than before. Being closer to the building owner and more sympathetic to his or her needs is natural for an A/E, who is retained to represent the building owner during a project. In addition, working with owner during the investigation and design phases, the A/E often is called upon to make critical spending and budgeting decisions, so the A/E becomes involved with the owner before a contractor is even aware of the project.

The A/E involved is often reminded of the building owner's real-life financial constraints, while remaining professionally detached. The scope of the project notwithstanding, every design decision is a balance among safety, longevity, cost and aesthetics. These pressures have helped the roles of each group evolve, giving them a part in the bidding process. Teamwork and cooperation have become more important; every submittal and correspondence carries more weight. Bids are well defined and extremely detailed, contingency plans are in place and accounted for, and every cost must be justified. More than ever before, the design team can discuss the details of the work with the building owner, and the consequence of each decision is made evident before the bid is let. *(Continued on page 5.)*

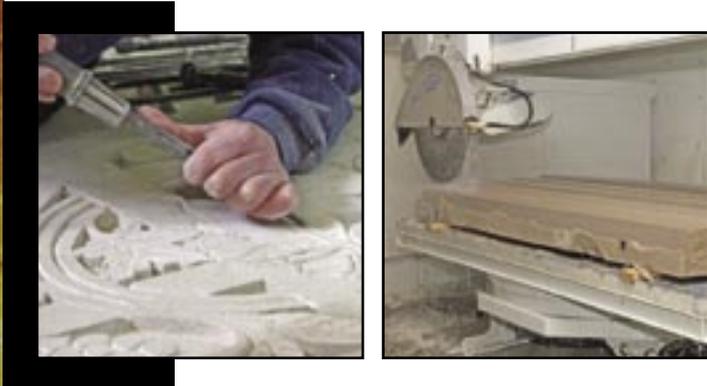
FOUNDATIONS

FOUNDATIONS

As we progress through various projects, we sometimes run into interesting situations. To us at Design Installation Systems, every project is special; replacements must be customized for each installation. Past and current projects have required historically accurate copies to be used as replacement pieces.



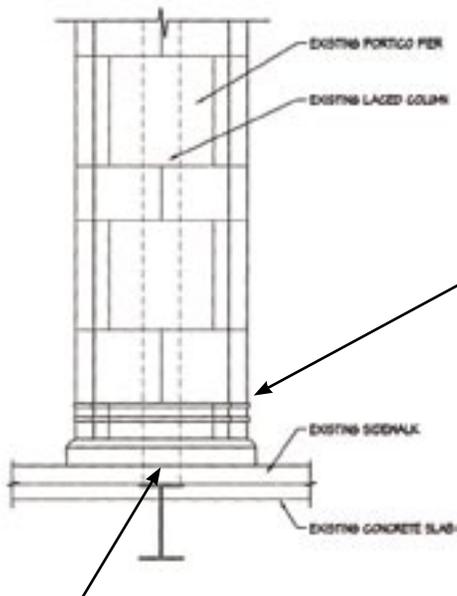
When chipping is discovered in a section of decorative stone and it becomes apparent that portions of the stone will have to be replaced, Design Installation Systems has the expertise to restore the stone to its original appearance. DIS is proficient at stone replacement and operates an in-house stone fabrication facility. On occasion, replacement with a regular flat or a special profile cut with our computer-controlled laser-guided profiler is not enough. In some rare cases, hand carving or hand profiling is required. For the most part, DIS handles this in-house as well. Tom Paulson was highlighted in the first newsletter issue and, apart from his on-site supervision tasks, he has become our main source for hand-carved stone. However, if outsourcing is called for on major pieces, DIS is very comfortable working with a number of very talented stone carvers.



On all restoration projects, it is our goal to leave the repaired areas as inconspicuous as possible—to blend the repair work into the existing wall. Whether fabricated in-house or acquired from an outside supplier of fine-cut stone, DIS installs replacements into the wall with the utmost care, knowing that the blending process is crucial in repairs and that nowhere is it more important than in stone repairs.

STRUCTURAL ELEMENTS

At a downtown landmark building, deterioration was noticed at the base of some piers in the front, at the portico. As it is always wiser to address these things before they become serious issues, it was decided that replacement of the base should be completed before the piers began to show stress. The following are some highlights of this work.



Removal of the stone cladding at the base of the pier revealed slight deterioration of the steel support. This picture shows the area of the investigative opening. Once the repairs were completed, the stone was restored to its original condition.



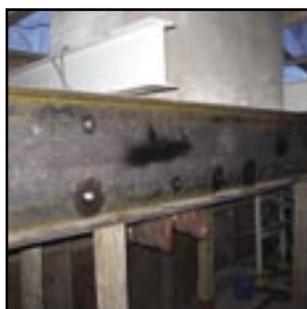
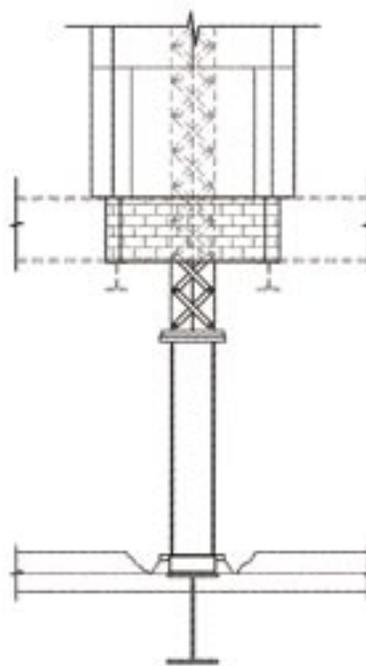
This photograph shows the clipped pier. With temporary bracing in place, the stone cladding, brick fill and steel column section can be removed safely.



After the shoring was in place and the section of pier removed, the top of the beam was exposed. This beam runs under the sidewalk. Many areas of the city have roadways or work areas underground.

The drawing shows how the replacement section will be placed. Also, it is a good concept drawing of the way the shoring works. The pictures show close-up views of the shoring.

Please note that the shoring must continue down below the street. Transferring the loads to the sidewalk without continuing the shoring to structure could damage the sidewalk.



Drawings courtesy of The Structural Shop.

The days of the two-paragraph proposal are over. In every project of significant size, proposals need to define the work, bolster the specifications and address the owner's concerns on everything from work hours to insurance coverage. "My number is my number" is no longer an acceptable explanation of proposed costs. Every bid item needs to be broken out and justified. This is a direct result of the designer's need to make explanations to the building owner. Although this adds a certain burden on the contractor, everyone benefits from this level of detail. Owners know where their money is being spent, contractors have a well-defined scope of work and the A/E can better concentrate on quality assurance and design issues.



As building owners and design professionals worked with contractors in the past, everyone benefited from the process, and the restoration industry blossomed. Older buildings are becoming safer, and costs have been kept down. As materials and techniques have improved, repair details have become more standardized. During this evolution, "value engineering" has been added to our lexicon. Getting more for your money is not just smart business—it is a necessity. Even with growing legal, insurance and liability concerns, the A/E and contractor have found ways to address them. As the industry continues to evolve, it may be important to remember that, in general, we are dealing with unknowns. For the most part, whenever we open a wall or begin repair work we discover something that was not expected. Forgetting that there is an art to this work and that artists work in real-world conditions may be as detrimental to the process as forgetting to attach your G703 and waivers to your AACFP.

EMPLOYEE SPOTLIGHT

PAUL KREATSOULAS



All of us at Design Installation Systems would like to congratulate Paul Kreatsoulas on his five years with the company. Paul is a project manager, coordinator and estimator.

In past issues of the newsletter, we have highlighted some of the projects Paul has managed. He has been the office lead man on some of our most demanding projects. Though he has run some major concrete restoration jobs like 1430 N. Astor and 1150 N. Lake Shore Drive, he also is comfortable with more intricately faceted work such as the brick and stone restoration at St. Clement Church.

Paul continues his excellent work at Design Installation Systems and currently is involved in a major, multiyear restoration project at One River Place. We are fortunate to have him as part of the team and look forward to working with him for years to come.

Thank you for your great work, Paul.