The Envelope Please

The Impact of City Initiatives on Walls and Roofs
Strategic Planning for Healthcare Facilities
Thurs., May 2, 5:30 p.m.
AIA Chicago
Sponsor: Architecture for Health PIA
How do hospitals and healthcare facilities develop strategic business goals and how can architects better understand them? Ed Parkhurst of PRISM Healthcare Consulting presents a thorough overview of strategic planning in the health care industry. 1 LU

Putting the Midwest Together by High-Speed Rail
Wed., May 8, 12:00 noon
AIA Chicago
Sponsor: Planning & Urban Affairs PIA
Richard Hamish, executive director of the Midwest High-Speed Rail Coalition, explains the latest developments in the effort to bring high-speed rail to the Midwest. Preview the subject at www.midwesthsr.org. 1 LU

Tour: Midwest Center for Green Technology
Sat., May 11
10:00 a.m. to 12:00 noon
445 N. Sacramento Blvd.
Sponsor: Environment PIA
Visit the new manufacturing facility for Spire Solar’s photovoltaic panels and learn about sustainable design strategies applied under the LEED rating system. The owner, architect and client provide their viewpoints. Limit 35 participants. 2 LU/HSW

An Integrated Approach: Security and Facilities Management
Wed., May 15, 5:30 p.m.
Teng & Associates
205 N. Michigan Ave., 38th floor
Sponsor: Corporate Architects PIA
Specialists from the security group of Teng & Associates review the aspects of a security program and how they correspond with the architecture and facilities management of a building. Limit 30 participants. (Participants are required to give names when entering the building.) 1 LU

The Business of Your Business: New Firms
Thurs., May 16, 23, 30 and June 6
9:00 to 11:00 a.m.
AIA Chicago
Leonard Weitz and Mark Mann of Mann, Weitz & Associates LLC, auditors for AIA Chicago, present a four-session course on entrepreneurial finance for new firms that covers these and related topics:
• Class 1: Preparing a business plan: projections, cash flow, corporate structure
• Class 2: Implementing the plan: internal controls, budgeting, accounting
• Class 3: Tax overview: planning, benefit plans, tax returns requirements
• Class 4: Profit enhancement: collection policies, cost cutting, benchmarking
If you recently have opened your own firm or are thinking about doing so, here is your chance to make sure the business side of your firm supports the design services you are providing. 8 LU for the series.

continued on page 5
You are invited to enter the 2002 Professional Excellence Awards competition of AIA Chicago. The awards program includes the following categories: Young Architect Award • Firm Award • Distinguished Service Award Detailed guidelines for each award will be sent upon receipt of the form below.

The awards will be presented at the Chapter’s annual meeting in December, and the winners will be the subject of an article in FOCUS.

**Young Architect Award**

The purpose of this award, which was established in 1983, is to recognize excellence in ability and exceptional contributions by Chicago area architects between the ages of 25 and 39. The award may be given for exceptional work in a specific area of architectural practice or for general excellence in a wide range of architectural activities. The award is intended to recognize accomplishments in areas including design, management, and technology. The jury will consider contributions to team activities and will rely heavily on recommendations in its evaluative process.

**Deadlines**
Intent to enter: June 12, 2002
Completed submission: August 14, 2002

**Fees**
There is no entry fee in this category. The entry form should be accompanied by one letter of nomination written by a member of AIA Chicago.

**Nominations**
Nominations will include a brief biography of the nominee, description of accomplishments, and recommendations from at least two individuals familiar with the nominee’s work. Individuals may nominate themselves. Nominees must live or work in the Chicago metropolitan area and be between 25 and 39 years of age on May 1, 2002. Membership in AIA Chicago is required.

**Firm Award**

The Firm Award was established in 1991 to recognize outstanding achievements by a firm, excellence in the body of work produced by a firm over a period of time, and the ongoing contributions of the firm to the advancement of the architectural profession. Firms must be a member of AIA Chicago. Successor firms may be considered, as long as the collective body of work presented is that of a majority of the remaining principals. The entire history of the firm will be examined, but particular attention will be given to the work and achievements of the past three years.

**Deadlines**
Intent to enter: June 19, 2002
Completed submission: August 28, 2002

**Fees**
AIA Chicago members: $200

**Nominations**
Nominations will include a history of the firm; areas of practice; significant projects; biographical information on principals; graphics of representative work; list of awards, honors, or other recognition received by the firm; list of books, articles, or publications written about the firm’s work or professional contributions. Published materials written by the firm may be included.

**Distinguished Service Award**

Since 1955, the Board of Directors of AIA Chicago has recognized individuals and organizations who have given outstanding service to the Chicago architectural community as a whole, including service to the profession, public service, and education. This award is not necessarily presented every year. Individuals, associations, AIA Chicago members, and members of the Chicago community at large are eligible for this award. Past honorees have included architects, craftspersons, educators, authors, journalists, and organizations of various types. Nominations may be made by any AIA Chicago member.

**Deadlines**
Intent to enter: June 26, 2002
Completed submission: August 21, 2002

**Fees**
There is no entry fee in this category.

**Nominations**
Nominations will include biographical or historical information; descriptions and illustrations of significant projects; list of awards, honors, or other recognition received by the individual or organization; published materials written about the individual or organization. Published materials written by the individual or organization may be included.

---

**Number of entries**

<table>
<thead>
<tr>
<th>Award</th>
<th>Number of entries</th>
<th>Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young Architect</td>
<td></td>
<td>no fee</td>
</tr>
<tr>
<td>Firm</td>
<td></td>
<td>$200</td>
</tr>
<tr>
<td>Distinguished</td>
<td></td>
<td>$200</td>
</tr>
<tr>
<td>Service</td>
<td></td>
<td>no fee</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>

**Contact Information**

- Name
- Firm
- Address
- Telephone number
- Fax number
- E-mail
- Credit card number
- Signature
- Visa
- MasterCard
- American Express
- Expired date

---

**2002 AIA Chicago Professional Excellence Awards**
Roofing Solutions for the New Chicago Energy Code

Verisco TPO  White Single Ply Membranes
Bakor Modified Bitumen with Acrylic Coatings
Carlisle Coating and Waterproofing for Green Roofing

Please call John Dashner or Randy Zaleski
Ph: 630-668-1551  Fax: 630-668-1672
CHICAGO’S PROVEN DESIGN-BUILD SPECIALISTS

We’re proud to be Illinois’ largest HVAC contractor, and prouder yet that design-build now encompasses more than one-third of our annual volume. Trust our professional team of 30 graduate engineers to save critical project time while delivering cost effective system configuration and construction...

it’s where we’ve put our energy for over 65 years!

To discuss your needs contact Warren Hill, P.E, President: 773.929-6600
Architects Can Be Valuable Advisors

Members of the Chapter’s executive committee recently attended Grassroots, the leadership program conducted by the national AIA in Washington, D.C. It was quite a success — we met with a number of our legislators on the first day, and attended leadership seminars and shared best practices with our peers from around the country on two subsequent days.

The message we brought to our elected officials is that they should see us as experts and resources on issues related to the built environment. This is the same message we are presenting locally, to the City of Chicago. Recently, we established a task force to review the draft guidelines prepared for the Historic Michigan Boulevard District.

Our message to the Commissioner of Planning and Development outlined our interest and concern that the Design Guidelines define the intent, character, and procedure for protecting this important street wall. In a letter to Commissioner Alicia Mazur Berg, we recommended the Design Guidelines be organized to address the following essential items. We invited the Commissioner and her staff to meet with us to develop further design guidelines that meet the goals of the City, while providing clear direction to property owners, developers, and the architectural community:

**Purpose**

The Design Guidelines should include a clear statement as to the purpose and intent of the Ordinance. What are the specific items and/or characteristics that are to be protected?

**Criteria**

The Design Guidelines should identify the criteria that will be used to determine design compliance for the renovation/restoration, upgrading, or replacement of buildings in the District. We believe the detailed technical specifications currently included in the Guidelines would be better stated as references to other existing documents, such as the Secretary of the Interior’s Standards for the Treatment of Historic Properties and the National Park Service’s Technical Preservation Briefs.

**Procedure**

The Design Guidelines should describe the review and approval process. In addition, the composition and qualifications of the commission members who are responsible for reviewing submittals should be analyzed at this time, and if necessary modified or supplemented to provide a review process that can best achieve the purpose of the guidelines.

**Status of Existing Buildings**

The Design Guidelines should identify the current status of all existing buildings in the District (Contributing/Non-Contributing) and what guidelines are applicable to each, and identify the process for review and modification.

**Incentive Programs**

The Design Guidelines should identify what incentive programs may be available to property owners as a result of inclusion in the District, such as Class L designation, FAR transfer, Energy Code exemption, etc.

AIA Chicago continues to seek comprehensive input from all interested parties, including architects, owners/developers, and the City in order to provide the most appropriate and reasonable advice.

Jonathan L. Fischel, AIA
President
LPCI Releases 10 Most Endangered List

Historic properties throughout the state have been placed on this year's "Ten Most Endangered Historic Places" by the Landmarks Preservation Council of Illinois (LPCI). Soldier Field was given an honorary 11th place designation. LPCI has been fighting the City's renovation plans for the stadium.

1. Big Rock Township Farms
   Big Rock Township
2. Eagle Hotel
   Wilmington
3. Nathan W. Huntley House
   Chicago
4. Illinois State Penitentiary
   Joliet
5. Loyola University's Mallinckrodt Campus
   Wilmette
6. Middaugh Mansion
   Clarendon Hills
7. Moses King Brick and Tile Works
   Colchester
8. Pinckneyville Community High School
   Pinckneyville
9. Prairie Dell Church
   Watseka
10. Rosenwald Garden Apartments
    Chicago

These historic places can be viewed at www.landmarks.org.

Sewer Commissioner Begins New Role in Buildings Department

In April, John Roberson, former Sewer Commissioner, took on the role of Commissioner of Buildings for the City of Chicago. He replaced attorney Mary Richardson-Lowry, who left the position to become a partner at Mayer Brown & Platt.

Chicago Members Focus on Insurance

Several AIA Chicago members volunteered their time on March 7 to attend focus groups sponsored by AIA Trust. Participants shared their opinions on issues relating to insurance products and services. The participants included:

Professional Training Yields Expert Plasterers

Call us for information about today's plastering systems and the best people to apply them.

Chicago Plastering Institute
6547 N. Avondale Ave.
Chicago, IL 60631
(773) 774-4500
Society of Design Administration Reactivates Local Chapter

The Chicago chapter of the Society of Design Administrators (SDA) met recently at the AIA Chicago to reorganize. The group provides educational and networking events for design firm administrators. Seminar topics include office administration, project management, marketing, human resources, and accounting. For information, contact Sally DiSciullo at sdisciullo@gallunsnow.com or the SDA national headquarters at 800/711-8199.


The national AIA has begun gathering updated compensation data for 26 positions at architecture firms. The new 2002 survey will provide data from nine regions of the country, plus most states and metro areas. Data also will be presented by firm size categories, ranging from less than five employees to more than 250. An expanded benefits section will provide up-to-date information on medical, dental, and vision care insurance; life insurance, retirement savings and profit sharing plans; continuing education reimbursements; and vacation leave.

Surveys were mailed to firms this spring. AIA Chicago encourages member firms to participate. Preliminary results will be available at the national convention this month. The final report will be available for purchase at the Chapter office later this year. For information, contact Pradeep Dalal, pdalal@aia.org.

Building Code Course Required for Florida Licenses

All registered design professionals with Florida licenses must complete a four-hour course.
about the Florida Building Code. The deadline for meeting this requirement is June 1, 2003. AIA Florida is offering this course twice during the national AIA convention in May. The course will fulfill the Florida requirement and earn AIA members four continuing education credits. To register, visit www.aiafla.org and click on Winter/Spring Code Seminars.

Graves Donates Drawing for Local Auction

The Women's Architectural League (WAL) of Chicago will auction a signed print from Michael Graves, FAIA. Bids are being accepted from 8:00 a.m. on Wednesday, May 15 until 6:00 p.m. Wednesday, May 22 at home.earthlink.net/~sacook2. The print and its documentation can also be viewed there. The starting bid is $500. All proceeds benefit the WAL's scholarship fund.

Amazing Tours Make for Unique Architecture Festival

The City of Chicago is sponsoring the fourth annual Great Chicago Places and Spaces May 18 and 19. The two-day event includes free programming and tours of Chicago's most innovative projects.

The following AIA Chicago members are leading programs during the weekend: Joe Antunovich, AIA; Denise Arnold, AIA; Janet Attarian, AIA; Jeff Bone, AIA; Larry Booth, FAIA; Joe Caprile, AIA; Frank Castelli, AIA; John Eifler, FAIA; Bob Garofalo, AIA; Greg Grunloh, AIA; Tom Hoepf, AIA; Lucien Lagrange, AIA; Chris Lee, AIA; Dirk Lohan, FAIA; Andy Metter, FAIA; Edmund Newman, AIA; Carol Ross Barney, FAIA; Ken Schroeder, FAIA; Linda Searl, FAIA; Eben Smith, AIA; Stanley Tigerman, FAIA; Ed Uhlir, FAIA; Dan Wheeler, FAIA.

For details on this impressive event, visit www.cityofchicago.org/specialevents/festivals.

Code Compliance Is Not An Option ... How You Achieve It Is.

The experienced professionals at The Code Group offer:

- ADA Site Surveys
- Preliminary Zoning & Building Code Analysis
- Accessibility Consulting
- Code Requirement Analysis
- Local Code Conflict Resolution
- “Hi-Tech” Center Plan Evaluation
- Code Research
- Registered Energy Professional Certification
- Pre-Permit Submittal Plan Review
- MEP & Fire Safety Review

For more information contact:

Christopher Chwedyk, AIA
111 W. Washington St., Suite 450
Chicago, IL 60602
312-673-1503
codes@codegrouponline.com
The finish on our clad windows and doors is similar to the paint finish used on luxury automobiles. After all, shouldn’t what overlooks the driveway be as beautiful as what’s in it?

Marvin cladding is so low maintenance, so durable that it’s rated highest in the industry (AAMA 2605-98). Visit www.marvin.com or call 1-800-318-7232.
Saving Face
Repairing and Restoring Modern High-Rise Façades

By Michael Bordenaro

in addressing critical public safety issues, the Chicago City Council has prescribed a remedy for the loss of much of the City’s historic architectural fabric. The Exterior Wall Ordinance (see sidebar) forces building owners to address issues brought on by decades of neglect. It requires close attention be paid to

the repair and possible restoration of all building façades greater than 80 feet in height, including those built in the last 50 years.

This type of maintenance program, typically reserved for buildings with known historic or economic importance, gives architects the opportunity to help keep a significant crop of buildings in shape so they can stand the test of time.

It also presents architects with the responsibility to understand and respect the design integrity of façades built in an era of quickly evolving systems and techniques. If these façades are to be saved for future admiration, the lure of quick fixes and sealant solutions must be replaced with attention to detail and an appreciation of the original design intent.

The Role of the Architect

T. Gunny Harboe, AIA, director of McClur’s preservation group, notes the difficulty of determining a building’s significance and the challenge of balancing the needs of the owner with respect for the structure’s design integrity.
“Take the Borg Warner Building on Michigan Avenue for example. Some of us think it is important, but others think it is an eyesore that is not a part of historic Michigan Avenue,” he said. “However, there was a fire and some glass was replaced, and you can easily tell there is a difference between the new and the old glass.” Harboe authored a paper for DOCOMOMO about the difficulties of matching pre-1960 window glass, particularly polished plate glass. (See sidebar.)

Harboe gained extensive façade restoration experience working on the renovation of the Reliance Building. He believes that much of the systematic approach used when inspecting and repairing masonry and terra cotta façades is applicable to post-war buildings as well. The practices of acquiring original drawings whenever possible, having an architect on the inspection staging, mapping in detail all damaged areas, and performing test repairs before finalizing specs, are all applicable to curtain wall façades.

Harboe highly recommends that an architect be present on scaffold staging when a façade is being inspected. “The architect needs to see it, feel it and understand the problems to understand the residual downstream effects of how the building will look and operate,” he said.

Righting Past Wrongs

Many of the issues architects encounter when inspecting curtain wall façades result from improper maintenance, according to Harry Hunderman, FAIA, a restoration architect with Wiss, Janney, Elstner Associates. Untimely and improper painting of window frames, a lack of understanding of weep systems that leads to sealing all elements of a curtain wall, and improper treatment of surfaces prior to applying remedies are among the problems Hunderman has seen on façades.

“There are many buildings that have not yet reached landmark status but are in fact landmarks,” Hunderman said of the post-war buildings that will be coming under scrutiny. “The approach we take is consistent whether or not the building is a landmark. Research and understand what was constructed, what was changed and what the process of deterioration was.”

Concrete Contemporary

By Michael Bordenaro

While post-war modernism conjures images of steel and glass, Chicago’s lakefront is dense with concrete high-rises from the second half of the last century. In 1949, Ludwig Mies van der Rohe’s first Chicago high-rise, Promontory Apartments in Hyde Park, was built with an exposed concrete structure due to the short supply of structural steel at the time.

Lessons learned from the restoration of Promontory Apartments and similar structures offer insight on the inspection and repair of concrete high-rises that will be affected by Chicago’s Exterior Wall Ordinance. According to Harry Hunderman, FAIA, principal with Wiss, Janney, Elstner Associates, the building was especially difficult to repair because “not as many contractors have experience with exposed concrete. It is more common to make a repair and then cover it with a coating of some kind.”

To properly patch the existing, weathered surface, a specification was created for a single bay on the back of the building. The bay was repaired and left to weather for six months to observe the strength and appearance of the patches. “We learned quite a bit about getting the aggregate and the mix just right,” Hunderman said of the test bay.

Ian Chin, SE, president of Wiss Janney Elstner Associates, said testing existing concrete is critical to prepare the proper patch mix. “Test the base concrete to design a mix that is compatible in strength, shrinkage characteristics, aggregate size, compressive strength and air entrainment,” Chin said.

At Promontory Apartments, Chin said that damaged concrete was removed to at least 1.5 inches behind rebar. The rebar was sandblasted and treated with an epoxy coating to prevent corrosion. Wherever possible, the concrete surrounding the patch area was undercut to create a lip to hold the patch. When necessary, stainless steel bars were drilled into the concrete to assist bonding.

Alex Gorun, a principal of Kennedy Associates/Sakal & Hood, a Chicago-based engineering and architecture firm, said it is also necessary to test the salinity of the existing concrete. “Until the late ‘70s it was common to add calcium chloride to concrete in sub-freezing weather to prevent the mix from freezing before it set,” Gorun said. Therefore, Gorun said it is necessary to test the concrete at all major repair points because the amount of calcium chloride can vary depending on weather conditions.
Hunderman guest-edited a special issue on curtain walls for the APT Bulletin (see sidebar). The publication includes papers on identifying and maintaining authenticity, conflicts between performance and historic preservation, glass gasket replacement, sealants, and other issues.

"Thinner façades require higher maintenance," Hunderman said. "With a brick building, if there is a joint deterioration, you can get by for a while without damage to the interior. But thinner systems are less forgiving."

**Respecting the Original Design**

When damage does occur, it is beneficial to approach the repair from a sympathetic point of view. Lohan Caprile Goettsch Architects — which has helped restore some of Chicago’s classic high-rises — brought all of its expertise to bear on the renovation of the Michelle Clark Middle School, designed in the early 1970s by Wilmont Vickery, FAIA.

The project exemplifies the enduring benefits of approaching a curtain wall façade restoration with care and consideration to the original architect’s intent.

Associate Principal Leonard Koroski, AIA asked, “Is it an architectural gem? Maybe it is, maybe it isn’t. But it has a [thoughtful] plan with an interior courtyard, and we took the attitude of respecting it for its modernist tradition.”

The 210,000-square-foot building, located at 5500 W. Harrison St., had suffered from poor maintenance and...
improper window replacement. Koroski specified that the façade be removed to the structural steel where new anchors were attached to hold the new curtain wall.

“Our goal was to repeat the historic profile of the original mullions as closely as possible using existing systems. The mullion profiles came very close to the original,” Koroski said. The spacing of the mullions and the window openings was exactly the same as the original.

According to Koroski, there were budgetary and technical considerations for sizing the caps. “Technically, we could have used 2-inch caps and properly eliminated moisture penetration into the curtain wall. But the original design used 6-inch caps,” Koroski said. “We felt it was important to respect the original design.” The firm was able to save money elsewhere in the project to free up funds to utilize a 6-inch cap.

Similarly, special attention was given to the design of an extruded metal flashing that runs a very straight line along the entire roof. The original detail was not found, but the architects felt the building deserved a stronger statement than the existing bent gravel shingle flashing. “The extruded flashing was more expensive, but it was consistent with the style of the building and would provide a strong line between the curtain wall and the roof for a long time to come,” Koroski said.

With that level of respect for Chicago’s wealth of modern buildings, the city can avoid the neglect and disregard it showed for previous a generation of lost structures.

Michael Bordenaro is a Chicago-based writer. His article “Programs Thrown a Curve: Architects Draft Other Industr[es’ Design Software” appeared in the February 18 edition of the Chicago Tribune.

References

Exterior Wall Ordinance

Enacted in 1996, the Ordinance requires:

- A critical examination for all buildings over six stories, or 80 feet in height or more, every four years. The examination must cover all areas of all elevations of the entire building.
- Ongoing inspections for each of the three intervening years.
- The initial critical examination for buildings constructed prior to January 1, 1950, must be completed by November 1, 2002; the deadline for buildings constructed after January 1, 1950, is November 1, 2004.

Publications

Reframing the Moderns: Substitute Windows and Glass

DOCOMOMO Preservation Technology Dossier 3 (April 2000) includes the article “20th Century Window Glass Technology” by T. Gunny Harboe, AIA. DOCOMOMO is the international working party for documentation and conservation of buildings, sites and neighborhoods of the modern movement.

www.bk.tudelft.nl/doconomomo


A special edition on curtain walls. The Association for Preservation Technology International is a multidisciplinary organization dedicated to advancing the application of technology to the conservation of the built environment. www.apti.org
June:
General Structures and Lateral Forces Divisions

Instructors
Lindsay Anderson is an architect and structural engineer who has been teaching a review class for the structural engineers exam for many years.

Norman Dorf, AIA, a developer of the computerized ARE and an ARE grader for 15 years, returns for his third year teaching this course.

Details for General Structures and Lateral Forces Divisions Review
This course will meet on June 3, 6, 10, 13, 17, 20, 24, 27 from 6:00 to 8:00 p.m. at IIT's Downtown Campus. Classes will cover the tasks specified for both divisions in NCARB's ARE Guidelines, which can be found at www.ncarb.org. Homework will be assigned at each session for discussion at the subsequent class.

The Downtown Campus cafeteria is open until 7:30 p.m.; vending machines are also available.
Fees
<table>
<thead>
<tr>
<th>Description</th>
<th>Member</th>
<th>Nonmember</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Structures and Lateral Forces course</td>
<td>$95</td>
<td>$140</td>
</tr>
<tr>
<td>Building Technology seminar</td>
<td>$30</td>
<td>$50</td>
</tr>
<tr>
<td>Building Planning seminar</td>
<td>$30</td>
<td>$50</td>
</tr>
<tr>
<td>Building Technology mock exam</td>
<td>$60</td>
<td>$75</td>
</tr>
<tr>
<td>Building Planning mock exam</td>
<td>$60</td>
<td>$75</td>
</tr>
<tr>
<td>Mock exams review session</td>
<td>$60</td>
<td>$75</td>
</tr>
<tr>
<td>Site Planning seminar</td>
<td>$60</td>
<td>$75</td>
</tr>
<tr>
<td>Graphic Divisions full weekend</td>
<td>$250</td>
<td>$350</td>
</tr>
<tr>
<td>Bonus with complete package: an additional mock exam each for B. Technology, B. Planning and Site Planning — practice problems and answers that can be used with NCARB's online practice software. (These three mock exams can be purchased on site for $10 each by those who have not registered for the full weekend.)</td>
<td>$45</td>
<td>$45</td>
</tr>
</tbody>
</table>

TOTAL

Mail or fax this form to AIA Chicago, 222 Merchandise Mart Plaza, #1049, Chicago IL 60654-1103; fax 312/670-2422. Registration deadline is May 24 for General Structures/Lateral Forces and July 3 for Graphic Divisions. Cancellation deadlines for a full refund are May 29 and July 8 respectively. You will receive a confirmation letter after you register.

Questions? Contact Joan Pomaranc, Program Director, at 312/670-7770 or pomarancj@aiachicago.org.
Now offering PlanWell™
- High Speed Digital Blue Printing
- Electronic CAD File Transfer Options
- Digital & Diazo Reproductions (Bond or Vellum)
- Large & Small Color Reproductions
- Drawing Management & Distribution
- Specifications & Document Printing
- Pick-up & Delivery Service
Are you aware of all the member benefits available through the AIA Trust?

Visit us on the web at:

www.theaiatrust.com

<table>
<thead>
<tr>
<th>Healthcare Insurance</th>
<th>Overhead Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Deductible Catastrophic Plan - MSA Qualified</td>
<td>AIA Trust Business Overhead Expense Plan</td>
</tr>
<tr>
<td>A group plan helps you qualify for some of the best coverage available. Do you know what your medical benefits are? Do you know how to make sure you take the best advantage of your coverage?</td>
<td>If you can't work because of an illness or injury, how will you pay the rent or mortgage, utilities, salaries, and other business expenses? With a Business Overhead Expense Plan.</td>
</tr>
<tr>
<td>More Info</td>
<td>More Info</td>
</tr>
<tr>
<td>Learn more about the coverage available to you.</td>
<td>Learn more about the coverage available to you.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disability Income</th>
<th>AD&amp;D</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIA Income Guard Disability Insurance</td>
<td>AIA Trust Accident Plan</td>
</tr>
<tr>
<td>Would your paycheck continue if you became disabled? It happens to more and more Americans every year. Help protect yourself and your income, your most valuable asset with Disability Income Insurance.</td>
<td>An accident happens, suddenly your financial situation is drastically affected. With Accidental Death &amp; Dismemberment Insurance, you’re protected around the clock, around the world.</td>
</tr>
<tr>
<td>More Info</td>
<td>More Info</td>
</tr>
<tr>
<td>Learn more about the coverage available to you.</td>
<td>Learn more about the coverage available to you.</td>
</tr>
</tbody>
</table>

or call us toll-free at: 1-800-255-8215 (plan information is available 24-hours a day)

www.theaiatrust.com - your complete online source for member insurance and financial program information!
Changing Roofs
The Impact of the New Chicago Energy Conservation Code

by William Waterston, AIA, CSI

Editor’s Note: According to Harold Olin, FAIA, the Department of Buildings’ managing deputy commissioner for codes and standards, the reflectance and emissivity provisions were being re-examined at press time. If revised, the information will be posted on the City’s Web site by the June 3 deadline.

The new Chicago Energy Conservation Code that takes effect this June will have a major impact on the choices of sloped roofing materials available for projects in the City. In an effort to reduce the Urban Heat Island Effect, Chicago is requiring roofs to meet stringent solar reflectance values and infrared emittance standards. Few roofing systems can currently meet the Code’s criteria.

A building permit will be required for projects even when only roofing is to be done. In order to apply for a permit, the solar reflectance and emissivity values of the roofing materials must be known and the project documents must be “stamped” by a Registered Energy Professional. (See Sidebar.) This “stamp” assures the City that the project meets the requirements of the Chicago Energy Conservation Code, including the performance of the roofing system.

Roofing Manufacturers Aren’t Ready

Many roofing materials manufacturers are not prepared to provide the reflectance and emissivity standards information that the City will require for approval of building permits.

Roofing manufacturers generally have been testing their products to meet the U.S. Environmental Protection Agency (EPA) Energy Star program. The Energy Star program is similar to the new Chicago Code, yet doesn’t include emittance standards. Many manufacturers have just begun testing their materials and have not yet received performance results for reflectance values after three years of weathering. Additionally, many of these same manufacturers have no information available on the emissivity of their products. (Infrared emittance is a measure of a surface’s ability to emit its energy in the form of heat radiation.)

Some generic testing has been completed by Lawrence Berkeley National Laboratory (LBL) in their work on cool roofing. This testing can assist in the selection of types of various roofing membranes that should meet the Chicago standards.
Low Slope Applications

Under the new Code, low slope roofs (those at 2:12 or less) will be required to have an initial solar reflectance of 0.65 and maintain a value of 0.50 after three years. In addition, they must have a minimum emissivity of 0.90. A white PVC single ply membrane or a white TPO single ply membrane, if mechanically attached or fully adhered, has been tested and meets the required initial and aged solar reflectance values. However, a light colored gravel surfaced roof will not meet the requirements. This would include all ballast covered roofing systems. As a group, EPDM systems do not meet the emissivity standards. White granule surfaced modified bitumen membranes do not meet the reflectivity but do meet the emissivity requirements. Generally speaking, white coatings have been tested and typically meet the reflectivity needed. Smooth asphalt systems must be surfaced with a white coating, since an aluminum emulsion coating does not meet the emissivity standards. If a gravel surfaced built-up roofing system is desired, the only acceptable “gravel” would be marble chips or a tested white-coated gravel.

Reflectance and Emittance Values for Low Sloped Roofs

<table>
<thead>
<tr>
<th>Roofing Type</th>
<th>Membrane</th>
<th>Surface</th>
<th>Meets Initial Reflectance Requirements</th>
<th>Doesn’t Meet Reflectance Requirements</th>
<th>Infrared Emittance 0.9 or Greater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Ply</td>
<td>White PVC</td>
<td>Smooth</td>
<td>0.76-0.77</td>
<td>0.34</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>PVC</td>
<td>Ballast/Gravel</td>
<td>0.76-0.81</td>
<td>0.23</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>White TPO</td>
<td>Smooth</td>
<td>0.69</td>
<td>0.05</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
<td>EPDM</td>
<td>Smooth, Grey</td>
<td>If Tested</td>
<td>0.26</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>EPDM</td>
<td>Smooth, White</td>
<td>If Tested</td>
<td>0.26</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>EPDM</td>
<td>Smooth, Black</td>
<td>If Tested</td>
<td>0.26</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>EPDM</td>
<td>Ballast/Gravel</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modified Bitumen</td>
<td>SBS</td>
<td>White Granules</td>
<td>0.26</td>
<td></td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>SBS</td>
<td>White Coating</td>
<td>If Tested</td>
<td></td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>APP</td>
<td>White Granules</td>
<td>0.26</td>
<td></td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>APP</td>
<td>White Coating</td>
<td>If Tested</td>
<td></td>
<td>0.9</td>
</tr>
<tr>
<td>Built-up Roof</td>
<td>Asphalt BUR</td>
<td>Ballast/Gravel</td>
<td>0.34</td>
<td></td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Asphalt BUR</td>
<td>Smooth White Coating Added</td>
<td>If Tested</td>
<td></td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Coal Tar BUR</td>
<td>Ballast/Gravel</td>
<td>0.34</td>
<td></td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Asphalt or Coal Tar BUR</td>
<td>White Marble Chips</td>
<td>0.65</td>
<td></td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Asphalt or Coal Tar BUR</td>
<td>White Coated Gravel</td>
<td>If Tested</td>
<td></td>
<td>0.9</td>
</tr>
</tbody>
</table>

Summarized from LBL testing. Visit http://eande.lbl.gov/CoolRooftop

How to Take Action

Educate Yourself

The City of Chicago Department of Buildings is responsible for the implementation and enforcement of the new Chicago Energy Conservation Code. They are sponsoring a series of workshops for design professionals to understand the new Code and for those registered architects and engineers who wish to qualify to become Registered Energy Professionals. The impact of this Code goes well beyond the roofing systems. Learn about the Code and help the City of Chicago become more energy efficient.

Workshops will be held at the DePaul University Center, One E. Jackson Blvd., from 8:30 a.m. to 4:30 p.m. on May 8 and 22 and June 5 and 6. The cost is $25 per session. For complete information and to register, visit www.ci.chi.il.us/buildings or call 312/744-3471.

Each session earns AIA members 6.5 LE/HSW.

Provide Feedback

The City of Chicago has heard little feedback on the Energy Code beyond the roofing community. Please take time to understand the Code and its impact. If you feel these standards are too severe or may eliminate a roofing system and deserve to be revised, contact your alderman or one of the following:

- Commissioner John Roberson, Department of Buildings, City of Chicago, 121 N. LaSalle, Room 501, Chicago, IL 60602
- Commissioner Marcia Jimenez, Department of Environment, City of Chicago, 30 N. LaSalle, Suite 2500, Chicago, IL 60602
Medium Sloped Applications

Medium sloped roofs (slopes greater than 2:12 up to 5:12) will be required to have an initial solar reflectance of 0.15 and a minimum infrared emittance of 0.90. From the LBL research, we can expect that white granulated shingles and white rolled roofing materials will meet the requirements. While white Kynar finished metal panels will comply with the light reflectance, they may not meet the emissivity criteria. The acceptability of other colors is subject to the results of the tests performed by each manufacturer on their individual colors. Black and dark bronze, dark blues, and dark greens do not comply. The testing results for brown or

<table>
<thead>
<tr>
<th>Reflectance and Emittance Values for Medium Sloped Roofs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
</tr>
<tr>
<td>Asphalt Shingles</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Clay Tile</td>
</tr>
<tr>
<td>Concrete Tile</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Metal</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Summarized from LBL testing. Visit http://ande.lbl.gov/CoolRoof
green will vary by manufacturer and by color shade. Testing from LBL shows that initially some slate roofs and red tile roofs would comply.

**Summary**

The new Chicago Energy Conservation Code will have a significant impact on the way roofing systems are designed and installed in Chicago. Many widely-used roofing types will no longer be acceptable under the new Code. The color palette of new roofing materials will change drastically. Also, the Code requires roofs to maintain a high degree of reflectivity as they age and accumulate dirt, raising maintenance issues which could be exacerbated by white coatings that peel during their life span.

In my opinion, the reflectivity standards should be tempered to allow the use of white granular or mineral surfaces and light color gravel surfacing on low slope roofs, and the emissivity standard should be modified to allow the use of metal roofing systems for medium sloped applications.

Can and will the roofing industry adjust and provide the information necessary to design and install roofing materials that comply with the Chicago Energy Conservation Code? Over time these requirements can be met, but today the industry as a whole is not prepared to meet them.

William Waterston, AIA, CSI is a senior architect with Wiss, Janney, Elstner Associates and the former Midwest region sales manager for Honeywell Commercial Roofing Systems. He serves on a committee of the Chicago Roofing Contractors Association, working with the City on their interpretation and implementation of the Chicago Energy Conservation Code.
AIA Contract Documents: Electronic Format 3.0

AIA Contract Documents are the standard in the building industry. Created with the consensus of contractors, attorneys, architects and engineers. Honed razor-sharp by test after legal test. Refined to exceptional clarity through 110 years of precedent and experience. More than 70 contracts and forms for the design and construction phases of all types of projects. Now with custom formatting and flexible pricing.

Call AIA Chicago for your free demo disk today: 312/670-7770. Or order online at www.aiachicago.org.

18th century character. Modern day construction.

Our new Mosaic® Segmental Retaining Wall has both. Age-old, handcrafted beauty on one hand. Solid, pinned VERSA-LOK technology on the other. It's as simple as that. Mosaic's rustic character stems from its random pattern and 100%-solid construction—allowing you more design options than you can imagine. Curves. Corners. Tiers. Even tall walls. What's more, Mosaic walls are now available in a Weathered™ option for those clients who prefer a more timeworn touch.
Are you buried in your **Documents**?

Get Organized...

Digital Imaging Resources offers archival scanning of your old drawings in a variety of file formats. We even do aperture card scanning and manual restoration of drawings.

**Immediate access to old projects**

**Organization**

**Reduce storage costs**

**Easy access for printing**

Better service through superior **technology**

**Disaster Recovery**

**Revision control**

**Network Support**

**Wide-Format Color Plotting**

**Mailing & Laminating**

**Drawing Conversions**

**Digital Imaging Resources**

650 West Lake Street #120 • Chicago, IL 60661 • www.dirinc.com

Phone 312.243.1250 • Fax 312.243.1590
Alfred Alschuler, FAIA died on March 16 at the age of 90. Alschuler began his career in the office of his father, Alfred Alschuler, Sr. He later was a partner in his own firm, Friedman, Alschuler and Sincere. His projects include several buildings on the campus of the Illinois Institute of Technology as well as 900-910 N. Lake Shore Drive with Ludwig Mies van der Rohe.

Bailey Edward Design has acquired Architectural Planning & Consultation: The Office of Kenneth L. Nelson, a Champaign-based practice that specializes in civic projects.

RTKL Associates Inc. has announced that Sandy Fauret, AIA will lead the Chicago office's corporate architecture practice.

Joe Jaffe, AIA has been promoted to senior vice president of Staubach Midwest.

Joseph Legat, AIA has been inducted into the Chicago Area Entrepreneurship Hall of Fame by the University of Chicago Institute for Entrepreneurial Studies. Legat is the first architect to receive this honor. He founded Legat Architects in 1964. Today the firm is one of the Chicago area's 10 largest.

CUH2A Inc. has promoted three architects in the Chicago office. Sarunas Rumsa, AIA has been named senior associate and Blake Bandusky, AIA and Clare Swanson, AIA have been promoted to associates.

URS Corp. has named Neil Sheehan, AIA director of architecture for the Chicago office. Previously an associate principal at Valerio Dewalt Train Associates, Sheehan's past projects include the Anaheim Concert Theater, Zenith Engineering Research Center, and the Park and Mahon pavilions at Lincoln Park Zoo.

Wright Architects was named Architect/Design Firm of the Year at the 14th annual Greater Chicago Commercial Real Estate Awards in March. Lucien Lagrange's $85 million makeover of 175 W. Jackson Blvd. was chosen as redevelopment of the year.

Any Way It Shapes Up...CTI Delivers

When you need

"CTI's plant seminars are fantastic and very informative! The tour of CTI's yard was helpful in seeing what is possible with architectural precast."

Jacob Plummer, RATIO Architects

Indianapolis, IN

Choose...CTI

Children's Museum of Indianapolis

ARCHITECT:
Browning Day Mullins Dierdorf
Indianapolis, Indiana

DESIGN ARCHITECT:
Ara Isakian & Associates
Tokyo, Japan

LEAD ARCHITECT:
NBG Architects Inc.
Columbus, Ohio

ECONOMY

EXPERTISE

SPEED

APPEAL

Think...precast concrete

Fact: The national Precast/Prestressed Concrete Institute (PCI) requires frequent, independent audits of all of its members to ensure they maintain the highest standard from quality to service, production and design.

Fact: CTI was the only precaster to bid on the challenging architectural precast enclosures for the Columbus Center of Science and Industry (COSI) and the Indianapolis Children's Museum projects. That kind of expertise is backed by exceptional service delivered by our staff of project managers, budget estimators, engineers/draftsmen and sales reps.

See for yourself why top architects are talking about CTI.

Join CTI's specialists at a plant seminar in either Springboro, Ohio or Paxton, Illinois to learn more about how to create exciting, custom-designed architectural precast solutions. Attendees will earn seven AIA learning units. Call Dennis Nemenz at (800) 788-2370 ext. 123 to enroll today.

CONCRETE TECHNOLOGY INC. • Paxton, IL and Springboro, OH • Call 800.788.2370
Environ, Inc. recently completed construction documents for a 14,000-square-foot sanctuary and fellowship hall for Sun Rise Missionary Baptist Church in the West Loop. The church will be constructed using a precast stone masonry cavity wall system for perimeter auxiliary rooms. Standing seam metal wall panels on a steel frame will enclose the fellowship hall, lobby and sanctuary. The roof will take on an aerodynamic form through the use of heavy timber and a standing seam metal roof assembly. The design highlight is a steel-supported, complex curved, polycarbonate window wall behind the pulpit and choir. Construction is anticipated to begin this summer.

Jackson Architects LLC is designing the new Oriole Park Branch of the Chicago Public Library. Construction began earlier this year on the firm’s Budlong Woods Branch Library and the new children’s department of the Hudson Public Library in Hudson, Massachusetts.

Perkins & Will is currently designing a new federal courthouse to be constructed in downtown Los Angeles. Selected under the GSA’s Design Excellence Program, the team is headed by Ralph Johnson, FAIA and includes John A. Martin and Associates of Los Angeles as structural engineer, Ove Arup and Partners of Los Angeles as mechanical/electrical engineer, Battle McCarthy as sustainable design consultant, and other specialty consultants. The building will contain over 1 million gross square feet and will house a minimum of 41 courtrooms for the U.S. District Court, as well as court-related offices. This project will consolidate the District Court from several federal buildings in the downtown area. The estimated cost of construction is approximately $300 million. The building is scheduled for completion in 2007.

Peter Exley, AIA, Philip Enquist, AIA and Margaret McCurry, FAIA were quoted in “Settling the Great Barrier Reef,” an article that ran on March 17 in the Los Angeles Times. The piece explores alternatives to Jersey barriers and public plaza security.

A 23,000-square-foot transit center adjacent to the Lake-Pulaski CTA station was featured in the March 3 edition of the New York Times in an article about Bethel New Life’s development plans for the West Side. The project...
Old World Elegance for Today's World

Stop back in time and experience the Ultrasix Granites Old World Paver Designer Series. Colors and texture create the rich, elegant look of flamed granite, but the beauty is an added feature to the durability and practicality of this paver group. Ultrasix is available in three shapes to form unique configurations for residential and commercial applications. Our palette of five permanent colors offers unlimited design opportunities from old world to new age. For more information on this timeless product, call 1.800.888.4449 or visit our website, we think you'll be taken back!
The city of Ames, Iowa, is soliciting concept designs for transforming a power plant that sits at the end of Main Street into a landmark for the community. Up to five designs will be chosen as finalists for further exploration and a prize of $1,000 each. Of those finalists, one winner will be chosen and awarded a $10,000 prize. The deadline for submission is Monday, December 2. Complete information is available at www.city.ames.ia.us or by calling Steve Schainker or Clare Bills at 515/239-5101.

**PROFESSIONAL DEVELOPMENT**

Join the Chicago Architecture Foundation for a study tour of Barcelona and Bilbao, October 19 through 27. The tour is accredited with AIA continuing education credits. For a complete itinerary, call 312/922-3432 ext. 228 or e-mail dwalker@architecture.org.

The Graham Foundation and the Canadian Consulate General of Chicago are sponsoring a lecture by Nicholas Olsberg, director of the Canadian Centre for Architecture (CCA). The presentation, *Imagining the Future: New Ideas from Montréal*, focuses on a project at the CCA that was organized to respond to two converging forces: architectural production in an uncertain post-September 11 world and the rapid rise of innovative design firms whose practices reflect the idea that architecture is a common language for thinking about the future. The lecture takes place at the Graham Foundation, 4 W. Burton Place, on Wednesday, May 8. Doors open at 5:00 p.m. and the lecture begins at 6:00 p.m.; seating is limited to the first 150 people. For more information, visit www.grahamfoundation.org.

The U.S. Environmental Protection Agency, in conjunction with AIA Chicago’s Environment PIA, is sponsoring a lecture series through 2003. The series discusses a wide variety of issues related to sustainable development. *Stormwater/Conservation Design* is the next lecture in the series. It is scheduled for Friday, May 31 from 11:30 a.m. to 1:30 p.m. at the Metcalfe Federal Building, 77 W. Jackson Blvd. Advance registration is requested. Call the University of Illinois at Chicago’s Great Lakes Center at 312/996-6904. Box lunches are available.
On Wednesday, May 29 from 9:00 a.m. to 5:00 p.m., the Art Institute of Chicago is sponsoring a two-city study trip exploring the architecture and design of train stations and art museums. Enjoy a guided tour of the "Modern Trains and Splendid Stations" exhibit at the Art Institute. Then board Amtrak for lunch and a discussion on the way to Milwaukee to tour the new Santiago Calatrava wing of the Milwaukee Art Museum and the exhibit "Art Museums at the Turn of the Millennium." Return to Chicago in the late afternoon. Meet at 9:00 a.m. in Gallery 200 (use Michigan Avenue entrance only). Tickets are $75 for museum members; $50 for students with identification, and $85 for the general public. Purchase tickets at any museum counter with no service charge or call 312/575-8000. This study trip will be repeated on Wednesday, July 10.

New Architecture at the University of Chicago, an exhibit featuring models and renderings of the latest projects slated for the campus, including work by Cesar Pelli, FAIA and Ricardo Legoretta, is open through Sunday, June 16 at the Chicago Architecture Foundation, 224 S. Michigan Ave. For gallery hours, call 312/922-3432.
NeoCon® World's Trade Fair dominates the commercial furnishings industry with new product introductions, innovative ideas and state-of-the-art concepts. Be a part of the event you and your colleagues will talk about all year long.

June 10-12, 2002
The Merchandise Mart
Chicago, Illinois USA

For more information, call 800.473.0194 or visit www.merchandisemart.com (click on NeoCon).

NeoCon®
World's Trade Fair 2002

Architectural Visualization - Rendering - Animation - VR Panoramic

www.vertexgraphics.com

312.432.9870

Project: Randolph Street Station
Client: Metra
Architect: Skidmore, Owings & Merril LLP
Chicago, Illinois

ImagEfiction

LaSalle Wacker Building
221 North LaSalle Street
Suite 1510
Chicago, IL 60601

312.726.0818

architectural rendering
computer imaging
animation
interactive media
large format printing

VERTEX GRAPHICS
1147 W OHIO #102
CHICAGO IL 60622

Project: TWELVE TWELVE ON SOUTH MICHIGAN
Architect: Oehler & Partners
Location: Chicago, Illinois
11 AIA Chicago
A Chapter of The American Institute of Architects
222 Merchandise Mart Plaza
Suite 1049
Chicago, Illinois 60654
312/670-7770
312/670-2422 (fax)
info@aiachicago.org
www.aiachicago.org

May 2002

2 Strategic Planning for Healthcare Facilities.
   Architecture for Health PIA. 5:30 p.m.; AIA Chicago.
   1 LU

8 Hobbs Group/AVA Insurance Agency. A case study of a claim. 9:00 to 11:00 a.m.; AIA Chicago.
   RSVP: Tom Harkins, 347/571-3453 or tom@avains.com.

16 The Business of Your Business: New Firms.
   First in a series of four workshops. (See page 3 for details.) 9:00 to 11:00 a.m.; AIA Chicago. 8 LU for the series.

18 Building Physics: Control of Condensation and Mold. Technical Issues PIA. 12:00 noon; Chicago Bar Asn., 321 S. Plymouth Court. Lunch is available (purchase ticket in CBA shop) or bring your own.
   1 LU/HSW

21 Tour: Reviving the Reliance Building, Historic Resources PIA. 5:30 p.m.; Hotel Burnham, State and Washington Streets. Limit 30 participants. 1 LU/HSW

23 White Metal and Black Glass. Landmarks Preservation Council of Illinois. 12:15 p.m.; Chicago Cultural Center, 77 E. Randolph St., Claudia Cassidy Theater. Admission is free; bring a brown-bag lunch.

28 Pushing the Envelope: Innovation in Design Practice. Step 2 - Form-Making. Design PIA. 5:30 p.m.; EHDD Architecture, 626 W. Randolph St.
   1.5 LU/HSW

31 Stormwater/Conservation Design. Environmental Protection Agency. 11:30 a.m. to 1:30 p.m.; Metcalfe Federal Building, 77 W. Jackson. Box lunches are available. Reservations: 312/996-6904.