CEG
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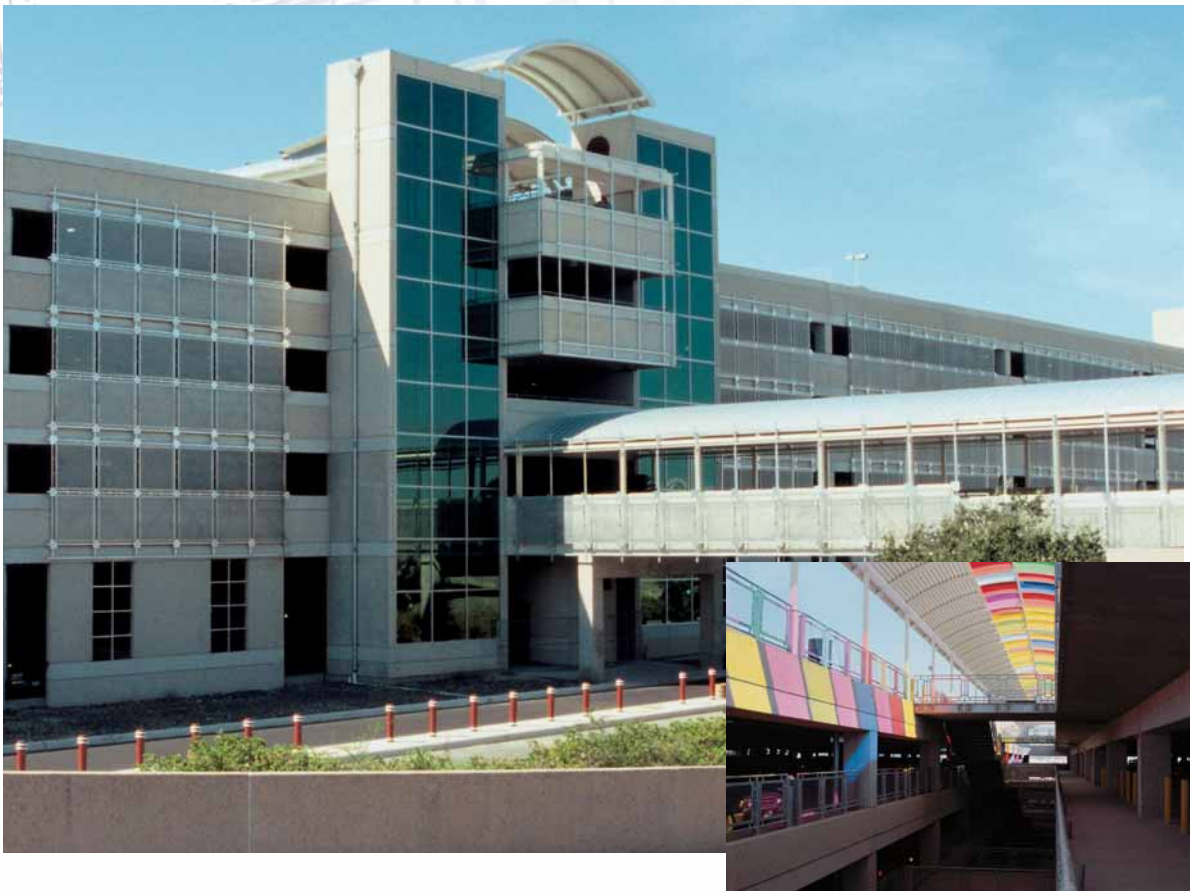

SAN ANTONIO AIRPORT GARAGE

It's great when an architect or engineer is involved in the design of a really notable project just minutes from their office. Recently, CEG Texas had that opportunity as specialty engineer for the new 2700-car parking facility at the San Antonio International Airport.

As part of an extensive parking expansion program, the new 5-level facility provides over 900,000-sq. ft. of space. Construction was sequenced to allow half of the garage to be open four months before the entire structure opened in the fall of 1999. Locally based Manufactured Concrete, Ltd. (MANCO) provided over 2500 pieces of precast for the structure, which includes two pedestrian bridges, glass enclosed stair and elevator shafts and forty-five foot radius corners.

In keeping with its south-western location, the garage is split by a paseo, which is a Spanish term for walkway area. The paseo is covered by a multi-colored panelized roof, which produces rainbow effects throughout the day. Framing of the paseo provided an engineering, erection and production challenge with its seven-foot walkway slabs cantilevering from architectural L-beams. Special torsional connections were required to prevent rolling of the beams during and after erection. The L-beams had a sandblasted/retarded finish on their vertical exposed face to match the exterior spandrels and walls. The openness and layout of the paseo provides an enjoyable, peaceful atmosphere for pedestrians on their journey through the garage.

A unique floor drainage system was also incorporated into the

(continued on back page)

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Hoboken, New Jersey Parking Authority (HPA)

CEG'S PARKING PLANNING PRACTICE EXPANDS

CEG has experienced a rapid growth in its parking planning practice. The variety of study projects reflect the broad range of capabilities of the CEG staff. For several of our clients, a number of planning assignments are underway simultaneously. Spring of 2000 finds the following work in progress:

Hoboken, New Jersey Parking Authority (HPA)
- An economic feasibility analysis for the new Automated parking structure at 916 Garden Street.
- Construction management investigations for the same new garage.
- Planning studies and feasibility study for the sale of revenue bonds for a new 770-space garage for St. Mary Hospital and local resident use.
- Preparation of plans and specifications for replacement and expansion of the HPA revenue control system.

Minneapolis – St. Paul International Airport
- Development of the project specifications and bid package for the revenue control system replacement and expansion throughout the 22,000-space system.
- Assistance in the functional planning and design of the control systems in the new 10,000 space Humphrey Terminal Garage.
- Preparation of the bid proposal document for selection of a professional parking operator for the years 2001 through 2006.
- Special consultation to the Airports Commission staff relating to parking operations, design considerations and revenue control.

City of Cincinnati, Ohio
- Completion of four parking structure condition surveys and improvement program.
- A complex, broad-based location and feasibility analysis of 23 potential garage development sites and the follow-up detailed study of cost/revenue, service and impact considerations for four finalist development projects.

Baltimore County Revenue Authority
- Conduct a planning study and feasibility analysis for a new 800 space garage to be developed in conjunction with the Towson Circle area retail/commercial redevelopment effort.

City of Indianapolis, Indiana
- Production of a project report identifying long-term operating and financial impacts resulting from the City purchase of a 500 space underground garage.

Value Sky Park, San Antonio, Texas
- Consultation and detailed economic studies for a proposed 3,000 space off-airport parking facility at the new Austin-Bergstrom International Airport in Austin, Texas.

Civil Engineering Research Foundation
- Dick Beebe, Director of Parking and Transportation at CEG, is one of ten parking experts involved in an international evaluation program for a major manufacturer of automated parking garages. The group consists of consultants, system managers and end users and is focused primarily on urban applications.

INFORMATION TECHNOLOGY UPDATE

The Illinois office recently upgraded to AutoCAD 2000 (A2K) and converted to Windows NT 4.0 as its operating system. We now have 30 stations running Windows NT 4.0 Workstation with three Windows NT 4.0 Servers. Windows 3.11, Windows 95 and 98 were eliminated to simplify IT support, as each platform would require a separate set of hardware drivers (graphics, hard drive controllers, network cards, plotters, printers, sound and mouse) as well as licensing for each OS. AutoCAD 2000 was coded on NT 4.0 and has been stable under NT Service Pack 6A.

Early on, we ran across some glitches with A2K, particularly with plotting. However two major patches, AutoCAD 2000 Service Pack 1 (1/2000) and the Plotting Update Patch (1/2000) have solved a number of issues. Plot settings did not seem to "stick" with the drawings. Check marking the "Save Changes to Layout" box and storing a "Page Setup Name" have solved this problem.

AutoCAD 2000 helped fix an ongoing font issue with diagonally stacked fractions. In the past, AutoCAD did not directly support diagonally stacked fractions. CEG used a custom font called SIMPFRAC, but anyone wanting to read the drawing needed that font installed. Cases occurred where the font was not recognized and the drawings showed up with lower case letters instead of fractions. In A2K, diagonally stacked fractions are supported within MText and associative dimensions. We are now using Mtext and associative dimensioning, eliminating the need for the special font. For existing drawings, we wrote a program to convert text from previous drawing versions to Mtext with diagonally stacked fractions in AutoCAD 2000.

Illinois' staff now has e-mail addresses with delivery directly to their workstations. This has improved our line of communication with clients and provided yet another means for product delivery. Our FTP site is still the most reliable for transferring large drawing files, as e-mail with large attachments often does not reach its destination. This results because the protocols used for e-mail are text based and require binary files to be converted into text and back to binary, while File Transfer Protocol (FTP) is specific to large files.

CEG 100% EMPLOYEE OWNED!

Chairman and CEO Norman L. Scott announced that as of March 15, 2000, the Consulting Engineers Group, Inc. is totally owned by its Employee Stock Ownership Plan (ESOP).

CEG created its ESOP in 1989. At that time, the ESOP purchased 30% of the shares of CEG from the shareholding principals, in accordance with Federal law. Since then, the ESOP has been gradually buying shares from some of the principals, and as of January 1, 2000, the ESOP owned 80% of the outstanding shares. "A recent change in Federal tax laws made it very advantageous for us to convert to 100% ESOP owned." said Scott.

All employees participate in the ESOP after two years of service. Shares are distributed annually and vested into individual employee accounts on a schedule that provides for 100% vesting after 6 years of service.

The CEG ESOP has been extremely successful. A large part of that can be directly attributed to the dedication and professionalism of our employee-owners.

SUBURBAN OFFICE BOOM CONTINUES

Despite the seemingly unbridled development of new suburban office space across the country, the market in many areas remains quite strong. One such zone is the I-88 corridor in west suburban Chicago. Here, several 8-12 story, 200,000-300,000 sq. ft., office buildings are under construction at all times. Many have an accompanying 800-1500 car parking garage, as well as lakes, restaurants, health clubs and other amenities.

CEG was structural engineer for the recently completed 800 car deck at Central Park of Lisle developed by Duke Development. In addition, Duke Development is planning a phase 3 at Central Park with a duplicate 800-car deck. CEG is also both the structural engineer and functional designer for the 923 car deck at Corridors Three and the 1,500 car deck at Corridors North in Downers Grove for the Alter Group. Numerous other plans are in the works as well. The boom on I-88 at least, is far from over.

News Bites

- **Jeff Carlson** of CEG-IL was recently elected to the National Board of Directors of the International Concrete Repair Institute. He also accepted an appointment as Chairman of the Publications Committee.

- **Tom D'Arcy** (CEG-TX) has been appointed Chairman of the Research and Development Committee for PCI. He has previously served as TAC Chairman as well as on numerous other technical committees both in PCI and ACI.

- CEG is pleased to welcome and introduce several new employees including **Matt Runde** and **Yousuf Ghori** in our Illinois Office and **Tatyana Kirilenko** and **Dmitriy Kirilenko** in our Texas office.

- Congratulations also to **Paul Cardone** on receiving his 15-year pin, to **Ray Hernandez**, **Anna Salazar**, **R. W. Ted O'Shea** and **Lois Dobrowolski** for their 10-year pins, and to **Raul Cabello**, **Oscar Carielo** and **Jeremy Luera** on receiving their 5-year pins. These pins were presented at our annual Christmas party this past December.

(continued from San Antonio Airport Garage)

deck. To match an existing garage, the entire deck was sloped over seven-feet diagonally across the structure. This created no flat spots in the garage and no two points with the same elevation. Coordination between cast-in-place and precast elevations required special cooperation between trades, which CEG controlled successfully with the help of the contractor, Bartlett Cocke. Being so close to the office, the project provided an excellent learning opportunity, especially for the newer CEG staff and lunchtime jobsite visits were common. The personal satisfaction of seeing the structure fit together was enjoyed by the whole staff. So the next time you are in San Antonio, ask for a personal tour of this outstanding structure and see for yourself how precast concrete can accommodate a variety of challenging functions.

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