



BETWEEN / THE / LINES

SINCE OUR LAST NEWSLETTER, CARL WALKER CONSTRUCTION HAS BEEN BUSY... READ MORE

Charleston Medical Center



Cork Factory River Walk



Washington Crossroads



Ruby Hospital



Penn State



St. Joseph's Hospital

Second Avenue Technology Center



ISR Plaza

SCORECARD CARL WALKER CONSTRUCTION Since 1996	
New Parking Structures	36
Vertical Garage Expansions	9
Total Square Feet of New Floor	4.6 million
Restoration/Waterproofing/ Specialty Projects	452

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ECONOMICS IN ACTION

AN 800-SPACE GARAGE FOR LESS THAN \$14,000 A SPACE

For new development to flourish in an urban area, it's important to have convenient, safe parking nearby. However, with funding for urban renewal becoming tighter and tighter, it's essential that every development dollar be leveraged to its best benefit. In Washington, Pennsylvania, **The Redevelopment Authority, County of Washington, PA**, needed to significantly expand parking capacity in the downtown business district. Two new buildings had been built – the Land America Building and Millcraft Center – in late 2005. With hundreds of jobs coming to town, it became clear that the Authority had to have at least 800 parking spaces available in less than a year.

The site selected by the authority for the new parking structure – known as Washington Crossroads – was a central downtown location surrounded by a number of street level businesses. A city alley that had major utility feed lines running below the surface cut through the plot. The Authority had an extremely limited budget to cover all phases of the project, and was committed to minimizing per-space construction costs. A \$14,000 per-space cap was imposed on all project bidders.

In April of 2006, **Carl Walker Construction** was notified that they had submitted the winning bid for this design/build project. The firm quickly went to work relocating the utilities to ready the site for construction. While the relocation work was going on, access to all surrounding businesses was maintained.

At the same time, the company was refining the architectural plans for the Washington Crossroads parking garage. By employing the design/build strategy, Carl Walker Construction leveraged the project budget to achieve the 800-space capacity requirement. In the process, Carl Walker Construction was also able to cut per-space costs to \$13,882 per space – an accomplishment that brought the firm in below the client's budgetary requirement. The revised design featured attractive brick-faced panels, as well as expansive use of glass in the stair and elevator towers. The project was completed in May 2007, and was immediately put to use by the employees of Land America and Millcraft.

To view video and more photos on the Washington Crossroads project, visit our web site, www.carlwalkerconstruction.com.



CHARLES CHURCHES, SR., P.E. JOINS MANAGEMENT TEAM

Charles Churches, Sr., P.E., recently joined the management team of Carl Walker Construction (CWC) experts in parking garage construction. Formerly the Principal Engineer for Churches Consulting Engineers, Churches has been appointed Director of Marketing and Business Development at CWC. He is responsible for sales and marketing of parking structure construction and renovation. He will also be responsible for design review and coordination. Churches is an expert in the design/build construction strategy, and has served as the engineer of record for more than 130 parking structures. He is able to offer customers comprehensive, coordinated solutions to their parking challenges.



Churches has personally designed all types of parking structures – including steel frame with cast-in-place post-tensioned concrete decks and prestressed precast concrete, as well as total cast-in-place, post-tensioned design. He has also been directly involved with the construction oversight of more than 70 parking garages that have ranged in size from 200 to 3,300 cars.

A graduate of University of Pittsburgh School of Engineering, Churches holds registrations in Pennsylvania, Ohio, West Virginia, Jersey, Indiana, Michigan, Kansas, Massachusetts, Maryland, New York, Florida, Kentucky, Vermont, New Hampshire, Maine, Connecticut, and Minnesota.

Churches is the author of *Design Guide #18 – Steel-Framed Open-Deck Parking Structures*, which was drafted for the American Institute

of Steel Construction (AISC) in 2004. In addition, he has been a contributor to *PARKING MAGAZINE* and *PARKING TECHNOLOGY MAGAZINE*, and has been a guest speaker at the National Parking Association's National Convention, The American Steel Construction Conference, and numerous AICl conferences.

According to **Leonard Tsupros**, President of CWC, "We feel extremely fortunate to have the premier structural engineer in the Pittsburgh area join our team. Charlie brings an enormous amount of parking garage design/build construction experience to the CWC staff. We don't know of any other parking garage construction engineer with Charlie's credentials, experience or knowledge. He's just the best in the business and brings a tremendous resource to our company."

BUILT FOR TODAY AND TOMORROW

INTEGRATING FLEXIBILITY INTO A COLLEGE CAMPUS

Like most other organizations, colleges and universities need high-quality parking to sustain their growth. Furthermore, as campuses grow and buildings are added, it's essential to have flexibly designed parking structures that can easily expand to accommodate tomorrow's capacity requirements. At **Penn State University Behrend College**, **Carl Walker Construction** recently completed work on a 180-space precast parking garage that has the potential to be expanded to 400 spaces in the future.

"This garage was constructed to support the needs of the school's 165,000 square foot Research and Economic Development Center," said **Joe White**, Vice President of Carl Walker Construction. "To meet the college's schedule requirements, and to accommodate the demands of the academic year, the garage had to be constructed within 12 months – which meant working during the winter months. This posed significant challenges due to the school's location in the Western Pennsylvania snow belts."

Carl Walker Construction began constructing the precast concrete garage late in the summer of 2006. Preliminary site work preceded erection of the precast concrete components. While inclement weather significantly hindered construction activities and slowed project progress in the early months of 2007, the company was able to accelerate work and open the majority of the garage to vehicle traffic in August, 2007. Final work on the parking structure was completed in November 2007.

According to **Bruce Rohrbach**, Project Manager from Penn State University, Carl Walker Construction was up to the challenges. "Although several factors caused project delays, Carl Walker Construction – and in particular, **Len Tsupros** – worked with us to accelerate the construction schedule. This allowed us to begin using the garage in August of 2007. The firm's craftsmanship and field management services were solid, and the installation of the precast components of the garage were handled in an extremely efficient manner."

For more information about the Penn State University Behrend College parking garage, visit our web site under New Projects.



CULTIVATING EXCELLENCE

NEW PLAZA ENHANCES ENVIRONMENT AT THE INSTITUTE FOR SCIENTIFIC RESEARCH

It's a well-known fact that the working environment can have a significant impact on the productivity and happiness of employees. At the **Institute for Scientific Research**, a South Fairmont, West Virginia research and development facility that does work for NASA and the U.S. Department of Defense, the work environment was enhanced dramatically with the construction of a new headquarters building in 2006. A prominent feature of this new facility is a 63,000 square-foot plaza constructed by **Carl Walker Construction**.

"We were responsible for supplying the waterproofing system, as well as installing the landscaping, poured curbs and pavers on this \$2.5 million project," said **Joe White**, Vice President of Carl Walker Construction. "The assignment involved working with high-end vegetation, and allowed us to create a truly beautiful setting for researchers who spend countless hours at the research facility."

The project began in late 2005 and was completed in 2006 to coordinate with the opening of the new building.



EXPANDING PITTSBURGH'S POTENTIAL

NEW TECHNOLOGY CENTER GARAGE WILL SUPPORT GROWING BUSINESSES

There's no question that Pittsburgh, Pennsylvania has truly transformed itself over the past 25 years. Today, on the Second Avenue site of the former J&L Steel plant, stands a bustling community of academic and research professionals housed in gleaming new office buildings. That community is about to expand, as another new office structure will soon be added to the development.

To support the growth of the Pittsburgh Technology Center, the **Urban Redevelopment Authority of Pittsburgh (URA)** recently selected **Carl Walker Construction** to build a new, 726-space parking garage adjacent to the new office building. Owned by the URA, the new

garage is being constructed using a design/build strategy. This approach makes Carl Walker Construction responsible for all phases of construction, from overseeing final architectural and engineering specifications to facilitating planning and zoning reviews and approvals, obtaining permits and managing all day-to-day activities at the construction site. The entire project will be completed and ready for use by early spring of 2009.

"The combination of value-added services and pricing made Carl Walker Construction the attractive candidate for the Second Avenue garage project," remarked **Joseph Popchak**, Assistant Director, Engineering, at the URA.



For more information and updates about the Pittsburgh Technology Center Garage, visit our web site at www.carlwalkerconstruction.com.

WINNING GAME

SPECIALIZED GARAGES HELP BOLSTER GROWING CASINO BUSINESS

More and more states have moved toward legalizing casino gambling, and casino development – including the construction of supporting structures like parking garages and intermodal transportation centers – has become a hot segment in the building business. As experts in the design, construction and maintenance of parking structures, **Carl Walker Construction** is at the forefront of this building boom, and is currently involved in three leading casino gambling organizations.



Sands BethWorks

Designed to serve the new casino and house an intermodal facility to accommodate tour and commuter busses, the project will consist of post-tensioned, cast-in-place decks supported by steel framing.

"We are currently working with **Sands BethWorks**, and have been awarded a \$40 million contract to construct the structural frame for a new, 3,200-space 1,100,000-square-foot parking garage in Bethlehem, Pennsylvania," remarked **Len Tsupros**, President of Carl Walker Construction.

Castellated beams, hybrid girders that offer superior load bearing qualities while requiring less steel per linear foot, will be used to support the parking surfaces.

Carl Walker Construction is also working at the site of the new **Majestic Star Casino** in Pittsburgh, Pennsylvania. The development is being built on the banks of the Ohio River. Carl Walker's involvement is a major field placed topping project (451,000 square feet), followed up with the waterproofing portion of the project and precast units which includes all expansion joints, traffic bearing membrane waterproofing, concrete sealer and sealants.

In March, the firm signed on to build a \$13,300,000 million parking garage at the **Meadows Racetrack and Casino** near Washington, Pennsylvania. Designed to house 1,000 cars, the new garage will be a precast concrete structure and will provide 327,000 square feet of parking space. Approximately 67,000 square feet of the garage will be comprised of slab-on-grade parking spaces. Space cost in the new garage is equivalent to **\$13,300 per car**. The new garage will join the casino at a shared column line, and will feature a firewall separating the two structures.

For more information on casino parking garages visit Carl Walker Construction's web site home page and click on Casino Garages.



Majestic Star Casino

**Contact Carl Walker Construction to
build your Casino Parking Garage
at 888-490-2924**



Meadows Racetrack and Casino

GOING VERTICAL

HYBRID DESIGN MAKES GOING HIGHER POSSIBLE

Healthcare is one of the fastest growing industries in the United States. As treatment technologies develop and the need for clinical space expands, the real estate on hospital campuses is becoming more and more valuable.

At **Ruby Memorial Hospital**, the teaching hospital affiliated with West Virginia University Medical School, a recently constructed cancer center was straining the 225-car capacity of a precast concrete parking garage built by **Carl Walker Construction** in 2003. Recognizing the need for more parking, but unwilling to demolish the existing structure that was less than three years old, the hospital invited the company back to develop an expansion strategy for the garage.

“Because we were the constructor of the original parking structure, we were well aware that the foundations were not designed to support the weight of additional precast levels,” commented **Len Tsupros**, President of Carl Walker Construction. “To accommodate the addition of 105 spaces, we devised a hybrid approach that would marry the existing precast structure with one additional steel-framed, cast-in-place concrete post-tensioned deck.”

To support the new deck and not overload the foundations supporting the precast structure, the spine of eight central supports already installed in the garage was augmented. Eight additional cast-in-place concrete columns were installed and tied into the garage’s existing foundation grade beams. The columns were extended through the parking levels to the top floor of the garage. They were then attached to the structural steel framing that supported the concrete post-tensioned deck. The deck surfaces were poured in place, and the precast concrete elevator tower was extended to serve the new level of the parking garage.

Ruby Memorial Hospital was extremely pleased with the outcome of their garage expansion project, which was showcased in the April issue of *Modern Steel Construction*.

“This job required some out-of-the-box thinking, as well as a considerable amount of coordination between the client and our strategic partners,” remarked Tsupros. “The end result, however, illustrated how marrying two different structural systems can expand the capacity and lifespan of existing parking structures.”

For more information about the Ruby Hospital parking garage, or to link to the April Issue of *Modern Steel Construction* go to www.carlwalkerconstruction.com.



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MAKING THE NUMBERS WORK

CORK FACTORY GARAGE SOLUTION BRINGS PROJECT IN WITHIN BUDGET

The success of a redevelopment project often comes down to dollars and cents. To achieve a solid return on investment, developers must stay within budget on every phase of a project. Thanks to **Carl Walker Construction's** assistance on their new parking structure, **McCafferty Interests** was able to complete a vital component of the Cork Factory complex in Pittsburgh, Pennsylvania without cost overruns.

When McCafferty took on the project of converting the abandoned Armstrong Cork Company buildings into luxury apartments, they realized that the project required dedicated parking to be successful. Original plans called for a steel-framed, cast-in-place, concrete deck garage structure across the street from the complex. However, when the garage was priced, estimates came in significantly over the \$4 million budget.

According to **Len Tsupros**, President of Carl Walker Construction, "We redesigned this design/build assignment from the original steel-frame plan into a precast structure. This produced significant savings for McCafferty, as well as Plant Construction, the general contractor."

The 400-car garage features 60,000 square feet of retail space on the first floor. The revised façade design of the parking structure eliminated expensive masonry, and instead used staining on the precast sections to visually coordinate the garage with the Cork Factory buildings. The final cost of each parking space came in at an impressive \$10,000 a car.

For more information and videos on the Cork Factory garage, visit the web site under New Projects.



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GET THE ANSWERS YOU NEED

BY ASKING THE EXPERTS AT CARL WALKER CONSTRUCTION

If you're considering construction of a new parking garage, it's likely that you'll have a number of questions about what type of structure to build and how to leverage the full potential of your building budget.

At Carl Walker Construction, we stand head and shoulders above our competition as experts in the design, construction and restoration of parking garages and parking structures.



Customers who work with our company have the unique opportunity to:

- Amplify the potential of budgets through our design/build services
- Optimize car/space costs and revenues
- Maximize both your real estate and financial resources
- Minimize future operational and maintenance expenses

Now, you can get the answers you need by logging on to www.carlwalkerconstruction.com and clicking on Ask The Expert on the home page.

We simply ask you six questions to provide a solution that's best for your situation:

- Where will the parking garage be located?
- What are the site considerations that impact the construction of the parking garage?
- How many cars do you want to park in the parking structure?
- What is your timeframe for constructing the parking facility?
- What is your budget for the project?
- What is the intended use of the parking structure?

With your answers in hand, we'll respond to you with a recommendation on the type of structure that will work best for you – both now and in the future.

To learn more about how Carl Walker Construction's unmatched experience in parking garage design, construction and maintenance can work for you, visit our website. Link onto the Parking Garage Experts on our home page.

ASK THE EXPERTS ABOUT WHAT TO BUILD

Within 5-10 questions, we can solve any prospects questions about building a garage and tell you exactly what type will work.

>> Find out how



BETWEEN THE LINES

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Whether you are considering a new parking structure project or have an existing one in need of repair or restoration — **Carl Walker Construction can help!**

From concept to completion we have the experience, technical capabilities and personnel required to provide single-source solutions for a wide variety of parking structure project requirements.

Carl Walker Construction can provide comprehensive construction services as:

- Design/Builder
- General Contractor
- Specialty Contractor

Call Carl Walker Construction today for a free evaluation of your project requirements!

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Web: www.carlwalkerconstruction.com

LOG ONTO THE PARKING GARAGE EXPERTS

BE SURE TO VISIT THE NEW CARL WALKER CONSTRUCTION WEBSITE

Looking for comprehensive information about parking garages and parking structures? There's only one place to turn for all the answers you'll need – the new Carl Walker Construction website. Completely redeveloped to make finding the latest information about our firm easy to locate, our new website is organized as an information resource for both current and potential clients, including videos of projects and an excellent FAQ section.

When you log on to www.carlwalkerconstruction.com, you can view a video message from Leonard Tsupros, the President of the firm, which will lead you to additional videos on Design Build, Restoration, Waterproofing and more. You'll also see a revolving Q&A feature, and an update on the latest company news. In addition, the website provides direct access to case studies that spotlight company projects, testimonials from a wide variety of clients and current project updates. One of the most interesting features on the website is an "Ask the

Expert" section that allows potential customers to complete a questionnaire and receive information that's specific to their parking garage construction needs.



Recent Published Articles by Carl Walker Construction:

- April Issue of *Modern Steel Construction*: Expanding Parking Capacity through Hybrid Steel
- Jul/Aug Issue of *PARKING*: Parking Garage Cracking Meets Its Match With Carbon Fiber Reinforcement and Repair

Find recent published articles by Carl Walker Construction on their website: www.carlwalkerconstruction.com.

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PARKING CONSTRUCTION EXPERTS

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