Parking Structure Cost Outlook for 2015
By Gary Cudney, P.E., President/CEO

Carl Walker is pleased to provide its annual statistical analysis of parking structure construction costs and new parking structure market forecast, albeit a little later than usual this year. At Carl Walker, we specialize in parking structure design, structural engineering, parking studies, parking operations consulting, and restoration of parking structures, plazas, facades, and other buildings. We maintain a database of completed parking structure projects and have developed a methodology to analyze the historical cost information to assist our clients and the industry.

Our construction cost database contains hundreds of completed parking structure projects of varying size, scope, and geographic location. For this forecast, we only omit the cost of parking structures that are completely below grade, since the cost of such structures is much higher. The cost data is assigned factors based on the time of bidding and location of the parking structure. The time factor is based on the Building Cost Index (BCI), published by Engineering News-Record (ENR). The location factor is taken from the yearly edition of the RS Means Building Construction Cost Data. Applying these two factors to actual construction cost data adjusts the cost to a current national basis and from that we determine the national median. The national median can then be re-adjusted to reflect a median construction cost in almost every city in America.

As of March 2015, our statistical data indicates that the median construction cost for a new parking structure is $18,599 per space and $55.66 per square foot, increasing 3.1% from March, 2014 when the median cost was $18,038 per space based on our historical database. This relatively minor increase is reflective of the fact that while construction markets are in a recovery, material price increases were very low due to foreign competition, fuel prices were considerably lower, and labor rates were stable as the competitive market place continued. The following table lists the 2015 median parking structure construction cost in various U.S. cities.

It should be noted that the construction cost data does not include costs for items such as land acquisition, architectural and engineering fees, environmental evaluations, materials testing, special inspections, geotechnical borings and recommendations, financing, owner administrative and legal, or other project soft costs. Soft costs are typically about 15% to 20% of construction costs, but can be higher for owners who allocate their internal costs directly to the project.
MEDIAN CONSTRUCTION COST

I am often asked what features are included within the “median construction cost”. A median cost parking structure typically includes such features as:

- 8’ 6” wide parking spaces
- Precast concrete superstructure
- Attractive precast concrete façade with basic reveal pattern
- Glass backed elevators and unenclosed stairs clad with glass curtain wall to the exterior
- Basic wayfinding and signage
- Shallow spread footing foundations
- All above grade construction
- Open parking structure with natural ventilation without mechanical ventilation or fire sprinklers
- Little or no grade level commercial space
- Basic parking access and revenue control system
- Energy efficient fluorescent lighting

The construction cost of the parking structure would be higher than the median if it includes such enhanced features as:

- 9’ 0” wide parking spaces for better user comfort
- Cast-in-place post-tensioned concrete superstructure for lower maintenance
- Attractive façade with precast, brick, metal panels, and other materials
- Green Garage Certification following the Green Parking Council standards
- Energy efficient LED lighting with occupancy and photocell computer controls
- Custom wayfinding and signage system
- Storm water management including on-site retention/detention
- Deep foundations, such as caissons or piling
- Below grade construction
- Enclosed stair towers due to local code requirements
- Enclosed parking structure without natural ventilation where mechanical ventilation and fire sprinklers are required
- Grade level commercial space
- Mixed use development where the parking is integrated with office, retail, residential, or other uses
- State-of-the-art parking access and revenue control system
  - License plate recognition
  - Parking guidance system
  - Count system with variable message LED signs
  - Pay-on-foot stations
  - Wi-Fi and cellular services
Thankfully, the construction industry is in the midst of a sustained recovery. In the parking industry, growth should be buoyed as the institutional sector (i.e. city governments, higher education, and healthcare) returns to growth in construction spending.

As the construction economy improves, escalation of construction costs and longer construction schedules can be expected in many areas of the country due to labor shortages in construction trades and professional positions and as construction companies increase margins that have been depressed for more than five years. It is predicted that construction inflation could be approximately double consumer inflation!1 Predictions by industry experts point to increased levels of construction in all sectors for 2015 and 2016:

- The American Institute of Architects (AIA) chief economist Kermit Baker, PhD, stated that “For the coming year, prospects look to continue to improve, with overall growth projected to increase almost eight percent. Institutional activity is expected to return to the positive column, with spending gains of five percent.” While there has been fluctuation and regional differences in the AIA Architectural Billings Index (ABI), Baker further reports that “Since May of last year, ABI scores have been very positive...with all of the major sectors participating in the recovery”.2

- The AIA also compiles a Consensus Construction Forecast based on predictions of seven leading U.S. non-residential construction forecasters in the U.S. The Consensus Construction Forecast indicates the non-residential building construction industry is expecting better growth than the past five years, with increases in activity projected for the office sector of 12.9% (2015) and 12.0% (2016), healthcare sector of 4.7% (2015) and 6.2% (2016), education sector of 4.7% (2015) and 5.2% (2016).2

- Gilbane Building Company, in their Market Conditions in Construction report, reported a 6.8% increase in non-residential building construction in 2014 and they forecast a doubling of last year’s growth during 2015 to 14.0%! Gilbane also reports that labor and material costs will increase as fees, margins, and material costs expand such that construction escalation could increase 5% to 8% for 2015 and 2016.1

- Turner Construction’s Turner Building Cost Index, which tracks construction cost escalation, rose 4.4% during 2014. Their 2014 Fourth Quarter Forecast states that “Higher construction cost escalations in urban centers with increased construction activity, as well as selective mega-projects, are driving the average domestic construction cost increases.”

Additionally, the Turner 2015 First Quarter Forecast indicates a 1.09% increase in costs for the quarter and that “material lead times have been extended due to increased demands and a reduced availability of production facilities to support those demands.”

- The Engineering News-Record (ENR) recently reported their first quarter 2015 Construction Industry Confidence Index (CICI) increased to a record 78 points on a scale of 100, which represents a growing market. The vast majority of the 305 executives of large construction and design firms responding to the survey believe that the market is stable and growing and will continue to pick up steam over the next 18 months.5

SUMMARY

The sustained improvement in the architectural firm backlog reported by the Architectural Billings Index (ABI) and the record-high Construction Industry Confidence Index (CICI) are positive indicators for near term growth in the construction of parking structures. In absence of any major political or economic event, construction activity is forecasted to grow about 8% the next two years.

With the improved construction activity, project costs are expected to escalate to a greater level than the projected increase in material and labor costs would indicate. Further, shortages of skilled construction workers who left the industry during the long downturn could restrain market growth and raise costs. Because of these factors, Gilbane forecasts construction inflation will be approximately double that of consumer inflation and in the 5% to 8% range over the next two years.1

The parking professionals at Carl Walker will be happy to assist with budgeting of your next parking structure. If you have any questions or would like specific cost information for your area, contact Gary Cudney at gcudney@carlwalker.com or 800-FYI-PARK (800-394-7275).

REFERENCES

Parking Structure Planning & Design

At Carl Walker, parking is as much an art as it is a science. It is a structural challenge that skillfully blends parking and engineering concepts with innovative solutions designed to streamline and simplify a world in motion.

Parking structures have unique characteristics that distinguish them from other buildings. As parking consultants, one of our strengths is an extensive background in planning and designing parking structures for virtually every use and for every type of client, and in each case intelligently balancing aesthetics, functionality, durability, and cost for maximum benefit to the owner, the user, and the environment.

Over the years, our parking professionals and structural engineers have been responsible for more than 5,500 successful projects. We are “All Things Parking” and provide the entire range of parking design capabilities:

- Structural Engineering
- Feasibility & Site Analyses
- Planning/Functional Design
- Structural Engineering
- Sustainable Design
- Lighting & Drainage
- Revenue, Security & Access Control Systems
- Design/Build Scope Documents
- Graphics & Wayfinding Systems
- Owner’s Representative Services

Studies & Operations Consulting

Parking is not simply about storing cars. It is about providing a valuable link in the transportation system between where you live and your destination. Whether that is a city center, the office, university, hospital, airport or an event, you want to get where you are going without inconvenience, interruptions and lost time. The Carl Walker team specializes in solving problems and providing successful solutions for real world applications.

For any parking system to be successful, there needs to be a combination of visionary strategic planning, defined organizational goals and effective management. Carl Walker provides comprehensive downtown, campus, and transportation planning services, along with organizational assessments and policy development assistance for a wide range of client types. We understand how planning is supported by strong management and organizational success. We can help make the most of your parking investment with enhanced customer service, proper technology applications, maximizing revenue, and implementing practical, common sense policies that actually work.

- Management & Operational Reviews
- Organizational & Policy Assessment
- Supply & Demand Analysis
- Transportation & Parking Master Plans
- Marketing, Branding & Customer Service
- Feasibility Studies
- Technology Assessments
- Revenue & Rate Analysis
- Enforcement Policy & Operations

Restoration Engineering

Carl Walker provides restoration engineering for existing parking structures, but our expertise does not end there. Our group of Restoration Specialists is knowledgeable and experienced in the evaluation and repair of a variety of structures, including building facades/enclosures, supported plaza systems, tunnels, bridges, stadiums, etc.

Carl Walker’s restoration specialists help clients understand the condition of their facilities, assess repair and maintenance options, and design and facilitate the restoration program. Our goal is to work with our clients to develop a balanced restoration program to meet the repair and maintenance needs of the structure as well as the functional and operational goals of a facility.

Program Development
- Capital Improvement Plan Development
- Life Cycle Cost Analysis
- Maintenance Manual Preparation
- Due Diligence Review
- Public Private Partnerships

Evaluation Services
- Structural Analysis
- Forensic Investigation
- Condition Assessment
  » Parking Garage Survey
  » Façade/Building Envelope Survey
  » Plaza Leaking/Waterproofing Review

Restoration Engineering
- Repair/Rehabilitation
- Leak Mitigation
- Corrosion Protection
- Building Envelope Repair
- Structural Strengthening & Adaptive Reuse