Social scientists view airports as quintessential ‘non-places.’ ‘Places’ communicate identity, social meaning and history while ‘non-places,’ lacking these attributes, are held to be anonymous, disorienting and off-putting. Airports — and the larger surrounding airport cities — are not limited to being anonymous and without meaning. Identity and meaning need to stem from the users and their activities, supported by the urban design work of architects and planners rather than from creating distant historical allusions and local programs.

Traditional Approach
In response to the ‘non-place’ criticism, airport executives, planners and architects have attempted to infuse terminals with local identity and symbolism. Naming or renaming the airport or terminal, local food and specialty shops and focused public art programs are three prominent strategies currently being used to achieve this goal.

The easiest and most common strategy, naming, creates ties to people and history and thus identity. For example, Ronald Reagan National Airport evokes stronger meaning than the name National Airport. Likewise, John F. Kennedy International Airport — or even more so, JFK — creates associations that Idlewild, the airport’s former name, never had.

The second strategy, creating commercial space in airports, has likewise been an integral component to creating community significance for many years. A growing number of airport restaurants were elevated from nameless cafeteria fare to franchise restaurants as the amount of passengers increased, but sameness persisted. As a result, Memphs barbecue, Philly cheese steaks and Indy 500 Authentics can now...
The past is the past, and the future is ours to create

Aviation practitioners in today’s marketplace are perhaps more greatly affected by the political and economic climate than at any other time in the industry’s history. Funding bills, political debates and stakeholder demands are requiring owners, developers, consultants, suppliers and contractors to have the ability to adapt, build innovative partnerships and take greater risk.

In my own history with the ACC, I have routinely seen the debate of the merits of federal funding bills arise. However, this year, with 18 authorization extensions for the FAA — a staggering number for any government agency — is no longer breaking news, but rather has become the norm for our respective companies. The political debate may change with every election cycle, but the result is the same. We wait. We see how the federal funding bills fall far short of needs, and then we decide how to make up the balance. While it is difficult under today’s short-term demands of private or public shareholders, a paradigm shift in how we conduct our business must and will take place to make up for those shortfalls we see every year.

CURRENT MARKETPLACE

The recession has had little regard for markets and geography, and it has forced numerous changes, to the point of extreme austerity, in the overall transportation and airport development markets. When federal funding was more plentiful, we saw owners share the work between multiple constituents. Now, we increasingly see the bundling of projects to create economies of scale under tighter budgets impacting consultants, contractors and suppliers alike. This, in turn, has led to an increased willingness to adopt design-build and other alternate project delivery mechanisms. “Last year, more than 100 pieces of state legislation passed to widen authorization for public-sector design-build,” says Richard Thomas, vice president of the Design-Build Institute of America, in Washington, D.C.

The recent recession has also led to desperation pricing among contractors, as businesses fight to stay above water in the face of significant competition. Moreover, we are now seeing foreign constructors and suppliers enter the U.S. market in a more significant way, changing industry practice even further.

Increased construction management-at-risk, once limited to private industry, is now being used more and more in the public sector, as owners increasingly transfer the risk to consultants while maintaining speed to market. And public-private partnerships (P3), while no longer an unknown entity, are still a relatively small factor in the U.S. airport market.

The global market is a different story. A reason for this disparity between U.S. and global practice may be that P3, or any private investment for that matter, requires a solid revenue/return stream for which airports can be very favorable (depending on size and other factors). For example, diverse sources of equity capital outside the U.S. are now available, as witnessed by a U.S. pension fund that recently bought 12.7 percent of UK’s Gatwick Airport. Developers, concessionaires and contractors are becoming more involved in the investment side of public infrastructure, either as a donor or receiver, again changing the way projects are viewed and eventually built. In fact, Engineering News-Record predicts that the continuing budget shortfalls in state and local governments will cause many design and construction firms to explore P3 options to move projects forward. This will likely follow the same growth path that we’ve seen in recent years with the gradual and now accepted trend toward design-build as an alternative delivery model.

PUBLIC FINANCING AND INDUSTRY CONSOLIDATION

Budget difficulties will either force new ways to fund projects or will lessen the standards for acceptable infrastructure conditions. Along with increased population growth, these funding issues will further escalate congestion in all modes of transportation. Added to these difficulties is the political process of financing the nation’s infrastructure. An example is the federal gas tax, which currently sits at 18.4 cents/gallon and hasn’t changed since 1993, forcing states and municipalities to implement their own increases or find alternate ways to fund improvements. The same holds true for Passenger Facility Charges (PFCs), which have not been raised since 2000.

As an alternative to break out of the historic funding stalemate, the Obama administration
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Hard To Describe, Even Harder To Prove
By J. Kevin Bridston, Chair, Construction and Design Litigation Group, Holland & Hart, LLP
The air transport industry has a highly mobile workforce with millions of individuals at airports that must quickly access and act on real-time information. These needs create a complex and dynamic workflow that must be carefully managed. However, even with recent technology advancements, many business processes remain static and paper-based, reducing efficiency and effectiveness while increasing inaccuracies and cost. In many of today’s airports, different constituencies have separate communications networks and platforms. That variation inevitably leads toward too many people spending too much time trying to use, manage and coordinate platforms.

That’s where the service-oriented network comes into play. Airport workers no longer need to piece together a solution themselves or to be concerned with device obsolescence and software patching. They now have the ability to swap between different wireless networks and use devices in online or offline mode. The networks are combined with rugged devices that are designed with the mobile airport worker’s needs in mind and are available in a wide range of form factors. The combination of functionality and durability enhances the user experience and increases productivity throughout the workforce.

Create Service-Oriented Networks
In service-oriented networks, IT designers create an architecture that allows the common use of a core system of converged services including voice, video, real-time location services, deployed mobility and sensor arrays. These are used by virtually every application in the airport and in nearly every environment — from control tower to terminals to maintenance to security. The benefits are significant: seamless high-speed connectivity and interoperability among all crucial constituents. The results are just as significant: faster, more efficient performance, improved airside and landside operations, enhanced security, reduced costs and higher customer satisfaction.

As airports begin moving to the transportation hub/destination model, they are finding that a wireless platform enables the network and its IT support to more closely align with the communications needs of every constituent — from the business organizations that run the airport to the commercial businesses and other constituencies that share the system. The wireless platform also facilitates the goals of both passenger and cargo operations: the safe, secure movement of people, baggage and goods as fast and as efficiently as possible.

A wireless platform approach eliminates the need for upgrading and deploying miles and miles of physical cable across the airport. Operators are replacing or extending difficult-to-deploy wired networks with equally powerful and reliable — but much less disruptive and costly — service-oriented wireless networks.

Focus on Security
Because of increased security and flight delays, people are spending more time in airports. Security technology solutions are being implemented for threat detection and multi-channel response. Wireless networks enable real-time capabilities through a variety of advanced fixed, mobile and application-specific functions. Among the most important are:

- **COMMAND AND CONTROL SYSTEMS**
  An end-to-end wireless system leads to a command and control infrastructure that provides for all voice, video and data to be backhauled to a centralized Command and Control Center for decision support and coordination of activities from a wide variety of resources. The command and control network enables real-time management of all security issues and facilitates voice dispatch, text messaging dispatch and computer-aided dispatch (CAD) systems to speed and optimize response.

- **RADIO SYSTEMS FOR EMERGENCY RESPONDERS**
  Over the years, radio systems dedicated to two-way voice services have helped most airports coordinate the activities of emergency responders. Now, however, as airport police are seeing more and faster access to data and information
in the field, many of these radio systems of the past are being augmented or replaced by updated digital systems. New digital radio technologies operating on wireless networks advance intelligence at the emergency responder and command levels and are critical in facilitating the force multiplier effect of effective communications.

**INTELLIGENT VIDEO SURVEILLANCE**
Today’s intelligent video cameras integrate with the services-oriented network to provide real-time images from perimeters and other remote or especially vulnerable areas of the facility. Video solutions can include infrared and thermal imaging for night surveillance. Video surveillance also contributes to more effective management of traffic into and away from the airport. In addition, today’s video analytics and forensics capabilities allow for both real-time and post-analysis of data.

**MOBILE DATA COMMUNICATIONS**
Mobile connectivity empowers safety and security personnel to assess and address situations in real time through in-vehicle and handheld devices with data capabilities. The mobile network provides the ability to see or capture streaming video, is vendor- and frequency-agnostic and compliant with interoperability standards, allowing real-time communications with local police and other public safety organizations. Benefits include improved situational awareness, streamlined methods of calling for backup if and when it is needed and tight integration with the on-airport CAD function.

**EDGE SENSORS**
An edge sensor network layer enables the airport operator to constantly monitor perimeters and includes connectivity solutions for surface management systems, biological, chemical and radiological sensors, shot detectors, underwater systems, highway sensors, gate/doorway and other layered technologies that enable advanced intrusion prevention, detection and response. All of these technologies can be deployed on and off airport property and connected to centralized functions without wires.

**Conclusion**
More than ever, today’s airports rely on communication to be secure, complex, high-functioning environments. The end-to-end wireless network provides a blueprint for combining divergent environments and creating a functional airport interoperability plan for better communications and overall efficiency.

“It is vital that the industry embraces mobile technology for the workforce. Inefficiencies have been shown to cause 333 days of aircraft delays in the USA alone each year and between 5 - 10% of ramp operations workforce time is wasted due to lack of on-time/real-time information.”
---
Gregory Ouillon Vice President, Portfolio Management & Consulting, SITA

To help transform inefficient and costly business processes, SITA and Motorola Solutions jointly developed a real-time solution designed specifically for the air transport industry that connects mobile workers at airports to back office systems simply, cost-effectively and securely.

The Mobile Workforce Solution is an end-to-end managed service for mobilizing airport workers which leverages existing investments in business applications to save money and improve productivity. The solution combines Motorola and SITA’s ability to mobilize all types of applications and manage wireless connectivity.

Key improvements to and significant business benefits based on a 2010 SITA Benchmark and Pilot Study include:

- Reducing aircraft turnaround times by up to 50%
- Speeding up passenger check-in: up to 147 passengers can be boarded in 12 minutes
- Achieving up to 10% savings in workforce labor cost
- Increasing revenues by up to 20% through improved billing accuracy
Designers and their airport clients are fully aware of the environmental and financial benefits of healthier buildings. Demand for such facilities continues to grow as airports realize energy, water and other resource savings. To help meet these goals many airports are either voluntarily or by mandate designing and building facilities to achieve LEED certification, or are adopting building codes and standards that are intended to target energy efficiencies and other sustainable features. Significant changes are on the horizon for the LEED rating system and various sustainability focused codes and standards that will further impact the design and construction of airport buildings.

**Rating Systems, Codes & Standards**

In the world of airport development projects, a variety of rating systems, codes and standards come into play (see sidebar). Of course one of the best known rating systems is LEED (Leadership in Energy & Environmental Design), an internationally recognized voluntary green building certification program that was developed by the U.S. Green Building Council (USGBC).

Whether or not LEED certification is being sought, most airport projects are subject to meeting codes which are a minimum requirement that are linked to a law and therefore must be met. The International Energy Conservation Code (IECC) is the energy efficiency building code most frequently adopted by states and applicable to many airport projects. In the near future many municipalities will likely be adopting some form of new, much stricter energy targets being developed by The International Code Council (ICC), called the International Green Construction Code (IGCC). Remarkably, this new code will exceed the minimum baseline performance of the 2006 IECC code by 30 percent.

Close to 1,500 cities, counties and airports and other entities have voiced public support for this new code. In anticipation of its approval, Rhode Island has identified it as “an equivalent standard” in compliance with requirements that all public agency major facility projects be designed and constructed as green buildings.

Maryland has gone a step farther in adopting IGCC as an alternative to the Maryland Building Performance Standards (MBPS) and amended the definition of “high performance building” to include a building that complies with the requirements of the IGCC, hence making it applicable to all owners, not just the state. The City of Richland, Washington became the first local government to adopt the IGCC last August. Dallas considered the adoption of the IGCC code as an extension of its Green Building Code which is currently based on the LEED system, but instead opted to work on a regional approach through the North Texas Council of Governments once the final version of the code is published in March of 2012.

In addition to voluntary rating systems and codes, there are standards which can be mandatory and voluntary. Mandatory standards are typically set by the government while voluntary standards are not typically regulated by the government or required by a given industry.

Interestingly, USGBC participated in the development of an alternate compliance path to IGCC: ASHRAE Standard 189.1, Standard for the Design of High Performance, Green Buildings Except Low-Rise Residential Buildings. This standard is a set of technically rigorous requirements, which, like the IGCC, covers criteria including water use efficiency, indoor environmental quality, energy efficiency, materials and resource use and the building’s impact on its site and its community. However, it is partly intended for organizations responsible for the development of voluntary building rating systems. It is therefore potentially relevant to airports. Rhode Island uses it as the other acceptable compliance path to green buildings.

States, municipalities and/or quasi-governmental agencies that may be outside code requirements can implement this standard rather than pursuing LEED certification or adopting IGCC. It provides a standard in code language that may be easier to implement administratively, but is not necessarily easier to implement through design and construction. The U.S. Department of Energy (DOE), through the National Renewable Energy Laboratory, estimated that Standard 189.1 could achieve a 27 percent weighted average in energy savings over the ANSI/ASHRAE/IESNA Standard 90.1-2007, even when applying only the minimum set of...
A major overhaul like the transition from LEED 2.2 to LEED 2009 will not be repeated. Instead, continuous improvements to LEED will be made using a refinement process assessing further credit alignments, impact categories and credit weightings, green building codes and, most important for aviation, project type adaptations. Project type adaptations are important to the aviation industry because LEED has been used for years at airports, even though it does not address many of the subtleties of terminals and airport operations. As more airport terminals become LEED certified, strategies that are counterproductive to aviation, such as residential proximity and wildlife habitat, may be addressed and refined by the USGBC.

In keeping with the continuous improvement of LEED, the industry should be prepared for enhanced energy requirements relating to the move from ASHRAE 90.1 – 2004 to the ASHRAE 90.1 - 2007 standard. This critical refinement will help clarify outdated statistics and confusion regarding enhanced energy targets that were once available points, but have over time grown to become prerequisites due to aggressive benchmarks established by ASHRAE, EPA and DOE.

**Commissioning**

Another important arena relating to designers and their airport clients is the changes that impact commissioning. The LEED commissioning process refers to a third-party reviewing and verifying that intended systems have been designed, installed and are operating according to their intended performance.

Previously, fundamental (required) commissioning was a prerequisite, enhanced commissioning was a credit, and envelope commissioning was an exemplary performance point. The focus of the scheduled change to the LEED commissioning process is on overall building performance through an integrated evaluation of all systems.

- Fundamental commissioning will expand to include the building envelope, plumbing, irrigation systems, cooling towers, rain water harvesting and on-site wastewater treatment in addition to the current HVAC, lighting, domestic hot water and renewable energy systems.

**Conclusion**

As the aviation industry strives to do more with less while still being a leader in environmental responsibility, some of the changes will be bitersweet. Aviation design projects will continue to stress the commitment of organizations and differentiate leaders from followers. Hopefully, the future will provide a LEED for Aviation standard or similar acknowledgement of the industry’s unique challenges, opportunities and interest in achieving the optimum outcome when taking into account the plethora of relevant factors. Regardless, as code and standard requirements are raised through various rating systems, those involved in airport development projects, including airport clients and agency partners, will benefit as the industry shifts from a focus on building performance to truly sustainable structures – a goal that can only be accomplished once zero impact buildings are achieved.
The Sheward Partnership is an architecture, planning and sustainability consulting firm consisting of highly qualified architects, planners and sustainability experts dedicated to creating environmentally sensitive architectural solutions that respond to client needs. A service-oriented firm, Sheward strives to provide personalized solutions to every client and every project. The dedication of the staff is what truly makes the Sheward team so unique. The firm boasts a core of key staff that not only have extensive experience, but who have been collaborating on projects as a team for upwards of twenty years. This core is complemented and challenged by talented new hires as the firm continues to expand and diversify. The team is led by involved managing partners who make every effort to provide the latest technology, design tools and information available to the staff in a comfortable, energized office environment.

Since the firm’s founding in 1977, The Sheward Partnership has designed over $1 billion worth of construction with the majority of this construction focused in the aviation sector. In addition to the Principals of the firm, Mr. David N. Scheuermann, AIA and Mr. Michael Sheward, associates within the firm have over 50 combined years of senior level architectural experience with The Sheward Partnership leading complex projects. The balance of The Sheward Partnership staff is composed of talented, energetic, design and administrative personnel who are dedicated to the service of our clients.

Leaders in airport facility design, The Sheward Partnership has been responsible for leading and delivering large-scale, complex airport projects.

The strength of the firm’s aviation portfolio lies in the ability to successfully manage the design process and the design team with the singular objective of meeting a client’s goals and expectations. Aviation clients include Philadelphia International Airport, Baltimore/Washington International Thurgood Marshall Airport, Ronald Reagan Washington National Airport, Washington Dulles International Airport, Atlantic City International Airport, and Harrisburg International Airport. The Sheward Partnership has also designed and delivered substantial construction projects for numerous domestic and international airlines.

Complementing its extensive aviation experience, the firm is a leader in sustainable design, having managed the LEED certification process on nearly 200 projects seeking certification. To date, these projects represent over $1.5 billion worth of construction, with an excess of over 9,000,000 square feet. Having designed, managed and delivered LEED projects in nearly all LEED Green Building Rating Systems, the team has specific knowledge of integrating sustainability measures into complex airport projects. The Sheward Partnership is responsible for the design and sustainability measures integrated into the first two LEED certified projects at The Philadelphia International Airport, the first to be completed later this year.

The Sheward Partnership is headquartered in Philadelphia, with an additional office located in Baltimore, MD.

Please visit The Sheward Partnership website at www.theshewardpartnership.com
Founded in 2004, Quantum Secure entered the market as the first Physical Identity and Access Management platform. Today, the SAFE software suite remains the leading solution for managing identities and provisioning access in physical security infrastructure and customers range from large international airports to highly secure government agencies and Fortune 500 global corporations.

Quantum Secure SAFE for Airports Solution

Airports exhibit one of the most complicated scenarios to administer restricted-area access control, identity verification and issuance of an access credential. Various airline employees, vendors and tenants need to be authenticated at all times, and their physical access rights need to be controlled and managed dynamically based upon their role and the policies that affect their access.

Many airports have siloed systems and processes used to manage employee credentials for facility access. Agencies that issue transportation authority clearance, including the Transportation Security Administration (TSA) or Canadian Air Transport Security Authority (CATSA), and grant access to assets/areas such as airside vehicles and parking structures are all managed independently, often by different departments. As a result, many physical identity and access management operations are handled manually, leading to costly human errors, high cost of operations, long on- and off-boarding times and a lower level of overall security.

Quantum Secure’s SAFE for Airports solution addresses this problem by providing a supervisory management system to transform and automate manual workflows and processes, enabling airport authorities to manage facility access of users and groups through role-based access control. Based on policies and business rules, SAFE is a commercial off-the-shelf (COTS) solution designed to handle the complexities of physical identity and access management by offering an integrated enrollment, access provisioning and badging engine along with a framework to integrate siloed systems and processes.

The SAFE for Airports Solution interfaces with a wide variety of physical access control systems (PACS), biometric, and other airport-specific systems and databases (no-fly list, LDAP, etc.) in real time, enforcing centralized policies and rules for secured access management. For example, the SAFE enrollment engine authenticates and verifies identities and digital certificates, captures biometric images, issues a credential, binds the relevant biographical and biometric data with the card and provisions the identity for facility access in the PACS – all in one connected, homogenized process.

Conversely, identity expiration policies ensure that the card is expired based on defined trigger points, including expirations as mandated by agencies such as the TSA, the termination of an employee or a report of a lost/stolen card.

The SAFE for Airports solution provides a comprehensive range of functions for airports, including:

- Enrollment, badging/credential issuance
- Multiple employer/employee management under a single user interface
- Identity management and facility access on- and off-board management
- Biometric database integration
- Self-service and delegated administration
- Centralized document management and record storage
- A policy-based approach to automatically respond to events as they occur

Additionally, the SAFE for Airports solution leverages the existing security infrastructure and investments that an airport has already made, balancing security efficiencies with the speed of access and credential management. The results are tremendous savings in operating costs and reduced latency in the issuance of credentials throughout the airport.

Prepared by Dan Yetso,
Vice President, Corporate Marketing
The Airport Consultants Council (ACC), along with the Transportation Security Administration (TSA) Office of Security Technology, will host its third annual Technology Day. TSA will share with industry vital information relating to current and future TSA priorities, updates on security programs, the status of FY11 spend plans, current projects, and details on emerging technologies. This briefing will provide an opportunity for the industry to hear firsthand from TSA officials what’s of most concern:

► How do firms go about getting business with the TSA?
► What established, recent and potential guidelines and regulations are relevant?
► What requirements might/will impact OEMs/vendors/designers?
► What programs are on-going and planned and how may industry participate in them?
► How will current events shape future TSA requirements and priorities?
► How does TSA plan to communicate with industry on effects of dynamic events and related changes so that industry can effectively respond?

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ACC COMMITTEE MEETINGS
July 12

ACC Institute Webinars and Lunch and Learn Online training.

Don’t miss ACC Institute Webinars and Lunch and Learn Online training.

Airport Wildlife Hazard Management Update
May 11, 2011 // 12:30 - 2:00 p.m. EDT
Runway Safety Area Solutions Including EMAS
June 1 and June 21 (repeat) // 12:30 - 2:00 p.m. EDT

ACC and the Aerotropolis

Delegates from more than 30 countries were familiarized with the role of ACC and its members during the Airport Cities World Conference & Exhibition held in Memphis, Tennessee, April 12 – 13. The global reach of ACC was dramatically broadened via the ACC exhibit and numerous staff and ACC member conversations with those involved with unique airport projects in far reaching corners of the world, including Singapore, China, Brazil, Panama, Spain, South Africa, India, Japan and Malaysia.

ACRP

ACC Executive Vice President T.J. Schulz participated in a number of ACRP Panels, addressing such topics as consultant selection, the Sustainable Aviation Guidance Alliance (SAGA) and best practices for dissemination of ACRP project statements to industry stakeholders.

ACC Unveils Contracting Toolkit

The Contracting Toolkit for Airport Procurement, found under the ‘Resources’ page at www.acconline.org, will serve as a single stop for both consultants and airport sponsors to obtain the necessary information to ensure a fair and efficient selection process. The resources found in the Contracting Toolkit include the Best Practices for Consultant Selection PowerPoint presentation, FAA Advisory Circular 150/1500-14D and the Sample RFQ for On-Call Services — a document recently developed by the ACC Procurement Committee. This is the latest effort by ACC to promote procurement best practices and educate the airport development industry on ways to ensure an efficient and seamless procurement system that will benefit both airport sponsors and firms.

Continued Technical Expertise

In addition to many web training opportunities, ACC continues to offer on-site training at a number of successful workshops. Events like the Techniques for Airfield Pavement Maintenance, Repair & Rehabilitation Course held in Salt Lake City in March and the third ACC/ACI-NA/FAA Airports GIS Workshop held in Kansas City in April continue to educate the industry and reinforce ACC as technical experts.

ACC Hosts Sessions at the FAA Eastern Region Conference

ACC sponsored two informative sessions at the 2011 FAA Eastern Region Conference in Hershey, PA in March. Rusty Chapman, Delta Airport Consultants Inc., provided the consultants’ perspective on Safety Management Systems/Safety Risk Management process and its relationship to airport development projects. During the second session Edward Balter, Principal of The Robert G. Balter Company, discussed the purposes and procedures for Quality Assurance and Quality Control testing for FAA funded projects. Special thanks to Susan Winslow of Delta Airport Consultants, Inc. for moderating the sessions.

Another Aircraft Saved!

Teterboro Airport, Teterboro, NJ, Oct. 1, 2010

EMASMAX: Providing Safety at Over 55 Runways Worldwide.

Visit us at booth # 501 at the 83rd Annual AAAE Conference & Exposition, Atlanta, GA (May 15-18, 2011).
Nearly 640 attendees were in Denver for the 2011 ACC/AAAE AIRPORT PLANNING, DESIGN AND CONSTRUCTION SYMPOSIUM. In addition to the 5 tracks and the integrated IT sessions, the Symposium featured Supertracks addressing procurement and sustainable master plans. This year’s event also had an opening night networking event for young professionals and a free, interactive app for attendees to download on their smartphones or tablets.
2011 ACC EXCELLENCE IN PROCUREMENT AWARD
ACC awarded the Rhode Island Airport Corporation (RIAC) with the 2011 ACC Excellence in Procurement Award in recognition of its exemplary procurement and contracting practices which can serve as a model for other airports and public agencies. Ahmed Shihadeh, A.A.E. from RIAC was present to receive the award from 2011 ACC Procurement Committee Chair Tom Butcher with WALKER Parking Consultants.

JAY HOLLINGSWORTH SPEAS AIRPORT AWARD
The AIAA/AAAE/ACC Jay Hollingsworth Speas Airport Award annually honors the person or persons judged to have recently made outstanding contributions toward achieving compatible relationships between airports and their surrounding communities. This year, AAAE and ACI-NA were all commended for their efforts to forward the Sustainable Aviation Guidance Alliance (SAGA) initiative.

SAGA SUPPORT
Kelly Johnson, A.A.E., AAAE First Chair, NW Arkansas Regional Airport; Dirk Speas; ACC President Paula Hochstetler; ACI-NA President Greg Principato.
## EXECUTIVE MEMBERS

**AT GEO SYSTEMS, INC.**  
Mr. Alan L. Volbrecht, PLS, President  
3590 Sacramento Street, Suite 110  
San Luis Obispo, CA 93401  
Tel: (805) 781-9296  
Fax: (805) 781-8010  
Email: alan@atgeosys.com  
Web: www.atgeosys.com  
Providing surveying, photogrammetric mapping and GIS data support services for eALP & eAOC, preparation and AGIS submittals for airport sponsors, design professionals and consultant firms. All staff project managers are experienced California Licensed Land Surveyors and AC 150/5300 IDLE Certificate holders, photogrammetry and aerial imagery per AC 150/fe00-17B.

**BASE STRATEGIC SOLUTIONS**  
Mr. Scott Beamer, President  
7371 Atlas Walk Way #814  
Gainesville, VA 20155-2992  
Tel: (800) 803-2502  
Email: sbeamer@basstrategicsolutions.com  
Web: www.basstrategicsolutions.com  
BAS Strategic Solutions is a team of highly qualified and experienced subject matter experts who provide consulting and analytical services to clients across all levels of government and industry. Our commitment to clients is to provide expertise appropriate to the specific needs and challenges they are facing.

**GRAFTON TECHNOLOGIES, INC.**  
Mr. Randy Murphy, President  
43 Federal Street, Newburyport, MA 01950  
Tel: (617) 290-9400  
Email: RMurphy@GraftonTech.com  
Specializes in the implementation of GIS, CAD, imagery and related technologies for airports and the FAA. Founded in 2000, the firm has helped many airports and the FAA assess needs, develop standards, collect data, design databases and implement custom and off-the-shelf solutions for operations, maintenance, properties, utilities and other needs.

**HOLLAND & HART, LLP**  
Mr. J. Kevin Bridston, Attorney  
555 17th Street #3200, Denver, CO 80202  
Tel: (303) 295-8104  
Email: kbridston@hollandhart.com  
Web: www.hollandhart.com  
Holland & Hart has one of the largest and most sophisticated construction practices in the Western United States. With more than twenty full-time construction lawyers, Holland & Hart has the capability and experience to handle construction and design matters ranging from the routine to the highly complex.

**HOLLAND & HART, LLP**  
Mr. Peter J. Kaplan, Partner  
1675 Broadway, Suite 2300, Denver, CO 80202  
Tel: (303) 825-7000  
Email: pkirsch@kaplankirsch.com  
Kaplan Kirsch & Rockwell, LLP is one of the largest and most experienced airport law firms in the country and counsels airports on development projects, environmental documentation, permitting, rates and charges, security leasing, regulatory/legislative issues and litigation.

**PERKINS COIE, LLP**  
Mr. Albert Ferlo, Of Counsel  
700 Thirteenth Street, NW, Suite 600  
Washington, DC 20005  
Tel: (202) 654-6262  
Fax: (202) 654-9143  
Email: aferlo@perkinscoie.com  
Web: www.perkinscoie.com  
Perkins Coie LLP is a full-service national law firm with 50 lawyers who specialize in environmental law. We have extensive experience advising State DOTs, Federal Agencies and airport sponsors on NEPA issues as well as issues relating to Section 4(f), ESA, NHPA and Clean Water Act matters.

**PLANNING TECHNOLOGY, INC.**  
Mr. Robert Ori, Principal  
2841 Executive Dr., Ste. 200  
Clearwater, FL 33762  
Tel: (727) 572-5586  
Fax: (727) 299-0837  
Email: roberto@plan-tech.com  
Web: www.plan-tech.com  
Planning Technology is a service-oriented firm specializing in technical and analytical information technology and airspace and airport planning services for innovative approaches and processes involving all aspects of airport planning and management. Proven developments include the Interactive Airport Layout Plan (iALP) Automated Capital Improvement Plan, and Three-Dimensional Airspace Access Program (3DAAP).

**SIEMENS**  
Mr. Marco Oropeza, Director, Business Development  
1401 Nolan Ryan Expressway, Arlington, TX 76011  
Tel: (817) 436-7320  
Email: marco.oropeza@siemens.com  
Web: www.siemens.com/airports  
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## ASSOCIATE MEMBERS

**ESRI**  
Mr. Terry Bills, Transportation Industry Manager  
380 New York St., Redlands, CA 92373  
Tel: (909) 793-2853  
Fax: (909) 793-3039  
Email: tbills@esri.com  
Web: www.esri.com  
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18249 Hi-Lite Drive, Adams Center, NY 13606  
Tel: (315) 583-6111  
Email: Rhonda@hi-lite.com  
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The PBSJ Corporation and its subsidiary company, PBS&J, have been acquired by Atkins, the world’s 11th largest design firm. With PBSJ’s existing local knowledge, solid track record for client service, and an established support and management infrastructure as a foundation, Atkins is now on course to develop a stronger business in the US, leveraging combined experience and using the PBSJ business as a platform to achieve this.

ACC member firms CDM and Wilbur Smith Associates (WSA) are pleased to announce the acquisition of WSA by CDM. The combined organization expands both firms’ global, full-service capabilities in water, environment, transportation, energy and facilities. The integration of CDM and WSA brings together one of the engineering and construction industry’s top water and environment firms with an industry leader in transportation. The addition of WSA’s leading expertise in transportation enhances CDM’s service portfolio and extends the firm’s presence in Asia and the Middle East. Similarly, CDM enhances WSA’s capabilities in water, environment and design-build services. The two firms have compatible cultures and values, complementary capabilities, strong commitments to exceptional client service and technical excellence and well-matched geographies.

Mr. Thomas F. Barry, Jr., PE has been appointed to Director of Operations for Transportation in North America at Atkins. Most recently Tom served as business development director for transportation. Previously he led the firm’s surface transportation sector, overseeing the technical operations of more than 700 employees. Barry has more than 30 years of transportation engineering experience and previously served as the Florida Department of Transportation (FDOT) secretary, where he was responsible for management and operation of eight districts and the FDOT headquarters. During his nearly 24 years with FDOT, Tom also served as assistant secretary for finance and administration and District Five secretary.

Ms. Allyson Gipson has joined Heery International as Project Director for the company’s West Region. Gipson will oversee operations, business development and strategic planning in Heery’s California offices, which currently include Los Angeles, Long Beach and Sacramento. Gipson brings more than 25 years of experience in the program and construction management arena. Gipson has served as a Southern California chapter board member for the Construction Management Association of America and is an associate member of the American Institute of Architects. Gipson is also a member and certified mediator of the Los Angeles County Bar Association.

Ms. Pamela Keidel-Adams has joined Landrum & Brown as Managing Director. Keidel-Adams most recently served as Director of Aviation Planning, Economics and Freight at Wilbur Smith Associates. She brings over 20 years of experience in aviation, including aviation system planning, air service development, activity forecasting, public outreach, airport development and coordination planning and project management. Pam most recently served as Director of Aviation Planning, Economics and Freight at Wilbur Smith Associates.

Mr. Paul Neal has been named a Principal Consultant in the Washington, D.C. office of Parsons Brinckerhoff (PB). In his new position, Mr. Neal will be responsible for providing strategic advice to PB’s transportation clients in airport, rail, transit and highways infrastructure and operations project planning. Mr. Neal has almost 30 years of experience as a strategy, operations and planning expert whose career has included senior roles in new start-up transportation and infrastructure ventures in the private and public sectors, as well as international strategic management consulting experience.

Gresham, Smith and Partners is pleased to announce the completion of an integrated baggage handling and screening system upgrade at Nashville International Airport (BNA) for the Metropolitan Nashville Airport Authority. GS&P provided architecture and design services as part of a design/build team led by Messer Construction Company. The $32 million project enhances and streamlines operational activities with regards to safety and security of the baggage screening process and increases public space in the ticket lobby.

To meet heightened security requirements post-9/11, several EDS and explosive trace detection (ETD) machines were installed in the BNA ticket lobby and a two-step baggage check-in process was introduced. This project removes existing EDS and ETD machines from public spaces and ticket counters have been pushed back; both supporting the effort to increase space to facilitate passenger flow in the ticketing lobby. Passengers are now able to place checked baggage on a conveyor located adjacent to the ticket counter upon check-in. A state-of-the-art automated sort controlled, outbound Glidepath baggage handling system was installed below the airport and screens all baggage out of view of the passenger.
be found in their respective airports, using local food and specialty shops as a way to connect with a regional identity.

Another traditional strategy, public art programs, is in place in nearly all major airports. Many highlight regional art and local artists. Locally visible businesses and terminal design attributes reflecting the region provide further identity and uniqueness to counter airport mass uniformity. Some, such as Indianapolis, place these businesses around a civic plaza in the main terminal.

While valuable, these three strategies for transforming ‘non-places’ into ‘places’ have limits. Historical allusion may only be tangentially related to airport locations or reliant upon traveler memory. (Who was Lieutenant Commander Edward “Butch” O’Hare anyway?) The national proliferation of regional food has ensured that few dishes are truly local anymore and the best art typically taps into common human, rather than regional, themes. Because planners and architects work from the same playbook, efforts to differentiate result in interchangeability. None of the strategies are wrong, but they frequently miss accomplishing the aim of making airports significant ‘places’ in communities.

**Urban Design Approach**

Airports and their immediate environs are taking on many commercial functions previously associated with metropolitan downtowns, including hotels, shopping streets, office buildings, upscale restaurants, and cultural and entertainment facilities. In the process, many city airports are transforming into airport cities.

The spatial and functional core of the airport city is the passenger terminal which may be likened to an urban central square: it operates as its multimodal commercial nexus, offering a variety of increasingly specialized goods and services.

Appropriately applied, urban design can help make both terminals and their surrounding development interpretable, navigable and therefore welcoming. Design for human use can evoke a warm, safe feeling and airports and airport cities can become meaningful places because people are increasingly able to accomplish their social and business purposes there.

Urban design, a fusion of architecture with site planning transportation planning and landscape architecture, is primarily concerned with the physical form of the city or community. Urban design encompasses many dimensions, including designing for local transportation and communication, designing for a healthful experience, and designing for interpretability.

The common objective is creating an urban environment for the 21st century that is economically efficient, aesthetically pleasing and environmentally sustainable. Like many planning goals, there is a certain tension among these aims but they also reinforce each other to a large degree.

The nascent field of airport city design is based on four key observations about airports and airport areas. Each of these is driven by the rising numbers of people — and goods — travelling by air.

1] Airports are the central stations of today. They attract commercial activity, employment and supporting real estate development.

2] Airports have evolved into airport cities. As they spill from airport grounds into surrounding areas, they take on many functions of an urban downtown.

3] Accessibility to airports is a critical concern. Thus, land use and transportation planning need to be fully coordinated.
Designing an airport city is an urban and regional planning task. Therefore, airport cities cannot be ignored in the development plans of municipalities and regions.

The basic principles of urban design, distilled from good practice half a century ago, provide a solid foundation for airport city place-making. According to Kevin Lynch’s research on “place legibility,” people need to be able to imagine the spatial layout of a place in their minds in order to find their way around and to feel attracted to that place. He found an interpretable city to be a network of five key design elements: paths, edges, districts, nodes and landmarks.

Good urban design creates airports and airport cities which lead travelers along their way to their desired destinations. Such “wayfinding” facilitates movement and can help visitors accomplish their aims.

Airport cities generally have two central nodes, one for passengers and the other for cargo, with the former taking precedence for most purposes. Each tends to be surrounded by a district which, in the case of the passenger terminal, contains paths to ground transportation, retail and hotels. The passenger district may have finely demarcated edges indicating its boundaries. Landmarks, recognizable but not necessarily monumental or even well-loved, provide points of reference.

In most cases design ends at the airport fence and, at times, at the terminal door. As airport cities continue to grow around major airports, the paths need to extend outward to the districts containing the most common destinations. These districts may be centers providing lodging, food, entertainment and other services for travelers. And they may be districts of higher order service provision containing offices or medical facilities. The cargo side of an airport city typically has a logistics district containing freight forwarders, distributors and other time-sensitive goods handlers important to the region’s economy where the layout of facilities and transit paths may either facilitate or hinder efficient flows.

Challenges Ahead
Until recently, urban design was not often applied to airport areas because it adds costs to real estate development and the benefits are not always apparent. Urban design also often stops at a project boundary, most often at the property line, and there is a subtle cultural denigration of “sub-urban” areas among design professionals which seemingly makes airports (beyond the passenger terminal) and their inhabitants less worthy of attention. Many airport and urban design architects and planners avoid the metropolitan periphery — the suburbs, the edge cities and the airport cities — as if it were inherently anonymous. In some circumstances, it is understandable, particularly where the vicinity of an airport abuts or crosses legal and jurisdictional boundaries, complicating coordinated design efforts. For example, Dallas-Fort Worth Airport is in two counties and four distinct municipalities while being owned and controlled by two other cities. Nevertheless, airport and urban designers cannot ignore that most development takes place at the periphery of existing development.

Fortunately, with the rise of airport cities, these obstacles are shrinking. Addressing the challenges calls for a new approach bringing together airport planning, urban and regional planning and business site planning with an underlying conviction among architects, planners and government officials that urban design is essential to create better airports that will enhance passenger experiences and strengthen the regions they serve.
Call FOR NOMINATIONS

FOR THE 2012 AIAA/AAAE/ACC
JAY HOLLINGSWORTH SPEAS AIRPORT AWARD

Nominations are currently being accepted for the 2011 AIAA/AAAE/ACC Jay Hollingsworth Speas Airport Award. The recipient will receive a certificate and a $10,000 honorarium.

This award is jointly sponsored by the American Institute of Aeronautics and Astronautics (AIAA), the American Association of Airport Executives (AAAE) and the Airport Consultants Council (ACC).

It honors the person or persons judged to have contributed most outstandingly during the recent past towards achieving compatible relationships between airports and/or heliports with the surrounding environment. Such improvements might be in airport land use, airport noise reduction, protection of environmental critical resources, architecture, landscaping or other design considerations to improve the compatibility of airports with their communities, etc.

Please provide a minimum of three references who can speak to the quality and impact of the candidate’s work. The complete nomination package should not exceed ten pages. The recipient will receive a certificate and a $10,000 honorarium. The presentation of the award will be made at the AAAE/ACC Planning, Design, and Construction Symposium, scheduled for February 2012. The recipient will be asked to make a brief presentation describing their accomplishment/contribution.

DEADLINE for submission of nominations is October 1, 2011.

To obtain a nomination form or more information, please visit: www.aiaa.org or contact Carol Stewart, AIAA Honors and Awards Program at 703/264-7623, by fax: 703.264.7551 or email at carols@aiaa.org.

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has proposed an infrastructure bank solution. However, many argue that this will be another mechanism to benefit large cities, to the exclusion of rural areas. Funding scarcity has created austere spending, forcing owners and consultants to “do more with less,” meaning that the economic models of the past which supported infrastructure funding may stay in the past.

Of course, the consolidation of industry practitioners will continue. For example, consider that in 1965, in ENR’s first ranking of design firms, the top 456 firms combined had billings of $728 million; in 2009, 22 firms reported design revenue in excess of $750 million each. The breadth of services of these firms has increased immensely. A number of principals of current design and construction firms are reaching retirement age, and a number of these companies do not have well-developed succession strategies. Moreover, mega-corporations like GE and Siemens are growing their service offerings in many diverse markets, including aviation, to increase shareholder return.

WHAT DOES ALL OF THIS MEAN?
First and foremost, we can’t allow our standards to change for what we consider to be merely acceptable service delivery. If quality suffers, eventually safety becomes a more significant risk. So what is our likely path forward?

1) As a collection of companies that deal with airport development every day, firms large and small, from supplier to consultants to contractors and operators, will need to increase partnerships, alliances and their overall network to broaden our understanding of a landscape that is in a significant state of flux, with the resultant outcome unknown. One thing is certain — change is required to meet the current challenges. Companies can no longer afford to do business with past business models, nor can we depend on the federal government’s political and funding processes and mechanisms.

2) The big will get bigger — both companies and other entities in the aviation market and the transportation industry as a whole. Cities, for example (re-urbanization), will continue to see similar shifts. The development of “mega-firms” has created entities with a full range of services that once used to be resident in many different company types. This trend doesn’t appear to be diminishing. In fact, we are starting to see a shift in the transformation to “mega-firms” and smaller niche firms, with firms in the middle getting squeezed the most.

3) Political and other pressures will continue to commoditize engineering services, to the point where costs will be cut and consultants will be forced into business conditions that are not attractive or favorable. This is an area where the aviation industry must take a stand so that quality will be maintained and technology can continue to evolve.

4) Consultants, suppliers and construction communities, in the past working with competing interests and agendas, must now work more closely together not only on individual projects, but toward the overall objective of improving our collective industry. It is time all of us think this way, individually within our companies and as ACC — the unified voice of airport development firms.

The bottom line is this: today’s marketplace requires an open mind and thinking outside the box. Expand your willingness to change, take risks, build partnerships and increase your opportunities. The past is the past, and the future is ours to create.
Most are familiar with claims for changes and delay claims. Fewer people are familiar with cumulative impact claims. What is a cumulative impact claim? Stated simply, a cumulative impact claim is a claim that consists of the “ripple effect” of multiple changes to a project, the effects of which were not recognized or anticipated at the time the change itself was priced by the contractor.

Cumulative impact claims are relatively uncommon and are generally seen only on large and complex projects, however, they are noteworthy.

Normally, when a change is directed on a project, the contractor determines the cost and time impact of the change and submits a change order request to cover the same. But when there are a multitude of changes, they may interact with each other to create costs and impacts beyond those attributable to the individual changes. Often these impacts are only recognized at the conclusion of the project, when costs have exceeded the contractor’s budgeted costs and the contractor analyzes the source of those additional costs. This after-the-fact analysis is closely akin to the disfavored total cost approach in which the projected budget is compared with actual costs to support the claim. In order to successfully prove a claim, more detailed analysis of causation, including analysis and deduction of possibly self-inflicted harm, is required. The critical question, which must be answered with evidence and analysis, is how the impacts caused the increase in costs.

Because of the difficulties in proving causation and segregating the possibly self-inflicted harm (due to inefficiencies, imperfect takeoffs, etc.), cumulative impact claims are recognized in theory but rarely granted in practice. In fact, almost every leading case acknowledging the possibility of cumulative impact claim goes on to reject the claim for lack of proof, most typically for lack of causation and failure to segregate compensable impacts from non-compensable impacts. For example in Pittman Construction Co. v. United States 114,847 (GSBCA 1980), the Board of Contract Appeals noted that costs for cumulative impacts are recoverable, but concluded that they had not been proven. On appeal, the Court of Claims equated the cumulative impact claim to a delay claim, noting that “settled law dictates that where both parties contributed to the delay ‘neither can recover damage, unless there is in the proof a clear apportionment of the delay and the expense attributable to each party.’” Pittman Construction Co. v. United States, 2 Cl. Ct. 211 (1983).

The difficulty of proving cumulative impact claims is highlighted in Southwest Marine, Inc., 94-3 BCA ¶27,102 (DOTCAB 1994). In that case, the Board of Contract Appeals described the high burden a party bears in asserting a cumulative impact claim:

Although the specificity otherwise necessary to prove direct or local disruption resulting in the implementation of individual change requests is not required to prove entitlement to cumulative disruption (because it is more difficult to foresee), appellant, nevertheless, shoulders the burden of proving that the 202 Change Orders collectively disrupted its work as alleged. And it must show not only that the disruption resulted solely from government actions, but also the extent of that disruption and the harm it caused appellant…. Neither government-caused disruption nor the extent of disruption is adequately shown by evidence merely attesting to the issuance of 202 change requests, since numbers alone will not prove fault or disruption…

Ultimately, that was not shown and the cumulative impact claim was rejected for lack of proof. Most other cases have reached similar results.

While the burden for establishing a cumulative impact claim may seem impossibly high, at least one case has allowed a cumulative impact claim and awarded substantial damages on that basis. In Bell BCI Co. v. United States, 81 Fed. Cl. 617 (Ct. Fed. Cl. 2008), the Court of Federal Claims approved over $6 million of cumulative impact damages. This positive result for the contractor was likely dictated by an expert schedule analysis that “overwhelmingly shows that the delays encountered by Bell were caused by the NIH changes,” and the fact that the contractor maintained extensive and detailed productivity records that permitted a meaningful analysis of the impacts on the contractor’s productivity.

The lesson of these cases is that cumulative impact claims do exist, but they are exceedingly difficult to prove. Such claims are likely to succeed only when there is a detailed set of records, both project based and task based, including defensible productivity records of prior work, combined with thorough expert analysis, tying specific claimed impacts to specific causes. Without good project records, it is difficult to convincingly prove causation. Without causation, the claim fails.