

From Obstacle to Opportunity:

The Evolution of Sustainability and Parking

Every industry has its own take on how sustainability influences its products and services; parking is no different. Over the past few years, the industry as a whole (and parking professionals individually) have wrestled to place parking in the most appropriate context in the evolving sustainability movement.

Some green building organizations and advocates have been outspoken in their preference to eliminate or strictly limit automobile use, especially in dense urban environments. This concept may gain traction in certain urban areas, but for the vast majority of the country the idea is unrealistic, given our significant dependence upon cars. Most people still choose to own automobiles, and depend on them for specific needs, even if they also utilize transit or car sharing programs on a regular basis.



PRINCIPAL'S MESSAGE

The Context for Sustainability (and Parking Planning & Design)



Our industry has made amazing strides in the past two years on the sustainability front. Most notably, we have started to shift away from a reactionary and responsive position to a more proactive one.

Various factors have influenced the shift to a more proactive role within the sustainability movement. Parking industry organizations have recognized that the triple bottom line matters - people, planet, and profit.

Consumers care about sustainability - it influences buying decisions more than ever. The next generation, and their children, will perceive sustainability not as a choice but a requirement.

Further, we recognize that appropriate technology and energy efficiency measures save resources - not only natural resources and person-hours but also capital. The continued benchmarking of these technologies and measures will provide additional project and program data to bolster the (financial) case for sustainability.

Thought leadership within the parking profession continues to evolve and grow. Initiatives like the Green Parking Council's Certified Green Garage Program (now available for public comment), the joint IPI/NPA publication on sustainability and parking, and the City of Fort Lauderdale's pilot program "Greening the Lot" showcase where we are headed as an industry.

TimHaahs is proud to have been a part of each of these innovative steps - steps that are an essential part of the transformation to a proactive, leadership role in the greater context of the sustainability movement.

Rachel Yoka, CPSM, LEED AP BD+C
Vice President,
Strategic Business Planning & Sustainability



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Parking as Green Asset

The relationship between sustainability and parking has progressed significantly. Structured parking can provide a more sustainable alternative to surface parking, since it provides the opportunity to meet parking demand using a fraction of the space of a surface lot, maximizing land use.

The integration of mixed-use space into parking facilities is a successful strategy to best utilize land, promote walkability, and create more attractive and vibrant destinations. Parking facilities that incorporate mixed-use spaces such as retail, offices, and even residential units can reduce the need for parking and decrease VMT.

Structured parking typically requires density - a mix of uses and significant population base. Incorporating structured parking in dense urban or semi-urban settings can preserve land for further development, and may be designed to provide open space or community spaces.

Vehicle miles traveled (VMT) (and the associated gas consumption and emissions) may be reduced through the utilization of shared-use principles. Integrating parking facilities into mixed-use or transit-oriented developments offers a rich mix of amenities, residences, and employment while reducing the need for people to drive to multiple destinations. This approach allows people to park once and walk, rather than drive to multiple locations, often scattered miles apart.

The popularity of mixed-use and transit-oriented communities will continue to impact the planning practices of our cities and suburbs; parking anchors them and provides a foundation for their success. Parking plays a critical role serving residents, commuters, employees, and visitors, providing essential infrastructure as well as a gateway to these communities. By employing shared-use strategies, fewer spaces serve the same amount of vehicles and people, by increasing utilization. The most sustainable parking space is the one that is not constructed, by maximizing turnover and land use.



Sustainability and Structured Parking

Sustainable technologies and approaches in green and high-performance buildings are applicable to the design and construction of parking facilities, often at a lower cost than that of occupied buildings such as residences or workplaces. These include resource-efficient technologies for lighting and mechanical ventilation, regional and renewable building materials, and the provision of renewable energy in parking structures, typically solar. Reducing parking requirements and encouraging the use of alternative transportation such as biking, mass transit and energy-efficient and electric vehicles both save resources and encourage multiple modes of transportation.

The integration of mixed-use space into parking facilities is a forward-thinking strategy to promote walkability and create more attractive and vibrant destinations. Parking facilities that incorporate mixed-use spaces such as retail, offices, and even residential units can foster place making and economic vibrancy. These facilities allow people to walk, reducing the need for driving and the resulting traffic congestion and carbon emissions, and taking a step forward to improve the local quality of life in these neighborhoods.

Taking Sustainability to the Next Level

Recently, parking industry organizations have proactively contributed to the conversation and practice of sustainability, supporting research to develop sustainable parking applications and technologies.

The International Parking Institute (IPI) recently developed its “Framework on Sustainability for Parking Design, Management and Operations”.

IPI developed this landmark document to summarize the organization’s commitment to sustainability and identify action items including education, incentives, and forums that contribute to sustainable solutions. The Framework provides parking and transportation goals that consider economic feasibility and public health and welfare, as well as environmental impacts.

Another significant opportunity for the industry is the establishment and growth of the Green Parking Council (GPC). The GPC is a non-profit organization offering certification and credentialing programs, open-source standards, professional leadership, and educational development and training for organizations and individuals.

The GPC applies the ideas of green building, clean technology, renewable energy, smart grid infrastructure, urban planning, and sustainable mobility to the planning, design and construction of parking and mixed-use facilities. The establishment and progress of the GPC is a clear indicator of the dedication of the industry to developing comprehensive sustainable solutions for the planning, design, construction, and operation of parking facilities to enhance and improve their impact on the environment.

Parking can contribute to the sustainability of our built environment and communities. Technologies and applications demonstrate continual evolution and improvement, and we now share the opportunity to showcase and benchmark these concepts and solutions.

Parking will continue to provide critical infrastructure to support our cities, towns, and communities, with particular impact to density and walkability. As the sustainability movement continues to grow and change, the parking industry will not only keep pace, but provide essential leadership and direction in the areas of mobility, land use, and transportation.

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SHADES OF GREEN

Parking Pricing

Free parking or pricing parking artificially low reduces the incentive for people to walk, bike, carpool, or take transit.

Priority Parking

Preferred parking for low-emitting or fuel efficient vehicles and carpools creates benefits for drivers of these vehicles, which consume less fuel and create fewer carbon emissions.

Shared-Use

Identifying opportunities for shared parking between multiple uses (residential, office, entertainment) reduces the number of required parking spaces and maximizes turnover and land use.



Bicycle Storage

Locating secure bike racks on-street or in garages encourages cycling as a transit mode, decreasing fuel consumption, emissions, and pollution.



Recycling Areas

Dedicating areas for collection of recyclable materials allows patrons to recycle as they exit their vehicle, reducing the amount of waste for disposal.



Mass Transit Access

Integrating parking within walking distance and providing shuttles encourages alternate modes of travel, reduces individual automobile use and vehicle trips.

Water Reduction Strategies

Water-saving fixtures and native plantings decrease irrigation needs and water use, preserving potable water.

Regional Materials

Selecting construction materials sourced and manufactured locally reduces transportation costs and fuel consumption.



Screening and Lighting Choices

Installing screens and lighting fixtures limit light pollution.

Reuse or Recycle Materials

Reusing existing on-site materials, purchasing recycled products and recycling construction materials reduces waste sent to landfills.

Cool Roof or Reflective Coating

Designing roofs with white colored concrete or applying coating to reflect light at roof level reduces heat island effect, and may improve energy efficiency. Surface lots may be coated with reflective coating to reduce heat island effect.



Parking offers a range of sustainable opportunities, from “light green”, easily-implemented strategies to more complex and innovative “dark green” measures with maximum impact.

Walkability

Locating facilities in developments offering a variety of destinations allows people to park once and walk, reducing vehicle trips and miles traveled.

Energy-Efficient Technologies

Energy efficient lighting and mechanical systems decrease energy consumption and cost, both first cost and long-term maintenance expenses.



Electric Vehicle Charging Stations

EV charging stations encourage the use of and provide infrastructure for these emission-reducing vehicles.

Educational Program

A signage program or theme centered on sustainable strategies educates patrons about these features and encourages their use.

Parking Guidance Systems

Sensors notify patrons where spaces are available, reducing the amount of time spent searching for a space, as well as fuel use and emissions.

Systems Commissioning

Commissioning verifies that building systems – HVAC, plumbing, electrical, solar, etc. – are installed and operate as designed, at optimal efficiency.

Permeable Paving and Natural Infiltration

Permeable paving, bioswales and other landscape strategies reduce soil erosion, filter stormwater, reduce runoff and improve water quality.



Mixed-Use Garages

Incorporating retail, office or residential space within the building footprint maximizes density, allows for shared parking, and may create a dynamic, pedestrian-friendly experience.

Renewable Energy

Integrating solar or wind power provides clean energy and decreases energy purchased from the grid. Facilities may target net-zero energy use, or sale of clean energy back to the utility.



Rainwater Recycling Systems

Collection, storage, and use of rainwater for irrigation, wash-downs, and other water uses decreases potable water use.

Green Roof System

Green roof systems on structured parking facilities combat urban heat island effect and increase natural stormwater infiltration. Extensive roof systems may provide open space and plazas for community or tenant use.

Ratings Systems and Certification

Design, retrofit, or benchmark structured parking facilities to qualify for sustainability certification programs such as LEED, Green Globes, or the Green Parking Council Certified Green Garage Program.



Timothy Haahs Honored by Recent Appointments

Timothy Haahs, PE, AIA has been selected to serve on two prestigious committees.

In 2012, Pennsylvania Governor Tom Corbett appointed Tim to the **Advisory Commission on Asian American Affairs**. In this capacity, Tim will advise and make recommendations on policies, procedures, legislation, and regulations that affect the Asian American community. Commission members will serve as liaisons for the Governor to the community throughout the state.

The local **March of Dimes** appointed Tim to the Board of Directors for the Transportation, Construction, and Building Industry Luncheon. Tim joined industry leaders as a board member in 2012, supporting the organization in the shared effort to eradicate birth defects and combat prematurity.

Rachel Yoka Named 2012 IPI Parking Professional of the Year and LLS Woman of the Year



The International Parking Institute named Rachel Yoka, Vice President, TimHaahs, its 2012 International Parking Institute Parking Professional of the Year. As Vice President of Strategic Business Planning and Sustainability, Rachel has emerged as a leader,



Timothy Haahs, PE, AIA

International Parking Institute Annual Conference
Show Me the ROI : Sustainable Strategies and Case Studies in Green Design / May 2013

California Public Parking Association Conference
Global Challenge – Shifting Paradigms to Create Self-Sustaining Communities through Sustainable Urban Design / November 2012

Seoul Department of Transportation Meeting
Urban Planning, Development Trends and the Critical Role of Parking / April 2012

American Society of Highway Engineers Meeting
Highways: The Gateway to “People Places” and the Future of Development / April 2012

Todd Helmer, PE

American Society of Civil Engineers, Philadelphia Section Meeting
Enhancing Communities Through Innovation / November 2012

advancing the industry. In April, the Leukemia and Lymphoma Society (LLS) of Eastern Pennsylvania honored Rachel as “Woman of the Year” as a top fundraiser in the region in the campaign to end blood cancer.

The LLS Man and Woman of the Year contest nominated 14 local candidates in this fundraising competition, collectively raising over \$330,000 dollars during the 10 week campaign.

“The Wave” Mixed-Use Facility Earns National Acclaim

In the fall of 2012, the National Parking Association honored the “The Wave” mixed-use parking structure as the “Innovative Facility of the Year”, in its inaugural Innovation Awards.



TimHaahs worked closely with the project owner, the Casino Reinvestment Development Authority (CRDA), to plan and develop a mixed-use parking facility to support the growing parking needs of the area, as well as contribute additional retail space to serve the City’s entertainment district.

“The Wave” provides 1,800 parking spaces, 16,000 square feet of ground floor retail, and features a number of unique elements including an LED digital billboard, sustainable enhancements, an EZ Pass toll tag reader, and more.

Collaboration with the United Nations

TimHaahs worked with the United Nations (UN) Economic and Social Commission for Asia and the Pacific (ESCAP) on the release of their report, *Low Carbon Green Growth Roadmap for Asia and the Pacific: Turning resource constraints and the climate crisis into economic growth opportunities*. This report will serve as a platform to guide developing countries in the region, promoting and implementing the concept of green growth.

TimHaahs’ paper entitled *Green Growth for Sustainable Cities: Urban Planning Strategies to Mitigate Climate Change*, served as a significant resource for the development of the Roadmap, providing strategies and policy options related to the development and implementation of sustainable infrastructure planning and design concepts.

The findings in the ESCAP report were presented at the UN’s Conference on Sustainable Development (Rio+20). To download the ESCAP report, visit: <http://www.unescap.org/esd/environment/lcgg/index.asp>.

글로벌 성공시대 YouTube
Tim Haahs’ Global Recognition

On February 16, 2013 the Korean Broadcasting System (KBS), Korea’s leading public services broadcaster and the most influential media organization in the country, aired an hour-long feature on Timothy Haahs, PE, AIA.

Scan the QR code below to view the video on YouTube!

Rachel Yoka, LEED AP BD+C, CNU-A

International Parking Institute Annual Conference
Show Me the ROI : Sustainable Strategies and Case Studies in Green Design / May 2013

ROI and the Zen of Parking, Planet and Profit / May 2013

American Society of Civil Engineers, Philadelphia Section, Young Members Forum
Congestion 2030 / April 2013

Parking Industry Exhibition
Sustainability: Big Things, Little Things, and the In-Between / March 2013

National Facilities Management & Technology Conference
Trends in Electric Vehicles, Charging Stations, Parking and Sustainability / March 2013

Southwest Parking Association Conference
Parking, Transportation and Sustainability: Frameworks, Strategies and Trends / October 2012

FOCUS ON ATLANTA



Project and Staff Awards in Atlanta

The Parking Association of Georgia (PAG) recognized Marion Kuhn for its inaugural President's Award at the 2013 annual conference. The award ceremony recognizes parking professionals who have made a significant contribution to the parking industry in Georgia.

The Georgia Chapter of the American Concrete Institute recently recognized TimHaahs' Department of Veteran's Affairs Medical Center parking garage with the first place prize in the annual Dan R. Brown Awards program. We are excited about these noteworthy awards recognizing our projects and people!

FOCUS ON NEW BRUNSWICK



TOD on the Rise

TimHaahs is participating in a variety of projects centered on Transit-Oriented Development (TOD). We are proud to contribute to these progressive and complex developments.

Recently New Jersey Future recognized the Gateway Transit Village in New Brunswick in their Smart Growth Awards program as the "TOD Partnership"

category winner. The project is a joint development between the New Brunswick Parking Authority, the New Brunswick Development Corporation (DEVCO), Pennrose and Rutgers University. TimHaahs provided parking planning and design services for the 600,000-square foot mixed-use facility adjacent to Rutgers University and the NJ Transit/Amtrak station.

TimHaahs also provided consulting services for the Wellness Plaza in New Brunswick, NJ - a mixed-use development featuring a fitness center and amenities, including enhanced streetscape design.

FOCUS ON PHILADELPHIA

Pennsylvania Parking Association Recognizes Queen Street Station Mixed-Use Facility

The Pennsylvania Parking Association (PPA) recognized TimHaahs' Queen Street Station mixed-use facility with an Award of Excellence for New Design at its annual awards reception. The facility preserves the historic atmosphere of downtown Lancaster, and increases walkability. It also provides three additional bus bays for Queen Street Station, and will soon be the home of the Federal Taproom Restaurant. The facility includes provisions for an additional ten stories of private development above the garage.

Australian Parking Association Convention

Shifting Paradigms to Create Self-Sustaining Communities through Sustainable Urban Design / December 2012

National Parking Association Annual Convention

Driving Performance: Progress and Profits / October 2012

International Parking Institute Conference

Sustainability and Parking – Challenging but Compatible / June 2012

James Zullo, AICP, LEED AP, CAPP

Making P3 Happen: Parking as a Catalyst
Public/Private Partnerships for Parking and Transit-Oriented Development / January 2013

International Parking Institute Latin American Parking Conference / American PA Chapter
Steering Parking in the Right Direction: Parking Strategies for Smart Growth and TOD
December 2012 / September 2012

FOCUS ON MIAMI

Seminar Highlight



On January 30, 2013, TimHaahs' Miami office hosted a seminar on the topic of public/private partnerships and their growing impact on development.

The seminar, entitled "Making P3 Happen: Parking as a Catalyst" brought together national experts from a variety of public and private financing backgrounds to discuss trends, strategies and case studies on the topic of joint development. The one-day seminar included presentations on today's most innovative and successful strategies for funding parking facilities, residential projects, and more.

Timothy Haahs opened the day with an introduction to the future of parking and the many opportunities available for financing mixed-use development projects through P3. Mayor Tom Murphy, Senior Resident Fellow of the Urban Land Institute, and former Mayor of Pittsburgh then followed with a lively discussion of his experiences leading, innovating and implementing public/private ventures during his time leading development in Pittsburgh.

The seminar also included presentations by Jim Zullo, Vice President of TimHaahs; Graham White, III of Gates Capital Partners, Brett Munkel of SP Plus, and Ken Krismanth of Signet Enterprises. The day concluded with a P3 development workshop led by Art Noriega, CEO of the Miami Parking Authority, and Len Bier of Bier Associates.

Following the seminar, TimHaahs conducted a mobile bus tour, providing attendees with a guided tour of some of Miami's newest and most innovative parking facility projects. The tour visited some of TimHaahs' recent mixed-use projects, including the Miami Courthouse Center mixed-use facility and the Marlins Ballpark mixed-use garages, as well as Fresh Market and 1111 Lincoln Road in Miami Beach. Attendees ended the day with dinner at one of Miami Beach's hottest new restaurants, Juvia, located in the penthouse of the 1111 Lincoln Road mixed-use facility.

Megan Leinart, LEED AP BD+C

Parking Association of the Virginias Annual Meeting
Strategies and Trends in Sustainable Design: Parking, Mixed-Use and Transportation / November 2012

Mike Martindill

International Parking Institute Annual Conference
The Priceless Value of Proactive Parking Structure Maintenance / May 2013

Mid-South Transportation and Parking Association Conference

Ask the Experts Panel Discussion: Facility Operations, Restoration & Maintenance / March 2013

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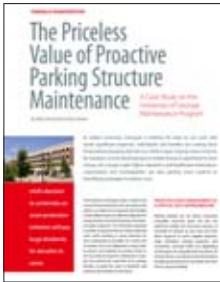
Long-Term Maintenance Strategies to Reduce Long-Term Migraines

The Parking Professional
Chris Gray, PE
February 2013



Parking: Industry Myopia?

Parking Today
Rachel Yoka,
LEED AP BD+C, CNU-A
November 2012



The Priceless Value of Proactive Parking Structure Maintenance

College Services
Mike Martindill
Fall 2012



Performance Improvements for Existing Buildings

The Parking Professional
Rachel Yoka,
LEED AP BD+C, CNU-A
September 2012



**“Digital City”
ShenJing Square Project**

Shenyang, China

For Shenyang Parking Design Management Company, Ltd., TimHaahs provided full concept design to create an active and vibrant destination for the rapidly developing area. This iconic development incorporates retail, office, hotel, apartment, and parking components, as well as many sustainable design elements to improve the quality of life via this live-work-play center in Shenyang.



Gateway Transit Village

New Brunswick, New Jersey

This mixed-use structure, containing parking, retail, and connections to the NJ Transit/Amtrak station, is located in downtown New Brunswick, NJ, adjacent to the Rutgers University campus. It is a joint development between the New Brunswick Parking Authority, the New Brunswick Development Corporation (DEVCO), Pennrose and Rutgers University. TimHaahs served as Parking Consultant during the design and construction of this groundbreaking project.

Photo courtesy Steve Wolfe



Fresh Market Mixed-Use Facility Design

Miami Beach, Florida

This mixed-use two-tier, 127-space parking facility serves the new Fresh Market grocery in Miami Beach. The facility serves residents and visitors alike, attracting retail shoppers, pedestrians, and garage patrons to the area. The design team effectively integrated the interior Fresh Market space with structured parking and provided an attractive façade, including evening lighting to match the vibrant destination.



Red Rose Transit Authority Queen Street Parking Structure

Lancaster, Pennsylvania

TimHaahs designed a mixed-use parking structure next to the Lancaster Museum of Art to serve this regional transit agency. Located in the heart of historic downtown Lancaster, the facility complements the existing museum and neighborhood, and will feature restaurant space to activate the streetscape.

