John R. Hager, RLA, ASLA, LEED AP

Senior landscape architect

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Professional Background

- Bachelor of Landscape Architecture, Iowa State University, 1986
- Courses towards a master of real estate development degree, Univ. of Memphis
- Member:
 - American society of landscape architects
 1986
 - United States Green Building Council 2004
- Licensed LA Professional:
 - Mississippi 1998
 - Tennessee 2000
 - Missouri 2003
 - Michigan 2007
- · Awards:
 - ASLA Honor Award, Chouteau Island master plan
- Entered the profession in 1986

Mr. Hager is a landscape architect, licensed to practice in four states with over twenty-four years of experience in large scale site, open space and recreation planning, urban design, resource and visual analysis, streetscape design, public involvement processes, development of design guidelines and community development plans. Throughout his practice, he has managed or served as an integral team member on a wide range of significant projects throughout the United States, Korea, The Azores, Germany and The middle east including the 5500 acre Chouteau Island master plan, an island on the Mississippi River completed while at Parsons. John's involvement on the project included the direction of an in depth GIS analysis, compilation of numerous committee and public meetings and other data and coordination of ongoing project information into a report.

John's background and experience is broad and diverse with project scales ranging from small sites to entire states, as in the State of Iowa Greenway master plan. He has worked within many different budgets as with the multi-million dollar Air Force Center for Environmental Excellence (AFCEE) Housing Community Profiles (HCPs) and a \$1.5 million streetscape in downtown Memphis, Tennessee.

Mr. Hager is a past vice president with the St. Louis chapter of the American society of landscape architects and a member of the Saint Louis chapter of the United States green building council. He has extensive knowledge in sustainable planning for improved water quality as well as resource and energy conservation.

The following is a chronological list of jobs held since graduating with a BLA from Iowa State University, starting with the most recent first:

1. Private Consulting, St. Louis, Missouri November 2010 to present

- Design and technical expertise for challenging sloped sites
- Green roof design
- Construction detailing for walls, pavements, site furnishings
- Regular coordination with architect, landscape architect and civil engineer
- Projects of note: Veteran's Administration tenant building as part of a previously completed master plan, Continuing care senior retirement center overall landscape evaluation.

2. Lawrence Group, St. Louis, Missouri September 2008 through November 2010

Clients of note: City of St. Louis, St. Louis University, SSM Healthcare, Girl Scouts of Eastern Missouri, HDR Engineering, Horner Shifrin Engineers, Design Workshop, BJC Healthcare, SSM Healthcare, City of Handan China

Jacobs Facilities St. Louis, Missouri January 2006 through June 2008 Clients of note: Kansas National Guard, Private Developers, Southeast Missouri State University, Air Force Center for Environmental Excellence (AFCEE) and Army Corp of Engineers (Various Districts)

4. Parsons Corporation St. Louis, Missouri December 2000 through November 2005

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Clients of note: Air Force Center for Environmental Excellence (AFCEE), Army Corp of Engineers (Various Districts) and The National Park Service

5. Davis Engineering Memphis, Tennessee 1999 through 2000

Clients of note: Private developers, Shelby County, Coordinated with various regional communities and city of Memphis for planning and zoning approvals

6. Pickering Firm Memphis, Tennessee 1995 through 1999

Clients of note: Private developers, City of Memphis, Shelby County, University of Memphis, various other regional communities and planning boards

7. Jackson, Person Associates Memphis, Tennessee January 1993 through 1995

Clients of note: City of Memphis, Private developers, Architectural firms, engineering firms

The following is a general list of tasks completed for the above 6 jobs on a day-day basis:

- Project management including day-to-day direction, scheduling, internal and client meetings, coordination with other disciplines
- Design from conceptual level to more detailed level (plans, 3-dimensional sketch, AutoCAD, Images, Sketchup, Photoshop and hand rendering)
- Production of concept, schematic, design development and construction documents (hand and AutoCAD)
- Technical expertise on a variety of site, landscape, healthcare and urban design projects
- Compiling reports and analyses (Primarily for campuses, using In-design, MS Publisher, Acrobat)
- Cost estimation (Utilizing Excel)
- Construction administration
- Key design areas:
 - Water features designs (fountain, stream systems)
 - Sustainable design (materials selections, storm water techniques, plant selection, pavement design)
 - Urban (streetscape and public spaces, specific plant knowledge, pavements, site furnishings, walls, planters, irrigation, sustainable techniques, drainage, soil)
 - Landscapes (specialized plant knowledge for certain conditions, i.e. low maintenance, xeriscape, street trees, themes such as healing garden plants)
 - o Lighting design
 - Providing for security
 - Entries, gateways, site image improvement
 - Design guidelines
- Presentations for proposals, projects and public meetings (Utilizing PowerPoint and other softwares)
- Mentoring of junior staff
- Fees, contracts and proposals for prime and subconsultants
- Marketing including lead generation, RFP/RFQ review, go-no-go recommendations, formulating teams

- Project sizes: small sites, thousands of acres (i.e. Chouteau Island Master Plan) linear sites (Grand Avenue Streetscape) site and master planning
- Work for all levels of government, hospital entities, developers
- Projects of note: See following pages

8. Dunbar Jones Partnership Des Moines, Iowa 1989 to 1993

Clients of note: State of Iowa, various communities in Iowa, Architecture firms large and small, engineering firms in the region

Schemmer Associates Omaha, Nebraska 1988 to 1989 Clients of note: US Postal Service, City of Omaha, local universities

10. Suburban Landscape Davenport, lowa 1987 to 1988

Clients of note: Various high level residential owners, commercial owners, private developers and The City of Davenport Iowa

Tasks completed while at the above three jobs included the following:

- Design from conceptual level to more detailed level (plans, 3-dimensional sketch, AutoCAD, Images, Photoshop and hand rendering)
- Technical design and detailing of a variety of urban and site designs
- Master planning text and graphics (hand methods, MSWord)
- Cost estimation (Utilizing Excel)
- Design from conceptual level to more detailed level (plans, 3-dimensional sketch, AutoCAD, Images, software similar to Photoshop and hand rendering)
- Production of concept, schematic, design development and construction documents (AutoCAD, hand techniques)
- Technical expertise on a variety of site, landscape, institutional and urban design projects
- Compiling reports and analyses (utilizing MSWord)
- Visual simulation and visual analysis (utilizing hand techniques, AutoCAD, software similar to Photoshop)
- Presentations for proposals, projects and public meetings (hand drawn techniques)

The following is a partial list of clients and many projects either managed or worked on as an integral team member with various disciplines. They are organized by job held as the main numbered heading:

1. Private Consulting

- Lawrence Group St. Louis, Missouri. Work was completed on a 20-page report describing an opinion of required site and landscape changes at the Laclede Grove Continuing Care Retirement Community. The report focused on housing areas at all level of care, site trails and the site lake and drainage system. The process included an intensive onsite analysis, meetings with the client and ultimate recommendations in the form of text and concept drawings.
- Christner Incorporated St. Louis, Missouri. Site, landscape plans and details were completed for this architecture firm for a Tenant Facility as a portion of The Veteran's Administration overall master plan, Jefferson Barracks that also included a warehouse facility and clinic. Special challenges included the sloped

January 2011

condition of the site and a low anticipated level of maintenance. Technical design assistance was provided for the site in coordination with the civil engineer and architect as well as coordination with product representatives for the green roof, pedestal paving system, walls, planters and landscape. The design included specific design around the main building as well as a path of honor recognizing fallen veterans.

2. Lawrence Group

- Siteman Cancer Center Healing Garden Creve Coeur, Missouri. The existing condition of the site was a lawn/tree area between 2 buildings. One building is a cancer treatment center, the other a medical office building. The process involved work with a focus group comprised of current and previous cancer patients. The final design included outdoor seating, a winding color pigmented and stained walkway, a dry creek, a themed garden of healing plants, shade structures and a water feature. A retaining wall was placed at an existing slope to capture additional site area for gardens. Work included close coordination with hospital staff including the focus group facilitator and design personnel as well as a water feature consultant, structural engineer and architect.
- Grand Bridge St. Louis, Missouri. This federally funded bridge project replaces a current bridge crossing and also serves as a gateway to a key local university in St. Louis, Missouri. Concept, schematic and construction documents were completed under a contract led by a nationally known engineering firm and closely coordinated with a construction management company. The project included a number of amenity improvements to add civic value. Those improvements included a planted median with raised, precast planters and custom precast medallions, widened pedestrian walks on each side with planters, lighting, color pigmented barriers and bridge abutments, custom fencing with cast aluminum medallions, bike lanes, 4 towers and other improvements. The project is anticipated to start construction early in 2011.
- Grand Avenue Streetscape St. Louis, Missouri. This project was completed with a local civil engineer as the lead firm. The improvements to the existing 3 block long entrance corridor to Saint Louis University included new walks, lighting, bike lanes and a raised planted median comprised of color pigmented concrete to closely match those of the adjacent Grand Bridge project. The median was elevated to avoid the former trolley line buried beneath. The budget was \$2 million for hardscape and landscape improvements. Construction is anticipated to be completed mid 2011.
- Cong Tai Civic Plaza Handan, China. Several concepts were completed for this plaza, built on top of a parking structure and surrounded by residential and municipal facilities in the city. This project was built on a fast track, to be completed by an anniversary celebration for the city. The project included three separate key water features plus a linear water feature. One is a large rectangular area with several mist heads at grade, another is a sunken variable spray fountain area for play and the last water feature is a 55 meter diameter central fountain feature with nozzles in dragon formations on preprogrammed sequences. Other key design features included planters, LED screens, custom shade structures and lighting and an adjacent street median with additional small plazas and linear water features.
- South Lake Sustainable Community Plan Handan, China. This 650 hectare (1,625 acre) mixed use development is at the south edge of a fast growing population of Handan City, Hebei Province, China. It establishes design parameters for circulation, land use, floor area ratio and general block development for the entire area, all with responsible sustainable development as

a common denominator. The client felt that a by-product of a sustainable approach is an overall improved quality of life for the average resident.

The intent of this project was to provide enhanced living for 10,000 residents for their day-to-day life and culture. The landscape architect teamed with another firm that was responsible for planning direction, the landscape architect led planning and design in the following specific areas:

- 1. Green development strategies and techniques focusing on materials, buildings, storm water management, water conservation, temperature and air regulation. Specific techniques proposed include cisterns, green roofs, infiltration planters, bioswales, building strategies and others.
- 2. Open space plans including 3 major open spaces.
- 3. Storm water planning that included a systematic path of rainwater as it falls from the sky to its ultimate destination. This included greenways through streets with wider medians and storm water storage locations within open spaces. The landscape architect focused on recharge and times of concentration emulating a more natural state.
- 4. Plans for the pedestrian promenade, its levee edge along the river greenway and the nodes along it. The nodes were spaced at regular intervals, as terminal axis views on major streets and at bridge ends. Different uses were programmed for each one including gathering areas, public art and water features.
- 5. Typical street plans and cross sections.
- 6. Bridge plans and elevations that linked the 2 sides of the development across the Fuyang River.

Special Factors & Significance – The added challenge for an enhanced way of life is inherent for higher density communities found in China and Handan is no exception. Higher density is mandated by land values, population increases and general space available.

- St. Louis Events (Poelker) Park Saint Louis, Missouri. Concept plans were completed for a portion of a major open space mall in downtown St. Louis. The open space is located adjacent to the library and war memorial. The space is intended to be a place for downtown events to host 8,000 people such as concerts and festivals. The design included a stage, areas for vendors, seating, landscape and a streetscape along a major adjacent street. The plan was coordinated with the city of St. Louis who recently completed a master plan for the entire mall.
- Hotel Ignacio St. Louis, Missouri. This 50 unit hotel was completed in Grand Center, a commercial/theater district in the heart of the city. The design included a specially paved motorcourt, landscape, outdoor eating area, walls and sculpture area.
- Bellfontaine Cemetery Saint Louis, Missouri. This plan was completed at one of the oldest cemeteries west of the Mississippi in an open lawn area between 2 existing lakes. It included a manmade stream complete with weirs and ponds, formal and informal landscapes adjacent to the stream and paved terrace. The design also included resin crushed gravel walkways, irrigation and parallel parking for 10 cars.

- SSM Clayton Road St. Louis, Missouri. Schematic and construction design was completed for this multi-phase, campus improvement plan for one of the top hospitals in St. Louis, Missouri. The site image improvements included removal of parking, a realignment of the entry experience with new canopy, specialty pavements, lighting, signage, landscape and 2 water features. Plans were generated for the base of one of the fountains to emulate the terrazo floor pattern of an adjacent demolished building rotunda. The project was completed on a design-build basis, closely coordinated with architectural and electrical design disciplines.
- Girl Scouts of Eastern Missouri Master Plan Eastern Missouri. The team for this project was comprised of landscape architects and architects to offer both general and camp-specific design guidelines for 3 girl scout camps. The landscape design guidelines addressed the following issues:

Site furnishings Exterior lighting Equestrian trails

Edge treatments Landscapes Conservation areas

Camp facility layouts ADA camp layouts Parking and circulation

Signage/entry treatments Misc. site uses

3. Jacobs

- Alys Beach Mixed Use Development Near Panama City, Florida. Plans, details and specifications were completed for this upscale mixed use project on the gulf coast of the panhandle. The project consists of 17 buildings on a parking structure that supports an interstitial soil layer for plants, utilities and drainage. Coordination with multiple disciplines was necessary including irrigation, mechanical, electrical and architectural. The main site and landscape components include specialty pavements, plants, fountains, site furnishings and wooden structures including a boardwalk and dune crossover structure as access to the adjacent beach. The projected costs for the overall project are in excess of \$100 million.
- Kemaweyaat New Industrial Town United Arab Emirates. This was a concept plan for a 15 hectare area west of Abu Dhabi in the UAE. The mixed use plan, proposed as a support community for a nearby petrochemical plant, was given to Jacobs graphics specialist for an overall animation and presentation to the local royal leadership for approval by decree. The overall development included a mix of housing types, light industrial, commercial/support, cultural uses, waterfront housing, hotels and mosques. Concept plans completed October 2007.
- Glaxo, Smith, Klein (GSK) Data Center Upper Providence, Pennsylvania. A due diligence study was completed comparing two sites, one at the research triangle in Raleigh-Durham, the other in Pennsylvania. Various site plans, grading plans and cut and fill calculations were completed. Once the Pennsylvania site was chosen, Landscape plans were completed that included trees, shrubs and site furnishings for the building entry, parking areas and overall site. Plant locations were coordinated with berms, utilities and fencing. Standards included local area requirements for species, quantities and screening and corporate requirements such as clear buffer distances from the edge of buildings. The plan also included mitigation of trees that were removed for a staging area. Design work completed January 2008.
- Kansas National Guard Bureau, Battle Command Training Center -Leavenworth, Kansas

Programming, existing conditions analysis and multiple concepts were completed for base leadership for this 25 acre site. These tasks were completed through a series of on site charettes as well as in-depth interviews with local community and base staff. Utility providers were consulted including electrical, gas, water and sewer. Interviews were also conducted with security and base master planners to coordinate future base entry gate plans, perimeter security plans. Other site design factors included steep slopes, environmental factors, adjacent community facilities and sun and wind orientation for LEED points. Facilities were planned to coordinate with the Kansas Bureau's future facility plans both on and off site. The master plan was completed in May 2007.

- Rouge River Flood Control Structures Detroit, Michigan. This project is a seven mile long, 30 foot by 30 foot tunnel stretching through and adjacent to one of the city's major parks. There is a pump station site and 14 control structure sites along the tunnel. Landscape and irrigation plans and specifications were completed for four sites including site analysis drawings, 3-dimensional design sketches and image boards showing proposed plants and storm water techniques. One control structure site included renovating and adding to existing park facilities, the other sites utilized rain garden techniques to effectively manage on site storm water.
- Sanibel Causeway Southwest Florida. Detailed peer reviews were conducted of drawings specifications and cost estimates for several miles of state highway landscape and irrigation drawings. This project involved the renovation of the existing interstate to strict state highway landscape guidelines. The original design was completed by another consultant.
- Great Falls, Montana Federal Courthouse Great Falls, Montana. Detailed peer reviews were conducted at 35, 65 and 95% submittals at both design development and preliminary construction document phases for this project on the Missouri river. The client was the General Services Administration (GSA). Reviews were made of site and landscape drawings and specifications to check for compliance to the SFO and standard GSA requirements. These reviews were made in parallel to building architectural and engineering system reviews and compiled into reports at each review phase.
- Rush University Medical Center Chicago, Illinois. Detailed peer reviews
 were conducted at 35, 65 and 95% submittals at both design development and
 preliminary construction document phases for this project. The project included
 sustainable storm water techniques, paving, planting and detailing
- Garden Grove Army Reserve Center Garden Grove, California. Landscape
 and irrigation plans were completed that included a bioswale with native plantings
 in accordance with California's new sustainable design policies. Street trees
 conformed to site lines and the local community standards. Completion date:
 February 2010.
- Air Force Center for Environmental Excellence (AFCEE) Facilities
 Excellence Plan Vandenberg Air Force Base, near Lompoc, CA. These
 design guidelines updated the base's current guidelines. Multiple chapters
 included future sustainability guidelines for energy generation and use. This
 included siting standards for wind turbines, recycling standards and materials
 selection. Additional guidelines were completed for effective anti-terrorism
 measures around building entrances such as barriers methods. Completed
 October 2007.
- Osan Enlisted Club Korea. Site and landscape plans were completed to conform to the local vernacular in the "hill and pond" style. The submittal

included a text write up and landscape plan that conformed to grading and drainage as established by the team. An alternate bid item was completed based on an additional porte cochere and walkway scheme. Plant species and pavers were driven by the base standards.

- Aberdeen Proving Ground entrance gates Louisiana. Landscape and signage plans were generated for three new gates on base. Existing conditions included leaving site lines open, abiding by ordnance boundaries and army gate design guidelines. Signage was designed in accordance with the latest available standards.
- Fleming Hall Renovations Louisiana. The work of this project included conceptual bridging documents for renovations to an historic building and site. The building sustained water damage after hurricane Katrina. The project included an alternate bid for a paved slate courtyard with sandblasted granite emblem to be constructed in a former building site. Site challenges included raising existing grade from its current elevations to reduce future water damage. Design work to be completed April 2008.
- Southeast Missouri University School of Visual Arts—Cape Girardeau, Missouri. The work involved a series of change orders relating to additional landscape to provide screening of utilities and additional aesthetics. The site included extensive landscape, several challenging slopes, a water feature and student courtyard along the Mississippi River Completed August 2007.
- Southeast Missouri University Residence Hall Cape Girardeau, Missouri.
 Preliminary grading, site development and landscape plans were completed for
 this site, made challenging by significant steep topography. The scope of the
 project included a service area for the building, broad, sweeping retaining walls
 and an outdoor courtyard and eating area adjacent to the building. Completion
 date anticipated to be July 2009.
- City of Alhambra (near Los Angeles) High School Softball Fields. This project involved construction documents and detailing for two regulation fields for the city of Alhambra school system as part of a title IX settlement for girls athletics. The existing conditions were primarily temporary trailers and asphalt on a flat site adjacent to other school athletic facilities and surrounded by single family residential. The new design involved demolition of the trailers and asphalt, soil fill, a subdrainage system for the fields and four rain garden collection points for surface and subsurface storm water drainage. These collection points were part of the low impact development for the site. The rain gardens included a special soil medium and native plantings as well as a buried gravel sump in a section of reinforced concrete pipe. Completed May 2007.
- City of Webster Groves, Missouri Recreation Complex. This was a collaborative project that included architectural, engineering and landscape architectural staff. This project was an addition to a recreation complex that included an indoor hockey rink and gymnasium space amongst others. It is an icon facility for this community near St. Louis. The site program and landscape architectural involvement centered around a new entrance with revised steps, paving, planters and formliner signage wall, revised parking and new retaining walls made necessary with the fill to support part of the new building addition. Two new terraces with specialty paving and landscaped areas were also planned adjacent to new building additions. Schematic site design, grading (including storm water management), layout and detailing were completed for all the site elements. The design elements obtained approval from the city's architectural review board. Completed December 2007.

 City of Flower Mound, Texas Community Activity Center. A landscape and schematic irrigation plan was completed for the site that included hearty native plant material. The plans were completed to comply with local requirements for streetscape and site landscape plantings, soil amendments for tree vigor and planning plant material placement for both screening and low obstructions. Additional tasks included shop drawing approvals and cost estimate verification.

4. Parsons

• City of Creve Coeur, Missouri Millennium Park. Design development and construction documents were completed for this 16 acre recreation park in Creve Coeur, Missouri. The process involved regular meetings with city council, a design review board and the adjacent hospital landowner. The design review board reviewed sample panels for the play equipment as well as interior and exterior finish and colors for the shelter and comfort station buildings. Customized designs were completed for the prefabricated buildings that included laser cut steel panels and railing. Native planting and berm buffer designs were included along property lines per an agreement between adjacent neighbors and the city.

Additional program items included parking for 80 cars, a play area, shelter for 75 occupants, a comfort station, trails, soccer field, multi-use court, baseball field, 3 acre detention pond and multi-use and hiking trails. Completed November 2002.

National Park Service, Blue Ridge Parkway Regional Destination Visitor Center – Asheville, North Carolina. The final product for this project consisted of a 342-page Development Concept Plan and Environmental Assessment. The ultimate purpose of the project was to select a site between two alternatives provided by The National Park Service (client) and a location on the site for a visitor center that highlights the history, regional, cultural and natural heritage of the 472 mile Blue Ridge Parkway from Roanoke, Virginia to Asheville, NC.

After initial data collection, analysis, public and stakeholder meetings, preliminary concepts were generated which were shared with the public in a newsletter and follow-up hearing. The concepts were then put through a two day Choosing by Advantages Process (CBA) with the client group that involved scoring a number of attributes for two concept development plans each on the two sites.

The project had undergone over twenty years of prior planning. One of the two sites was strongly encouraged by a local congressman. The other site was promoted by a strong local interest group that had an existing facility and ongoing agreements with the National Park Service. A schematic design was also completed as the process was near completion that included a rain garden for parking lot storm drainage as well as building siting to take advantage of prevailing winds, relationships to the nearby headquarters and mountain views. Completed March 2006.

- Ranger Training Brigade Florida and Georgia. Area development plans were completed at four Army Training Base facilities for the Ranger training school in Northern Florida and Central Georgia as a component part of the general plan for the facilities. Four conceptual plans were completed that included existing structures, some of which were historic, Army standard buildings, parking and common and other spaces that were planned to Army standards. Completed July 2005.
- Air Force Center for Environmental Excellence (AFCEE) Housing Community Profiles (HCPs). A number of overall neighborhood plans were

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completed at Air Force bases across the US and the Azores. While specific housing unit analysis was completed by other team members, work of landscape architects and civil staff involved initial on site analysis and interviews with base staff to assess if the neighborhoods attained Air Force housing standards. Each neighborhood was scored for items such as play areas, bus stops, landscape, lighting, shelters, courts and recreation fields and recommendations were made based on a 1-5 composite scoring system. These neighborhood scores were compiled with specific unit scores and cost estimates were completed to determine if a neighborhood improvement or replacement was necessary. Analysis and conceptual plans were completed for each neighborhood, cost estimates were completed based on the concepts and schematic plans were completed for selected neighborhood areas. Completed March 2005.

- AFCEE, Vandenberg Air Force Base Housing –The team of architects, landscape architects and estimators was given the task of designing new housing units and fitting fixed quantities of these new Field Grade and Noncommissioned officer housing units on a sloped site to replace existing units. Open space improvements were proposed that conformed to strict Air Force standards and tied directly into other neighborhood open space developments on base. The design team worked with base, Air Force personnel and with the contractor (Jacobs-Lennar) in a one week charette. The result was a 35% document set for the housing contractor to complete. Completed December 2003.
- AFCEE, Randolph Air Force Housing San Antonio, Texas. A 538 unit
 housing layout was completed for the base to renovate their existing Wherry
 units, originally built in the 50's. The new units were duplexes, triplexes and
 quadplexes for three levels of officers including Junior Noncommissioned, Senior
 Noncommissioned and E-4s. Challenges included attaining the required density
 for the site and creating a more formal, pedestrian oriented plan to the latest Air
 Force housing standards. The process was completed in a week long charette
 on site. Completed September 2003.
- AFCEE, Installation entrance gates FE Warren AFB, Cheyenne, Wyoming and Vandenberg AFB, Lompoc, California. Innovative concepts were completed for new installation entrance gates. Each were completed to Air Force standards for multiple points of entry for increased security and included enhanced provisions for arrival sequences and stacking distance. Completed October 2003 and February 2004.
- AFCEE, Warfighting Headquarters Hickham Air Force Base Honolulu, Hawaii. Several concepts were generated in response to the four star general's request to plan the circle at this Air Force Base that is the hub of administrative uses. One concept includes the removal of the back half of a historic building that still has mortar markings from the attack on Pearl Harbor and a new parking structure. Another concept includes renovating the existing 500,000 sq. ft. structure and placing a parking structure at the back of the building. Additional program elements included two headquarter buildings, an addition onto the existing gymnasium, open space, additional parking to meet current parking needs and conformance to force protection standards. Additional concepts utilize a two story parking structure to replace the existing parking lot in the middle of the site. Completed April 2005.
- AFCEE, McConnell Air Force Base Area Development Plans. Area
 development plans were completed at this Air Force Base in Wichita, Kansas as
 a component part of the general plan for the base. Seven of these conceptual
 plans were completed as part of the plan that included a revised air strip,
 commercial area, senior and multi-family enlisted officer housing and the main

base entrance. Two alternatives were completed for senior housing and one for enlisted. Completed October 2004.

- Tianjin Economic Development Authority, Design Guidelines Tianjin, China. Plan and section graphics of focal elements, greenways and landscape features were used as part of design guidelines for a 400 hectare mixed use development for the Tianjin Economic Development Authority in China. The components used-water, rock formations and plant groupings in keeping with Chinese design philosophies. The guidelines were completed for roads, road interchanges, trails, open space, site furnishings and general landscape. Completed September 2004.
- Livable Cities Initiative Forest Park, Georgia (near Atlanta). This LCI was one of several that were completed by various consultants to plan Atlanta and surrounding communities to be sustainably interconnected in accordance with smart growth transportation oriented design (TOD) planning principles. This plan connected residents within the community and to Atlanta with a proposed train line and associated hub station. Connection points within the community included one of the largest existing farmer's markets in the US, a proposed mixed use commercial-residential area, the existing downtown and other key uses. The planning also included proposed signage, to be viewable from a main confluence of two major interstates in the area. Completed December 2004.
- Savannah District, US Army Corp of Engineers, U.S. Army Installation Design Guidelines - Korea-wide. Design guidelines were completed for all South Korean Army installations including Camps Casey, Henry, Humphreys as well as Kousan, Youngsan, Osan and others. The contract was through The Savannah District Corps of Engineers and was completed in 2002. At that time the 630 acre Youngsan Garrison, the largest installation and headquarters, was being considered for relocation. The guidelines addressed various subjects including cultural resource sensitivity, vehicular and pedestrian circulation, site furnishings, open space, sustainability, force protection and general landscape. Specific design recommendations addressed objectives of development density, local design vernacular, security and sustainability while balancing the needs of cost effectiveness required by the Army. The guidelines were all completed to a standard format that included installation background information, analysis of existing conditions, selection of visual zones with similar visual characteristics, selection of a plant list, design of key areas and cost estimation of those areas. Completed May 2003
- Kansas City District, US Army Corps of Engineers, U.S. Army Installation Design Guidelines Fort Leavenworth, KS, and 26th ASG, Germany. Design guidelines were completed for these Army installations in the US and abroad. The guidelines were completed for vehicular and pedestrian circulation, site furnishings, open space, sustainability, force protection and general landscape. Specific design recommendations included landscaped bioswales, rain gardens, permeable paving for parking areas and other low impact development techniques to store and slowly dissipate storm water in high visibility areas of installations. The guidelines were all completed to a standard format that included installation background information, analysis of existing conditions, selection of visual zones with similar visual characteristics, selection of a plant list, design of key areas and cost estimation of those areas. Completed August 2005.
- NAVFAC, U.S. Naval Support Facilities Infrastructure Plan and Design Guidelines - Bahrain. A waterfront Plan and Base exterior architecture plan was completed for Naval Facilities (NAVFAC) as part of an overall general plan for facilities in this region of the Middle East. The 60-acre waterfront site, one of the

main components of this plan included a new 450-unit, 5 story barracks, facilities for SOCOM (formerly Navy Seals), warehouse space, parking, associated open space and other uses. Another main component was a Morale, Welfare, Recreation (MWR) area. The program and space needs for these and other plan components were derived from interviews with on base staff. The base exterior architecture plan included sustainable design ideas such as white roofs as well as wind and solar power guidelines and recommendations. Completed December 2005.

- St. Louis, Missouri County Parks and Recreation Ohlendorf Park. Master Planning, Design development and construction documents were completed for this 16 acre recreation park in St. Louis County, Missouri. The process involved regular meetings with neighbors for initial design input and follow up design feedback as well as various departments at St. Louis County. Construction documents were completed for phase one that included parking for 60 cars, a play area, shelter for 75 occupants, a comfort station, trails, baseball field, a native perennial meadow, and detention ponds. The phase one scope was later reduced and the project was resubmitted for bidding within the budget established by St. Louis County Parks. Completed October 2005.
- City of Georgetown, Kentucky, Skate Park. An overall park plan was completed for this 10 acre sloped site on a capped landfill. Single family residences were allowed to be built on the site. Part of a land reclamation lawsuit by the city involved the construction of park facilities by the previous corporate land owner on the site.

The program for the Master Plan included trails and walks with an overlook to an adjacent natural creek, shelter, comfort station and picnic areas, a 30,000 square foot skate park, soccer, play area, basketball, volleyball and parking. The skate park was based on a design by a specialty consultant for another park that was later constructed in St. Charles, Missouri. The facilities were planned to take advantage of existing paved areas for new paving and to account for the depth to the capped fill subbase. Two concepts were generated, a cross section through the skate park area and a portion of an image board to display potential products and character of proposed facilities. Completed January 2005.

5. Davis Engineering

- Private developer/home builder, Alexander Crossing Planned Residential
 Development Olive Branch, Mississippi. This project included design for two
 open space neighborhood parks and overall landscape including entrance
 treatment for this entry level housing community. Each neighborhood park
 included a passive recreation area, trail and custom picnic shelter. The shelter
 and entrance feature signage were created in 3-d using AutoCAD 2000. This
 provided an easy set-up for detail sheets. Completed September 1999.
- Private developer, Royal Oaks Planned Unit Development Memphis,
 Tennessee. A plan and other presentation graphics were completed for this 280+
 lot entry level, market rate single family development. Further design will be
 completed for a common open space with lake and a wooded trail that passes a
 five-foot diameter, record-setting oak tree along a preserved, major natural creek.

The graphics were used for the county land use control board, Shelby County Commissioners and Memphis City Council. Completed January 1999.

Private developer, Rutland Place Office Complex – Southaven, Mississippi.
 Three vastly different concepts were completed for this client - a local area closing attorney on this 4 acre site. Planning included general architectural

footprint layout and square footage sizing based on ordinance standards. Once the client agreed on an overall site design, additional concepts were completed for the central open space and entry design which originally included a water feature. The column designs were coordinated with the building architecture. The base for the 3-dimensional entry signage graphic was completed in AutoCAD for a hand drawing overlay. The final plat and preliminary site plan was completed for the approval process. Completed January 1999.

• City of Germantown Municipal Center - Germantown, Tennessee. This project included the restoration of an existing lake's edge, two plazas each with an overhead trellis, a walkway to connect each plaza, lake fountain and landscape. This project included design coordination with electrical and structural engineers as well as a fountain/pump consultant.

Detail and specification work was completed for custom steel handrail, steel brackets, precast, color pigmented and exposed aggregate concrete. Completed January 2000.

- Private developer, Cobblestone Office Complex Southaven, Mississippi. A lighting, paving and entrance plan were completed for this 20 plus acre site which included a common open space with a quiet area that employees could enjoy. The entrance treatment and tower at the common open space were coordinated with the architectural scheme for the closely-spaced, 6,000 to 8,000 square foot buildings which surrounded the open space. The entrance treatment highlighted the commercial area at the busy road and identified the corners of the site as well as two entrances. Materials in the design included concrete pavers, slate and copper. Completed January 1999.
- Private developer, Fleur di Lis Residential Development Olive Branch,
 Mississippi. This project involved a landscape plan for a twelve acre, upscale,
 residential development. Objectives were reviewed with the discriminating
 developer prior to planning to include a natural look with a mixture of textures and
 natural accent colors. Innovative plans to screen adjacent neighbors included
 steel structures with vines. Species utilized for varying textures and a natural
 look included Japanese Black Pine and various grasses. Completed May 1999.

6. Pickering

- Private developer, Pickwick Lake Housing Master Plan Near Memphis, Tennessee. A comprehensive analysis was completed for this housing project at this existing marina including slope aspect, slope gradient visual character and a composite Analysis. Slope characteristics and views were of major importance in planning the three schemes (high, medium and low density) that were completed by the design team members. The program for the final master plan included a lodge complex, high rise complex, single family and duplex housing. Mid-rise housing was later incorporated into phase one. Completed January1999.
- City of Memphis, Cobblestone Walkway Memphis, Tennessee. The project involved schematic design, design workshops with community leaders and eventual schematic and bid documents for 1800 lineal feet of walkway between a major riverside thoroughfare and the cobblestone landing a historically and culturally significant area on the Mississippi riverfront. The walkway surface was made possible by the placement of a wall and fill on a former road embankment. The walkway connects two major parks along the river and is a component to the mayor's riverfront plan. The design included an approval process before the state and city's landmark commissions and a committee hand selected by the city. Design concerns addressed included historic sensitivity, utility coordination and placement and traffic concerns. Design components included cast-in-place

concrete wall utilizing a form liner to give the appearance of random split-faced block, new city standard lighting, various paving materials, railing and bollards. Completed March 2000.

- City of Little Rock, Arkansas, Commerce Street Amphitheater Entrance Little Rock, Arkansas. The project involved the transformation of an existing vehicular street to a shared, pedestrian/limited vehicular access street capable of supporting semi trucks. The street would serve as a gateway to the city's renovated amphitheater park completed four years prior to this project. The street also complemented a newly constructed open market facility to the west and a renovated museum complex to the east of the street. A main project component was to coordinate design, materials and construction with these facilities and with the utility companies placing new service lines for adjacent facilities. The brick material used was the same material used on a plaza adjacent to the Open Market Facility. Sandblasted accent paving, site furnishings, lighting and street trees completed the program. Completed August 1998.
- City of Memphis Convention and Visitor's Bureau Memphis, Tennessee. The site schematic and construction drawings for landscape and streetscape work were part of an \$80,000,000 overall budget for buildings and public areas adjacent to the all new facility. The public realm along the south edge of the center included the renovation of a pedestrian/trolley mall bisecting the city's downtown. Additional plantings were chosen for low maintenance characteristics. Completed January 2000.
- Kirby Parkway Shelby County, Tennessee. After fifteen years of controversy, a set of before and after images were created for Shelby county with the help of Photoshop software on a flown aerial oblique photograph base as part of a graphics package to present to local interest groups. Other traditional plan and section graphics were also rendered in Photoshop to promote the project to the public. Completed January 1999
- The University of Memphis Campus Master Plan Memphis, Tennessee. This 150-page master plan was an update to a previously completed plan in an effort to secure funds for the projects listed in the report. The project involved an in-depth site analysis and a series of meetings with 26 campus committees and officials. The master plan included:
 - An on-site analysis to review:

Current and future utility needs

Parking

Vehicular and pedestrian circulation

Campus image and identity

Drainage patterns

Land use

Vegetation and Open space

- Executive Summary and Introduction
- Conceptual Planning
- Project descriptions
- Design Guidelines
- · Campus lighting study

Completed April 1999

- Shelby County Greenway Study Shelby County, Tennessee. This project involved an overall analysis of information including demographic, floodway, existing school locations and existing master plans of the Shelby County communities amongst other data. The result of the study was an overall county master plan to be implemented in phases. An implementation plan was included as part of the study. Data was compiled using ARCVIEW software with the help of the Groundwater Institute at The University of Memphis. The end product was a promotional PowerPoint presentation for the use of Shelby County Public Works. Completed January 1998.
- Highland Oaks Park Shelby County, Tennessee. This master plan was based
 on information gathered at a series of meetings involving the Shelby County
 Conservation Commission, school board officials, the Highland Oaks school staff
 and citizens of the surrounding neighborhoods. Careful consideration was given
 to their input to ensure the maximum use and enjoyment of the park for years to
 come. The estimated construction cost for the 5 acre Phase One area was met.

The master plan included:

- Baseball field with bleachers
- · Soccer field with bleachers
- Trail system
- 10 station fitness area
- play equipment
- Outdoor classroom area
- Passive activities area
- parking

Completed January 1999.

 Southeast Regional Development Commission, Chickasaw Trail Feasibility Study – Shelby, Fayette and Marshall Counties, Mississippi and Tennessee. This development is unique in that it encompasses three counties in two states. The park was a joint effort of the governments of Shelby County, TN; Fayette County, TN and Marshall County, MS. The project included 5,500 acres of primarily vacant or underdeveloped parcels.

The final deliverables to the client included marketing materials, presentation materials and the final report to land owners, government officials, corporations and the Chickasaw Trails Economic Development Compact. Various in-progress meetings were held with a board established by the client.

The study and master plan includes consideration of legal, organization and financial aspects of the following data:

- -Land use and zoning plan including the developing plan, regulations and restrictions, phasing plan and project cost for infrastructure.
- -Transportation including railroads and roads.
- Utilities including electrical, water, gas and sewer.
- -Environmental impact studies including government restrictions, wetland locations and ecological systems. Completed December 1998.

Private Developer, Appling Grove Assisted Living Center – Memphis,
Tennessee. This development included site amenities for a continuing care
complex for the elderly on various levels of dependent and semi-dependant care.
This densely planned housing community included two main site activity areas.
One area included a reflecting pool and sunning area. The other included Bocce
Ball and Shuffleboard. The entire site was heavily landscaped and secured with a
brick column/steel fence.

Site amenities and landscape were in excess of \$800,000 for the two plus acre site. Overall costs were \$14,000,000. Numerous site details, finished grading, landscape, irrigation and layout drawings were completed for the client. Completed December 1998.

7. Jackson, Person Associates

• City of Germantown, Tennessee Hailey Athletic Complex. An overall Master Plan was completed for this 44 acre, wooded site. The program for the Master Plan included 4 Baseball Fields, 3 junior sized Football Fields, 2 Concession/Restroom Facilities, Parking for over 200 cars and trails, site furnishings and utilities to support all of these facilities. Construction Documents were then prepared for Phase one. Items included in phase one were site clearing and preparation including utilities and drainage, two thirds of the fully designed parking lot, two fully lighted Baseball fields and a bridge and trail to connect each.

Efforts were made to keep as many existing trees as possible and to maintain existing wetlands after an approval process of The State of Tennessee Department of Environment and Conservation and The Army Corps of Engineers. Phase two involves the two additional Baseball Fields and was completed in 1998.

• City of Memphis, Tennessee, Peabody Place Streetscape - Memphis, Tennessee. This project consisted of site analysis, master planning, construction documents and cost estimation for this area in the heart of downtown Memphis. At the time of construction it was one of the largest historic renovation projects in the US. The project connected a new mixed-use office/ residential/retail development including the AutoZone Headquarters. The design included the selection of paving and site furnishing materials carefully coordinated with the surrounding architecture, existing downtown developments and the specified project budget. Tree grates, concrete pavers, trash receptacles, planters and granite historical markers were among the coordinated program elements. The project consisted of two bid packages which together fell within budget. Completed November 1996.

8. Dunbar Jones

- State of Iowa Greenway Master Plan State of Iowa. A series of more than 17 analysis maps were completed that delineated potential points of connection such as parks, institutional and cultural destinations. An analysis was completed of existing and planned greenways on a county-by-county basis addressing a multitude of multi-use trails. The client for the project was the State Department of Transportation but cultural resource and Conservation Departments were also involved. Iowa is currently one of the top five states in the nation for miles of trails. Completed in 1992 and later revised by some of the same original consultants.
- Earlham Savings Bank, West Des Moines, Iowa. A site plan was completed for the bank owner in conjunction with the bank architect. The work included

conceptual through construction documents. The design included a strong visual axis to enhance the arrival experience.

- Highway 20 route visual study, State of Iowa Highway. The project included a series of photo enhancements to existing aerial obliques to show what new bridge crossings over major creeks would look like. The images were completed in the late eighties with Targa-based software and were widely viewed by the public to gain public support.
- State of Iowa Welcome Center, Northwood, Iowa. The project was completed as one of many welcome centers, located throughout the state by a previously completed planning study, also completed at Dunbar-Jones. Several concepts were completed on a site selected through the planning process. Part of the challenges included preserving woods along an otherwise unwooded Interstate 35 through the state.