

WORKING TOGETHER



consultants in the geosciences,
materials and the environment

FALL 2007

Mason Run: New Urbanism Takes Sustainable Brownfield Redevelopment Back to the Future!

Move over Mayberry. Mason Run is the new icon of a classic American small town. For over eight years, the City of Monroe, Michigan, Crosswinds Communities, SME and others have worked together to transform a 50-acre abandoned paper mill site into a thriving 500-home community. It is one of the largest New Urbanism projects constructed on an urban brownfield site and a national model for residential sustainable development.

SITE REMEDIATION SUPPORTS SUSTAINABLE REDEVELOPMENT

Approximately 150,000 cubic yards of cinder/ash waste blanketed 42 acres of the site. Since the traditional approach of removing and disposing the waste in a landfill and replacing it with clean fill was too costly to make the project economically feasible, our team designed an alternate solution to swap the cinder/ash fill for clean soil from beneath roads and parks in the development. This resource-conserving approach successfully remediated the future home sites, safely encapsulated the impacted material, and provided replacement clean fill. *This approach saved over \$2.5 million in response costs and made the project economically viable!*

CREATIVE BROWNFIELD FINANCING YOU CAN BANK ON

Our team developed a creative funding program using multiple, leveraged brownfield redevelopment financing mechanisms to mitigate environmental and site preparation costs. We acquired and managed over \$6.5 million in brownfield financing through federal, state and local grants and loans. The complex financing package was structured to correspond to the four remediation/construction phases of the project.

CONSTRUCTABILITY CHALLENGES NOT FOR THE FEINT OF HEART

There were numerous constructability challenges to site preparation, including removing cinder/ash fill, debris and concrete structures from over 350,000 square feet of buried plant basements, on-site wastewater treatment facilities, and contaminated soil. Careful coordination was required to replace the excavated basements with clean fill where future homes would be built, and to move the cinder/ash fill and encapsulate it below roads and parks.

“Mason Run is a resounding success and a model of sustainable development. We value SME’s ability to provide solutions to challenging brownfield issues—from developing innovative brownfield financing strategies and creative environmental response programs to developing cost-effective site preparation strategies. We look forward to working together with SME on other redevelopment projects,” stated Mayor C.D. “Al” Cappuccilli with the City of Monroe.

So, Ron Howard, how about telling a real-life story about a quintessential American small town that sprung up out of the ashes? With its innovative engineering, sustainability and 21st century amenities, Mason Run is the place to live and leaves Mayberry in the dust.

For more information, contact **James Harless, PhD, CHMM, RBP**
at harless@sme-usa.com.

Mason Run is having and will continue to have, profound economic and social impacts on the City of Monroe. In the New Urbanism tradition, over 10% of the land in the development has been set aside for landscaped parkland and green space.



The primary environmental concerns on the site were managing the cinder/ash fill and unknown materials in the buried basements. Coal residuals and soil in other areas of the site also were contaminated.



HONORS/AWARDS

- CREW-Detroit Impact Award, Redevelopment Category.
- MAEP Environmental Excellence Award, Brownfield Redevelopment Category.
- U.S. EPA featured Mason Run on the cover of its 2004 and 2005 “Proposal Guidelines for Brownfields Assessment, Revolving Loan Fund, and Cleanup Grants” because of its exemplary use of sustainable redevelopment principles.



Geofoam Saves Ford PRC Project \$200,000

Expanded polystyrene (EPS) geofoam blocks using conventional spread foundations support the new Ford PRC building. *Image courtesy of JM Olson Corporation.*



You drink your morning coffee from a white foam cup. You take home leftovers from your favorite restaurant in a white foam container. The building you work in everyday rests on white foam blocks? The Ford Product Review Center (PRC) building at the Dearborn Development Center does just that. The blocks, more commonly referred to in the engineering community as geofoam, are masses of expanded polystyrene (EPS) that are simply stronger than the same EPS that holds your coffee or leftovers.

Originally, the project team planned to use 8 to 10 feet of fill and drive piles 70 to 80 feet to support the building. Although geofoam is typically used to support transportation infrastructure projects, SME and JM Olson

Corporation worked together and determined geofoam could be a feasible foundation alternative. The lightly loaded, single-story building and the soft, compressible soil underneath presented a prime opportunity to utilize the ultra-lightweight fill.

Working closely with Advanced Engineering Solutions of Cedar City, Utah, we provided design and consulting services for constructing the building on geofoam using conventional spread foundations. The fill consisted of 3 to 4 layers of 2-foot thick blocks of geofoam of densities varying from 1 to 2 lbs/ft³. The use of the geofoam reduced the net weight of fill by 98 percent, eliminating the need for driven piles and resulting in an overall savings of \$200,000.

Andy Reynolds, Project Manager with JM Olson Corporation asserts, “The project gave our team the opportunity to use geofoam in a new application, resulting in significant construction cost savings. We value SME’s engineering expertise and look forward to working together on future projects.

For more information, contact Tim Bedenis, PE at bedenis@sme-usa.com.

MDOT Sign Upgrades

The American Association of State Highway and Transportation Officials (AASHTO) released its latest “Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals” in 2001. Since then, Michigan and states nationwide have been upgrading their designs to meet these new standards, which are more comprehensive and generally result in larger structures and foundation loads.

SME has been working with the Michigan Department of Transportation (MDOT) and assisted with the analyses and design of a new standard type of foundation (single-drilled shaft foundations) to support the large overhead freeway cantilever and truss-type signs. During the initial development phase, SME was the foundation engineer on the team that developed MDOT’s Traffic and Safety Division Standard Plans for Drilled Shaft Foundations. We performed analysis and design to determine the overall drilled shaft lengths required for each type of sign and for drilled shafts of various diameters.

Under high winds, the cantilever arm and sign panel develop significant torque loading that

SME has been helping MDOT develop new standard foundation designs for highway signs based on the new AASHTO standards.



is distributed to the anchor bolts cast into the top of the drilled shaft. For a single-drilled shaft, if the foundation is not large enough, the sign may rotate or twist in-place. Using special analyses methods developed by SME, we were able to predict the torque capacity of drilled shaft foundations during high winds. Numerical simulations for different soil types and sign loads were used as part of the development of the standard array of drilled shaft foundations for the different standard sign types. The information from these analyses was used as the basis for the current MDOT Standard Plans for cantilever and truss-type freeway sign foundations.

For more information, contact Chris Byrum, PhD, PE at byrum@sme-usa.com.

Metro Health Village

The \$150 million hospital is the focal point for Metro Health Village located south of Grand Rapids in Wyoming, Michigan. *Image courtesy of Metro Health.*



RX FOR SUCCESS!

While the health care industry is growing in downtown Grand Rapids, it is also booming in southern Kent County where Metro Health is taking health care to a better place. Located on a 170-acre greenfield site, Metro Health is creating an innovative healthcare village.

The anchor of the campus is a new eight-story hospital which is surrounded by an entire community of physician offices, clinics, health-oriented businesses as well as a retail village. The village will incorporate restaurants, a hotel, parks, jogging trails, fitness centers, and other conveniences.

The hospital and associated office buildings consist of a 581,000-square-foot medical center which includes 208 private rooms, nine surgery suites, full lab services, ED, heart and vascular center, diagnostics, and attached professional buildings. The design incorporates LEED certification for green development.

During construction of the hospital, SME provided construction materials services (CMS) related to concrete, soils, structural steel, roofing and pavements. We conducted a geotechnical evaluation for a five-story hotel, and provided CMS for the Central Utilities Plant and ProCare Systems facility. Geotechnical engineering and CMS services were also provided for the Highpointe Medical Office Building and Hoekwater Family Dentistry Building. For these projects, SME has been working closely with AMDC, Exxel Engineering, Inc., First Companies, Inc., The Granger Group, HDR, Integrated Architecture, Pinnacle Construction Group, Turner-Christman (joint venture between Turner Construction Company and The Christman Company), and Workstage, LLC.

Joe Barber, Superintendent with Turner stated, “The service from SME was exceptional. They were very responsive and helped us quickly work through a variety of construction challenges on the hospital site. We look forward to working with SME on future projects.”

For more information, contact Lou Northouse, PE at northouse@sme-usa.com.

SME Expands in Grand Rapids!

Last spring, SME relocated to larger offices in Grand Rapids. The new 7,800 square-foot facility provides the added space needed for us to continue expanding in western Michigan. Our team is currently working on the Michigan Street Development Parking Structure, Lemmon-Holton Cancer Pavilion, MSD Tower 25, Helen DeVos Children's Hospital, Hauenstein Center at Saint Mary's Hospital, Metropolitan Hospital improvements, Metro Health Village, Muskegon Cancer Center, River House at Bridgewater Place, Gerald R. Ford International Airport improvements, Grand Rapids Press addition, two new facilities at Grand Valley State University, and several brownfield redevelopment projects. Stop by and see us in if you are in the area!

For more information, contact **Mike Meddock, PE** at meddock@sme-usa.com.

New Grand Rapids office address is:

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New Miller Canfield Building Joins Kalamazoo Skyline

Amid a busy area in downtown Kalamazoo, construction is approaching the home stretch on a new six-story building at the intersection of Rose and South streets. An impressive building outline fills the small urban site — future home of the 162,000 square-foot Miller Canfield Building. Throughout the project, SME has been working with the project team, including Catalyst Development Company, LLC; M. W. Vander Veen; Eckert Wordell; and CSM Group, providing a full range of engineering services.

Complex soil and groundwater conditions as well as site constraints created challenges for the project team. With adjacent buildings to the north and east of the site, access required meticulous planning and careful coordination for excavation, earth retention, dewatering, construction staging, and material deliveries.

SME provided design recommendations for a large mat foundation system, a complex earth

retention system, and underpinning and soil stabilization to protect the adjacent buildings. A temporary dewatering system was used during foundation installation and vibration monitoring was conducted to protect adjacent buildings during construction.

We traveled to Arkansas to conduct structural steel fabrication shop reviews and provided on-site observations and testing of structural framing, reinforced steel, and materials used in the building envelope. We also provided routine due diligence services for challenges related to historic fills, common with many downtown sites. Since Rose and South streets are main arteries through downtown, the construction team, including SME, was required to perform critical concrete placements during night and early morning hours to minimize disruption to daytime traffic.

Tim Ankney, Group Vice President with CSM Group, asserts, "It was a big asset to

Miller, Canfield, Paddock and Stone, PLC will move into the new \$30 million Miller Canfield Building in January, 2008. *Image courtesy of Eckert Wordell.*



have SME and their depth of experience on our project team. They were committed to the project and its aggressive schedule, and were able to work with us during night construction in addition to the daytime construction."

For more information, contact **Tim Mitchell, PE** at mitchell@sme-usa.com.

Parker High School Opens

This fall, 1,900 students on flex schedules are walking through the doors of what Michigan educational leaders are hailing as a statewide model for preparing students for college and their careers. The new Parker High School, located south of Howell in Marion Township, has a privately owned credit union and cashless convenience store designed to offer students real-world business training and experience. Lansing Community College has its own eight-classroom wing, expanding enrollment options for students to take college level math and science classes, and simultaneously earn credits toward their high school diploma and an associate degree.

The \$72 million campus sits on just over 113 acres and features an academic building and a field house, totaling 305,000 square feet. The

buildings are unified by a knowledge mall that includes a Welcome Desk, "What's Next" area, media center, dining commons and cyber lounge.

As part of the project team, SME conducted geotechnical and pavement evaluations and construction materials services during construction. One of the more interesting challenges involved extending utilities to the site and improving Pinckney Road to accommodate the school traffic. Due to glacial action, deep peat deposits and high groundwater levels were encountered along the roadway. Up to the challenge, SME assisted in developing several designs to address these interesting geologic features.

Ted Ryskamp, Project Manager with Clark Construction Company, states "SME was

Designed by French Associates, Inc., Parker High School includes partnership spaces for use by the local community college, business partners and training programs. *Image courtesy of Dietrich Floeter Photography.*



instrumental to the project team from the initial site investigation. SME worked closely with us to provide site condition remediation recommendations to keep foundation and structural construction progressing through the winter months."



Porous Pavement Earns Award from APWA Michigan Chapter

The Michigan Chapter of the American Public Works Association (APWA) awarded the porous pavement project at Willard Beach Park in Battle Creek, Michigan the "2007 Public Works Project of the Year Award" in the Transportation-Less than \$2 Million Category at the recent 53rd Annual Michigan APWA Awards Banquet. APWA honored the City of Battle Creek and SME for innovative sustainable design.

SME worked closely with the City of Battle Creek using pervious asphalt concrete

pavement to address important stormwater issues and support sustainable growth on a roadway at Willard Beach Park. SME conducted a geotechnical evaluation and provided pavement design recommendations for the roadway.

By capturing stormwater and allowing it to seep into the ground, porous pavement is instrumental in recharging groundwater, reducing stormwater runoff, and meeting U.S. Environmental Protection Agency (EPA) stormwater regulations.

Art Johnson, CET of SME, and Chris Dopp, PE and Greg Zanotti, PE of the City of Battle Creek accept the APWA award.



For more information, contact **Art Johnson, CET** at ajohnson@sme-usa.com or **Starr Kohn, PhD, PE** at kohn@sme-usa.com.

MidMichigan Medical Center Growing for the Future

MidMichigan Health is doing more than caring for patients today at the MidMichigan Medical Center in Midland—they are also building for the future. This fall they plan to break ground on a \$66.2 million, two-year-long expansion and renovation of the Medical Center's Harlow Building.

Designed by HDR, the 163,000 square-foot project includes a new, atrium-style lobby and an enlarged surgical services department with six new operating rooms and surgical/prep/recovery and waiting room spaces. Renovations also will take place in the post-anesthesia care unit, cardiac catheterization and interventional radiology departments. SME has been working

closely with MidMichigan Medical Center, HDR and the Spicer Group during the design phase, providing solutions to geotechnical engineering challenges and preparing recommendations for site preparation and earthwork, foundations, and construction considerations.

We are also currently working with Skanska, providing construction materials services for a chilled water plant addition and improvements to the facility's critical care unit. The critical care unit expansion and renovation is part of the facility's growing comprehensive cardiovascular services program, which will include open heart surgery and elective angioplasty. The

SME is providing geotechnical engineering for the new MidMichigan Medical Center-Midland entrance. Image courtesy of MidMichigan Health.



unit incorporates state-of-the-art patient care design with conveniences built in for the patient's family.

For more information, contact **Joe Noykos, PE** at noykos@sme-usa.com.

Fifth Third Investing in Michigan

SME has worked with Fifth Third Bank on over 50 new facilities as well as several addition/renovation projects. Image courtesy of Fifth Third Bank.



For more information, contact **Debra Osuch, REM** at osuch@sme-usa.com.

Already deeply rooted in Michigan, Fifth Third is deepening those roots by growing their market share with new facilities in southeast Michigan. Fifth Third plans to invest \$100 million to build over 40 new branches and plans to hire an additional 350 employees by the end of 2009. This year new banking centers include two branches in Detroit, one in Riverview, Fenton, Berkley and Ann Arbor. An additional 15 branches are planned for 2008 and another 23 in 2009.

And SME will be there to assist. Over the past four years, Fifth Third has retained SME to provide services on over 200 projects for over 50 new facilities and additions/renovations, as well as for customers of Fifth Third. Services have included environmental assessments, transaction screens, asbestos consulting and

abatement monitoring, mold assessments, UST removal, materials evaluations, geotechnical evaluations, construction materials services, construction draw reviews and welding reviews.

Brad Newman, Vice President of Fifth Third in Southfield, Michigan, has worked with SME on over 50 of these projects and asserts "It is because of their knowledge, expertise, and exceptional customer service that SME has been a critical part of the Bank's footprint expansion in the Southeastern Michigan market. We would not have been able to accomplish such a far-reaching objective as this without the assistance of SME. We appreciate SME's role in helping Fifth Third Bank be the only Bank you'll ever need!"

Latest Wave in Seismic Technology

SME USES NEW TECHNOLOGY TO IMPROVE RETURN ON GEOTECHNICAL INVESTMENTS

Some technologies keep us competitive. Others put us ahead of the game. Today, new seismic equipment is available to better assess the shear wave velocity profile at sites as a means of assigning a more realistic seismic site classification. Structural engineers use site seismic classification data along with the building type and occupancy and other considerations to design structural connections.

Using the new seismic equipment has allowed easier measurement of shear wave velocity more cost-effectively than more expensive methods. The result? With better data from having shear wave velocities, we are better able to assess the seismic site class and potentially save clients money. In one case, the savings for a retail development in the Detroit area was \$50,000 and at another site located on the East Coast, the savings were over \$1 million.

Although there may be potential savings to the project, shear wave velocity testing does carry some risks. A client's investment in the analysis doesn't guarantee that the results of this new technology will result in a recommendation to upgrade the seismic classification. Larger or multi-story projects located in areas of challenging soil conditions may benefit significantly from this evaluation.

For more information, please contact Larry Jedele, PE at jedele@sme-usa.com.

The Mall at Partridge Creek

From California to Texas, Connecticut to New Jersey, Illinois to Michigan, Taubman Centers, Inc. owns/manages 23 shopping centers in 11 states. The firm, known for commitment to future growth, now has its eyes set on Macomb County. Taubman, along with Giffels-Webster Engineers, Hobbs + Black Architects, Skanska, and SME, is transforming a 55-acre portion of a former golf course into a 640,000 square foot open-air shopping center in Clinton Township, Michigan. The Mall at Partridge Creek will encompass up to 90 stores and restaurants with Nordstrom, Parisian, and MJR Theatres anchoring the \$155 million mall.

SME performed environmental and geotechnical assessments as part of the due diligence and planning process. The geotechnical evaluation revealed that portions of the site would experience significant settlement after raising design grades over an existing compressible subgrade. To minimize settlement and meet the fast-paced construction schedule, SME recommended a soil surcharging program that incorporated the use of wick drains. About 9,000 wick drains were installed over a 285,000 square-foot area, which reduced the duration of the surcharge from several years to about 60 days. SME monitored the rate and magnitude of settlement and, based on this information, provided recommendations for removal of the soil surcharge.

Pat Mason, Owner's Representative, with The Taubman Company states, "This fast-track project required solutions to meet a demanding schedule and SME came through for us. We appreciate SME's responsiveness to project challenges and ability to help us every step of the way during this project."

UM Fletcher Street Parking Structure Restoration

As students and faculty return this fall to the University of Michigan campus in Ann Arbor, they will recognize familiar building landmarks throughout campus, including the Big House, Hill Auditorium, and the Michigan Union, among others. While the Fletcher Street Parking Structure may not be considered a university landmark, its recent restoration will be appreciated by students and faculty for years to come.

Constructed in the late 1960's, the six-level parking structure had endured common wear-and-tear and needed rehabilitation. The structure is situated below-grade on three sides with the floors bracing the exterior walls that retain the soil behind them. As part of the rehabilitation, portions of the floors needed to be temporarily removed and thus could not brace the exterior walls during rehabilitation. The parking structure abuts the north side of the Dental School building and the south side of the Power Center building, and extends below the lowest level of these buildings. Therefore, existing floor slabs, foundations, and utilities are located in the backfill zone behind the parking structure walls.

Walker Parking Consultants designed the rehabilitation and prepared plans and specifications. SME designed a temporary earth retention system that involved installing tie-backs (soil anchors) into the backfill behind the below-grade walls, tensioning the soil anchors, and locking the anchor load off onto

SME designed a temporary earth retention system to brace the 50-foot tall basement walls to allow slab replacement at the UM Fletcher Street Parking Structure.



the existing concrete retaining walls. The anchors then braced the walls, allowing the floors to be removed and replaced without damaging the walls or adjacent structures. Unlike internal bracing, our design did not interfere with the work required inside the parking structure. After the rehabilitation was complete, the temporary anchors were decommissioned and the bracing effect of the floors was reestablished.

Patricia Spence, PE, UM Construction Project Engineer stated, "We appreciate SME's design expertise and field support during construction which helped facilitate the project being completed on schedule and on budget."

For more information, contact Jeff Krusinga, PE, GE at krusinga@sme-usa.com

In addition to The Mall at Partridge Creek (pictured), SME is working with Taubman on the Twelve Oaks Mall expansion in Novi, Michigan and additions to the Stamford Town Center in Stamford, Connecticut. *Image courtesy of Taubman Centers, Inc.*



Get your shopping shoes ready! The Mall at Partridge Creek is slated to open October 18.



Habitat for Humanity Update

Two families will move into their new Habitat homes this fall.



SME is continuing to help Habitat for Humanity and is co-sponsoring construction of two new additional homes on Dunning Street in Inkster, Michigan. Our Habitat team is working on the finishing details so that our partner families can move in this fall. We also provided geotechnical engineering for four new townhouses in Ypsilanti.

Environmental Update

IS VAPOR INTRUSION THREATENING YOUR SITE?

In the world of environmental health and safety, vapor intrusion, the migration of volatile chemicals from the subsurface into overlying buildings, is receiving increased attention. Examples of volatile organic compounds (VOCs) include petroleum fuels and solvents and chlorinated solvents used for dry cleaning and industrial processes. Concurrently, vapor intrusion is receiving increased attention from federal and state environmental regulatory agencies. Both the U.S. EPA and the MDEQ recently issued guidance for assessing vapor intrusion (volatilization to indoor air) exposure pathways at sites of environmental contamination.

VAPOR INTRUSION AT DRY-CLEANING FACILITIES

Unfortunately, over the past two years, we've encountered vapor intrusion at several shopping centers that had historical dry cleaning operations. In the course of conducting environmental assessments of several dry cleaning establishments, we found significant dry cleaning solvent contamination at all the sites. In over half of these facilities, the contamination was present above MDEQ criteria for protection of human health. These results, combined with field observations, indicate that dry cleaning solvents can permeate typical concrete slabs at a significant rate that is accelerated if cracks or slab penetrations are present. Our findings also indicate that common assessment techniques which rely solely on samples collected from outside the building, are not adequate for evaluating the impacts of dry cleaning establishments. Our findings were presented this summer by senior consultant, Dr. James Harless, PhD, CHMM, RBP at the Academy of Certified Hazardous Materials Managers National Conference held in Washington, D.C. SME is on the forefront in working with our clients and the MDEQ to develop solutions to vapor intrusion issues.

For more information, contact James Harless, PhD, CHMM, RBP at harless@sme-usa.com.

Marathon Upgrades Pipe Network and Storage Tanks

Petroleum refineries are marvels of modern engineering. Within them a maze of pipes, distillation columns, and chemical reactors run 24 hours a day turning crude oil into valuable products. Gasoline, propane, jet fuel, heating oil and petrochemicals are just some of the specially formulated products leaving the refinery.

SME is providing specialty consulting to Michigan's only petroleum refinery — the Marathon Detroit Refinery — with pipeline and storage tank improvements. Occupying approximately 200 acres in Detroit, the refinery operates a fully integrated process with raw materials entering the plant and finished products leaving via truck, barge, rail car or pipeline.

Currently, we are providing inspection services for new piping systems that are being installed at the facility. We are also providing Quality Assurance monitoring of tank erection, piping system installation, and coating applications for new aboveground storage tanks.

For more information, contact Mike Gase, CWI, ASNT LIII at gase@sme-usa.com or John Zarzecki, CWI, CDT at zarzecki@sme-usa.com.

AWARDS



Gerald Belian, PE received the "Outstanding Leadership Award" from the Engineering Society of Detroit (ESD). The award reflects his contributions to the ESD Construction and Design Committee, on which he has served for 25 years.



Amy Sutherland, PE was named an "Outstanding Young Engineer" by ESD and was profiled in the June/July issue of "Technology Century" magazine. She is President of the MSPE Capital Area Chapter where she was recently named "Young Engineer of the Year."

ASFE FOPP GRADUATES

Congratulations to **Matt Moyneur, PE; Brian Zatloukal, PE; Mark Halloway, OHST;** (standing) **Marc Plotkin, PE; Simon Murley, EIT;** and **Kevin Whalen, PE** (seated) for successfully completing the ASFE Fundamentals of Professional Practice (FOPP) Program. This six-month program addresses various aspects of



professional practice ranging from procedures for verifying the accuracy of technical output to improving client and project selection, oral and written communication, scope-of-work development, personnel training and dispute resolution.

APPOINTMENTS



James M. Harless, PhD, CHMM, RBP was named a Senior Associate. He has 30 years of experience and specializes in helping clients with brownfield redevelopment and financing projects, liability management and due care planning, and site assessment and remediation.



Melinda L. Bacon, PE was named an Associate. With 10 years of experience, she provides solutions to geotechnical and environmental engineering challenges and constructability issues, including foundation design, ground improvement, and earth retention systems.



Patrick G. Barrese, CPG, PG was named an Associate. He has 18 years of experience, and specializes in complex subsurface feasibility studies, and remediation design and implementation at industrial sites, former manufactured gas plant sites, and underground storage tank sites.



Mark A. Halloway, OHST was named an Associate. With 18 years of experience, he manages hazardous materials assessments, prepares abatement project designs/specifications, writes O&M Program manuals, and provides training for building renovation/demolition.



Joseph L. Noykos, PE was named an Associate. He has 12 years of experience, and manages geotechnical engineering evaluations and drilling services in our Bay City office. Joe specializes in design recommendations related to geotechnical and constructability issues.



Davin K. Ojala was named an Associate. He has nine years of experience and specializes in redevelopment projects, and assists clients with brownfield financing, environmental challenges, and constructability issues.



Bradley G. Parlato, PE was named an Associate. With eight years of experience, he prepares geotechnical evaluation reports and provides solutions to constructability and storm water issues. He coordinates field engineering and CMS services at our Kalamazoo office.



Brian J. Zatloukal, PE was named an Associate. He has eight years of experience, and specializes in materials engineering services and evaluations of structural materials. He provides engineering design reviews and engineered solutions for restoration projects.

PROMOTIONS

Susan Brown and **Douglas Schaberg** were promoted to Senior Laboratory Technicians. **J.P. Buckingham** was promoted to Senior Geologist. **Chris Byrum, PhD, PE; Rohan Perera, PhD, PE; and Keith Toro, PE** were promoted to Senior Project Engineers. **Casey Coffin** and **Ben Gann** were promoted to Senior Engineering Technician. **Eric Eckler** was promoted to Staff Engineer. **Elaine Nading** was promoted to Manager Administrative and Human Resources Services. **Mark Quimby** was promoted to Senior Environmental Specialist. **Jason Schwartzenberger, PE** was promoted to Senior Project Engineer and named Team Leader for our Plymouth Drafting Team. **Amy Sutherland, PE** was promoted to Project Engineer. Congratulations to you all!

TEAM ADDITIONS

Our Grand Rapids office added **Andrew Bolton, EIT**, Senior Engineer; and **Marty LaHaie** and **Matt McClendon** as Engineering Technicians. In Kalamazoo, we added **Errol Gilbert** and **Brandon Wilson** as Engineering Technicians. Our Shelby office added **Bryan Bernard, EIT**, Staff Engineer; **Christopher Buyle**, Engineering Technician; and **Christie Kameg**, Staff Assistant. Additions in our Plymouth office include **Phillip Barton, EIT**, **Jessica Seres**, and **Brian Shepherd, EIT**, Staff Engineers; **Paul Roberts**, Environmental Specialist; and **Mireille Telnors**, Accounting Assistant.

TRANSFERS

Jeff Edwards, Senior Environmental Specialist, transferred from our Traverse City office to our Grand Rapids office.

CERTIFICATION/REGISTRATION

Pat Barrese, CPG, PG became a Licensed Professional Geologist in the state of Indiana and a Licensed Registered Geologist in Arizona. **Brian Bernard, EIT; Hayder Al-Hilal, EIT; Johnny Phanthala, EIT;** and **Brian Shepherd, EIT** attained Engineer in Training status. **James Harless, PhD, CHMM, RBP** became a Registered Brownfield Professional. **Hayder Al-Hilal, EIT; Jayson Graves, EIT; Sara Lepine;** and **Wade VanBuren** earned certifications as Storm Water Management Operators at Construction Sites. **Hayder Al-Hilal, EIT** also received the Soil Erosion and Sedimentation Control certification. **Brian Iglewski, CWI** earned the API 653 Aboveground Storage Tank Inspection certification.

PROFESSIONAL/ASSOCIATIONS

Myndi Bacon, PE was elected Vice President of the NAWIC Battle Creek/Kalamazoo Chapter. **Chuck Gemayel, PE** was elected President of SOCME. **Cheryl Kehres-Dietrich, CGWP** is serving on the CAM Executive Committee for their annual Boy Scout Fundraiser. **Mark Kramer, PE** was elected ASFE Director-at-Large. **Brad Parlato, PE** was elected Resources Chairman of Trout Unlimited, Southwest Michigan Chapter. **Michael Thelen, PE** is serving as Secretary of the Michigan Section of ASCE and the Chair of the Geotechnical Committee for the ASCE Lansing/Jackson Branch.

PRESENTATIONS/PAPERS

James Harless, PhD, CHMM, RBP presented "Brownfield Redevelopment – Public Work Impacts and Opportunities" at the APWA Michigan Chapter Annual Conference. **Starr Kohn, PhD, PE** presented "Porous Concrete Pavement" at the Low Impact Development (LID) Workshop sponsored by the City of Battle Creek. **Larry Jedele, PE** presented "Site Seismic Services" to SEAMi and the ASCE Lansing/Jackson Branch. **Jim Less, CIH** presented "Occupational Health Issues in Construction" as part of the AGC Michigan OSHA 10-Hour Course. **Mark Michener, CDT** presented "Green Roofing" at the LID Workshop, the Michigan Association of Drain Commissioners Winter Conference, the Southwest Michigan Facilities and Operation Directors program and the Grand Rapids ASPE/Builders Exchange meeting.

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REPRESENTATIVE CURRENT PROJECTS

GEOTECHNICAL

Alpena Combat Readiness Training Facility
Ambassador Bridge ERS Design, Detroit
Cathedral Square, Grand Rapids
Crittenton Hospital, Rochester Hills
Davenport University, Grand Rapids
Delta Dental Improvements, Okemos
Dow Corning Additions, Midland
Hemlock Semiconductor Expansion, Hemlock
Hines Parcel C, Detroit
K-12 Schools: 10 School Districts, Statewide
Kellogg Pilot Plant Expansion, Battle Creek
Lowe's Home Improvement, Auburn Hills
Medical Office Buildings, Ann Arbor,
Coldwater, Rochester Hills
MSU Several Projects, East Lansing
Pfizer Farms: Buildings B610, B611, Kalamazoo
Plante Moran/Christman Building, Grand Rapids
Retail Developments, Blackman Twp., Warren
Seven Lakes Dam Improvements, Holly Twp.
Shelby Justice Center, Shelby Twp.
St. Joseph Mercy Hospital, Ypsilanti
UM Several Projects, Ann Arbor
USPS Carrier Annex, Mt. Clemens
Wolverine Power Plant and Substations

CONSTRUCTION MATERIALS SERVICES

Airport Parking Structure, Grand Rapids
Asama Coldwater Mfg. Expansion, Coldwater
Ashley Terrace, Ann Arbor
Aspen Lakes, Holt
City of Battle Creek and Kalamazoo Contracts
Frankenmuth Mutual Insurance Addition
GVSU Buildings, Grand Rapids
Hauenstein Center & Parking Deck, Grand Rapids
Helen DeVos Children's Hospital, Grand Rapids
HH Dow Academy/Conference Center, Midland
HSC Solar Phases II and III, Hemlock
Jackson National Life Expansion, Lansing
K-12 Schools: 20 School Districts, Statewide
Keihin IPT Warehouse, Capac
Metro Airport Building N, Romulus
MSU Several Projects, East Lansing
Odawa Casino Resort, Petoskey
Pepsi Bottling Facility, Port Huron
Pfizer Farms, Kalamazoo, Richland
Retail Developments: 7 Southeast Michigan Sites
SSAB Hardtech, Mason
Steelcase Redevelopment, Grand Rapids
SVSU Pine Grove Housing, Saginaw
UM - Several Projects, Ann Arbor
Vector Pipeline, Washington Twp.

FACILITY SERVICES

Albert Kahn Building Façade Review, Detroit
Albright College, Reading, PA
AST Audits, MI and OH
Beaumont Hospitals, Royal Oak, Troy
Blue Cross Blue Shield, Detroit, Southfield
DDA Parking Deck Management, Ann Arbor
Metalayne Masonry, Plymouth
Michigan International Speedway, Brooklyn
NWA NFPA Tank Audits, Romulus
Oakwood Hospital, Dearborn
Parking Structure Consulting, Detroit,
Port Huron, Troy
Simsbury Plaza PCA, West Bloomfield
Tunnel Condition Survey, Grand Rapids

ROOFING

Bangor Schools, Bay City
Fire Station, Delta Twp.
Harbor Spring Schools
Islamic Center, East Lansing
Northwest Airlines Hanger, Detroit
Redford Trade Center
Renaissance High School, Detroit
St. Paul of the Cross Retreat Center, Detroit
UM Mosher Jordan, Ross School of Business,
Stockwell Hall, Weill Hall, Ann Arbor
University Hospital, Ann Arbor
UPS Facility, Livonia
USPS Building, Detroit
Wellington Place Manor, Southfield

PAVEMENT

ASR Development and Deployment Program
Carpenter Road Reconstruction, Ypsilanti Twp.
Chrysler High Speed Test Track, Chelsea
Coolidge Highway, Oak Park
Farm Lane Improvements, East Lansing
FHWA Pavement Smoothness Research
FHWA Technical Assistance Contract
Ford Land, Various Sites
Jay/Rave Streets Reconstruction, Coldwater
Kalamazoo Pavement Management Update
Newburgh Road, Livonia
Northwestern Elementary, Battle Creek
Oakland University, Rochester
Runway/Taxiway Rehabilitation, Romulus
UPS Facilities, Battle Creek, Livonia, Maumee,
Pontiac, Taylor
Various Streets, Dearborn, Livonia

ENVIRONMENTAL

AAI Phase I ESAs, Michigan, Ohio, Indiana
Ashley Capital Corrective Action, Delta Twp.
Biodiesel Plant Siting and Permitting, Adrian
Boardman Rail Yard, Traverse City
Central Sanitary Landfill Groundwater Monitoring
Dry Cleaner Evaluation, Sterling Heights
EPA Brownfields Grant Management,
7 Communities, Statewide Michigan
Fairlane Green Landfill Redevelopment,
Allen Park
Fifth Third Landfill Redevelopment,
Auburn Hills
Former Metropolitan Hospital Redevelopment,
Grand Rapids
Garden City Hospital Expansion Environmental
Management
Remedial Investigations/Interim Response
Activities for 10 Former MGP Sites
River East Mixed Use Brownfield
Redevelopment, Hastings
Shopping Center/Brownfield Redevelopment,
Hartland
Stone Jug Road Wetland Design, Battle Creek
Stormwater Management at Numerous Sites
Volcan Mold Cleanup and Redevelopment

SPECIAL

AST Condition Assessments, Plymouth
Building Condition and Vibration Assessments, UM
North Quad, Ann Arbor
Coatings Consulting, Ann Arbor, Detroit, Southfield
Confined Animal Feeding Operations, Numerous
Sites, Michigan Thumb
Ford HQ Light Pole Evaluation, Dearborn
Ford Motor DTP Phased Array Testing
Ford Motor Paint Shop
Ford St. Thomas Welding Procedure
Ford VO Cathodic Protection, Dearborn
GE Power Plants, Ireland, Italy, South Africa, Spain
GM SPCC and AST Consulting
Gothic Building Mortar Analysis, Cleveland, OH
Load Testing Material Handling Carriers
Marathon Oil AST Construction and Lining, and
Welding QA/QC
Orchid/Stealth Orthopedic Solutions, Mason
Pittsburgh Paint and Glass AST Shell Audit, Detroit
Vibration Evaluations at Hospitals, Livonia, Wayne
Vibration Consulting, Ann Arbor, Detroit,
Grosse Pointe Farms, Saginaw
Wood Consulting, Detroit

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