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New in 2008

The new year has brought about some new and exciting changes for MDC Systems. We would like to announce that we have **relocated** our Pennsylvania office. Our new address is:

MDC Systems
37 North Valley Road
3 Station Square
Suite 100
Paoli, PA 19301

Also, Check out our redesigned website:

www.MDCSystems.com

Engineers Week at Drexel

Dr. Amadei, founding president of Engineers Without Borders - USA, will be honored as the

Risk Reduction with Effective Critical Path Method (CPM) Schedules

By: Robert C. McCue, PE and Robert N. Kennedy, PE

The purpose of the CPM schedule (a scheduling technique whose order and duration of a sequence of task activities directly affect the completion date of a project) is to assist in the cost effective management of the project, anticipate problem areas, and allow the project team to mitigate the impact of unforeseen conditions. What a tool! Without this tool, the project management team is simply reacting to a crisis of the moment and their hurried reaction may exacerbate an already difficult project by doing harm in the response to the disaster of the moment.

If this is a correct understanding of the purpose and intent of CPM schedules, then why is the art and practice of scheduling often blamed when problems do arise and they were not foreseen? Let's look in on the start of the OMEGA project as the "new" scheduler, Bart, meets Old Bill, the Project Manager, to find some clues...

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It Seemed Like a Good Idea at the Time

The Importance of Systems Thinking and Integration in Project Delivery

By E. Mitchell Swann, PE, LEED AP

Recently the global marketplace has been buffeted about by news of the recall of children's toys by several major manufacturers and by the collapse of the subprime lending market including its investment derivatives and related impacts on credit and capital markets worldwide. These items might seem completely unrelated to each other, not your typical project management or construction topic. Try this; think about each scenario as a portrait of a system and consider the impact on a project if the system components are misaligned.

The toy story goes like this: a major manufacturer looks for a cheaper way to make products - and increase the profit margin - so he negotiates hard and outsources the manufacturing to an off-shore shop at a

Drexel University College of Engineering's 2008 Engineer of the Year at a ceremony on February 22nd, that will conclude Drexel's observance of Engineers Week.

Information about Dr. Amadei and the schedule of events can be found [here](#).

MDC News

Recent Events

The MDC team traveled to Newport, RI to exhibit and attend the ABA Forum on the Construction Industry Fall Meeting. This year's event, Another Perfect Storm, took attendees through "the stormy waters encountered in managing the risk of a construction project." In early November, MDC's Mitchell Swann attended The U.S. Green Building Council's Greenbuild Conference in Chicago, which focused on "Accelerating Green Communities."

December 7-8, MDC's Mitchell Swann traveled to New Delhi, India for a two day International Conference on 'Challenges to Sustainability' in Air-conditioning and Refrigeration (ACRECONF 2007). This program was organized by the New Delhi chapter of ISHRAE in association with ASHRAE India Chapter. Mitchell presented on Green Building Project Execution. MDC also attended the 22nd Annual Construction Super-Conference in San Francisco. This year's event presented programs on four main topics: Legal and Institutional, Business Related Issues, Contracts and Management, and Industry Specific.

At the recent Winter Meeting in NY, Mitchell Swann orga-

great price.

Of course, his quest for lower production costs pushes the offshore manufacturer's price down, so she looks to lower her costs and leans on her materials supplier to "do better." To maintain their margins they get a 'deal' on some paint and, voila, lead paint on a toy truck! So who is to blame? The paint guy because he didn't supply to spec? The contract manufacturer because she used the wrong paint (or possibly didn't check)? Or the toy manufacturer for looking for lower production costs and pooh-poohing the potential impact on quality control? What about us - the consumers? We insist on buying all our toys from tables with smiley face signs hawking "Low Prices" swaying in the HVAC induced breeze. How do you think those prices got so low?

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A BIG FOOT TREADS LIGHTLY

The World's First "Green" Semiconductor Manufacturing Facility

Earlier this year, Mitchell Swann of MDC had the opportunity to interview Mr. Paul Westbrook, Sustainable Development Manager for TI's 300 mm LEED certified wafer fab in Richardson, TX. Mitchell had a chance to talk with Paul at length after having persuade Paul into doing a presentation on TI's new wafer fab at the ASHRAE Winter Meeting in Dallas, TX. Paul's presentation was under the auspices of ASHRAE's Technical Committee TC 9.11 "Clean Spaces" of which Mitchell is a previous two term chair of the Committee.

Interview:

MS: Tell us a bit about the semiconductor/microelectronics manufacturing process and its energy and environmental impacts.

PW: A large semiconductor manufacturing facility (we refer to them as a "fab", which is short for fabrication) can use the same electricity as about 10,000 homes and up to 3 million gallons of water per day. There are tremendous opportunities for resource savings.

MS: Would you say that TI's decision to 'go green' on this project is a marked departure from the typical microelectronics manufacturing operation?

PW: Most of us in the semiconductor business have a variety of energy and water saving activities at our facilities. What was different about this recent project is that we bundled all those activities together and strengthened the focus. We held a 3 day design session with Amory Lovins and The Rocky Mountain Institute where we focused on building the most resource efficient facility possible. We registered with the US Green Building Council's LEED program and made LEED Certification a top level project priority.

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nized and chaired an innovative and interactive session featuring a mock arbitration of disputes between the 'big 3' players - the Owner, the Construction Manager and the Engineer on a project featuring timely issues "ripped from the headlines." The three hour seminar was held as a part of the Technical Program of the ASHRAE Winter Meeting. The 'dispute' centered around a fictional \$100 million biopharmaceutical project that ran almost 20% over budget; six months late and failed to get the LEED Gold rating that was targeted - and lost a couple of bucks in withdrawn grants and tax breaks as a result. The mock arbitration session included both direct testimony and cross examination as well as questioning by the arbitrators. At the half-time break we had the audience apportion the blame and the damages and at the end compared their selections with our three-person arbitration panel with very interesting results! Our 'players' included Harvey Brickman (Tishman Construction), Kim Eng (Gilbane), Rich King (Peninsula Engineering), Rashida MacMurray (Holland + Knight), John Sieminski (Burns, White & Hickton), Charles Vinicombe (Drinker Biddle Reath), Filza Waters (Wayne State University), Mike Zetlin (Zetlin & DiChiara,) and our own Mitchell Swann. A good time was had by all (well except during that cross examination!)

January 29-30, MDC attended and exhibited at the CI Regional Forum at the Warwick Hotel in New York City. Industry and government leaders spoke on current issues regarding construction claims and avoidance, challenges in the bonding of large projects,



RESIDENTIAL CONSTRUCTION DEFECT LITIGATION

By: William J. Bender and Beth M. Andrus of Skellenger Bender

An epidemic

There is an epidemic of construction defect litigation in Washington. Recent legislative changes have not stemmed the flood of claims and the frantic pace of multi-family housing construction means more claims will follow.

In a construction defect lawsuit filed last week, a Condominium Owner's Association sued a Developer/General Contractor, alleging a wide range of construction defects. The Developer, in turn sued 12 subcontractors and 4 design firms, seeking contribution. Each of these parties will undoubtedly have some form of insurance. What is less clear is whether the parties have coverage for the alleged defects.

The fog of insurance coverage

One would think by now the industry would understand what insurance coverage exists for construction defects. Unfortunately, this is not the case. Insurers have consistently taken the position that Comprehensive General Liability Policies (CGL) do not cover contractor errors in workmanship that lead to damage to a residence. In August 2007, the Supreme Court of Texas held that a contractor's CGL policy cover a homeowner's claim that the defective construction of a foundation had damaged the house frame and its finishes. *Lamar Homes v. Mid-Continental Casualty Company*, 2007 Tex. Lexis 797, 50 Tex. Sup. J. 1162 (August 31, 2007). Courts around the country are split on this insurance coverage issue.

When the contractor or developer is uninsured or underinsured for a construction defect, the likelihood of a claim against the design professional, with his or her professional liability insurance, increases. Everyone likes a deep pocket...

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MDC Supports Katrina Relief

By Larry Poli, PE MDC Consultant

As with 9/11, the name Katrina has been indelibly etched into our national

trends in the Public Private Partnership market, and the discrepancies between engineers' probable cost and contractor bids. Speakers included experts from the New York City Metropolitan Transit Authority, Kiewit, Willis, Travelers, Chubb, Zurich and STV.

Upcoming Events

February 5, MDC will exhibit at the ISPE Delaware Valley Chapter's 18th Annual Exhibitors Night at the Hilton Hotel, City Line Avenue in Philadelphia, PA. This event will run from 4:30 to 8:30 and offers free parking, door prizes, cocktails and a light fare of hors d'oeuvres throughout the evening. [Click Here for Information and Registration.](#)

February 7-8, MDC's Mitchell Swann will be presenting as part of the "[Managing Risk for Sustainable Buildings - Policy, Performance and Pitfalls](#)" Conference being held at the University Club in Chicago, IL. The conference is sponsored by The Real Estate Center at DePaul University and The Alberti Group, LLC. The program is a two day forum for leading practitioners and decision makers designed to objectively address the challenges and emerging issues present in the complex sustainable building industry. Conference sessions will present in-depth discussions related to the intersection of sustainable building and economics, and legislation, insurance, risk transfer, delivery systems, legal issues, and real estate valuation.

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psyche. Two years after the storm hit, the recovery efforts still continue - although the intensity and fanfare that accompanied the celebrities, government officials and news reporters that visited soon after the storm struck has faded, there is still work to be done, albeit on a smaller scale and less news worthy. While many large businesses are back in operation - casinos, hotel chains, retailers, etc - there are those of less means who are still trying to put the pieces of their lives back together and return to normalcy.

Recently, 26 youth and adults from the First Presbyterian Church of Blackwood in Gloucester Township, NJ traveled to Ocean Springs, Mississippi for five days to help with the recovery. Gloucester Township, which adopted Ocean Springs when the relief effort began, held fund raisers and sent aid in the form of money and materials to Ocean Springs on a regular basis. However, the 200 member congregation of First Presbyterian wanted to take a more active role in the recovery and decided to send a group of volunteers. When informed of the group's mission, Bob McCue and Mitchell Swann, Principals of MDC Systems, immediately offered to help.

[Read Full Article Here](#)

Engineers Without Borders - USA

At the ASHRAE Annual Meeting in Long Beach, CA, the founder and leader of Engineers Without Borders USA, Dr. Bernard Amadei spoke on the mission, principals and projects of the organization. Dr. Amadei presented several EWB - USA projects in South America, Asia and Africa ranging from sanitation and water systems to solar powered pumping systems and communications technologies. Dr. Amadei spoke with a rare blend of pragmatism, principal, and passion as he urged the engineering community - both students and professionals, to roll up their sleeves and pitch in to make our world a better place. In many instances the 'bricks and mortar' costs are almost insignificant (\$10,000 and less) compared to the positive impact the projects have on the health and quality of life of the recipients. The projects and technologies employed are ingenious time tested, and oh so simple. All are designed to be sustainable and maintainable for the communities served. The results show the positive impacts that can come from using simple yet suitable technology to provide solutions to crucial problems.

MDC wants to make you aware of the tremendous work being done by EWB and the changes it has made in the lives of so many people. Engineers Without Borders - USA is a non-profit humanitarian organization established to partner with developing communities worldwide to improve their quality of life. This partnership involves the implementation of sustainable engineering projects, while involving and training internationally responsible engineers and engineering students. The activities of EWB-USA range from the construction of sustainable systems that developing communities can own and operate without external assistance, to empowering such communities by enhancing local, technical, managerial, and entrepreneurial skills. These projects are initiated by, and completed with, contributions from the host community working with our project teams.