CMTNews

December 15, 2010

CMT Wins Four ACEC Awards in Three States

Projects in Illinois, Missouri and Ohio recognized for engineering excellence

Crawford, Murphy & Tilly (CMT) is proud to announce that four of their projects have been recognized for engineering excellence by the American Council of Engineering Companies (ACEC). The 2011 winners were recently announced and awards will be presented during ceremonies that will be held in the upcoming year. CMT completed award-winning projects in three states: Illinois, Missouri and Ohio.

ACEC honors have become an annual tradition for CMT and its staff. The firm has led or participated on almost 50 projects that have been recognized by the organization over the past two decades. The following four projects recently joined that list (additional project information is available by clicking on the project title:)

Tee Hangar Complex Rehabilitation
Client: Charles B. Wheeler Downtown Airport (Kansas City, MO)
2011 Honor Award - American Council of Engineering Companies-Missouri

Will Center Road Storm Sewer Outfall
Client: Village of University Park
2011 Merit Award - American Council of Engineering Companies-Illinois

Rehabilitation of Taxiway B
Client: Chicago-Rockford International Airport
2011 Special Achievement Award - American Council of Engineering Companies-Illinois

Airport Master Plan for Cargo and Logistics
Client: Toledo Express Airport
2011 Honor Award - American Council of Engineering Companies-Ohio

CMT would like to thank the ACEC for its support of the engineering industry and its efforts in promoting project excellence.

CMTNews

December 15, 2010

CMT Wins ACEC-MO Award at Kansas City Airport

Revitalized and expanded hangar complex attracts new general aviation customers

The American Council of Engineering Companies-Missouri (ACEC-MO) has selected the Tee Hangar Complex Rehabilitation Project at Charles B. Wheeler Downtown Airport in Kansas City as the winner of an Honor Award in its annual Engineering Excellence Awards competition. CMT provided civil engineering services on the project.

Charles B. Wheeler Downtown Airport is a general aviation facility nestled along the Missouri River in the heart of Kansas City. Despite its prime location for corporate aircraft, the ability to attract more activity was challenged, due mainly to it's aging and insufficient hangar facilities. A complete revitalization of the facility was needed to take advantage of the demand for general aviation facilities in the area.

The Tee Hangar Complex Rehabilitation project was a $18.5 million venture undertaken by the Kansas City Aviation Department. The physical constraints of the river-bound airport made expansion difficult so the new hangars had to be built on the site of the old one, presenting many civil engineering challenges and opportunities for sustainable solutions.

Maximizing the area available for development (96 new spaces replaced the 40 existing spaces) resulted in complex site conditions. Extensive drainage structures and underground utilities had to be designed to fit into the constrained site. Due to past flooding issues on the low-lying site, hydrologic modeling was performed to improve the draining characteristics of the site where the amount of impervious pavement was increased. Improvements had to adhere to U.S. Army Corp of Engineers requirements because of the airport's proximity to the Missouri River levee.

Construction was phased so that new hangars would be available to the existing customers before the old hangars were torn down to make way for a second phase of construction. Since the project's completion, aircraft have been returning to the K.C. Downtown airport and over 90 percent of the new hangar spaces are occupied.

The completed tee hangar complex looking south toward downtown skyline.

Due to the location of the project in relation to the Missouri River Levee, the drainage structures were designed with wide and deep bases to counteract uplift and to meet ACOE requirements.

CMTNews

December 15, 2010

Storm Sewer Outfall Project Honored by ACEC-IL

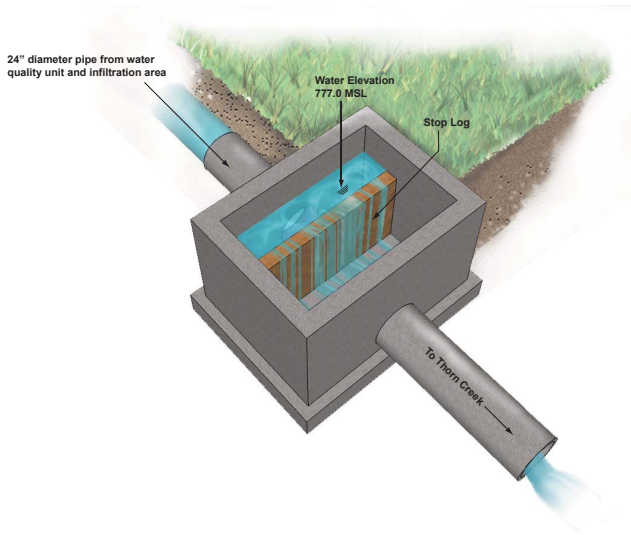
Project provides a green and affordable solution while meeting stakeholder needs

The American Council of Engineering Companies-Illinois (ACEC-IL) has selected the Storm Sewer Outfall Project in University Park, IL as the winner of a Merit Award in its annuarl Engineering Excellence Awards competition. CMT was the prime consultant on the project, which was lead from its Aurora, IL office.

This drainage project was required to allow the reconstruction of an existing roadway to a school adjacent to Will-Center Road. Stakeholders included the Village of University Park, IL, the Crete-Monee School District, and the Forest Preserve District of Will County.

The project utilizes an infiltration system, water control structure and natural native planting schemes to create a "green" solution. Stormwater is retained below grade sufficiently to allow infiltration to occur, thereby recharging the groundwater aquifer. It demonstrates that a drainage problem can be solved at a reasonable cost, while satisfying stakeholders that have different objectives, and still incorporate elements to protect water quality and provide natural native ecological restoration.

In addition to the necessary drainage, the system provided a "green and sustainable" benefit including the reduction of water quantity through infiltration, the removal of pollutants via a structural best management practice, removal of pollutants via infiltration, groundwater infiltration, and a wetland amenity. This is important to the area in that the tributary drains to the headwaters of Thorn Creek, which is on the 303 (d) list of impaired waterways. The project cost was budgeted at $810,200 and the final project came in under budget at $655,000.



The stop log structure establishes the upstream water level for the wetland plantings and infiltration area. It is adjustable for field changes and maintenance.

Infiltration system consists of 6" perforated pipe with an envelope of open graded stone. The pore space provides approximately 0.3 ac-ft of storage to contain the volume from the 2-year event.

CMTNews

December 15, 2010

ACEC-IL Award Goes to CMT Airport Taxiway Project

Innovative design techniques reduce construction costs, long-term maintenance costs

The Rehabilitation of Taxiway B Project as been selected for a Special Achievement Award by the American Council of Engineering Companies-Illinois (ACEC-IL). The project at Chicago-Rockford International Airport was lead by CMT's aviation professionals located in the firm's Aurora, IL office.

CMT has a distinguished history of providing airfield engineering at RFD. In 1979, CMT was selected to develop an Airport Layout Plan (ALP) and perform airport engineering. The ALP became the framework for future infrastructure development and was updated in the early 1990s to reflect the opportunity for emerging overnight cargo operations with UPS and its air service initiatives. The introduction of large air cargo aircraft, including the Aircraft Design Group (ADG) V Boeing 747 series, had led to significant decline in the pavement condition index (PCI) on Taxiway B.

For the rehabilitation of Taxiway Bravo - South, CMT provided professional services for the reconstruction of the parallel taxiway to Runway 1/19 to meet the geometric and pavement design requirements to accommodate Airport Design Group (ADG) V operations. RFD is home to the second largest domestic air cargo sorting hub in the United Parcel Service system. Since its establishment in 1994, operations have grown consistently and RFD has become one of the top 20 cargo airports in the United States.

As a long-term partner with the Chicago Rockford International Airport, CMT works effectively as an extension of the airport's staff to identify funding opportunities, utilize innovative design techniques to either reduce construction costs or incorporate features to reduce the airports long-term operation and maintenance cost for a project. The final cost for the project was $7,411,226, which was lower than the construction budget of $7,510,175.

Overall project view looking NE, showing both phases of the project. Phase I (southern portion) is in the foreground and Phase II (northern portion) is in the distance and under construction.

LED lights installed during this project relieve energy demand, reducing the airport's carbon footprint and operating expense.

CMTNews

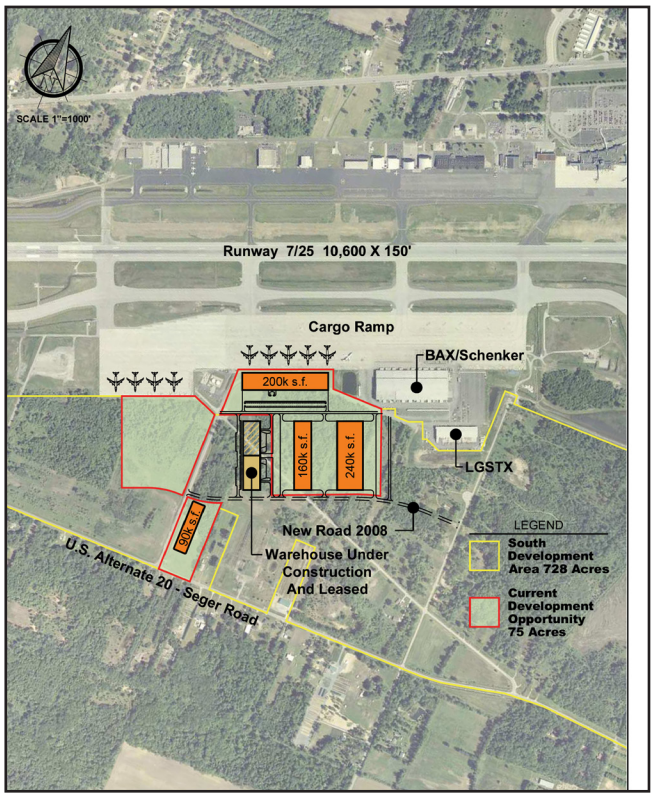
December 15, 2010

Master Plan at Toledo Airport Wins ACEC-OH Award

Planning efforts provide cargo-related economic development opportunities to region

The American Council of Engineering Companies-Ohio (ACEC-OH) has selected the Master Plan conducted at Toledo Express Airport as the winner of an Honor Award in its annual Engineering Excellence Awards competition. CMT was the lead consultant on this project.

The purpose of the Master Plan at Toledo Express Airport (TOL) was to evaluate opportunities presented by the continued growth in air cargo operations and the impact of increased global integration. The outcome provided a development strategy and program to benefit the Toledo-Lucas County Port Authority and other stakeholders concerned about economic development opportunities for the region. The goal was to determine how best to utilize the airport's available land assets to maximize development opportunities and the region's desire to enhance its role in logistics. Specific deliverables of the project included FAA-funded initiatives including a Master Plan Phase II report, an updated Airport Layout Plan, and a Part 150 Noise Land Reuse Plan, in addition to locally-funded market assessment and deliverables.



South area initial phase development concept.

The Toledo Express Airport and its unique air cargo assets combined with the area's sea port and rail have made logistics an important component of the region's economic development portfolio. The project required a more proactive approach to assess how the Port Authority could leverage its assets to attract more transportation related development to the airport. The plan resulted in not just a physical layout of facilities, but an in-depth understanding of the market dynamics that would affect its success. The CMT team included subconsultant experts in economic development, logistics and real estate. Their efforts involved a high level of communications within the community, and included elected officials, economic development entities, government agencies, businesses and universities.