Northwest Ohio made history as ODOT opened the Veterans’ Glass City Skyway (VGCS) Bridge in Toledo. Governor Ted Strickland and ODOT Director James Beasley, joined by community leaders and the VGCS Taskforce, cut the ribbon June 23, 2007 to recognize the opening to traffic of this postcard structure.

Historic from the start, the project holds significance in the magnitude of the work, details of the structure and the unprecedented public input process before and during construction. For many years, political, business and community leaders sought a new bridge that would best serve the area’s people and its economy. Throughout the project development process, an extraordinary effort was made to listen to members of the community.

State and local officials conducted dozens of public meetings and made hundreds of presentations to inform residents and seek input on numerous questions ranging from the bridge’s design to the bridge’s name.

The commitment to the Maumee River Crossing project demonstrated by area leaders and residents was matched by the state with the single largest investment in the history of ODOT.

“As an engineer of more than 30 years, I can tell you this bridge is a marvel,” said Beasley, noting that the concrete structure is the largest, most complicated project ODOT has completed to date. “This bridge will be a landmark of hope for tomorrow and all the better days ahead for Northwest Ohio.”

See pages 4 and 5 inside for details of this landmark project.

Federal Report to Focus on Improving Safety of Working at Night

Joel Hunt, Central Office

With the promise of easing traffic disruptions during the day, an increasing number of highway construction projects across the nation – including more than 370 of ODOT’s projects this year – incorporate work done at night.

But a federal report due out in the next few weeks will ask whether reducing daytime delays outweighs nighttime safety for our construction crews and motorists.

The Wall Street Journal recently published a news article comparing work zone dangers during the day and at night. According to the news article, work zone fatalities had held at about 43 percent at night for a decade. That number shifted to 45 percent in 2003, 2004 and 2005, possibly reflecting the trend toward more night work.

Jennifer Gallagher, ODOT safety and work zone engineer, said ODOT is proactive when it comes to improving safety in nighttime work zones. “We’re doing more crossovers, so workers are not near

Night paving on Interstate 71 in Medina County, June 11, 2007.
ODOT Helps Falcons Soar
Cleveland Work Crew Aids Conservation Efforts

Ron Poole, Central Office; Source material from District 12

They are swift and powerful hunters, capable of flying faster than any other bird on earth. But the overuse of pesticides has reduced the population of peregrine falcons and made them an endangered species. Using their equipment and skills, ODOT District 12’s lighting crew has been in a unique position to actually help these animals thrive and help conservationists keep tabs on two nests of falcons in the Cleveland area.

This is not a typical duty for an ODOT crew; keeping watch on the peregrine falcon population in the greater Cleveland area falls to specialists working for the Ohio Department of Natural Resources (ODNR). These experts must annually look into falcon nests, place tags on newborns to be used in keeping track of their migration and nesting habits, and draw blood samples to determine family origin through DNA. But when the nests in question are located high in an industrial yard owned by Mittal Steel and underneath the Interstate 90 Bridge on the Innerbelt, gaining access is more of a problem.

For more than six years, the D12 lighting crew has assisted ODNR experts by maneuvering them in bucket trucks to each of the nests, allowing the specialists access to the baby falcons within. In late May, the ODOT crew was on hand as ODNR successfully tagged and obtained blood samples from six baby chicks from the two nests. In all cases, the chicks were carefully handled and safely returned to their homes.

“We’ve been doing this for a while and we’ve seen some amazing things,” said Lino Bartolozzi, a highway technician and member of the lighting crew. “These really are very powerful birds.”

Photos by Jocelynn Clemings, D-12
Fort to Port Projects on a Roll
Rhonda Pees, District 1

It was seven years in development, but more than 15 years in the hoping.

The official groundbreaking for U.S. 24 in Paulding, Defiance and Henry counties was held on June 14 at Antwerp Local School with approximately 130 people in attendance.

ODOT Director James Beasley, District 1 Deputy Director Tim Burkepile, Fort to Port Committee co-chair Jamie Black and other local and elected officials helped turn the ceremonial first shovel of dirt as the communities of Antwerp, Paulding and Defiance celebrated the kickoff of a project they have supported for more than a decade.

“We with 38 miles of construction underway at once, this is truly a unique time in transportation history for this region,” said Burkepile. “A four-lane U.S. 24 will transform our highway system in northwest Ohio and open this area for countless opportunities.”

Work began earlier this spring on the sections between Defiance and Napoleon in Defiance and Henry counties, and from U.S. Route 127 to State Route 424 in Paulding and Defiance counties. Construction on the segment from the Indiana line to U.S. 127 in Paulding County began June 18.

The projects are four of eight which have been termed the Fort to Port projects and will expand U.S. 24 to a four-lane highway from Ft. Wayne, Ind. to Toledo. Construction on the four remaining U.S. 24 projects from Napoleon to Toledo is scheduled to begin in the spring of 2008 and 2009.

“For more than a decade, the expansion of U.S. 24 to a four-lane highway has been a joint effort of so many of you, through the Fort to Port Committee, all of our area’s legislators, county commissioners, economic development leaders, and the local mayors,” said Beasley.

Jamie Black represented the community and local leaders at the event and spoke on behalf of the Fort to Port Improvement Committee. The Committee organized in the mid 1990s in support of the expansion of U.S. 24 from Fort Wayne, Ind. to Toledo. Black, who served as co-chair of the committee lives in Waterville which is also located on U.S. 24.

“What brought me to this project was the fact that Antwerp and Waterville are so similar,” he said. Both are beautiful communities, nestled along the Maumee River, but “saddled for the last 50 years with commercial traffic going through.”

Black said he thought the truck traffic through the village of Waterville would not be equaled anywhere else. “It’s nothing compared to what I saw in Antwerp,” he said, when he visited the village in the early 90s after the Committee was formed.

“This is a win-win for everyone,” Beasley said. “Projects like the Fort to Port corridor have the potential to generate the long-term, high value jobs our state must support, as we work together to turnaround Ohio.”

A tent annex was used at the event to display the documentation and exhibits developed during the U.S. Route 24 planning process.

Photo by Rhonda Pees, D-1
Veterans’ Glass City Skyway

Major Accomplishment

Mike Gramza, project manager for the VGCS Bridge, was one of the driving forces that kept the massive project moving forward for six years. “I have been honored to work with such a talented team of ODOT personnel, consultants, contractors and sub-contractors,” Gramza said. “Their hard work and dedication will serve this region for years to come.”

At its peak, the project employed more than 300 workers from local unions, truly making this a bridge built for and by the community.

The public helped shape the Skyway in more ways than one. From the public’s comments, ODOT chose a design with a single pylon with backlit glass panels and a single plane of stay cables with low-maintenance, stainless steel sheathing. It is the first in the United States with Stainless Steel stay cable sheathing and has set a world record in the number of strands that make a single stay.

The bridge itself is made up of 3,050 pre-cast concrete segments, including 42 delta frames, that were assembled on-site. Crews assembled four ramps using the segments to connect the approaches of the bridge. The approaches included a total of 54 spans in each direction, 25 spans south of the river and 29 north of the river.

Recognizing Toledo’s long heritage with the glass industry, there are 176 inlaid, glass panels and 384 LED fixtures in the main pylon. Each fixture contains 12 green, 12 red and 12 blue LEDs for a total of 13,824 LEDs in the pylon. One LED fixture can produce 16.7 million different colors and the combination of all 384 fixtures could produce virtually limitless color combinations. The Veterans’ Glass City Skyway is the only bridge in the world to have programmable LED light fixtures.

Major Event

The opening of the VGCS Bridge was a monumental event for Ohio from both a community and transportation standpoint.

“Never before has a community been so involved in ensuring that a transportation project of this size met the needs of traffic and characterized a city’s unique history,” said David Dysard, District 2 deputy director. “ODOT continued this partnership with the community in the opening of the bridge, including events such as a parade and four-mile walk/run sponsored by the Taskforce and community members.”

The opening event was a culmination of more than 20 years of work dating back to the 1980s when the Toledo Metropolitan Area Council of Governments (TMACOG) formed a group to direct the planning process of constructing the

Landmark Bridge:

• Single largest, most complex project ODOT has undertaken and delivered.
• World's first cable-stayed bridge pylon to include glass panels.
• State-of-the-art LED pylon lighting capable of 16.7 million color combinations.
• First U.S. bridge to have stainless steel sheathing around the stay cables.
• 156-strand stay cables are the largest ever for a cable-stayed bridge.
• One of the first to use stay cradle system in the pylon.
new bridge. Many of those involved with the opening ceremonies were involved with the bridge from the beginning and carried that history through to the ribbon cutting. Dysard himself invested many hours when the project was still in its infancy when he worked on analyzing project alternatives and prioritizing the need for a new Maumee River Crossing as part of the TMACOG regional planning process. The long range plan identified a new river crossing as the region’s top priority and the Task Force was formed shortly after to coordinate the planning.

The original Task Force was comprised of representatives from five area government entities – TMACOG, Lucas County, the cities of Toledo and Oregon and the Toledo-Lucas County Port Authority – as well as business leaders and neighborhood associations. ODOT joined the Task Force soon after it was formed and committed to working with local leaders throughout the design and construction of this landmark structure.

From day one, the mission of the Task Force was to make sure the Skyway would indeed be the community’s bridge and has been a model of civic partnership ever since. With committees including Design, Education, Land Use, Naming, Public Information, Public Participation and Tribute, Task Force members worked tirelessly to involve local citizens in every major decision regarding their signature bridge. The results are stunning.

Northwest Ohio now has a bridge that reflects the public’s desire to honor the region’s long heritage with the glass industry, to be a point of pride in the city’s skyline and to have a name that pays tribute to all who have served our country. It will stand for generations as a testament to what can be accomplished through collaboration and perseverance.

An indication of the community’s support for the bridge, eight to twelve thousand community members attended the dedication events. The community also held the honor of being first to cross the VGCS Bridge on foot on Saturday, June 23. ODOT then finalized pavement markings and opened two lanes of traffic in each direction on Sunday, June 24 shortly after sunrise.

“The workers who have labored since 2002 are owed our gratitude. While this is a day to celebrate, we also remember the workers no longer with us who helped make this celebration possible. The bridge will long stand as a tribute to their memory as well as the sacrifices of our state’s veterans.”

– Governor Strickland
**Engineering’s Changing Face:**
**ODOT Meets Need for Professionals with Diversity Efforts**

Ron Poole, Central Office

Within the next five years, ODOT is at risk of losing 30 percent of its engineers to retirement. For an organization such as ODOT, the loss of this experience is a potential staffing crisis for the future. But, if ODOT plans ahead, it could also mean opportunity, and ODOT is already working to replenish its engineering staff with diverse candidates through the Engineer-in Training (EIT) program.

“The EIT program provides ODOT the opportunity to prepare its entry-level engineers for a lifelong career at the department,” said Victor Cleary, the EIT administrator with Central Office Personnel. “Through our program, candidates gain a full year of exposure to all facets of engineering within the department, and can emerge as well-rounded professionals better prepared for their future careers.”

While the EIT program has provided this function for many years, it has more recently expanded its outreach efforts. EIT representatives have been working with universities and student associations to reach young engineers and tell them about what ODOT offers as an equal opportunity employer.

“Recently, we enlisted ODOT engineers to visit college campuses with us and speak to the members of engineering associations for women and minority students,” said Cleary. “We talk to them about applying and interviewing for the EIT program and about the career possibilities available at ODOT and their growth potential. Over the last three years, we have not only grown the program, but have nearly doubled the number of women engineers filling our vacancies.”

The EIT program not only offers experience, but it also offers its members a chance to learn from those engineers preparing to leave the department. The EIT’s gain knowledge far beyond what can be taught in a classroom or textbook. This makes them even more valuable to the department. In this way, ODOT is preserving knowledge and gaining fresh perspectives for its future.

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**A Heated Discussion:**
**Talking about Warm-Weather Safety Protects ODOT Employees**

Ron Poole, Central Office

As Ohio passes through the month of July and into August, ODOT road crews will face risk of heat exposure while working on construction and repair projects. Seasonal workers joining ODOT for the first time can be especially vulnerable due to their lack of experience. That is why ODOT’s safety personnel make a point of talking to employees about the dangers of working for extended periods in the summer sun.

“We have not had any heat related incidents in the last few years,” said Bob Pallo, an ODOT safety and health consultant in District 4. “We discuss safety practices with both workers and supervisors, and emphasize a common sense approach to organizing work assignments around the heat. When possible, we encourage supervisors to schedule less strenuous work during hot days.”

There are three kinds of major heat-related disorders: heat cramps, heat exhaustion and heat stroke. To avoid them, workers should take frequent, short breaks in cool shade.

Eating smaller meals before work activity, and avoiding caffeine and large amounts of sugar is recommended. Those who are on medications need to find out if the drugs can cause side-effects induced by heat. Wearing light-colored, loose-fitting, breathable clothing (such as cotton) when possible is also a positive step. But perhaps nothing is more important than keeping hydrated with clean water while working.

“We tell our people to take frequent breaks, and to take in plenty of fluids during those breaks,” said Mark Mayer, a safety manager in District 3. “Work crews keep a supply of ice water nearby, and workers can put drinking cups in plastic bags to keep them clean when not in use.”

Of course, warm-weather safety is not just for ODOT road crews, but for everyone engaged in outdoor projects during the summer. Anyone interested in learning about more safety tips can find them on the ODOT Intranet page by selecting the “Safety/Workers Compensation” link under the Division of Quality and Human Resources section.

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By the start of next year, ODOT will complete a three phase update of the inventory of passing and no-passing zones on Ohio’s state routes. The department undertook the initiative to increase safety and driving efficiency for motorists by reviewing the roadways and making certain the lane designations are appropriate to the areas.

But what makes this project unique is that it replaces the paper inventory with a new software system – one that is available in each district and in Central Office and which will make updating the inventory easier than it has been in the past.

“In 2003, we found we had a very outdated inventory,” said Inder Paul Singh, P.E., traffic markings engineer in Central Office and the supervisor for the inventory update. “Some of our districts had not updated their state highway passing and no-passing zones since 1988. With ODOT constantly working on roadway repairs and making changes, many of these highway lane designations were in need of review and possible change.”

Singh worked with Mastermind, a private firm, to perform a state-wide survey on more than 14,000 miles of undivided rural state routes. ODOT engineers developed the testing and equipment calibration requirements, and the firm used a computerized radio telemetry system to evaluate the routes. Singh reviewed the work and compared their findings with the then current records to make certain the highway designations were accurate. The company is inventorying each of the routes in three phases, with the final phase to be completed by the start of 2008. All of the districts will have their inventories on the Traffic Safety Suite, Version 6 software, which will be in the care of a designated professional in charge of recording changes and keeping the inventory up-to-date.

“With this system, we can easily revise our designations as we reassess a roadway or make changes to the structures,” said Singh. “We will never fall behind as we did before.”

Two examples of the types of roadways included in the passing and no-passing zone inventory to be completely updated by the start of 2008.
Night work on the U.S. Route 22 bridge over I-275, September 2006.

Moving traffic. We are also using newer, brighter signs and markers; reducing the distance between signs, increasing the number of raised pavement markers and barrier reflectors. Essentially, we have doubled the number of safety devices in work zones.”

As part of the 2005 Federal Highway Budget, Congressional leaders mandated a study of night work zone safety. The Texas Transportation Institute at Texas A&M is nearly complete with that study for the Federal Highway Administration, due to Congress by next month.

Another Texas study, probably six months from completion, seeks to compare daytime and nighttime work zone safety.

According to ODOT reports, there continues to be more fatal accidents during the day than at night, despite a steady increase in the number of nighttime work zones.

“There is so much more traffic during the day than at night. When we stop traffic on a busy freeway during the day, the potential of rear-end collisions increases significantly,” Gallagher said.

ODOT, the Ohio State Patrol and federal highway safety officials are searching for ways to reduce the hazards of increased nighttime construction. The main issues are how to improve lighting and better enforce impaired-driving and speeding laws, especially as they apply to work zones and night driving conditions.

With less traffic to slow them down, motorists generally drive faster at night. Workers and drivers alike are more apt to be sleepy and less alert. Drivers are also more apt to be alcohol or drug-impaired.

Visibility also plays a major factor since work zones struggle with sophisticated lighting. The bright lights used to illuminate work sites can cause dangerous shadows, requiring more workers to keep lights and other equipment properly placed.

DOTs in California, New York, New Jersey and Louisiana are trying to use better lighting that overcomes problems like glare. The Illinois DOT uses lights encased in a balloon-like material, to reduce glare.

ODOT’s Office of Traffic Engineering currently tracks accidents in the state’s 12 largest work zones. The office produces a report at the end of each year listing the number of fatalities in work zones.