

**OFFICE OF THE CITY ENGINEER  
2010 ANNUAL REPORT**

---

## Overlay Program

In August of 2010, Milestone Contractors was awarded the City's annual overlay program with a contract amount of \$639,496.62. Milestone placed 6960 tons of asphalt on 4.44 miles of City streets. Milestone patched 4242 square yards at a cost of \$156,690 and milled 80,935 square yards at a cost of \$93,075. Areas that were overlaid include portions of Marr Road, Middle Road, 25<sup>th</sup> Street, Gladstone Avenue, International Drive, Taylor Road, Fontview Drive and Timber Ridge. Overlaying a one mile stretch of City street, 24 feet wide by 1 inch in depth, costs \$34,228.48



**Overlay Marr Road**



**Overlay 25<sup>th</sup> Street**



**Overlay Middle Road**



**Crack Sealing in Northbrook**

## Crack Seal Program

Dave O'Mara Contractor was awarded the 2010 crack sealing contract in February with a low bid of \$38,404.27. Crack sealing consists of cleaning, preparing and sealing pavement joints and random pavement cracks on selected streets throughout the city. Dave O'Mara crack sealed 32 lane miles to add longevity to the City's streets. Sealing cracks in city streets increases pavement life, allowing a longer time between more intense street maintenance, such as overlay.

## Concrete Street Repairs

In June 2010, Excavation Plus was awarded the concrete street repair contract with a low bid of \$137,465. Concrete street repairs were made in the Sandy Hook/Hiker Trace and Everroad Park West neighborhoods, as well as Carya Square in Tipton Lakes. Excavation Plus removed and replaced 4415 square yards of concrete street, placed 1398 tons of #73 stone and excavated 1471 cubic yards of concrete and soil. Along with this project, the City installed 7 new ramps.



**Glenview Concrete Street Repairs**

## 5<sup>th</sup> Street and Washington Street Streetscape

C.A.S.E. Construction removed old pavers at the intersection of 5<sup>th</sup> Street and Washington Street , removed and replaced 4 red concrete retainer strips and 4 red curb radii. LPS Paving then installed new asphalt base and new paver bricks in the intersection and re-laid existing clay sidewalk bricks with new detectable warning bricks in sidewalk ramps. They replicated the existing brick pattern in the intersection.



**LPS Paving installs new brick pavers**



**C.A.S.E. installing new curb**

## **Tipton Lakes Boulevard Pipe Replacement**

Excavation Plus removed approximately 105' of 12" single wall plastic pipe which over time had started to collapse and create sinkholes. The failing pipe was replaced with new 12" dual wall N-12 pipe. Approximately 30' of People Trail had to be replaced due to the placement of the pipe.



**Excavation Plus replacing pipe on Tipton Lakes Boulevard**

## **3180 Flintwood Drive Pipe Replacement**



**Excavation Plus replacing storm sewer pipe**

Several sinkholes had developed between two houses in Flintwood addition. These sinkholes were due to multiple joint failures in the 27" diameter corrugated metal storm sewer pipe. Excavation Plus dug up this pipe and replaced it with new 24" dual wall N-12 pipe. In order to perform this work, 20' of sidewalk and 20' of curb were removed and replaced.

## **City Drainage Repairs**

In 2009, rather than outsource small scale drainage repair projects, the City Engineer's Office began to work with the City Garage to coordinate these repairs. This has continued very successfully in 2010. The Engineer's office fields the citizen concerns, develops solutions to the problems, and provides consultation during construction. By working together, 38 projects have been completed this year at a cost of \$ 77,642.87, for an average of \$ 2043.23 per project.

## **Cherry Street Sidewalk Installation**

In June 2010, King's Trucking and Excavation was awarded a contract to install 600' of sidewalk along Cherry Street adjacent to Dorel Juvenile Group. The original contract was for \$74,731.81. This project was partially funded by a grant administered by the Community Development Department.

## **Rectangular Rapid Flashing Beacon**

Working with Parkside School, the Parkside PTA, the Columbus Police Department, the Columbus Area Metropolitan Planning Organization, and Healthy Communities, the City Engineer's office selected a Rectangular Rapid Flashing Beacon (RRFB) as a way to improve pedestrian safety at the intersection of Parkside Drive and Central Avenue. The RRFB is a new technology which uses rapid and alternating flashed LED lights to alert drivers to pedestrians approaching and entering the crosswalk area. Standard flashing yellow beacons have been shown to produce yield rates of only 31% while the RRFB has been shown to produce yield rates in excess of 82%. RRFB's are an interim approved device by Federal Highway Administration (FHWA) so special approval was needed from FHWA to install this device in Columbus. On October 13<sup>th</sup>, the FHWA issued approval for Columbus to use this device. Strand and Associates provided engineering services to develop quote documents for the project. In November 2010, Signal Construction, of Greenfield, was awarded the contract to install it at the intersection of Parkside Drive and Central Avenue. The contract amount was for \$43,764.00.



**Intersection of Parkside and Central**

## **Streetlight Pole Repainting**

In December, Lucas Painting was awarded the Streetlight Pole Repainting project with a low bid of \$22,710. In the Spring, Lucas Painting will repaint 102 streetlights in the downtown area. Streetlight poles will be repainted on Washington Street from 5<sup>th</sup> Street to 11<sup>th</sup> Street, on Franklin Street from 1<sup>st</sup> Street to 7<sup>th</sup> Street, and on Jackson Street from 2<sup>nd</sup> Street to 8<sup>th</sup> Street.

## **Infrastructure**

The City's infrastructure continued to expand in 2010, but at a slower pace than in recent years, with the acceptance of Westlake Cove / Westlake Park subdivision and Wildflower Estates Section 2 Phase 1. This growth added approximately 1,738 linear feet (0.329 miles) of new streets to the City's infrastructure.

## **Indiana Department of Transportation**

INDOT continues to implement their Major Moves Plan which outlines construction projects through 2015. Three Major Moves projects are programmed in Columbus.

The State Street project has been completed with improvements between Marr Road and Mapleton Street. The improvements include four travel lanes with a center turn lane, sidewalk, storm sewer, realignment of Mapleton/Pence Street, new traffic signals at Marr, Gladstone, and Mapleton, and new left turn lanes at intersections.

Milestone Contractors began construction on the US 31 project in late 2009. Construction will extend from Washington Street to Road 50 North and will include a new bridge over Clifty Creek. Construction will continue through 2011. The project includes four travel lanes with a center turn lane, new concrete curb and gutter, new storm sewer, new sidewalk, interconnected signal equipment, and two new bridges.

Improvements are being constructed for the Interchange at I-65 and State Road 58. The project is approximately 50% complete. The overpass is being widened from 39 feet to 69.5 feet to accommodate an additional left turn lane and wider safety shoulders. State Road 58 will be widened on both sides of the overpass to match into the widened bridge deck, and the ramps will be widened to improve turning movements for the high volume of truck traffic at this interchange. The project is anticipated to be complete by the end of the 2011 construction season.

## Projects in Development

### 17th Street from Central Avenue to US 31

Design Engineer: Strand and Associates  
 Right of Way Services: Strand and Associates  
 Construction Engineer: Strand and Associates  
 Contractor: Milestone Contractors



**Articulating concrete mat under  
Haw Creek Bridge**



**Sub-grade preparation near Central**

Milestone contractors began work this spring on the 17<sup>th</sup> Street project. Improvements will include four travel lanes, sidewalk, curb and gutter, storm sewers, and dedicated bicycle lanes. Of the five phases of the project, phases one, two, and five are substantially complete

with utility relocations and some storm sewer work complete on phases three and four. The project is well on schedule to be complete by the end of the 2011 construction season.

### Road 200 South between State Road 11 and 150 West

Design Engineer: Janssen & Spaans Engineering  
 Right-of-Way Services: Beam, Longest & Neff

Improvements will include a dual left turn lane, curb and gutter, and storm sewer. The City has initiated the right-of-way process which should be complete in time to bid the project in 2011.

### Indiana Avenue from State Street to Marr Road

Design Engineer: Hannum, Wagle & Cline Engineering  
 Right-of-Way Services: Strand and Associates

Improvements will include curb and gutter, storm sewer, sidewalk, and dedicated bicycle lanes. The City has initiated the right-of-way process which should be complete by mid 2011.



## **Rocky Ford Road from Taylor Road to Talley Road**

Design Engineer: Strand and Associates  
Right-of-Way Services: Strand and Associates

Improvements will include curb and gutter, storm sewer, sidewalk, and dedicated bicycle lanes. The City has initiated the right-of-way process which should be complete by mid 2011.

## **Carr Hill Road from Terrace Lake Road to I-65**

Design Engineer: Janssen & Spaans Engineering  
Right-of-Way Services: Strand and Associates

Improvements will include curb and gutter, storm sewer, sidewalk, and dedicated bicycle lane. The City has initiated the right-of-way process which should be complete by late 2011.

## **Westenedge from US 31 to Rocky Ford Road**

Design Engineer: Christopher B. Burke Engineering, LTD

Designed improvements include curb and gutter storm sewer system, sidewalk and dedicated bicycle lanes. The final design is complete and no right of way is required.

## **Taylor Road from 25<sup>th</sup> Street to Rocky Ford Road**

Design Engineer: DLZ

Improvements will include curb and gutter throughout, improved storm sewer system, sidewalk, center left turn lane and dedicated bicycle lanes. The right-of- way process will begin in early 2011 and should be complete by early 2012.

## **WalkWorks**

*WalkWorks*, the City’s sidewalk replacement program, was established in 1991 to encourage property owners to replace unsafe, deteriorated sidewalks. The City reimburses property owners \$10 per linear foot of sidewalk, after it is replaced and inspected. During the 2010 construction season, *WalkWorks* replaced approximately 900’ of concrete sidewalk and installed 3 ramps. For the Bike Ped Plan, the City Engineer’s Office installed 350 lineal feet of 7’ wide concrete as a connector path between Washington Street and Jackson Street. The City Engineer’s Office participated in the Community Development Block Grant Sidewalk Project with technical support and by rebuilding 14 alley approaches. Our office also purchased 24 ADA compliant ramp inserts for miscellaneous projects throughout the city.



# OFFICE OF THE CITY ENGINEER

The Engineer's office provides technical assistance to other City departments to facilitate, administer, or complete projects. The Engineer's office provided the following assistance in 2010:

## **Redevelopment Commission**

- Jackson Street Connection
- Outdoor Sports Complex

## **Community Development**

- Block Grant Sidewalk Project
- Veteran's Day Parade
- Ethnic Expo
- Garden plots

## **Parks and Recreation Department**

- Owens Bend Trail

## **Fire and Police**

- Mapping and Diagrams
- Cheer Fund

## **Planning Department**

- Plan Commission Member
- Subdivision/Plat Review Committee
- Improvement plan and Drainage review
- Central Avenue Corridor Plan

## **Columbus Area Metropolitan**

### **Planning Organization**

- GIS Development
- Walesboro Airport Master Plan

## Permitting

The City Engineer's office administers several types of permits to control day to day impacts to infrastructure and traffic. Applications for permits can be picked up in the Engineering office, or can be accessed on-line. There is no charge for making these permit applications to the Engineering office.



**The Commons site**

A Request for Special Use of Right-of-Way is required any time the right-of-way is going to be encumbered. Typical requests are for street closures, sidewalk closures, or parking spaces. In 2010, 210 requests were processed, including requests for street fairs, benefit walks and runs, block parties, parades, and borings to place new fiber optics. Also, requests were approved for the filming of a television commercial, placing a crane in the street, and road closures and placement of barriers used in the building of the Commons.

A Permit to Excavate in a Public Street, Alley or Right-of-Way is self explanatory. Applicants for this type of permit are generally accessing utilities that reside within the right-of-way of a City street. Some utilities lie under pavement necessitating a street cut to access the utility. Although there is no cost to make the permit application, contractors are required to bond their work for a period of three years to protect the City infrastructure which they have impacted. The City Engineer's office processed 259 permits to excavate in a public street, alley or right-of-way in 2010.



**City Utilities water line repair**

Improvement in the Right-of-Way Permits are required for work performed in the right-of-way that does not fall under the Permit to Excavate in Public Street, Alley or Right-of-Way. Typical applications are for driveway or curb repairs. Improvements are required to meet City standards and the Engineer's office inspects all work. In 2010, 76 Improvement in the Right-of-Way Permits were processed by the City Engineers office.