
The 2012 Annual Report

of the City of Columbus – Engineering

City of Columbus





Table of Contents

Section 1: Executive Summary

Staff Overview	p. 4
Street Improvements	p. 4-5
Fourth Street	p. 6
Second Street Bridge	p. 6
Road 200 South	p. 7
Indiana Avenue	p.8-9
Westenedge Drive	p. 9
Carr Hill Road	p. 9
Rocky Ford Road	p. 10
Taylor Road	p. 11
Street Maintenance	p. 11
Street Overlay Phase One	p. 11
Street Overlay Phase Two	p. 11-12

Section 2: Sidewalks, Pedestrian Crossings and Bicycle Routes

ADA Compliance/Sidewalks	p. 12
Pedestrian Crossing Project	p. 12-13
Bicycle & Pedestrian	p. 13
US 31 and Washington Street	p. 13
6 th Street Sidewalk	p. 13
5 th Street and Brown Street	p. 14
Middle Road Sidepath	p. 14
Tipton Lakes Boulevard Sharrows	p. 14

Section 3: Traffic Signals and Engineering

Traffic Signals Overview	p. 14-15
Traffic Engineering Overview	p. 15-16



Section 4: Drainage Repairs and Stormwater

Drainage Repairs Overview	p. 16-17
Stormwater Overview	p. 17-18

Section 5: Subdivisions and Permits

Subdivisions Overview	p. 19
Permits Overview	p. 19-20

This Annual Report is prepared for the City of Columbus, Bartholomew County, the commissions and boards involved in city engineering, as well as the following 2012 elected community leaders:

Columbus Mayor:

The Honorable Kristen Brown

Columbus City Council:

*Dascal Bunch
Ryan Brand
Frank Jerome
Frank Miller
Tim Shuffett
Aaron Hankins
Jim Lienhoop*

Metropolitan Planning (MPO/CAMPO) Members:

*Kristen Brown, Mayor
Ryan Brand, City Council Liaison
Zach Ellison, Member
Paul Franke, Member
Larry Fisher, Member
Roger Lange, Member
Kathy Eaton-McKalip, Member*

Columbus Plan Commission Members:

*Roger Lang, Chairperson of Board
Frank Jerome, City Council Liaison
Dave Bonnell, Member
Jorge R. Morales, Member
Mike Harris, Member
Bryan Schroer, Member
Dave Fisher, Member
Nancy Ann Brown, Member
Dave Hayward, Member
John Hatter, Member
Dick Gaynor, Member
Tom Wetherald, Member*



Executive Summary

Staff Overview

- Dave Hayward – PE, City Engineer from 1991-2002 and since April 1, 2011. Member of the Columbus Plan Commission, liaison member of the Bartholomew County Plan Commission, member of the plat committee and subdivision review committee, and serves on many other boards and commissions
- Steve Rucker – Assistant City Engineer for over 30 years. Responsible for plan review for new subdivisions, coordination with Planning Department and utility companies and drainage plan reviews
- Randy Sims – Senior Engineering Technician. Works with contractors to ensure compliance with specifications, policies and standards, manages the cities pavement management system
- Becky Douglas – Engineering Technician. Responsible for budgets, accounts payable, WalkWorks program, Community Development Block Grant sidewalk projects and serves as stormwater program coordinator
- Jason Perry – Engineering Technician. CAD operator and works with utility companies and their contractors to ensure that street cuts are repaired properly. Designs and coordinates drainage repair projects
- Aimee Morris – Engineering Technician. Usually the first point of contact when people call or visit the office, public information officer and Webmaster

Street Improvements

Fourth Street

4th Street between Jackson Street and Franklin Street is now nearly complete. The new street is designed to provide the highest level of environmental sustainability by:

- Providing wide sidewalks and a narrow street to encourage pedestrian activity
- Reducing street width to slow or “calm” vehicular traffic
- Removing all curbs and other barriers to accessibility
- Reducing electrical consumption by installing LED streetlights
- Reducing and treating stormwater runoff by installing porous pavement
- Installing LED traffic signals with improved timing for improved traffic flow resulting in less delay, lower emissions, and less wasted fuel
- Improving vehicular and pedestrian safety by reducing speeds, installing gates for street closures, and by reducing of maintenance of traffic signals and streetlights
- Providing bicycle parking with Columbus unique “C” racks



4th Street is designed to be a “Great Street” that recognizes the needs of all who use the street, regardless of whether they are in a vehicle, on foot, on a bicycle, or in a wheelchair. Great streets are rare today. Many of us can recall a time when our downtown streets were the center for public life, the place to be and be seen. Our downtown streets defined “community.”

The Columbus 4th Street experience includes

- More space for outdoors seating for bars and restaurants, adding to the “Cultural District” atmosphere
- Electricity and water available at four locations in each block to provide for the needs of festivals and events
- Convenient on-street parking, benches, and trash receptacles in a totally barrier free environment

Project Credit

- Owners – City of Columbus, Columbus Redevelopment Commission
- Funding - Columbus Area Metropolitan Planning Organization
- Designers – Janssen & Spaans Engineering, Rundell Ernstberger
- Prime Contractor – Rieth Riley Construction Co.
- Sub-Contractors – James H. Drew Corp. and Decorative Paving
- Construction Cost - \$1,788,000 – 80% Federal funds and 20% TIF funds





Second Street Bridge

When the Second Street Bridge was opened in 1999, it was illuminated with ninety incandescent fixtures. During the intervening years, the lights were vandalized and become a maintenance problem for the City. As a result, the lights were extinguished in 2005.

Mayor Kristen Brown and the Columbus Redevelopment Commission asked the Engineering Department to investigate and develop a new plan to illuminate the structure. Working with vendors and contractors, a mock-up of the proposed lighting was installed and evaluated in August. Based on that mock-up, specifications were prepared and quotes were requested. The contract was awarded to James H. Drew Corp. The lights were installed in December. At the time of this report, the lights were ready for use, but we are waiting for “visors” to be installed on two of the lights to reduce glare for oncoming motorists.



The new lights are color changing LED lights. The LED's will be very energy efficient and bulb life is expected to approach ten years. The new lighting scheme requires only twelve lights, compared with 90 in the original lighting scheme. The total project cost is \$130,600, which is being paid by the Columbus Redevelopment Commission.

Based on the success of the Second Street bridge lighting mock-up, Mayor Kristen Brown and the Columbus Redevelopment Commission asked the Engineering Department to investigate and develop a plan to illuminate the Interstate 65 overpass. This is a very challenging bridge to illuminate due to its curvilinear shape and its short, dark cables. A mock-up was installed and tested in October, which demonstrated an additional challenge – competing ambient sodium vapor lights throughout the



interchange vicinity. A second mock-up will be done early in 2013 to test some new lighting schemes to overcome the challenges.

Road 200 South

Road 200 South is a suburban collector street and is the main thoroughfare to Southside Elementary School, the county fairgrounds and many new subdivisions. The new street will provide one lane in each direction and left turn lanes. A sidewalk will be constructed along the north side of the street. A storm sewer system is also included. Construction plans and right-of-way acquisition are complete for this project.

The City has worked with INDOT and the Louisville and Indiana Railroad to complete the design of the required railroad crossing protection devices, which will also be upgraded. Utility relocations began in 2012 and should be completed before the spring 2013 start of construction. The funding source for the project is 80% federal funds and 20% local (thoroughfare fund). Construction is scheduled to begin in the spring in 2013. Construction is expected to last one construction season.



Project Data

- Traffic Volume - 5,000 vehicles per day in 2007
- Future Traffic Volume – 10,000 vehicles per day 2027
- Project Length – 0.568 miles
- Right-of-Way – 17 parcels totaling 2.5 acres
- Designer – Janssen and Spaans Engineering



- Construction Engineering – United Consulting
- Estimated Construction Cost - \$1,800,000

Indiana Avenue

Indiana Avenue is an urban collector street and is a main artery serving Columbus East High School. The existing street is bordered by random parking areas for individual homes. Sidewalks exist in some areas but they are not continuous. The new street will provide one lane in each direction, in addition to bicycle lanes and parking lanes. Sidewalks will be constructed along both sides of the street. Storm water filtration areas and a storm sewer system are also included. The City of Columbus has completed acquiring right-of-way for the improvement of this section of street. Construction plans have been completed. The funding source for the project is 80% federal funds and 20% local (thoroughfare fund). Construction is scheduled to begin in the spring of 2014. Construction is expected to last one construction season.

Project Data

- Traffic Volume – 2,400 vehicles per day in 2010
- Future Traffic Volume – 5,200 vehicles per day in 2030
- Project Length – 0.977 miles
- Right-of-Way – 30 parcels
- Designer – Hannum Wagle and Cline
- Estimated Construction Cost - \$5,000,000

Westenedge Drive

Westenedge Drive is an urban collector street and is a main artery to Parkside School, Schmitt School, Northside Middle School, North High School and St. Bartholomew Catholic School. This street is also a connecting route for the Columbus People Trail system. Pedestrian and bicycle traffic is prevalent. The new street will provide one lane in each direction in addition to bicycle lanes. Sidewalks will be constructed along both sides of the street. A storm water infiltration system is also included. Construction plans have been completed for the improvement of this section of the street. The funding source for the project is 80% federal funds and 20% local (thoroughfare fund). THIS PROJECT IS ON HOLD INDEFINITELY.



Carr Hill Road

Carr Hill Road is a suburban collector street on the southwest side of Columbus. It was once a quiet country road, but now serves as a thoroughfare in a growing residential area. The improved street will provide one lane in each direction and bicycle lanes. Sidewalks will be constructed along both sides of the street. The City of Columbus is currently completing the acquisition of right-of-way for the improvement of this section of street. The funding source for the project is 80% federal funds and 20% local (thoroughfare fund). Construction is scheduled to begin in the summer of 2013. Construction is expected to last one or two construction seasons.

Project Data

- Traffic Volume – 2,439 vehicles per day in 2008
- Future Traffic Volume – 3,500 vehicles per day in 2028
- Project Length – 2,964.23 feet
- Right-of-Way – 1.52 acres
- Designer – Janssen and Spaans Engineering
- Estimated Construction Cost - \$1,800,000

Rocky Ford Road

Rocky Ford is a major east-west thoroughfare across the northern section of the City. It is classified as a suburban collector street. The City has improved two other sections of Rocky Ford from Central Avenue to Taylor Road. The design of this section was revised from a four lane section to one lane in each direction, a two-way left turn lane, and bicycle lanes. Sidewalks will be constructed along both sides of the street. A storm sewer system is also included. Pedestrian crossings will be constructed at key locations. As part of the project, the county will also be replacing the bridge over Sloan Branch. The City of Columbus is currently completing the acquisition of right-of-way for the improvement of this section of street. The funding source for the project is 80% federal funds and 20% local (thoroughfare fund). Construction is scheduled to begin in the spring of 2015. Construction is expected to last one or two construction seasons.

Project Data

- Traffic Volume – 2,829 vehicles per day in 2011
- Future Traffic Volume – 3,810 vehicles per day in 2031
- Project Length – 0.909 miles
- Right-of-Way – 35 parcels



- Designer – Strand Associates
- Estimated Construction Cost - \$5,300,000

Taylor Road

The City of Columbus is currently reconsidering the design for the improvement of this section of the street. This street is a suburban collector street. In the near future, the City plans to hold a public meeting to discuss the proposed design of the project. The funding source for the project is 80% federal funds and 20% local (thoroughfare fund). Construction is scheduled for 2016. Construction is expected to last one construction season.

Project Data

- Traffic Volume – 6,790 vehicles per day in 2010
- Future Traffic Volume – 12,260 vehicles per day in 2030
- Project Length – 1.00 miles
- Designer – DLZ
- Estimated Construction Cost - \$2,800,000

Street Maintenance

Street Overlay Phase One

Milestone Contractors L.P was awarded Phase One of the City street overlay project in July 2012. The total cost of the 2012 City Street Overlay was \$616,958. Milestone Contractors worked on 25th Street between Central Avenue and National Road, on Central Avenue from 18th Street to 25th Street, and on Central Avenue from 25th Street to National Road.

Street Overlay Phase Two

In September, Dave O'Mara Contractor was awarded Phase Two of the City Street Overlay project. The total cost was \$649,760 and included these streets:

- Deaver Road between Roads 50W and 150W
- Road 50W between Roads 350S and 450S
- Lafayette Avenue between 23rd and 25th streets
- Rocky Ford Road between Central Avenue and Washington Street
- Marr Road between 27th Street and US 31



- 19th Street between Washington Street and Lafayette Avenue
- Seventh Street between Washington and Jackson Streets
- Home Avenue between 27th Street and US 31
- Westenedge Drive between US 31 and Rocky Ford Road

Sidewalks, Pedestrian Crossings and Bicycle Routes

ADA Compliance/Sidewalks

Since the beginning of the City's WalkWorks program the City has replaced or supported the replacement of over 23 miles of sidewalks and installed more than 1200 curb ramps to meet Americans With Disabilities Act (ADA) requirements. In 2012, the following sidewalks were replaced or installed:

- Middle Road sidepath near Rural King
- Curb ramps at US 31 and Washington Street
- 2,211 total feet of sidewalk were removed and replaced
- 42 ramps were removed and replaced

In 2011, the Federal Highway Administration issued an order requiring all public agencies to complete an ADA Transition Plan by December, 2012. The City of Columbus has had a transition plan for many years and has continued to follow and implement that plan. However, the new requirement called for a greater level of detail. The City Engineer's Office gathered the necessary data and participated in the comprehensive transition plan update, which was prepared by the Human Rights Department. Our inventory revealed that the City has 2,742 curb ramps at 1300 public street intersections. Of those ramps, 334 are fully compliant, 2,049 have complaint slopes but are non-compliant in other ways, and 359 are non-compliant. The total cost to upgrade all curb ramps is estimated to be \$2.5 million.

Pedestrian Crossing Project

In 2009, the City of Columbus identified the need for an engineering solution for pedestrian crossings. The City discovered the rapid rectangular flashing beacon (RRFB), which was installed at the intersection of Parkside Drive and Central Avenue. After installation of the RRFB, the compliance rate for vehicles yielding to pedestrians in the crosswalk and crossing guards has risen to over 95%. Feedback from parents, non-school related pedestrians, school crossing guards, and motorists has been very positive.



The City of Columbus has been awarded Highway Safety Improvement Program funds to improve the following pedestrian crossings:

- Marr Road at East High School
- Home Avenue at North High School (2 locations)
- 27th Street and California Street by Schmitt Elementary
- Lindsey Street and Fifth Street
- River Road and Royal Street

The crossing movements are expected to include newer versions of RRFB's at each location, in addition to improved signage, pavement markings, and pedestrian refuge areas. The approved funds are 90% federal and 10% city. Installation is expected to be completed in 2013.

Designer: Strand Associates

Estimated Construction Costs: \$390,000

Bicycle & Pedestrian

US 31 and Washington Street

Upon completion of the US 31 improvement project, the City received complaints about accessibility at the intersection of Washington Street. The City Engineer's Office prepared plans for a solution to the problem. Excavation Plus submitted the low quote for the project in the amount of \$10,245. The work was completed in September 2012.

6th Street Sidewalk

Late in 2011, a contract was awarded to Milestone Contractors for the replacement of the deteriorated sidewalk on the south side of 6th Street, west of Washington Street. Construction was delayed due to work on the Cummins Parking Garage. Construction was completed in July 2012. The final cost of the project was \$31,125.

5th Street and Brown Street



In 2011, Reach Healthy Communities purchased and donated accessible pedestrian signal (APS) equipment for this intersection. The APS equipment was installed in May 2012. The APS equipment is designed to better communicate the signal operation to users with physical challenges by providing audio and visual feedback. We have found that all users appreciate the feedback that the APS provides and the “countdown” pedestrian timers.

Middle Road Sidepath

In December 2011, a contract was awarded to Excavation Plus for the construction of an 8 foot wide sidepath along the west side of Middle Road from US 31 to the north edge of Rural King. This section provides a connection from the Columbus Municipal Airport to Fair Oaks Mall and Lincoln Park. Improvements are planned in the future for the section from US 31 to 25th Street to complete this bicycle/pedestrian connector. The cost of the project was \$49,603.

Tipton Lakes Boulevard Sharrows

After working with the Tipton Lakes Community Association, the City installed shared lanes on Tipton Lakes Blvd. and on Goeller Blvd. The shared lanes are marked by “sharrows” and “Share the Road” signs. The signs and markings help guide bicyclists and provide warning to motorists of the presence of bicycles along these popular bicycle routes.

Traffic Signals and Engineering

Traffic Signals Overview

The City’s Engineer’s Office is responsible for the operation, timing, and programming of the traffic signals in the City of Columbus, except state highway intersections. The City has 37 signalized intersections. Some of those signals operate with hardware that is outdated, obsolete, and difficult to maintain.

The City, through, the Columbus Area Metropolitan Planning Organization (CAMPO) is eligible for federal funding for traffic signals improvements. The City also uses local funding for upgrading traffic signals as a part of other city projects.



As part of the 4th Street Project, all new traffic signal equipment was installed at the intersection of 4th and Washington Street. The project was federally funded, with the local share provided by the Columbus Redevelopment Commission. The new equipment includes a new controller, new LED signal heads, and countdown pedestrian signals.

Early in 2012, the following traffic signals were updated as part of a \$88,696 contract with Signal Construction Inc. that had been approved in December 2011 by the BOW: 25th & Home, 25th & Maple, 5th & Washington, 10th & Gladstone, 10th & McClure, 27th & Central, 22nd & Central, 25th & Haw Creek, 25th & Herman Darlage. The work at these signals included installation of new controllers and cabinets, installation of LED signal heads, and installation of countdown pedestrian timers. The improvements will increase efficiency, reduce energy consumption, and prepare for future interconnection of the signs.

As part of the Phase Two Street Overlay Project, traffic signal detectors were replaced at 22nd & Central, 25th & Central, 27th & Central, 25th & Haw Creek, and 25th & Herman Darlage Drive. The old inductive loop detectors were removed as part of the milling for the new pavement. The new detectors are radio frequency micro-detectors, which should cause less damage to the asphalt pavement and are easier to replace.

In December 2011, a contract was awarded for the replacement of the controllers and cabinets at 25th & Central and 25th & Haw Creek. That work will be completed in Spring 2013.

Traffic Engineering Overview

The City Engineer's Office conducts traffic engineering studies and recommends traffic control changes to the Board of Public Works and Safety. Those studies are frequently requests for all-way stop control at intersections and reduced speed limits on streets. All each studies are conducted in a manner which complies with the Indiana Manual on Uniform Traffic Control Devices. The following studies were completed in 2012:

All Way Stops



- 22nd Street & Maple Street – Not Approved
- 4th Street & Pearl Street – Approved
- Ohio Street & Cherry Street – Not Approved
- Indiana Street & Cherry Street – Not Approved
- 4th Street & Jackson Street – Approved
- Tipton Lakes Boulevard & Acorn Street – Not Approved
- Rocky Ford Road & River Road – Not Approved

Miscellaneous On-Going Studies

- Columbus Airport Intersections
- West Everroad Park Intersections
- North High School Parking & Traffic

Drainage Repairs and Stormwater

Drainage Repairs Overview

The Engineering department supervised 43 drainage repair projects completed by the City Garage employees. Inlet repairs consisted of curb replacement, inlet structure repair & replacement, installation of new castings, asphalt repair & replacement. Total cost \$60,587.74; average cost per job \$1,409.17.

- 10th Street between Sycamore & Pearl Streets – The City Garage crew removed and replaced existing ramps at the corner of 4th and Pearl Streets
- *Nine quotes were awarded to local contractors totaled approximately \$121,160*
 - Goeller Blvd. and St. Rd. 46 Intersection – Installed 200'-0" of additional 6" underdrain. Underdrain was placed behind the curb on Goeller Blvd. and across the intersection to relieve ground water
 - 33rd and Virginia St. – Installed 320'-0" of new 12" N-12 dual wall pipe and 4 new Nyloplast inlet structures
 - Acorn Drive Pipe Replacement – Removed and replaced 130'-0" of existing 15" single wall pipe with new 15" N-12 dual wall pipe. Existing pipe had started to collapse causing sinkholes to form at ground level



- 2519 25th St. Drainage Improvement – Installed approx. 40'-0" of 12" N-12 dual wall pipe with Duraslot Trench drain along 25th St. connecting to existing storm sewer. Replaced 2 existing ramps and replaced 50'-0" of existing sidewalk to comply with ADA Standards
- 3432 Putter Place – Removed and replaced 160'-0" of existing 15" CMP (corrugated metal pipe) pipe with new 15" N-12 dual wall pipe
- 6032 Turtle Bay Parkway – Removed and replaced 40'-0" of existing 15" HDPE pipe with new 15" HDPE pipe. The two sections of existing pipe had started to collapse causing sinkholes to form at ground level
- 29th and Tulip Drive – Removed and replaced two existing drywells with new drywells and interconnected the new structures with approx. 80'-0" of 12" N-12 dual wall pipe
- #12-19 Misc. Drainage Repairs – Project is a combination of four individual jobs that consist of removing and replacing sections of collapsed pipe to complete removal and replacement of 230'-0" of CMP with new N-12 dual wall
- Shoreline Drive Pipe Lining – This project will consist of slip lining an existing 27" CMP with a 24" Sphatite liner pipe. Approx. 180'-0" in length. All work will be performed from Shoreline Drive with minimal disruption to homeowner's property

Stormwater Overview

EPA's Clean Water Act of 1972 introduced the National Pollutant Discharge Elimination System (NPDES) which addressed sources of pollution including Municipal Separate Storm Sewer Systems (MS4). Phase II NPDES regulations issued in 1999 regulated Columbus and urbanized areas in Bartholomew County. The Clean Water Act NPDES is an unfunded mandate. The NPDES permit contains elements called minimum control measures (MCM) that, when implemented, should result in a significant reduction in the discharge of pollutants. Columbus continues to implement the following MCM's:

- Public education and outreach
- Public input on key issues
- Illicit discharge detection and elimination
- Construction erosion and sediment control
- Post construction best management practices



- Good housekeeping at city facilities

In 2012, Public education and outreach requirements were met in several ways:

- On September 25-27, 2012 – The City of Columbus MS4 Coordinator gave presentations to 250 BCSC third graders at the Soil & Water Conservation District's outdoor lab
- The MS4 Coordinator attended Senior Project Fairs at both Columbus East and Columbus North High Schools where projects were introduced for rain barrels, rain gardens and river clean-ups.
- The Cummins Health, Safety & Environmental Fair was also attended by the MS4 Coordinator. Educational brochures and volunteer opportunities were offered
- The City of Columbus MS4 partnered with Shelbyville and Johnson County MS4s to host a Soil & Erosion Control Seminar. It was held in Edinburgh, Indiana. It was attended by approximately 70 contractors, design professionals and inspectors. Continuing education and professional development hours were available for participants
- The Good Housekeeping requirement is for city employees to prevent stormwater pollution at municipal facilities, such as fleet maintenance shops, transit facilities, sanitation facilities, parks departments and street sweeping operations. The City Engineer's office purchased a training video called "Rain Check – Stormwater Pollution Prevention for MS4s." This video shows employees good housekeeping practices, spill response, materials management, and vehicle fueling and washing

Subdivisions and Permits

Subdivisions Overview

The City added 4,923.65' feet, which equals 0.91 miles of new street in 2012.

- Wildflower Estates Section 2, Phase 2 – 2199.11' new street, 33 residential lots
- Westbrook Subdivision, Phase I – 812.23' new street, 17 residential lots
- Shadow Creek Farms, Section 7A – 1200.94' new street, 45 residential lots
- Shadow Creek Farms, Section 7B – 711.37' new street, 31 residential lots



Permits Overview

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 accessed online at www.columbus.in.gov/engineering/permit-and-application-forms. There is no charge for making these permit applications to the Engineering office.

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 2012, 219 requests were processed, including requests for benefit walks and runs, block parties, parades, and borings to place new fiber optics. Also requests were approved for downtown restaurant outdoor seating, and road closures associated with the construction of The Cole Apartments and United Senior Residence.

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 228 permits to excavate in a public street, alley or right-of-way in 2012.

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 2012, 130 improvement in the right-of-way permits were processed by the City Engineer's office.