

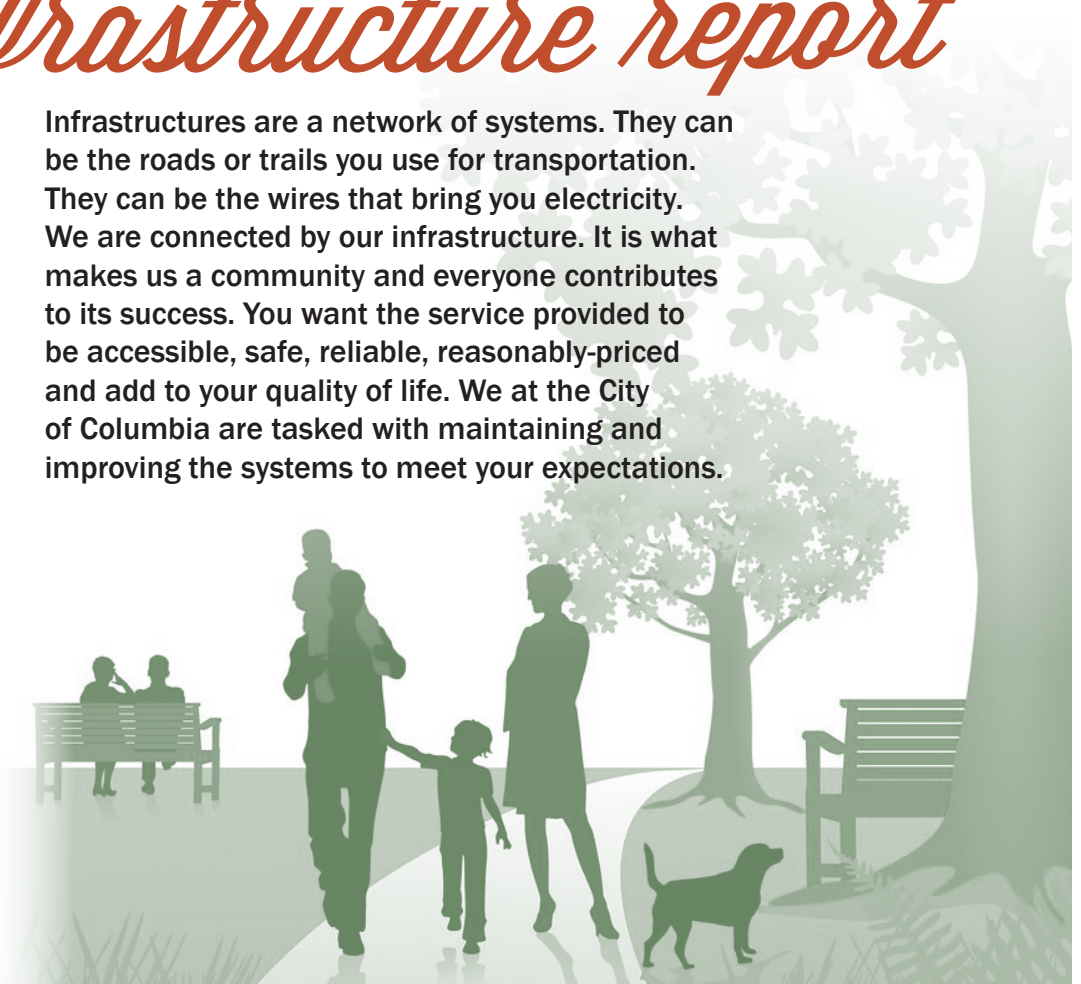


# 2013 ANNUAL *infrastructure report*

Infrastructures are a network of systems. They can be the roads or trails you use for transportation. They can be the wires that bring you electricity. We are connected by our infrastructure. It is what makes us a community and everyone contributes to its success. You want the service provided to be accessible, safe, reliable, reasonably-priced and add to your quality of life. We at the City of Columbia are tasked with maintaining and improving the systems to meet your expectations.

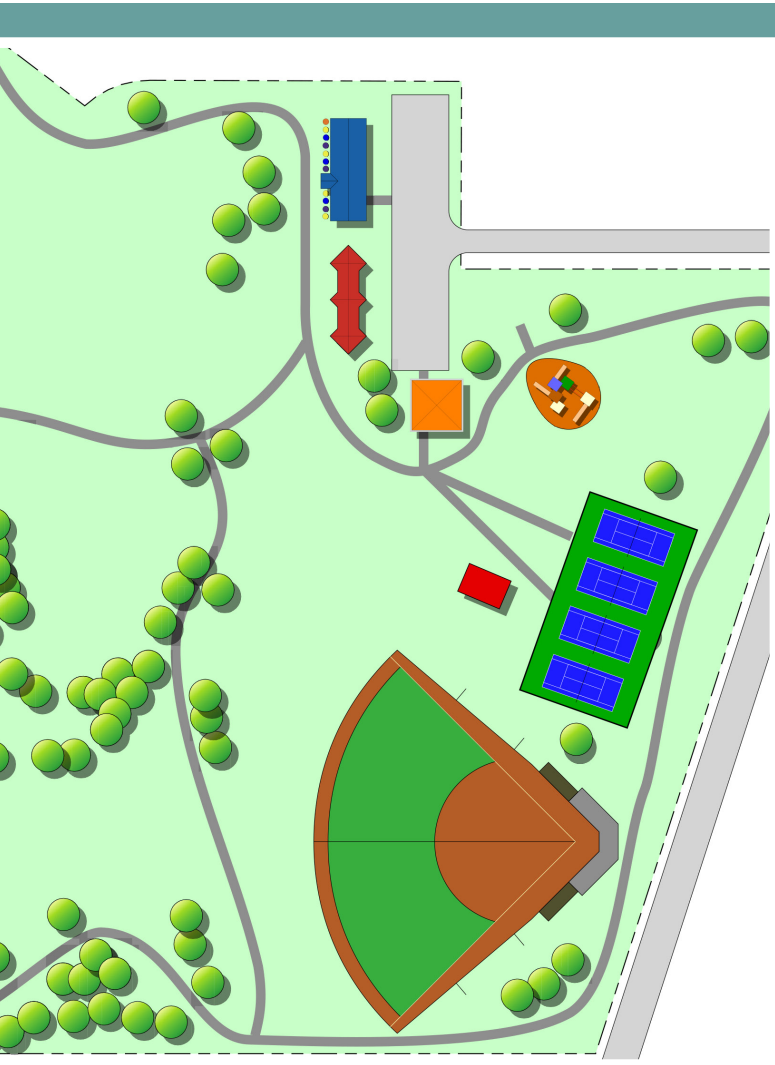


City of  
Columbia,  
Missouri



# parks

*Eighty-seven percent of Columbia households use the park and trails system.*



## 2013 HIGHLIGHTS

- Completion of phase one development of Bonnie View Nature Sanctuary including a new shelter, restroom, parking and trailhead for the Scott's Branch Trail
- Completion of infrastructure improvements at Albert-Oakland Park including the renovations of two baseball fields, tennis court resurfacing and new restroom within the park
- Completion of improvements to Twin Lakes Recreation Area including renovations to Little Mates Cove and redesign of the dog park
- Addition of a new neighborhood park at Jay Dix Station including a new playground and basketball court
- Completion of the 2013 Parks, Recreation and Open Space Master Plan

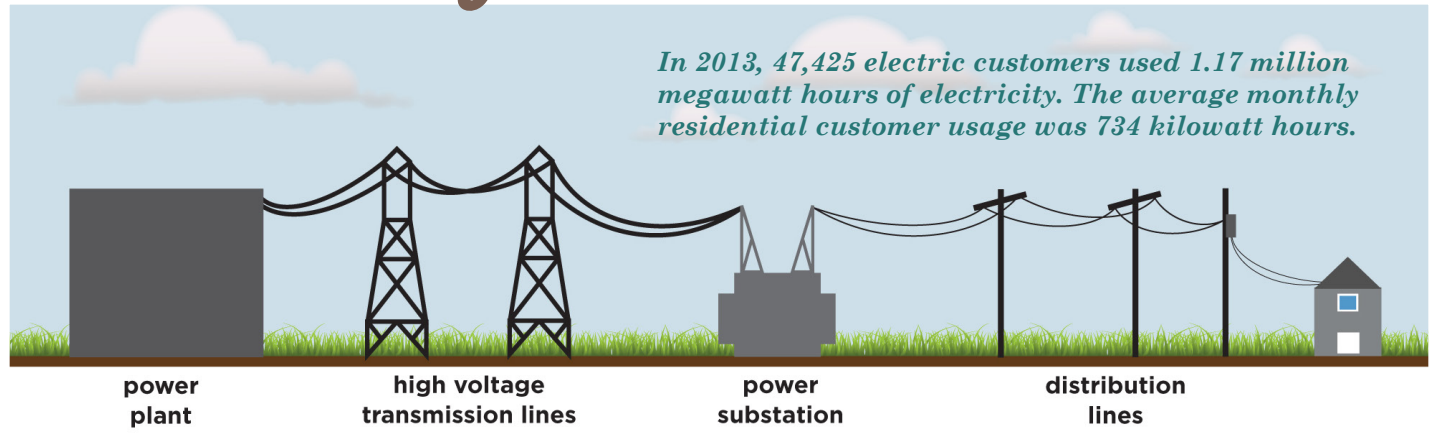
## WHAT'S NEW IN 2014?

- Addition of new infrastructure development at the Gans Creek Recreation Area (50 acres) including the construction of seven athletic fields, one shelter, one large playground, 1.5-mile fitness trail and dog park
- Development of the Norma Sutherland Smith Park (50 acres), which will include infrastructure additions of a new shelter, playground, fitness trail and fishing lake
- Renovations at the Waters-Moss Memorial Wildlife Area to create the Hillcrest Community Center, Moss Building and park ranger offices

## 2013 IMPROVEMENTS

<b>JAY DIX STATION</b> New playground and basketball court	<b>4</b> new restrooms – Albert-Oakland Park, Bonnie View Nature Sanctuary & Columbia Cosmopolitan Recreation Area (2)
<b>CLUBHOUSE RENOVATION</b> L.A. Nickell Golf Course	<b>11</b> resurfaced tennis courts – Albert-Oakland Park (3) & Cosmo-Bethel Park (8)
<b>2</b> new shelters (Bonnie View Nature Sanctuary & Columbia Cosmopolitan Recreation Area)	<b>8</b> renovated baseball/softball fields – Albert-Oakland Park (2) & Rainbow Softball Center (6)

# electric system



The local electric generation facility assets include: the **power plant** – rated at 86 megawatts, this facility used coal, waste wood and natural gas to generate 5.7% of the energy portfolio; the **energy center** – rated at 144 megawatts, this facility used natural gas to generate 2.2% of the energy portfolio; **landfill gas** – rated at 3.1 megawatts, this facility used gas created from decomposing waste to generate 1% of the energy portfolio; **solar** – rated at 0.363 megawatts, these panels produced 0.03% of the energy portfolio and **diesel backup generators** – rated at 12.5 megawatts.

NOTE: External power sources (coal, natural gas, wind, landfill gas) help meet the rest of the 325 megawatts needed for the Columbia system electric load.

## HOW DOES THE ELECTRICITY GET TO ME?

Average Electricity Availability	99.9893
70 miles of transmission lines	
287 miles of overhead distribution lines	
509 miles of underground distribution lines	
11,463 distribution transformers	
20,102 utility poles	

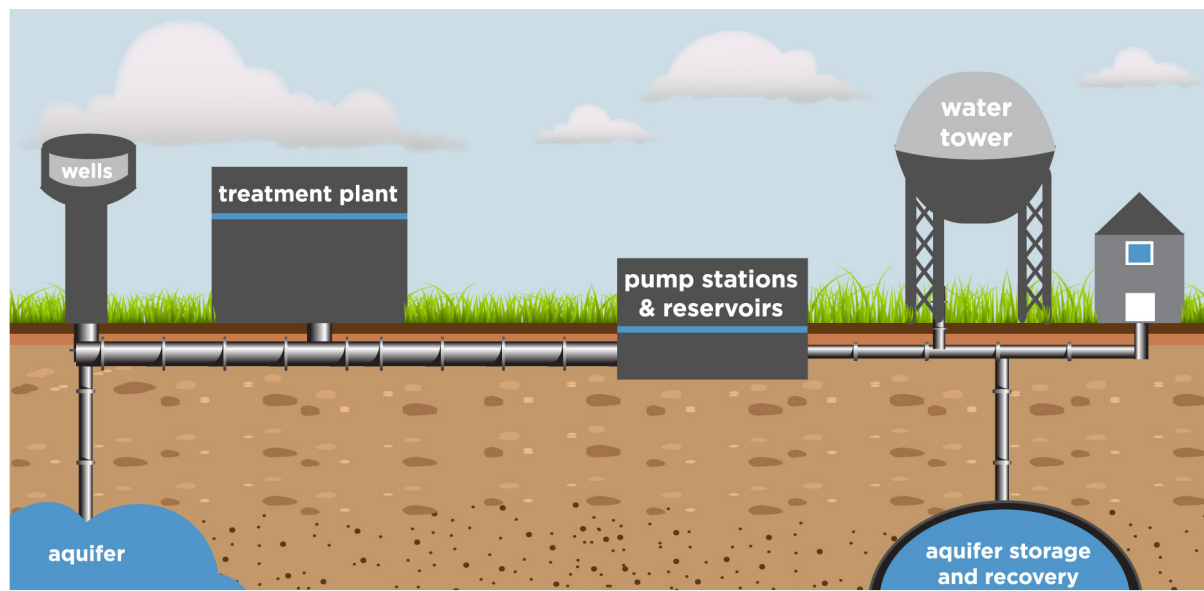
## 2013 HIGHLIGHTS

- Installed a third landfill gas generator to produce more renewable energy
- Constructed a backup control room to operate Columbia's electric grid to meet federal regulations
- Following three interested-parties meetings and gathering input through three surveys, a public hearing was held by the City Council to determine the route for the new southern electric transmission lines.

## WHAT'S NEW IN 2014?

- Transmission line project: final line design, easement acquisitions, cost estimates, construction timeline and proposed funding plan will be delivered to the City Council.
- A test burn of a densified biomass product at the power plant will show if the product is a practical renewable energy source and if emissions are lowered.
- Develop a plan to meet growing electrical needs in the central city area for infrastructure planning purposes.

# water system



Columbia's water is pumped from 15 wells that tap an alluvial aquifer in McBaine, Missouri. Softened, filtered and disinfected water is pumped from the treatment plant to reservoirs at Columbia's three pump stations. The water is then pumped throughout the city to consumers. It is stored at towers and reservoirs for times of high demand or for fire fighting. The water distribution system is also designed to connect with surrounding water districts in case of a water supply issue.

*In 2013, 47,033 water customers used 4.32 billion gallons of water. The average monthly residential customer usage was 4,616 gallons in the winter and 5,866 gallons in the summer.*

## HOW DOES THE WATER GET TO ME?

**671** miles of water pipes

**3.4** miles of water mains were installed

**5,780** total hydrants, 80 new locations installed and 10 replaced

## 2013 HIGHLIGHTS

- Completed the Source Water Protection Plan
- Completed the north end of the 24-inch water transmission line for eastern Columbia to move water where it is needed by customers, help add water to storage facilities and aid in fire protection
- Replaced .6 mile of water distribution mains

## WHAT'S NEW IN 2014?

- Addition of three new wells will increase the amount of water available to Columbians
- Complete the southern end of the 24-inch water transmission line for eastern Columbia
- Backup generators at the pumping stations and storage facilities will get water to customers during electrical outages

# streets, sidewalks & trails



*Maintenance of major City streets saw a 10 percent increase in satisfaction in 2013.*

## IMPROVEMENTS

**14** miles of streets “milled and overlaid” providing new asphalt driving surface and roadbed improvements

**31** miles of streets maintained by “chip and seal,” designed to extend the life of driving surfaces at 1/3 the cost of mill and overlay

**3.8** miles of new trails constructed to provide connectivity for pedestrians and cyclists as part of Columbia’s transportation plan

**8,451** feet of new sidewalks and pedways

**1,340** center lane miles of roadway now maintained by Public Works

**SHORT STREET PARKING GARAGE**  
completed to address parking needs in growing Arts District

## 2013 HIGHLIGHTS

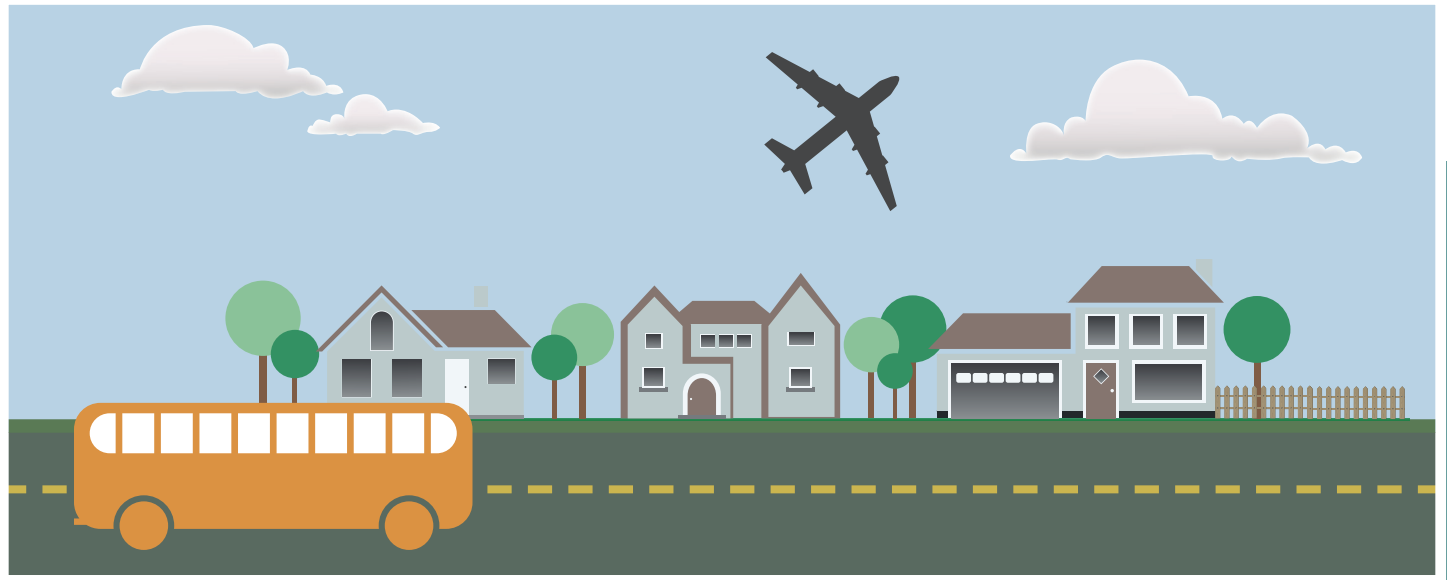
- Completed Clark Lane Phase II to improve access to new elementary and high school on St. Charles Road
- Completed Rolling Hills Road as part of East Columbia Transportation Study recommendations
- Constructed Delmar Cobble School sidewalk for ADA access to Parkade Park
- Completion of the Scott’s Branch Trail and the first phase of the Hominy Creek Trail

## WHAT’S NEW IN 2014?

- Scott Boulevard Phase II, which will raise road bed and bridge above flood plain, provide a roundabout at Vawter School Road and provide connection to Phase III, currently scheduled for 2016
- College Avenue Safety Enhancement Project to provide designated and signalized crosswalks on College Avenue between University and Rollins
- Clark Lane Improvement project between Ballenger Lane and Woodland Springs to enhance pedestrian safety
- Design and construction of five sidewalk projects to meet ADA standards
- Construction of the 1.76-mile Grindstone Trail



# transportation



*During the last fiscal year, nearly 1.7 million trips were taken on Columbia Transit, and 85,794 passengers flew in and out of Columbia Regional Airport.*

## IMPROVEMENTS

**5,000** feet of new taxiway at Columbia Regional Airport (COU)

**35,000** feet of new wildlife perimeter fence at COU

**33** GPS tracking devices installed on transit vehicles

**40,000+** enplanements at COU

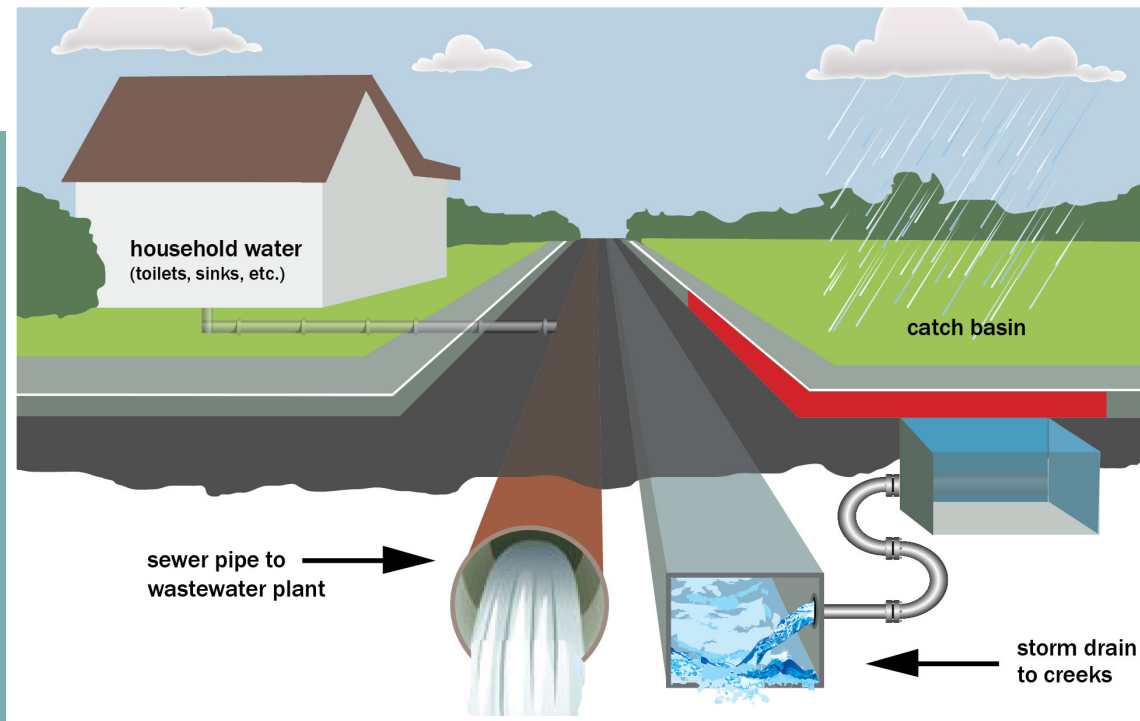
## 2013 HIGHLIGHTS

- American Airlines begins daily nonstop service to Dallas and Chicago
- CoMO Connect, a project to overhaul Columbia Transit to better serve customers, is approved by City Council Aug. 12
- Upgraded technology for buses including DoubleMap GPS tracking system to provide enhanced customer experience.

## WHAT'S NEW IN 2014?

- Main runway/crosswind runway safety improvements at COU to prepare for new crosswind runway and main runway extension
- CoMO Connect to launch service Aug. 4
- Installing passenger counter and stop enunciators on all transit buses
- American Airlines to begin second daily nonstop Chicago flight
- Terminal improvements including restroom in secured passenger area

# sewer & stormwater



## IMPROVEMENTS

**1,156** feet of sanitary sewer pipe replaced

**405** sanitary sewer manholes rehabilitated

**33,788** feet of sanitary sewer line rehabilitated

**8,223** feet of stormwater pipe constructed

**1,200** feet of outer berm walls at Wetland Treatment Cell #1 reconstructed

## 2013 HIGHLIGHTS

- Voters approved \$32 million sanitary sewer bond issue with 80 percent in favor
- Continued Inflow and Infiltration (I&I) studies to find ways to reduce stormwater infiltration into the sanitary sewer system to reduce the number of overflows and basement backups
- Completed six sanitary sewer CIP projects

## WHAT'S NEW IN 2014?

- Three Private Common Collector Sewer Elimination (PCCE) projects scheduled for construction
- Continue work to remove sources of inflow and infiltration identified by the inflow and infiltration studies
- Sanitary Sewer Cost of Service Study
- Ash & Hubble and Hitt & Elm Stormwater CIP projects scheduled for construction
- Seven sanitary sewer projects in design and easement acquisition