Boone County Road & Bridge Annual Report



A cooperative effort between Engineering Division of Resource Management and Public Works Maintenance Operations

FiscalYear 2016

Road & Bridge Mission

n To provide a safe and modern transportation ly etwork constructed and maintained in a fiscal sound and environmentally responsible manner that is effectively coordinated with city, state and federal agencies.

Letter from the Chief Engineer

Dear Boone County Commissioners and Boone County Residents,

The Boone County Resource Management – Engineering Department is pleased to present our Annual Report which highlights major activities and accomplishments for fiscal year 2016. Our mission is to maintain and improve the County's 750+ mile road network. The department has grown confident that the programs that have been developed in the past 5-6 years remain the core reason for our success. This success stems from the ability to remain PROACTIVE!

2016 proved to be another interesting year. As always "Mother Nature" had her fun in presenting new challenges for us. Additionally, a significant increase in development submittals occurred. While this speaks positively on the outlook of the economy, it also translates into increased demands of staff time for review for compliance to county standards and storm water regulations. This did impact project delivery schedules.

In 2018, the main funding source for road & bridge activities will be up for renewal. This is the ½ cent sales tax. Staff will strive to maintain our normal high standards by remaining a proactive department that gives the citizens of Boone County good reason to vote for a renewal.

In closing, the dedication of all our employees plays an integral part in our accomplishments for without them none of this is possible. Together we will continue to provide a safe, modern, well maintained transportation system by serving the citizens of Boone County with excellence and integrity. Experience teaches us that the coming year will present its unique challenges as it will also provide opportunities to excel. Thanks again for the support and the occasion to serve.

Respectfully,

Derin Campbell, P.E.

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Report the money expended for construction, maintenance and repair of such highways, roads, bridges and culverts during the preceding year.

Pavement Preservation

Projects

Pavement Preservation

 The right treatment for the right road at the right time

Preserve

- 1: to keep safe from injury, harm, or destruction: PROTECT
- 2 a: to keep alive, intact, or free from decay b:MAINTAIN
- From Merriam Webster's Collegiate Dictionary TENTH EDITION

What is Pavement Preservation

The basic premise of

to perform lower cost treatments to roads while they are in good condition, to maintain their good condition, rather than performing higher cost

pavement preservation is

treatments to the roads in the worst condition. Using

this principle and a data

receive treatments we are

keeping a large portion of our road network in the

category; thus protecting

the investment Boone County has made in

asphalt roads. As you

acceptable or better

driven approach to selecting which roads will



read these articles you will see quantities in square yards (sq yd) rather than miles. This allows for a more accurate comparison of treatment costs as not all roads are the same width.

Year	Excel- lent	Accepta- ble	Failed	Total		
2012	117.10	79.08	7.59	205.54		Excellent
2013	129.91	65.41	4.25	199.57	> 60	Acceptable
2014	127.21	67.39	3.33	197.93	40	
2015	84.17	108.49	4.44	197.10		
2016	93.90	99.30	3.40	196.60	2012 2013 2014 2015 2016 Year	

Pavement Preservation

Projects

Preservation Chip Seal

Preservation Chip Seals are performed on roads in excellent condition – typically within 2-3 years of being constructed or receiving an asphalt overlay. The heavy application of asphalt emulsion oil that is applied as part of a chip seal creates a very robust barrier between the pavement and the environment limiting the deteriorating effects of sunlight and moisture to the road. The chips applied to the road (Iron Mountain Trap Rock) is a very hard, durable rock which provides a wearing surface and traction to the road. In 2016 approximately 27.7 centerline miles of roads received 381,507 sq. yd. of Preservation Chip Seal treatment.



Preservation Chip Seal 2016

- \$22,444 permile
- \$1.63 per square yard

Pavement Preservation Treatments used in 2016

- Preservation
 Chip Seal
- Onyx Surface Seal
- Asphalt Overlay

Onyx Surface Seal

Surface Seals are performed on roads in excellent condition. Currently, every road that receives a Preservation Chip Seal is planned to also get a surface seal in the following construction season. The purpose of this treatment is to supplement and extend the life cycle of Preservation Chip Seal treatments on roads in excellent condition. In 2016 approximately 26.4 centerline miles of roads were treated with 361,094 sq. yd. of Onyx Surface Seal.

Onyx Surface Seal 2016

- \$13,215 permile
- \$0.97 per square yard

Pavement Preservation

Projects



Asphalt Overlay

Asphalt overlays are performed on roads that exhibit some moderate distresses and smoothness irregularities, but otherwise are in good condition. Typically, 2" of new asphalt mix is placed on the road surface. Another way asphalt overlays are used is to extend the life of deteriorated concrete roads. In this case the roads are typically milled prior to the overlay so the final surface elevation is as it was before the project. In 2016 approximately 3.9 centerline miles of road received 64,390 sq. yd. of asphalt overlay, of that 3.9 centerline miles, approximately 0.5 miles was for mill/overlay of concrete roads.

100 Excellent Pavement Condition Index 40% Drop in Quality \$1.00 for preventive Goodmaintenance here 75% of Life Fair Will cost \$4.00 to \$5.00 or more for rehabilitation here Poorto get the same 40% Drop in Quality pavement condition from PM Very Poor_ 20 12% of Life Failed 20 0 5 10 15 Benefit of preventive maintenance on pavement condition; Source: O'Brien, 1989: This figure shows the Pavement Condition Index (PCI) over the life of a pavement. It shows that over the in the first 15 years of the life the pavement, the Information & graph from the fhwa website PCI quality drops by about 40% from Excellent condition to Fair condition.. The chart shows that timely preventive maintenance when pavement is in good condition can keep them in good condition while actions when they are in the poor range will cost \$4 to \$5 or more for rehabilitation to get the pavement in a similar condition. The graphic highlights the importance of timely preventive maintenance and shows that delayed action when pavements have dropped to poor condition can cost upto five or more times the cost as compared to timely preventive maintenance.

<u>Asphalt Overlay</u> 2016

- \$97,482 permile
- \$5.88 per square yard

Comparing costs for Boone County preservation treatments with the costs for Boone County rehabilitation actions and condition graphs you can see that the graph to the right holds true.

Asphalt Rehabilitation

Project

South Cowan Road & South Cowan Loop Asphalt Rehabilitation

In 2016 an Asphalt Rehabilitation Project was performed on South Cowan Rd. and South Cowan Loop. Full Depth Reclamation was used on these severely distressed pavements. In this process, the existing pavement, gravel base, and subgrade are pulverized and combined with cement and water and compacted into a stabilized base. Following curing, an asphalt overlay is installed. Approximately 1.0 mile or 10,500 sq. yd. of road received the Full Depth Reclamation repair.

Comparison of Treatment Costs



Rehabilitate

- 1 a: to restore to a former capacity : REINSTATE
- 2 a: to restore to a former state
- From Merriam
 Webster's Collegiate
 Dictionary TENTH
 EDITION

<u>Asphalt</u> <u>Rehabilitation</u> <u>2016</u>

- \$380,987 per mile
- \$1.63 per square yard

Concrete Rehabilitation

Projects

Concrete Road Maintenance

Concrete Rehabilitation

Concrete Road Rehab projects are a much larger scale removal of failed panels and replacement with new pavement. These projects typically encompass an entire neighborhood. The new pavement could be conventional concrete. full depth asphalt, or Roller Compacted Concrete (RCC) topped with a 2" asphalt driving surface. In 2016 Concrete Road Rehab projects were performed in Willow Brook Subdivision (Water Cress Circle north of Bulrush Dr. and Bulrush Dr. from Alfalfa Dr. to Watercress Circle) and Shalimar Gardens Subdivision (Shalimar Dr. beginning at Hwy 73 and continuing west approximately 200'; Burning Bush Rd. beginning at Shalimar Dr. and continuing north approximately 320'; and Almond Ln. south of Shalimar Dr.). In both subdivisions, deteriorated curb and gutter were replaced, and the existing concrete pavement was removed and replaced with full depth asphalt pavement.

The management of concrete roads is much different than asphalt roads. Concrete roads tend to stay in good condition for a long time, then fail very quickly. Due to the nature of the material, the idea of low cost preventative maintenance treatments is not applicable. Boone County's management of its concrete roads currently focuses on the systematic replacement of failed panels. These replacements are done with two basic mechanisms, targeted panel replacements and rehab projects. In 2016, both targeted panel replacements and rehab projects were performed.



Shalimar Subdivision Concrete Rehab project area

Boone County has 30.3 miles or 40,469 panels of concrete roads in our infrastructure inventory.



Willowbrook Subdivision Concrete Rehab project area

Targeted Panel Replacement

Targeted Panel Replacement involves the removal and replacement of individual concrete panels in a road that have deteriorated to a point where they are no longer serviceable. These replacements are performed by either a contractor or by the Maintenance Operations Department. In 2016 approximately 300 panels were replaced by Contractors

Concrete Rehabilitation

Projects



Midway Crossings

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Paradise Hills

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Arrowhead Lake

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Golf View

Concrete Rehabilitation

Projects

Willowbrook & Shalimar Gardens Subdivisions

Every other year, Boone County staff inspects and rates all individual concrete street panels under our responsibility. The information is mapped and used to help determine if the density of damaged panels warrants replacement of individual panels or if the concentration of damaged panels is so great a complete street rehabilitation is needed. Using this process, sections of Almond Ln., Shalimar Dr., and Burning Bush Dr. in the Shalimar Gardens subdivision, as well as portions of Water Cress Cr. and Bulrush Dr. in the Willowbrook subdivision were selected for a complete street rehabilitation.

The project was designed by Boone County staff and called for the removal of the existing concrete pavement, spot replacements of the existing curb and gutter, installation of geogrid fabric with 6" of base rock, and the bidders were given three options for the surface sections. These possibilities included 6" of conventional concrete pavement, 8" of full depth asphalt pavement, or 6" of roller compacted concrete capped with 2" of asphalt. The project was bid in June of 2016 and the proposal selected as the most cost effective used the 8" of full depth asphalt in their winning bid.

Construction began in September, 2016. Due to good weather through most of the project, the contractor worked at an accelerated pace and completed the project ahead of schedule. Since the new street sections are asphalt, the County will maintain them through our Asphalt Pavement Preservation program to ensure quality pavement for years to come.



Burning Bush Road before construction



Burning Bush Road after construction

Concrete Rehabilitation Projects



Water Cress Circle Cul-de-Sac before construction



Water Cress Circle Cul-de-Sac after construction



Bulrush Drive & Water Cress Circle after construction



Projects

Drainage Structure: a term to include both bridges "a configuration including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening" (from FHWA) and culverts: a formation not classified as a bridge that provides an opening under a portion of a roadway "a transvers drain; conduit for a culvert" (Merriam Webster's Collegiate Dictionary tenth edition).

Bridge Deck Repairs

Two bridges with deteriorated decks, one on Gillespie Bridge Rd. over Perche Creek and the other on Calvert Hill Road over Rocky Fork Creek had those decks rehabed in 2016. Both bridges underwent Hydro-Demolition of their decks. Hydro -Demolition is a process in which a very high pressure water jet blasts the deteriorated concrete loose from the deck. This loose material is vacuumed up, the deck is power washed, and a new wearing surface is poured into place. The wearing surface is made of a latex modified concrete mix that bonds well to the remaining deck material and resists absorption of moisture. This process leaves the bridge with a deck with an expected life cycle greater than the original deck and is quick to construct. Some additional repairs were performed on Gillespie Bridge Rd. Bridge to improve the life of the abutments and approaches.

Gillespie Bridge Road Bridge abutment beginning to show signs of needing rock blanket protection



Projects

McBaine Bridge Polyjacking

The approach slabs for the bridge carrying Rte K/Burr Oak Rd. over Perche Creek were showing signs of settlement due to voids under the slabs. Boone County staff decided to deploy a process called polyjacking to help correct and alleviate the settlement problem. Polyjacking is a process where holes are drilled through the concrete slab and a high density polyurethane foam is injected to fill any voids and lift the slab. The contractor was able to do the work under traffic, with only one lane closed at any given time. The entire project was completed in just one day. If the slabs had been fixed using the more traditional remove and replace method, the bridge would have been completely closed to traffic for at least 15 days and could have easily cost twice as much.



Void under McBaine bridge slab prior to construction

Drilling holes for polyjacking on McBaine Bridge



Projects

Waters Edge Drainage Improvements

The existing stormwater system on Waterfront Dr. in the Waters Edge subdivision consisted of brick inlet boxes with grated openings and corrugated metal pipes conveying water between boxes. The brick inlet boxes were showing structural distress and their grated openings easily clog with leaves and debris, creating a maintenance issue. Several corrugated metal pipes also had severe corrosion, making them susceptible to structural failure. Left alone, these issues had the potential to create street sink holes and other safety problems.

In 2015, Boone County staff designed and bid a project to replace portions of the stormwater system and make street repairs. The design called for replacing the brick inlet boxes with concrete "Type M" inlets and replace the existing metal pipes with concrete pipe and polypropylene pipe. The project was bid in the spring of 2015, but the County only received one bid and it was over our estimated cost. It was decided the project would be rebid in 2016. Construction of the project began in August, 2016. Progress was slowed when the contractor encountered shallow bedrock. The bedrock had to be chipped out for the inlet boxes and connecting pipes to be placed as per design. The design of the project also called for leaving the existing system outlet pipes in place. These pipes travel through private side yards to empty water into the nearby lake. To keep private property disturbance to a minimum, the County is hoping to rehab these pipes in the near future by using a trenchless or no dig technique. Once done, the new system should have a long service life.



Culvert under Waterfront Drive prior to construction

Installing new culvert and inlet box on Waterfront Drive



Projects

Waters Edge Drainage Improvements





New inlets on Waterfront Drive

Mexico Gravel Road Bridge Replacement

The old structure was built in 1970 using what is known in the industry as a haydite concrete deck. A 46 year life span is fairly typical of this deck construction type. The bridge appeared normal from the travelling public's viewpoint but the view from underneath told a vastly different story. Internal and bi-annual MoDOT inspections were indicative of an increasing rate of decline.

The new bridge is 26 feet wide and approximately 93 feet in length with a steel beam structure that utilizes galvanized steel piling. The galvanized steel piling is a new construction technique for Boone County. This project was bid in July of 2016, construction began in mid-September, and the bridge was opened to traffic on November 30, 2016.

Projects

Mexico Gravel Road Bridge Replacement



Preparing to pour concrete deck

Projects

Mexico Gravel Road Bridge Replacement

Mexico Gravel Bridge after construction



Projects

Evert School Road/Trimble Road/Conrad Road Drainage Structure Improvements

This project involved replacement of existing roadway culverts with a single CMP pipe arch culvert on Trimble Road and Conrad Road and a precast concrete box culvert on Evert School Road. The new culverts should reduce the frequency of debris clogs on the upstream end and reduce maintenance costs.



Evert School Road precast concrete box culvert

Requiremen t

sca

Submit a plan for construction, reconstruction, maintenance and repair of existing established public highways, roads, bridges, and culverts proposed to be undertaken and completed during the current year.

Year 2017 Pla

2017 Work Plan Where the Money Comes From

Road & Bridge Revenue Yearly Comparison





2017 Work Plan Where the Money Comes From



Road & Bridge Revenue By Source



2017 Work Plan

Projects in Development

Pavement Preservation Projects

These projects are currently under design and proposed to be constructed in 2017 120,000 sq yd of Preservation Chip Seal 770,000 sq yd of Surface Sealing 85,000 sq yd of Asphalt Overlay

Asphalt Rehabilitation Projects

These projects are currently under design and proposed to be constructed in 2017 St Charles Road East

Concrete Rehabilitation Projects

These projects are currently under design and proposed to be constructed in 2017 Individual Panel Replacement is projected to be 300 panels Georgetown/Lake of the Woods

Drainage Structure Projects

These projects are currently under design or in the right of way acquisition phase and proposed to be constructed in 2017 or 2018 Hill Creek Bridge #BR5020005 Mount Zion Church (East) Bridge #BR2750020 Rangeline Road Bridge #BR3380002 Red Rock Road West Bridge #BR0470006 River Oaks Drain Structure #5990, 5991 &5992 St Charles Road East Bridge #BR3170016

These projects are currently out for bid or under contract and planned for construction in 2017 Davenport Road Culvert #10000143 Marshall Lane Culvert #2076 Remie Road Bridge #BR2650011 O'Rear Road Bridge #BR2790021 Tucker School Road Bridge #BR1620003 Culvert Sliplining on Wagon Trail, Burning Bush and Applewood Creek Roads

Capital Improvement Projects

These projects are currently under design Boone Industrial Intersection Repair

2017 Work Plan Where the Money Goes

Road & Bridge Expenditure Yearly Comparison





2017 Work Plan Where the Money Goes

Overall Road & Bridge Budget for 2017



Road & Bridge Expenditures By Disposition



2017 Work Plan Where the Money Goes

2017 Design & Construction Budget by Program



2017 Major Maintenance Operations Supplies Budget







The following charts are based on information stored in Cartegraph, our infrastructure database program. These values are for non-retired roads that are currently maintained by Boone County. Roads that are partially owned by the County, but not maintained by the County are NOT considered in these values. The categories are also based on surface type values, the only exception is Preservation Chip Seal, which is considered the same as Asphalt surface and therefore combined with the Asphalt category in these statistics.

Surface Type	Total Miles	Percent of Total Road Network	Change in Total Miles from 2015	
Asphalt	196.6	25.54%	-0.5 Miles	
Concrete	30.3	3.94%	-O.8 Miles	
Limestone Chip Seal	74.8	9.72%	+O.3 Miles	
Gravel	468.0	60.80%	-1.0 Miles	
Total	769.7	100%	-2.0 Miles**	

**Total miles of County Maintained road change due to error corrections, annexations, and acceptance of roads built by someone other than the County.

Total Miles of Road Maintained by Boone County





Asphalt Surface Ratings



The information for these ratings are done in several different ways. The method varies based on the type of surface. Asphalt roads are a flexible pavement and inspected by segment with their condition rating based on curves that also account for work done on the segments. This value is generated by Cartegraph and the following values are used for the classes:

Excellent is any OCI value that is 85 and above *Acceptable* is an OCI value between 55 and 85 *Failed* is an OCI less than 55 (OCI = Overall Condition Index)

Asphalt Surface Ratings 2016



Asphalt Surface Ratings 2012-2016



Concrete Panel Ratings



Concrete roads are a ridged or non-flexible pavement and cannot be evaluated using the same criteria that is used for asphalt roads. Concrete roads are inspected by each individual panel; therefore, the ratings shown in these graphs are based on the panels in each category and not in road miles. If the panel is:

Good—panel has no damage Acceptable—panel has minor damage Failed—panel needs to be replaced

Concrete Panel Ratings 2016



Concrete Panel Ratings 2012-2016



Gravel Roads 2016



Limestone Chip Seal Roads



Gravel and Limestone Chip Seal roads are not inspected because their condition and rating can change weekly; therefore, all of these roads are listed in the Acceptable category for ratings.

Bridge Ratings



Many types of structures are referred to as bridges, however only those that meet the minimum size requirement of at least 20 feet in length are inspected by MoDOT. The ratings and information provided on the following pages is based on material provided in the MoDOT inspections and only refers to bridges inspected by MoDOT. MoDOT bridge inspections are performed every other year with the most recent inspections being performed in 2015.

From the MoDOT inspections the Deck Condition, Substructure Condition, and Superstructure Condition are rolled into an average value based on a 0 - 100 scale. The following charts are based on information stored in Cartegraph; these values are for only non retired bridges that are currently maintained by Boone County. The categories are based on Structure Type values being equal to Bridge.

This value is generated by Cartegraph and the following values are used for the classes.

Excellent is an OCI value that is 75 and above

Acceptable is an OCI value between 50 and 75

Failed is an OCI less than 50

(OCI = Overall Condition Index)

Bridge Ratings 2016


Condition of Boone County Maintained Roads, Bridges & Culverts

Bridge Ratings 2016



Bridge Ratings Comparison 2012-2016





Surveying

Assistance to the Public

Responded to the many requests Boone County receives from Property Owners, Title Companies, Realtors, Governmental Agencies, Surveyors, Engineers, and others regarding existing road rights-of-way

Completed placing permanent monuments in the position of selected corners of the Public Land Survey System (Section and ¼ Section Corners) as part of the Missouri Department of Agriculture County Surveyor Remonumentation Co-op Program. "The mission of the Land Survey Program is to develop and provide information required for the accurate and economical location of property boundaries in Missouri. The program is responsible for Cadastral and Geodetic Surveys as well as making survey documents available to surveyors and the public. The land corners established through surveying are the basis for the location of all property in Missouri. Properly monumented, they are a dependable, consistent, accurate source of information for settling property boundary disputes and other boundary related questions." (from the State of Missouri, Department of Agriculture website) Boone County was paid \$250 per corner for 10 corners. The Missouri Department of Agriculture does not have this program budgeted for FY 2017, but hopes to have it back in place for FY 2018.

Represented Boone County Road & Bridge at concept reviews held by the Boone County Planning Department for review of proposed developments.

Responded to 3 inquiries for NID's (Neighborhood Improvement District). None, to date, have applied for County assistance.

Assistance to County Staff

Assisted Public Works Maintenance and Operations personnel by providing a variety of surveying services and right-of-way and easement information as necessary.

Assembled topographic data for use in the preparation of project plans by Design & Construction staff.

Assisted right-of way personnel by staking easements (both temporary and permanent) for reviewing proposed plans, and assisting them when meeting and negotiating with property owners on proposed projects. At times, accompanying right-of-way personnel to those meetings.

Assisted Planning & Zoning Department with complete reviews of all plats of proposed Subdivisions and Administrative Surveys, submitting comments and suggestions to the Planning Department, and notifying the surveyors of those comments and suggestions. Additionally, all descriptions for granting easements for public roadways and for utilities (these are required when preparing many of the Administrative surveys) were reviewed.

Boone County Stormwater Mission Statement

Establish stormwater management requirements and controls to enhance and protect water quality, reduce stormwater pollutant runoff, and protect and safeguard the general health, safety, and welfare of the public residing in watersheds within Boone County.

What is Stormwater?



Stormwater is any water coming from precipitation. It may be rain, water from snowmelt, or water that runs off streets, parking lots, lawns, and other surfaces. Stormwater drains into natural or manmade drainage systems, such as ditches and storm sewer inlets. Neither the natural, nor the manmade drainage ways connect to the wastewater treatment plant; instead, the water is discharged directly to our streams and rivers.

What is Boone County doing to address Stormwater runoff?

Boone County is jointly permitted with the City of Columbia and University of Missouri in accordance with the Stormwater Phase II Final Rule requirements specified in section 4.1.4 of the site-specific permit MO-0136557 for discharges from small regulated Municipal Separate Storm Sewer Systems (MS4s), as well as per state regulation 10 CSR 20-6.200 and federal regulations 40 CFR Parts 9 and 122. To fulfill its permit requirements, Boone County has implemented six (6) Minimum Control Measures (MCM), which are expected to help significantly reduce pollutants into receiving waterbodies. These MCM's cover public education and outreach, public involvement, illicit discharge detection and elimination, construction site stormwater runoff control, post-construction stormwater management in new development and redevelopment, and pollution prevention/good housekeeping for municipal operations.

December 2015 - November 2016 Departure (in.)



Source: Community Collaborative Rain, Hail Snow Network Missouri Agricultural Statistics Service Missouri Farm Service Agency National Weather Service *Depatures calculated using 1991-2010 normals.

Public Education and Participation

<u>Columbia Home Educators – Pre-School</u>

Boone County Stormwater presented an interactive participation activity using the county's stream table to demonstrate the effects of watershed erosion, pollution, and civic responsibility to 15 students.

<u>Columbia Independent School</u>

Boone County Stormwater gave a presentation on watershed fractals and civil engineering practices as part of the students' open curriculum week. This program served 25 students.

<u>Annual Right-of-Way & Utility Meeting</u>

Boone County Stormwater presented a review of the Land Disturbance permitting process. Topics covered were the Boone County stormwater and stream buffer ordinances as they relate to utilities and linear construction activities. This program had representatives from 25 participating utility organizations.

• Centralia R-VI Sixth Grade

Boone County Stormwater presented a week long presentation on watershed practices and citizen responsibility. This program served 125 students.

<u>Columbia Home Educators - Grade School</u>

Boone County Stormwater presented an interactive participation activity using the county stream table to demonstrate the effects of watershed erosion, pollution, and civic responsibility. This program served 25 children.

<u>Columbia Earth Day Festival</u>

Boone County Stormwater presented an interactive participation activity using the Boone County stream table at the annual Earth Day celebration and was featured on ECO Avenue along with other educational activities for the community demonstrating the effects of watershed erosion, pollution, and civic responsibility. Approximately 200 festival-goers visited our booth.

• Douglass High School – Science Expo

Boone County Stormwater presented an interactive participation activity using the Boone County stream table to demonstrate the effects of watershed erosion, pollution, and civic responsibility. This was the second time the school has hosted this event. English as a Second Language students from ten international countries served with interpreters were part of the 60 students and 20 faculty members who participated in our presentation.

Public Education and Participation Cont'd

S Earthkeeper Kids Workshop

Boone County Stormwater presented an interactive participation activity using the county's Enviroscape to demonstrate the effects of watershed erosion, pollution, and civic responsibility. This program served 15 participants.

s <u>Sturgeon Summer Fest</u>

Boone County Stormwater participated in a day-long festival using the stream table in the water park activity area with local citizens and visitors. Approximately 150 festival-goers visited our booth.



s Boone Electric Annual Meeting

Boone County Stormwater provided an informational booth on the county's stormwater program and provided interactive activities for the attendees and their children. Approximately 150 people visited our booth.

S Water Festival at Rock Bridge Memorial State Park

Boone County Stormwater participated in the second annual Water Festival at Rock Bridge Memorial State Park. The Stormwater Coordinator ran the County's stream table and the County's Urban Hydrologist provided information about the Greater Bonne Femme Watershed and local aquatic and semi-aquatic turtles. This program served approximately 150 adults and children.

s Missouri River Watershed Festival



This festival was held at the Missouri Department of Conservation's (MDC) Eagle Bluffs Conservation Area. The stormwater educator and urban hydrologist gave a presentation to 75 international high school students from Brazil on the effects of human impact on watersheds.

s <u>MACC Conservation Biology Class Guest Speaker</u>

Boone County Stormwater presented a historical overview of the Clean Water Act and how it is still relevant to current local watersheds. This program served 24 students who are studying to enter environmentally related fields.

Public Education and Participation Cont'd

s MUBMP Fall Field Tour

Boone County Stormwater hosted a tour of local best management practices (BMP's) within the City of Columbia for MU Professor Allen Thompson's Watershed Modeling class. Tom Wellman, engineer for the City of Columbia, discussed various applications used within the Hinkson Creek Watershed. Sites visited included projects completed at the City of Columbia Grissum site and the CNG refueling station. This program served 30 students studying a range of environmental and engineering fields.

s Rock Bridge Memorial State Park Interpretive Hikes

Boone County collaborated with Rock Bridge Memorial State Park to offer four interpretive hikes – two in the spring and two in the fall. Boone County's Urban Hydrologist took participants along Spring Brook Trail, which runs along and across the Devil's Icebox Cave Branch and Little Bonne Femme Creek. The hikes featured information about water quality and the hydrologic effects downstream of the City of Columbia. The spring hikes included beautiful wildflowers native to the Park.

s Rock Bridge Memorial State Park Day Camp

Boone County's Urban Hydrologist participated in the Explorer's Day Camp, designed for kids 9 to 11 years old, including three days of nature activities like cave exploring, hiking, creek walks, nature programs and a service project.

Public Involvement Opportunities

<u>KFRU Talk Radio—2 occasions</u>

Discussed the Bonne Femme Watershed Project including a question and answer segment Spring Cleanup Event – Rock Bridge Memorial State Park

Volunteers worked to collect bags of trash from Highway 163 to Rock Quarry Road and clear bush honeysuckle in the park

s Area-wide Household Hazardous Waste Collection Event

The household hazardous waste event was initiated by Boone County, City of Columbia, and MU, and held in coordination with the Mid-Missouri Solid Waste District. More than 125 tons of waste was collected and properly disposed of or recycled.

Public Involvement Opportunities Cont'd

S <u>Rock Bridge Memorial State Park Fall Water Quality Monitoring and Cleanup Event</u> A water quality monitoring blitz was held prior to the semi annual cleanup. Six locations on four streams were tested.

Stream	Water Quality Rating
Gans Creek Upstream (Gans Creek Recreation Area)	Fair
Gans Creek Downstream (foot bridge at Gans Wilderness Area trailhead)	Fair
Little Bonne Femme Creek (just downstream of confluence with Clear Creek)	Excellent
Little Bonne Femme Creek (at Spring Brook trail water crossing)	Excellent
Clear Creek (upstream of Highway 163 Bridge)	Fair
Devil's Icebox Cave Branch (between the cave spring and the rock bridge)	Poor *
* Because of the location just downstream of the Devil's Icebo	x spring, there are very few

aquatic insects in this area. Volunteers did count numerous arthropods (scuds) in the samples, which is a really great sign for the cave system as pink planarians eat scuds!

Develop/Distribute Educational Materials

Boone County Stormwater Website

The stormwater website underwent substantial changes again this year. Although still under construction, the site is a clearinghouse for the stormwater and stream buffer ordinances, stormwater design manual, stormwater hydraulic calculations, permits, etc. The website also provides information on upcoming events, environmentally sensitive areas, and stormwater education.

Staff Training Opportunities

S Native by Design: Landscapes Beyond Beauty

Boone County's Urban Hydrologist attended this half-day workshop in Edwardsville, IL.. Topics included concepts and methods for integrating natives, planting natives, promoting pollinators, and stewardship.

s MfSMA Conference

Boone County's Urban Hydrologist attended this conference at Tan-Tar-A. Topics included stormwater, floodplain information, flood risk assessment, and watershed planning.

S Boone County Wellness Fair

Boone County Stormwater presented an interactive participation activity using the Boone County stream table to demonstrate the effects of watershed erosion, pollution, and civic responsibility. Those who signed up received a shower timer to help assist them in monitoring their water usage. Approximately 121 employees/family members attended.

S Missouri Stream Teams Introductory Workshop

The Boone County Stormwater Educator and Urban Hydrologist attended this workshop and received training for watershed mapping, site selection, stream discharge, and biological monitoring for stream macroinvertebrates. The workshop included a field trip to a local stream to collect and identify macroinvertebrates.

S Missouri River: Catalyst for Learning Conference for Educators

The stormwater educator joined educators from across the state and a variety of fields to connect with the natural and cultural history of the Missouri River through adventure and investigation. Topics presented included: Discovering the river ecosystems and the natural forces that shaped them. Understanding how human choices have affected the river's rhythm and flow. How to use river education to integrate science, social studies, English language arts and math in a way that

engages learning, college-



students, strengthens their and prepares them to be ready and career-ready.

Staff Training Opportunities Cont'd

S Understanding Streams Workshop

Boone County's Stormwater Educator and Urban Hydrologist attended this two day MDC sponsored introductory hydrology/stream dynamics workshop in Sedalia. Topics covered included the interconnected relationship of streams with their floodplains and upper watersheds, the concept of streams as products of the interactions between water, energy, sediment, and vegetation, and how everyday decisions made by agencies and landowners affect them. Participants spent time working with a model stream table and floating the Lamine River to investigate and analyze local stream characteristics.

S Ecological Site Description Workshop

The Boone County Urban Hydrologist attended this workshop, along with other attendees from various state and federal agencies. The ecological site description classifies parcels of land per various natural features, beginning with the soil type and including vegetation. Hydrologic properties are variable depending upon the ecological site description, making this useful in the urban hydrologist's work.

S Missouri Master Naturalist Certification



Boone County's Stormwater Educator and Urban Hydrologist received 40 hours of training in Missouri's ecosystems, including ecology and resource management, to receive their Master Naturalist status. They will be required to obtain eight hours of continuing training and complete 40 hours of service each year. The Missouri Master Naturalist[™] program is a community-based natural resource education and volunteer service program for adults, sponsored by

the Missouri Department of Conservation and the University of Missouri Extension. The mission is to engage Missourians in the stewardship of our state's natural resources through science-based education and volunteer community service. Missouri Master Naturalist volunteers support conservation efforts and natural resource education in their local communities.

s <u>REGFORM</u>

Stormwater staff attended Missouri REGFORM in September to learn about EPA stormwater rulings and other stormwater related topics.

Staff Training Opportunities Cont'd

s Pollinator Event/A.L. Gustin Golf Course Tour

Stormwater staff attended this tour and discussion of golf course practices used at this golf course, incorporating native plantings and physical habitat practices to reduce fertilizer use and runoff into the local watershed.

S Missouri Stream Teams Water Quality Workshop, Level 1

The stormwater educator and urban hydrologist received training on pH, dissolved oxygen, nitrate, conductivity, and turbidity testing. All workshop participants received chemical monitoring equipment as well.

S Boone County Public Works Safety Day

Boone County Stormwater presented a stormwater review in the form of Jeopardy. Employees were given a chance to participate and win prizes. This program served 50 employees.

s AWRA Conference

The Boone County Urban Hydrologist attended the American Water Resources Association Conference in Orlando, FL. This weeklong conference featured presentations about various aspects of water quality assessment and management, new sampling techniques, and the availability of funds for projects that maybe relevant in the future.

s <u>Webinars</u>

EPA Webinar – TMDL Sediment Modeling Part I
EPA Webinar
USGS NHD Webinar
MoDNR Webinar – Cover Crops/Erosion Reduction Part I
EPA Webinar – Proposed 303(d) Tribal Rule
MoDNR Webinar – Cover Crops/Erosion Reduction Part II
MoDNR Webinar – Cover Crops/Erosion Reduction Part III
GoToWebinar - Weed Wrangle: A Template for Engaging Local Communities through Citywide Invasive Plant Events
USGS Webinar – National Hydrography Dataset
GoToWebinar – Use and Abuse of Science in Water Resource Policy and Management
GoToWebinar – Grand Theft Groundwater: What Would Elvis Do? Implication of the Groundbreaking Mississippi v. Memphis Groundwater Case

Microbial Source Tracking Webinar

Staff Training Opportunities Cont'd

WebinarsContinued

CWP Webinar - Surviving a MS4 Compliance Audit

CWP Webinar - Education Programs to Enhance Pollutant Removal

CWP Webinar - Green Infrastructure, Green Jobs: The Latest Trends

CWP Webinar - Incentivizing BMP Installation in Communities with Stormwater Utilities

CWP Webinar - Retrofitting Revisited: Forward Into the Past

CWP Webinar - Non-Traditional MS4s

MS4 Compliance

STOR	STORMWATER PROGRAM COMPLIANCE												
	Stormwater Prevention Plans Reviewed	Pre- Application Meetings Held	Land Disturbance Permits Issued	Stormwater Discharge Permits Issued	Pre-con Meetings Held	Site Inspections Conducted	Notice of Violation						
2011	19	21	15	4	9	45	3						
2012	17	4	17	4	5	47	0						
2013	15	13	32	10	7	49	4						
2014	15	4	24	6	6	28	2						
2015	9	6	24	8	4	85	2						
2016	14	10	44	14	12	184	11						

s Joint MS4 Coordination Meetings

Stormwater staff from Boone County, City of Columbia, and MU plan to meet each month to coordinate and work on stormwater activities. In 2016 the committee met seven (7) times.

Monitoring and Assessments

• Lakes of Missouri Volunteer Program (LMVP) Sampling

The LMVP started in 1992 as an effort to get citizens involved in the lake water quality monitoring. The goals of the LMVP are:

- 1. Determine the current water quality based on productivity of Missouri's lakes
- 2. Monitor for changes in water quality over time
- 3. Educate the public about the lake ecology and water quality issues

Monitoring and Assessments Cont'd

This year staff at Boone County continued sampling at Stephens Lake, Tri City Lake, and Lick Creek Lake this season. Staff collected eight (8) samples between June and September. By participating in this effort, Boone County receives free sampling equipment and information on the status of the lakes in Boone County. For more information, visit www.LMVP.org.

Hinkson Creek Collaborative Adaptive Management — CAM

The goal of the collaborative adaptive management process is to improve water quality in Hinkson Creek by using a science-based approach guided by a local stakeholder committee. It will assess the entire stream system, including the creek and other parts of the watershed. Improving the ecosystem should help support the return of the biological community to a fully functioning level as well as addressing other pollutants that may be contributing to water quality issues.

- * Stakeholders The Stakeholder group met seven (7) times.
- * Action Team The Action Team met ten (10) times.
- * Science Team The Science Team met six (6) times.
- * Physical Habitat Assessment Project Physical Assessment is 100% complete
- * Forum Nature Area Level Spreader Project Construction is 100% complete.
 - Monitoring: Soil water sensors have been installed and those sensors have been monitored weekly since January 4, 2016. This monitoring will continue for another 1-2 years and the information will be compared with two (2) controls located elsewhere on the Forum Nature Area property. Boone County also moved our climate station to the site and we are receiving continuous data from that source as well. Additionally, fifty-four (54) trees were planted at the site in 2015. Their growth will be tracked through the course of this project to determine if trees closer to the level spreader grow more quickly.
- * Combined Flow & Suspended Sediment Study The first 2 years of this 4 year collaborative project are complete. Goals of the project are:
 - 1) identify land use related impacts to stream flow
 - 2) understand the impairment of the Hinkson Creek
 - 3) assess proposed recover strategies



Revival of the Bonne Femme Watershed Project - 2016



Figure 1. A view through the Rock Bridge at Rock Bridge Memorial State Park.

In 2007, the Boone County Commission approved the Bonne Femme Watershed Management Plan. The plan was developed over a period of several years after the County was awarded a Chapter 319 Non-point source Pollution Grant by the Missouri Department of Natural Resources. A copy of the plan is available at cavewatershed.org. The plan was developed in response to mounting concern for the protection of the natural resources in the Greater Bonne Femme Watershed, which include Rock Bridge Memorial State Park and Three Creeks Conservation Area, as development moves south from the City of Columbia.

Although many of the plan recommendations were incorporated into Boone County ordinances and planning and development criteria, expansion of urban development into the watershed gave rise to renewed concern about the protection of the natural resources in the watershed. In addition, five streams in the Greater Bonne Femme Watershed are on the Clean Water Act 303(d) list of impaired waters for exceedance of bacteria (*E. coli*) criteria.

Revival of the Bonne Femme Watershed Project – 2016 Continued

In order to renew interest in the watershed and the management plan, Lynne Hooper, Urban Hydrologist, began to assemble a Technical Advisory Team in early 2016. The team consists of various members from local government and conservation agencies. During 2016, the team held 5 meetings to discuss various issues in the watershed as well as existing regulations and management strategies. The agendas and minutes of these meetings are available at cavewatershed.org.

Several subcommittees have been formed to address collection of scientific data in the watershed, outreach and education, and creation of a 9-point plan to enable funding from sources such as EPA and MDNR. The stormwater team has been working with Rock Bridge Memorial State Park and other partners in an effort to increase awareness of water quality in the Greater Bonne Femme Watershed.



Dr. Bob Lerch with the University of Missouri has renewed his water sampling at 10 sites in the watershed. This water quality sampling includes monitoring *E. coli* in several streams. The County is in the process of setting up gauging stations in the watershed that will monitor stage (depth) of Turkey Creek, Bonne Femme Creek and Little Bonne Femme Creek. A partnership with U.S. Geological Survey led to placement of water chemistry monitoring units at 5 sites in the watershed. These units mimic fish and will pick up any chemicals in the water that might end up in fish tissues. Results from the water chemistry study will be available sometime in 2017.

The natural resources in the Greater Bonne Femme Watershed are a part of our Boone County heritage. Plans for 2017 include an expansion of the outreach and education components of the project and development of a pilot restoration project to be funded by grants available to small government.



For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity:

City of Ashland

Reporting on Calendar Year:

2016

Narrative for use of funds received

The Boone County Road and Bridge fund provided the City of Ashland with \$152,538.97 in calendar year 2016. This is a \$928.60 increase over calendar year 2015. The entire amount received was dedicated to residential streets for curb repair, base layer repairs, pavement grinding and replacement with two inches of new, asphalt overlays. The Street superintendent selected residential streets in the poorest condition for the upgrades. The Board of Aldermen approved the list of proposed improvements. Work began in September and was completed within two weeks.

Narrative on overall condition of roads and bridges within reporting municipality:

Residential street conditions have improved from poor to acceptable and good over recent years with the aid of the cooperative agreement with Boone County. Growth continues to add surface miles and wear and tear to our transportation system with large truck traffic becoming common place. Currently, There are no bridges maintained by the City of Ashland.

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _

West Oaks Drive

West Oaks Drive repairs included a 2 inch overlay, edge milling, curb replacement, joint milling and asphalt parches on concrete. Capital Paving proposed \$53,224.75 to make the repairs.

Johnson Street

Repairs on Johnson street included butt joint milling and a 2 inch overlay at a cost of \$9,916.50.

Filland

Church Street

Church street needed repairs in addition to an overlay. Capital paving performed edge milling, some full depth repair, butt joint milling and curb replacement at a proposed cost of \$22,514.25.

Tandy Street

Butt joint milling and a 2 inch overlay was sufficient for Tandy Street at a proposed cost of \$16,639.60.

Walnut Street

Walnut Street improvements included a 2 inch overlay and butt joint milling at a proposed cost of \$8,234.30

Red Bud Street

The eastern portion of Red Bud was improved in 2014. Red Bud was added to the list in 2016 to complete the project started in 2014. 2016 repairs included a 2 inch overlay and butt joint milling at a proposed cost of \$18,438.80.

Amanda Street

Amanda Street was improved with curb repair, edge milling and a 2 inch overlay at a proposed cost of \$30,544.00.

Eastside Drive

Eastside Drive, recently aquired from the Missouri Department of Transportation was improved with butt joint milling and a 2 inch asphalt overlay at a proposed cost of \$22,846.40.

Industrial Drive

Industrial Drive, in addition to joint milling and a 2 inch overlay required full depth repair in spots. Total improvements to this street were estimated at \$28,082.50.

The final bill for these roadway improvements, which included two mobilization fees and a tack coat expense came in slightly higher than the estimate submitted in April of 2016. The April estimate was \$215,036.50. The payment request totaled \$215,320.08; a difference of \$283.58.



_Summary

The completed projects in Ashland exceeded the funding assistance received from Boone County in 2016. The actual expense of the entire project was only slightly above the quote completed by Capital Paving in early 2016. Ashland used a portion of its' local transportation tax to cover the difference between the County allocation and the actual expense.

Clearly, without shared funds from Boone County, Ashland's annual street repair activity would be scaled down, considerably. This cooperative agreement allows Ashland to complete timely, major road repairs but also reserves local tax money for routine maintenance of remaining street surfaces. City residents annually see their tax dollars at work on a larger scale and realize street disrepair is a priority of its' local and County government.

The City of Ashland looks forward to continued cooperation between our City and the County of Boone to provide expected services to our tax payers.

TOTAL _\$215,320.08

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.

un	Woolford	12/7/2016
Signature		Date

City Administrator______ Title

Lyn Woolford_

___573-657-2091

Printed Name

Day Time Phone number

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.



For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: City of Centralia

Reporting on Calendar Year: 2016

Narrative for use of funds received The funds received went to ward the annual overlay of streets which is detailed below, as well as the operation of the Street Department. Asphalt overlay was \$199,384 and we paved 1.65 miles of streets including Jefferson from Cox to Gano Chance, Ganon Chance from Jefferson Street to the COLT RR, Howard Burton from Booth to Switzler and Barr Street from Brutin to Railrod St. In addition to road maintenance we replaced the curb and gutter in the Country Club subdivision. The total road mialeage is increasing as we add new streets. In addition to the over lay and the curb and gutter work, we filled potholes and conducted regular road maintenance. The other major expediture was a sidewalk construction project paid largely out of MODOT grant funds.

Narrative on overall condition of roads and bridges within reporting municipality:

The City of Centralia conducts an annual review of the 37.55 miles of streets under our control and scores their condition on a scale of 1 - 10 where 10 is a functionally new road. The results were:

Miles of Road Condition

13.34	10			
10.29	7-9			
8.42	4-6			
5.50	1-3			

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _See attached sheets. This report concerns the left-most column, Calendar year 2016. The other numbers are supplied for comparison.



	4
TOTAL	

_\$671,206 _____

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.

	1 (
1 turkel	1/10/2016
Signature	Date

City Administrator	
Title	
Matt Harline	573-682-2139

Printed Name

Day Time Phone number

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.



PUBLIC WORKS HIGHWAYS & STREETS

		Calendar	Calendar	Calendar	FY 2017	FY 2016	FY2016	FY2015	FY2015	
ACCOUNT NUMBER	ACCOUNT TITLE	2016	2015	2014	Budgeted	Audited	Budgeted	Audited	Budgeted	
PLANNING & ADMIN										
01-03-01-01-001	SALARIES AND WAGES	8,390	12,361	12,018	11,887	9,701	13,920	14,096	13,000	
01-03-01-01-002	OVERTIME WAGES	2,109	686		1,039	1,006	300			
01-03-01-01-010	ACCRUED EMPLOYEE BEN	5,683	8,570	8,202	7,406	6,585	7,924	10,354	12,308	
01-03-01-01-110	PRINTING, PUBLICATION	853	44	57	200	87	200	57	200	
01-03-01-01-120	DUES/MEMBER/SUBS/TUI		50		50	-	50	50	50	
01-03-01-01-142	PROF. SERV.ARCHT.ENG		-							
01-03-01-01-150	CONTRACT LABOR	995	1,120	1,401	1,300	1,060	1,300	1,511	1,300	
01-03-01-01-170	MAINT.AGREEMENTS,LEA	1,237	1,091	1,216	1,100	1,033	1100	1193	1,000	
01-03-01-01-180	MEALS,LODGING,TRAVEL	89	11		100		100	11	100	
01-03-01-01-201	OFFICE SUP. FURNITUR	242				-				
01-03-01-01-210	OPERATING SUPPLIES	218	91	123	300	35	300	147	300	
01-03-01-01-490	EQUIPMENT USE CHARGE	6,287	6,015	2,090	6,000	6,604	2,200	2,573	2,200	
01-03-01-01-506	DATA PROCESSING EQUI	486		-	-					
	SUBTOTAL	26,588	30,039	25,107	29,382	26,111	27,394	29,992	30,458	
STREET MAINT.			-							
01-03-01-02-001	SALARIES AND WAGES	13,064	16,108	9,407	16,311	15,105	12,192	11,267	11,146	
01-03-01-02-002	OVERTIME WAGES	2,642	1,485		1,534	1,485	250			
01-03-01-02-010	ACCRUED EMPLOYEE BEN	9,258	9,493	6,037	11,020	9,044	7,419	6,982	6,537	
01-03-01-02-110	PRINTING, PUBLICATIO	441		56	150		150	56	150	
01-03-01-02-132	UTILITIES-NATURAL GA	337	376	405	450	372	450	376	450	
01-03-01-02-150	CONTRACT LABOR	1,490	737	1,013	1,000	737	1,000	1,013	1,000	
01-03-01-02-160	REPAIR SERVICE	-	117	-	400	117	400		400	
01-03-01-02-170	MAINT.AGREEMENTS, LE	113		315	500		500	315	500	
01-03-01-02-190	INSURANCE	223	504		0	504				
01-03-01-02-210	OPERATING SUPPLIES	13,290	29,838	8,206	20,000	23,397	15,000	12,640	18,000	
01-03-01-02-220	TOOLS/SMALL EQUIPMEN	(1,750)	274		200	-	200	274	200	
01-03-01-02-450	EQUIPMENT RENTAL				1,000		1000		1,000	
01-03-01-02-490	EQUIPMENT USE CHARGE	21,921	19,423	9,476	15,000	23,588	12,000	10,896	13,000	
01-03-01-02-502	VEHICLES	3,087	61,500	32,114	44,333	101,930	44,333	32,114		
01-03-01-02-503	FURNITURE AND FILES	40,430							32,114	
01-03-01-02-508	OTHER EQUIPMENT			1,575				1,575		
01-03-01-02-509	MISCELLANEOUS CAPITA	-	-				1600		1,600	
01-03-01-02-801	TRANSFER TO OTHER FU		-	-						
	STREET MAINT. SUBTOTAL	104,546	139,855	68,604	111,898	68,605	96,494	77,508	86,097	

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		Calendar	Calendar	Calendar	FY 2017	FY 2016	FY2016	FY2015	FY2015	
ACCOUNT NUMBER	ACCOUNT TITLE	2016	2015	2014	Budgeted	Audited	Budgeted	Audited	Budgeted	
ALLEY MAINT.										
01-03-01-03-001	SALARIES AND WAGES	266	549	435	577	412	273	350	273	
01-03-01-03-002	OVERTIME WAGES	(33)	-			-				
01-03-01-03-010	ACCRUED EMPLOYEE BEN	185	408	343	369	351	83	231	83	
01-03-01-03-210	OPERATING SUPPLIES	231	1,918	1,750	1,000	81	1,000	2,700	1,000	
01-03-01-03-490	EQUIPMENT USE CHARGE	1,467	2,277	2,616	2,000	2,937	1,000	2,163	400	
	SUBTOTAL	2,116	5,152	5,144	3,946	5,145	2,356	5,444	1,756	
SIDEWALK & PARKING										
01-03-01-04-001	SALARIES & WAGES	659	3,612	11,739	3,683	3,572	7,689	11,628	3,770	
01-03-01-04-002	OVERTIME WAGES	7	118		122	118				
01-03-01-04-010	ACCRUED EMPLOYEE BENEFITS	310	2,200	6,118	2,216	2,151	4,095	6,047	2,090	
01-03-01-04-110	PRINTING, ADV., PUBLICATIO	468	-			208	14,000	2,375		
01-03-01-04-142	PROF.SERV.ARTCH.ENG.SURV	23,332	200			9,743	200		200	
01-03-01-04-150	CONTRACT LABOR	-	-	-	10,000	200	100		100	
01-03-01-04-160	REPAIR SERVICE	-	4,627	2,060	100		10,000	2,060	10,000	
01-03-01-04-210	OPERATING SUPPLIES	4,269		7	10,000	4,627		7		
01-03-01-04-220	TOOLS/SMALL EQUIPMENT	-								
01-03-01-04-490	EQUIPMENT USE CHARGES	1,065			2,600					
01-03-01-04-590	SRTS SIDEWALK CONSTRUCTIO	122,871	806	3,770		912	2,600	3,793	2,600	
	SUBTOTAL	152,981	11,563	23,694	28,721	21,531	38,684	25,910	18,760	
BLDG & GROUNDS										
01-03-01-05-001	SALARIES AND WAGES	1,678	2,637	3,560	2,148	1,857	4,084	3,542	2,028	
01-03-01-05-002	OVERTIME WAGES	443	28		29	28	1,200			
01-03-01-05-010	ACCRUED EMPLOYEE BNE	1,053	1,916	2,231	1,174	1,179	2,630	2,630	3,941	
01-03-01-05-132	UTILITIES-NATURAL GA	990	1,443	1,909	1,900	1,125	1900	1662	1,900	
01-03-01-05-133	UTILITIES, TELEPHONE	791	416	370	550	421	550	377	550	
01-03-01-05-150	CONTRACT LABOR	638	290	5,766	400	459	400	327	400	
01-03-01-05-160	REPAIR SERVICES	218								
01-03-01-05-170	MAINT AGREEMENTS & L	224	90	-	163	90	163		163	
01-03-01-05-190	INSURANCE	1,199	1,075	1,030	1,100	1,075	1,048	1,030	1,048	
01-03-01-05-201	OFFICE SUPP FURNITUR				100		100		100	
01-03-01-05-210	OPERATING SUPPLIES	967	1,411	965	1,500	933	1500	1445	1,500	
01-03-01-05-220	TOOLS/SMALL EQUIPMEN	53	78	386	300	126	300	464	300	
01-03-01-05-490	EQUIPMENT USE CHARGE	108	9	44	200	-	200	49	200	
01-03-01-05-510	BUILDING IMPROVEMENT		1,695	1,560	1,500	1,335	1500	1170	5,430	
	SUBTOTAL	8.361	11.088	17.821	11.064	8.629	15.575	12.696	17.560	

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		Calendar	Calendar	Calendar	FY 2017 Budgeted	FY 2016 Audited	FY2016 Budgeted	FY2015	FY2015
SNOW & ICE REMOVA		2010	2015	2014	Duugeteu	Audited	budgeted	Audited	Budgeted
01-03-01-06-001	SALARIES AND WAGES	3,406	10.325	11,757	7,400	5.253	12000	7709	17.037
01-03-01-06-002	OVERTIME WAGES	2,291	55	,	1.827	1.415	4000		21,007
01-03-01-06-010	ACCRUED EMPLOYEE BEN	2,662	7,353	7,741	5.649	4.010	9300	5559	13.510
01-03-01-06-160	REPAIR SERVICE	410		-	200	410	200		200
01-03-01-06-210	OPERATING SUPPLIES	6.664	9.895	8.713	10.000	10.944	10.000	8.497	15.000
01-03-01-06-490	EQUIPMENT USE CHARGE	7,416	12,911	5,931	7.000	11.426	7000	4294	9.000
	SUBTOTAL	22,849	40,539	34,142	32,076	33,458	42,500	26,059	54.747
			,	,		,			- 4
STREET SIGNS & MAR	KINGS		-						
01-03-01-07-001	SALARIES AND WAGES	3,039	3,307	5,126	3,741	2,559	3,795	5,600	3,795
01-03-01-07-002	OVERTIME WAGES	(18)	23		30	23	15		
01-03-01-07-010	ACCRUED EMPLOYEE BEN	1,293	1,654	2,815	1,964	1,519	1,936	2,875	1,936
01-03-01-07-150	CONTRACT LABOR	55			150	-	150		
01-03-01-07-160	REPAIR SERVICE					-			150
01-03-01-07-210	OPERATING SUPPLIES	1,841	2,537	3,397	5,000	3,310	5,000	3,455	5,000
01-03-01-07-220	TOOLS/SMALL EQUIPMEN	63				-			
01-03-01-07-490	EQUIPMENT USE CHARGE	674	1,304	1,458	1,400	932	1,400	1,944	1,400
	SUBTOTAL	6,948	8,825	12,796	12,285	8,344	12,296	13,874	12,281
STORM DRAINAGE									
01-03-01-08-001	SALARIES AND WAGES	9,427	14,748	9,824	15,538	15,584	12,236	11,814	12,236
01-03-01-08-002	OVERTIME WAGES	2,456	226		600	340	600		
01-03-01-08-010	ACCRUED EMPLOYEE BEN	9,566	17,776	11,488	12,252	4,680	13,088	2,795	13,088
01-03-01-08-142	PROF.SERV.ARCH.ENG.	(6,192)	-	-	12,000				
01-03-01-08-150	CONTRACT LABOR	258	150	715	1,000	374	1000	715	1,000
01-03-01-08-170	MAINT AGREEMENTS & L	224	-						
01-03-01-08-210	OPERATING SUPPLIES	7,167	3,232	5,212	10,000	7,050	10,000	5,351	13,000
01-03-01-08-220	TOOLS/SMALL EQUIPMEN	604	52	26	100	52	100	26	
01-03-01-08-490	EQUIPMENT USE CHARGE	3,386	4,001	4,276	6,000	4,973	6,000	7,010	6,000
01-03-01-08-509	MISCELLANEOUS CAPITA	32,929	66,000	-	35,000	66,000	66000		50,000
01-03-01-08-901	MISCELLANEOUS	-	-						
	SUBTOTAL	59,824	106,185	31,541	92,490	99,051	109,024	27,711	95,324

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		Са	lendar	Ca	endar	Ca	lendar	FY	2017	FY	2016	FY2	016	FY2	2015	FY2	015
ACCOUNT NUMBER	ACCOUNT TITLE	20	16	20	15	20	14	Bu	dgeted	Au	dited	Bud	geted	Au	dited	Buc	geted
BRUSH & TREE CON	TROL				-												
01-03-01-09-001	SALARIES AND WAGES		2,005		4,651		2,989		2,500		4,742		2,500		2,886		1,466
01-03-01-09-002	OVERTIME WAGES		2,267		795				10		823		10		0		
01-03-01-09-010	ACCRUED EMPLOYMEE BE		1,278		2,269		1,616		1,100		2,365		1,100		1,552		923
01-03-01-09-160	REPAIR SERVICE		57		-		-		50		-		50		0		50
01-03-01-09-170	MAINT AGREEMENTS & L		-		-		-				-		0		0		
01-03-01-09-210	OPERATING SUPPLIES		1		59		172		150		111		150		172.29		
01-03-01-09-490	EQUIPMENT USE CHARGE		1,025		1,170		960		1,300		1,674		1300		898.87		1,300
	SUBTOTAL		6,632		8,944		5,737		5,110		9,715		5,110		5,509		3,739
	TOTAL (EXCLUDES MOWING)	\$	390,845	\$	362,190	\$	224,586	\$	326,972	\$	333,744	\$	349,433	\$	224,703	\$	320,722
02-03-01-01-509	CAPTIAL EXPENDITURES	<u>\$</u>	280,362	\$	162,871	Ş	162,871	<u></u>	162,871	Ş	162,871	<u>\$</u>	184,422	ş	182,053	<u>\$</u>	335,884
٦	OTAL ALL EXPENDITURES	\$	671,206	\$	525,061	\$	387,457	\$	489,843	\$	496,615	\$	533,855	\$	406,756	\$	656,606

REVENUES

		Calendar	Calendar	Calendar	FY 2017	FY 2016	FY2016	FY2015	FY2015
ACCOUNT NUMBER	ACCOUNT TITLE	2016	2015	2014	Budgeted	Audited	Budgeted	Audited	Budgeted
02-03-01-41-520	TRANSPORTN SALES TAX	181,472	219,628	178,781	210,000	201,862	201,299	217,151	195,186
01-00-00-43-302	FEDERAL SRTS GRANT	123,047	11,298		125,580	11,298	11,200		
02-03-01-43-650	COUNTY GRANT REVENUE	100,287	61,523	55,468	78,000	81,818	57,000	55,468	52,000
01-00-00-43-620	COUNTY ROAD & BRIDGE	62,860	81,818	72,032	64,000	61,523	72,752	72,032	65,147
	TOTAL REVENUES	\$ 467,666	\$ 374,267	\$ 306,282	\$ 477,580	\$ 356,501	\$ 342,251	\$ 344,652	\$ 312,333

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For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: City of Hallsville

Reporting on Calendar Year: July 1, 2015 - June 30, 2016

Narrative for use of funds received Grant funding was used for pot hole repair, crack fill repair, milling and overly on seven streets._____

Narrative on overall condition of roads and bridges within reporting municipality:

The streets, both asphalt and concrete curb and gutter are in good condition after the overlay and crack repairs were finished.

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _The City spent \$29,610.54 from the City's General Fund for general street upkeep and repairs. Projects funded from the grant for fiscal year 2015/2016 included fourteen ADA crosswalks in Townsquare for a total of \$3,036.56; potholes in streets repaired for a total of \$13,421.02; milling and overlay on Brown, Elaine, Elm, East, Boone, and Lisa Court along with crack repair on Concert for a total of \$109,769.85. Additional repairs to roads included gravel added to alleyways for a total of \$2,689.46. The total spent in fiscal year 2015/2016 on roads were \$158,527.43. See attached sheet of Road Grant expenses.



Page 2

_Carry over from fiscal year 2015/2016 was \$39,791.92. The City still plans on an alleyway improvement project that was engineered during the prior fiscal year to be completed in 2017.

TOTAL

_\$127,781.46 from Road Grants and \$29,610.54 from General Funds.

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.

Signature

11/18/2016 Date

City Administrator/City Clerk

Title

Kenyetta Ridgway

513-696.3885

Printed Name

Day Time Phone number

ETVOT LAISVILE

1:03 PM

11/17/16

Cash Basis

City of Hallsville, Missouri Transaction Detail By Account July 2015 through June 2016

Date	Name	Memo	Class	Paid Amount	Balance
MAINTENANCE &	SUPPLIES				
Parts & Suppl	les	Dumbauah Daad 1ª Clean Daak	Dood Cropto	47.50	47.50
08/10/2015	Mid-Missouri Limestone, Inc.	Rumbaugh Road - 3//" clean rock - 180.65 ton	Road Grants	47.02 2.641.04	2 690 46
03/14/2016	mid-missouri Limestone, inc.	Rumbaugi Road - 514 Glean fook - 100.05 ton	Rudu Grants	2,041.94	2,009.40
Total Parts & S	Supplies			2,689.46	2,689.46
Repairs on Cit	ty Sidewalks				
08/24/2015	Home Depot	Townsquare crosswalks - 2x4 - 96" whitewood stud	Road Grants	27.20	27.20
09/14/2015	Carter-Waters LLC	Townsquare - ADA Paver tile	Road Grants	1,282.56	1,309.76
09/14/2015	Carter-Waters LLC	Townsquare - 1/2" x 4" x 5' Fiber expansion jnt	Road Grants	24.50	1,334.26
09/14/2015	Carter-Waters LLC	Townsquare - finish broom bracket	Road Grants	66.00	1,400.26
09/14/2015	Carter-Waters LLC	Townsquare - Broom adapter	Road Grants	16.50	1,416.76
09/14/2015	Columbia Ready Mix	Townsquare - ADA Crosswalks	Road Grants	334.50	1,751.26
09/14/2015	Mid-Missouri Limestone, Inc.	Townsquare ADA Crosswalks - 1" clean rock 14.10 Ton	Road Grants	155.80	1,907.06
09/14/2015	Columbia Ready Mix	Townsquare - ADA Crosswalks	Road Grants	345.50	2,252.56
10/12/2015	Coring & Cutting Construction, Inc.	Townsquare - (14) ADA crosswalks	Road Grants	784.00	3,036.56
Total Repairs of	on City Sidewalks			3,036.56	3,036.56
Total MAINTENAM	NCE & SUPPLIES			5,726.02	5,726.02
CAPITAL IMPRO	VEMENTS				
Streets					
08/10/2015	Mid-Missouri Limestone, Inc.	Lisa Court - 2" Clean Rock; 3/8" Base Rock	Road Grants	120.47	120.47
08/27/2015	Orschein	Weed killer for streets	Road Grants	49.99	170.46
09/14/2015	Christensen Asphalt	Cold Mix - Pot Hole Repair	Road Grants	376.25	546.71
09/14/2015	Christensen Asnhalt	Cold Mix - Pot Hole Repair	Road Grants	273.75	820.46
10/12/2015	Carter-Waters LLC	Meadow Hot Pour #3405 55#/CTN (1980 @ 0.6700 lb)	Road Grants	1.326.60	2.147.06
11/00/2015	Carter-Waters LLC	Meadow Hot Pour #3405 55#/CTN (1980 @ 0.6700 lb)	Road Grants	1.326.60	3,473,66
11/00/2015	Carter-Waters LLC	Meadow Hot Pour #3405 55#/CTN (660 @ 0.6700 lb)	Road Grants	442.20	3,915,86
11/00/2015	Christensen Construction Company	36 Boxes of Crackfill Material	Road Grants	972.00	4.887.86
11/00/2015	Carter-Waters LLC	Meadow Hot Pour #3405 55#/CTN (3.960 @ 0.6700 lb)	Road Grants	2.653.20	7.541.06
11/00/2015	Christenson Construction Company	70 Boxes of Crackfill Material	Road Grants	1.890.00	9.431.06
11/09/2015	Cummings McGowan & West Inc	10/06/15 thru 10/23/15 Melter for sealing cracked streets	Road Grants	2,975.00	12,406.06
11/09/2015	Abrane Steel & Welding Sunnlies Inc	Three 2" mainhole risers for East Street for Overlay project	Road Grants	894.00	13,300.06
11/09/2015	ADAC Missouri Inc	Milling: 2" overlay - Brown: Flaine: Flm: Fast: Boone: Lisa: Concert	Road Grants	109 769 85	123,069,91
06/13/2016	Christensen Asphalt	Fill pothole on South Elizabeth Street	Road Grants	120.96	123,190.87
Total Streets				123,190.87	123,190.87
Total CAPITAL IM	IPROVEMENTS			123,190.87	123,190.87
TOTAL				128,916.89	128,916.89

Page 1



Jan, 19, 2017

Boone County Resource mignit. 801 E, Walnut et, - Rm. 315 Columbia, moile5201

I rom: Jown of The Baine

I here were no expenditures on street maintenance, etc. in the year of 2016, or the prior 2 years either,

> Marin E, Safp Asimon, Board of Nruetses



For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity:	of	Sturgeon	
/		J	
Reporting on Calendar Yes	ar: 20	16-2017	

Narrative for use of funds received Chip 4 Seal Project

Narrative on overall condition of roads and bridges within reporting municipality:

inves needs

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions	
chie & Seal	Project for City of Sturgeon
Chip 4 Seal	done by Missouri Petroleum
/	



TOTAL	1.		
I U I AL	Harris and and		

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.

\$54,287.81

Date Signature Title ٩. tan 573-687-3321 Joh Day Time Phone number Printed Name

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.



For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: Centralia Special Road District of Boone County Mo.

Reporting on Calendar Year: 2016

Narrative for use of funds received

Routine maintenance of roadways within the District including hauling gravel on unpaved roads, replacing road pipes, cleaning ditches, cutting brush, and mowing right of ways as needed. Also did overlay projects on East Gano Chance Road to Panther Ridge, Both ends of Uniion Church Road from Jay Jay to the railroad tracks and from Jay Jay to highway 124 as well as Drew Road from highway 124 to Ball Road. Also built a turn lane between Jay Jay and Davis Road.

Narrative on overall condition of roads and bridges within reporting municipality:

The overall condition of the gravel roads in the district are considered to be in average or better condition.

The condition of the blacktop roads is average to below average with about 35% of the blacktops needing

to be overlayed. The bridges are in average condition considering their age.

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _

- 1. Hauled \$40,269.14 of rock on non-paved roads.
- 2. Replaced \$2,896.96 of road culverts.

3. Overlayed East Gano Chance to Panther Ridge, Union Church and Ball Roads at cost of \$228,341.82.



TOTAL

\$271,507.92

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.

Anthony Kendrig Signature

12/11/16 Date

Title: Treasurer

Anthony Kendrick Printed Name ____573-881-2169 Day Time Phone number

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.



For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: Town of Harrisburg			
U .			
Reporting on Calendar Year: 2015			
Narrative for use of funds received 2013, 2014, and 2015 Street Project Funds are being retained in			
separate accounts to accumulate for a Larger project.			
Narrative on overall condition of roads and bridges within reporting municipality:			
As of 12/31/16, all roads are in good condition.			

Allocation and Expenditure of Funds Received listed by project, with a projection description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

2015 Projects with descriptions _ 2015 Strept Mintenand - Uncluding ice remaine: \$10471.23 Shaw and pommin o 2015 Project (813107.22 Awarded) - Saved in Separate lader to accumulate Funds for Larger projects.



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TOTAL & UHTI.03

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.

Mais Signature

12-13-16 Date

Accountant.

Gail Fisher Printed Name

<u>445-6513</u> Day Time Phone number

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.



For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: Village of Pierpont

Reporting on Calendar Year: 2016

Narrative for use of funds received n/a

Narrative on overall condition of roads and bridges within reporting municipality:

Fair

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _n/a



Page 2

TOTAL _n/a_

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.

\frown	
Colored Stand	12/11/16
Signature	Date

_Title Chairman of Board Piertent, mo

Rouald L. SKULS

573-449-7809

Printed Name

Day Time Phone number

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.


City of Rocheport

108 Central Street – P.O. Box 53 Rocheport, Missouri 65279 573-698-3245 Fax 573-698-3800

January 12, 2017

To Whom It May Concern:

This letter is to provide the County Commission documentation for the City of Rocheport's expenditures under the Boone County Revenue Sharing (BCRS) and Revenue Replacement Programs.

Rocheport continues to actively improve its road and transportation infrastructure, and Boone County Funds support has been essential to these efforts.

The city has not completed any street/maintenance projects for 2016. We are actively discussing the priority list at this time to best use what funds we have. Hopefully we will begin some street repairs and maintenance this spring. The city has several years of funds from Boone County to ensure more streets can be repaired for 2017. We have not put any bids out as yet, just in the discussion stage at this time.

Rocheport benefits greatly from the support of the BCRS and Revenue Replacement Programs and appreciates the opportunity to address our transportation infrastructure needs. On behalf of the Mayor and Board of Aldermen, and residents of Rocheport, I would like to thank the Boone County Commission for financial assistance through these programs.

Cordially,

Shirley Jenkins-Old

City Clerk for the light second sequencing to the second size of the state of the second s

Entities Not Submitting Reports

City of Columbia

Village of Hartsburg

Village of Huntsdale

Boone County Design & Construction Team and Contributors to the Annual Report



Bone County Engineering Staff

At the end of 2016 we bid a fond farewell to Thomas Chynoweth, our Engineering Technician. Thank you for 22 years of service to Boone County Tom!

Vision Statement:

All citizens of Boone County benefit from a safe, modern and well maintained transportation system which results in a high level of trust and confidence placed in Boone County Public Works—Maintenance Operations & Boone County Resource Management-Engineering Division.



Office Information

Boone County Resource Management 801 East Walnut Room 315 Columbia, MO 65201

> Phone: 573-886-4480 Fax: 573-886-4340 E-mail: resmgt@boonecountymo.org

> > **Responsibilities**

- Contracted Construction Projects
- Contracted Pavement Preservation
 Applications
 - Infrastructure Inspection
 - Infrastructure Improvement

Boone County Public Works 5551 S Tom Bass Road Columbia, MO 65201

Phone: 573-449-8515 Fax: 573-875-1602 E-mail: PublicWorks@boonecountymo.org

Responsibilities

- Routine Maintenance: Bridge Deck Sealing, Vegetation Control, Crack Sealing & Snow Removal
- Culvert Clean Out & Replacement
 - Gravel Road Maintenance



For information on projects, road closures, and other activities visit: www.showmeboone.com/resourcemanagement www.showmeboone.com/publicworks www.facebook.com/pages/Boone-County-Missouri-Public-Works