

2015 ANNUAL REPORT

PREPARED BY:
ALAN BRUBAKER, P.E., P.S.
SUMMIT COUNTY ENGINEER

ISSUED APRIL 1, 2016



2015 East North Street Bridge



Ravenna Road Bridge over Tinker's Creek beam setting

Mission Statement

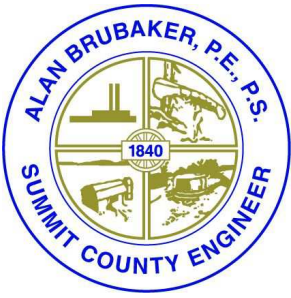
Our mission is to serve the Summit County community by maintaining and improving our region's infrastructure, encouraging economic development, and ensuring a safe and efficient transportation system while protecting the environment.



Engineer Brubaker with 2015 Miniature Bridge Building Competition winners, Springfield High School.

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ALAN BRUBAKER, P.E., P.S.

SUMMIT COUNTY ENGINEER

April 1, 2016

Summit County Council
Ohio Building – 7th Floor
175 South Main Street
Akron, Ohio 44308-1314

Dear Members of Summit County Council:

In accordance with the Ohio Revised Code Section 5543.02, I respectfully submit the Summit County Engineer's (SCE) annual report for the year 2015. This report reviews the activities of this Office for 2015, highlighting major infrastructure improvement projects and the maintenance of our existing infrastructure. The office continues to be an active partner with the townships, cities, and villages in their efforts to update and improve local infrastructure systems.

2015 was our seventh year in office and I am proud to write that changes we began to make back in 2009 now have clearly produced results. Our pavement condition rating is rising annually. Pavement maintenance dollars have been steadily increasing, due to making tough budgetary decisions and bringing in more federal dollars than ever before. Our regional initiatives are growing, including new options in our Regional Pavement Maintenance Program such as concrete road repair.

In 2015, total revenue exceeded \$15.6 million. After several years of lagging revenue, 2015 was the first year our regular revenue exceeded our 2009 revenue. In 2015, we expended approximately \$3,500,000 in federal funding leveraged against our local share of \$500,000.

This annual report highlights many of our projects and initiatives. If you have any questions regarding past accomplishments or the future plans set forth within this Annual Report, please contact me at (330) 643-2850.

Sincerely,

Alan Brubaker, P.E., P.S.
Summit County Engineer

Services

**Summit County Engineer Alan Brubaker, P.E, P.S.
is pleased to offer the following services to the public:**

- Design, construction, inspection and maintenance of Summit County highways, bridges and dedicated stormwater facilities.
- Installation, inspection, and maintenance of traffic safety equipment, signs, traffic control signal systems, and pavement markings on county highways and bridges.
- Snow and ice control on Summit County highways and in other communities by agreement.
- Engineering design and other services to Summit County's cities, villages and townships.
- Coordination of local efforts to procure state and federal funding for infrastructure.
- Township representation: SCE has dedicated an employee to cover each township, attend meetings, and stay in touch with local issues as they arise.



Engineer Brubaker gathered with colleagues to receive the Akron Area Engineer's Week proclamation from the City of Akron.

Your Summit County Engineer maintains:

- Over 360 lane miles of roads - in all seasons
- Over 300 bridges throughout the County - and inspects each one, **every** year
- Over 1200 culverts
- Hundreds of miles of road right-of-way and roadside ditches
- Regional storm water facilities, including as-sessed subdivisions
- Over 30 signalized intersections

**THE SUMMIT COUNTY ENGINEER
HAS A WEALTH OF RESOURCES
AND INFORMATION FOR PUBLIC
USE. PLEASE LET US KNOW HOW
WE CAN HELP YOUR COMMUNITY!**

CALL US AT 330.643.2850

www.summitengineer.net

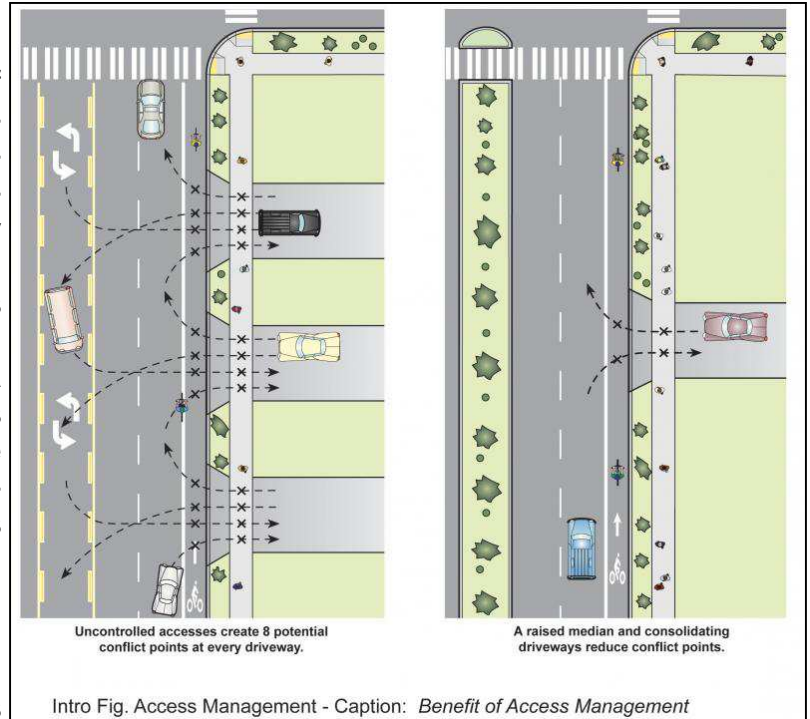
Here's just some of the resources currently available on our website:

- List of current projects & initiatives
- Conveyance standards
- Road records
- Bid notices
- Traffic Alerts
- SCE publications
- Surveys
- Subdivision plats & documentation
- Monument mapper
- County maps
- Road and bridge permit forms
- Township services forms

Notable Events

Traffic Access Management Manual

Summit County Engineer Alan Brubaker, PE, PS, was proud to announce the debut of Summit County's first Traffic Access Management (TAMM) in 2015. On August 4, 2015, Summit County Council authorized Resolution 2015-234, formally adopting the TAMM. This is a manual of regulations for the management of access driveways onto county and township roads in the unincorporated areas of the county. A committee of transportation professionals and elected officials reviewed and edited the manual over the past several months to incorporate current, best engineering practices to the TAMM. In addition, the Summit County Engineer's Office held three public meetings around the county to get input from township officials, technical staff, local advocacy groups, local residents, and business owners. Summit County Council also held two public hearings before enacting the manual.



State and national studies have shown a direct correlation between traffic crashes and the number of driveways along a corridor, which is why the county developed the TAMM. The TAMM provides a better plan for the utilization of our roads to ensure they will be safe and efficient for years to come. The manual includes best practices for design and safety, based on successful models from across the country and Ohio, and is tailored to fit the unique characteristics of Summit County.

Expanded Regional Pavement Maintenance Program

In 2011, the Summit County Engineer's office created a regional pavement maintenance program. The office's bid process was opened up to other communities in Summit County. The larger purchasing power created by bidding for pavement maintenance items as one unit had led to smaller per unit costs for all participants, while the municipalities still maintain local control over the projects. The Summit County Engineer's office administers the County-wide program.

In 2015, our office expanded the program once again. 13 individual local governments participated. 33 individual projects were combined into 8 larger projects worth \$4.5 Million.

Federal Funding for Boston Mills Road

In 2015, SCE was successful once again in obtaining federal grants through the Federal Lands Access Program (FLAP). The program funds road projects that run through federal lands. In 2014 SCE also applied for funds to improve Boston Mills Road as it is a main access road to the Cuyahoga Valley National Park. FLAP initially provided \$300,000 to begin the design and construction of improvements to Boston Mills Road. The improvements will include resurfacing, widening, improving storm sewer drainage, and rehabilitation of approximately one mile of Boston Mills Road, beginning at Riverview Road intersection and extending west. In 2015, FLAP programmed the next \$300,000 for Phase 2. SCE plans to apply for additional funds for the same project in future funding rounds in order to get the project fully funded.

Notable Events

Challenges and Successes

Yellow Creek Road in Bath Township has been down to one lane for approximately a year. Landslides have proven to be one of our biggest and most expensive challenges in our quest to maintain county roads. We worked through 2015 designing a fix to stabilize the land along Yellow Creek Road and repair and reopen the road. The project was recently put out to bid and construction of retaining wall will begin in the spring of 2016.



Yellow Creek Road Landslide

Paying Off Old Debt

In years prior to the current administration taking office in 2009, the Summit County Engineer secured State Infrastructure Bank (SIB) loans. The total debt principal as of January 1, 2009 was \$4,498,144.00. This administration restructured this debt service in 2010 by consolidating the SIB loans into one note for \$3.5 million at a lower interest rate. The restructured debt was held by the County itself instead of an outside agency. The restructuring therefore benefitted both the local road fund and the local general fund. The restructuring led to a break in the interest rate and a more favorable pay-off schedule, allowing us an additional \$300,000 a year not going to debt payments. In addition, by selling the bonds to the county general fund, the county's Fiscal Office received a higher interest rate on the investment of the general fund money if invested regularly.

The final payment on this debt is April 15, 2016. After that date, the County Engineer's office will be debt free, freeing our office to take out a loan to pay for the stabilization of Yellow Creek Road while keeping our debt service amount well below levels we now recommend in our debt management policy. This debt restructuring and future debt management policy is a great example of county offices working together to benefit the county. Being able to pay off old debt is one of our biggest successes thus far.

Additional Federal Funding Secured

In 2015 we were successful in obtaining federal resurfacing funds which were distributed through the Akron Metropolitan Area Transportation Study (AMATS). Funding will be available in 2020 and 2021.

We were awarded \$743,600 in grant funds to resurface Medina Line Road from State Route 18 to Granger Road and \$ 161,200 to resurface Portage Lakes Drive from State Route 93 to Cormany Road.

In addition, we applied for a grant on behalf of Bath and Copley townships for a sidewalk along State Route 18 in Montrose to make the area more walkable. The walkway will extend from the Holiday Inn to Cleveland Massillon Road. We were also successful in this grant application and AMATS will pass through \$417,080 for the project.

Public Services Division

The Public Services Division is responsible for maintaining over 360 lane miles of county roadway, 313 bridges, over 1,200 culverts, guardrail, berms, vegetation control, ditches, pavement markings, traffic signals, tree trimming and removal, deceased animal removal, driveway culvert pipes, fleet maintenance, retention and detention ponds, roadside mowing, and snow and ice control.

The Public Services Division's administrative office and the South Street Station are located at 601 East Crosier Street in Akron, with an outpost at Boston Mills Station located in Boston Township. Bath, Boston, Copley, Coventry, Northfield Center, Richfield, Sagamore Hills, Springfield and Twinsburg townships are provided general maintenance and snow and ice control by our department. We also provide snow and ice control for the City of New Franklin by contract. In addition to our South Street and Boston locations, the County has salt storage facilities in Bath, Lakemore and New Franklin.

In 2015, a total of 967 requests for service were received and completed, 113 animals were picked up and disposed of, 65 ditches were cleaned, 44 traffic signal malfunctions were repaired, 122 tree problems were handled and there were 35 road shoulder repairs. The department used 5,200 tons of stone, 1,200 feet of culvert pipe, 1,700 tons of asphalt and 17,000 tons of salt.

Glencairn Forest Retention Pond Clean-out



Public Services Division

Our South District replaced crossover pipes on N. Turkeyfoot Road at Portage Lakes Drive and Jacoby Road at Colon Road. They performed pipe repairs on joint collars on S. Main Street and made repairs to ditch enclosure on Killian. South Station extended a crossover pipe and removed three trees on Lockwood Road.

Our North District performed a crossover replacement on Shaw Road at Hametown and Olde 8 at Oakmont. They repaired a retaining wall on Riverview Road and performed a catch basin repair on Boyden Road at Cranberry.

In addition, both North & South districts performed roadside mowing, mailbox repairs, roadside ditching, berm cutting, pothole repairs, snow and ice control, and numerous driveway culverts replacements, weed control and asphalt patching.

Our Ditch Crew performed silt removal on Canton Road and on Rex Hill Road, landslide repairs on Cleveland-Massillon Road, Revere Road, and Yellow Creek Road. They also cleaned out retention ponds in Glencairn Forest subdivision and on Sandstone Drive. In addition they performed a drainage improvement project in West Bath Estates and a scour repair on Wheatley Road.



Revere Road landslide repair

Material Usage

	2011	2012	2013	2014	2015
Salt (in tons)	20,000	9,200	13,500	19,900	17,000
Stone (in tons)	19,000	2,406	2,900	4,000	5,200
Asphalt (in tons)	1,300	1,300	1,000	1,100	1,700
Culvert Pipe (in feet)	1,300	2,000	400	1,100	1,200

New equipment/vehicle purchases

Gradall Hydraulic Excavator	\$357,927.60
2 Ford F-150 Trucks	\$ 55,062.24
2 Ford 4x4 Explorers	\$ 56,880.72
3 KM8000T Mounted 3-ton Hot Boxes	\$ 56,400.00
TOTAL	\$527,270.56

Public Services Division

Bridge Section

In 2015, our Bridge Crews were busy sandblasting, forming and pouring concrete to replace crumbling parapet walls, wing walls and other important components of the bridges that comprise the life-line of our commerce. The following highlighted projects demonstrate work performed by this crew in 2015.

Boston Mills Road (HUV 032-0921): Guniting repair

Brady Avenue (BAR 009-0045): Expansion joint repair

Brandywine Road culvert: Guniting repair

Cuyahoga Street (AKR 28-0188): Guniting repair

Front Street (AKR 59-0275): Replace expansion joint, repair concrete on curb and parapet wall

Hawkins Road (RFV 185-0181): Expansion joint repair

Kingsbury Trace: Drainage improvement to alleviate flooding

Northampton Road (CUY 27-0606): Scour and guniting repair

W. Highland Road (SAG 111-0000): Pier jacket projects, scour repair, pier footer and slope protection armoring (West piers)

High Level Bridge (AKR-8-0908): Patch bridge deck and routine bi-annual maintenance

In addition to work mentioned above, the Bridge Crew removed numerous logjams, performed bridge deck washing and other various maintenance tasks.



Boston Mills Road Bridge
Concrete Repair

Engineering Division

The Engineering Division is active in the development of plans for highway, drainage, and bridge improvements and new construction on Summit County roads. The engineers and technicians prepare improvement plans for federal, state and locally funded projects on County highways. They also assist townships by preparing plans for township roads and drainage systems. Our project managers are responsible for overseeing large projects from initial scoping through the design phase and into construction.

East North Street Bridge over the Little Cuyahoga River

This project removed and replaced the East North Street Bridge over the Little Cuyahoga located in the city of Akron. The new bridge replaced a 60 year old bridge that was classified as structurally deficient.

Kenmore Construction was awarded the contract for this bridge replacement project. Total costs will be \$3,281,853 with a majority of the funds coming from the Federal Highway Administration passed through the Ohio Department of Transportation.



Completed East North Street Bridge

Ravenna Road Bridge over Tinker's Creek (Hudson)

This project involved reconstruction of the Ravenna Road Bridge No. HUT-012-0005 over Tinkers Creek with a bridge of similar alignment and profile and minimal approach work. The project also included application of new pavement markings and traffic control devices.

Black Horse Bridge Construction was the low bidder at \$1,128,680.00. Local Bridge Program funds covered about \$900,000 of the cost of the new bridge, and Ohio Public Works Commission funds cover the remaining costs.

2015 Spot Paving Program: Spot paving was performed at various locations throughout the county.

2015 Concrete Road Repair: Springside Drive from Brookwall to SR 18.

2015 Crack Sealing Program

Road	Project Limits
Akron-Peninsula	Cuyahoga Falls line to Peninsula line
Bath Rd	Revere Rd to Shade Rd
E Waterloo Rd	Route 224 to Portage Line Rd
Jacoby Rd	SR 162 to Ridgewood Rd
N. Turkeyfoot	Portage Lakes Dr to Main St
Old Mill Rd	Twinsburg line to Ravenna Rd
Revere Rd	Bath Rd to Ira Rd
Granger Rd	Crystal Lake Dr to Cleve-Mass Rd
Everett Rd	Wheatley Rd to Riverview Rd
Main St	Green line to Killian Rd

2015 Asphalt Rejuvenating Program

Road	From	To
Riverview Rd	Peninsula line	Cuyahoga County
Quick Rd	Akron-Peninsula	Cuyahoga Falls
Sanitarium Rd	Portage Line Rd	Canton Rd
Boyden Rd	Highland Rd	SR 82

2015 448 Resurfacing

Road	From	To
Crystal Lake	SR 18	Granger Rd
Bath Rd	Cleve-Mass Rd	Revere Rd
Summit Rd	Norton line	Jacoby Rd
State Mill	SR 93	Portage Lakes

2015 Summit County 405 and 422 Resurfacing

Road	From	To
Old Mill Rd	Ravenna Rd	Portage County
Myersville Rd	Green line	Killian Rd
Shocalog Rd	SR 162	Akron line
Medina Line Rd	SR 18	Everett Rd

Engineering Division

Survey Section

The Summit County Engineer's Survey Section has a survey field crew under the direct supervision of a Professional Surveyor to perform surveying for internal departments and townships. They use a Trimble S6 robotic total station and a Ranger data collector with TDS software to collect survey data. In August on 2015, they traded two old Topcon total stations with outdated technology for a new Nikon Nivo total station with modern technology to serve as backup unit.

The Survey Section provided various surveying services including record research, plan review, topographical mapping, field staking, calculations to determine road centerline, right-of-way lines, property lines, and the preparation of legal descriptions for drainage projects. Below is a just a sample of the work the Survey Section completed in 2015.

- ◆ Surveying to create three legal descriptions for proposed easements for the Granger Road Bridge over the North Fork.
- ◆ Surveying to create a legal description for a proposed easement for the Boyden Road Culvert at Cranberry.
- ◆ Base mapping with topography, centerline and right of way determination, property line determination, and plan review for the in-house design of six drainage improvements.
- ◆ Base mapping with topography, centerline and right of way determination, property line determination, and plan review for the Wheatley Road at Furnace Run erosion control project.
- ◆ Base mapping with topography, centerline and right of way determination, property line determination, for the Boston Mills Road widening and resurfacing project and for the Canton Road resurfacing and sidewalk project.
- ◆ Survey base mapping to aid in consultant aerial mapping for the in-house design of the Boston Mills resurfacing project.
- ◆ Centerline and right of way determination, and property line determination for the Olde 8 resurfacing project.
- ◆ Survey fieldwork for a traffic project at the intersection of Waterloo Road and Portage Line Road.
- ◆ Measurements and reports to monitor landslide movement of a portion of Yellow Creek Road between Revere Road and Sand Run Road, Revere Road, and to monitor possible movement affecting concrete sidewalks at the Coventry Township Clock Tower.
- ◆ Staking the road right of way along a portion of Yellow Creek Road between Revere Road and Sand Run Road and determining the city corporation line at the site.
- ◆ Staking of road right of way along the Highland Road bridge for structure maintenance.
- ◆ Staking of proposed acquisition areas to aid in easement acquisitions for an Arlington Road project and a Granger Road bridge project.
- ◆ Staking of right of way to aid in relocation of 19 utility poles for the Arlington Road Resurfacing and Sidewalk Project.
- ◆ Survey fieldwork to create as-built mapping of the Cottage Grove drainage project which was designed in-house.
- ◆ Survey coordination and plan review with consultants for seven bridge improvements.
- ◆ Review of consultant plans for the Arlington Road sidewalk and resurfacing project.
- ◆ Review of the proposed Mull Road vacation.
- ◆ Research for the status of Harburn Road on property owned by the Richfield Joint Recreation District.
- ◆ Review of five major subdivision plats, nine replats, and 20 survey drawings with legal descriptions for parcel splits or consolidations to help ensure requirements of state and local standards are met.

Public Records on File

- Geodetic control in Summit County used to reference the GIS
- Records for County and Township Roads
- Road improvement plans
- Road Dedication and Vacation Plats
- Summit County survey field notes
- Survey Drawings of Minor Subdivisions
- Records of Summit County Surveys
- State Road Improvement Plans
- Major Subdivision Plats and Improvement Plans in unincorporated areas
- Ditch and Drainage Records
- Summit County Bridge Records
- Cemetery Maps
- Survey Maps of Ohio-Erie Canal

Engineering Division

Survey Section

The Survey Section utilizes a Ricoh Aficio MP W3601 large format copier/printer/color scanner to produce scanned images of Road Record Plan Sheets, Dedication Plats, Vacations Plats, Private Surveys, Major Subdivision Final Plats and Major Subdivision Improvement Plans. Other historic images include Drainage Plans, Cemetery Maps, Abandoned Mines Maps, Portage Lakes Maps, Nimisila Reservoir Maps, and Miscellaneous Township Surveys.



There are indexes that identify the scanned images. These images are on file with the Summit County Engineer and are available for download to an external hard drive for a fee of \$10.00. There are close to 150,000 images available with a total capacity of over 170 gigabytes. This allows private firms and others the ability to access these records from their own computer at anytime. The SCE completed the scanning and indexing of a donation of many survey drawings received from a local survey firm in 2015. These surveys were included in our data base and are now available online through the SCE website.

The Survey Section is working towards our goal of a "digital records room" that can be accessed anytime from the internet. Scanned images of surveys, subdivisions and subdivision improvement plans along with the recently added road record scanned images, all from the SCE records archive, are currently available through the "ONLINE TOOLS" section on the Summit County Engineer website: <http://www.summitengineer.net/resources/tools>. The Survey Section maintains road and survey record information in a data base format better serving the residents of Summit County.

Engineering Division

Right-of-Way

Many projects require the acquisition of additional property from adjacent landowners. This process is tightly regulated by state and federal requirements.

Our office is highly fortunate to have a dedicated ROW Manager to handle our right-of-way acquisitions. He personally does the acquisition himself or oversees consultants who perform the work on our behalf. Furthermore, our ROW Manager is THE ONLY person in the entire state to be qualified by the Ohio Department of Transportation to perform all phases of property acquisition (title research, appraisals, appraisal review, negotiations, and closings). In addition, he possesses an Ohio Certified Residential Appraiser License.

In addition, to acquiring property for this office, he has also acquired property for other government agencies that do not have acquisition capabilities.

Right-of-Way acquisition performed by this office in 2015 is as follows:

- Arlington Road Improvements - Acquired 21 easements for \$28,875.
- Granger Road Bridge Scour Mitigation – Acquired 3 easements for \$6,018.
- Bank Street Bridge Rehabilitation – Acquired 3 easements for \$719.
- Boyden Road Culvert Lining – Acquired 1 easement for \$394.

Engineering Division

Bridge Section

The Summit County Engineer Bridge Section is responsible for bridge inspections, bridge inventory, coordination of our bridge maintenance program and developing recommendations for rehabilitation or replacement of County bridges. The bridge section also reviews all bridge plans prepared by consultants. Our project inspectors serve a dual role. They are ODOT certified bridge inspectors and perform our bridge inspections annually to ensure they remain safe for the traveling public.

RECENTLY COMPLETED BRIDGE PROJECTS

East North Street Bridge over Little Cuyahoga River in City of Akron – Total Replacement. Completed November 2015.

Ravenna Road Bridge over Tinkers Creek in City of Hudson – Total Replacement. Completed November 2015.

BRIDGE MAINTENANCE COMPLETED

Granger Road over North Fork in Bath Township – Scour Mitigation (Erosion Repair).

Canton Road over East Fork of Tuscarawas River in Springfield Township – Silt Cleanout.

Christman Road Bridge over Nimisila Creek in City of Green – Concrete curb repairs.

Highland Road Bridge over Cuyahoga River in Sagamore Hills Township – Scour mitigation with rock channel protection and pier column repairs.

Boston Mills Road over Brandywine Creek II in Hudson – Concrete repairs.

Hawkins Road over East Branch of Rocky River in Richfield Township – Deck joint repairs.

Northampton Road over Woodward Creek in Cuyahoga Falls – Concrete and erosion repairs.

BRIDGE INSPECTION

Summit County Bridges – Completed required inspections and inventory updates for all 313 bridges.

Summit MetroParks – Completed the inspection of 21 pedestrian bridges for the Summit Metro Parks.

COMMUNITY INVOLVEMENT

The Bridge Section participates in the Annual Miniature Bridge Building Competition. This year's competition featured 39 teams of Summit County High School students.

Summit County Engineer Bridge Facts

313 total bridges

118 in Townships

195 in Cities and Villages



East North Street Bridge construction

UPCOMING BRIDGE CONSTRUCTION

Greenwich Road Bridge over Branch of Hudson Run in the City of Norton.

Bank Street Bridge over Little Cuyahoga River in the City of Akron.

Vanderhoof Road Bridge over Tuscarawas River in City of New Franklin.

Medina Line Road Bridge over Branch of Yellow Creek in Bath Township.

South Main Street Bridge over Portage Lakes Feeder Channel in Coventry Township.

UPCOMING BRIDGE MAINTENANCE

Hudson Drive Bridge over Powers Brook in City of Stow – Scour mitigation with rock channel protection and gunite repairs to bottom of deck slab.

Fairview Avenue Bridge over Ohio-Erie Canal in City of Barberton – Expansion joint repair.

Van Buren Bridge over Tuscarawas River in Green – Deck overlay and railing replacement.

Cleveland Massillon Rd over Wolf Creek in Copley Township - Abutment repairs.

Highland Road Bridge over Cuyahoga River in Sagamore Hills Township – Concrete repairs.

High Level Bridge (N. Main Street over the Cuyahoga) in Akron and Cuyahoga Falls: Gusset plate repair and rehabilitation

Planning Section

The Planning Section supports and regularly attends meetings of various committees and organizations that affect roads and bridges in the County. Attendance at these meetings enables this Office to communicate the impact of their projects on County facilities, advise them of County projects that may affect their programs, and assist in planning County projects to coordinate with other community programs. This office participated in the following committees and organizations:

Supported Committees & Organizations:

- National Pollution Discharge Elimination System Phase II Countywide Program
- Heritage Corridors of Bath Scenic Byway
- Northeast Ohio Four County Planning and Development Organization (NEFCO) Environmental Resources Technical Advisory Committee (ERTAC)
- Akron Metropolitan Area Transportation Study (AMATS) Technical Advisory Committee & Policy Board
- Yellow Creek Watershed Group
- Muskingum Watershed Conservancy District
- Providing municipal engineering services to the City of Norton
- Assists townships with grant applications through the Ohio Public Works Commission and other agencies

2016 Upcoming Projects

- **Arlington Road Improvement Project:** Improve Arlington Rd from City of Green to Warner Rd. Project Estimate: \$2,620,000
- **Vanderhoof Road Bridge Replacement:** Complete bridge replacement. Project estimate: \$785,000
- **Greenwich Road Culvert Construction:** Remove existing structure and replace with concrete box culvert. Project estimate: \$160,000
- **Bank Street Bridge Replacement:** Complete bridge replacement project. Project Estimate: \$800,000
- **Yellow Creek Road Slope Stabilization:** Stabilize 150 feet of embankment along Yellow Creek Rd and resurface the damaged roadway. Project cost: \$927,100.45
- **Van Buren Road Bridge Improvements:** Bridge rehabilitation project. Project estimate: \$350,000

G.I.S. Section

The Geographic Information System (G.I.S.) Section is a complement to our engineering section by supporting the design engineers by creating design drawings, mapping infrastructure features, including the mapping of infrastructure features using handheld G.P.S. equipment and other miscellaneous spatially based mapping necessary to provide information to make informed engineering decisions. They also provide the Summit County maps to the public. In 2012, the GIS functions of the office combined with the Executive and Fiscal offices' GIS departments, creating a unified GIS division for the county.



Engineering Division

Drainage Section

The Drainage Section coordinates requests, reviews, inspects, designs and schedules improvements to ditches, culverts, storm sewers and other drainage-related items for landowners, townships and/or County maintenance. Preliminary studies and improvement plans were prepared for several township and county drainage projects. There were several proposed commercial improvement plans reviewed in the townships as well as several drainage studies and storm sewer replacement projects.

2015 Drainage Projects

Bath	Martin Road Culvert 195-00840	Repairs to culvert and headwall to be performed by County forces in 2016. Design completed in 2015.
	Treecrest Drive Drainage Improvements	Petition Ditch Project. Construction completed Summer 2015.
Boston/Richfield	Wheatley Road/Furnace Run Bank Stabilization	Work completed by County forces.
Coventry	Cottage Grove Drainage Improvements	Phased project to address failing storm sewer along Cosmos and to improve drainage through Cottage Grove Park.
Northfield Center	Bayberry/Charlton Drainage	Prepared plans to address flooding. Project may be incorporated into Marwyck petition ditch project.
	Beechwood/Cherry Drainage	Prepared plans to address flooding.
Norton	Greenwich Road Bridge Replacement	Plans prepared to replace bridge with new culvert. Construction anticipated fall
Sagamore Hills	Boyden Road Culvert at Cranberry Trail	Failing culvert to be lined in Spring 2016. Design completed in 2015.
Countywide	Storm Sewer Video/Inspection Contract	Inaugural Countywide program to provide full inspection of inaccessible stormwater drainage systems.

2015 Commercial Plan Reviews

Copley

- Copley Alzheimer Special Care Facility - Commercial Drive
- Graves Lumber Building Addition - 1315 S. Cleveland-Massillon Road
- Montrose Ford Building Addition - 3960 Medina Road
- Ridge Park Center Building Addition

Coventry

- Agosta Plumbing - 894 E. Waterloo Road
- Budget Car Mart - 2900/2916 S. Arlington Road
- Taco Bell - Coventry Plaza/Manchester Road

Northfield Center

- The Church in the Valley—9851 Olde Eight Road

Richfield

- Michael Angelo's Winery - 5005 Broadview Road

Springfield

- Dunkin Donuts - 1286 Shanafelt
- Proposed Office Building - 1100 Killian Road
- Maranatha Bible Church - 1424 Killian Road

Engineering Division

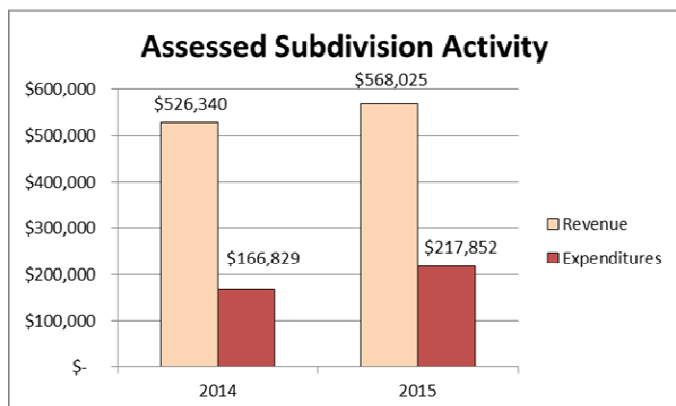
Surface Water

Surface Water Activities funded by the County General Fund:

In 2015, Council and the Executive approved \$100,000 for general fund surface water activities. Three studies from 2014 appropriations were completed in 2015. These studies provided assessment estimates for projects on Dorwick Ditch, Magdalyn Ditch and Wolf Creek Ditch. New studies for 2015 included Bryce Ditch and Sunny Acres Ditch. Due to the limited funding from the general fund, future off-road ditch work will require property owner assessments. No studies have resulted in assessed ditch projects at this time.



Cleveland-Massillon Road Bank Stabilization Project



Assessed Subdivisions

Our Ditch Maintenance Crews continued to carry out regular drainage maintenance within those subdivisions that pay assessments into the Ditch Maintenance Funds. Our crews performed drainage maintenance projects in thirty-seven assessed subdivisions including three pond restorations costing approximately \$81,000.

Roadside Ditches

Using funds from the MVGT fund, the Public Service Division continues to maintain ditches along county roads. In 2015, 65 ditches were cleaned.

Engineering Division

Highway Section

The Highway Section is responsible for highway design, installation and maintenance of traffic control devices such as signs, pavement markings and traffic signal systems/warning flashers. These functions are integral parts of all improvements made to the Summit County highway system. In addition to the section's primary function of preparing plans for roadway improvements, the Highway Section also conducts studies and/or evaluations of roadway traffic, geometrics, physical features and access. The Highway Section determines the need for signage, guardrail, lane assignments/construction, speed limit revisions and other safety capacity improvements. This Section also reviews and coordinates construction projects to ensure that alternate routes for traffic detours are free of major obstructions and available during the construction season.

Design Complete

Northfield Center -- French Drive Improvements for Dedication

Springfield -- Portage Line/Waterloo Road Traffic Signal Upgrade

Studies Completed

CEAO Safety Studies for Guardrail and Signage

Copley -- Brookwall/Flight Memorial Multiway STOP

Current Design

Boston -- Boston Mills Road Improvements (Riverview Road to Boston Station)

Current Studies

CEAO Safety Studies for Pavement Markings and Sign Compliance

Allotment Section

The Allotment Section works with developers, engineers, contractors, governmental agencies and the public to regulate the design, construction and acceptance of subdivisions. This section also coordinates inspections under the Engineer's annual stormwater maintenance program. This consists of inspecting detention/retention ponds, catch basins, headwalls and storm sewers in subdivisions throughout the County. When required, corrective measures are taken to update the stormwater facilities to assure that stormwater is appropriately managed in allotments.

2015 SUBDIVISION PLAN REVIEW & CONSTRUCTION INSPECTION

Arbor Chase Phase 1

Hart's Landing

Hillside Estates Phase 4

Lion's Park Allotment

Steffan Woods Phase 2

The Preserve at Miller's Farm Phase 1



2015 FINAL PLATS

TOWNSHIP	SUBDIVISIONS	SUBLOTS	ACRES
Copley	1	32	13
Twinsburg	1	23	10
TOTALS	2	55	23

2015 PRELIMINARY PLANS

TOWNSHIP	SUBDIVISIONS	SUBLOTS	ACRES
Copley	2	63	24
Springfield	2	56	28
TOTALS	4	119	52

Engineering Division

Construction Section

The Construction Section is responsible for the quality, cost, and timeliness of improvements to the County's highways and bridges. This includes reviewing preliminary plans, acquiring property, relocating utilities, construction inspection, testing construction materials, and completing final construction contract documents.

2015 Construction Projects

<u>Road Projects</u>	<u>Cost</u>
Granger Road Scour Mitigation	\$ 168,097.00
Microsurfacing	\$ 75,213.00
<u>Bridge Projects</u>	<u>Cost</u>
Ravenna Road over Tinker's Creek (HUT)	\$ 1,128,679.00
East North Street over Little Cuyahoga	\$ 2,563,821.00
<u>Drainage Projects</u>	
Treecrest Drainage Improvements	\$ 168,794.00
TOTAL	\$ 4,104,604.00



East North Street Construction

The Construction Section manages the Regional Pavement Maintenance Program. We invite all pavement owners in Summit County to join in joint projects for common roadway maintenance work types. The goal is to achieve savings through economy of scale and standardization of specifications.

The individual entities develop their own scopes and provide their own inspection. This office condenses the numerous smaller projects into larger projects and advertises, awards, and administers the projects.

This year, 13 individual local governments participated. 33 individual projects were combined into 8 larger projects worth \$4.5 Million.

Regional Pavement Maintenance Program

	<u>SCE Cost</u>	<u>Other Cost</u>	<u>Total Cost</u>
405 Motor Paving	\$ 257,903.00	\$ 566,062.00	\$ 823,965.00
422 Seal Coat	\$ 231,631.00	\$ 547,716.00	\$ 779,347.00
448 North	\$ 613,512.00	\$ 449,700.00	\$ 1,063,212.00
448 South	\$ 401,999.00	\$ 302,325.00	\$ 704,324.00
Asphalt Crack Sealing	\$ 53,350.00	\$ 135,681.00	\$ 189,031.00
Asphalt Rejuvenation	\$ 90,726.00	\$ 13,902.00	\$ 104,628.00
Concrete Pavement Repair	\$ 197,957.00	\$ 493,100.00	\$ 691,057.00
Pavement Marking	\$ 104,439.00	\$ 31,487.00	\$ 135,926.00
	\$ 1,951,517.00	\$ 2,539,973.00	\$ 4,491,490.00

Engineering Division

Construction Section

The Construction Section provides assistance as requested by townships and various other municipalities, which may include review of construction documents and plans, preparation of cost estimates and bid documents, inspection of construction activities and contract administration.

This Section also performs annual inspection of bridges, culverts and roads.

In addition the Construction department administers permits for road openings and closings, special hauling, ditch enclosures, and driveway culverts.

Right-of-Way Acquisition

Many public works projects require the acquisition of property. Our office is very fortunate to have a skilled staff member trained in all aspects of ROW acquisition. See page 10 for a complete list of ROW activities.

Utility Coordination

Existing utilities, private and public, overhead and underground, conflict with almost every construction project. Our Utility Coordinator is responsible to ensure that all conflicts are identified and addressed before construction begins. This entails detailed reviews of preliminary construction plans, visits to the proposed construction site, and constant coordination with representatives of the utility companies.

In addition, to coordinating utilities for this office, our Utility Coordinator also performs this work for other government agencies that do not have a Utility Coordinator.

Construction Management, Inspection, and Materials Testing

Our project coordinators and construction inspectors work with our general contractors to ensure that work is performed in conformance with the contract documents.

In 2015, the Construction Section managed 14 projects worth \$9,117,000.

Township Construction Projects Administered, Inspected, and Tested	
Township	Projects
Bath	5
Boston	0
Copley	4
Coventry	2
Northfield Center	1
Richfield	0
Sagamore Hills	2
Springfield	2
Twinsburg	4
Total	20

2015 Township Highway Miles	
Bath	62.395
Boston	10.175
Copley	61.085
Coventry	54.780
Northfield Center	20.750
Richfield	15.705
Sagamore Hills	37.370
Springfield	70.071
Twinsburg	<u>14.825</u>
TOTAL	347.156
2015 County Highway Miles	181.545

TOWNSHIP PROJECTS	
	Township Cost
Copley Township	
Arrowhead Estates - Roadway Improvements	\$ 379,637.00
Coventry Township	
Cottage Grove Drainage Improvements Phase 2	\$ 141,717.00
Total Value of Improvements to SCE	\$ 6,056,121.00
Total Value of All Improvements Managed by Construction Section	\$ 9,117,448.00

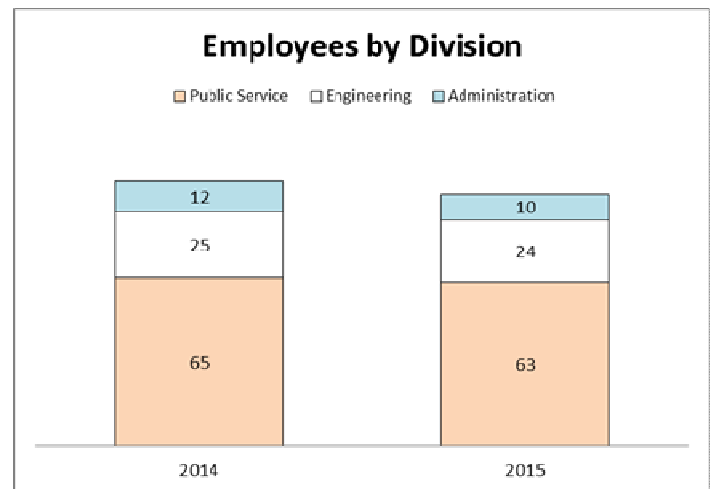
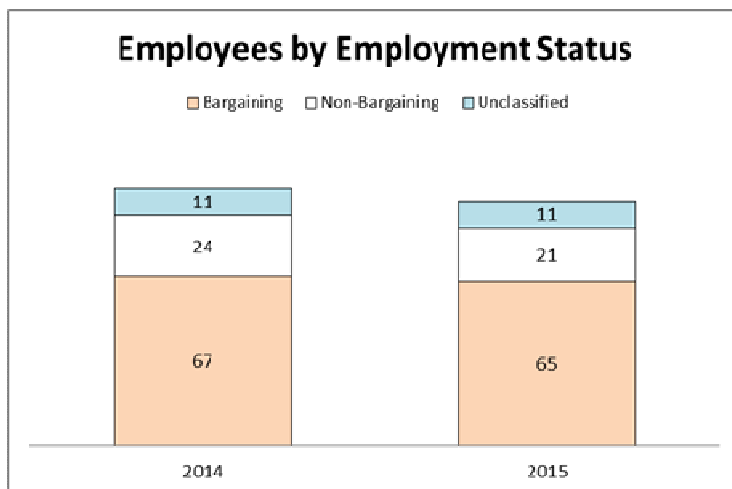
Administration Division

Human Resource Section

The Human Resource functions of the Engineer's office are coordinated through our Personnel Administrator and the Department of Human Resources which reports to the County Executive. The Personnel Administrator assures compliance with all rules and policies established by the County Human Resource Commission, the County Department of Human Resources and any federal, state or county labor laws. The Personnel Administrator also maintains an employee database for the 97 employees of the County Engineer.

The total number of employees decreased by 5 employees between 2014 and 2015. This was due to several factors. Two of our employees moved to a new department due to the voter approved charter amendment that consolidated all county Information Technology functions under the newly created Office of Information Technology. Three other employees left service at the end of the year for various reasons and we wish them well.

In 2015, we negotiated new contracts with all of our labor unions. AFSCME represents our Service and Maintenance employees as well as our Clerical and Technical employees. The IUOE represents our heavy equipment operators. The new contract cycle began on April 1, 2015 and will end on March 31, 2018. The negotiated wage increases for all units, effective April 1 of each contract year, were 1.5% (2015), 2% (2016), 2.25% (2017).



Finance Section

Personnel

Personnel expenditures, including fringe benefits, were approximately \$8.3 million in 2015. This was an increase of approximately 5% over our personnel expenditures in 2014. The increase was due in part to separation pay for 3 employees who left service in late in the year, increases in health care costs and the reinstatement of raises county-wide.

Operations (Non-Personnel)

The increase in personnel expenditures was more than offset by approximately \$500,000 in reduced operating costs. Total operating expenditures in 2015 were approximately \$3.5 million compared to approximately \$4 million in 2014.

Operating expenditures are subdivided below into highway maintenance costs (\$1.6 million) and other operating expenses (\$1.9 million). Highway maintenance costs include items like road salt, limestone, small culvert pipes and other materials used in our maintenance operations. Other operating expenses include fuel, vehicle parts and administrative support items such as computers, copiers, and software licenses.

Capital Improvement Program

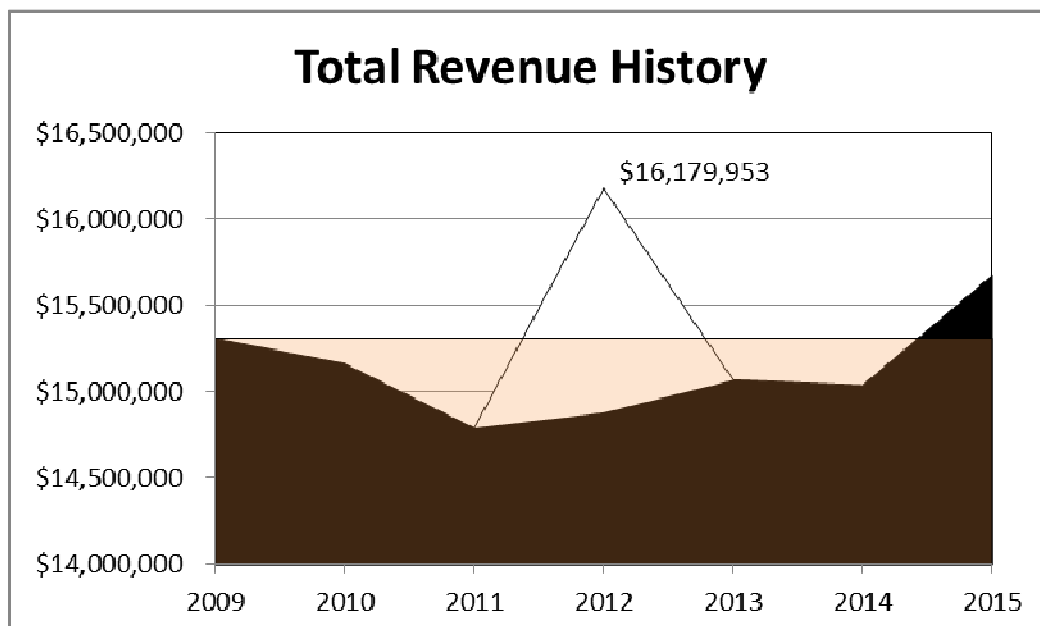
Total capital expenses for the motor vehicle/gas tax fund were approximately \$3.7 million in 2015. Of that total, approximately \$500,000 was used to leverage an additional \$3.5 million in outside funding from local, state and federal sources. Total capital expenses for 2015 from all sources were \$7,260,679.22.

Revenue

In 2015, total revenue exceeded \$15.6 million. After several years of lagging revenue, 2015 was the first year our regular revenue exceeded our 2009 revenue. In 2012, revenue spiked to more than \$16 million due to a one-time settlement of outstanding project reimbursements from ODOT and the OPWC in excess of \$1 million. However, if the one-time revenue is removed, our regular revenue for 2012 would be below 2009.

<i>MVGT REVENUES</i>	<i>2015</i>
Vehicle Registration	\$ 8,237,611.22
Gasoline Tax	\$ 2,224,129.49
Permissive Tax	\$ 4,138,038.73
Other Revenues	\$ 1,075,510.33
TOTAL	\$ 15,675,289.77

<i>MVGT EXPENSES</i>	<i>2015</i>
Salary & Benefits	\$ 8,303,732.45
Operations	\$ 1,911,879.05
Highway Maintenance	\$ 1,621,419.22
Capital Outlays	\$ 3,750,705.35
TOTAL	\$ 15,587,736.07



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For more information on projects of the Summit County Engineer's Office please contact us or check our website:

www.summitengineer.net

Pothole Season

Summit County Public Services Department is open Monday - Friday 7:30 a.m. – 4:00 p.m. for reporting any potential problems or concerns affecting the roadways throughout the County.

We also have a 24/7 reporting system to gather information reports of roadway problems. To report a pothole or roadway defect call 330-643-2860.

Thank you!

Thank you to the citizens of Summit County who alert us to problems they see along the roadways and who are patient when our construction and maintenance work causes inconvenience.

We are especially grateful to the Summit County Engineer employees who have embraced hard changes and who strive to provide the citizens of Summit County safe and smooth travel over our County highway system.



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