

CORNELL R. ROBERTSON, P.E., P.S. FRANKLIN COUNTY ENGINEER





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VISION

The Franklin County Engineer's Office is an agency of action, innovation, and collaboration. We provide for safe and efficient movement of people and goods from place to place by building and maintaining Franklin County's roads and bridges. We provide consistent and resourceful services such as surveying, engineering, inspection, construction, road maintenance, drainage, and snow and ice removal. We pride ourselves on consistently meeting deadlines and budgets. We are efficient with the taxpayers' dollars while utilizing innovative and unique funding sources.

The Franklin County Engineer's Office is a family-oriented organization where everyone is a leader. Our staff leads by example to encourage teamwork and growth. We ensure safety for all of our employees. We are passionate, approachable, and understanding of employee needs. We challenge employees to be the best they can be in a positive and respectful work environment. Employees enjoy a sense of accomplishment while doing important work for our community. Employees also support the community through charitable events such as blood drives, food bank fundraisers, and holiday gift sponsorships for the underprivileged. We acknowledge our employees' hard work with advancement based on performance and an excellent benefits package.

The Franklin County Engineer's Office is focused on offering a diverse and inclusive work environment where all employees are supported and have the opportunity to share ideas, to grow, and to succeed. We develop future leaders by providing training and education opportunities. Our team understands the importance of, and is committed to utilizing small and disadvantaged business enterprises through procurement and professional services. We actively pursue public engagement and outreach to underserved populations of Franklin County.

The Franklin County Engineer's Office is determined to better the community and is accountable to our role in that betterment. We build relationships with all surrounding communities and other agencies by understanding the importance of a safe and efficient regional transportation system. The Engineer's Office collaborates with our peers through community outreach and engagement. We are a credible voice in the engineering community because of our years of experience and our willingness to face challenges head on. We strive to assist the public by being approachable and open-minded to their needs and helping them get the answers they seek.

EXECUTIVE TEAM







Wm. Fritz Crosier, P.E.
Chief Deputy of Engineering



Brad Foster, P.E., P.S. Chief Deputy Engineer of Operations



Angie Phelps Chief Human Resources Officer



Terri Pritchard Executive Assistant



Jim Ramsey, P.E.
Riparian and
Environmental Engineer



Nick Soulas Government Affairs Liaison



Brent WelchChief Financial Officer



FRANKLIN COUNTY ENGINEER

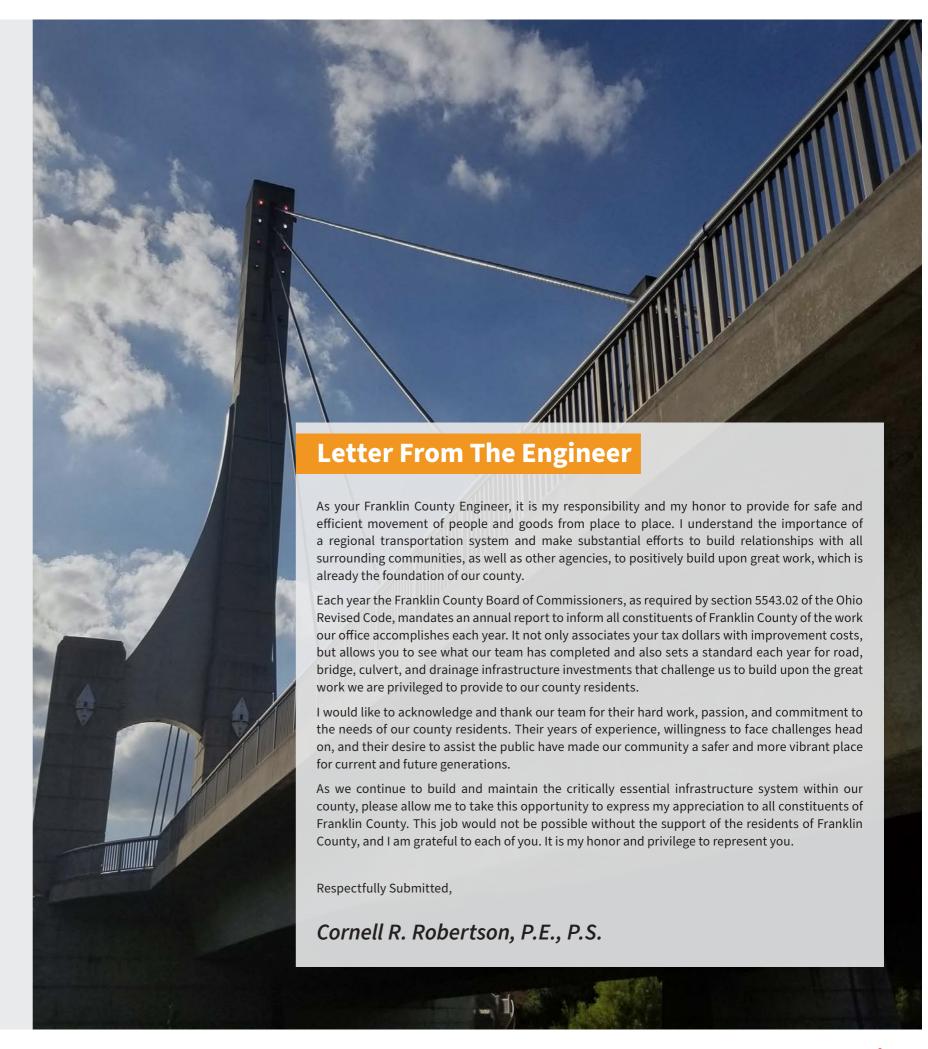


Cornell R. Robertson, P.E., P.S. is Franklin County's 8th county engineer. He began his career at the Engineer's Office in 1992 and has held positions in construction, design, support services, and overall engineering management.

Engineer Robertson received his Bachelor of Science Degree in Civil Engineering from The Ohio State University and is a registered Professional Engineer and Professional Surveyor in Ohio.

During his career at the Engineer's Office, Engineer Robertson has worked on the following noteworthy infrastructure projects: Lane Avenue Bridge over the Olentangy River, Broad Street Bridge over the Scioto River, Dublin Road from Fishinger Road to Hayden Run Road, Cleveland Avenue from Morse Road to Minerva Lake Road, and Alum Creek Drive at Groveport Road OHIO Interchange.

Engineer Robertson also negotiated a new Labor Union Contract for our bargaining employees, and submitted and adhered to fiscally responsible budgets. Currently, Engineer Robertson serves as the Franklin County Drainage Engineer, Chair of the Franklin County Transportation Improvement District (FCTID), and Chair of the District Public Works Integrating Committee (PWIC).





Locations



West Maintenance 4444 Fisher Road Columbus, Ohio, 43228 (614) 525-6780



East Maintenance 4801 Hendron Road Groveport, Ohio, 43125 (614) 525-6803



FCEO Tax Map Office 373 South High Street Columbus, Ohio, 43215 (614) 525-3084



192
Permanent Employees (24 New Hires in 2021)



19
Professional Engineers

Engineers In Training



Professional Surveyors

3 Surveyors In Training

FISCAL

Engineer Robertson strives to ensure the Franklin County Engineer's Office is a good steward of the tax dollars we receive while making sure all critical roles and responsibilities are met. Under his leadership, the Fiscal Department oversees all agency financial matters to include revenue, expenditures, and budgeting. While in the midst of the COVID-19 pandemic, the Franklin County Engineer's Office remained financially stable. Revenue generated from Motor Vehicle License Fees and Motor Vehicle Gas Tax serves as two of the agency's primary funding sources. In 2021, both sources outpaced projections by 8% and 7%, respectively, generating an additional \$2.7M into FCEO's road and bridge fund. Supply chain issues and labor shortages caused delays in the delivery of goods and services which meant several construction projects, equipment upgrades and facility improvements were postponed, and reimbursable work delayed. This resulted in actual expenses and total revenue being well below budgeted amounts. Overall revenue exceeded expenditures by more than \$150,000 supporting the agency's financial stability

Grant Revenue

In an effort to leverage the primary revenue streams, the agency actively seeks innovative funding sources for projects and office needs. Over the past year, the Planning & Programming Department successfully acquired nearly \$5M in grant funding from various sources, approximately 8% of the 2021 forecasted budget. In recent years, more communities are seeking grant funding which makes the application process far more competitive. However, the FCEO has remained nimble in light of the changing grant environment. Potential grant funding opportunities are identified early in the project development process. This practice allows potential grant requirements to be incorporated into the project scope which ultimately saves time and resources should funding be awarded. Grant funding is a critical funding component and #TeamFCEO will continue to identify and seek diverse funding opportunities.

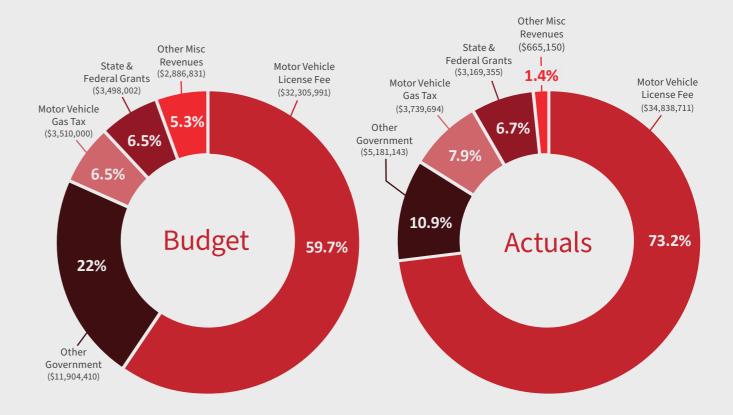
Funding Source	Project	Award Amount
Ohio Public Works Commission	Reynoldsburg-New Albany Road at Havens Road Roundabout	\$999,999
Ohio Public Works Commission	SR 317 at Rohr Road Roundabout	\$1,942,750
Ohio Public Works Commission	Sunbury Road Over Argyle-Woodland Run	\$249,999
Transportation Review Advisory Council (TRAC)	Alum Creek Drive from SR 317 to Groveport Road Widening	\$1.73M for Preliminary Engineering
Volkswagen Diesel Mitigation Trust Fund Award	Engine Replacement of Two FCEO Diesel Trucks	\$100,000
2021 Highway Safety Improvement Program (HSIP)	Franklin County High Crash Curves	\$36,725
Clean Ohio Trail Fund/Recreational Trail Program (COTF/RTP)	Hayden Run Road Over Scioto River	\$500,000
2021 County Engineers Association Organization (CEAO)	Roadside Hazard Compliance Plan	\$35,100
2021 County Engineers Association Organization (CEAO)	Advanced Curve Signs Upgrades	49,384

Diverse Suppliers

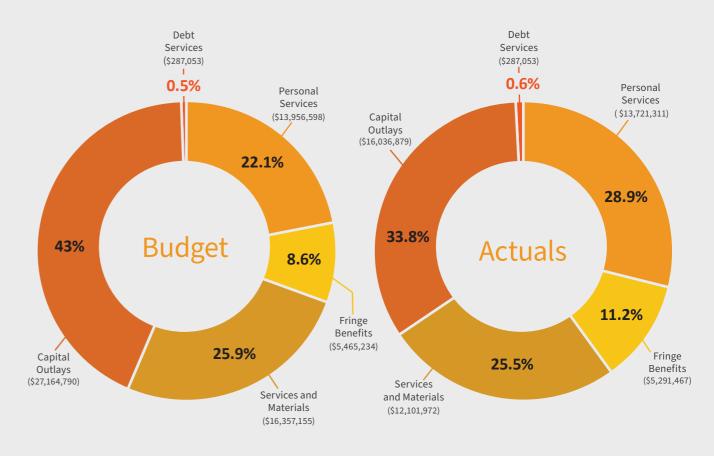
As part of Engineer Robertson's commitment to diversity, equity, inclusion, and belonging, he strives for the FCEO's business partners to be reflective of the rich diversity of Franklin County residents. Throughout 2021, #TeamFCEO intentionally identified and procured diverse consultants, contractors, suppliers, and vendors. In 2021, the Franklin County Engineer's Equitable Business Enterprise Program (FCE EBE) for Locally Funded Projects established a minimum 10% EBE participation goal on engineering and design related services agreements that have sub-consulting opportunities. A separate goal is established for construction projects. As a result of these combined efforts, the FCEO spent more than \$3M with certified businesses, 11.82% of total expenditures.



2021 Revenue Budget vs. Actuals



2021 Expenditures Budget vs. Actuals



ROADS & BRIDGES

Survey

Land surveying is the art and science of making measurements upon the land. The FCEO surveyors are often the first teammates on an infrastructure improvement project, while the project is still in the conceptual format, and the last teammates on the project once construction is complete. FCEO surveyors perform a wide variety of surveys including drainage, topographic, bridge and roadway for the design of engineering projects within the county. Survey data serves as the essential foundation for which engineering designs and property boundaries are based. Therefore, it is impossible to accurately design, build, or maintain Franklin County infrastructure without accurate survey data.

Design

Designing, building, and maintaining Franklin County's roads, bridges, and infrastructure for multiple modes of transportation is the mission of the FCEO. Infrastructure design occurs early in the project life cycle and is a critical step to fulfilling the agency's mission. The Highway and Bridge Design Departments often work collaboratively to create an integrated infrastructure system that focuses on safety as we work towards our goal of zero deaths on approximately 258 miles of Franklin County roadways. Highway improvement projects are designed to address safety concerns, resolve existing or anticipated capacity concerns, and alleviate drainage failures. Whereas, the Bridge Design Department provides a variety of engineering services that ensure the safe operation and structural integrity of the County's bridges and culverts. Both departments consider complete streets design principles to ensure that multiple modes of transportation are incorporated into project design when feasible. The departments utilize in-house design services and contracts with private engineering consulting firms to support the FCEO's robust infrastructure program.

As part of the design process, it is necessary to assess the need for additional right-of-way as well as the installation and or relocation of utilities. The Real Estate Department acquires the right-of-way needed for the construction of county road, bridge, and drainage improvement projects. The department provides support to the Franklin County Transportation Improvement District (TID), Franklin County Board of Commissioners, and a host of other local agencies.

The Utilities Department oversees the installation and relocation of all utilities within the County right-of-way. Their work is essential to the timely construction of capital improvements and major maintenance projects which often begin with the relocation and upgrade of water, sanitary sewer, natural gas, electricity, and communication lines. The department also inspects all subdivisions for county acceptance within the townships, provides inspection for all privately funded projects within county right-of-way, reviews plans and permit requests for all work within the right-of-way, and locates all storm sewers within the right-of-way as requested through OHIO811.

Highway Design

The Highway Design Department is responsible for overseeing the design of capital improvement projects and providing design review and approval of privately sponsored improvement projects. In 2021, the department reviewed 211 plan sets for various stakeholders. Additionally, the in-house design team led, or contributed to, 15 improvement projects and provided design assistance to three (3) townships. At the close of the year, the team was actively managing 25 capital improvement projects in various stages of design with private consulting firms.





Bridge Design

In addition to managing the development of construction plans and cost estimates prepared by engineering consultants and department staff, the department also oversees a robust bridge inspection program. Each year 365 bridges and 147 culverts are inspected and inventoried throughout the County. Based on the findings, a detailed maintenance plan is developed or the structure is scheduled for rehabilitation or replacement. The department utilizes strict quality control standards to meet state and federal regulations.







2021 Bridge Inspection Summary

		General Appraisal - Condition Rating										
Township	Total # of Structures	9	8	7	6	5	4	3	2	1	0	N/A
Blendon	18		5	5	6	1	1					
Brown	16		7	5	3	1						
Clinton	9		4	1	2	1	1					
Franklin	31		11	11	7	1	1					
Hamilton	15		8	2	2	2	1					
Jackson	50	2	25	12	6	5						
Jefferson	35		21	9	4	1						
Madison	38	1	12	10	8	5	2					
Mifflin	15		3	7	2	3						
Montgomery	2			1	1							
Norwich	28		13	6	8	1						
Perry	6		4	2								
Plain	28		13	9	4		2					
Pleasant	22		10	6	1	4	1					
Prairie	13		8	1	3	1						
Sharon	9		3	4		1	1					
Truro	12		5	3	2	2						
Washington	18		9	2	5	1	1					
Total	365	3	161	96	64	30	11					

Condition Rating Codes

3 - Serious

9 - Excellent 8 - Very Good

ood

2 - Critical

7 - Good

1 - Imminent Failure 0 - Failed

6 - Satisfactory

5 - Fair

4 - Poor

N/A - Structure is under construction and will get general appraisal upon completion

CONSTRUCTION

The Construction Services Department administers federal, state, and locally funded projects through collaboration with contractors, suppliers, partner agencies, and constituents. Essentially, they are responsible for transforming two-dimensional plans into three-dimensional infrastructure. Their primary responsibilities are to oversee the FCEO capital improvement projects. However, they also provide services to the Franklin County Drainage Engineer, local municipalities, and partner agencies. Material delays, as a result of supply chain issues related to the COVID-19 pandemic, caused several projects scheduled for construction in 2021 to be postponed. Despite these delays, the department still managed a robust construction program. The department oversaw seven (7) capital improvement projects, two (2) Franklin County Drainage Engineer projects, and four (4) partner agency projects. Additionally, the department assisted with the implementation of the FCE EBE program and reported project payments of over \$690,000 and an additional \$93,000 to EBE consultant firms for material testing and inspection, totaling more than \$783K to Equitable Businesses Enterprises.

Capital Improvement Projects

Eureka Avenue, Valley View Drive, Highland Avenue, & Harper Road Paved Shoulder Improvement

The project installed a missing link in the Camp Chase Trail Path by providing paved shoulder improvements of 0.05 miles along Eureka Avenue, 0.19 miles along Valley View Drive, and 0.08 miles along Highland Avenue. The project also installed an ADA compliant shared-use path crossing the Midwest & Bluegrass Railroad at Eureka Avenue. Additionally, the project improved drainage, resurfaced roadways, installed new signage, and installed new pavement markings. The project was substantially completed on December 3, 2021. The



project included payments of more than \$41,800 to Equitable Business Enterprises and exceeded the overall project EBE goal of 6%. Columbus Asphalt Paving was the contractor for this \$595,000 project. The Franklin County Engineer coordinated this project with, and provided the road closure maintenance of traffic for, Midwest & Bluegrass Rail for their replacement of the railroad crossing at Eureka Avenue.

Groveport Road & Saltzgaber Road Improvement - Part 1 and Improvement of Toy Road, Swisher Road & Saltzgaber Road - Part 2

Part 1 of the project widened and improved drainage on 1,700 feet of Groveport Road and 2,500 feet of Saltzgaber Road. Part 2 of the project constructed dual cul-de-sacs on Toy Road, improved drainage, and installed an asphalt overlay along Toy Road, Swisher Road, and part of Saltzgaber Road. Swisher Road and Saltzgaber Road were reopened to traffic on November 19, 2021. The project included extra work to close Toy Road between the cul-de-sacs through a combined public outreach effort from the City of Groveport,



Madison Township, and the Franklin County Engineer. The project included payments of more than \$379,000 to Equitable Business Enterprises toward the project EBE goal of 6%. Shelly & Sands was the contractor for this \$ 2,264,000 collaborative project between the City of Groveport, Madison Township, the Paul Hemmer Company, the Franklin County Transportation Improvement District, and the Franklin County Engineer.

Hoover Road 2.04 over Tributary of Grant Run

The project included the complete replacement of the existing bridge over a tributary of Grant Run with a precast, reinforced concrete, 4-sided box culvert. The Franklin County Engineer used innovation on the new structure by lengthening the barrel and extending the roadway shoulders which eliminated the need for guardrails. Additional work included realigning the stream and approach roadway work. Hoover Road was reopened to traffic 1 day ahead of schedule on November 3, 2021. The project included payments of more than \$17,900 to Equitable Business Enterprises toward the project EBE goal of 6%. Double Z Construction Company was the contractor for this \$338,000 project.



Olentangy River Road Storm Sewer Improvement

The project installed a new storm sewer system with inlet structures to correct a drainage problem causing slope erosion along Olentangy River Road. Additionally, the project repaired the eroded slope, replaced the guardrails, and provided channel protection along Turkey Run. The project was completed 36 days early on June 25, 2021. The project included payments of more than \$15,800 to Equitable Business Enterprises and exceeded the overall project EBE goal of 10%. Shelly & Sands was the contractor for this \$169,000 project.



Ormond Avenue Drainage Improvement Part II

The project installed a new storm sewer system on the south side of Ormond Avenue between Cleveland Avenue and Walford Street. Additionally, pedestrian mobility was improved by the addition of a sidewalk. The project was completed 28 days early on August 20, 2021. The project included payments of more than \$29,000 to Equitable Business Enterprises and exceeded the overall project 5% EBE goal. Driven Excavating was the contractor for this \$398,800 collaborative project between Clinton Township and the Franklin County Engineer.



Private Water Service Plan for Franklin County Engineer East Maintenance Facility

The project installed a water service connection to the public water main. The new service was connected to the drinking water system on November 22, 2021. The project included payments of more than \$8,400 to Equitable Business Enterprises and exceeded the project EBE goal of 3%. Strawser Paving Company was the contractor for this \$167,000 project.



Refugee Road 5.99 over Big Walnut Creek

The project rehabilitated the existing bridge over Big Walnut Creek by removing the existing exterior structural steel beams and replacing them with high-strength steel beams. The new structural steel beams added capacity to the bridge and allowed the bridge to be widened and reconstructed to include a shared use path for pedestrian mobility. The project connected the shared-use path to existing walkways on the west side of Big Walnut Creek and extended the shared-use path along Refugee Road to connect Nafzger Park to existing



walkways at Noe-Bixby Road. Lane restrictions on Refugee Road were removed and the roadway was fully open to traffic 46 days early on November 19, 2021. The project included payments of more than \$275,000 to Equitable Business Enterprises toward the project EBE goal of 12%. Shelly & Sands was the contractor for this \$2,589,000 collaborative project between the City of Columbus and the Franklin County Engineer.

Franklin County Drainage Engineer Projects

2020-21 General Drainage Maintenance & Repair Services

Construction Services provided construction contract administration for the Franklin County Drainage Engineer on the General Drainage Maintenance & Repair Services project. The project improved drainage on McCoy Ditch, Hamilton Ditch, Feder Ditch, Copley Ditch, and the Reserve at Clark State detention basin in 2021. Improvements included the installation of conduits, catch basins, swales, and the removal of sediment. In 2021 the project completed over \$988,000 in drainage improvements and included payments of more than \$38,000 to Equitable Business Enterprises toward the project EBE goal of 3%. J&J Schlaegel was the contractor for this project.



Clark State Road and Longstreth Park Place Drainage Improvements

The project provided an outlet for the storm sewer system in the Longstreth Subdivision by installing 1,200 feet of new storm sewer conduit and drainage structures to correct a drainage problem causing flooding on Longstreth Park Place. The project was completed on May 17, 2021. Construction Services administration enabled a budget savings of over \$17,000 in the completion of the work. The project included payments of more than \$41,000 to Equitable Business Enterprises and exceeded the overall project EBE goal of 4%. Shelly & Sands was the contractor for this \$482,000 collaborative project with Jefferson Township.



Collaborative Projects Advertised and Awarded By Partner Agencies

Reconstruction of 50 East Mound Street into a Paved Parking Lot

The project will construct a parking lot for the Franklin County Board of Commissioners and install stormwater management facilities, electronic security gates, lighting, and necessary greenspace improvements. The project began in October of 2021 and will be completed in Summer of 2022. This was a collaborative project between the Franklin County Transportation Improvement District, the Franklin County Board of Commissioners and the Franklin County Engineer. Shelly & Sands, Knight Electric, and MP Dory are the contractors for this \$1,025,000 project.



Bixby Road and Groveport Road Improvement Project

Construction Services provided construction contract administration for the City of Obetz on their Bixby Road and Groveport Road project. The improvement included the reclamation and overlay of 3,500 feet of Bixby Road beginning at Groveport Road and heading west to the corporation limit. The project included pavement widening on Groveport Road at the Bixby Road intersection, installation of 3,200 feet of shared-use path, drainage improvements, and traffic signal work at the intersection. The project was completed on November 19, 2021. Strawser Paving was the contractor for this \$1,712,000 collaborative project with the City of Obetz.



Bixby Road Phase 2 Rehabilitation and Path Improvement & Bixby Road 3.45 over Holton Ditch

Construction Services provided construction contract administration for the City of Groveport on this project, which rehabilitated 3,200 feet of Bixby Road and constructed an asphalt path from 3565 Bixby Road to the Three Creeks Park Confluence Trails Area entrance at 3860 Bixby Road. The Bixby Road over Holton Ditch project replaced an existing concrete slab culvert built in 1900 within the rehabilitated limits of Bixby Road. The project was completed on time and Bixby Road was reopened to traffic on November 19, 2021. Strawser Paving was the contractor for this \$1,581,000 collaborative project between the City of Groveport and the Franklin County Engineer.



Galloway Road Improvement

Construction Services provided construction contract administration for Prairie Township on the roadway widening portion of their Galloway Road Improvements project. The improvement constructed a new entrance to the Prairie Township sports complex, improved drainage, and widened Galloway Road to construct a turn lane. The project was completed on time and Galloway Road was reopened to traffic on September 2, 2021. Trucco Construction Company was the contractor for this \$845,000 collaborative project with Prairie Township.

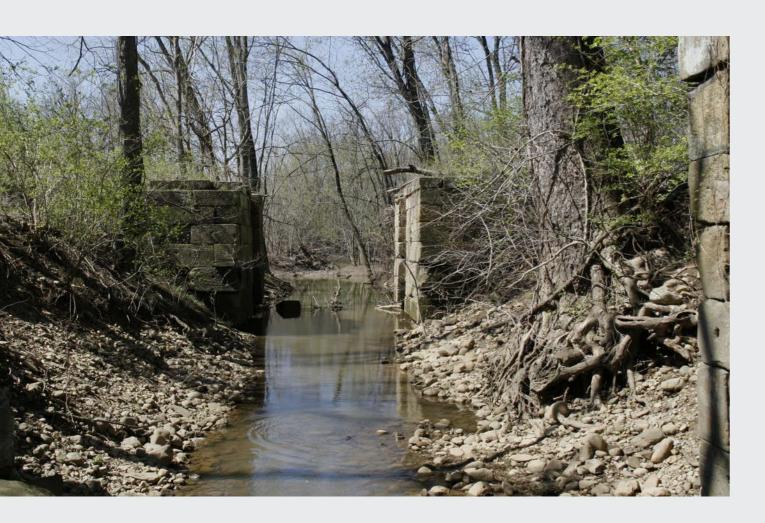


DRAINAGE **ENGINEER**



The Franklin County Drainage Engineer's Office (FCDEO) better water quality in unincorporated areas through

property, assistance can be requested through the works to control flooding, prevent erosion, and promote county's ditch petition process. In 2021, the County's petition ditch inventory included 94 miles of open ditches the repair and improvement of county and joint county and 147 miles of closed (tiled) ditches constructed ditches, drains, retention basins, and other watercourses. through the Drainage Improvement Petition Law. The The department works closely with the Franklin County Franklin County Drainage Engineer rehabilitates and Board of Health, Franklin Soil and Water Conservation maintains these improvements using funds provided by District, Ohio Environmental Protection Agency, and the Franklin County Board of Commissioners from the other government agencies and environmental groups to County General Fund. Developers construct drainage resolve drainage issues and develop regional stormwater infrastructure in new subdivisions and property owners management plans. While the Drainage Engineer is not are assessed maintenance fees for long term maintenance responsible for stormwater management on private as allowed by the Drainage Improvement Petition Law.





MAINTENANCE

Designing and building roads, bridges and infrastructure are critical to the safe and efficient movement of people and goods throughout Franklin County. However, it can be said that infrastructure maintenance is equally as important, if not more important, to achieve this goal. FCEO has a strong maintenance program, and we pride ourselves in providing top-tier service on all roads within the county infrastructure system. Providing quality maintenance makes it safer for the traveling public, extends the useful life of county infrastructure, and ultimately saves taxpayer resources.



Bridge/Utility Maintenance

The Bridge/Utility Maintenance Department is comprised of a group of highly skilled teammates that provide a wide range of maintenance services ranging from graffiti removal to complete bridge or culvert replacement. The team works closely with the Bridge Design Department to assist with confined space entry inspections, routine bridge and culvert maintenance, as well as providing

emergency repairs. The team also performs drainage improvements and repairs on behalf of the Franklin County Drainage Engineer. Their most notable project of 2021 was the complete replacement of the Borror Road Bridge over tributary to Strader Ditch. The complex emergency repair was completed under budget and ahead of schedule.

Roadway Maintenance

The Highway Maintenance Department is responsible for road and right-of-way maintenance throughout the year. Teammates provide 24-hour emergency services 7 days a week. The services provided change based on season and weather conditions. During the spring months, the team performed an extensive two-week litter removal service in preparation for mowing activities. In 2021 the team removed nearly 11 tons of litter and debris from the roadway and road right-of-way. During the spring and summer months crews focus on mowing activities, drainage improvements, road repairs such as crack sealing, resurfacing and durapatching, and surface treatment to establish and repair berms. During the winter months, the focus shifts to snow and ice removal. The past winter season was one of extremes. While December and February brought some of the worst winter weather seen in years, January and March were fairly mild. Despite the unpredictable weather,

crews responded to 56 snow and ice events and utilized 7,747 labor hours. The equipment, labor, and material costs for snow and ice operations during the 2020-2021 season was approximately \$2,277,533. In an effort to utilize environmentally friendly resources during snow and ice operations, the FCEO administers the Franklin County Cornstalk Snow and Ice Mitigation Program. The program, which was developed in 2000, partners with area farmers to use cornstalks as a barrier to mitigate the impact of blowing and drifting snow across the roadways in rural areas of Franklin County. Less snow and ice accumulation on the roadways, reduces the labor hours and materials necessary to keep the roads clear and ultimately makes it safer for the traveling public. In the 2020-2021 snow and ice season, the program partnered with 25 farmers and cost approximately \$14,159.50.





Resurfacing

Each year the Resurfacing and Special Projects utilized economies of scale to provide better pricing, and Department performs an inventory and inspection of county-maintained roads. The roads are then analyzed using a pavement condition index (PCI) and prioritized for scheduled resurfacing. In 2021, the FCEO administered two major paving and road maintenance projects; the Franklin County Resurfacing Program, and the Franklin County Township Resurfacing Program. The FCEO administers an annual county resurfacing program to manage the resurfacing of county roads more efficiently. Fifteen Franklin County roadways totaling 19.938 centerline miles were milled and resurfaced. The contract was awarded to the Shelly Company in the amount of \$2,997,635.61. The program also included \$392,372.62 in pavement marking upgrades. Collaboration with the City of Columbus, the City of Grove City, and the City of Hilliard.

The township resurfacing program functions similarly to the county program. The FCEO coordinated with 11 Franklin County townships to administer a countywide resurfacing program for township roads. The FCEO assisted townships to identify roadways to be resurfaced,

provided project inspection services. Nearly 19 centerline miles of roadway were resurfaced, approximately 100,141 square yards of crack seal was placed, and \$71,200.86 of pavement markings installed.

The FCEO seeks to be good stewards of the environment by utilizing sustainable materials when possible. The Federal Highway Administration (FHWA) supports and promotes the use of recycled highway materials in pavement construction in an effort to preserve the natural environment, reduce waste, and provide a costeffective material for constructing highways. The FCEO used up to 15% reclaimed asphalt pavement (RAP) in the surface course and up to 20% in the intermediate course of the Franklin County Resurfacing Program. Higher amounts of RAP are still being evaluated for viability and effectiveness and may be used in future projects. As part of the County Program, wet reflective pavement markings were used on Dellinger Road. This innovative product improves pavement marking visibility during nighttime wet and rainy conditions.





Guardrail

The Guardrail Maintenance and Upgrade Program is a three-year contract to repair guardrail throughout Franklin County damaged in crashes or in need of upgrade. During 2021 nearly 1,700 linear feet of guardrail and 31 guardrail end treatments were replaced in Franklin County. Fifteen locations throughout Franklin County were serviced under this contract which was awarded to the MP Dory Company in 2020 for \$346,700.00 to be used over a three-year period.



Mobility

The Mobility Department supports with the M.P. Dory Company for committed to providing safe and for the residents of Franklin County utilizing multiple modes of transportation. Mobility teammates ensure that roadway signage, traffic signals and pavement markings are kept in excellent condition to ensure the safety of the traveling public. Roadway signs help reduce the rate of car crashes, help ensure the safety of pedestrians, and help drivers know how to communicate with other drivers in a non-verbal way that keeps us all safe. Franklin County maintains more than 1,000 roadway signs throughout the county. More than 200 signs were reset, 150 signs were replaced, and 91 new signs were installed. There are 65 county-maintained traffic signals at various locations throughout Franklin County. An infrastructure maintenance agreement was entered into

the mission of the FCEO by being \$564,151.00 to provide traffic signal maintenance services. More accommodating mobility options than 97% of the signal callouts received a response within 2 hours of the initial call. The FCEO has a dedicated maintenance crew that focuses on installing pavement markings on county-maintained roadways. Typically, roads are restriped every 2-3 years. In the past year, 55 roads were restriped, and hot tape was installed in 36

> addition to providing maintenance services, the Mobility Department prepares traffic studies to determine safe speed limits, multi-way stops, no parking zones, traffic signal, and roundabout locations. The department also works closely with the Franklin County Economic Development and Planning Department to review zoning and development cases as well as annexation requests.

Pounds of Reflective

Beads Used In Paint

Annexations Reviewed & Processed • 68 Preliminary

• 22 Final

Zoning & Development Cases Reviewed

• 9 City development cases

63 Franklin County zoning cases

• 13 Traffic impact studies

• 46 Lot splits



Tax Map

The Tax Map Office collaborates with the Mobility Department to assist with annexation, zoning, and development matters while also maintaining the County Auditor's Geographic Information System (GIS). Survey data is used to ensure the mapping accuracy of the property layers in the County GIS. The office also reviews legal documents such as deed descriptions and subdivision plats submitted by the constituents of Franklin County for the transfer of land to ensure they meet the "Minimum Standards for Boundary Surveys in the State of Ohio" and the "Franklin County Conveyance Standards". They serve as one of the FCEO's most outward facing offices serving thousands of customers annually. As the number of home sales and property transfers increased, the office experienced an increase in the number of reviews related to deed restrictions, subdivision plats, and annexation plats. The office also saw a five percent (5%) increase in the number of new addresses assigned.

- •3,736 **Parcel Splits**
- •73 Subdivision Plats Reviewed
- 184 Condominium Plats Reviewed
- 48 Annexation Plats/ **Descriptions Reviewed**
- ·256 **New Addresses Assigned**

Safety

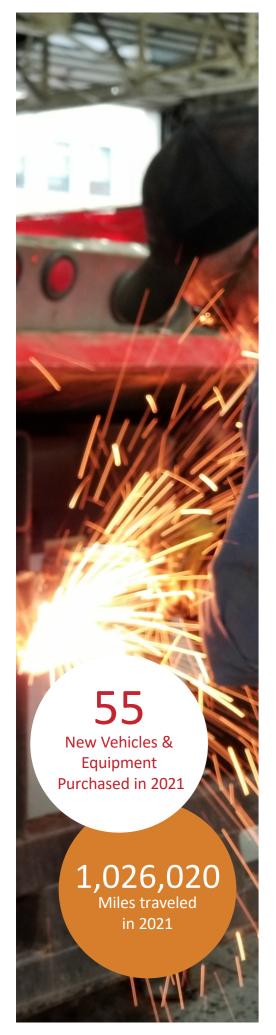
The Safety Department seeks to increase the safety culture at the FCEO by developing, implementing, and enforcing FCEO safety & health policies and procedures to and Miller Fume Extractors, both of which will improve reduce the risk of accidents and worker injuries. In 2021, the department focused on implementing training for work-related activities to ensure teammates were able to perform their duties safely and efficiently. Random worksite inspections, as well as routine facility inspections, were conducted to ensure hazards were being recognized, abated, and hazardous materials were properly disposed of. The FCEO Safety and Health Manual was updated as purchased to reduce the risk of accidents and injuries on was the FCEO Respiratory Protection Plan. A respiratory hazard assessment was conducted for each department

within the Operations Branch. The risk analysis led to the purchase of Powered Air Purifying Respirators (PAPRs) the respiratory protection of teammates. In an effort to increase the visibility of fleet vehicles and equipment working in the roadway or right-of-way, reflective decals were installed on pick-up trucks, dump trucks and construction equipment. The addition of reflectivity to fleet vehicles and equipment is proven to reduce the risk of roadway accidents. A crash attenuator was also high traffic roadways.









Fleet Maintenance

The Fleet Department is responsible for providing, maintaining, and repairing nearly 400 fleet vehicles and pieces of equipment throughout the agency. Inventory and related costs are tracked from purchase to disposal through asset management software and GPS-based telematics. Providing operable vehicles and equipment allows teammates to focus on designing, building, and maintaining Franklin County's roads, bridges, and drainage infrastructure for the traveling public. The department acquires and prepares new vehicles and equipment for service, performs preventative maintenance, major and minor repairs, modifications, and disposes of vehicles and other related equipment. In 2021, the department completed 2,188 work orders ranging from general service to autobody repairs.

2021 Work Orders				
General Repairs/ Service WO's	969			
Body/Cab	224			
Preventative Maintenance Full Service	422			
Tire Repair	60			
Tire Replacement	76			
Brake Work	80			
Electrical Work	346			
Snow & Ice Inspection & Repairs	37			
Tractor & Mott Repairs	84			
Hydraulic Repairs	88			
Total Number Of Work Orders	2,188			

2021 Total Cost of Repairs					
Outsourced Equipment Repair	\$113,966.85				
Outsourced Vehicle Repair	\$48,723.44				
Towing Expense/ Oversize Load Transport	\$12,245.00				
Total Cost of Parts, Supplies, and Accessories	\$430,619.27				

Grounds Maintenance

The Grounds Maintenance Department is responsible for preserving the grounds at the FCEO 970 Dublin Road location. In the warmer months, the grass is mowed and trimmed, and flower beds are planted and weeded to keep the landscape looking great. In 2021, the flower beds were redesigned, and perennial and annual flower colors were changed. During the winter, the FCEO pavement is kept clear of snow and ice to ensure teammates are safe as they maneuver throughout the facility.

Additionally, the Grounds Maintenance Department maintains and distributes FCEO inventory such as the Franklin County road map and atlas, uniforms, safety equipment, supplies and tools. They also support other FCEO departments. In 2021, Grounds Maintenance teammates assisted the Bridge Department by ensuring that the irrigation system remained intact during a water line placement. They also collaborated with the Fleet Department to clean and repurpose garage space. The Grounds Maintenance Department will continue to support the FCEO and departments where necessary.

Department Highlights

- **201,303** Square Feet Pavement cleared and clean on snow and ice
- **36,332** Square Feet Grass area mowed and trimmed

- **8,300**Atlases distributed
- 17,800 Maps Distributed



SUPPORT SERVICES

8,300
FCEO Atlases
Distributed

17,800
FCEO Maps
Distributed

Asset Management and GIS Administration

In recent years, FCEO has acquired an asset management and GIS software system called VUEWorks to improve organization and decision-making based on user-created data. The Asset Management and GIS Departments work collaboratively to manage this system and support FCEO's goals. VUEWorks allows FCEO teammates to improve efficiency by tracking and utilizing costs, creating work orders, monitoring inventory and equipment. In 2021, the Fleet Facility Module in VUEWorks was updated to portray insurance report attributes. The system also provides geospatial information that allows users to locate assets.

60 GIS layers were created and updated, totaling 100,262 assets in 2021.

In addition, the Asset Management and GIS Departments collaborate to support FCEO by compiling geospatial information for cartography and retrieving data. The GIS department also develops and publishes the Franklin County Road map and atlas in physical and digital formats. A new edition of the map and atlas is published every two to three years. In 2021, the department made 244 map updates to incorporate 54 new roads.



VUEworks Highlights (2021)

- \$ 1,897,442 Inventory Value
- 4,245 Inventory Items
- 4,722 New Work Orders Created

Information Systems

The Information Systems (IS) Department delivers business services and systems that support the FCEO. As the COVID-19 pandemic infection rate fluctuated in 2021, FCEO teammates were allowed to continue teleworking parttime. Improvements were made to increase accessibility and enhance the teleworking experience. The Mitel phone system was upgraded for the first time in over ten years, which included software and equipment upgrades. Teammates who previously worked on desktop computers transitioned to laptops and mobile docking workstations. In 2021, 50 laptop computers were deployed compared to approximately one dozen in previous years. As the remote

working environment continues, the IS Department will continue to seek opportunities to enhance the teleworking experience for FCEO.

Additionally, in 2021, FCEO's security and access control systems were improved. The security cameras were updated to provide better coverage with optimal utilization of digital storage. The security gates at three FCEO locations were upgraded to support automatic gate access readers. The IS Department will continue to seek new and existing technology and techniques to further support FCEO and its goals.







DIVERSITY & INCLUSION



The Diversity and Inclusion (D&I) Department fosters an inclusive culture where diversity is both welcomed and supported. They promote an environment that is uplifting, encouraging, and supportive so that all employees, business partners, and residents of Franklin County feel valued, respected, and relevant every day. There are three pillars (Workforce Team; Vendors, Suppliers, Consultants, Contractors; and Community Outreach and Public Engagement) that guide the D&I initiatives.

The Employee Investment Program (EIP) supports the Workforce Team pillar by promoting the development of employees through mentorships, training, and employee engagement. In 2021, the department met the programmatic goals while navigating the virtual work environment. The FCEO Mentorship Program allows teammates to shadow

individuals or departments to learn more about the work the FCEO does and to provide opportunities for cross-training. There were two mentorship sessions held, with 38 unique teammates participating throughout the year. As part of the annual diversity and inclusion training program, the 2021 theme was cultural competency. More than 96% of #TeamFCEO participated in the workshop and completed the training. In an effort to keep employees connected, the Bridge the Gap Committee, an employee engagement committee, facilitated several virtual and in-person events. Some of the events included volunteering at the St. Stephen's Community House Food Pantry, a local pizza challenge, and an ugly sweater contest. Despite the virtual environment, teammates remained connected through the various initiatives.

As stated in the Vision Statement, the Franklin County Engineer's Office (FCEO) "understands the importance of, and is committed to utilizing small and disadvantaged business enterprises through procurement and professional services." The Franklin County Engineer's Equitable Business Enterprise (FCE EBE) Program was developed to ensure disadvantaged businesses have an equal opportunity to receive and participate in FCEO-administered contracts and procurement activities, and to promote the use of disadvantaged businesses in all types of contracts and procurement activities conducted by the office. In 2021, the FCEO EBE was implemented on 11 locally funded projects. The projected EBE utilization rate for construction projects was 8.4%, approximately \$1.7M.

As part of the FCEO's commitment to serving Every Resident, Every Day the agency actively participates in community outreach and public engagement. In 2021, the agency resumed many of the activities that it participated in prior to the COVID-19 pandemic such as the Franklin County Fair, Touch-A-Truck, Adopt-A-School program, community festivals, and local area commission meetings. In September 2021, the agency expanded this initiative and continued the partnership with Cristo Rey High School to allow high school work-study students to work at our office. The students performed various office tasks while also learning about how we serve the community as part of their work-study experience. The program was so beneficial, that the agency intends to participate in the future.







An Agency of Action, Innovation, and Collaboration

Borror Road over Tributary of Strader Ditch Improvement

Each year the FCEO inspects 365 bridges and more than 147 culverts. During these inspections, the Bridge Design Department identifies areas of deterioration, defect, or potential problems that may require maintenance. The Borror Road over Tributary of Strader Ditch Improvement project, located in southwest Franklin County in Jackson Township, was rated in poor condition following its 2021 inspection. The bridge's rapid deterioration in recent years required immediate action and elevated the replacement priority. Therefore, in Spring 2021, the project was sent out for bid on two separate occasions. Following each bid, the FCEO was unable to enter into a contract because the bids were well above the maximum allowable amount (110% of the engineer's estimate).

Without a viable contractor, and due to the poor condition of the bridge, Engineer Robertson felt it was necessary to request the Franklin County Board of Commissioners (BOC) declare the repair an emergency so that the project could be completed utilizing force account labor. Following the emergency declaration, the Bridge/Utility Maintenance Department began construction on August 2, 2021. The project replaced the existing structure with a 12' by 6' box culvert and completed approach roadway work. The existing structure was removed, excavation

was completed, new footers were formed and poured, the box culvert was set and the wing walls were poured. Despite weather delays, the roadway reopened on September 3, 2021, 14 days ahead of schedule. The project was also completed under budget, saving the tax payers over \$200,000.







The Borror Road over Tributary of Strader Ditch Improvement project embodies the spirit of action that #TeamFCEO promotes to provide safe and efficient roadways for the traveling public. Engineer Robertson and #TeamFCEO were proactive to ensure that the repairs would be made in a timely fashion. The project was complex and required the coordination of multiple departments within the organization

and several outside partners. However, the safety of the traveling public was paramount and guided Engineer Robertson to seek an emergency declaration to quickly address the deteriorating condition of the bridge with force account labor. The swift methodical actions of the team improved the safety of the traveling public while also being good stewards of taxpayer dollars.

Project Highlights

- Project Design: CT Consultants, Inc.
- Project Construction: Franklin County Engineer's Office Bridge Department
- Project Inspection: Mannik & Smith Group, Inc.
- Estimated Construction Cost: \$138,542
- Funding Provided by: Franklin County Motor Vehicle Registration and Gas User Fees
- Total Closure: 31 days

An Agency of Action, Innovation, and Collaboration

Creating A More Efficient & Sustainable Fleet

The Franklin County Engineer's Office is dedicated to maintaining its fleet in a manner that is safe, efficient, and environmentally conscious. The Geotab telematics system provides valuable data on fleet performance. Enhanced data allows the FCEO to proactively manage the fleet using quantitative-based decision-making. Over a decade ago, the FCEO installed telematics on snow and ice vehicles. In recent years, the system was upgraded and expanded to the entire fleet to help improve driver safety and operational efficiency. The system monitors aggressive or unsafe vehicle operations, such as not wearing a seatbelt, speeding, swerving, harsh braking, and rapid acceleration based on safety parameters established by the fleet manager. The upgraded system provides real-time feedback supporting teammates' safe driving practices.

The telematics system improves operational efficiency by monitoring fleet utilization, idling, fuel consumption, maintaining health reports, and performing remote diagnostics. Utilization reports show fleet usage based on engine hours and mileage. Proving data in both units of measurement allows the fleet manager to schedule maintenance, analyze equipment life cycle more accurately, and support vehicle and equipment purchases. Health reports monitor the mechanical condition of the fleet and identify

potential issues. Remote diagnostics examines mechanical issues identified on the health report or relayed by the driver. This may help identify the severity of the problem allowing time to develop a plan of action before the vehicles return to the garage, thus reducing vehicle/equipment downtime. In the past, vehicle idling was a







major problem within the fleet despite a policy that prohibited such practices. Idling reduces fuel economy, may lead to mechanical damage, and is bad for the environment. However, idling hours were drastically reduced following the implementation of the telematics system upgrade. Decreasing idling hours improved fuel economy and reduced emissions.

In support of the FCEO's commitment to being a more sustainable organization, biodiesel was identified as a viable alternative fuel source. It improved efficiency, and ultimately saved is a clean-burning renewable fuel made from taxpayer dollars. The FCEO's conversion to

soybean American that reduces the FCEO's carbon footprint and required no modification to the fleet. Armed with the data provided through the telematics system, Maintenace was able to carefully monitor any changes related to vehicle performance maintenance that may have occurred because of the switch. In 2019, diesel-powered

vehicles and equipment were converted to B20 biodiesel from April to November and B5 biodiesel from December to March to optimize seasonal performance. In November 2021, the fleet switched to using B20 biodiesel throughout the year. Any initial apprehension was eliminated by the data that showed no adverse effects on the fleet. The cost of biodiesel has been equal to or

slightly below the cost of diesel. While the agency hasn't seen significant cost savings, the emission reduction is noteworthy. On average, the agency realized a 15% emissions reduction in 2021.

Fleet Maintenance utilizes technology to increase driver safety, improve fleet management, and reduce the environmental impact of the organization's vehicles and equipment. Upgrading the telematics system shifted the department into proactive decision-making, improved efficiency, and ultimately saved taxpayer dollars. The ECFO's conversion to

2021 FCEO BIODESIEL RELATED EMISSIONS REDUCTION

Category	Emissions Reduction (lbs.)	Emissions Reduction (%)
Particulate Matter	-95.041	-11.62
Hydrocarbons	-124.731	-19.47
Carbon Monoxide	-1,055.1	-11.92
Sulfur Dioxide	-65.23	-19.34
Carbon Dioxide	-278,548.61	-14.8

biodiesel reduced emissions without sacrificing performance or increasing costs. These innovative measures support the mission and vision of the organization and allow Fleet Maintenance to be more responsive to the needs of #TeamFCEO and Franklin County stakeholders.



An Agency of Action, Innovation, and Collaboration

Franklin County Engineer's Touch-And-Ride-A-Truck

engagement, #TeamFCEO regularly participates in outreach events that allow teammates to interact with the Franklin County community. The FCEO Touch-And-

commitment to public by allowing kids to explore and learn about the various vehicles road. In 2021, the event was held at the Franklin County Fairgrounds during the Halloween season. Kids Ride-A-Truck is an annual event were encouraged to wear their

As part of Engineer Robertson's that supports this commitment favorite costumes and collected candy at various equipment and display locations. The event and equipment they see on the welcomed more than 600 guests, displayed nearly 50 vehicles and pieces of equipment, and hosted nearly 20 community partners.



The FCEO Touch-And-Ride-A-Truck event required collaboration between FCEO teammates, community partners, and the Franklin County Fair Board to ensure visitors had a meaningful experience. Over 60 FCEO teammates from various departments participated in the event and were eager to assist in any way. They were friendly, helpful, and provided excellent customer service. New and returning community partners displayed unique equipment or exhibits for kids to interact with.





A notable addition to the event was a diaper drive held in partnership with the Columbus Diaper Coalition. Its mission is to provide diapers to families who are suffering from financial difficulties. They believe that access to diapers is a basic human need and that something as simple as a fresh, clean diaper can provide health and happiness to families and babies. Since its establishment in 2013, the diaper bank has supplied local outreach agencies with diapers for families in need. According to a 2020 report from the National Diaper Bank Network, one in three American families experience diaper need, meaning that they do not have a sufficient supply of diapers to keep an infant or child clean, dry, and healthy. The COVID-19 pandemic negatively impacted the

supply chain, thus, contributing to the rise in the cost of diapers which disproportionately affects families struggling economically or dealing with financial hardships. FCEO's Bridge the Gap Committee also sponsored an agency-wide diaper drive to benefit the diaper bank. The success of the FCEO diaper drive led to the continued partnership with the organization.

The Touch-And-Ride-A-Truck engaged the community by providing access to local organizations and vendors, allowing kids to explore equipment and vehicles they see on the road, and helping families in need. The event received positive feedback, including some calling the event the "Best Touch-And-Ride-A-Truck ever!"

Community Partners

- Columbus Diaper Coalition
- Franklin County Auditor
- Franklin County Fair Board
- Franklin County Municipal Court Environmental Division
- Franklin County Sheriff's Office
- Bomb Squad Unit
- S.W.A.T. Unit

- nternational Technology and Engineering Educators Association (ITEEA)
- Meredith Brothers, Inc.
- Mid-Ohio Regional Planning
- Paul Peterson Company
- Sunbelt Rentals
- United Rentals



FRANKLIN COUNTY

TRANSPORTATION IMPROVEMENT DISTRICT

Established in March 2019, the Franklin County Transportation Improvement District's (FCTID) primary function is to facilitate collaboration between local jurisdictional partners and other county, state and federal agencies to identify, develop and secure funding for transportation improvement projects that support local and regional economic development strategies in Franklin County. The FCTID actively seeks out and builds partnerships that harness private sector innovation and resources, encourages competition, and optimizes the assignment of risk.

In 2021, the FCTID had several successful initiatives:

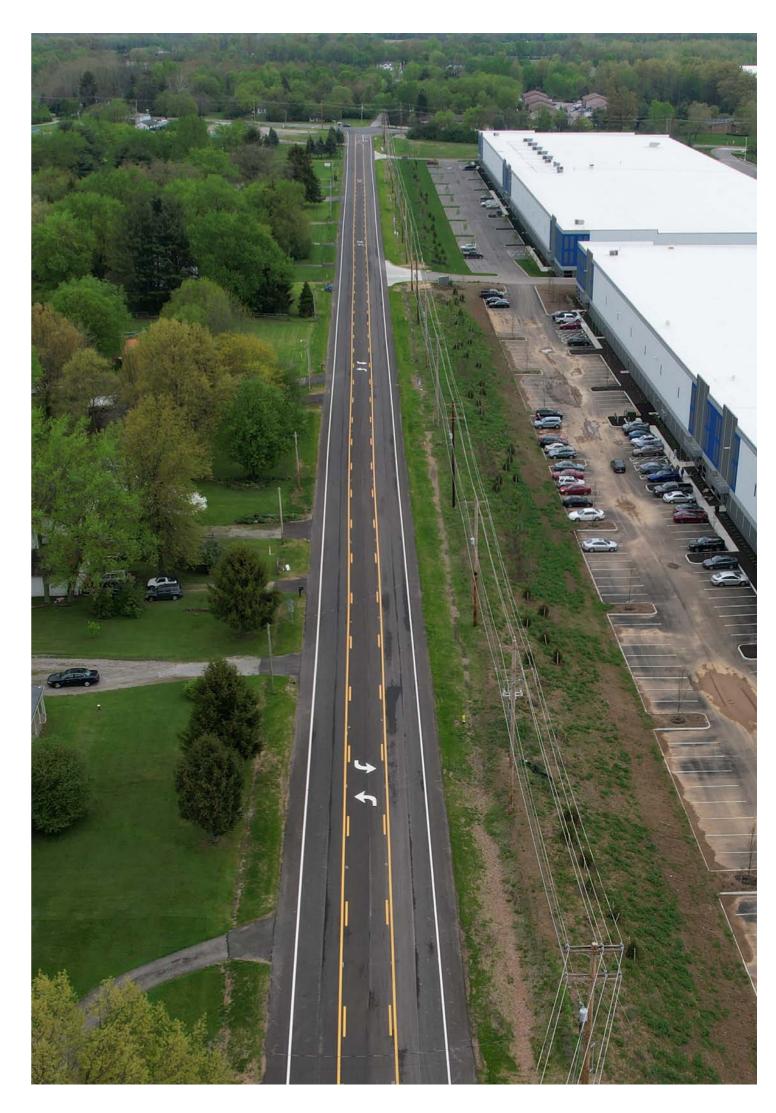
- The FCTID received an award of a \$68,000 grant from ODOT Jobs and Commerce towards design of improvements on Rohr Road between Bixby Road and Shook Road. This project will support the development of additional warehousing in the Rickenbacker area and provide coordination of needed improvements to minimize impacts to traffic in the area and the creation of 350 new jobs in the region.
- The FCTID engaged with ms consultants to provide ongoing coordination of the impacts to the downtown Franklin County facilities with the ODOT Crossroads project. Regular meetings have been held and are on-going to determine the impacts and how to manage them.
- The FCTID authorized a commitment of \$450,000 towards the SR 317 at Rohr Road roundabout project. This commitment assisted in securing OPWC funding of \$1,942,750 for the project as well.
- The following projects on the program of projects were substantially completed in 2021:

- Established in March 2019, the Franklin County Demolition of the pedestrian bridge of South High Street
 - Toy Road, Swisher Road, Saltzgaber Road Improvements
 - Alum Creek Drive at Rohr Road
 - The following projects (beyond those already noted) were added to the program of projects:
 - 50 E. Mound Street Parking Lot (Phase 2 of the Franklin County Parking Facilities project)
 - Alum Creek Drive Corridor Improvements
 - Trabue Road (Lake Shore Drive to Riverside Drive) Improvements
 - Renner Road Corridor Improvements
 - MORPC created the Program of Projects web map that provides a dynamic plate for providing up-to-date project information. This map is accessible through the FCTID webpage hosted on the MORPC's website.

There were changes to the membership of the FCTID board in 2021. At the February 2021 meeting, the board elected Zachary Woodward to the position of Secretary-Treasurer and welcomed Curtiss Williams, Central Ohio Community Improvement Corporation, to to fill a vacancy. Shannetta Griffin resigned from the board in the summer. The FCTID appreciates her service. To fill this vacancy, the board welcomed Kristen Easterday, Columbus Regional Airport Authority.

The Mid-Ohio Regional Planning Commission (MORPC) staff provides administrative services for the FCTID board. The website for the board is hosted by MORPC and can be found here: https://www.morpc.org/committees/franklin-county-transportation-improvement-district/.







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