

Representative Dave Greenspan  
House District 16

Senator Rob McColley  
Senate District 1

**MEMORANDUM**

**TO:** Speaker Bob Cupp, Speaker of the Ohio House of Representatives  
President Larry Obhof, President of the Ohio Senate  
**CC:** Dr. Jack Marchbanks, Director, Ohio Department of Transportation  
**FROM:** Ohio's Road to Our Future Joint Legislative Study Committee  
**DATE:** December 1, 2020  
**RE:** Final Study Committee Report

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Speaker Cupp and President Obhof:

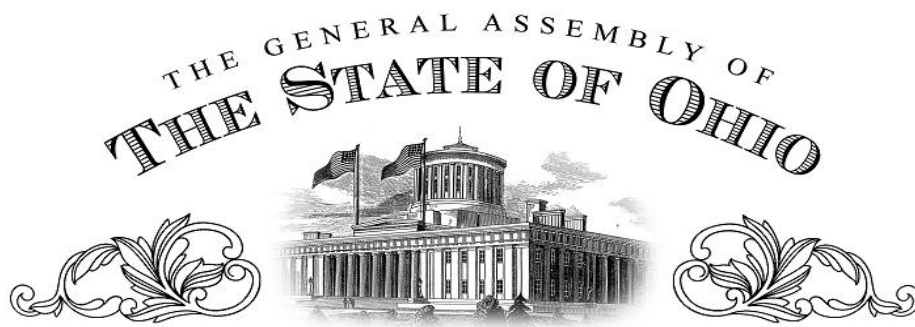
The Ohio's Road to Our Future Joint Legislative Study Committee was established by Section 755.20 of Am. Sub. H.B 62 of the 133<sup>rd</sup> General Assembly. The Study Committee, which consists of five members of the Ohio Senate and five members of the Ohio House of Representatives, is required by that statute to review the following topics as they pertain to the Ohio Department of Transportation:

- (1) Alternative sources of revenue;
- (2) Expense mitigation;
- (3) Evolving technology;
- (4) Exploration of innovative finance techniques;
- (5) Asset leverage and conditions; and
- (6) The demographics of employees within the Department.

The purpose for reviewing these items is ensuring consistent analysis of important infrastructure projects and accurately determining spending costs.

This report fulfills the requirements of Section 755.20(E) which states:

*No later than December 1, 2020, the Study Committee shall complete a report of its findings from its extensive review and thorough analysis of these items. At the completion of the report, the Study Committee shall present it to the Speaker of the Ohio House of Representatives and the President of the Senate.*



Representative Dave Greenspan  
House District 16

Senator Rob McColley  
Senate District 1

MEMORANDUM

**TO:** Ohio's Road to Our Future Joint Legislative Study Committee Members  
**CC:** Dr. Jack Marchbanks, Director, Ohio Department of Transportation  
**FROM:** Representative Dave Greenspan & Senator Rob McColley  
**DATE:** October 10, 2019  
**RE:** Committee Scheduling & Outline

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Members of the Ohio's Road to Our Future Joint Legislative Study Committee:

Pursuant to R.C. 755.20, the Road to Our Future Committee intends to meet over the course of the next several months on the following dates:

- **Tuesday, October 22, 2019**
- **Tuesday, November 19, 2019**
- **Tuesday, December 10, 2019**
- **Tuesday, April 21, 2020**
- **Tuesday, May 19, 2020**
- **Tuesday, June 16, 2020**
- **Tuesday, November 17, 2020**
- **Tuesday, December 1, 2020**

It is our intent to convene each of these meetings at **2:00PM**. Locations are still being finalized with the House Clerk's Office, but we will tentatively meet in **Statehouse Room 115** until further notice.

In order to meet the purpose of this committee, our offices have worked to partition the 11 tasks statutorily assigned to the committee into six categories, with the intent of considering one category per committee meeting for the first six meetings, and writing and approving the committee report during the final two. A summary of these meeting topics and tasks is attached.

Please reach out to Adam Headlee at [Adam.Headlee@ohiohouse.gov](mailto:Adam.Headlee@ohiohouse.gov) or (614) 466-0961, or Erin Froehlich at [Erin.Froehlich@ohiosenate.gov](mailto:Erin.Froehlich@ohiosenate.gov) or (614) 466-8150 with any questions.

**Oct. 22, 2019 – The demographics of employees within the Department**

- An analysis of all Department personnel, with an emphasis on future retirements and possible attrition. The analysis shall include a list of technology that will provide greater efficiency for the Department.

**Nov. 19, 2019 – Expense mitigation**

- An analysis of the Department's debt policies, structures, and practices.
- A review of all Department functions and whether such functions accomplish and further the Department's mission.

**Dec. 10, 2019 – Alternative sources of revenue**

- An analysis of the future needs of the Department and the state's infrastructure, including local infrastructure.
- An analysis of using a vehicle-miles-traveled approach to transportation funding in Ohio and the feasibility of either starting a pilot program or fully using the vehicle-miles-traveled approach in this state.

**Apr. 21, 2020 – Exploration of innovative finance techniques**

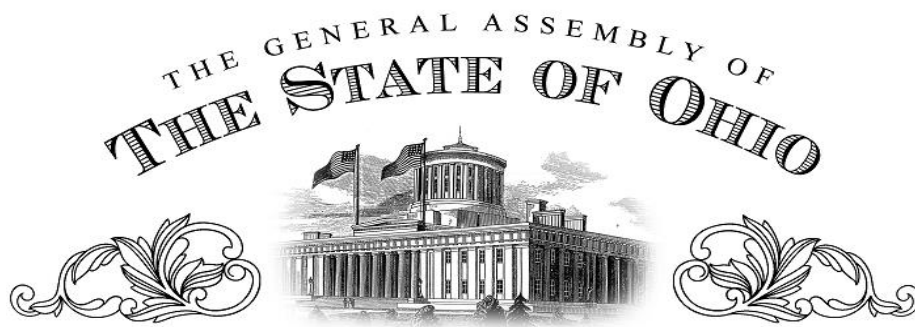
- A cost-benefit analysis of leasing vehicles versus purchasing vehicles weighing more than 12,000 pounds gross vehicle weight.
- A cost-benefit analysis of leasing versus purchasing construction equipment that has a lifespan of five years or more.

**May 19, 2020 – Asset leverage and conditions**

- An analysis of methods for leveraging state assets, including cell towers, light poles, rights-of-way, rest areas, buildings, and garages. The analysis shall include the methods the Department is currently using to leverage its assets and whether there are any impediments to leveraging assets, such as restrictions in advertising, constraints in renting spaces, or other impediments.
- An analysis of all Department-maintained transportation systems. The analysis shall include an inventory of the structure ratings versus the Department's target ratings; the urban, rural, general, and priority pavement condition ratings versus the Department's target ratings; and a cost analysis of the funds that are necessary to maintain, improve, and expand the current transportation system under the Department's jurisdiction.

**June 16, 2019 – Evolving technology**

- A review of evolving technology and its incorporation into traditional engineering and infrastructure solutions, as applied to planning, capacity enhancement, risk management, system operations, safety, and system reliability.
- An analysis of technological advancements related to the display of front license plates, vehicle identification, and public safety generally.



## ANNOUNCEMENT OF COMMITTEE MEETING

**COMMITTEE:** Ohio's Road to Our Future Joint Legislative Study Committee  
**CO-CHAIRS:** Rep. Dave Greenspan and Sen. Rob McColley  
**DATE:** October 22, 2019  
**TIME:** **2:00PM**  
**ROOM:** Statehouse Room 115

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### AGENDA

1. Demographics of employees within the Ohio Department of Transportation
  - An analysis of all Department personnel, with an emphasis on future retirements and possible attrition. The analysis shall include a list of technology that will provide greater efficiency for the Department.

Please contact Co-Chair Greenspan's office at (614) 466-0961 or [Adam.Headlee@ohiohouse.gov](mailto:Adam.Headlee@ohiohouse.gov), or Co-Chair McColley's office at (614) 466-8150 or [Erin.Froehlich@ohiosenate.gov](mailto:Erin.Froehlich@ohiosenate.gov) with any questions.

# Ohio's Road to Our Future Joint Legislative Study Committee

## Minutes

October 22, 2019

Co-Chairman Greenspan called the meeting of the Ohio's Road to Our Future Joint Legislative Study Committee to order at 2:00 p.m. in Statehouse Room 115. Attendance was taken and a quorum was present.

Chairman Greenspan called forward Assistant Director and Chief of Staff Pam Vest-Boratyn of the Ohio Department of Transportation to provide testimony related to the demographics of employees within the Department.

- Ms. Vest-Boratyn answered questions asked by the committee members.
  - Charles W. Ash, Chief Information Officer, and Brian Brown, Chief Human Resources Officer, assisted Ms. Vest-Boratyn with the answering of questions.

Chairman Greenspan announced that the next committee meeting will take place on November 19, 2019 at 2:00 p.m.

With no further business, the committee adjourned at 3:07 p.m.

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Dave Greenspan, Co-Chair

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Rob McColley, Co-Chair



## Road to Our Future Joint Legislative Study Committee

### *Personnel and Information Technology Hearing*

Pam Vest-Boratyn, Assistant Director and Chief of Staff  
Ohio Department of Transportation

October 22, 2019

Good afternoon, Chairman Greenspan, Chairman McColley and members of the study committee. I am Pam Vest-Boratyn, Assistant Director of Business & Human Resources and Chief of Staff for ODOT. Thank you for the opportunity to discuss ODOT's personnel as well as technology and current and future initiatives designed to maximize efficiency and effectiveness of the department.

I have included several charts to assist in providing information that I hope is helpful to our discussion today.

**Chart A** depicts the makeup of ODOT's workforce as of October 2019. The majority of ODOT's workforce is made up of permanent staff. ODOT also employs a variety of temporary employees such as college interns and intermittent staff, as needed. ODOT is currently recruiting for approximately 400-500 temporary Highway Technicians to perform snow and ice duties during our peak season as well as perform other highway maintenance activities to keep Ohio's highways and state routes clear and safe. This is an annual process and many of our permanent Highway Technicians are hired from the ranks of the temporary snow and ice staff.

**Chart B** shows a breakdown of staff by appointment type. The majority of ODOT's workforce is classified. The next biggest group are Career Professional who are non-bargaining unit employees performing significant work for the department, but their duties don't rise to the level which would require them to be unclassified. Most of ODOT's professional engineers and other similar level staff fall into this category. 3,483 (or 86%) of ODOT's workforce are bargaining unit employees. All of ODOT's bargaining unit employees are members of the Ohio Civil Service Employees Association (OCSEA)

Of our 335 unclassified employees, approximately 200 hundred are temporary staff, made up of college interns and employees performing highway maintenance functions. ODOT has a robust college intern program. The past several years, over 90% of our new hire college graduate entry level Civil Engineers have previous college internship experience at ODOT. The rest of the unclassified employees are those whose classifications and/or job duties

require that they serve at the pleasure of the Director such as Assistant Directors, Deputy Directors, Public Information Officers, and Labor Relations Officers.

**Chart C** shows ODOT's current permanent employees broken into job groups. Nearly half of ODOT's workforce is made up of Highway Technicians who perform a wide range of highway maintenance activities and construction inspection duties and mechanics who maintain and repair ODOT's fleet of vehicles and equipment necessary to perform our mission. The next largest group at 21% are ODOT's engineers and technicians that plan, design, and build Ohio's largest man-made infrastructure, roads and bridges. Administrative staff at 19% is a broad category encompassing a lot of different functions including but not limited to Finance, HR, IT, Program Administrators, Project Managers, Environmental staff, and Administrative Support. County Management staff make up 7% of ODOT's workforce and they oversee important highway maintenance activities in each of Ohio's 88 counties. They perform a vital job in establishing short- and long-range plans, providing daily assignments to staff, checking on roadway conditions, and dealing with requests and complaints from the public. Building maintenance staff that perform important repairs and preventive maintenance to all of ODOT's facilities make up 2% of ODOT's workforce. Finally, Senior Leadership makes up the final 2% of the department. This includes senior level unclassified staff that serve on behalf of the Director.

**Chart D** illustrates the demographic makeup of ODOT's workforce that can retire within the next 5 years. Within 5 years 34% of ODOT's workforce could retire. And 20% of ODOT's workforce could retire immediately. While the retirement eligibility numbers are important, it is also important to look at the reality of actual retirement trends.

**Chart E** shows ODOT's actual retirement numbers over the past 10 years. There was a spike in retirements in 2011 which was largely prompted by OPERS pension redesign that took place in 2012. In 2013 OPERS implemented new rules regarding health care coverage which have led to employees often working beyond the point at which they become eligible for retirement. As a result, people are working longer. Barring any other changes of this type, we don't anticipate the current 20% of employees eligible to retire (approximately 1,000 people) to retire all at once. We expect retirements will likely continue to trend in the 150-200 per year range. That being said, we are preparing for these employees' departure. We have and will continue to work with our managers on succession planning to not lose institutional knowledge. It is expensive both in terms of resources and services to have to relearn what was once known.

**Chart F** shows ODOT's historical permanent staffing numbers. The numbers have dropped significantly since 1994 when the department had 7,829 permanent staff. It was during this time that ODOT reorganized and had a buyout which contributed to significant reductions. By 1997, ODOT had reduced its permanent headcount by over 1,250 positions. Just four years later in 2001, ODOT dropped another 664 positions. By 2012, ODOT had reduced its permanent ranks by another 737 positions to a total of 5,169. Since 2013, ODOT has been below 5,000 permanent employees and has hovered around 4,900 permanent staff since then. Staff reductions have been accomplished through attrition, technological advancements, and other efficiencies. Our total payroll costs for 2019 is \$533.5 million.

That is 16.7% of our budget (\$3.2B). In the last 8 years, we have hired over 1200 women, over 600 minorities, and over 400 veterans. And the department has managed to maintain the largest construction program in Ohio history with personnel levels at or near a 30 year low.

Wage data among gender and race as of April, 2019 can be found in **Chart G**. ODOT's average minority salary is 3.9% less than the average non-minority salary. This difference is far less than averages experienced in the economy. Calculations on the wage gap between races vary, but Bureau of Labor statistics 2018 data show that the nation-wide wage gap between minorities and non-minorities is at 11 %. ODOT's average female salary is 14.3% higher than the average male salary. This is unusual when compared to national rankings where since 2004 women have traditionally earned 17% to 20% less than men on average. More specifically, as recently as 2017 in Ohio over all women earned 22% less than men.

Besides ODOT's Executive Leadership positions, pay is pre-determined through pay ranges which are based upon an employee's classification. This allows for more equitable pay among all races and genders. For example, the reason that ODOT's average female salary is higher than the average male salary is that there is a higher percentage of women in the professional job category (which includes our engineers) than there is in our skilled craft job category (which includes our Highway Technicians.) In short, the salary of all employees is based upon the classification they hold. As ODOT continues to make conscious efforts to increase its workforce diversity, we expect the salaries of all races and genders to trend towards the middle and shrink the wage gaps which are already better than industry averages.

ODOT has reinstated its HR plan which is an annual process by which each of ODOT's 12 Districts and 14 Divisions forecasts their Human Capital needs. Each District and Division has been tasked to scrutinize each position on their table of organization to determine if it's needed and if so, is it properly classified. The direction given has been one of fiscal responsibility and good stewardship of taxpayer dollars.

We are also partnering with the American Association of State Highway Transportation Officials (AASHTO) on a project reviewing strategies on workforce management which will bolster these efforts even further. ODOT is joining 10 other State DOTs and other industry partners in benchmarking. We will be performing an in-depth scan of organizations with leading practices in workforce management. The study will include topics such as forecasting, succession planning, employee development, employee wellness and engagement, recruitment, retention, diversity and inclusion, change management, leader development, and knowledge management. The goal of this group is to establish a cafeteria style tool kit from which DOTs can choose options to maximize their human capital goals. This group was established because State DOT Directors across the country have listed workforce management as one of their top priorities now and into the future.

Certainly, ODOT is transitioning to an organization that will require more sophisticated technology than ever before. We're experiencing an era of unprecedented mobility



technology innovations – which some are calling the “transformation of transportation” – changing the ways we move people and goods every day. For example, adaptive cruise control, lane-keeping assist, and other Advanced Driver Assistance Systems – often called “ADAS” – are already available in many vehicles to increase safety on our roads, with more connected and automated technologies coming soon. These “smart mobility” solutions offer the potential for significant improvements in transportation safety, mobility, access, and reliability across our communities – but to fully realize this potential, the most important ingredient is **talent**.

As a result, we are examining our current classifications and forecasting the needs of tomorrow. ODOT has made a concerted effort to establish and modify classifications from narrowly defined job duties to more robust and challenging duties to allow for a fully utilized workforce. For example, ODOT has for many years annually hired a class of engineers (as does almost every state DOT.) We have almost exclusively hired Civil Engineers to make up this cohort. In the future, ODOT’s workforce will need to be diversified in several ways. We anticipate we will require electrical, and computer engineers as well as data analytics professionals. As the roadways become more sophisticated to accommodate connected and autonomous vehicles and more electronic vehicles, we will need to train and hire Highway Technicians and other field staff who can handle the technologically advanced tools that are developing, in order to repair and update, and maintain them. Indeed, ODOT plans on transitioning more administrative positions (where it makes sense) to core mission critical positions such as Highway Technicians, Mechanics, Engineers, and Technology positions.

DriveOhio, the state’s one-stop shop for connected and automated vehicles, is preparing Ohio’s workforce for the future with a portfolio of smart mobility workforce development programs – for students and emerging workers, from Pre-K to PhD – and for existing workers, from career technical to higher education degrees. A few examples of DriveOhio workforce development programs include:

- Next-generation automotive technician education, in partnership with ODOT’s employee development and fleet maintenance teams, along with AAA and Ohio career technical schools and community colleges. Curriculum topics include:
  - Installation of connected vehicle equipment on public and private vehicles
  - Maintenance and repair of ADAS and future vehicle automation systems.
- Smart mobility STEM education and problem-based learning for Ohio’s K-12 and higher education students and educators. This year’s initiatives include:
  - The “STEM Drives Ohio” Design Challenge, in partnership with the Ohio STEM Learning Network, offering K-12 students across Ohio the opportunity to collaborate with teachers and subject matter experts to create solutions to mobility challenges facing their communities – with results shared at local and statewide showcases and at the 2020 Ohio State Fair.
  - The DriveOhio Capstone Challenge program, in partnership with Ohio higher education institutions, offering university students the opportunity to

develop solutions directly related to local smart mobility projects, working alongside subject matter experts and government and industry partners.

ODOT has undertaken several other initiatives to change the face of our workforce to include those who live in the communities that we serve. By far, the most commonly hired position at ODOT is an entry level Highway Technician (HT). One of the required qualifications for this employee at the time of hire is that he or she hold a Commercial Drivers License (CDL) in order to operate the equipment necessary to build and maintain our roads. To build our own applicant pool in a very tight labor market, ODOT created the Highway Apprentice Program. The goal of the program is to build a qualified, diverse workforce and attract talent that is currently underrepresented at ODOT (women & minorities) as well as reach out to other groups such as veterans and the economically disadvantaged. The apprentice program trains candidates to take their CDL test and perform highway maintenance duties for at least 12 weeks. After these folks obtain their CDL and complete the training, they are eligible to apply for ODOT HT positions. Some move into snow and ice seasonal positions and others are hired into permanent positions. From 2011-2018, ODOT hired 327 apprentices. 47% have been hired into permanent positions. Of the hires, 25% are women, 22% are minorities, and 20% are veterans.

ODOT's Division of Opportunity, Diversity and Inclusion also has a CDL program with a goal of recruiting and training more women, minority, veteran or economically disadvantaged individuals across the State so that they will hold a CDL. This gives them an opportunity to be placed in meaningful jobs that provide a living wage and career path. ODOT selects vendors to recruit the students and deliver the training. In addition to CDL training (including classroom instruction, pre-trip and skills instruction, road instruction, and preparation for the driving exam), they are provided soft-skill training (motivation and work readiness, life skills, resume writing, financial literacy and networking). The program began in 2017, and 37 individuals have completed the program. 48% were minorities and 16% were women. After completion of the initial program 81% of the participants attained employment that required a CDL. We have more upcoming CDL programs in the works.

We have a Construction Inspection Workforce Program where ODOT has partnered with Columbus State Community College to prepare for the future workforce needed to inspect highway projects. The program prepares students to take and pass the National Institute for Certification in Engineering Technologies (NICET) exam so they are prequalified to inspect ODOT projects. This program began in 2016 as a pilot, and we are currently working to expand it with other community colleges across the state. Currently we have 18 students participating in the program. Our goal is to create a pipeline to inform high school students about this opportunity to enter the transportation field. We have spoken in many underrepresented communities, including Appalachia and the urban core, about training at various technical schools and colleges. Outreach efforts include 30 presentations on ODOT careers at technical, vocational, and high schools and CDL test centers; 21 community events (county fairs), 12 partnership meetings (Urban League); 7 job shadow events; 12 district career fairs.

ODOT, along with other state agencies, is participating in Governor DeWine's Opportunities for Ohioans with Disabilities initiative, attending several job fairs this month in Cincinnati, Columbus, Toledo, Canton, and Cleveland. This is a vocational paid apprentice program to provide work experience, exposure and access to state government employment.

We have more recently ventured into another creative source of hires, restored citizens. ODOT has partnered with the Ohio Reformatory for Women and has conducted several outreach events with them with the goal of hiring women into positions at ODOT. This started as a pilot in 2018 and ODOT has hired 3 women as a result of this program. ODOT is now looking to expand these efforts into additional institutions and open it up to men. The correctional facility in Grafton, OH, for example has a CDL training facility on their grounds. This looks to be a very promising partnership.

ODOT is also taking efforts to ensure that its leadership ranks are diverse. I am the 1<sup>st</sup> female Chief of Staff at ODOT and ODOT also has several women in high ranking Senior Leadership positions such as Chief Legal Counsel, Chief Fiscal Officer, Deputy Director of Planning, Chief Communications Officer, Office of Opportunity, Diversity and Inclusion Deputy Director, 2 District Deputy Directors, as well as others in key District and Central Office Administrator positions. And yes, we are the paid same as our peers.

As you may recall, Director Marchbanks committed to the Governor and General Assembly that the Department would save \$100 million over the next four years from operational efficiencies. These savings can come from any spectrum of ODOT operations and to date our savings campaign, titled One Red Lion, has received over 900 ideas, including several related to the Human Resources discipline. I have discussed several already related to revamping and updating our current classifications, like Highway Technician, to match current and emerging technologies; and requiring each Department to complete a Human Resources plan and conduct a current and future needs analysis. We also continue to aggressively manage worker compensation claims which has garnered over \$1 million in annual savings since 2014.

## **Technology/IT**

The Division of IT at the Department of Transportation has prided itself on finding innovative ways to use technology, and to piece together different technologies to help achieve the business of ODOT. We continue to evaluate the ability to share administrative and technical resources across organizational boundaries.

Today, I am going to discuss a few of the innovative ways we have been using technology to help our people become more efficient. Most of these innovations have leveraged technologies we had, or data we were producing, to come up with better ways to achieve core goals, improve performance, and put us in a position to better use the strengths of our employees.

One initiative underway is the transition from traditional use of servers, disk drives, databases and the like, to "cloud computing" ... Think of cloud computing as similar to

Amazon Web Services, Microsoft's Azure, or the Google Cloud. The advantages of a cloud are many: (1) improve mobility, (2) reduce cost, (3) modify the personnel needed to support the department. By leveraging cloud technologies, we can focus less on the underlying technology, and focus more on the core duties of the department and deliver more prompt and efficient results within ODOT, and to the public. The goal is to allow employees to access data and perform operations anywhere they need to work, on any type of device, at any time they have an Internet connection. We are very close to being able to do this now.

We have been able to keep advancing in technologies at the Department through the use of automation. We have saved countless hours of staff time by automating many of the more mundane tasks required for computer systems to work properly. For example, up until just the last 2 years, when software installations were required, a technician was responsible for the deployment of the software. Sometimes that required individual visits to customer computers, and other times, it meant programming scripts to perform the installations. Now, through the use of several technologies, we have been able to automate the installation of software to computers simultaneously. We have the tools in place so that the users themselves will be able to choose what software to install, and have it installed on their computers without the need for a technician to be involved at all. ODOT has saved nearly one million dollars to date using this tool.

Our Transportation Systems Management Operations Data Warehouse has helped make our processes much more efficient. By automating the manual process to add and process the nightly load of speed data, used in many of our performance measures and reports, we have saved a lot of manpower (appx. 2400+ person-hours manually compared to appx. 40 hours total via automation).

Another example of how we bring different systems together and use technology to improve efficiency and save lives is our Queue Warning System. ODOT has traffic cameras throughout the state. The newer cameras can identify when traffic is beginning to backup—or queue. When this happens today, an email is sent to ODOT's Traffic Management System. The TMC operators must see the email, then log into various systems to manually change a message sign to alert the traveling public. We are now testing a capability of one of our security and data analytics tools to take the status message from the camera, and automatically change the message signs. So far, the system has successfully automated over 70 sign activations and 70 sign deactivations. This is 140+ manual tasks that TMC operators did not have to take, while improving the safety of the traveling public because there was little to no delay in deploying the messages.

We standardized the printers across department, reducing the number of supported models of print devices (now less than 50) which minimized the support time required, and reduced costs. ODOT had over 400 models of print device in the enterprise, with several different manufacturers. This complexity resulted in substantial increased time to troubleshoot, update firmware, travel time, and increased time in assisting the end user with installation/support of document printing. We are in the process of reducing the cost

further by setting document standards to full duplex, and black and white printing as statewide defaults. This alone is expected to save \$250k or more.

ODOT is building systems that bring together information faster so that better decisions can be made right when they are needed. This frees up peoples' time so they can spend it on more important tasks. For example, 5 years ago ODOT sent individuals out on our roads to inspect and catalog our assets. They measured, took pictures with cameras and hand notes. When they returned to the office, depending on the team they worked for, they would manually enter that data into nine different systems. Now all of them can enter all of that data onsite with a mobile collector app.

ODOT IT has implemented video conferencing for meetings to reduce the cost of travel and maximize collaboration in multiple locations. ODOT HR also utilizes video conferencing to conduct hearings from remote locations between our union employee's, our labor relation officers, Office of Collective Bargaining and a mediator. The activities reduce travel costs for all parties involved.

ODOT's Facilities division was tasked with setting up security cameras at about 130 building sites (garages, outposts, district and central offices). ODOT IT identified an opportunity to use some older equipment and with some work and a few minor upgrades, we successfully completed the project, saving \$954,200 by not purchasing a new camera management system (\$7,500/unit for each site).

And, with advancements in our drone technology, we save time and money on bridge inspection and incident management. A bridge snooper can cost around \$500,000 per truck and we have 2 trucks for the state. Snooper operations can cost \$2,000 to 3,500 per day. Traffic control for snooper operations can cost \$500-\$2,500 per day. Use of drones can reduce the cost of, and save time for, some snooper operations while also improving safety by not impacting existing traffic. We also save money in using drone for high mast tower lighting inspections and mapping surveys.

Thank you again for the opportunity to talk with you today, Chairman Greenspan, Chairman McColley and members of the study committee. I have with me several members of our staff, and hopefully we can answer any questions you may have, or we can provide additional information as needed.



**Workforce Composition as of 10.15.2019**

Chart A

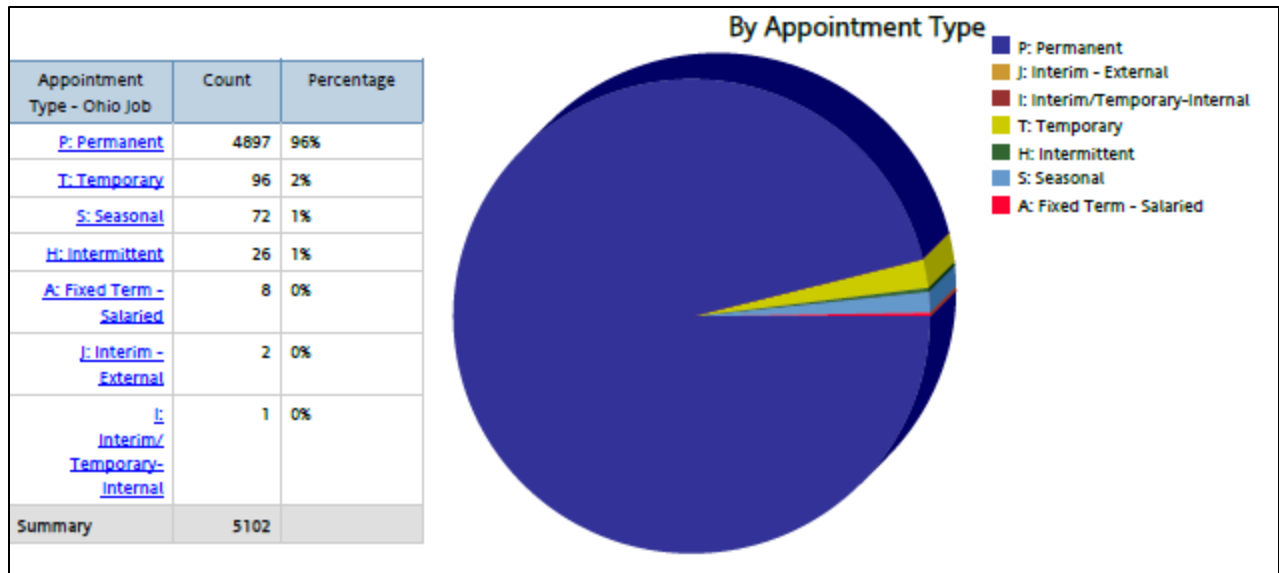


Chart B

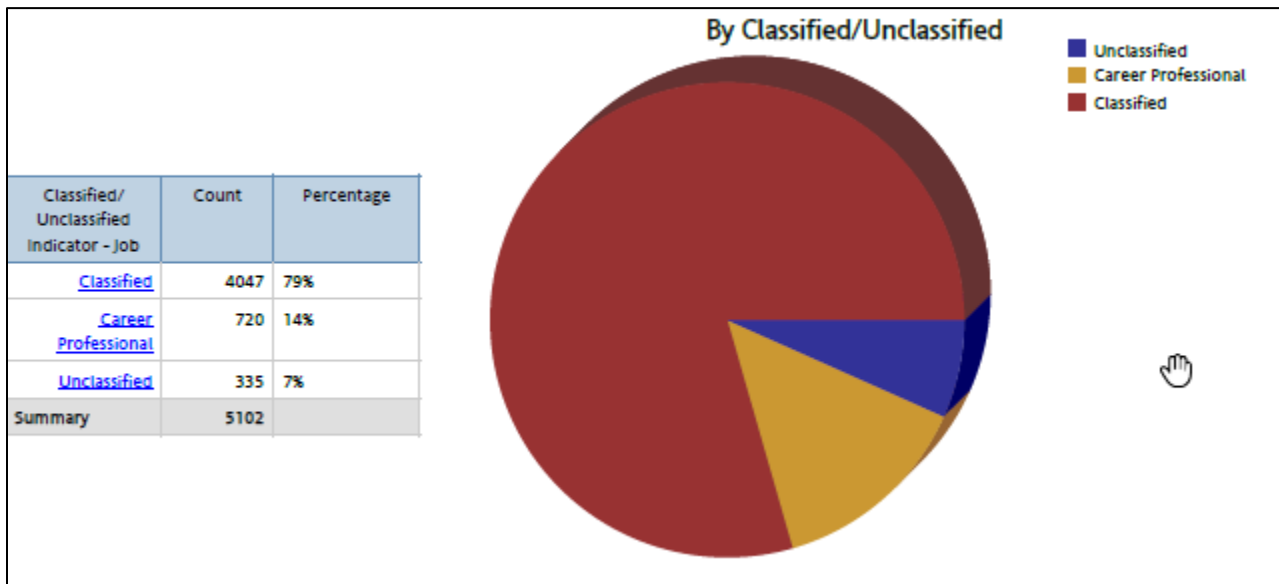


Chart C

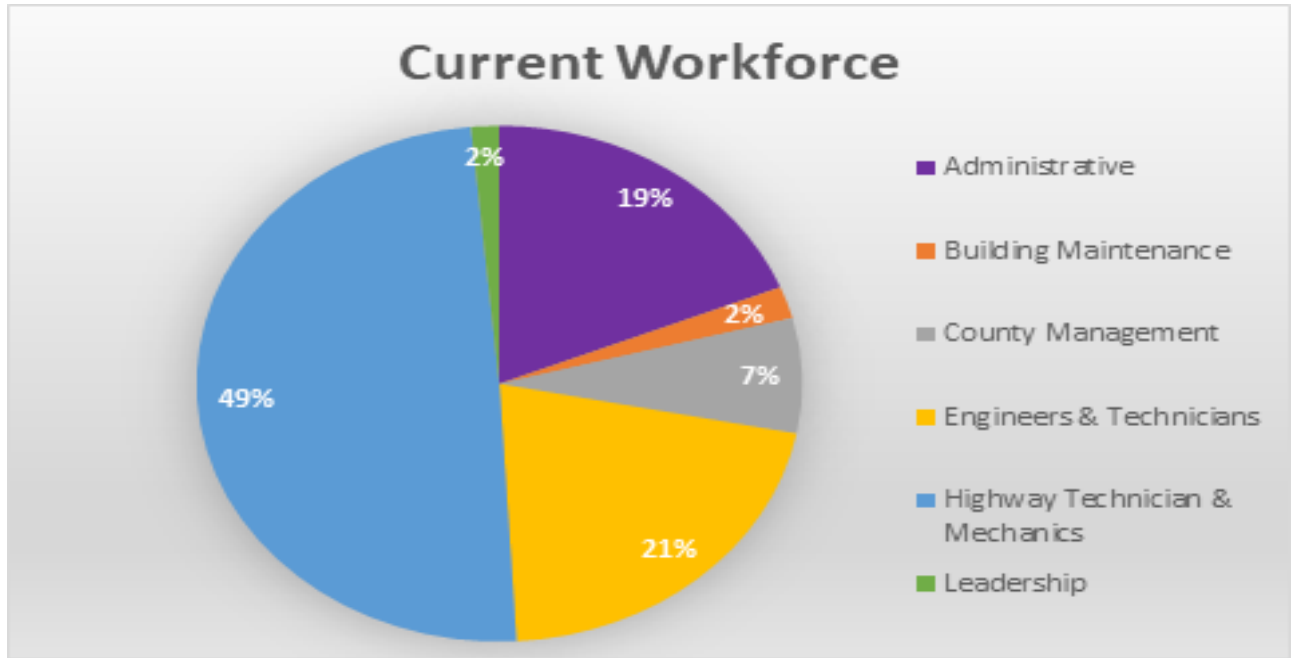


Chart D

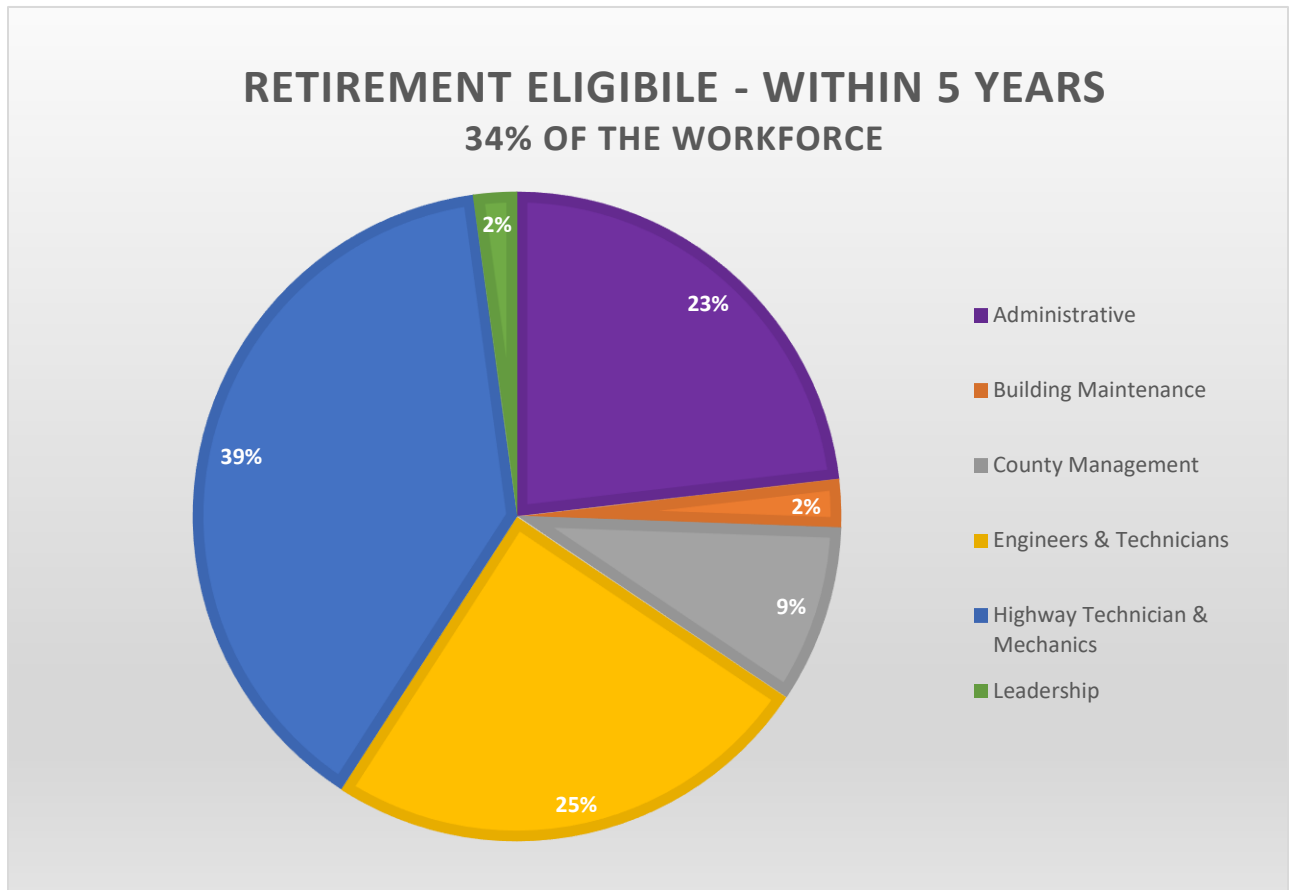


Chart E

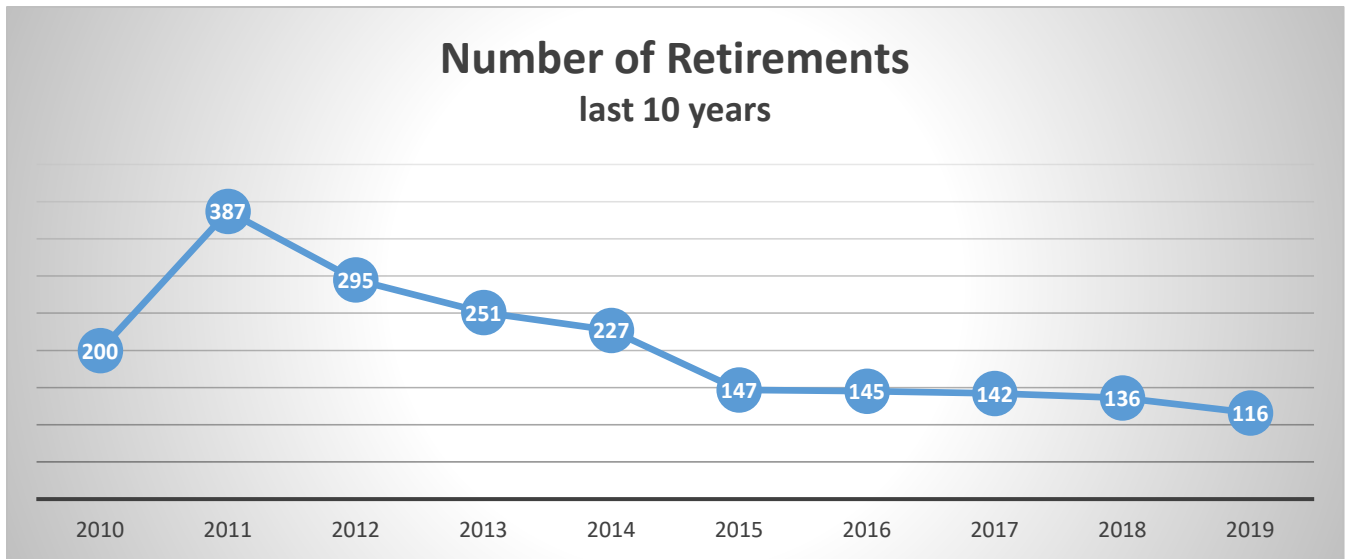
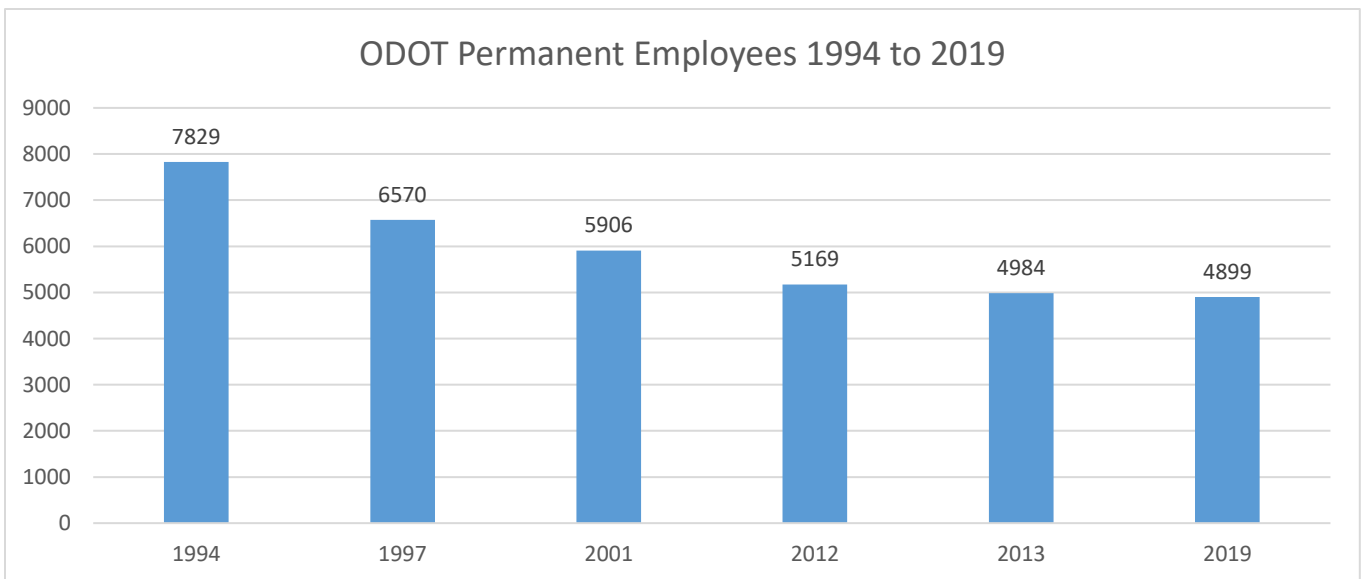
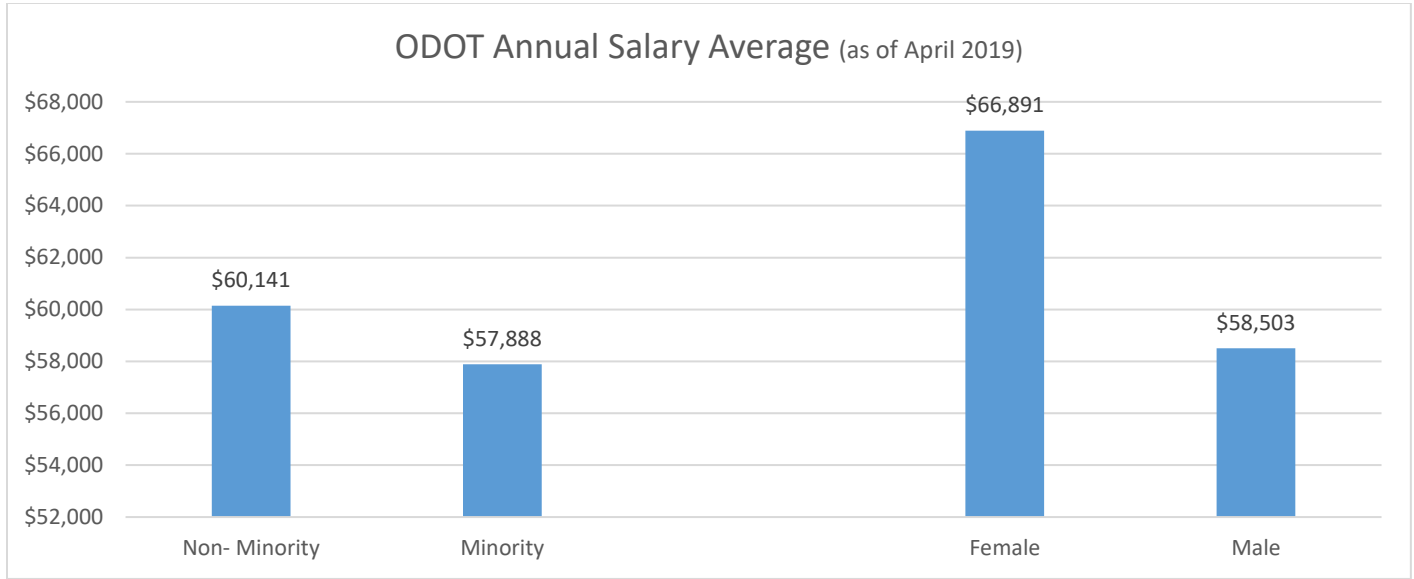


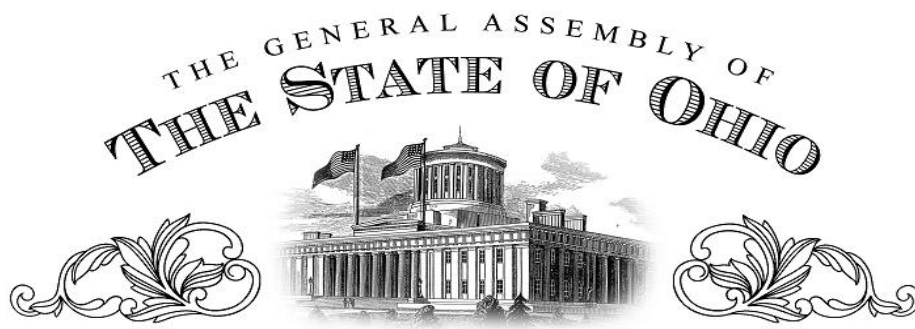
Chart F





**Chart G**





**\*1<sup>st</sup> Revision\***

## **ANNOUNCEMENT OF COMMITTEE MEETING**

**COMMITTEE:** Ohio's Road to Our Future Joint Legislative Study Committee  
**CO-CHAIRS:** Rep. Dave Greenspan and Sen. Rob McColley  
**DATE:** November 19, 2019  
**TIME:** **2:00PM or after session**  
**ROOM:** Statehouse Room 115

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### **AGENDA**

1. Expense mitigation
  - An analysis of the Department's debt policies, structures, and practices.
  - A review of all Department functions and whether such functions accomplish and further the Department's mission.

Please contact Co-Chair Greenspan's office at (614) 466-0961 or [Adam.Headlee@ohiohouse.gov](mailto:Adam.Headlee@ohiohouse.gov), or Co-Chair McColley's office at (614) 466-8150 or [Erin.Froehlich@ohiosenate.gov](mailto:Erin.Froehlich@ohiosenate.gov) with any questions.

# Ohio's Road to Our Future Joint Legislative Study Committee

## Minutes

November 19, 2019

Co-Chairman Greenspan called the meeting of the Ohio's Road to Our Future Joint Legislative Study Committee to order at 2:03 p.m. in Statehouse Room 115. Attendance was taken and a quorum was present.

Chairman Greenspan called forward Sara Downs, Deputy Director of Finance for the Ohio Department of Transportation to provide testimony related to expense mitigation.

- Deputy Director Downs answered questions asked by the committee members.
  - Rich Winnig, Executive Financial Advisor, assisted Deputy Director Downs in the answering of questions.

Chairman Greenspan announced that the next committee meeting will take place on December 10, 2019 at 2:00 p.m.

With no further business, the committee adjourned at 2:39 p.m.

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Dave Greenspan, Co-Chair

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Rob McColley, Co-Chair



## Road to Our Future Joint Legislative Study Committee *Expense Mitigation Hearing*

Sara Downs, Deputy Director of Finance  
Ohio Department of Transportation

November 19, 2019

Good afternoon, Chairman Greenspan, Chairman McColley and members of the study committee. I am Sara Downs, Deputy Director of Finance for ODOT. Thank you for the opportunity to discuss ODOT's debt policies, structure, and practices designed to incur debt in a fiscally responsible manner allowing ODOT to advance projects that alleviate congestion, promote safety and innovation, and allow for the efficient transportation of goods across the state.

I have included several charts to assist in providing information that I hope is helpful to our discussion today.

ODOT has historically incurred debt as a function of its bonding program, which allows ODOT the opportunity to borrow money in public markets to fund capital projects, with principal and interest on those bonds paid off over ten to fifteen years. ODOT has been issuing debt regularly since 1997, most of which is tax exempt. By law, all ODOT bonds are issued by the Treasurer of State.

The issuance of debt to fund capital projects creates several advantages. First and foremost, this allows ODOT to advance projects that were less feasible under traditional financing methods, such as via motor fuel tax collections. Expediting project completion helps ODOT more quickly meet some of its core goals, including enhancing safety statewide, as well as reducing traffic congestion. Another primary reason to finance projects through debt is to avoid construction inflation. When borrowing rates are low, it is a cost-effective tool to borrow today at low rates, rather than to wait and incur higher rates of construction inflation in the future. In addition, borrowing is an effective mechanism to finance larger-scale projects that are less practical to finance using motor fuel tax dollars.

### **THE BOND PROGRAMS**

ODOT currently utilizes three unique bonding programs, the first of which are Highway Capital Improvement Bonds, known as HCAPs. HCAPs are state bonds backed by Highway User Receipts, which are generally comprised of two-thirds motor fuel and use taxes, and one-third registration and license fees.

The second bond program utilized by ODOT are Grant Anticipation Revenue Vehicle bonds, known as GARVEE bonds. GARVEE bonds are federal bonds backed by reimbursements from the Federal Highway Administration (FHWA). The eligibility of projects under the HCAP and GARVEE programs may differ due to state or federal requirements.

ODOT's third bond program are Lease Appropriation Bonds, also known as Facilities bonds. Facilities bonds are backed by state appropriations from the Capital Bill. Facilities bonds are used to finance ODOT facilities statewide, including outposts, equipment storage facilities, and full-service facilities.

## **THE BONDING PROCESS**

An overview of how the bonding process works, from appropriations to payment of debt service, is as follows:

First, ODOT receives appropriations through either the Transportation Bill or Capital Bill, depending on the bond type. Issuance authority for HCAP bonds is passed through the Transportation Bill, and Facilities bonds through the Capital Bill. In both instances, unused issuance authority is carried forward by law and is available for use in subsequent years.

Second, ODOT budgets appropriations internally, making those appropriations available for use by the ODOT Division of Planning or Division of Facilities. Those Divisions will encumber funds against those appropriations, subject to budgetary limitations.

Third, as projects are sold, bonds are issued to fund projected cash needs.

Fourth, as project costs are incurred, bond proceeds are spent to reimburse contractors.

Fifth, debt service, which includes principal and interest, is paid to bondholders over the next ten to fifteen years, depending on the repayment structure of the bonds.

## **PROJECT TYPES**

Within the three bonding programs, certain types of projects are bonded through specific capital programs.

HCAP bonds are used to fund projects in the Major New, Major Bridge, Major Rehab, and System Preservation programs. GARVEE bond fund projects are in these same four programs, adding Innovative Delivery and the Ohio Bridge Partnership Program. Facilities bonds are used solely to fund ODOT facilities statewide.

Please refer to **Exhibit 1** for a representation of bond spending by project type and year.

Bond funding is used almost exclusively for construction costs, with some engineering costs reimbursed on design-build projects. Bond funding is never used to fund labor or other operating costs, or right-of-way acquisition, in part to avoid IRS restrictions.

## BOND ISSUANCE HISTORY

Historically, ODOT has over twenty years of experience issuing bonds in these programs.

To date, 22 series of HCAP bonds have been issued since 1997 totaling \$3.45 billion, including refundings of prior issuances.

Eighteen series of GARVEE bonds have been issued since 1998, totaling \$2.74 billion, also including refunding of prior issuances.

To date, two series of Facilities bonds have been issued since 2015, totaling \$171 million.

Please refer to **Exhibit 2** for a representation of bond issuances over time.

ODOT has long been an innovator in bonding, having issued the nation's very first GARVEE bond. In addition, ODOT also took part in the Build America Bonds program in 2010, issuing multiple series of taxable bonds with a 35% rebate on interest from the federal government. In 2014, ODOT participated in the refunding of a GARVEE bond, reducing our debt liability by \$3.8 million, and in 2018 refunded an HCAP bond, resulting in savings of \$12 million, thanks in part to work done by our bonding partners at the Treasurer of State and OBM. ODOT has also conducted research into alternative financing strategies, such as Direct Purchase Agreements and Bond Anticipation Notes, with the goal of saving interest costs over time. Unfortunately, recent market conditions have rendered these options cost-ineffective.

## BONDING STRATEGIES

ODOT's strategy for amortizing (gradually paying off over time) bonds varies by program and is rooted in several considerations, such as the useful life concept, effective cash management, IRS restrictions, statutory and contractual limitations, and general fiscal responsibility.

Typically, ODOT bonds are amortized over a 10-15-year period. Although statutorily ODOT can amortize bonds much longer, ODOT uses the *useful life* concept, in that the bonds should be paid off before the average useful life of the projects being financed are complete. This strategy is preferable to rating agencies, helping to maximize our bond ratings. Therefore, ODOT typically bonds large projects, as opposed to smaller projects with shorter useful lives, such as basic maintenance.

For ODOT's GARVEE bonds, issuances are generally amortized with level payments over a 12-year period. Historically, Federal transportation bills are enacted for 6-year periods, meaning that a bond will be paid off within two Federal authorizations. This has always been viewed as a credit strength to the agencies rating our bonds. This is but one feature of our GARVEE bonding strategy that gives ODOT one of the highest rated GARVEE bonds in the country.

For ODOT's HCAP bonds, bonds are amortized differently, using a 15-year level principal repayment strategy. This strategy accelerates principal payments, which is advantageous given Constitutional restrictions we will discuss further.

Both the HCAP and GARVEE bonds are issued on a cyclical basis. As projects are selected for inclusion in a bond program, ODOT forecasts the cash needs of those projects and issues accordingly. ODOT does not issue

bonds to fund a specific project or set of projects, but rather cash needs over a 15-18-month period. Bond funding set aside for a single project can be funded by a series of bond issuances. By issuing on a cyclical basis, the proceeds are spent quickly, meaning (1) ODOT avoids potential IRS penalties due in part to slowed spending, and (2) ODOT is not paying interest on proceeds not needed for years.

Facilities bonds, on the other hand, are infrequent and issued on an as-needed basis.

In other words, ODOT only borrows what it needs for the short term.

ODOT also strategizes bond issuances based on statutory, contractual, and internally-developed limitations.

Article 8, section 2m of the Constitution imposes limitations on HCAP bonds, as follows:

*“Not more than two hundred twenty million dollars principal amount of highway obligations authorized to be issued under this section, plus the principal amount of highway obligations that in any prior fiscal years could have been but were not issued within the two-hundred-twenty-million-dollar fiscal year limit, may be issued in any fiscal year, and not more than one billion two hundred million dollars principal amount of highway obligations issued under this section may be outstanding at any one time.”*

Accordingly, ODOT monitors and stays within the \$1.2 billion Constitutional cap on outstanding principal as well as issuance authority limits set forth by the Constitution and Legislature for its HCAP bonds.

Please refer to **Exhibit 3** for a representation of historical and projected 2020 principal outstanding in the HCAP program.

ODOT’s GARVEE bonds, although not limited Constitutionally, are limited contractually to a coverage ratio of “five times,” meaning that in any given year, the year’s federal receipts (the repayment pledge on the bonds) must be at least five times the highest amount of debt service due in the current or any future year.

Over the past ten years, ODOT’s coverage ratio on its GARVEE bonds has ranged from 7.01 to 9.39, which is seen as a credit strength by the bond rating agencies.

Lastly, ODOT has instituted internal written policies limiting both state and federal debt to no more than 20% of their respected revenues, with a best practice of keeping below 17% in the event of unexpected revenue shortfalls. In state fiscal year 2020, the federal debt service is estimated to be 11.7% of federal revenues, and state debt service is estimated to be 11.4% of state revenues, well within internal policy.

## **EXISTING BOND DEBT**

Currently, including both outstanding principal and interest, ODOT is liable for \$1.34 billion in HCAP debt, \$1.04 billion in GARVEE debt, and \$207 million in Facilities bond debt, for a total of \$2.59 billion. These bonds will all be paid off by 2034.

Annual debt service payments by bond program vary from year to year, and largely depend on previous issuance amounts and timing, amortization strategies, and bond yields (interest rates).

For example, over the last ten years, HCAP annual debt service has averaged \$139 million per year, with a maximum of \$170 million. GARVEE debt service has averaged \$171 million over the same time frame, with a maximum of \$187 million. Facilities bonds were first issued in 2015 with annual debt service ranging from \$8-16 million.

Please refer to **Exhibit 4** for a representation of historical net debt service payments.

## **FUTURE BONDING**

With respect to ODOT's expectation for future bonding, additional bonding is expected in all three bond programs. This is due in part to satisfy projected expenditures on existing projects in all three programs. We understand that responsible bonding is an important part of our infrastructure funding plan. However, at the direction of Governor DeWine and Director Marchbanks, ODOT anticipates future bonding, in general, to be reduced. This will be done thanks in part to the additional revenue being generated by the motor fuel user fee – but this administration also believes that continuing to incur debt at existing levels is unsustainable.

As you will recall, ODOT was looking over the edge of a potential fiscal cliff before the passage of House Bill 62 due mainly to flat revenues and rising construction costs. Ohio has been an industry leader in using creative and responsible funding solutions to ensure our state's infrastructure remains in good condition. We will strive to continue that work – making best use of taxpayer dollars to ensure Ohio's roads and bridges are among the safest and most well-maintained systems in the country.

Thank you again for the opportunity to talk with you today, Chairman Greenspan, Chairman McColley and members of the study committee. I have with me several members of our staff, and hopefully we can answer any questions you may have, or we can provide additional information as needed.

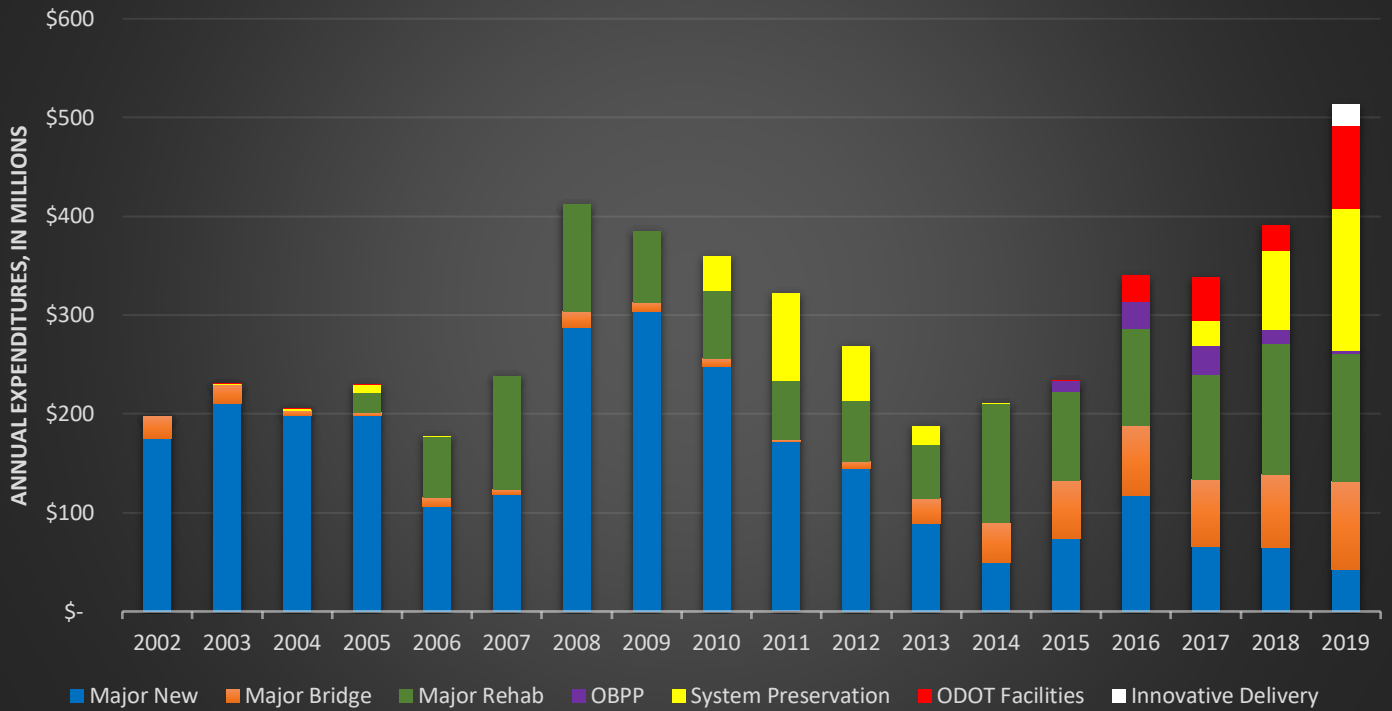




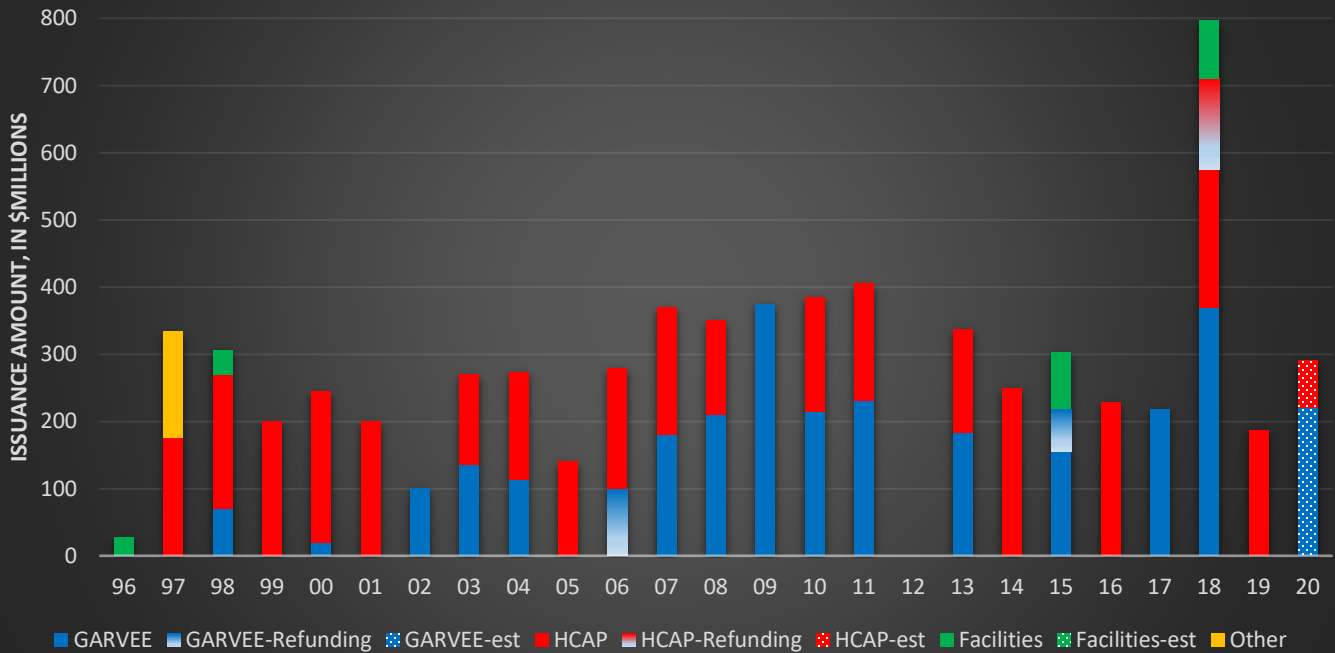
Road to Our Future Joint Legislative Study Committee  
Expense Mitigation Hearing

Supplementary Exhibits 1-4  
November 19, 2019

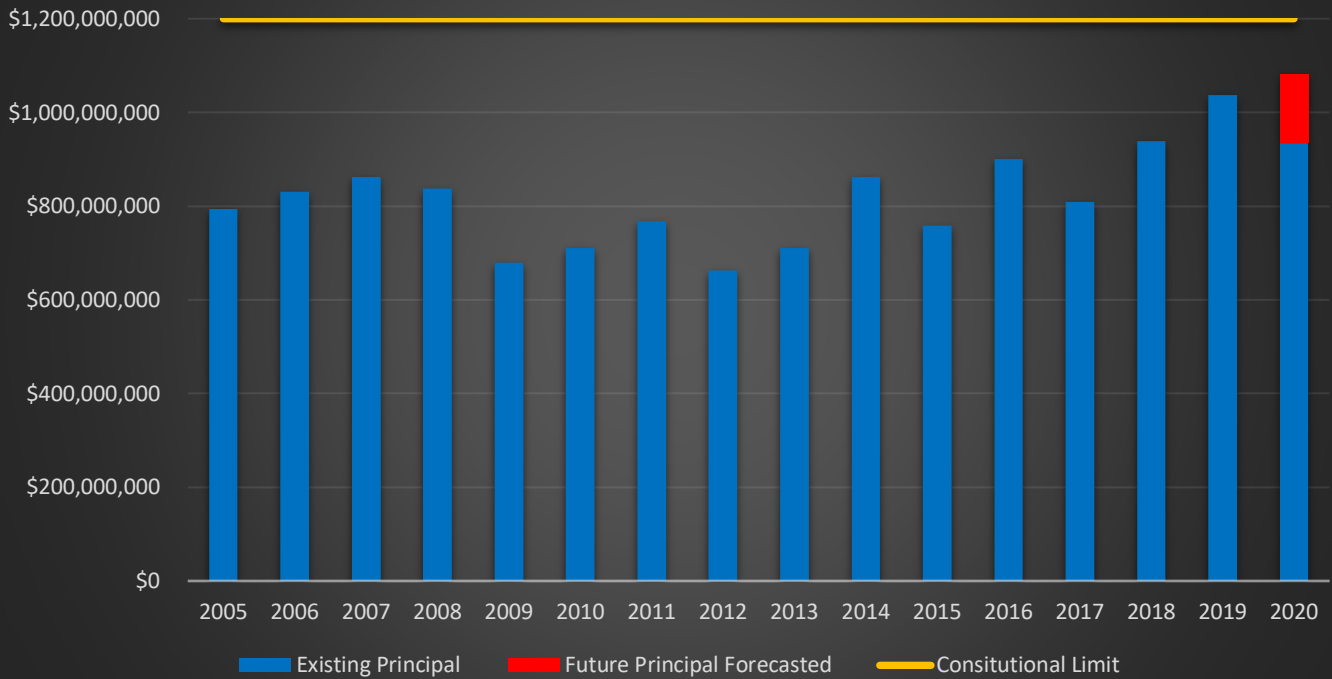
Exhibit 1: ODOT Annual Bond Spending 2002-2019  
by Capital Program



## Exhibit 2: ODOT Bonds Issued by SFY



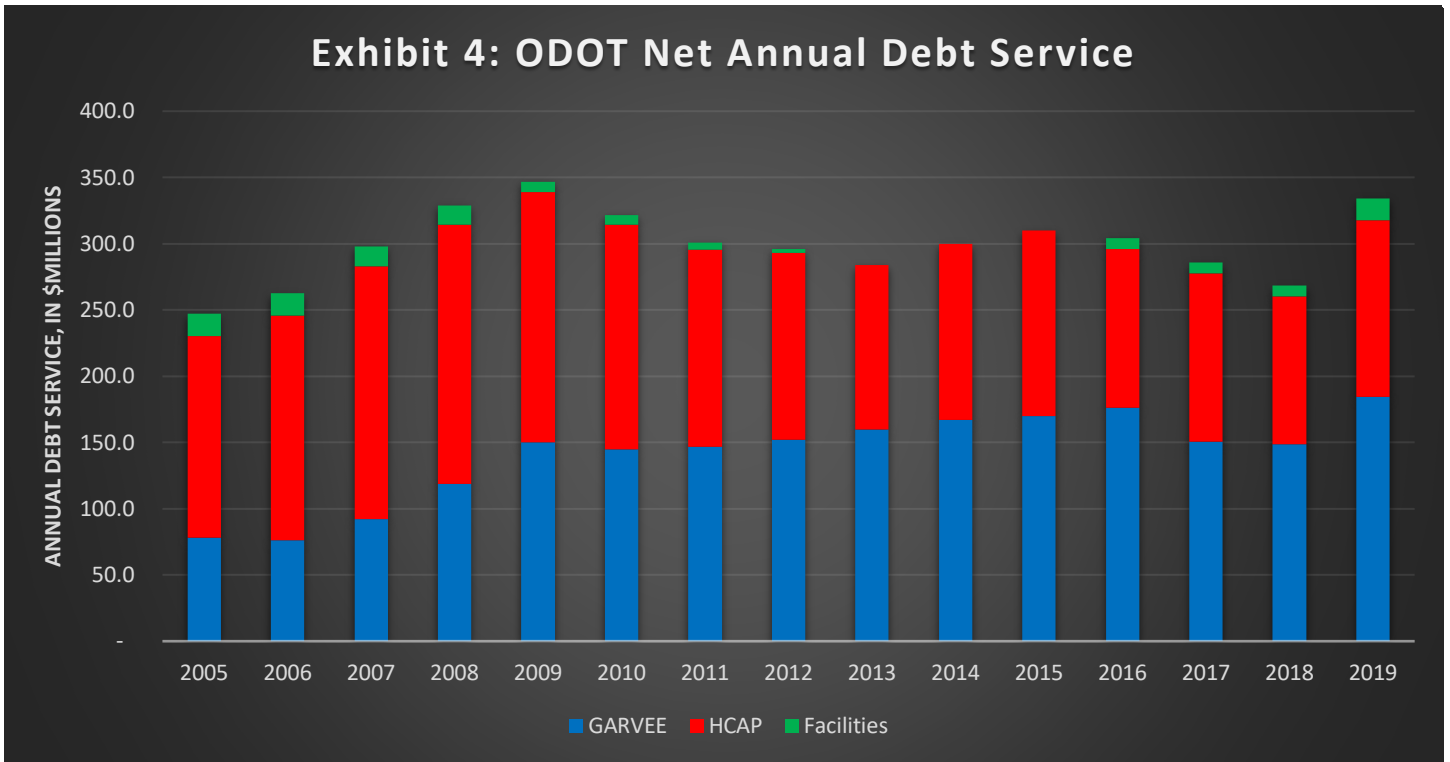
## Exhibit 3: ODOT Outstanding HCAP Principal



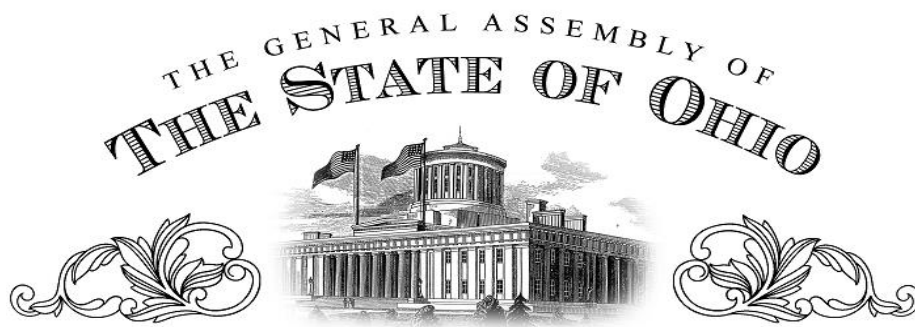
**Excellence in Government**

*ODOT is an Equal Opportunity Employer and Provider of Services*

## Exhibit 4: ODOT Net Annual Debt Service



(Note: Annual debt service amounts shown are net of TOS administrative charges, investment income, and any bond premium or discount.)



## ANNOUNCEMENT OF COMMITTEE MEETING

**COMMITTEE:** Ohio's Road to Our Future Joint Legislative Study Committee  
**CO-CHAIRS:** Rep. Dave Greenspan and Sen. Rob McColley  
**DATE:** December 10, 2019  
**TIME:** **2:00PM**  
**ROOM:** Statehouse Room 115

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### AGENDA

1. Alternative sources of revenue
  - An analysis of the future needs of the Department and the state's infrastructure, including local infrastructure.
  - An analysis of using a vehicle-miles-traveled approach to transportation funding in Ohio and the feasibility of either starting a pilot program or fully using the vehicle-miles-traveled approach in this state.

Please contact Co-Chair Greenspan's office at (614) 466-0961 or [Adam.Headlee@ohiohouse.gov](mailto:Adam.Headlee@ohiohouse.gov), or Co-Chair McColley's office at (614) 466-8150 or [Erin.Froehlich@ohiosenate.gov](mailto:Erin.Froehlich@ohiosenate.gov) with any questions.

# Ohio's Road to Our Future Joint Legislative Study Committee

## Minutes

December 10, 2019

Co-Chairman Greenspan called the meeting of the Ohio's Road to Our Future Joint Legislative Study Committee to order at 2:05 p.m. in Statehouse Room 115. Attendance was taken and a quorum was present.

Chairman Greenspan called forward Pam Vest-Boratyn, Assistant Director and Chief of Staff for the Ohio Department of Transportation to, provide testimony related to alternative sources of revenue.

- Assistant Director Vest-Boratyn answered questions asked by the committee members.
  - Will Hinman assisted Assistant Director Vest-Boratyn with the answering of questions.
  - Tim McDonald also assisted Assistant Director Vest-Boratyn with the answering of questions.

Chairman Greenspan called forward Grace Gallucci, Executive Director of the Northeast Ohio Areawide Coordinating Agency, to provide testimony related to alternative sources of revenue.

- Director Gallucci answered questions asked by the committee members.

With no further business, the committee adjourned at 3:25 p.m.

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Dave Greenspan, Co-Chair

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Rob McColley, Co-Chair

Good Afternoon Chairman Greenspan, Chairman McColley, and members of the Road to Our Future Joint Legislative Study Committee – you may recall from our last testimony, I am Pam Vest Boratyn, Assistant Director for Business and Human Resources and Chief of Staff at the Ohio Department of Transportation. Thank you for allowing me the opportunity to speak with you again today.

In my testimony, I will discuss the Ohio Department of Transportation’s long-range plan, our more immediate future needs, and potential future alternative funding sources – specifically miles-based user fees, commonly referred to as vehicle miles traveled (VMT).

### **Access Ohio 2045**

The Ohio Department of Transportation (ODOT) has a long-range transportation plan called Access Ohio 2045 (AO45). This plan looks 25 years into the future to try to anticipate the transportation needs of not only ODOT, but of our local and private sector partners as well. Unfortunately, we are still in the process of updating our plan, which we expect to complete and publish in the Spring of 2020. With that being said, I would like to discuss what goes into the analysis.

Our goal is to provide a vision of a future where all of Ohio will be connected by a safe, smart, and collaborative transportation system that moves people and freight... efficiently and reliably.... and supports the needs of Ohio's local communities.

To achieve this vision, ODOT is working with statewide, county, township, and municipal partners in the public, private, and civic sectors on innovative approaches and technology to preserve, manage, and enhance the state's transportation system. Over the last two years, ODOT has held 20 stakeholder meetings in every region of the state, seeking input from these partners.

The objective is to develop a comprehensive statewide multimodal needs analysis, representative of and responsive to the needs of all partners.

This is a challenging task. Ohio's multimodal transportation assets are owned and operated by a wide variety of public and private entities. For example, roadway assets are owned and operated by state, municipal, county, and township agencies; transit, air, rail, and maritime assets are owned and operated by a mix of public and private parties. The reality is that it is nearly impossible for ODOT to gather all the appropriate data sets that provide statewide information on an individual

category of modal assets, let alone a comprehensive statewide multimodal dataset. However, it is our hope that in the end ... the final report will provide a statewide, planning-level assessment of potential future needs based on the best available information.

The report is *not* intended to serve as the basis for a detailed investment plan or a list of future priorities.... But it will provide an estimate of statewide transportation funding needs based on four different alternative futures.

### **Near-Future Needs**

If you'll recall ODOT testimony during HB 62, ODOT was facing a serious financial situation due to four main circumstances; increased fuel efficiency in vehicles, rising construction inflation, high debt services payments, and the fact that the Ohio Turnpike bond proceeds were all spent or committed.

Thanks to you, members of the Ohio General Assembly, we were able to gather more revenue with a motor fuel user fee increase of 10.5 cents on gasoline, 19 cents on diesel fuel, and registration fees for hybrid and electric vehicles. This increase will allow ODOT to fully fund our maintenance/preservation program, as well perform meaningful capacity-enhancing projects on our existing system and address critical safety



projects. Coupled with ODOT's pledge to find an additional \$100 million in operational savings, this revenue package will allow us to maintain this work for the next five years.

However, over time, our purchasing power will most likely diminish, and the state may face another potential revenue shortfall. Fact is, it is difficult for revenue to keep pace with expenses due largely, in part, to construction inflation and the continued increase in more fuel-efficient vehicles.

While the motor fuel user fee will likely need to be continued into the near future to ensure a stable revenue source, Ohio must prepare to transition to alternate revenue sources for continued transportation and infrastructure funding needs. One of these possible alternate revenue sources is to institute a Vehicle Miles Traveled program.

### **Vehicle Miles Traveled/Miles-Based User Fees**

ODOT intends to take steps toward limiting the non-sustainable long-term revenue source of user fees on per-gallon revenue. An increase in fuel efficiency, electric/alternative vehicles and increased expenses have made it difficult for state DOT's to

continuously support revenues needed to build and maintain our infrastructure.

A vehicle-miles-traveled solution avoids reduction in revenue based on changes in petroleum-based fuel consumption or the market penetration of alternative fuel vehicles. The transition from per-gallon user fees to a per-mile charge will take time in order to determine what might be the best approach for the State of Ohio.

ODOT is doing research on what vehicles could be part of this type of program (personal vehicles, commercial vehicles or both), what type of vehicles should participate (fuel efficiency above average 20 MPG), when the best timeframe might be to begin implementation from a cost/benefit method (5-10 years, longer, shorter), where this program might exist (interstates, all roadways, etc.), privacy protections, and how it could be implemented (volunteer, mandated, what options of reporting will be available, etc.).

ODOT has been researching content prepared by other states and third-parties to learn about struggles and successes of other programs that have been piloted and/or implemented in some form. ODOT will need to determine how to implement a per-mile charge that is beneficial from an administrative

approach as well as a user approach, if a usage charge is desired. Early implementations in other states have shown VMT can increase administrative costs in addition to those associated in collecting the revenues received by per-gallon user fees.

Another avenue ODOT is reviewing is the availability of the Surface Transportation System Funding Alternatives (STSFA) Grant. The Federal Highway Administration (FHWA) will be releasing information within the next couple of weeks on whether there is a grant funding opportunity available for Ohio to pursue. This grant is for states demonstrating user-based alternative revenue mechanisms that utilize a user fee structure to maintain the long-term solvency of the Federal Highway Trust Fund.

Grant proposals must address implementation, interoperability, public acceptance and potential hurdles to adoption of the demonstrated user-based alternative revenue mechanism, use of independent and private third-party vendors, congestion mitigation impacts, equity concerns, ease of user compliance, and privacy protection, including the reliability and security of technology used. Geographic diversity is also a requirement.

Whether or not we win any grant awards or not, ODOT will continue to research the potential impact of moving to a user-based, VMT or other, revenue structure. ODOT has begun to meet with identified key state partners – the Ohio Department of Public Safety and Ohio Department of Taxation - to ensure all parties will be involved to assist in creating the best revenue structure for Ohio.

Our goal is to research and gather data for determining if an alternative revenue structure is feasible. However, there must be an analysis for how to limit the loss of per-gallon revenue compared to how to maximize revenue from a per-mile charge. As noted, there may be changes to the administrative process that will cause an increase in expenses compared to the costs associated to per-gallon fees. These costs will vary depending on the desired approach.

Currently, the State receives its funding in a relatively simple and efficient way - by obtaining tax revenue from the wholesalers. Generating revenue based on vehicle-miles-traveled approach would most likely cause more complex issues in administering the collection of revenue and raise the cost of operations for State DOTs. There has not been a specific method determined to be a best practice approach.

There are many different approaches that could be utilized to create a revenue structure based on per-mile charge rather than per-gallon fee. Some examples could be periodic odometer reporting, radio-frequency identification readers (RFID) on road gantries, posts or collection booths, and electronic logging devices/other onboard devices. Each type of method will have costs associated with it either by implementation costs or higher administrative costs for compliance and/or enforcement.

Doing this increases the number of people from whom the state must collect taxes or user fees which makes compliance and collection base is more difficult to be achieved. If each vehicle owner reports the mileage traveled independently, then it would be more difficult for the state to ensure 100% accuracy for compliance and accuracy of data reported. If RFID devices are used to track vehicles passing through locations, then data accuracy will be much higher. However, implementation costs become exponentially higher. If each vehicle has an electronic logging device or other onboard device, then the data recorded may have better accuracy compared to each user reporting their odometer reading.

With a per-gallon user fee, the state receives the revenue in a pre-paid manner. Pre-paid meaning because it is based on consumption currently, the state collects the tax fee from wholesaler prior to individual users of the fuel at the pump.

There are options that could still allow for this type of revenue generation under a per-mile charge, but most options are similar to a post-paid method. Post-paid more likely used in a VMT is based on miles traveled by individual participants/vehicles. Collecting from wholesalers gives the state a higher likelihood of collecting the revenue from the smaller taxpayer base. Post-paid most likely would have a larger use payer base pay their fees and compliancy may become an issue.

The options referred to in a VMT that could allow for prepayment is a user purchasing miles at the beginning of year or at time of registration and having to do some sort of a true-up for any overages at the end of the time period. There could be an option to incorporate a credit for gas taxes paid by drivers of the vehicles as well, but that increases data gathering, system requirements and additional administrative functions. A pre-paid method of obtaining revenue will most likely be best to avoid large swings in revenue collection and to assist with compliance of the tax or user charge.

The Federal Highway Administration has given some information related to what other states have done with per-mile charges based on the grants they have received from Federal Highway Administration. Along with my testimony, I have submitted information that they have published on their website that was last updated April 3, 2019.

(<https://ops.fhwa.dot.gov/fastact/stsfa/reports/stsfarpt19/index.htm>)

To date, Oregon appears to provide the most complete model of implementing a per-mile charge for infrastructure funding. In 2015, the Oregon legislature created a pilot program called “OReGo.” OReGo was a voluntary program available to 5,000 residents who could choose to pay a per-mile set charge rather than the state motor fuel user fee. In June of this year, Oregon officially removed the 5,000-user cap in the pilot project and opened the program to any vehicle owners in the state. More information on Oregon’s program can be found in the STSFA report that I have submitted with my testimony.

In order to create a useful and effective framework, it is likely that Ohio would ultimately have to ensure the following in order to implement an effective VMT user fee; a simple, fair, and transparent process; accountability for roadway providers; and robust privacy protections for users.

The men and women at ODOT are dedicated to ensuring that we are prepared to face future challenges, while at the same time ensuring that we can effectively and efficiently carry out our current mission and care for our legacy infrastructure. We look forward to working with our federal, regional, and local partners in both the public and private sectors – as well as members of the General Assembly – in order to find the best solutions possible for all Ohioans.

Chairman Greenspan, Chairman McColley – thank you again for allowing me to provide testimony today. I would be happy to address any questions you or the committee members may have.



# **FAST Act Section 6020: Surface Transportation System Funding Alternatives (STSFA) Biennial Report**



U.S. Department of Transportation  
**Federal Highway Administration**

## **FAST Act Section 6020 Surface Transportation System Funding Alternatives (STSFA) Program**

### **Background:**

The Fixing America's Surface Transportation (FAST) Act, Section 6020, directed the U.S. Department of Transportation (DOT) to establish the Surface Transportation System Funding Alternatives (STSFA) Program, with funding levels of \$15,000,000 in fiscal year (FY) 2016 and \$20,000,000 in each of FYs 2017-20. The funds are derived from a set-aside from the Highway Research and Development Program under section 503(b) of Title 23, United States Code. The purpose of the program is to provide grants to States to demonstrate user-based alternative revenue mechanisms that utilize a user fee structure to maintain the long-term solvency of the Highway Trust Fund. These grants must make up no more than 50 percent of total proposed project costs, with the remainder coming from non-Federal sources. If there are not enough qualified proposals submitted in a given year, on or before August 1 of each year, the Secretary of Transportation must transfer available funds back to the Highway Research and Development Program.<sup>1</sup> Section 6020 also lays out specific issues that each demonstration project funded under the statute must address, including: testing, design, implementation, and acceptance of functional future user-based alternative revenue mechanisms that minimize administrative costs; increasing public awareness of the need for, and possible approaches to, alternative funding sources for surface transportation programs; and providing recommendations on various approaches. The grants require a State department of transportation lead. Proposals must address implementation, interoperability, public acceptance and potential hurdles to adoption of the demonstrated user-based alternative revenue mechanism, privacy protection, use of independent and private third-party vendors, congestion mitigation impacts, equity concerns, ease of user compliance, and the reliability and security of technology used. Geographic diversity is a statutory requirement.

Each recipient of a grant under the STSFA Program is required to submit an annual report to DOT that describes (1) how the demonstration activities carried out with grant funds meet the objectives of the program, and (2) lessons learned for future deployment of alternative revenue mechanisms that utilize a user fee structure. The first of these reports were due one year after the first grant was awarded to a project under the program. Section 6020 also requires DOT to produce this biennial report on the demonstration activities carried out under the STSFA Program, and to make it publicly available on the internet. The annual reports from States receiving funding under the program will provide the primary inputs for the biennial reports.<sup>2</sup> Interest in charging road users based on miles driven spans two decades. It was initially referred to as a vehicle mileage tax (VMT). Several States explored opportunities to create a new funding model. Oregon was one of the first States to utilize funding through the Value Pricing Pilot Program to study VMT strategies. In 2001, the Oregon legislature formed the Road Usage Fee Task Force (RUFTF) with the mission to find an alternative source of transportation funding outside of fuel taxes. The RUFTF developed the concept of a road usage charge (RUC) – where drivers pay for every mile they drive, rather than for every gallon of gas their vehicles consume.

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<sup>1</sup> Section 503(b) is a reference to the Highway Research and Development Program.

<sup>2</sup> The time clock for the year begins once a cooperative agreement is executed between the State and FHWA and the funds are allocated. Only two of the States executed their agreement by December 2016, and the State has 30 days after the 1-year mark to submit their report.

The Oregon Department of Transportation established the OReGO Program, which became operational on July 1, 2015. The State is using STSFA grant money to enhance the OReGO Program (project status provided in the status update section).

### **Status of FY 2016 and 2017 Grant Projects**

The Office of Operations is managing the solicitation, evaluation, and implementation of the STSFA grants. Stewardship and oversight management of awarded projects occurs in coordination with the Federal Highway Administration (FHWA) Division Offices and Headquarters staff. The FHWA published the first-year solicitation March 21, 2016, with proposals due by May 20, 2016. The Secretary awarded eight STSFA grants to seven lead States (California, Delaware, Hawaii, Minnesota, Missouri, Oregon (project lead for two grants), and Washington) totaling \$14,235,000. These proposals contained both pre-deployment and deployment activities, with two consisting of multi-State partnerships.

With one exception, applications to the program thus far have been from States that had explored some facet of a road user charge strategy on their own in the past. The first year of the program was deployed under a short timeline, which many States felt did not provide them with adequate time to prepare an application. Of the seven States that applied for FY 2016 funding, Hawaii was the only State that had no experience with exploring road user charge strategies. Release of the FY 2017 solicitation was delayed to provide an opportunity for the new Administration to review the notice and gain a better understanding of the program. The FHWA announced the FY 2017 solicitation April 13, 2017, with proposals due by June 12, 2017. As a result, States had 60 days to prepare their applications to allow internal review of proposals and announcement of the awards before the end of FY 2017. The Secretary awarded seven STSFA grants to six lead States (California, Colorado, Delaware, Missouri, Oregon (2), and Washington State)) totaling \$15,522,500.<sup>3</sup> Only one new State submitted an application (Colorado).

Progress among grant recipients appears to be directly correlated to the prior level of experience the State had with implementing a road user charge strategy. Two States executed their cooperative agreement prior to the end of 2016. While each of FY 2016 recipients is making some level of progress on its projects, States such as California, Oregon, and Washington, which have more experience, are further along. Delaware and Washington deployed their pilots in early 2018. Hawaii has encountered some unexpected challenges described in the State-by-State status update section. Five out of the seven FY 2016 States have developed a road user charge website (a link is provided as a part of each State's status update). As noted above, the 2017 grant awards were released in October 2017. At this time, all of the 2017 recipients have executed agreements; this report includes general information about the one new State (Colorado) as part of this report.

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<sup>3</sup> Requests for funding in 2016 exceeded the amount available. Because all the proposals were determined to be worthy of funding the decision was made to fund tasks from all proposals recognizing that States could submit proposals to fund additional tasks (phases) in subsequent years.

## **Current Project Status**

### **California**

Caltrans completed its State funded 9-month California Road Charge Pilot Program (RCPP), with over 5000 vehicles. During the pilot period, participants drove over 37 million miles. The RCPP tested five methods of mileage reporting, including both manual and automatic reporting methods (Time Permit, Mileage Permit, Odometer Charge, Automated Mileage Reporting with no location data, and Automated Mileage Reporting with general location). It also included 50+ heavy vehicles as a replacement for the State diesel excise tax. The pilot helped answer many questions for Caltrans, but also identified areas for additional research. The RCPP also identified serious gaps in the State of California general public's understanding of how transportation infrastructure is funded and why the gas tax is not a sustainable solution. FHWA awarded the California Department of Transportation (Caltrans) \$750,000 in FY 2016 funds. Approximately \$276,000 in FY 16 funds have not been invoiced. A FY 2017 STSFA project will extend the California RCPP to support the demonstration of a pay-at-the-pump/charging station revenue collection mechanism. Caltrans used FY 16 funds to apply a systematic approach to the issue of transportation revenue generation building on the information gathered during California's RCPP. Caltrans has been exploring the following tasks:

- 1. Education and Outreach –**

Expanding upon ongoing efforts to engage the public on transportation funding and alternative methods of revenue generation.

- 2. Organizational Structure and Compliance Program Development –**

Working in partnership with the Department of Motor Vehicles to leverage and expand the data collected during the RCPP to formulate a streamlined system of administration, oversight, and compliance.

- 3. Pay-At-The-Pump/Charging Station –**

Explore an alternative way of collecting revenue for transportation by assessing a mileage-based user fee that replicates the current gas tax collection mechanism, and evaluating the feasibility of eventually replacing the current excise tax method.

A website is available at <https://www.californiaroadchargepilot.com/>.

### **Colorado**

As mentioned in the opening, the Colorado Department of Transportation (CDOT) did not receive 2016 STSFA funding. In 2016, CDOT invested in conducting a very small 100-participant RUC demonstration pilot project consisting of transportation leads, officials, media and the public. The Colorado Road Usage Charge Pilot Program (RUCPP) allowed participants to experience the RUC process (learned how the mileage data is collected and how payments and associated revenues were simulated). There were three payment options available: GPS enabled, odometer reporting, and non-GPS enabled mileage measurements. Payments and associated revenues were simulated. Based upon Colorado's FY 2017 STSFA application, FHWA awarded the State \$500,000 in STSFA funds in October 2017 to address concerns from the rural and agricultural community identified in the Colorado RUCPP.

The 2017 proposal will explore lessons learned from the State funded pilot. The pilot will be expanded to 250 participants over seven months. Efforts to increase public acceptance and improve system functionality will include an upgrade to CDOT's GIS and Road Management Data to allow for the delineation of public and private roads. Offering an additional mileage reporting option (Automated Vehicle Location) for farm equipment. Improving the existing mile reporting options through the refinement of the Colorado RUCPP Mobile Application, and partnering with the Colorado Department of Revenue to define the RUC collection methodology and other administrative system improvements. A website is available at <https://www.codot.gov/programs/ruc>.

### **Delaware (on behalf of the I-95 Corridor Coalition)**

The Delaware DOT, acting on behalf of the I-95 Corridor Coalition, received a \$1,490,000 FY 2016 STSFA grant to conduct an initial pilot of road user charging. The State's goal is to *"Increase public awareness of funding issues and assess the acceptance of Mileage Based User Fees (MBUF)."* There have been some challenges to overcome related to State participation in the pilot. Initially five states intended to participate in the pilot (CT, DE, NH, PA and VT). However, only two states participated in phase one. The Coalition returned \$890,000. There remains a significant amount of interest among the 16 I-95 coalition members to explore road user charges. This project will provide key insights into whether a MBUF approach can be implemented in a multi-State environment. In addition, the team will consider RUC in an area where there are many toll facilities as it relates to potential synergies with tolling. For example: Per the latest census figures, 16 percent of workers living in Delaware work in another State; while 15 percent of workers in Delaware reside in another State. Those are some of the highest percentages of any State in the country. On September 7, 2017, the I-95 Corridor Coalition hosted a "MBUF Vendor Day" in Wilmington, Delaware, to hear from companies that have proven solutions to collecting, processing and administering a mileage-based user fee. The purpose of the event was to gain a better understanding of available user-fee options (both manual and automated methods), review key education, outreach activities, and begin to define the focused pilots in Delaware and other participating coalition member States. The phase one funded pilot began with 140 participants in May 2018. Phase one is complete, but coordination of reimbursement of funds is behind schedule. Of the \$580,000 used to implement phase one, thirty percent has been reimbursed. It is anticipated that the remainder of phase one funds will be expended by the end of 2018.

The FHWA awarded Delaware FY 2017 STSFA funds, which will allow the Coalition to expand the initial pilot project from X to 400 participants. In addition, 50 trucks will also participate in the pilot. The expanded pilot will look at how a user fee would fit into the evolving trends of technology funding and driving. Pilot participants will be offered packages with options such as visual trip logs; driving scores; safe zones; vehicle health; parked car instructions; and incident assistance. A website is available at [The I-95 Corridor Coalition Study](#).

## **Hawaii**

The Hawaii DOT received \$3,998,000 in FY 2016 funds. The Hawaii RUC pilot seeks to understand the impacts of a mileage fee would have on the purchase and use of high MPG or alternative fuel vehicles. The pilot will build on existing State infrastructure that collects odometer readings annually as the basis for testing a road usage charge (RUC) user-based revenue alternatives. The project involves setup and implementation of an accounting system to provide prototypical invoices (or “billings”) for mileage driven and other direct communications about revenue alternatives to over one million motorists. Billings will feature personalized information about motorists’ road use and corresponding RUC, gas taxes paid, and other fees. Hawaii is unique in many ways, most significant of which is its island geography, providing some advantages for tax enforcement, particularly for user-based road taxes such as a RUC. However, Hawaii also must delicately balance the imperative of mobility and energy. Transitioning Hawaii’s ground transportation vehicles from internal combustion engines to high miles per gallon (MPG) and alternative fuel vehicles is an important strategy for supporting Hawaii’s statewide energy policy goals, which include the reduction or the elimination of fossil fuel use. Hawaii is in the top three electric vehicle adopters among States, buoyed by a mild climate, relatively short driving distances, and relatively high fuel prices. The State has a 100 percent clean energy goal by 2045. The successful implementation of these strategies are critical to achieving Hawaii’s 100 percent clean energy goals. Changing the structure of transportation funding, to ensure that system maintenance and energy policy are aligned is integral to achieving the State’s goals.

The Hawaii Department of Transportation, in partnership with the counties of the State of Hawaii (County of Kauai, City and County of Honolulu, County of Maui, and County of Hawaii), are working to implement a three-year, six-phase project that builds on existing State infrastructure that collects odometer readings annually as the basis for testing a RUC user-based revenue alternatives. The project involves implementation of an accounting system to provide prototypical invoices (or “billings”) for mileage driven and other direct communications concerning revenue alternatives to over one million motorists. Billings will feature personalized information about motorists’ road use and corresponding RUC, gas taxes paid, and other fees.

A later phase of the project will demonstrate an automated data reporting and collection system using 2,000 volunteers. The project is behind schedule because there have been challenges in securing a contractor. The State procurement law for professional services requires consideration of a minimum of three proposals. The State DOT solicited a request for proposals twice that resulted in just one response on each occasion. The Agency advertised the project as a competitive sealed proposal in early February 2018 and secured a contractor in August 2018. At this time, no funds have been expended.

## **Minnesota**

The Minnesota Department of Transportation (MnDOT) was awarded \$350,000 in FY 2016 funds. MnDOT intends to demonstrate a user-based fee with fleet operated Shared Mobility (SM) service providers. The MnDOT believes that SM services, such as car sharing and ride sharing, represent important and emerging business models that may have profound impacts on the way we travel in the future. The Shared Mobility approach includes a range of new travel forms that promise greater efficiency, safety, and enhanced mobility. It provides a platform to

explore a practical and implementable path toward wider deployment of distance-based user fees as a replacement for the motor fuel tax. By leveraging the advanced technology that has become a standard of SM service providers, MnDOT will look to develop a user-based fee using existing embedded vehicle technology to collect and report miles driven, and to efficiently and effectively collect appropriate user fees.

Minnesota's approach to a per-mile road user fee is incremental, evolutionary and scalable, allowing powerful societal and technological trends to drive the change. A foundational assumption of this approach is to retain the motor fuel tax, recognizing the importance of adjusting it to keep pace with inflation, but instead charging a distance-based fee on new technologies equipped to collect and report those charges efficiently and effectively. This project will prepare Minnesota for the convergence of SM with broader adoption of vehicle electrification as well as forthcoming vehicle automation. At this time, approximately 40% of the funds have been expended. It is anticipated that all the funds will be expended by the end of 2018. A website is available at <http://www.dot.state.mn.us/distancebaseduserfee/planning-development.html>.

### **Missouri**

The Missouri DOT (MoDOT) applied for and received \$250,000 in FY 2016 STSFA funds to conduct pre-deployment planning to establish a new user-based registration fee to address changes in fuel efficiency and to address equity and fairness in what users pay for the maintenance of road and bridge infrastructure. All FY 2016 funds have been spent. The State's current registration fee structure and system is antiquated and presents an equity gap in the revenue structure. The pre-deployment project identified ways to best implement a new registration fee system based on vehicle estimated miles per gallon MPG. The proposed FY 2017 STSFA Project will implement the system identified as part of the pre-deployment and demonstrate the vehicle registration fee collection system. The project includes a continued public engagement section related to the new registration fee to educate the public on transportation funding and the new system.

Phase 2 will address the requirements of implementation by fully demonstrating the next generation of the MPG-based vehicle registration fee collection system. The new proposed registration fee system will also address equity concerns, adjusting the fee based on varying vehicle MPG ratings. By relying on vehicle information at the time of registration, the proposed project helps to address concerns with data security and privacy, as well as user compliance issues. This could also address a way to reduce the administrative cost of a RUC-based system. The MoDOT has been working on their MPG feasibility study. As part of their effort, the State coordinates with the Department of Revenue (DOR) to collect the necessary vehicle data. By the end of the fourth quarter of FY 2017, the DOR completed decoding nearly 4.6 million vehicle identification numbers based on data provided by the DOR. The team is working on building a financial modeling tool to support analysis of revenue alternatives.

### **Oregon**

The State of Oregon launched its RUC Program, OReGO, on July 1, 2015. The OReGO Program offers a new way to fund road maintenance, preservation, and improvements. The OReGO volunteers pay a RUC for the number of miles they drive (1.5 cents per mile through

December 2017), instead of the fuel tax. Volunteers receive credits on their bill for the fuel tax they pay at the pump. OreGO provides all the information in an electronic format. The FHWA awarded the Oregon Department of Transportation (ODOT) \$2,100,000 in FY 2016 and \$2,315,000 in 2017 STSFA funds. The current project schedule based on a 2016 start date will be completed in 2019. So far, the state has billed for \$917,945 of FY 2016 funds. The primary project objectives of the work supported by FHWA are to: expand the market, increase public awareness, evaluate program compliance mechanisms, and to explore interoperability.

#### Expand the Market:

1. Through new technologies – The team is collaborating with current OReGO commercial account managers to increase technology options for collecting and reporting mileage and fuel consumption data. The team will also evaluate and certify new technologies for use in the OReGO Program.
2. Manage the market cycle – The goal is to streamline certification and processes for Account Manager (AM) market entrance and exit to reduce negative business and consumer impacts and enhance the benefits of an agile system. This project is also working to identify what is required for ODOT to serve as its own AM rather than outsourcing to a private vendor.
3. Manual reporting options requirements – The team is developing a strategy for the ODOT RUC Program to make it possible to enroll any vehicle registered in Oregon regardless of the vehicle owner’s access to technology or the vehicle’s technology capabilities.
4. Agency partnering – The team is partnering with other Agencies and initiatives that capture the same data points as OReGO to streamline internal processes and participants’ experiences.

Increase Public Awareness – The team is researching current public opinion on a RUC to devise and execute an education program and develop educational tools.

Evaluate Program Compliance Mechanisms – The team is evaluating current AM compliance mechanisms and RUC participant compliance. For AM compliance, the team seeks to identify areas for improvement to meet the RUC Program’s goals of cost-effective compliance and enforcement, decreased administrative costs, and improved net program revenue. To evaluate current and potential compliance mechanisms for RUC participants (“RUC Payers”) the team hopes to advise decision-making bodies regarding a desired level of compliance and costs of enforcement.

Explore Interoperability – On September 18, 2017, ODOT hosted a 2 1/2-day RUC Forum. The forum gathered policy advisors, tax administrators, consultants, vendors, and representatives from all interested States to discuss the challenges and opportunities available to shape the future of transportation funding using a road user charge. More than 140 people attended the event from 16 States and six countries. The forum gathered interested parties including, State DOTs, tax administrators, vendors, and consultants to collaborate on interoperability opportunities and share lessons learned. A website is available at <http://www.myorego.org/>.



### **Oregon (on behalf of the Western Road User Charge Consortium)**

Since 2013, RUC West, a consortium of 14 Western States (Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, North Dakota, Oklahoma, Oregon, Texas, Utah, and Washington), has tackled many of the policy, organizational, technological, and operational challenges associated with RUC. The RUC West applied for and received \$1,500,000 in FY 2016 STSFA pre-deployment funds to develop a regional RUC concept of common operating procedures that will collect RUC in two different States and assess how to reconcile with each State. There are \$233,912 remaining in FY 2016 funds. The FY 2017 STSFA Project builds upon pre-deployment planning work. The RUC West will use the grant to pilot a regional system between California and Oregon. The regional pilot will utilize the existing RUC platforms in each State, and test the use of a clearinghouse to collect and reconcile the RUC information from each State. The project will launch a pilot between California and Oregon to connect the two States' per-mile road user charging systems, with the ultimate objective of expanding the concept to a regional level. The consultant team has been meeting with consortium members as part of the State's requirements gathering sessions. The goal is to complete the collection of requirements from all consortium members by the end of the fourth quarter. Work is also underway to develop the overall evaluation plan. A website is available at <https://www.rucwest.org/>.

### **Washington**

Like Oregon, Washington State had already begun to explore road user charge strategies prior to the enactment of the FAST Act. Washington received an FY 2016 STSFA pre-deployment grant in the amount of \$3,847,000 to complete Stage one of the Washington RUC Pilot, which included the pilot preparation, planning and recruitment. Based on reimbursements for work completed, \$121,981 in 2016 funds remain. The FY 2017 STSFA proposal will implement Stages two and three, which includes the 12-month live demonstration and evaluation/reporting of the Washington RUC Pilot. The purpose of the pilot is to collect feedback from users regarding methods for assessing user fees, and to collaborate with other States and jurisdictions to test and develop organizational and operational capabilities for implementing a RUC program. The pilot project will test five operational concepts of mileage reporting: Two manual concepts (mileage permit and odometer charge) and three automated concepts (automated distance charge with location; automated distance charge without location and smartphone location application). The project will also test interoperability across State lines as well as across an international border. The Washington RUC Pilot will work with Idaho, Oregon, and British Columbia, Canada.

While funding flows through the State DOT, the Washington State Transportation Commission (WSTC) is the lead agency on this project. At this time, WSTC has completed preparation of technical documents and procurement of RUC Service providers (i.e., AMs and technologies). They have also created a help desk and established partnerships with Department of Licensing (DOL) agents/subagents to provide in-person odometer verification.

The WSTC sponsored a Smartphone Challenge. They took a crowd-sourced approach to assist in identifying a smartphone app for RUC. The State elected this approach because past efforts to use smartphones for active mileage recording were not very successful. The problem to be solved is whether information technology engineers, software developers and designers could

create a prototype solution for mileage reporting by smartphone. The WSTC worked with a University of Washington organization called CoMotion to support four research teams.

At this time, the recruiting phase is well underway. The State's goal was to enroll 2,270 participants and by the end of 2017, the pool of eligible participants grew to over 4,500. The State is currently focused on final end-to-end testing; configuring pilot reporting and reconciliation systems; preparing customer support; working with project partners in Idaho, Oregon, and British Columbia; and finalizing the plan for evaluation of the pilot concurrently with live operations. Each mileage reporting method has undergone three rounds of rigorous testing. In March 2018, Washington launched its pilot program with 2000 volunteers. A website is available at <https://waroadusagecharge.org/>.

### **National Evaluation of Pilots**

The FHWA has secured the services of a contractor to support preparation of the national evaluation. The evaluation will be based on data collected from grant recipients and will identify how the pilots deployed have met the requirements outlined in Section 6020. The report will share lessons learned across project deployments and describe whether it appears that road user charge strategies can supplement or replace the existing gas tax as a transportation revenue source. Based on the progress of pilots underway, FHWA estimates the first evaluation report should be complete by mid-2019.

### **Challenges/Risks**

At this time, while States are making progress on road user charge related strategies, the execution of tasks by the majority of States specifically funded by the STSFA has been limited. There have been questions raised regarding the small number of applicants seeking funds. The road user charge strategy remains a very new concept, but States are expressing interest as a result of Section 6020 providing Federal funding to explore RUC as either a supplement and/or alternative to the gas tax. FHWA continues to identify activities to increase State participation in the program through outreach and education. In 2018, FHWA sponsored a national congestion pricing conference, which included a session that addresses this topic. The BATIC Institute hosted a Road User Charge Webinar that featured presentations about STSFA projects in early 2018. FHWA released the FY 2018 Notice of Funding Opportunity April 13, 2018. Staff received seven proposals by the July 16 deadline.



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Grace Gallucci, NOACA Executive Director

**Testimony of Grace Gallucci**  
**December 10, 2019**  
**Ohio's Road to Our Future Joint Legislative Study Committee**  
**133<sup>rd</sup> General Assembly**  
**Columbus, Ohio**  
**December 10, 2019**

Chairmen Greenspan and McColley, and members of the Committee, my name is Grace Gallucci, and I am the Executive Director of the Northeast Ohio Areawide Coordinating Agency (NOACA), the metropolitan planning organization that conducts transportation and environmental planning for Cuyahoga, Geauga, Lake, Lorain, and Medina Counties. I am here today to address the topic of today's hearing, "Alternative Sources of Revenue."

As we look toward the future, it's fair to say that the gas tax will eventually become a relic of the past. As we embrace new technologies, like electric vehicles, we need to think about new ways to finance our transportation infrastructure. One option is to collect user fees based on vehicle miles traveled, or VMT. Some states are already experimenting with a VMT approach, and congressional committees are studying VMT as a way to phase out the federal gasoline and diesel taxes.

There are certainly benefits to a VMT user fee, like its ability to assess all drivers for wear-and-tear on our roads, regardless of the type of vehicle or its source of energy. But there is another reason to consider a VMT approach. VMT can be used as a reliable tool for both the collection and distribution of our transportation dollars.

In this sense, VMT could be the foundation for a true "user fee" model for transportation funding. This system could ensure that dollars collected would go directly back to the originating communities. Put another way, the amount of funding received by a community from Ohio's user fee would directly correlate to the amount of driving, or wear-and-tear, on that community's roadways.

It only makes sense that if we collect dollars by VMT, we should also distribute them back to municipalities, townships, and counties by VMT. In this way, drivers

1299 Superior Ave., Cleveland, Ohio 44114-3204 Phone: 216-241-2414 FAX: 216-621-3024

Web: [www.noaca.org](http://www.noaca.org) [noaca.org](https://www.facebook.com/noaca.org) [@noaca\\_mpo](https://twitter.com/noaca_mpo)

would know that the dollars they're sending to Columbus are coming back to repair and maintain the roads they use every day. Communities with higher roadway usage would receive equitable funding to maintain those roads.

This system would be similar to the way our federal gas tax dollars are collected and distributed through the Highway Trust Fund. Each state gets back at least ninety-five percent of the gas tax dollars it sends to Washington, D.C. The rest is used to subsidize rural states with extensive roadway systems and less population. Similarly, the state of Ohio could allow for some revenue sharing to help rural communities maintain their networks.

If a VMT system were used to distribute the local share of Ohio's current gas tax dollars, the five counties in NOACA's region would reap an extra \$44 million dollars a year. In other words, under the current system, our region pays substantially more in state gas taxes than we receive to maintain and repair local roads. Communities in Northeast Ohio struggle to maintain their heavily used roadways with insufficient funding, and the true notion of a "user fee" is not being fulfilled. Drivers have a right to expect that the fees they pay, whether at the pump or through a VMT fee, will be used to repave their streets and fill the potholes they drive over every day.

One of the most egregious flaws in the current gas tax distribution system is that each county government in Ohio -- regardless of roadway miles, roadway usage, or population -- receives one-eighty-eighth of the dollars set aside for counties. In other words, each county government receives an equal share of the local portion of gas tax dollars set aside for county governments. This is not equitable, given the vast disparities among counties and the amount of traffic they support.

I would like to point out that Senator Sandra Williams has introduced legislation, S.B. 132, to use VMT to distribute revenues from last year's gas tax increase. In other words, the new revenues raised by last year's increase would be distributed by VMT, as measured by the Ohio Department of Transportation (ODOT), to municipalities, counties, and townships. I very much appreciate Sen. Williams' commitment to a more equitable funding system.

To close, I would like to thank all the members of this Committee for your dedication to improving the future of Ohio's transportation system. Transportation technology is quickly evolving, and states must be prepared to reap the benefits. I am happy to answer any questions you might have. Thank you.



## Headlee, Adam

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**From:** Rep16  
**Sent:** Thursday, September 3, 2020 3:21 PM  
**To:** Adrian Moore; Andrew Huffman; Anthony DiMenna; Art Arnold; Becca Simon; Bev Burtzloff; Brett, Kristen; Carlen Zhang-D'Souza; Caryl Philips; Dan McCarthy; Daniel Shellenbarger; District 04; District 11; District 13; District 16; District 30; District 34; District 36; District 51; District 83; Erin Froehlich; Gary; Giles Allen; Gongwer; Hannah Press Releases; Harris, Allie; Heather Plahuta; Howie Beigelman; Hoynes, Rachel; Jason Phillips; Joe Cannon; Julia Wynn; Katie Eagan; Kelsey Culbertson; Lauren Potts; Madeline Fleisher; Maggie West; Majikas, Maya; Manning@ohiosenate.gov; Margaret Marcy; Matt Carle; Matt Whitehead; McKenzie Watt; Megan Wycuff; Michael Evans; Michael Peppel; Muccio, Nick; Nickie Antonio; Nicole Schneider; Policy GOP; Randall Routt; Rebecca Simon; Reed, Bob; Rob McColley; Sara English; Sean Logan; Senate District 1; Senate District 33; Spencer, Andrew; Taylor Phillips; Terese Herhold; Tock, Jennifer; Tom Middleton; VanKirk, Robert; Victor Hipsley; Wendy Estes; Will O'Gorman; Woolard, Kelsey  
**Subject:** Road To Our Future Committee - WRITTEN Testimony for Review  
**Attachments:** 8.10.20 RTOF ODOT testimony.pdf; 2019\_ODOT\_PA\_Appendix\_A 4.pdf

Good afternoon all,

In light of the past several committee meetings being postponed due to the COVID-19 pandemic, as well as the approaching December 1 deadline for finalizing the committee report, we were advised that the committee may wish to be proactive in continuing to gather information related to the study topics obligated by HB 62. To that end, Chair Greenspan has asked me to send out the attached written testimony from ODOT for your review.

**COMMITTEE MEMBERS:** Please review the two attached documents and return any follow-up questions you may have to our office (please email [Rep16@ohiohouse.gov](mailto:Rep16@ohiohouse.gov) AND cc [Adam.Headlee@ohiohouse.gov](mailto:Adam.Headlee@ohiohouse.gov)) by **COB on Friday, September 18**. We will share your questions with ODOT and provide you with their responses in a timely manner.

**STAKEHOLDERS AND INTERESTED PARTIES:** If you have comments you would like to share for the committee's consideration, please email those remarks to our office by **COB on Friday, September 11** and we will distribute to the committee members for their review and any follow-up questions they may have.

The two attached documents constitute the content which we originally planned to have ODOT present at the **4<sup>th</sup> and 5<sup>th</sup> meetings** – as a reminder, those topics were:

#### 4. Exploration of innovative finance techniques

- A cost-benefit analysis of leasing vehicles versus purchasing vehicles weighing more than 12,000 pounds gross vehicle weight.
- A cost-benefit analysis of leasing versus purchasing construction equipment that has a lifespan of five years or more.

#### 5. Asset leverage and conditions

- An analysis of methods for leveraging state assets, including cell towers, light poles, rights-of-way, rest areas, buildings, and garages. The analysis shall include the methods the Department is currently using to leverage its assets and whether there are any impediments to leveraging assets, such as restrictions in advertising, constraints in renting spaces, or other impediments.
- An analysis of all Department-maintained transportation systems. The analysis shall include an inventory of the structure ratings versus the Department's target ratings; the urban, rural, general, and priority pavement condition ratings versus the Department's target ratings; and a cost analysis of the funds that are necessary to maintain, improve, and expand the current transportation system under the Department's jurisdiction.

We will provide more information regarding our plans for studying the final topic (“Evolving technology”) and the drafting and approval of the committee report at a future date.

Please feel free to reach out with any questions or concerns in the meantime.

Best,

**Adam J. Headlee**

Legislative Aide

Office of State Representative Dave Greenspan

Ohio House of Representatives, District 16

77 S. High Street, 13<sup>th</sup> Floor, Columbus, OH 43215

614.466.0961





## **Road to Our Future Joint Legislative Study Committee**

### ***Written Testimony, August 10, 2020***

Co-chairs Greenspan and McColley and members of the joint legislative study committee - my name is William O’Gorman and I am the Deputy Director overseeing legislative and intergovernmental affairs at the Ohio Department of Transportation.

During these uncertain times, I am grateful for the opportunity to provide written testimony to discuss the many ways ODOT has sought to find cost-savings and generate additional revenue in order to make the best use of the public funds that are entrusted to us.

I will be discussing the policies and strategies ODOT has implemented to help achieve our goals. As you will see, some of our assets are constrained by federal regulations, so we must continue to be creative and innovative in finding ways to leverage our assets where we are able.

### **Leveraging State-Owned Assets**

One of the areas this committee has asked ODOT to report on is the ability to leverage state-owned assets to generate or save revenue. There are several areas in which ODOT does generate additional revenue beyond the motor vehicle fuel tax.

### ***Excess Land Sales***

The sale of excess land by ODOT is permitted by statute. While ODOT would prefer to sell land in order to generate revenue, there are some circumstances that make the available tracts difficult to offload.

First and foremost, ODOT is charged with buying only what it needs for a project so there is typically only minimal additional/excess land that is not needed for the road. Often the excess land may be small, irregularly shaped, landlocked, or have limited utility rendering it of minimal value or of value only to abutting property owners.

In cases where the land can be sold, the appraised value of the land dictates how the land may be sold. Any property more than \$20,000 must be sold by public auction. ODOT is permitted to execute some direct sales but that is generally limited to other governmental entities.

Additionally, land that was originally purchased with Federal funds (which accounts for almost all right-of-way) has additional restrictions on the conditions of any sale, and subsequent use of any proceeds.

In FY 2020 we have sold approximately \$1.1 million in excess land. I would also like to point out that for every disposal we estimate its costs at least \$15,000 to prepare any excess land for sale because we are required to complete a title report, have environmental clearance, survey, and an appraisal conducted.

As a result, we have many small (size/value) tracts that would cost ODOT more to sell than they are worth. Carrying costs are frequently non-existent as we are not paying taxes on the property and the only costs may be summer mowing expenses.

ODOT can also, by statute, lease excess land, but because the size, location, and amount of land, in addition to federal requirements, makes those opportunities few and far between. However, we have collected \$466,000 from 95 lease agreements this fiscal year.

### ***Oil and Gas Leases***

ODOT holds Oil & Gas leases in the far eastern part of the state. We did not acquire the land to get the minerals rights, but rather incidentally came to own them through the acquisition of a fee interest in land acquired for a road project.

Earlier this year we began accepting requests for new wells/oil & gas rights on ODOT property. Unfortunately, the oil & gas market has dried up because of global market conditions.

We do not anticipate any new leases and we would anticipate future revenue to decline. We currently have 343 leases that generated about \$456,000 so far, this fiscal year.

### ***Cell tower leases***

ODOT has had express state statutory authority for more than 20 years for cell tower leasing in our rights-of-way.

There are currently 54 Macro sites (towers) and 27 small cell sites that have generated \$2.5 million this fiscal year.

One thing to note is there are recent FCC rulings that are creating uncertainty in the existing pricing structure/model that ODOT has established for small cell installations. If ODOT must conform to the ruling, the small cell revenue will be reduced by 83%.

## ***Ohio Logo Signing Program***

The Ohio Logo signing program (the “Blue Signs”) is an optional federally regulated signing program to provide motorist service information at freeway interchanges. Ohio’s program eligibility criteria match the federal rules. Motorist services are defined to be:

1. Gas
2. Food
3. Lodging
4. Camping
5. Attractions

In addition to regulating the types of business that can participate, numerous other aspects of the program are regulated including the size of signs, number of logos per sign and maximum distance from the interchange. Whenever there has been a relaxation of the federal requirements, Ohio has quickly matched those requirements to allow for the most program participation as possible.

ODOT contracts with a private company to administer, advertise, establish contracts, and collect program fees. Our program administrator is paid a fixed annual fee plus some contract defined reimbursables as well as potential incentives to market and expand program participation. All additional collected program fees are remitted to ODOT. Since this funding does not come from the motor fuel tax, we are more flexible in how we can use it. This source of funding is used by our Jobs & Commerce section to assist with local infrastructure projects that will have a direct positive economic impact to a community – often in situations where we are statutorily unable to use gas tax funds.

Participants are charged a fixed annual fee based upon the volume of traffic passing through the interchange. In calendar year 2019, ODOT received approximately \$6.5 million from the Logo Signing Program. Changes to the current fee structure would have to follow the Chapter 119 rulemaking process.

## ***State Farm Freeway Safety Patrol***

Since 2014 State Farm has been the exclusive sponsor of the State Farm Safety Patrol.

This good Samaritan program which began in 2001, assists stranded motorists on Ohio’s interstates. The program’s purpose is to help keep interstates safe, provide traffic control and medical aid at crash sites, and offer limited roadside assistance if needed.

The collaborative sponsorship is designed to create a long-term, supplemental funding source for the program. State Farm will pay ODOT \$890,000 next fiscal year and in turn receives:

- Logos on the wrapping of the 24 FSP vehicles.
- Logos on the FSP uniforms, hard hats, jackets, and vests.

- Approximately 150 road signs with the sponsor logo. These are the “entering Freeway Safety Patrol region” signs.
- Logos on the comment cards (as well as the website where drivers give feedback).
- A logo on ODOT’s www.ohgo.com website.

### **\$100 Million Savings Initiative**

ODOT employees continue to submit recommendations to help the department reach the goal of saving \$100 million over four years

There is currently between \$28 to \$32 million in savings (or future savings) realized because of the implementation or planned implementation of roughly two dozen recommendations provided by the ODOT workforce. Our team is continuing to vet many more recommendations and we believe we are on the right track to hit our goal.

As we’ve mentioned in previous testimony, no idea is too small or too big. From cancelling newspaper or cable subscriptions to redesigning our website or finding more efficient ways to use salt and brine, we are turning over every rock at ODOT to help achieve savings while providing quality service to the people of Ohio.

### **Not Moving Forward**

There are also several ideas to generate or save revenue ODOT explored recently that we have determined will not be viable to move forward.

### ***Rest Area Commercialization***

Rest Area commercialization is generally, in most cases, restricted by federal prohibitions. Commercial activity is expressly prohibited other than the sale of food and drinks in vending machines. For interstate rest areas, any advertising must be within the facility and not visible from the main travel way.

Additionally, any revenue generated from advertising must be used for rest area related expenses.

### ***Fleet/Heavy Equipment: Lease vs. Buy***

We would like to thank Auditor Faber and his team for confirming the findings of our own research. We were pleased that his team agreed that a shift toward leasing the heavy equipment used by our highway maintenance crews would not be in the best interest of Ohio’s taxpayers.

The audit report confirmed that while ODOT would realize a one-time cash benefit from the sale of our existing fleet, moving to a leasing model would result in approximately \$22

million to \$42 million in additional costs annually. Any benefit resulting from the cash influx would be eliminated within four to eight years. Attached to my testimony you will find a cost matrix that was created from the results of the Auditor's phase 1 report that confirms this conclusion.

### **Bridge and Pavement Conditions**

ODOT was also asked, for this testimony, to provide an update on current bridge and pavement conditions in the state. We track statewide bridge and pavement conditions quarterly. Those conditions are analyzed by our engineers to determine what treatments or repairs are needed.

As you may recall from our budget discussions, ODOT maintains our roads and bridges by utilizing an asset management system. We collect data on the conditions of our roads and bridges and make decisions on what treatment, at what time, on which locations – will yield the best outcome for our system. This has allowed us to maintain more of our system on an annual basis at a nearly \$400 million cost savings since its implementation several years ago. We are literally doing more with less. We measure bridge conditions based on a statewide average general appraisal for ODOT-maintained bridges and the average pavement condition rating (PCR) for ODOT's priority and general roadway systems.

During our budget conversations last year, we discussed how quickly our system can fall into a state of disrepair if our funding did not keep up with the system maintenance needs. As roads and bridges deteriorate, the problem compounds as projects become more expensive when they require more extensive solutions. Much like going to the dentist or routine maintenance for your vehicle, the solutions are cheaper and easier when maintained regularly and properly, as opposed to waiting until things deteriorate to a larger degree.

Currently the statewide goal for our bridges is 6.8 on a scale that ranges from 0 being bad to 9 being excellent. The overall general bridge rating on ODOT's system is 7.08. This does not include the ratings for local and county bridges – of which there are many more.

The pavement condition rating (PCR) for our roads is measured on a 0 to 100 scale. Think of it like a school grading scale – 100 is like an A, 89-80 a B, 79-70 a C, etc. The current PCR *goal* for our priority routes – interstates and interstate look-alikes – is 85. Our overall rating statewide is 86.61.

On our General System which consists of two-lane state and U.S. routes we use the same 0 to 100 scale and have established our state PCR *goal* at 80. These routes generally see less traffic than our priority routes. Currently all our districts are above that threshold and our state rating totals 84.93.

Chairmen, members of the committee – the men and women of ODOT are dedicated and hard-working public service professionals. We take great pride in the work that we do every day. As individual citizens, we pay for these roads just as much as anyone else – and

oftentimes we find ourselves using them more than your average citizen. I would argue that no one wants to see our taxpayer dollars put to good use more than the men and women of ODOT. We will continue to be innovative and solution-driven – something both the General Assembly and the people of Ohio have tasked us to do. We thank you and look forward to continuing our valued partnership with you, the members of the legislature, to ensure the safety and economic vitality of our transportation network.

I'd be happy to provide follow-up answers to any questions you may have.

Our analysis reviewed lease costs for a 2, 4, and 6 year lease. The table below identifies the annual costs for a lease compared to the current annual cost for all vehicle categories used in **R1.1**. The table uses a 5 percent lease rate which was the most conservative rate used for purposes of analysis. Note: N/A suggest that under ODOT’s current cycling practice, the equipment category would be disposed of before the end of the certain lease model so it is not comparable.

Table A-2 Lease Cost Analysis

<b>ODOT Category Number</b>	<b>Category Name</b>	<b>Annual Cost Current State</b>	<b>Annual 2 Year Lease</b>	<b>Annual 4 Year Lease</b>	<b>Annual 6 Year Lease</b>
101	Passenger Sedan	\$2,657.32	\$5,068.10	\$4,375.93	\$3,955.22
201	Minivan	\$2,774.14	\$5,197.89	\$4,562.50	\$4,186.63
202	3/4 Ton Passenger Van	\$2,393.96	\$3,903.84	\$3,575	\$3,424
203	Cargo Van	\$3,243.34	\$6,492.28	\$5,731.03	\$5,233.34
204	1 Ton Cargo Van	\$3,669.15	\$6,598.53	\$5,569.24	\$5,095.11
213	1 Ton Utility Truck	\$5,787.10	\$14,462.25	\$10,574.52	\$9,088.33
214	3/4 Ton Utility Truck	\$4,272.77	\$7,495.43	\$6,496.63	\$6,081.68
221	1/2 Ton Pickup	\$2,947.70	\$5,528.76	\$4,832	\$4,479
222	3/4 Ton Pickup	\$3,757.13	\$7,380.79	\$6,167.28	\$5,726.82
223	1 Ton Pickup	\$3,983.44	\$7,818.87	\$6,879.81	\$6,417.09
253	Small Dump Truck	\$4,802.43	\$8,956.16	\$8,038.54	\$7,641.65
254	Single Axle Dump Truck	\$12,152.61	\$23,660.50	\$20,353.31	\$18,957.68
256	Tandem Axle Dump Truck	\$15,782.67	\$32,121.44	\$28,038.17	\$25,981.57
311	Backhoe Tractor	\$6,036.12	\$12,314.52	\$11,813.64	\$11,543.63
330	Bucket Truck	\$8,321.34	\$16,033.11	\$15,224.62	\$14,706.28
470	Medium Excavator	\$14,256.12	\$32,329.70	\$29,691.54	\$27,467.15
471	Large Excavator	\$12,680.76	\$28,498.25	\$26,416.21	\$24,765.63
591	Skid Steer	\$8,427.36	\$13,645.45	\$10,802.80	N/A
592	Front End Loader	\$13,245.49	\$23,348.19	N/A	N/A
827	Patch Spreader	\$19,512.66	\$30,837.35	\$27,385.82	\$29,991.68
893	Large Tractor	\$7,354.44	\$12,110.70	N/A	N/A

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## Road to Our Future Committee- Questions, September 18, 2020

Questions:

- Regarding ***Excess Land Sales***: How much excess land does ODOT currently own and where is it located?
- Regarding ***Ohio Logo Signing Program***: How are these funds distributed back to local communities? Do they go directly to the community with the sign, or are the funds distributed equally among local governments?
- Regarding ***Not Viable Ideas***, Fleet/Heavy Equipment: Lease v. Buy: The Lease Cost Analysis Table compares the annual cost of current vehicles to an annual 2, 4, and 6 year lease for the same vehicles.
  1. **Q:** Is the annual cost of the vehicles in current state an average?
  2. **Q:** Won't the cost of the current vehicles also increase with the "age" of the vehicle and considering repairs?
- Regarding ***Bridge and Pavement Conditions***
  1. Statewide goal for bridges is 6.8 out of 9. General bridge rating is currently 7.08, not including the ratings for local and county bridges.
    - **Q:** What is the rating for local and county bridges?
  2. Goal for roads is 85 out of 100. Our priority routes are currently at 86.61.
    - **Q:** Again, does this not include local? What is the rating for local and county roads?
  3. **Q:** How do these ratings compare to other states?
- **Q:** The topic of the fourth meeting was scheduled to be an "Exploration of Innovative Finance Techniques." Unfortunately, I do not believe the testimony reflects any innovation. Has ODOT considered the following innovative finance strategies?
  1. Applying for approval to toll existing highways by applying for the Interstate System Reconstruction and Rehabilitation Pilot Program? The Federal government allows up to three states to apply. Additionally, the federal Value Pricing Pilot Program allows states to toll lanes on interstates (Oregon is currently seeking approval for this program to manage congestion).
  2. Is there an appetite to develop zone- based congestion pricing programs? (Example: tolls are initiated when entering Manhattan 's Central Business District)
  3. Would ODOT consider converting high-occupancy vehicle lanes to high-occupancy toll lanes?
  4. Since the passage of last year's transportation budget, has ODOT further explored the possibility of road usage programs?
  5. Would ODOT be supportive of Development Impact Fees which would allow local governments to place impact fees on new development/extensive redevelopment to fund the increased road usage? Currently, 29 states have impact fee enabling legislation.

6. Is it feasible to create a system where non-Ohio residents pay a higher tax at the fuel pump, or residents could receive a discount? This could be an eventual incentive to register trucks in Ohio.

Road to Our Future Committee- Questions, September 18, 2020

Questions:

- Regarding **Excess Land Sales**: How much excess land does ODOT currently own and where is it located?

**ODOT Excess Land Inventory Summary**

ODOT District	Parcels	Acreage	# Sale Parcels	Total Sale Parcel Ac.
1	16	85.02	3	13.07
2	74	432.88	9	53.18
3	74	142.88	5	45.13
4	194	146.45	3	75.12
5	66	231.89	5	29.83
6	85	98.40	6	15.96
7	35	63.06	0	0.00
8	302	246.51	18	98.01
9	76	388.44	2	65.45
10	93	520.62	14	66.77
11	132	349.07	10	66.08
12	372	189.24	15	82.58
Statewide	<b>1519</b>	<b>2894.46</b>	<b>90</b>	<b>611.19</b>
			5.9%	21.1%

- Regarding **Ohio Logo Signing Program**: How are these funds distributed back to local communities? Do they go directly to the community with the sign, or are the funds distributed equally among local governments?
  - Funds do not go to the local agencies. The revenue from the program first pays our vendor's contract administration fees – the balance is remitted

to ODOT. No Logo signs can be placed on City streets without the permission of the local (via permit). However, these dollars are used to assist with local transportation projects as they relate to economic development.

- Regarding **Not Viable Ideas**, Fleet/Heavy Equipment: Lease v. Buy: The Lease Cost Analysis Table compares the annual cost of current vehicles to an annual 2, 4, and 6 year lease for the same vehicles.
  1. **Q:** Is the annual cost of the vehicles in current state an average?
    - For annual purchases, the report indicated ODOT spends approximately \$43m on fleet purchases (this is an average). Between 2014-2018, ODOT spent \$35m-\$55m per year, which is the range for the audit period.
    - In terms of annual cost of ownership, it was an average broken down by vehicle category (e.g. Single Axle Dump Truck, 1 Ton Pickup, Large Tractor, etc.). For each vehicle category, the auditors calculated the cost of ownership by considering depreciation, maintenance expense and usage to identify the total cost of ownership by year. So the answer would be no, the annual cost is not a “current state,” it is shown in the analysis as a total cost of ownership (for it’s useful life) and broken down by year (useful life divided by cost of ownership).
  2. **Q:** Won’t the cost of the current vehicles also increase with the “age” of the vehicle and considering repairs?
    - This is specifically addressed in the report. The report states that ODOT currently does not experience significant late-in-vehicle-life expenses. This is due to limited usage of older fleet vehicles and the practice of selling vehicles prior to significant issues arising.
- Regarding **Bridge and Pavement Conditions**
  1. Statewide goal for bridges is 6.8 out of 9. General bridge rating is currently 7.08, not including the ratings for local and county bridges.
    - **Q:** What is the rating for local and county bridges?
    - County bridges = 6.89 City bridges = 6.84
  2. Goal for roads is 85 out of 100. Our priority routes are currently at 86.61.
    - **Q:** Again, does this not include local? What is the rating for local and county roads?
    - ODOT does not have any PCR information for local or county roads as they are not in our jurisdiction, nor are there any reporting requirements.
  3. **Q:** How do these ratings compare to other states?
    - Nationally, states do not use weighted average general appraisal for bridges or PCR for pavements as a metric so we can’t compare using Ohio ratings. However, there are metrics from FHWA that we can

compare. As an example, the percentage of poor bridges by state - Ohio ranks 13<sup>th</sup> out of the 50 states and is well above the national average (Based on 2019 data). Nationally, International Roughness Index is a measure of road smoothness - Ohio ranks 18<sup>th</sup> out of 50 states and lists Ohio's roads in Good condition. Also, the Auditor of State is currently conducting a thorough review of ODOT pavement and bridge practices and comparing them to known national leaders to identify opportunities for ODOT to improve its state of practice. This report should be available later this year.

- **Q:** The topic of the fourth meeting was scheduled to be an “Exploration of Innovative Finance Techniques.” Unfortunately, I do not believe the testimony reflects any innovation. Has ODOT considered the following innovative finance strategies?
  - **Please see attached memo.**
  - 2. Applying for approval to toll existing highways by applying for the Interstate System Reconstruction and Rehabilitation Pilot Program? The Federal government allows up to three states to apply. Additionally, the federal Value Pricing Pilot Program allows states to toll lanes on interstates (Oregon is currently seeking approval for this program to manage congestion).
    - ODOT sponsored toll projects must go through the Transportation Review Advisory Council (TRAC). TRAC handles the Major New Capacity Projects, which are defined as those projects greater than \$12 million which increase capacity of a transportation facility or reduce congestion. ODOT is specifically prohibited from tolling existing non-toll roads, except in the case of a bridge over the Ohio River to another state. Thus, ODOT can toll roads by either (1) tolling a new capacity facility, either a new road, new lanes, or hard shoulder running, or (2) toll measures implemented to reduce congestion, as long as user fees are not charged on existing non-toll roads. Number 2 is a very narrow category of projects and ODOT is not likely to be able to take advantage of it. These state-law restrictions are important to keep in mind while evaluating the federal programs.
      - The first federal program is the Interstate System Reconstruction and Rehabilitation Pilot Program (ISRRPP). The ISRRPP is a pilot program that allows states to toll Interstate Routes, both existing and new. There is no additional funding provided to the state, only authority. Currently, States are not permitted to toll Interstate Routes without specific FHWA authorization under the ISRRPP, or in very limited circumstances outlined in 23 USC 129. ODOT could apply to participate in the pilot program. However, in order to

overcome the state requirements mentioned above, there would have to be added capacity to an Interstate route. Adding any kind of capacity to Interstate Facilities is very expensive. To date, three states have participated in the ISRRPP, Missouri, Virginia, and North Carolina. Those states have abandoned their efforts with no tolling implemented. The feasibility of implementing this proposal would depend on the asset, the planned improvement, and acceptance by FHWA.

- As for the Value Pricing Pilot Program (VPPP) - funding for this program ended in 2012. However, the VPPP still gives states the authority to implement congestion pricing on (most notably) Interstate Facilities. At this time we are not considering this option.
3. Is there an appetite to develop zone- based congestion pricing programs? (Example: tolls are initiated when entering Manhattan 's Central Business District)
    - At this time, ODOT is not considering this as a proposal for a number of reasons. To our knowledge, only cities or areas with extreme traffic congestion have implemented this strategy – including Stockholm, Singapore, and London. We do not see any congestion that even approaches the level these areas do. There are other serious considerations, including the expenses and motorists taking different exits to reach their destination in order to miss the tolling exits. This would put a higher traffic strain on local roads, unless the local roads were tolled as well. It is our understanding that Manhattan's proposal may have been halted by New York's state government.
  4. Would ODOT consider converting high-occupancy vehicle lanes to high-occupancy toll lanes?
    - To my knowledge, there are no officially designated HOV lanes on ODOT's system, so there are none to convert.
  5. Since the passage of last year's transportation budget, has ODOT further explored the possibility of road usage programs?
    - ODOT has been working on studying and potentially implementing a pilot project in the future.
  6. Would ODOT be supportive of Development Impact Fees which would allow local governments to place impact fees on new development/extensive redevelopment to fund the increased road usage? Currently, 29 states have impact fee enabling legislation.
    - This would likely be a local issue rather than an issue for ODOT. Currently, it is my understanding that some locals can and do require

infrastructure investments from the business community. The ORC also allows for the creation of Transportation Infrastructure Districts (TIDs) for this purpose. There are currently 51 TIDs in Ohio.

7. Is it feasible to create a system where non-Ohio residents pay a higher tax at the fuel pump, or residents could receive a discount? This could be an eventual incentive to register trucks in Ohio.
  - I believe this would be a Constitutional concern as it related to interstate commerce.

# OHIO DEPARTMENT of TRANSPORTATION

## USE of INNOVATIVE FINANCING TOOLS



Updated: 9/22/2020

The Ohio Department of Transportation (ODOT) has a rich history of utilizing innovative financing mechanisms to deliver its program over the decades. The list of innovative financing mechanisms deployed by ODOT include the following:

- Highway Capital Improvement Bonds – backed by state highway dollars
  - Nearly \$3.3 billion issued since 1997
- GARVEE bonds – backed by federal highway dollars
  - Ohio issued the nation's first ever GARVEE bond
  - Nearly \$2.8 billion issued since 1998
- Public Private Partnerships for project delivery as well as revenue generation
  - TIFIA Loan
  - Private Activity Bonds (PABs)
  - Milestone Payments utilizing balance of APD funding
  - Availability Payment Structure
- Leveraging the Ohio Turnpike asset to advance infrastructure projects
  - Nearly \$1.43 billion issued
- State Infrastructure Bank
  - Ohio had the first SIB loan in the country
- Lease Appropriation Bonds for Facility Replacements
  - Two series issued since 2015 totaling \$170 million
- Authority Granted in the Ohio Revised Code to Implement Tolling

Listed below are some highlights for ODOT's use of the Public Private Partnership form of innovative financing. In addition, we are highlighting the innovative use of some traditional financing tools which have benefitted our local partners and the overall infrastructure needs of the state.

### **Southern Ohio Veterans Memorial Highway (Formerly the Portsmouth Bypass)**

This project represents the first ever Public Private Partnership (P3) for ODOT. In addition to using some traditional state and federal funding sources to pay for earlier phases of the project, ODOT utilized multiple methods of innovative financing to fully fund the project.

#### **Project Details:**

- The Project is a four-lane, limited access freeway approximately 16.2 miles in length
- Upon completion, it will be designated Ohio State Route (SR) 823 and become part of the National Highway System
- After construction, the Developer will be responsible for O&M costs on the mainline and ramps for a period of 35 years
- O&M costs for cross roads will be the responsibility of government agencies currently responsible for those roads
- The Project will improve regional mobility by enabling travelers to avoid numerous traffic signals, intersections, and driveways on US 52 and US 23 through Portsmouth.



- The P3 arrangement allowed ODOT to complete the full project at least 8 years ahead of previous estimates when the project was broken down into three separate phases.

#### **Various Financing Mechanisms:**

- Project construction is being completed under a Design-Build-Finance-Operate-Maintain (DBFOM) Public-Private Partnership (P3) agreement
- Milestone Payments - Utilized the balance of FHWA Appalachian Development program funding to make milestone payments to decrease overall costs financed through the developer
- TIFIA Loan - ODOT applied for and obtained approval from FHWA for the use of a TIFIA loan financed at the lower rural interest rate by the concessionaire. This significantly reduced the overall cost of the project.
- Private Activity Bonds (PABs) - ODOT applied for and obtained approval from FHWA for the use of over \$600 million in PABs by the concessionaire. This significantly reduced the overall cost of the project.
- Availability Payments - availability payments will continue for 35 years post-construction and will cover the capital costs of construction and related financing as well operations and maintenance costs. ODOT will be responsible for snow and ice control.

#### **Ohio Bridge Partnership Program**

ODOT developed and implemented this program to assist in replacing and repairing local bridge structures which were in dire need of repair. This was a discretionary choice by the Department assist our local partners. We funded this program by utilizing federal GARVEE funds. While this is not considered a P3, Ohio is proud of this initiative, because it shows how we are able to accomplish a goal by thinking outside of the box. Below are a few highlights of that program.

- The program has and will invest approximately \$143.6 million in local bridges since 2014;
- Approximately 264 County and city bridges are expected to be repaired or replaced;
- Criteria included: at least 20 feet in length, structurally deficient, and currently open and carrying traffic
- Used Toll Revenue Credits so the debt service associated with projects could be 100% funded from ODOT federal funds.

#### **State Infrastructure Bank (SIB)**

While the implementation of a State Infrastructure Bank has been done in several other States and is not considered in the same realm as a P3, Ohio has been a leader in expanding its SIB to help local governments advance much needed infrastructure projects.

- Ohio had the first ever SIB loan (Butler Regional Highway – 1996)
- Leveraged loan program to develop SIB bond program – added \$200 million in additional capacity
- Ohio is the only state to loan to Metropolitan Planning Organizations and County Engineers Association
  - Loans are backed by required and discretionary federal dollars allocated to each entity
- 3rd highest capitalization nationwide
- Ohio has 22% of all SIB loans nationwide
- As of June 2020, the ODOT SIB had authorized 252 loans and 12 bonds totaling \$769 million

Good morning all,

In light of the ongoing COVID-19 situation, Chair Greenspan has asked me to send out the final round of written testimony for the Road to Our Future Committee, attached, via email for your review. This material covers the final topic of “Evolving technology,” which was to be discussed at the 6<sup>th</sup> committee meeting.

**COMMITTEE MEMBERS:** Please review the attached documents and return any follow-up questions you may have to our office (please email [Rep16@ohiohouse.gov](mailto:Rep16@ohiohouse.gov) AND cc [Adam.Headlee@ohiohouse.gov](mailto:Adam.Headlee@ohiohouse.gov)) by **COB on Monday, November 9**. We will share your questions with ODOT and provide you with their responses in a timely manner.

**STAKEHOLDERS AND INTERESTED PARTIES:** If you have comments you would like to share for the committee’s consideration, please email those remarks to our office by **COB on Wednesday, November 4** and we will distribute to the committee members for their review and any follow-up questions they may have.

Also, for future planning purposes, it is currently Chair Greenspan’s intent to call a meeting of the committee on **Tuesday, November 17 at 2:00PM** for the purpose of beginning an initial review of the draft committee report. Chair Greenspan also intends to call a committee meeting on **Tuesday, December 1 at 2:00PM** for the purpose of approving the final report. Formal committee notices will be sent out for both meeting closer to those dates.

Please feel free to reach out with any questions in the meantime.

Best,

**[Adam J. Headlee](#)**

Legislative Aide  
Office of State Representative Dave Greenspan  
Ohio House of Representatives, District 16  
77 S. High Street, 13<sup>th</sup> Floor, Columbus, OH 43215  
614.466.0961



## Road to Our Future Joint Legislative Study Committee

*Written Testimony – Evolving Technology, October 23, 2020*

*William O’Gorman, Deputy Director of Legislative and Intergovernmental Affairs*

Co-chairs Greenspan and McColley and members of the joint legislative study committee – I am William O’Gorman, a Deputy Director at ODOT responsible for overseeing legislative and intergovernmental affairs.

During these uncertain times, I am grateful for the opportunity to provide written testimony to discuss the many ways ODOT has been utilizing technology to make the best use of the public funds that are entrusted to us.

I will be discussing where and how the technology ODOT has contributed to departmental cost savings, advanced our operational efficiency, and stretch finite resources.

For purposes of this committee and your statutory obligation to provide a written report on the research you have been conducting, I have formatted this testimony to be easily digestible for those purposes. Below are strategies we are utilizing at ODOT with evolving technology.

### **SmartLane**

We’ve reached a point where it has often become too expensive or too difficult to build our way out of congestion, so we’ve started using technology to maximize the use of our existing infrastructure. A great example of this is the I-670 SmartLane from downtown Columbus to the city’s east side. At a fraction of the cost of traditional highway widening, this innovative solution allows ODOT to open the left shoulder as an extra eastbound lane during peak travel times or times of heavy congestion. By installing full-color digital signs, cameras, and radar detectors that collect data on traffic speed and density, ODOT is now able to truly *manage* traffic instead of simply monitoring it.

The data proves its success. Prior to construction, speeds averaged 22 mph and the travel time on this 5-mile stretch of interstate ranged from 5 minutes to 30 minutes or more. Since the SmartLane opened in October 2019, average travel speeds have increased to 54 mph and average commute times have been cut in half. In addition to the time savings, drivers can now rely on a 5-minute commute. As we continue to monitor the success of this project, we can consider this strategy at other heavily congested corridors across the state.

## **Video Detection Technology**

With evolving video technology, ODOT will be able to utilize high-definition cameras to do the following: detect near-misses at intersections so we can work on signal timing, detect wrong-way drivers once they get on the freeway, and capture all modes and vehicle classifications during traffic counts. We can then utilize software that has the ability to pull data from multiple traffic counting equipment which creates efficiencies and cost savings while also making our roads safer and less congested.

## **HIMS**

Our Highway Information Management System allows us to run equipment over the highway to determine the roughness of the road and other information about that specific piece of roadway. This information is used to generate an International Roughness Index (IRI) – essentially describing what the public feels when they drive on the road. With this data, we can pinpoint areas that have the worst “ride” and address them accordingly. This technology helps with the quality of the roads which also makes them much safer.

## **E-Permitting**

The department’s new online right-of-way E-Permitting system allows continuous public access to the system at any time throughout the year. It also ensures a higher level of customer service consistency across the state. Additionally, the improved workflow management allows ODOT to annually reallocate thousands of work hours. The system’s GPS location data and advanced reporting functionality provides ever increasing facility location information within the right-of-way. This is valuable because better location data can be used along-side traditional utility locating data and subsurface utility locating in order to plan projects more efficiently.

## **Subsurface Utility Locating (SUL)**

This is a variety of new and emerging techniques and technologies to locate and identify hidden or buried utilities. Utility relocation is often time consuming and expensive for ODOT or the utility company. Knowing what and where utility facilities are within existing or new rights of way allows planners, in conjunction with utility companies to make decisions needed to achieve desired project goals. ODOT has also developed a new utility coordination model that encourages using SUL early in the process in coordination with utility companies. This new process leans heavily on the using advancing technologies to identify the most efficient project solutions.

## **Aerial Mapping Technology**

The department’s aerial camera and LiDAR units were updated in 2019 because the technology of the old equipment was outdated. The new equipment is a shared service to

other state agencies, such as for ODNR's larger surveying and mapping needs. The new technology allows for the collection of LiDAR and photography data simultaneously which was not previously possible - and cuts data acquisition time in half, providing a significant cost savings to the state. Another benefit is that the new technology is mobile and can be mounted on a helicopter or large UAS. The mobile options allow for advancement beyond just collecting data for design and survey. It enables for asset management, emergency operations and damage assessments, and expand our capacity to collect and analyze sites for safety studies.

### **Mobile Mapping Technology**

The Department plans to invest in mobile mapping technology in the next few years, which would help us catch up to the private sector. The newest mobile mapping equipment includes both camera and LiDAR technology and can be mounted on existing vehicles. The technology will allow for the collection of extremely accurate corridors for design and for safety projects and will allow for the quick collection of assets. This mobile mapping increases staff safety when collecting assets as data is collected from the vehicle while moving at the speed of traffic. It requires no staff to physically be on pavement and susceptible to traffic hits. The new software uses artificial intelligence techniques and programming to run automated algorithms to sweep the data and find signs, ramps, and other well-defined assets. This will significantly decrease required data processing time and increase accuracy.

### **New/Updated CADD Software**

The new software implemented at the beginning of 2020 will move ODOT to 3D models. Three-dimensional models will allow more accurate design, with clash detection and errors being identified during project design, before there are problems in construction. The models provide better visualization tools for proposed projects for the public resulting in more efficient project development and data sharing from design to construction.

### **Real-Time Survey**

Software upgrades will better support the surveying community, agricultural community, and connected/autonomous vehicles by providing more accurate and robust data to be streamed through our VRS (Virtual Reference Station) network.

### **Drone Bridge Inspection**

ODOT is expanding its use of drones (UAS) in a variety of ways. One significant area is to perform bridge inspections. Safety for the inspectors is much improved through this method because traffic control on a bridge for the snooper truck isn't required.

### **Lighting Retrofit**

Our Office of Engineering is retrofitting LEDs on existing highway lights all across our system. This will save energy and maintenance costs that will more than offset the required capital investment.

### **Event Streaming Platform**

This real-time data system currently being designed will incorporate information from numerous data streams and provide real-time information about what is happening on our roadways. It will allow any political subdivision or private enterprise to collect, analyze, and share this data in real-time, or near real-time, to improve the safety of the traveling public. Event streaming differs from how data was previously processed where it was compiled into a report and then an after-event analysis was conducted. Real-time data streams and sophisticated analytics are used to understand what is occurring throughout our transportation system as it happens. This allow for instant reaction to reduce safety risks that lead to crashes and injuries. Examples of these data points include sensors detecting poor road conditions, unusually slow traffic, or crashes.

### **Construction Drawing Conversion**

The automation of converting construction project drawings to data in ODOT's asset management systems is estimated to save \$831,000 over five construction seasons. By significantly reducing the manual collection and input of this information, it will lower labor and equipment hours and costs.

### **Highly Modified Asphalt for Perpetual Pavement Design**

The Office of Pavement Engineering is currently researching Highly Modified Asphalt Binder use in hot mix asphalt pavement design. Preliminary results indicated significant reduction in pavement thickness may be possible with improved performance. If found to be valid, this innovative material has the potential to result in very significant savings to ODOT in both initial construction and life cycle costs of our pavements. Construction of test sections is scheduled to begin in the summer of 2021 with final testing completed by 2023.

### **Augmented Reality Tools**

ODOT has implemented the use of iPad cameras to allow field workers and planners to document above and underground assets and utilities within rights of way. There can be information gaps as engineers perform project field reviews to determine future project cost estimates. Often these assets are not readily visible due to overgrown vegetation or other obstructions. The iPad enables workers to find these assets easily based on the GPS location related to the assets around them. This helps to minimize expensive change orders

during construction when underground utilities and structures within the project work limits were previously not identified.

### **EnviroNet**

This is a web-based system/application used to document, approve, store, and share all environmental documentation necessary for ODOT's program. As technology continues to evolve, the system is regularly updated to allow for integration of new functionality/features. These upgrades allow for better communication and the sharing of documents between users that enhances the decision-making process. This may include planning level documents (e.g. corridor studies, traffic studies), system operation documents (crash studies), infrastructure solutions (feasibility studies, pavement conditions, roadway geometrics), and engineering type studies. This statewide resource is used by consultants, agencies, and ODOT district and central office staff.

### **Consultant Prequalification Modernization**

ODOT's conversion of its manual, paper-based consultant prequalification process into a semi-autonomous electronic method will improve accuracy, increase efficiency and save resources for ODOT and our external consultant customers.

### **ODOT's Phishing Innovation**

Phishing attacks remain the top cause of data breach and ransomware attacks. ODOT has deployed the "Phish Alert Button" to allow users report known or suspected phishing emails. The department receives approximately 3,000 phish alert incidents per month. Manually analyzing these alerts is extremely time consuming and costly. As a result, ODOT created a process to automatically analyze phishing emails once they are reported. This new process is expected to save roughly 10,000 labor hours and nearly \$500,000 annually.

Chairmen, members of the committee – the men and women of ODOT are dedicated and hard-working public service professionals. We take great pride in the work that we do every day. We will continue to be innovative and solution-driven. We look forward to continuing our valued partnership with you, the members of the legislature, to ensure the safety and economic vitality of our transportation network.

Thank you for your time and interest, I am happy to provide answers to any questions the members may have.



1980 W Broad St. | Columbus, OH 43223

**Road to Our Future Joint Legislative Study Committee  
Written Testimony, October 23, 2020**

Co-chairs Greenspan and McColley and members of the joint legislative study committee - my name is Howard Wood and I am the Executive Director of DriveOhio. An initiative of the Ohio Department of Transportation, DriveOhio was created in 2018 through an executive order and re-authorized by Ohio Gov. Mike DeWine in October 2019 as the statewide center for advancement of smart mobility. As the executive order states, "DriveOhio will focus on improving the safety of our roadways through the use of implementing technology that assists in the safe transportation of people and goods."

Transportation is in the midst of a transformation, the likes of which have not been seen since the invention of the automobile. Disruptive forces, driven by advances in vehicle automation, connectivity, electrification and sharing (ACES), are at the heart of the transformation. Environmental, public health, social equity, economic, transportation safety, and both rural and urban mobility concerns are hastening the need for innovation in the provision of transportation services and infrastructure solutions.

**A Focus on Safety:**

Safety is the Number 1 goal of ODOT and DriveOhio. We have set the stage for improved safety by leading the development and implementation of the automated and connected vehicle (AV/CV) infrastructure ecosystem and standards. A few highlights are provided below.

- **Vehicle-to-Infrastructure Communication:** we are testing systems to transmit data between vehicles and infrastructure in real time. One test includes the use of technology to detect wrong-way drivers entering freeway ramps and send alerts to other cars and emergency response vehicles. In Marysville, we are testing systems to detect and warn drivers of pedestrians entering crosswalks.
- Ohio is home to our partners at the Transportation Research Center Inc. (TRC), the largest independent automotive proving grounds in North America, which in July 2019 opened the most expansive AV/CV testing center in the country. Ohio's TRC houses the National Highway Traffic Safety Administration's only research and testing lab, which establishes crash test standards, researches crash avoidance and crashworthiness measures, tests and analyzes automobile defects, and examines cyber security issues.
- DriveOhio works with automobile manufacturers and technology companies to research and develop vehicle safety systems that will reduce crashes. Systems are coming on the market to automatically brake or steer vehicles if a driver doesn't sense road hazards or stopped traffic. Work is underway on systems to reduce drunk driving and distracted driving crashes by assessing the condition of the driver.

**Smart Mobility in Ohio: Addressing Capacity, Operations, and Reliability**

Beyond safety, our programs and research projects focus on testing and developing technology, which will be mainstreamed into the department's operations. Highlights include:

- **Smart logistics:** research projects which address freight efficiency
- **Unmanned Aerial Systems:** developing air traffic control capability to foster low-level aircraft (man and unmanned technology)
- **Electrification:** Planning and developing Electric Vehicle (EV) charging infrastructure in Ohio
- **AV/CV Testing:** recruiting and enabling companies to test AV/CV in Ohio to reduce congestion and increase system reliability.



### **33 Smart Mobility Corridor**

The 33 Smart Mobility Corridor is a 35-mile stretch along U.S. 33 between Dublin and East Liberty, Ohio. The 33 Smart Mobility Corridor is currently known as the Midwest's proving ground for smart mobility technology and serves as a real-world proving ground for automated and connected vehicles.

DriveOhio works with the US 33 Smart Mobility Corridor partners to build connected electric autonomous vehicle (CEAV) infrastructure, including broadband and roadside units, and in 2020 will launch efforts to recruit 400 private drivers in Marysville for the first city-wide deployment of CV technology in the U.S. Future mobility will include AV/CVs, but progress has been slower than most experts initially thought. Technical challenges and policy hurdles must be overcome for widespread deployment.

The fiber collaborative has been established and designed to offer multiple options for high-speed and redundant fiber optic service for users that require movement of large amounts of data across multiple platforms. Once construction is completed, businesses along the US-33 corridor will have the ability to access the level of communications reliability, speed, and power that they need to stay competitive.

Following up on staying competitive, the city of Marysville became the first fully connected city in the world. Marysville, Ohio, is located in the heart of Ohio's 33 Smart Mobility Corridor initiative.

### **Rural AV/CV Testing**

DriveOhio partnered with a team of industry, academia, and community partners and were awarded a \$7.5 million federal grant focused on Automated Driving Systems. The proposal to the Federal Highway Administration (FHWA) was titled: D.A.T.A.: Deploying Automated Technology Anywhere. The four-year project will test the safe integration of automated driving systems onto our nation's roadways and evaluate the potential economic impacts of this technology in rural settings. In 2020, DriveOhio will start work with partners on the ADS Demonstration to better understand AV/CV operations in rural areas, confirming user needs, planning and preparation for deployment. The initiative will also test automated driving systems through different climates and road conditions. With fifty-four percent of all fatal traffic crashes occurring on rural roads, the lessons learned from this project have the potential to make travel on these thoroughfares safer. The first year will focus on the planning process, while the remaining three years will be followed by iterative deployments. Specific partners for this grant include TRC, University of Cincinnati, The Ohio State University and Ohio University

"This is a huge win for the state of Ohio. By focusing on 32 counties in Ohio's rural Appalachian region, studies supported by this grant will be the most comprehensive effort yet to be conducted on our nation's rural roads," said Jack Marchbanks, director of the Ohio Department of Transportation. "Although 97 percent of the nation is rural, and more than half of all U.S. traffic fatalities occur on rural roads, most of this testing to date in other states has been conducted in urban areas. The lessons we learn in Ohio can have enormous benefits for our own state and nationwide as we work to make our transportation system safer."

### **I-70 Truck Automation Corridor**

The ATCMTD Program is a \$4.4 million grant awarded by the USDOT and FHWA to a team composed of the Ohio Department of Transportation, Indiana Department of Transportation, and the Transportation Research Center, Inc. (TRC). The grant application focused on the advanced deployments and adoption of truck automation technologies by the logistics industry, integrated into daily "revenue service" operations to deliver all types of products across Ohio and Indiana. The program will focus on making a section of I-70 between Indianapolis, IN and Columbus, OH the backbone of the project. This stretch of highway will be known as the I-70 Truck Automation Corridor. It will be a four-year project in which it will provide freight companies and truck automation vendors an opportunity to deploy partially automated driving technology.

To ensure the safe deployment of these technologies on public roads, the TRC will be an integral part of this project. Offering professional driver training for host fleets and performing an automation audit of I-70, the data the TRC collects will provide DOT partners the insights needed to ensure these roadways are ready for partially automated vehicles. During public road testing, a professional driver always will be at the wheel should human intervention be needed. The data collected will be shared with USDOT to inform the development of policies and procedures to scale across the United States.

### **Ohio Unmanned Aircraft Systems Center and SkyVision**

Ohio has a history of innovation in the air, the Wright Brothers invented a new form of transportation on Huffman Prairie, John Glenn pioneered outer space exploration and Neil Armstrong stepped on the moon taking a “giant leap for mankind.” DriveOhio’s unmanned aircraft systems (UAS) group, the Ohio UAS Center, continues Ohio’s innovation in the air.

As ODOT looks to save \$100 million over the next four years, we have expanded the usage of drone and UAS technologies to greatly increase the safety, efficiency and quality of work in a variety of areas, such as photogrammetry survey, magnetometry survey, bridge inspections, traffic monitoring and thermography. Also, the increase in flight operations, 1,400 in 2019 to over 1,700 thus far in 2020, have supported state and local governments in project surveying, infrastructure inspection, project monitoring, environmental survey, resource survey, corrections facility surveillance, and police and firefighter support.

The Ohio UAS Center is working with the Air Force Research Laboratories (AFRL) to deploy SkyVision, a ground-based detect-and-avoid radar system at the SpringfieldBeckley Municipal Airport in Springfield. The system uses three active Federal Aviation Administration (FAA) radar systems to track unmanned aircraft, which allows drones to fly beyond the line of sight. The initiative also offers airspace monitoring services for aircraft and payload testing at the Springfield-Beckley Municipal Airport.

Again, working as a convener, DriveOhio’s efforts are focused on opening a door to universities and private companies to be able to test UAS of their own in the state of Ohio (pending FAA approval).

### **Summary**

Mr. Chairman and members of the committee, ODOT and DriveOhio are focused on the bridging the traditional, 20<sup>th</sup> century model of transportation, and moving our system into the 21<sup>st</sup> century. Through this process the partnerships we have established with public and private institutions, along with data from the projects highlighted here, will help inform our development and implementation of infrastructure, technology and new standards for Ohio’s changing transportation system.

The work of this committee and the entire Ohio General Assembly (OGA), will be of paramount importance as we all work to make our transportation system, safer, more efficient and equitable.

I’m be happy to answer any follow-up questions and would enjoy an opportunity to meet with you and your staffs to have a deeper conversation around smart mobility. Thank you for your time.

**Road to Our Future Joint Legislative Study Committee**  
**Written Testimony**  
***Dan Fitzpatrick, Deputy Director, Ohio Department of Public Safety***

Co-chairs Greenspan and McColley and members of the joint legislative study committee – I am Dan Fitzpatrick, Deputy Director and Chief Legislative Officer at the Ohio Department of Public Safety (ODPS).

I appreciate the opportunity to provide written testimony. As you know, House Bill 62 included a requirement for this committee to complete “an analysis of technological advancements related to the display of front license plates, vehicle identification, and public safety generally.” I hope that this testimony will assist in that effort.

ODPS, in coordination with our colleagues at ODOT, has studied available and emerging technologies to assess whether viable alternatives exist for law enforcement and the general public to easily identify motor vehicles from the front of the vehicle in the absence of a front license plate.

Historically, the presence of a front license plate on motor vehicles has benefited both law enforcement and the general public. There are three major considerations regarding the benefit of a two license-plate requirement: public safety, crime prevention and criminal apprehension, and its use as a law enforcement investigatory tool.

ODPS was unable to find any product currently available in the marketplace that can identify a motor vehicle in the absence of a front license plate. Although smart mobility initiatives and connected vehicle technologies are advancing, most are largely in the research phase, making timetables indeterminate.

Front license plates are a tool law enforcement officers can use to solve crimes. Increasing the number of license plate readers may help supplement the loss of the front plates as a vehicle identification tool, but it is critical to ensure law enforcement agencies in strategic geographic areas have sufficient access to license plate readers.

### **Research**

In the process of reviewing this issue, ODPS reached out to a number of key stakeholders in both the law enforcement and transportation fields.

The question of what technologies are currently available to identify vehicles, other than the use of a front license plate, was posed to the International Association of Chiefs of Police’s State and Provincial Planning Officers Section. Responses were received from 14 agencies. None of the 14 states were aware of existing technology for vehicle identification in the absence of a front license plate.

The same question was posed to the Ohio Association of Chiefs of Police (OACP) with the same result. OACP President and Grove City Police Chief Richard Butsko reported that they are not aware of any existing replacement technology for front license plates.

Derek Bridges, State Chief Data and Analytics Officer, informed us that there is nothing pending with InnovateOhio that would assist in taking the place of a front license plate.

Our colleagues at DriveOhio stated that they are unaware of any readily available technologies that could potentially be deployed to take the place of the front license plate.

ODPS also reviewed a nationally recognized study on motor vehicle alternative registration by the Texas Department of Motor Vehicles. The study reviewed four different technologies: automated license plate readers (ALPR), radio frequency identification (RFID) transmitters, connected license plates, and electronic registration cards (eCards). The study ultimately concluded that connected license plates may offer the desired reductions in administrative burden and improvements to available information for law enforcement; however, a pilot study would need to be conducted.

ODPS met with DRB systems to determine if passive RFIDs currently used in a number of industries including car washes, parking garage, and toll collection, could be adapted for law enforcement vehicle identification. This passive design requires vehicles to be stationary or traveling at a low rate of speed to transmit information back to a reading unit. A powered RFID used with EZ-Pass systems requires the RFID to have access to a consistent power supply. For these reasons, we are not of the opinion that RFID technology currently has the adequate range or mobility needed for law enforcement use.

Short-range Bluetooth technology could potentially allow for transmission of data once dedicated short-range communication systems have been installed for vehicle-to-vehicle communication. This technology is still forthcoming.

A discussion was held with 3M to assess the possibility of vehicle labels being manufactured for front vehicle identification. Exterior options could likely have the same issues that were frequently raised by opponents of the front license plate. They could potentially cause damage to the vehicle or interference with various sensors, would be susceptible to theft, and may be damaged by inclement weather. Interior options are weather proof, would be difficult to replicate, and would eliminate the concern about damage to the vehicle. However, interior options would be difficult to see from outside the car and they could impair a driver's vision.

### **Conclusion**

ODPS and the Ohio Department of Transportation are unable to identify any product in the marketplace to replace the front license plate for vehicle identification by law enforcement or the general public. Technologies that are currently in the research stage may eventually provide a viable alternative, but we are unable to determine when they will become available for widespread use.



## **Road to Our Future Joint Legislative Study Committee Written Testimony**

**Jason Warner – Director of Strategic Engagement, Greater Ohio Policy Center  
Wednesday, November 4, 2020**

Chairmen Greenspan and McColley, and members of Road to Our Future Joint Legislative Study Committee, thank you for providing me the opportunity to offer our thoughts on the future of transportation and mobility in the state of Ohio.

My name is Jason Warner, and I am the Director of Strategic Engagement at the Greater Ohio Policy Center (GOPC). GOPC is a statewide, non-partisan not-for-profit whose mission is to improve the communities of Ohio through smart growth strategies and research. Our vision is a revitalized Ohio.

Investments and improvements to our state's transportation system have been a priority for GOPC since our founding. Today, we are recognized as a pragmatic voice for reform to Ohio's transportation funding priorities. Our work on innovating transportation has, over the years, resulted in improvements to Ohio's transportation budget and renewed investments in public transportation systems – lifelines that connect workers to jobs and vulnerable populations to needed services.

Nearly two years ago, I testified before the Governor's Advisory Committee on Transportation Infrastructure to advocate on behalf of one of the forgotten means of alleviating congestion and reducing the damage inflicted upon our roadways – public transportation.

Ohio's 61 public transit agencies provide an average of 10 rides for every single Ohioan every year. 83 of Ohio's 88 counties are served by an urban, rural, or specialized transportation program. As I noted in February 2019, investment in public transportation must be considered alongside the important investment that is needed in maintaining and upgrading our transportation infrastructure to meet the needs of market demand and modern economic realities.

This General Assembly rose to the occasion and provided Ohio's public transit agencies with the most significant increase in public transportation funding in a generation. Over the past biennium, the state has investing \$140 million in the state's public transit agencies – investments that have allowed transit systems to make investments in new, modern technology, expand services to areas that were previously underserved, and help investments in other community needs, such as being able to provide travel vouchers to new and expecting mothers to help promote pre-and-postnatal health and reduce infant mortality.

That investment was historic – and significant, but it only goes so-far to address the long-term needs of transit systems across Ohio.

The COVID-19 pandemic has had a devastating impact on a number of industries – and public transit has not been exempted from this. Systems across the state have had to reduce services, cut back routes, and in many instances, waive fare collection to promote social distancing and

reduce the spread of this violent illness. The fare box is the primary source of revenue for many systems across the state, and the loss of this revenue has had a devastating impact on their operations. While short-term funding, such as that provided under the CARES Act, have helped to keep systems afloat, it is not enough to address the long-term impact of the coronavirus.

GOPC has long argued in support for restored and enhanced funding for public transportation in Ohio. The funding we are advocating for should go to operations, capital projects, and most importantly, innovation. Transportation is evolving and it is important that mobility options evolve along with it.

The state's goal must and should be to keep our roads and bridges in a state of good repair for as long as possible, and with every dollar stretched. As such, mass transit is one demonstrated way to achieve these goals. The below illustration provides such an example.



The photograph at the left depicts 60 passenger cars on a single roadway, while the picture at the right depicts the space occupied to transport those same 60 people on a city bus. The average weight of a passenger automobile, when containing a single occupant, is 4,000lbs. That brings the full weight of those automobiles on our roadway to 240,000lbs. The average transit bus, when fully occupied, weighs 44,000lbs. Eliminating those cars with the investment and promotion of public transit would reduce the average wear and tear on roadways by 196,000lbs, just from those 60 drivers. Imagine what the savings could be statewide.

**Investment in public transportation must be considered alongside the important investments that is needed in maintaining and upgrading our transportation infrastructure to meet the needs of market demand and modern economic realities.**

Investing in both our infrastructure and a robust and comprehensive public transportation system can be a win-win: increased transportation options with less congestion and less wear and tear on Ohio's roadways. These paired investments are vital to Ohio's future.

**We urge the General Assembly to maintain level funding for public transportation when you consider ODOT's budget in Spring 2021.** We also offer suggestions on ways to diversify the funding that goes toward transit, so that allocations can increase in the future.

GOPC has conducted a thorough review of 20 different potential funding options and narrowed its recommendations to sources that produce a high revenue stream, yet also have a minimal impact on the public at large. GOPC recommends any new funding should be used to help Ohio's transit systems innovate, make capital investments, and continue providing high quality operations.

To these ends, GOPC presents a blueprint for generating millions of new investment in our state's public transportation systems. Together, these options could generate more than \$123 million in new state and local funding for Ohio's public transit agencies, creating opportunities to meet market demand and innovate service delivery to all Ohioans.

We encourage the General Assembly to considering adding the following sources to their existing GRF allocation for transit.

- **Restore the use of FHWA Flex Funds** – Prior to 2019, Ohio provided up-to \$33 million per-year in Federal Highway Administration (FHWA) funds to transit agencies (\$27 million through competitive bidding and \$6 million awarded by formula to the eight largest systems). Restoring this funding source would provide needed funding to Ohio's large urban public transit agencies to help institute innovations that could increase services and reduce costs, as well as reduce the number of vehicles on the road that are beyond their useful life.
- **Apply the state sales tax to Parking Services** - Over the past twenty years, there have been efforts to broaden the state sales tax to make it more "service based". Parking services has been one of those proposed for sales tax expansion. Municipal corporations currently have the opportunity to apply an excise tax on parking services—at a rate not to exceed 8%. To date, only Cleveland has applied a local excise tax, enacted in 1996 to provide funding for the construction and maintenance of First Energy (Cleveland Browns) Stadium.

According to the Ohio Department of Taxation's 2018 analysis, applying the 5.75% state sales and use tax to parking would produce approximately \$33 million annually in revenue for the state. Revenue would be collected from privately operated facilities across Ohio. Parking meters would be exempted under the proposal. Revenues collected from the state sales tax would be deposited into the state GRF.

GOPC recommends that the state enact this sales tax and dedicate the revenues collected by the state to public transportation. Dedicated funding of \$33 million per year would constitute a fivefold increase over current funding, and would provide the state the opportunity to not only increase the amount of funding which is currently provided to rural transit systems, but also allow nimble resources that can be used for innovation or operational support.

- **End the Out of State Auto Sales Tax Exemption** - Motor vehicles sold in Ohio to non-residents, when the vehicles are immediately removed from Ohio and titled or registered in another state, are exempted from the state sales tax. However, no exemption is permitted for residents of states that apply a sales tax to an Ohioan purchasing a vehicle in that state. Currently, residents of 7 states must pay sales tax when they purchase a car in Ohio, and then take it back to their home state: Arizona, California, Florida, Indiana, Massachusetts, Michigan, and South Carolina. For residents of states Ohio does collect sales tax from, such as Michigan, Ohio collects the sales tax that would be collected by their resident state.

The Ohio Legislative Service Commission, using data provided by the Ohio Department of Taxation and Office of Budget and Management, has estimated that Ohio stood to lose \$57.1 million from the out-of-state sales tax exemption in FY2019.

This exemption is unique when comparing other products that residents from other states may be purchasing in Ohio and represents a major loss of potential revenue which, if applied to public transit funding, would provide a unique opportunity to enhance, expand, and innovate services Ohio's public transit agencies are providing to residents throughout Ohio.

GOPC recommends that the state eliminate this sales tax expenditure and dedicate the revenues collected by the state to public transportation. Like the collection of the parking sales tax, dedicated funding of \$57 million per year would constitute a major increase over current GRF funding.

Members of the Joint Study Committee, thank you for the opportunity to share Greater Ohio Policy Center's thoughts on the issue of public transportation funding and why we believe that it is directly linked to the work you are doing.





**OHIO ASSOCIATION OF CHIEFS OF POLICE, INC.**

**Road to Our Future Joint Legislative Study Committee**  
***Written Testimony***  
***Chief Bruce Pijanowski, Ohio Association of Chiefs of Police***

Co-chairs Greenspan and McColley and members of the joint legislative study committee – I am Bruce Pijanowski, the Chief of Police for the City of Delaware representing the Ohio Association of Chiefs of Police.

The Ohio Association of Chiefs of Police has always been an advocate of the front license plate, and we again would like to share why we believe public safety should outweigh appearance and convenience in the absence of any technological development.

Law enforcement lost the opportunities provided by the front plate to solve crimes. The benefits of cruiser license plate readers, the ability for officers to scan vehicles that may be fleeing crime scenes, increased opportunities for witness identifications and security system captures have all been lost. School bus safety is a recurring topic of conversation in this state, yet we have halved our school bus recording systems opportunities to record and identify vehicles that illegally pass a stopped school bus. Although it was the hope that an alternative technology could be developed as a viable alternative, that has not occurred and we will continue to be impacted by these lost opportunities.

One of the main arguments provided in support of the elimination of the front plate was the expanding technology behind the bumper of modern vehicles. OACP would suggest that it will be far easier for automotive engineers to determine where a license plate bracket can be applied to a bumper than it will be for state and local government to develop, pay for and install technology that takes its place. While the manufacturers and car enthusiasts have a genuine interest from their perspective, it is one that does not outweigh public safety. Likewise, it should not be the burden of taxpayers to pay for the technology development and implementation that supplants the front plate.

In conclusion, it is OACP's position that any cost savings, aesthetics and manufacturer concern is outweighed by the public safety factors provided. If the industry can account for a myriad of other safety requirements, they should be able to figure out how to safely attach a license plate. As there are no alternatives to replace the front license plate any time in the near future, OACP would respectfully submit that public safety factors mandate that the front license plate be reestablished as a requirement in Ohio.



## Sustainable Development

### Testimony on Public Transit to Ohio's Road to Our Future Joint Legislative Study Committee

**Amanda K. Woodrum**

Chairman Greenspan and Chairman McColley, members of the Committee, thank you for the opportunity to submit written testimony to the Joint Legislative Committee on Ohio's Road to Our Future. I am Amanda Woodrum, Senior Researcher for Policy Matters Ohio, a non-profit dedicated to promoting a more sustainable, equitable, inclusive and vibrant Ohio. For the past decade or so, I have also led a statewide network of diverse stakeholders, MOVE Ohio (Mobility and Opportunity for a Vibrant Ohio), calling on the state to adequately fund public transportation as well as safe pedestrian and bicycling infrastructure.

As many of you likely know, the State of Ohio has long underinvested in public transit, a more affordable, accessible and environmentally-friendly mode of transportation. Over the last several decades, nearly all our state's multi-billion transportation budget has gone towards roads and highways, creating a transportation system that makes it very difficult to get by without a car. However, cars are expensive to own, expensive to operate and expensive to maintain. For low-income Ohioans, cars are often prohibitively expensive. For elderly people and people with disabilities, driving may not be an option at all. According to [governing.com](http://governing.com), 67% of Black commuters relied on public transit in Cincinnati and 70% in Cleveland.

Transportation barriers to jobs, education and training, health care, and retail stores, foster a racial, health, and economic divide in this state, by limiting access to employment, opportunity and good health. As legislative champions for the future of Ohio's transportation system, we implore this committee to recognize the value public transportation can play in promoting education and opportunity for all Ohioans, whether they are Black or White, rich or poor.

### SOLUTION

**Ensure all Ohioans can get to work, school, the doctor's office, and the grocery store by expanding funding for more accessible, affordable public transit and safe pedestrian and bicycling infrastructure.** In the FY2020-FY2021 Transportation Budget, Ohio legislators made a solid step in the right direction, increasing funding levels to \$70 million per year. Thank you all for the role you played in recognizing investments in public transportation are critical to achieving equal opportunity for all, a basic tenet of American democracy. For that same reason, we recommend funding public transit at the level recommended by the Ohio Department of Transportation's *Transit Needs Study* (2015), which suggested that the state should support a full 10% of Ohio's \$1.84 billion annual public transportation need. This requires an annual appropriation for public transportation of roughly \$185 million in each fiscal year into the future, starting with the upcoming FY2022-FY2023 budget.

# OHIO AUTOMOBILE DEALERS ASSOCIATION



**Ohio's Road to Our Future Joint Legislative Study Committee  
Written Testimony  
Joe Cannon – Vice President, Government Relations  
November 4, 2020**

Chairmen Greenspan and McColley and members of the committee, my name is Joe Cannon, and I am the Vice President of Government Relations for the Ohio Automobile Dealers Association. On behalf of our over 830 franchised motor vehicle dealers, I appreciate the opportunity to provide testimony.

The Committee recently received a suggestion to eliminate the current tax system relating to motor vehicle purchases by non-residents. Please note we oppose this suggestion and encourage the committee to retain current law.

For background purposes, for years consumers entering Ohio to purchase vehicles were not subject to Ohio sales tax, which obviously made Ohio a very appealing destination to conduct business. Subsequently, there was a pursuit to require all consumers entering Ohio to pay tax, which would have negatively impacted consumers and our sales, especially for our dealers located along Ohio's borders.

In response, we worked with the Legislature and the Ohio Department of Taxation to 'neutralize' tax in the sale process – if your state is taxing Ohioans, then Ohio will tax you, as long as your home state gives credit for tax paid in Ohio. While we preferred the old law which applied no tax, the current reciprocity effort has worked well for both consumers and our industry for years. Please note this is not a 'unique exemption' which has been conveyed, as this system is applied across the country, since vehicles are taxed where they are titled versus at the point of sale.

We urge you retain this important consumer benefit.



## Road to Our Future Joint Legislative Study Committee

Co-Chairs Greenspan and McColley and members of the Road to Our Future Joint Legislative Study Committee, thank you for allowing me to provide testimony on behalf of the Ohio Trucking Association (OTA). OTA represents over 1000 trucking, moving, logistics and warehouse companies and allied vendor members. On behalf of OTA, I would like to thank this committee for its diligent work in examining ways to improve efficiencies, reduce costs, and enhance Ohio's transportation network.

During the debate over last year's transportation budget (HB 62), Ohio's trucking industry recognized the need for additional revenues and worked with lawmakers and other stakeholders on developing a plan. As many of you know, the final version of HB 62 forced Ohio's trucking industry to shoulder more of the burden, by increasing the tax on diesel by 19 cents, while increasing the tax on other gasoline by only 10.5 cents. In 2018 prior to this change the trucking industry paid over 37% of all fees paid by motorists in Ohio despite representing only 10% of vehicle miles traveled in the state.

We understand the COVID-19 pandemic has reduced the amount of travel in the state, and therefore has impacted motor fuel tax revenues. The trucking industry was also impacted, but for the most part our vehicle miles traveled returned to pre-COVID-19 levels. Therefore, the vast majority of the income from for fuel taxes has shifted to higher levels toward the trucking industry. Should the state feel the need to implement another increase to the motor fuel tax, we would ask that it first bring parity between the tax on diesel and



other motor fuels. The bifurcated system of taxation unfairly targets Ohio's trucking industry, which has been so instrumental to the state during the COVID-19 pandemic.

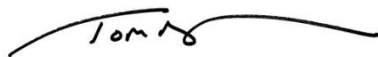
In addition to examining ways to improve efficiencies and reduce costs, we also value this committee's work on exploring innovative technologies and how the state might utilize technological advancements to improve its system of transportation. One area that we believe technology can be beneficial is by improving the challenges our industry faces with access to parking locations. As more rest stops have closed, the parking options for drivers has decreased, forcing drivers to park unsafely into rest areas, and at times even park on the side of the highway. This is not only inconvenient and unsafe for the drivers, but it can also decrease productivity as drivers are forced to cut routes short to ensure they have a place to park overnight.

We have been working with the Ohio Department of Transportation (ODOT) on ways to address this problem and are encouraged by the ideas that have been shared. ODOT has recently launched the Truck Parking Information Management System that provides real-time information about available parking spaces at rest areas throughout the state. This system has allowed drivers to monitor parking availability and make better-informed decisions as they near the limit of their federally mandated hours of service. We would encourage the state to continue to look at advancing technologies to address the truck parking challenges facing the industry. We would also support a dedicated fund to keep rest areas open and expand the parking options available throughout the state.

We also believe the state can do more to embrace emerging technology surrounding personal delivery devices. Personal delivery devices are being developed and utilized by companies to provide quick and convenient transportation options to customers. These devices also offer non-contact delivery options to customers, which, because of the COVID-19 outbreak, is more important now than ever before. Unfortunately, Ohio law limits the use of this technology and imposes restrictions that inhibit this technology from being fully implemented in the state.

Once again, OTA would like to thank the members of this study committee for its important work. Ohio's trucking industry looks forward to working with the DeWine Administration, the members of the Ohio General Assembly, and other stakeholders to improve the future of Ohio's transportation network.

Sincerely,

A handwritten signature in black ink that reads "Tom B".

Thomas A. Balzer, CAE  
President and CEO  
Ohio Trucking Association

Road to Our Future Joint Legislative Study Committee

Written Testimony November 4, 2020

India L. Birdsong – General Manager/Chief Executive Officer

Greater Cleveland Regional Transit Authority (GCRTA)

Chairmen Greenspan and McColley, and members of the Road to Our Future Joint Legislative Study Committee, thank you for this opportunity to offer our opinion on the current state of transit and its importance to Ohio's transportation network.

My name is India L. Birdsong, and I currently serve as the General Manager/CEO of GCRTA, the largest transit agency in the State of Ohio that employs 2300 staff and provides over 35 million rides to essential workers, students, and others throughout Cuyahoga County. Our system covers 457 square miles and includes an extensive 49 route bus network, 34 miles of legacy rail lines, paratransit, Park and Rides, rubber-tire trolleys and the nationally recognized HealthLine Bus Rapid Transit line.

Ohio's 61 transit agencies provided over 100 million rides over 460 million passenger-miles in 2018, and GCRTA provides 35% of those rides. These transit trips provided a modal alternative and reduced single occupancy vehicles on our congested highway network. During the COVID-19 pandemic, transit has been designated an essential service and we have provided continuous, safe and clean transit services to our communities to deliver essential workers to their jobs.

GCRTA has a significant economic impact to our region. Our \$300 million annual operating budget and \$60-75 million annual capital budgets result in \$322 million of direct impact in Cuyahoga County, sustains over 3000 jobs in Cuyahoga County, \$2.2 billion of increased property values to residents near transit services, \$485 million impact on local employment, while saving our riders \$51.8 million annually.

In 2015 the ODOT's Office of Transit published its Ohio Statewide Transit Needs Study. It documented that the State of Ohio was only providing 3% of the total transit funding. In addition, the study highlighted how the long-term lack of state funding was negatively impacting our transit agency's ability to provide basic service and the increasing backlog of unfunded capital needs to maintain vehicles and facilities at a state of good repair.

The study recommended sizable increases from \$27.3 million in SFY 2014 to \$120 million in SFY 2015 and gradually increasing to \$185 million in SFY 2025 in order to increase the State of Ohio's contribution to transit funding. Instead, we saw no change in SFY 2015 and gradual increases to \$40 million (\$7 million GRF and \$33 million ODOT Federal Flex) in SFY 2018 and 2019. This represents only 4% of the \$984.3 million of total operating and capital funding for Ohio's 61 transit agencies in 2018. Ohio is consistently ranked as the fortieth to forty-second state for per capita for state transit funding.

The passage of House Bill 62 did result in a step increase to \$70 million in SFY 2020 and 2021 along with a shift to all of the funding coming from the General Revenue Fund. Unfortunately, due to the COVID-19 pandemic those funds already have been reduced to \$66.8 million and \$56 million in SFY 2020 and SFY 2021. This highlights the need for dedicated transit funding in both the General Revenue Fund and within the ODOT budget.

As noted in the Ohio Transit Needs Study, the backlog of unfunded projects and unfunded vehicle replacements have increased and resulted in the aging of our transit vehicles fleets. Statewide the revenue vehicles exceeding their useful lives has increased from 13.5% in 2013 to 17.9% in 2018. At GCRTA 25% of our bus and paratransit fleets and 100% of our rail cars have exceeded their useful lives. Our unfunded backlog of capital projects, including vehicle replacements, is now approaching \$500 million necessary to achieve a State of Good Repair standard for our vehicles, equipment, facilities, and track.

We have recently completed a two-year Strategic Planning effort and adopted our 2021-2030 Framework for the Future that incorporates results of our Economic Impact Study, Fare Equity Study, System Redesign Study, Rail Car Replacement Study, and Financial Analysis and Economic Forecast. The Strategic Plan includes over 60 short, medium, and long-term recommendations to better Connect our Community and improve transit services to our customers in Cuyahoga County.

We look forward to implementing the Strategic Plan, but in order to do so, we will need increased support by the State of Ohio, the Legislature, ODOT and the ODOT Office of Transit, at the strategic partnership level. We urge consideration of this bolstered partnership at both a policy and financial level. In order to realize our goals for a more sustainable public transit system, we ask for the following items, in terms of support and participation:

- Policies to encourage denser development along our priority transit corridors and allow for transit vehicle to infrastructure (V2X) communication to improve transit vehicle travel times.
- Use of ODOT traffic and congestion data being generated during the COVID-19 pandemic to incentivize modal shift to transit during peak periods in a post-pandemic return to work, school and events.
- The definition of transit vehicles to differentiate between buses and rail cars within ODOT and within the TRAC eligibility criteria.
- Increased and dedicated state funding for transit both in the General Revenue Fund and restoring Federal Flex Funding in the ODOT transportation budget at a minimum as recommended in the ODOT Transit Needs Study.

Finally, we ask the State of Ohio to consider serving as a 25% partner in our \$300 million Rail Car Replacement program. We recently were awarded a \$15 million USDOT BUILD grant to support this initiative. However, of the \$132.6 million that we have committed, to date \$4.5 million is from the State of Ohio.

Thank you for granting me this opportunity to provide input from GCRTA regarding public transit needs and the importance of transit to Ohio's transportation network. I look forward to continuing this discussion with the Joint Study Committee in the near future.



November 5, 2020

Chairman David Greenspan  
Road to Our Future Study Committee  
77 S. High Street, 13th Floor  
Columbus, OH 43215

Dear Chairman Greenspan,

As a license plate supplier to US states and Canadian provinces as well as many countries around the world, 3M is a leader in license plate technology. We've been informed that this committee is tasked with identifying alternatives to the front license plate. It is our opinion that the front license plate is a valuable law enforcement tool. We know of specific occurrences where having both plates have assisted in solving crimes. Any new technology the committee may identify would likely need to be similar to a front plate in terms of ease of readability (both human and machine), be cost effective, and efficient to implement across all vehicles.

Please contact your 3M Government Services Manager, Gerarda Tobin at 313-575-4663 with questions regarding this letter.

Regards,

A handwritten signature in blue ink, appearing to read 'SGL', with a long horizontal line extending to the right.

Shawn G. Lowry  
Global Business Director  
3M Transportation Division

cc:  
Joy Stahosky, Contract Administrator  
Gerarda Tobin, Government Services Manager



### **Senator Antonio Questions**

1. I understand that many of these technologies are in the testing or trial phase, however, has anyone provided you with the cost of fully implementing any one of these systems on a statewide basis?
2. Are there funding sources (federal dollars or private sector funding) that can be utilized for the testing and trials of these new and evolving technologies?
3. Full implementation of many of these technologies will be costly. Previously, in an earlier hearing, we discussed funding in an earlier hearing, however, should we be more thoroughly investigating alternatives to the gas tax in order to bring in the necessary revenue for maintaining our existing infrastructure and providing a reliable funding stream for these new initiatives?
4. With any computerized systems, there is a fear of these systems being compromised by individuals or foreign governments seeking to upset or damage our infrastructure. What safeguards are being developed to counter potential hacking of these systems?
5. Is ODOT partnering with any of Ohio's colleges and universities to assist with the development of any of these technologies?
6. The advent of many of these technologies could mean the potential displacement of workers. Has there been any discussion regarding the impact of technology implementation on workers and their potential displacement?
7. Which of these new technologies would be the easiest and most cost-effective to implement statewide?
8. Which of these initiatives, irrespective of cost, is the most important for the long-term health and safety of Ohio's transportation infrastructure?
9. What is the status of ODOT's partnership with Ohio's public transportation systems and their initiatives in bringing new technologies forward to assist with the department's goals?

## Senator Antonio Questions

1. I understand that many of these technologies are in the testing or trial phase, however, has anyone provided you with the cost of fully implementing any one of these systems on a statewide basis?

Unfortunately we would need more clarity on this request as it's too broad.

2. Are there funding sources (federal dollars or private sector funding) that can be utilized for the testing and trials of these new and evolving technologies?

The State Planning & Research (SPR) program is a federally required program used to fund transportation planning and research in Ohio. Funding comes from a 2% set aside of Ohio's apportionments from the following programs: National Highway Performance Program (NHPP), Surface Transportation Block Grant Program (STBG), Highway Safety Improvement Program (HSIP), Congestion Mitigation Air Quality Program (CMAQ), National Highway Freight Program. Of the 2% set aside for the SPR Program, 75% goes to planning activities while the other 25% goes to research activities.

3. Full implementation of many of these technologies will be costly. Previously, in an earlier hearing, we discussed funding in an earlier hearing, however, should we be more thoroughly investigating alternatives to the gas tax in order to bring in the necessary revenue for maintaining our existing infrastructure and providing a reliable funding stream for these new initiatives?

The Ohio Department of Transportation is currently waiting to hear back from Federal Highway Administration regarding the approval or non-approval of its grant application for Surface Transportation System Funding Alternative. The department has been keeping itself apprised to the continued developments of other states and groups that have been studying possible alternatives to the gasoline excise tax system. The department has been collaborating internally on potential approaches to best utilize the funding if awarded by Federal Highway Administration.

4. With any computerized systems, there is a fear of these systems being compromised by individuals or foreign governments seeking to upset or damage our infrastructure. What safeguards are being developed to counter potential hacking of these systems?

ODOT works closely with the State CIO and DAS/OIT with respect to the safeguards to the statewide technology infrastructure. DAS/OIT takes the lead on enterprise security, and ODOT works within their framework for agency-specific security measures. Beyond these measures, each application and technology system passes through our security team prior to any agreement to purchase to make sure that the systems incorporate NIST standards in their technologies (state standard). The number one priority for the protection of our systems remains the vigilance of our users to be security savvy to prevent exploitation.

5. Is ODOT partnering with any of Ohio's colleges and universities to assist with the development of any of these technologies?

ODOT is constantly partnering with Ohio's colleges and universities to assist with the development of new technologies. Below are some examples:

- ODOT partnered with Ohio University to evaluate maintenance procedures for the **SmartLane** to identify best practices for clearing debris in the most efficient manner for safe operations of the SmartLane.
  - ODOT is partnering with the University of Cincinnati to assess the use and capabilities of **Unmanned Aircraft Systems** (UAS) for transportation, incident management and infrastructure assessment.
  - ODOT is partnering with The Ohio State University to develop and test tools for **Unmanned Aircraft Systems** (UAS) related to low altitude and beyond line-of-sight flights including services such as package/freight delivery, human transport and agricultural operations.
  - ODOT is partnering with The Ohio State University to establish design rules for **roadway lighting** in ecologically sensitive urban and rural areas.
  - ODOT is partnering with Ohio University and TEC Engineering to refine its GIS-based **augmented reality solutions** to aid ODOT in visualizing its assets on hand-held devices (e.g. iPads) in a field situation.
  - ODOT is partnering with the Transportation Research Center to develop a specification for a work-zone attenuator device that can perform critical safety functions without the use of a dump truck.
  - ODOT is partnering with the University of Cincinnati to develop efficient and cost-effective opportunities to train ODOT snow and ice drivers utilizing simulation.
  - ODOT is partnering with The Ohio State University to assess the feasibility and impact of incorporating bacteria into concrete mixes used on the local roadway system for extending service life.
6. **The advent of many of these technologies could mean the potential displacement of workers. Has there been any discussion regarding the impact of technology implementation on workers and their potential displacement?**

Many of these technological advances will build in efficiencies that will allow our workers to focus on more important functions of their job, rather than more tedious or clerical functions. So it's not necessarily that large numbers of ODOT employees will be displaced.

7. **Which of these new technologies would be the easiest and most cost-effective to implement statewide?**

We are currently implementing many of these new technologies in our day to day work.

8. **Which of these initiatives, irrespective of cost, is the most important for the long-term health and safety of Ohio's transportation infrastructure?**

This is a difficult question to answer as many of these initiatives are important components of what we do at ODOT. For example, the ability to collect in real time all the data necessary to make informed decisions about management of our freeway system is very important. Data includes weather data, traffic congestion data, traffic speed data, road conditions, etc. This data informs our traffic management personnel how to manage the flow of traffic throughout the state. But we are also always looking at evolving technology and how it can affect the construction and maintenance of our physical assets as well.

9. **What is the status of ODOT's partnership with Ohio's public transportation systems and their initiatives in bringing new technologies forward to assist with the department's goals?**

ODOT maintains a close working relationship with the Ohio Public Transit Association and all public transit operators in the state. Each community is constantly working to identify new ways of meeting their identified needs, to that end, ODOT is excited to share data and participate in the evolution of technology across the state. The recent increase in funding for public transit has allowed ODOT to support Ohio's Public Transit Operators investment in technology through state grant awards.



**Nickie J. Antonio**  
**State Senator, 23<sup>rd</sup> District**  
Senate Building  
1 Capitol Square, Room 050  
Columbus, Ohio 43215  
Phone: 614.466.5123  
Antonio@ohiosenate.gov

## Committees

Transportation, Commerce & Workforce, *Ranking*  
Health, Human Services & Medicaid, *Ranking*  
Joint Medicaid Oversight, *Ranking*  
Finance  
Finance – Health & Medicaid Subcommittee  
Ways & Means

November 24, 2020

Chairs Greenspan and McColley and Members of Ohio's Road to Our Future Joint Study Committee, please find below suggestions from my office to add to the final committee report. Do not hesitate to reach out to my office if you have any questions.

### Additional Items to Add to the Final Report:

- **Alternative to the gas tax**
  - Vehicle Miles Traveled (VMT): By establishing a VMT program, drivers will more accurately finance their share of road usage, regardless of vehicle type. With a VMT program, we could also more equitably distribute these funds more into the communities whose roads are being used.
    - In October, ODOT shared that the Department has “been working on studying and potentially implementing a pilot project in the future.” I believe creating a timeline for the study and implementation would be beneficial.
  - Apply the Sales Tax to Parking Services
  - Index the gas tax: reflective of consumer price index, to account for inflation.
- **Investing in public transportation:** One of the most substantial inhibitors to the growth of Ohio's economy is our lack of a reliable public transportation system. Most recently, Columbus was rejected as a potential home for Amazon's new headquarters due to its lack of public transportation, denying thousands of Ohioans potential jobs.
  - Use funds for aging equipment
    - In 2018, RTA contracted with LTK Engineering Services to perform a comprehensive evaluation for GCRTA's Heavy and Light Rail fleets. The cost of rehabilitating these vehicles far exceeded replacement costs. These vehicles, used to transport Ohioans to work, school, healthcare needs, and entertainment through 400 daily trips, require \$240 million.
  - Increased share of GRF dollars to public transportation
  - Increase the use of FHWA (Federal Highway Administration) Flex Funds for public transit
- **Federal pilot programs and grants** for public transportation and infrastructure: The Federal Transit Administration provides funding through [competitive grant programs](#) for public transit.
  - Dedicate one full-time staff member of ODOT to identify federal funding/complete grant writing
- **Increased funding for local governments** to be utilized for transportation and infrastructure needs.

Sincerely,

A handwritten signature in black ink, appearing to read "Nickie J. Antonio".

Nickie J. Antonio  
State Senator  
Ohio District 23



## Ohio Contractors Association

1313 Dublin Road • P.O. Box 909 • Columbus, Ohio 43216

(614) 488-0724 • (800) 229-1388 • FAX (614) 488-0728 • [www.ohiocontractors.org](http://www.ohiocontractors.org)

### Road to Our Future Study Committee

November 30, 2020

Dear Members of the Road to Our Future Study Committee:

Thank you for the opportunity to provide comment. The Ohio Contractors Association (OCA) has a strong interest in how Ohio's transportation system will evolve. OCA's 200 contractor members and 300 associate members construct this state's transportation infrastructure. Currently, 80% of the capital program work put forth for bidding by the Ohio Department of Transportation (ODOT) measured by dollar volume is performed by OCA members. It is anticipated that a nearly equivalent amount of work offered by local governments and other state agencies for highway, bridge, and other infrastructure components is performed by our members. Therefore, we have a significant stake in any technological and financial activities impacting Ohio's transportation planning, funding, and maintenance policy both at the state and federal levels.

OCA is a strong advocate for the "user fee" concept in financing highway infrastructure. To that end, we stridently defend the Constitutional restriction of revenue generated by the motor fuel user fee be spent for highway purposes only. At the state level, that means those monies can only be spent to fund Ohio's road and bridge infrastructure. User funding was also the philosophy at the federal level until Congress neglected to properly fund the federal Highway Trust Fund to keep ahead of inflation, maintenance needs, and system growth along with funding modes that were never intended for funding in the original Highway Trust Fund model. The federal Highway Trust Fund has not seen a cost-per-gallon increase in revenue in the federal motor fuel user fee since 1993. At the point when the federal Highway Trust Fund could no longer keep pace with the needs, revenue from the General Revenue Fund began supplementing motor fuel user fee funding.

Thankfully, through the leadership of Governor DeWine, Senate President Obhof and Speaker Householder, the Ohio General Assembly approved an increase to the state's motor fuel user fee in the SFY 2019/2020 transportation budget. Though that increase did increase ODOT's budget to adjust for inflation and lesser bond financing, it was ultimately a status-quo increase that kept to capital construction program comparable with prior years' funding. Unfortunately, due to the impacts of COVID-19, the capital construction program for ODOT and local governments have failed to maintain that pace. As a result, ODOT is unlikely to a return to a capital construction program at or above the \$2 billion level for years to come.

Despite a significant increase just 18 months ago, OCA contends that the current motor fuel user fee may not be adequate to address the maintenance our highway infrastructure needs in the

November 30, 2020

Page 2

future. Shortfalls will likely develop as people drive less and vehicle fleet demographics change with the continued growth of hybrid and electric vehicles. Therefore, we fully support and encourage beginning the switch-over to a vehicle-miles-traveled concept for highway funding. We see the beginnings of such a shift taking place both here in Ohio and around the nation as vehicle manufacturers advance electric vehicle sales and public entities begin to invest in the construction of electric charging stations.

However, we would caution that this transition is not like “switching” on a light. It will need to be a transitional process. While vehicles may be available for purchase, the vehicle charging infrastructure will take longer to develop. At present, state and local governments are a primary source of funding for vehicle charging facilities. Think of the number of commercial gas stations that dot our state and nation’s landscape. While an individual may be able to charge a vehicle in their garage, it will be some time before a robust network of commercially available recharging facilities are available for the general public’s use. Government investment cannot and should not fund the needed recharging infrastructure. A profitable, commercial network must be developed. Until that time, internal combustion engines will be the predominant form of vehicle propulsion.

To that end, the “gallons sold” model will hold sway over the growing “vehicle-miles-traveled” model for an unknown number of years. Hence, the current motor fuel user fee should not be totally abandoned as a source of income for our highway and bridge construction.

The recent increase in Ohio’s motor fuel user fee was significant and needed to be so because of years of delay in addressing the recognized shortfall. A much more effective way to manage future shortfalls is to make smaller, incremental increases to the user fee that are tied directly to inflation rates. OCA continues to support enacting an inflationary indexing adjustment to the state motor fuel user fee. With that, the motor fuel user fee would keep pace with needs until such time as the vehicle-miles-traveled strategy gradually supplants the gallons-sold method.

Thank you again for the opportunity to provide comment on behalf of Ohio’s heavy/highway industry. We appreciate the work you are doing in recognizing the importance of a safe, reliable, and robust transportation infrastructure system for Ohio.

Respectfully yours,



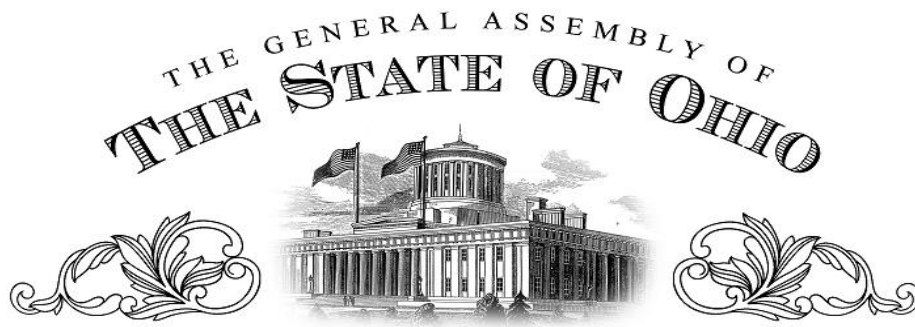
Christopher L. Runyan, P.E.

President



**Ohio Contractors Association**

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## ANNOUNCEMENT OF COMMITTEE MEETING

**COMMITTEE:** Ohio's Road to Our Future Joint Legislative Study Committee  
**CO-CHAIRS:** Rep. Dave Greenspan and Sen. Rob McColley  
**DATE:** November 17, 2020  
**TIME:** **2:00PM**  
**ROOM:** Statehouse Room 115

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### AGENDA

1. Distribute and discuss initial draft of committee report.

Please contact Co-Chair Greenspan's office at (614) 466-0961 or [Adam.Headlee@ohiohouse.gov](mailto:Adam.Headlee@ohiohouse.gov), or Co-Chair McColley's office at (614) 466-8150 or [Erin.Froehlich@ohiosenate.gov](mailto:Erin.Froehlich@ohiosenate.gov) with any questions.



# Ohio's Road to Our Future Joint Legislative Study Committee

## Minutes

November 17, 2020

Co-Chairman Greenspan called the meeting of the Ohio's Road to Our Future Joint Legislative Study Committee to order at 3:27 p.m. in Statehouse Room 115. Attendance was taken and a quorum was present.

Chairman Greenspan announced that information and testimony has been collected and reviewed for all study topics assigned to the committee by statute.

Chairman Greenspan opened the floor to discussion pertaining to the first draft of the final committee report.

- Senator Antonio announced and distributed a summary of additional items which the minority party would like to have included in the final report.
- Chairman Greenspan announced that additional comments regarding the final report are requested as quickly as possible so they may be reviewed and taken under consideration.

Chairman Greenspan announced that the next meeting of the Ohio's Road to Our Future Joint Legislative Study Committee will be held on December 1, 2020 at 2:00 p.m.

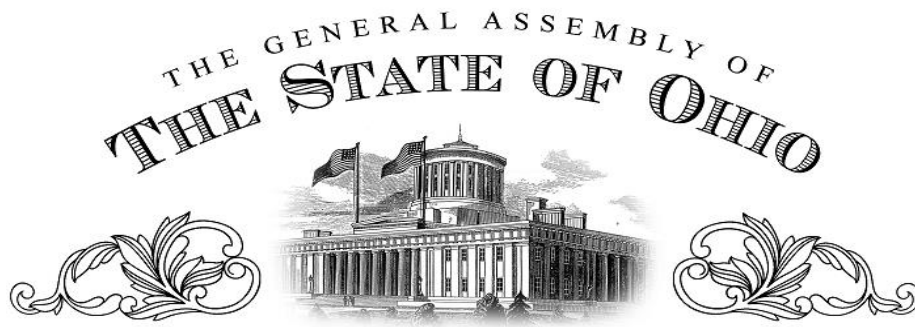
With no further business, the committee adjourned at 3:34 p.m.

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Dave Greenspan, Co-Chair

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Rob McColley, Co-Chair



## ANNOUNCEMENT OF COMMITTEE MEETING

**COMMITTEE:** Ohio's Road to Our Future Joint Legislative Study Committee  
**CO-CHAIRS:** Rep. Dave Greenspan and Sen. Rob McColley  
**DATE:** December 1, 2020  
**TIME:** 2:00PM  
**ROOM:** Statehouse Room 115  
**OVERFLOW:** Statehouse Room 113

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### AGENDA

1. Approve final committee report.

Please contact Co-Chair Greenspan's office at (614) 466-0961 or [Adam.Headlee@ohiohouse.gov](mailto:Adam.Headlee@ohiohouse.gov), or Co-Chair McColley's office at (614) 466-8150 or [Erin.Froehlich@ohiosenate.gov](mailto:Erin.Froehlich@ohiosenate.gov) with any questions.

# Ohio's Road to Our Future Joint Legislative Study Committee

## Minutes

December 1, 2020

Co-Chairman Greenspan called the meeting of the Ohio's Road to Our Future Joint Legislative Study Committee to order at 2:08 p.m. in Statehouse Room 115. Attendance was taken and a quorum was present.

Chairman Greenspan opened the floor to discussion regarding the final committee report.

The committee stood at ease from 2:12 p.m. to 2:13 p.m.

Co-Chairman McColley moved to adopt and favorably report the final committee report.

Senator Antonio seconded the motion.

Representative Skindell requested a roll call vote. The roll was called and the final committee report was approved unanimously with no absences.

With no further business, the committee adjourned at 2:15 p.m.

Following adjournment, pursuant to Section 755.20(E) of Am. Sub. H.B. 62 of the 133<sup>rd</sup> Ohio General Assembly, the Ohio's Road to Our Future Joint Legislative Study Committee ceased to exist.

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Dave Greenspan, Co-Chair

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Rob McColley, Co-Chair