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**OHIO TURNPIKE AND
INFRASTRUCTURE COMMISSION
62nd ANNUAL
CONSULTING ENGINEER INSPECTION REPORT**



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2017

**Sixty Second Annual
Consulting Engineer
Inspection Report**

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1.0 INTRODUCTION

This report is a general summary of the 2017 routine field inspection findings of Ohio Turnpike and Infrastructure Commission (OTIC) assets; specifically the bridges, culverts, pavement, and buildings including a summary of observations pertaining to new construction, maintenance, revenues, traffic and safety. Detailed 2017 field inspection notes were delivered to the OTIC staff in July and August of 2017 for their use in the early planning of maintenance and repair programs for 2018 and beyond. In addition, the Ohio Department of Transportation (ODOT) and Federal Highway Administration (FHWA) bridge inspection reports were completed and submitted to the OTIC in July 2017 to meet federal and state reporting requirements.

Pavement and Bridge Conditions

During the 2017 calendar year, capital improvements were made totaling over \$121 million. Continued improvements on OTIC bridges resulted in the repainting of 14 structures and the deck replacement of 9 bridges. Additionally, 19 bridges throughout the Turnpike received various repairs including fence, parapet and bearing replacements / rehabilitations. Finally, the OTIC continued its multi-year mainline Pavement Replacement Program, resulting in 32.28 lane-miles being replaced as well as 86.0 lane miles of pavement resurfacing.

Following the 2014 completion of the OTIC Third Lane Program project between MP 59.52 and MP 64.13 in Lucas County, the OTIC now boasts three continuous lanes in both the eastbound and westbound directions from MP 59.52 to MP 218.70. There are currently no further scheduled OTIC Third Lane Program projects.

In 2009, the OTIC completed a study to evaluate the condition of the original concrete pavement for the entire 241 miles of the Turnpike. The purpose and goal of the study was to assess the life expectancy of the pavement and make a recommendation for the sequential reconstruction along the entire length of the Turnpike. The study has shown that the pavement and roadway elements are in relatively good condition for its age, however, the base pavement is in differing states of deterioration. The report has aided in the creation of a 50-year capital plan including replacement, rehabilitation and maintenance of the pavement and bridges on the Turnpike. In 2011, the OTIC began replacement of the original concrete pavement from MP 95.9 to MP 101.2 to be used as a guideline for future original concrete pavement replacement projects. To

date including 2017 projects, 191.12 lane-miles of original roadway have been replaced as a part of this program.

Facilities

Over a 15-year period (1998 to 2013), 14 of the original 16 service plazas were replaced. Since then, the OTIC service plaza program has been focused on maintaining high standards of service and excellent facility conditions. In 2016 and 2017 fuel line upgrades were completed at four plazas and two truck parking areas were repaired and resurfaced. Currently three of the seven pairs of service plazas constructed during the early phases of the replacement program have been updated. The service plazas are modern, state-of-the-art facilities with improved energy efficiency, designed to accommodate the ever-increasing number of Turnpike travelers. Amenities for the service plazas include a food court arrangement with a sit-down restaurant and multiple fast food vendors, electronic travel and weather information centers, and retail outlets. Special truck driver areas have been incorporated into the facilities which include a lounge, laundry and shower facilities. In 2017 OTIC entered into a contract with a consultant to develop a more in depth strategic plan for all facilities including maintenance buildings, salt storage buildings, service plazas, toll plazas and the administration building.

Highway Safety

The OTIC highway safety record continues to compare favorably with other similar interstate type facilities. The accident rate per one hundred million vehicle miles increased from 90.2 in 2015 to 91.7 in 2016 (2367 total accidents in 2016 compared to 2459 in 2015). The rate of accidents resulting in fatalities increased slightly from 0.4 in 2015 to 0.5 in 2016. For the first eight months of 2017, total accidents have decreased slightly compared to the same time period in 2016. Total accidents for this time period was 1562 in 2016 compared to 1468 in 2017. The accident rate resulting in fatalities for the first eight months of 2017 also decreased slightly during the same time period from 2016.

Revenue

Total revenues for the OTIC from all sources in 2016 were approximately \$321,375,000, up 2.8% compared to 2015. Meanwhile, total expenses decreased 2.9% including interest expense and ODOT Infrastructure Project Expense and accompanied a 2.8% increase in the OTIC end of year net position. The increase in revenue can, in large part, be attributed to an increase in passenger and commercial vehicle traffic as well as a 2.7% toll rate increase on January 1, 2016. The total miles traveled per vehicle increased by 1.2%. The increases in total vehicles and average vehicle mileage resulted in an approximate 2.8% increase in 2016 toll revenue. The revenue data for the first eight months of 2017 shows that, when compared to the same period in 2016, toll revenues from passenger cars were up 1.7 percent and toll revenues from commercial vehicles were up 3.6 percent. Total toll revenues were up 2.7 percent for the first eight months of 2017 and investment income was down 9.8 percent. Total revenues for the first eight months of 2017 were up 2.7 percent compared to January-August, 2016. The total number of vehicles using the Turnpike during January-August, 2017 was 1.2 percent higher than for this same period in 2016. Based on current trends to date, total revenues from all sources for 2017 are estimated at approximately \$330,000,000.

2.0 REPORT OF FINDINGS AND RECOMMENDATION FOR MAINTENANCE AND REPAIR

2.1 Pavement and Shoulders

In 2009, the OTIC completed the evaluation of the condition of the original concrete pavement for the entire 241 miles of the Turnpike. The comprehensive pavement evaluation and analysis identified all of the factors contributing to the current condition of both the pavement and the subbase. The purpose and goal of the study was to assess the remaining life expectancy of the original base pavement and make a recommendation for the sequential reconstruction along the entire length of the Turnpike. Based upon the 2009 report and continuing annual pavement assessments, the OTIC is continuing the reconstruction of the original base pavement through the Pavement Replacement Program as detailed below:

Pavement Replacement projects Started in 2016 and completed in fall of 2017

MP 107.30 to MP 112.50, Eastbound (2016) and Westbound (2017)

MP 186.35 to MP 191.39, Eastbound (2016) and Westbound (2017)

Pavement Replacement project Started in 2017 and completed in fall of 2017

MP 90.00 to MP 95.90, Eastbound only (Westbound was constructed in 2013)

The final project of the Third Lane Expansion Program was completed in 2014 between MP 59.52 and MP 64.13. The OTIC now boasts a continuous three lane roadway spanning 159.18 miles from MP 59.52 near Toledo to MP 218.70 near Youngstown.

In 2017 the OTIC performed several mainline resurfacings totaling approximately 86.0 lane-miles spread throughout the Turnpike. In addition, 32.28 lane-miles were reconstructed as part of the 2017 Pavement Replacement Program projects. The overall Resurfacing Program continues to be closely coordinated with the Pavement Replacement Program and prioritized based on the annual pavement assessments. See Appendix B for additional information on pavement resurfacing.

A visual inspection of the roadway, shoulders, embankments and median barrier are performed annually, and a report of these findings are provided to OTIC to assist in the planning of roadway maintenance projects. Overall, the mainline travelled lanes on the Turnpike continue to be very well maintained, earning an average Pavement Condition Rating (PCR) score of 93.75/100 down slightly from 94.70/100 the previous year. The minor deductions in the score were primarily due to areas of rough pavement in the right two lanes with scattered dips and cracks elsewhere. The shoulders are also well maintained with an average rating of “GOOD” per the ODOT pavement condition rating criteria. Deductions in the shoulder score were primarily due to rough pavement, spalling and shifting of pavement and scattered areas of erosion. The current Resurfacing and Pavement Replacement Programs continue to prove effective, providing a consistent and reliable driving experience throughout the full length of the Turnpike. Therefore, AECOM recommends that the OTIC continue the Resurfacing and Pavement Replacement Programs as detailed in the current 50-year Capital Master Plan.

2.2 Landscaping

The OTIC landscape personnel continue to supervise the contract herbicide spray program along the mainline and at interchanges, and perform minor herbicide and pesticide spraying at interchanges and service plazas. Landscape personnel maintain landscaping along the right-of-way and also construct and maintain the landscaping and plantings at the interchanges, service plazas, maintenance buildings and administration building. The OTIC’s landscape personnel developed and implemented the landscaping plans for the seven pairs of newer service plazas. In addition, landscaping is developed for exits and interchanges. The landscaping has been upgraded around the buildings at two sets of service plazas (Mahoning Valley and Glacier Hills MP 237.2), and includes the construction of four perennial pollinator gardens as part of the Keep Ohio Beautiful program.

Condition of the landscaping was considered during bridge, culvert, roadway and facilities inspections. The right-of-way continues to be well maintained, with no notable issues. AECOM recommends that landscaping continue to be performed as planned throughout 2017.

2.3 Bridges

Based on the bridge condition inspections performed in 2017, the large majority of bridges maintained by the OTIC are in Satisfactory to Excellent Condition (NBIS Scores 6-9) according

to National Bridge Inspection Standards (NBIS). Per ODOT and OTIC policy the total number of bridges maintained by OTIC is 544. Out of a total of 544 bridges, only 3.3% of the structures (18 total) rate below Satisfactory Condition (**Figure 2.3.1**) and the majority of deficiencies at these structures is related to substructure (piers and abutments) concrete deterioration. Of the substructure deficiencies, the most downgraded element impacting the overall structure rating was found to be the piers. The piers rating below Satisfactory do not currently pose a safety hazard to the public; however, continued deterioration has the potential to increase maintenance and repair costs as well as decrease the overall service life of the structures. Rehabilitation should be performed at these structures in the near future and the deficient elements should be monitored closely until repairs can be made. **Figure 2.3.2** shows the changes in these scores by percentage of inventory over time.

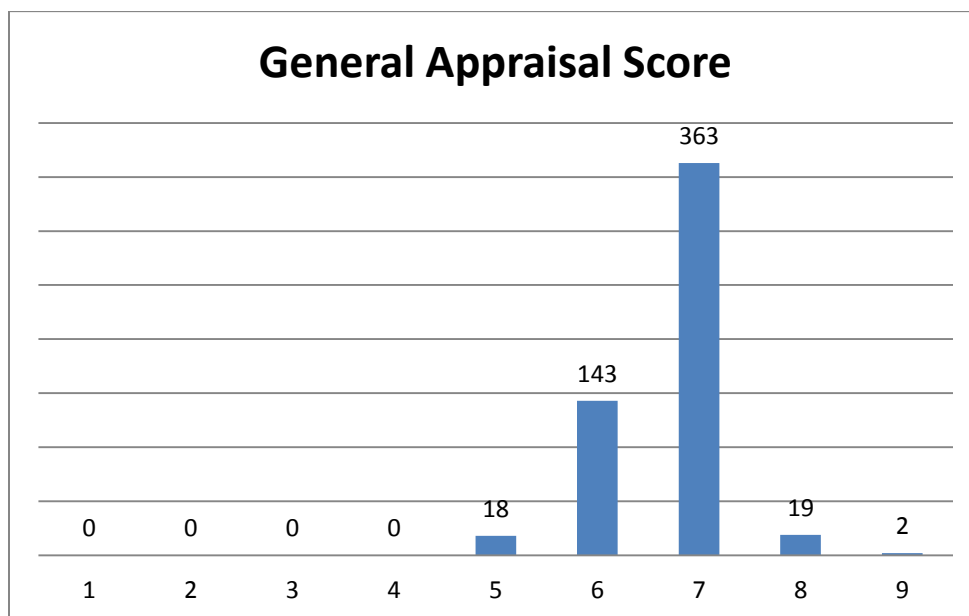


Figure 2.3.1 – Graph showing distribution of overall NBIS Condition Ratings for bridges maintained by the OTIC. NBIS Scoring criteria based on 1-9 evaluation with 1 being Imminent Failure and 9 being Excellent. Ratings of 5 or greater indicate structural elements may or may not show deterioration but remain sound with no significant affects to the main load path. For additional information see ODOT MBI 2014 Table 34.

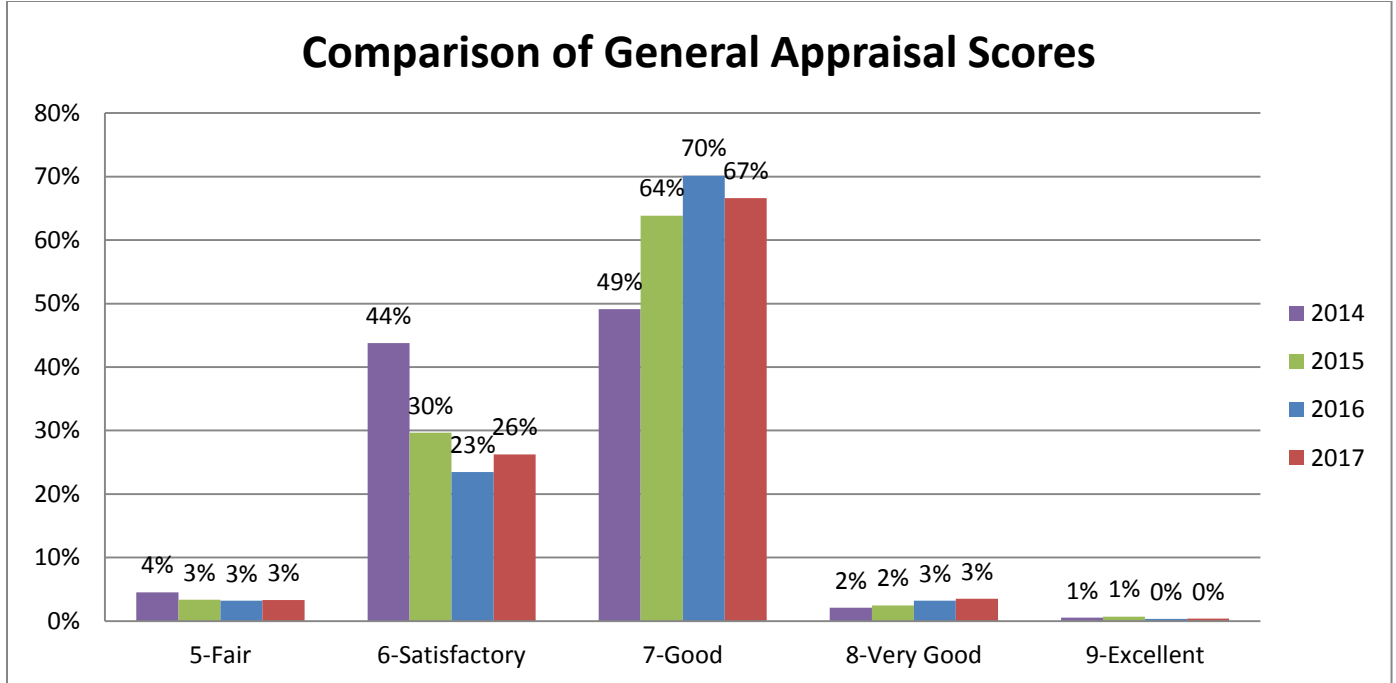


Figure 2.3.2 – Graph showing distribution of General Appraisal ratings for bridges maintained by the OTIC as viewed on the SMS inspection form from 2014-2017.

Major and or Fracture Critical Bridges

An arms-length fracture critical inspection was performed on the OTIC Ramp over US 250 in accordance with FHWA and ODOT guidelines with the inspection report submitted to OTIC in August. An additional fracture critical inspection of the Olde Eight Road bridge over the Ohio Turnpike will be completed in late 2017, including submission of the inspection report, following completion of construction on this structure.

2017 Structure Improvements

The OTIC 2017 Capital Program includes minor to major repairs and rehabilitations to several structures along the Turnpike (**Appendix D**). No emergency repair contracts were required in 2017.

During 2017, a total of 28 bridges were rehabilitated with various repairs to elements such as decks, fencing, parapets, bearings and joints. Various rehabilitation repairs were completed on 19 bridges (12 bridges within the Pavement Replacement projects and another 7 bridges within structures projects). Bridge decks were replaced on 9 structures which included the bridge

deck widening on the WB mainline Turnpike bridge over Garfield Road at MP 240.8 (EB to be completed in 2018). Additionally, the bridge painting program continued with 14 structures receiving new paint, of which 8 were mainline bridges.

Maintenance and Repair Recommendations

The “General Appraisal and Operational Status” rating given to each structure describes its overall condition. Based on a scale of 1 thru 9, this rating is determined, in essence, by the Substructure or Superstructure (beams) conditions. Review of the summary ratings produced from the findings of the 2017 bridge safety inspections shows that substructure elements remain the predominant controlling factor in the overall General Appraisal ratings. Ratings continue to increase in 2017 compared to 2014 through 2016 due to the changes in FHWA element level scoring criteria as well as a significant number of focused rehabilitations. 2014 is used as the current baseline for comparison as this was the first year Element Level Scoring Criteria was utilized in the bridge safety inspections. Element level scoring criteria assigns the score based on percentage deficient rather than a score based on the lowest deficient item controlling the entire score. For example, under the previous scoring system, a bridge where 90% of the superstructure is good and 5 % is satisfactory and 5 % is fair, then the entire structure would be rated as fair while under the new element level scoring the superstructure would be rated as good. **Figure 2.3.3** shows that only 3% of OTIC substructure summaries (13 structures) receive below a satisfactory rating (NBIS-6), while 0.2% (1 structure) of the superstructure summaries receives a rating below satisfactory (NBIS-6). **Figure 2.3.4 and Figure 2.3.5** show the changes over time between superstructure and substructure ratings for the last four years where element level scoring was utilized.

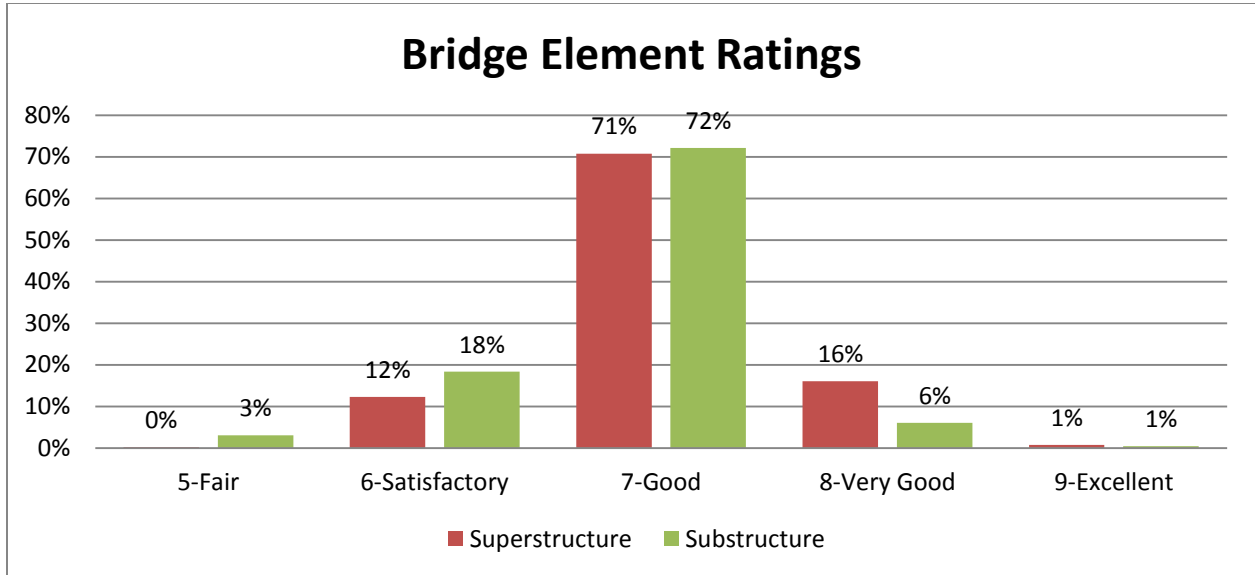


Figure 2.3.3 – Graph showing distribution of Superstructure and Substructure summary ratings for bridges maintained by the OTIC as viewed on the SMS inspection form.

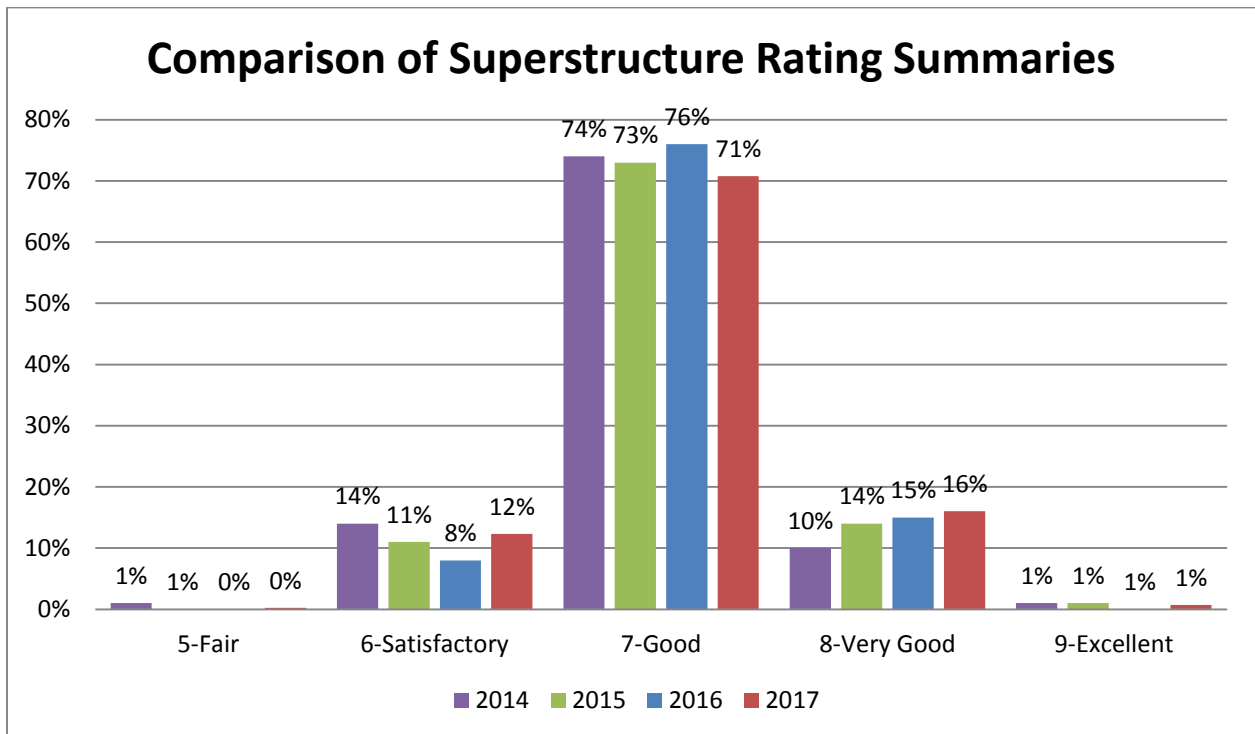


Figure 2.3.4 – Graph showing distribution of Superstructure summary ratings for bridges maintained by the OTIC as viewed on the SMS inspection form from 2014-2017.

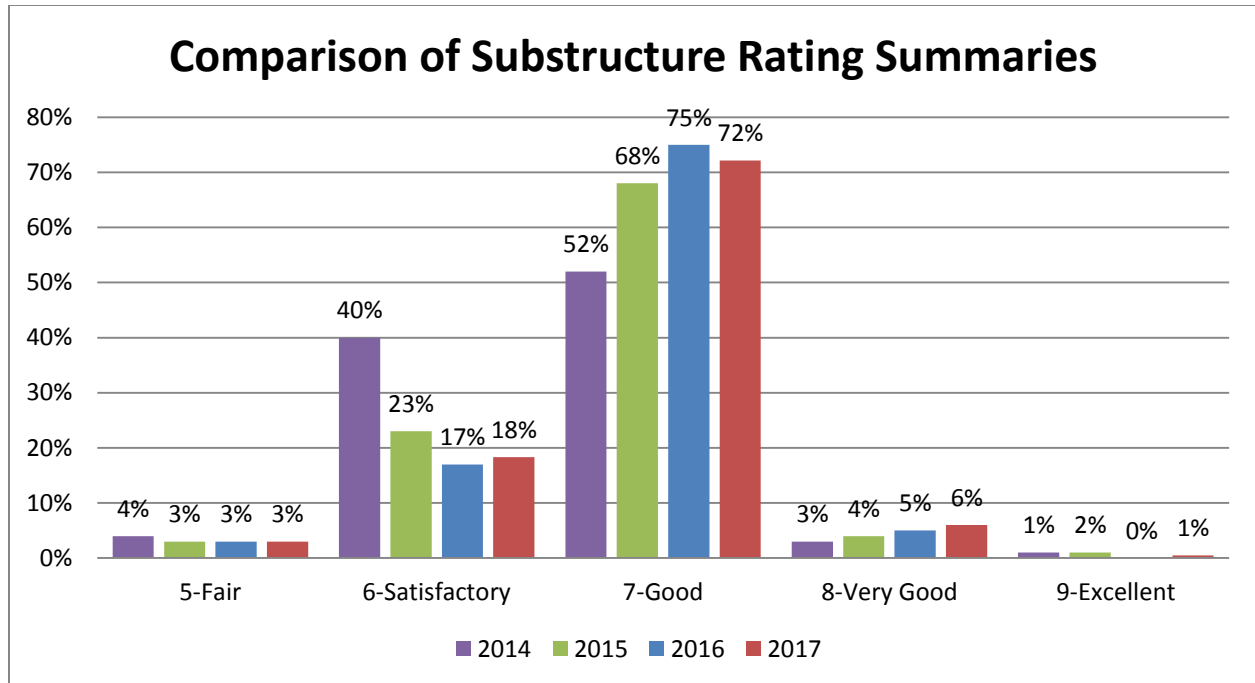


Figure 2.3.5 – Graph showing distribution of Substructure summary ratings for bridges maintained by the OTIC as viewed on the SMS inspection form from 2014-2017.

In general, a below satisfactory summary rating does not indicate a condition that is unsafe for either of these elements. However, based on the distribution of ratings, the OTIC should consider developing a substructure preventative maintenance and repair plan aimed to extend the usable life of these critical infrastructure elements.

Superstructure ratings for steel structures (the predominant type of superstructure on the Turnpike) are typically controlled by the amount of steel section loss and cracking in secondary diaphragm members and connection plates. The condition of the steel structures is generally good (NBIS-7) with regard to section loss. This can in large part be attributed to the OTIC on-going bridge painting program.

Some structures were noted to have diaphragm and weld cracks forming as well as loosening connectors, and the OTIC should consider a long-term maintenance and repair plan to mitigate these effects and extend the useable life of the structures. As of 2017 this is occurring in approximately 50 structures and while not being a safety issue, it should continue to be closely monitored. Additionally, as a part of the next inspection cycle, the OTIC should consider

provisions for up-close, hands-on inspection of a random sample of bridges with this condition in order to better evaluate the extent of these deficiencies.

The impacts of steel corrosion at the original expansion bearings beneath expansion joints in the bridge decks throughout the Turnpike are pronounced. The development of large quantities of pack rust between the bearing components has created significant problems in regards to bearing alignment and function in some locations. Bearing issues of this nature not only reduce the functionality of the bearing itself, but create significant problems in adjacent members including floating bearings, vertical misalignment of the expansion joints (leading to snow plow blade impact damage), and out of plane bending cracks at beam ends and stiffeners/diaphragms. Under past bridge repair contracts and continuing with 2017 projects, the OTIC rehabilitated as well as replaced many of these deficient bearings with an elastomeric type. Elastomeric bearings by nature are less prone to this type of deterioration and should alleviate many of these issues in the future. Despite the bearing work already completed, many original and or rehabilitated bearings that were not replaced with elastomeric bearings still exhibit significant issues and the OTIC should consider developing an aggressive bearing rehabilitation and/or replacement program to improve long term serviceability and performance.

Over the past several years, many bridges on the Turnpike have are exhibiting delaminating parapet concrete over the mainline roadways. The potential for falling concrete poses a significant threat to the traveling public and, when discovered, is immediately addressed by both inspectors and maintenance crews. The bridge safety inspections occur only one time a year and reveal many of these issues; however, these problems develop year-round and, as such, the OTIC should consider implementing a parapet monitoring program in order to minimize these public safety hazards. It has been noted that these parapet deficiencies typically stem at the vandal fence anchor locations.

Documentation

As required by the Federal Highway Administration and the Ohio Department of Transportation, inspection reports for 2017 have been prepared by AECOM for the OTIC on all Turnpike bridges. A database containing the 2017 field inspection notes for all Turnpike structures, including photos, were submitted to the OTIC staff to use in planning future maintenance and repair programs.

2.4 Culverts

Culverts Classified as Bridges

Structures having a clear span of 10 feet or greater are inspected and reported as bridges per Ohio Revised Code Section 5501.74 however when spans are less than 20 feet they do not meet the Federal definition of a bridge. There are currently 109 structures owned and maintained by the OTIC that fall into this category out of the 544 bridges noted in section 2.3. The majority of these culverts are cast-in-place reinforced concrete box shapes with single or multiple cells. The most common deficiencies include deteriorated headwalls and wingwalls and obstruction and scour of the waterways. Three culverts with a span over 10 feet are in Poor Condition. These culverts do not currently pose a safety hazard to the traveling public, but if left unrepaired could lead to costly erosion and/or settlement damage along the Turnpike. Figure 2.4.1 shows a summary of the element level ratings for culverts maintained by the OTIC for both 2016 and 2017. Due to changes in ODOT's SMS data reporting this information was not readily available prior to 2016.

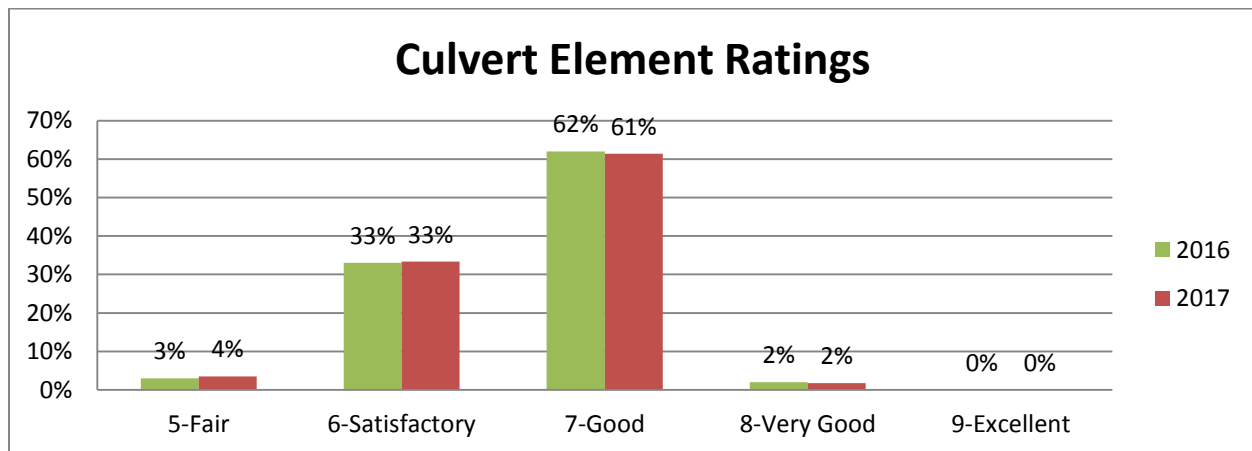


Figure 2.4.1 – Graph showing element ratings for culverts maintained by the OTIC as viewed on the SMS inspection form for both 2016 and 2017

Culverts Not Classified as Bridges

Structures with a clear span of less than 10 feet are not classified as bridges; however, their proper function is tied to the long term performance of the OTIC assets. The inventoried and inspected culverts range in size from 30" to 108" and are typically constructed of corrugated steel and reinforced concrete pipes. Culvert barrels are inspected closely to ensure early detection of deterioration which could merit repair or replacement. The deficiencies found in small culverts typically consist of broken channel and ditch protection, headwall deterioration,

erosion, and obstruction and scour of the waterways. There are currently 462 culverts identified and inventoried by AECOM inspectors that are inspected annually. This number changes regularly based on updated drainage requirements as a part of the pavement replacement and interchange modification projects.

Culvert Construction and Rehabilitation

In conjunction with the Third Lane Program between MP 59.52 and 218.70, over the past twenty-five years all culverts within a design contract section were inspected by the design consultants and required repairs were included in the Third Lane construction plans in addition to the annual inspections. These repairs typically included recoating of bituminous pipes, realigning if required, wingwall and headwall repairs and/or reconstruction with new flared end sections. Required ditch improvements were also included in these construction contracts. In order to maintain the culverts outside the limits of the Third Lane Program where many culverts are 60 plus years old, a similar repair program should be implemented.

2.5 Fence and Guardrail

The entire right-of-way of the Turnpike is fenced to deter the entrance of animals and pedestrians onto the roadways. The fence also serves as a demarcation of the right-of-way. The majority of this fence is the welded wire type farm fence. A program was started in 1987 to replace this fence in its entirety. This work, which is being performed by the OTIC maintenance forces, continues with over approximately 95% of the fence replaced to date. In some areas, primarily where development has occurred adjacent to the Turnpike, a chain-link fence has replaced the welded wire fence. The chain-link fence is in generally good condition. Minor areas of damage have been noted where the fence terminates at the bridges. Comments and details pertaining to this damage have been included in the 2017 bridge inspection report.

The guardrail replacement program has continued and includes the replacement of deteriorated Type 5 guardrail, posts, block and hardware with the new guardrail standard, Midwest Guardrail System (MGS). The major portion of this work is performed with the Pavement Replacement Program. OTIC maintenance forces also replace portions of the outdated guardrail as part of an annual guardrail upgrade program.

In areas where Third Lane construction is complete, the 56 foot grass median strip has been replaced by two traffic lanes, paved shoulders and a 50-inch concrete median barrier. The concrete median barrier is currently in place for approximately 159 miles of the Turnpike, eliminating the need for interior guardrail in those areas.

2.6 Interchanges

The number of interchanges on the Turnpike is currently at 31. Many toll booths throughout the Turnpike have deteriorated to the point where replacement is recommended. Capital funds have been appropriated to begin replacing booths.

The OTIC has been operating with *E-ZPass*[®] for nearly eight years and continues to benefit from the electronic tolling system. Enhancements continue to be made to further streamline this service for the patrons of the Ohio Turnpike, including an upgrade to the credit card processing system which decreased processing times significantly. Furthermore, the Commission initiated a Toll Collection System and Customer Service Center Strategic Plan in 2016 to evaluate the current systems and plan for their upgrade in the near future. The results of this Strategic Plan, including planned construction projects, are scheduled for completion by the end of 2017.

Acceleration and deceleration ramps were extended to meet current design standards at Interchanges 91, 110, and 187 as part of the Pavement Reconstruction projects. This work also included the full depth reconstruction of the adjacent ramp shoulders. In addition, the Long Combination Vehicle lot at TP 209 (MP 209.2) was expanded.

An overview of the toll plaza utility buildings and toll booths inspection findings as well as the Facility Plans is included in Section 2.8 Buildings.

2.7 Technology

Construction of the OTIC's Technology Building (formerly Telecommunications Building) was completed in 1999. The Technology Building is located adjacent to the Administration Building and continues to serve as the hub site for all OTIC technology systems. Prior to 1999, all telecommunications and data system equipment was installed in various rooms throughout the Administration Building. Installation of the new digital microwave equipment and fiber-optic equipment was completed in late 1999 and installation of the CRT touch-screen dispatch

console system was completed in January 2000. The Technology Building became fully equipped and operational in February 2000, initially housing communications centers for both the OTIC and Ohio State Highway Patrol - Turnpike Operations as well as the offices of the Telecommunications Department and Ohio State Highway Patrol staff. In mid-2003, the OTIC Information Systems Department and Data Center were relocated to the Technology Building. In May, 2012 the OTIC combined its Telecommunications and Information Systems departments to form the new Technology Department. In February, 2015 the Ohio State Highway Patrol relocated its Communications Center to Post 18 in Brook Park, Ohio.

The 6GHz digital microwave radio system comprises 13 repeater sites and 21 transmit/receive terminal sites to provide voice communication to 8 maintenance buildings, 22 toll plazas, 3 state highway patrol posts and the Administration Complex in Berea. Fourteen microwave spur paths were upgraded to the 6GHz digital platform in 1995 when the FCC mandated that the 2GHz band be vacated. The entire microwave backbone and remaining spur paths were upgraded to the 6GHz digital platform in 1999. The most recent communications tower inspection was performed in 2007 by the OTIC's Consulting Engineer, which included thirty-four (34) communication towers along the Ohio Turnpike. The inspectors reported that all communications towers, including 7 of the original towers erected in 1955, appeared to be in good condition with minor surface cracks in the foundations and pedestals. Repairs to the towers began in 2008 and were completed in 2010.

In 2015, the OTIC made the decision to migrate from its VHF high-band system to the State of Ohio's MARCS system. As part of the first phase of the project, the OTIC procured three (3) Motorola dispatch consoles and three (3) Motorola control points for its Communications Center. Additional control points were procured for each of its eight (8) maintenance facilities. Installation and training was completed in September, 2016. The Ohio State Highway Patrol (OSHP) replaced its entire fleet of portable radios and donated approximately four hundred (400) of the former portable radios to the OTIC, which are installed in OTIC vehicles, contracted disabled service vehicles and construction contractor's zone vehicles. The OTIC plans to replace portable radios mounted in vehicles with mobile radios over the next three (3) years, which included the replacement of 147 radios in 2017.

The OTIC's SONET fiber optic system provides voice and data transport to every OTIC facility with the exception of two (2) service plazas, which will be added to the system as they are reconstructed. Formerly, voice communication to the "old" service plazas was provided by means of T-1 leased lines. In 1984, the OTIC approved a right-of-way agreement allowing CenturyLink (formerly Qwest Comm, LCI, Litel) to install fiber-optic cable along the Turnpike right-of-way between MP 40 and MP 228. As part of that agreement, CenturyLink reserved 24 fiber strands for the OTIC to utilize for its private telecommunications network. In 1998, the OTIC awarded contracts to install its own fiber optic cable from MP 40 to the Westgate terminal and from MP 228 to the Eastgate terminal to provide complete paths to all 55 facilities. The contract for the design and installation of the OTIC's fiber optic system was also awarded in 1998, which was accepted by the OTIC when all data transport was successfully transferred in December of 1999. In the event of catastrophic failure at the primary hub, the system is designed to automatically switch all SONET traffic to the disaster recovery site. The installation of a secondary 24-strand fiber optic cable between the Technology Building and the disaster recovery site was completed in 2006.

In 2005, the OTIC awarded a contract for the development of a strategic plan for the implementation of intelligent transportation systems (ITS) components. As part of that study, it was determined that the OTIC existing fiber optic communication equipment must be replaced with higher capacity hardware components to provide the additional bandwidth required for future ITS components. As a result, the OTIC awarded a contract in June, 2007 to replace its existing SONET system with new switchgear to provide OC-192 bandwidth capacity for the west leg of the system and OC-48 for the east leg. Installation was completed in September, 2008.

The ITS study also resulted in the implementation of a geographic information system (GIS) designed to organize the OTIC's facility and structure data for which installation was completed in 2008. Upgrades to the GIS system were performed in 2014, which include new software versions and remote-access capability. Other ITS components recommended by the study include mainline variable message signs, an all facility messaging and alarm system, pavement weather monitoring system and an integrated video monitoring system. The video monitoring system would allow the OTIC to monitor and record activity at each of the OTIC toll plazas, service plazas, maintenance facilities and key locations along the Turnpike mainline to provide

safety for the OTIC's employees and its customers, and would be designed with remote viewing capability to allow staff to view all cameras from the Administration Complex in Berea.

In 2016 a new contract was awarded to AECOM to re-evaluate the current ITS components as well as develop a new strategic plan to update and implement the ITS components. This study is currently in progress.

The OTIC utilizes a voice logging recorder to record all radio calls processed by the OTIC communications center, which features network capability and Blue Ray storage. In spring of 2012, the digital voice logging recorder was upgraded with new hardware and operating system to support the latest software version.

In 2015, the OTIC reviewed options for replacement of its PBX, voicemail and call accounting systems as the existing systems are obsolete and no longer supported by the manufacturers. In November, 2015, the OTIC chose to participate in a State of Ohio offering and contracted with Cincinnati Bell Technology Solutions (CBTS) to subscribe to its Next Generation Telephony System (NGTS). The CBTS NGTS is a subscriber-based Voice over IP (VoIP) phone system that utilizes primarily Cisco Systems hardware. Migration to CBTS was completed in April of 2017.

In mid-2012 the OTIC launched its new Employee Extranet which allows employees to access, forms, newsletters, etc. A project for replacement of the OTIC www.ohioturnpike.org website was awarded in April, 2013. Phase I of the project focused primarily on content and was completed in July, 2013. Phase II of the project, which includes replacement of the content management system and integration of the OTIC's Permitting website, was completed in late 2015. The final phase of the project, which provides for vendor registration and management, was completed in August of 2017.

The OTIC began migration of its desktop and laptop computers to the Microsoft Windows 7 Professional operating system in late 2012 and completed the process in the Spring of 2013. All PCs located at the maintenance facilities and approximately 80% of the PCs located at toll plazas were outdated and replaced as part of the Windows 7 upgrade. The remainder of the PCs located at the toll plazas and Administration Complex were replaced by the end of 2015. In

2016, Microsoft Surface Pro 3 tablets were purchased for the Service Plaza Managers as well as a number of mobile users in lieu of traditional laptop PCs. The OTIC also selected a Managed Print Services (MPS) solution for the Administration Complex in 2016 when console-type multifunction units were installed in strategic locations throughout the two buildings. The current individual desktop printers will be eliminated as they fail.

In 2014, the OTIC replaced its network attached storage (NAS) system and obsolete data servers with a converged network infrastructure (CNI). The new virtualized system provides for greater data storage capacity and full redundancy for the disaster recovery site. All outdated core and edge data switches were replaced in the Spring of 2016 with new Cisco layer 2 and layer 3 switches that feature power over Ethernet (PoE), which was needed to support the new VoIP phone system. The project also provided for the purchase and installation of an intrusion detection and prevention system (IDS/IPS), a new wireless controller, and Wi-Fi access points for all maintenance facilities, toll plazas and service plazas to provide connectivity for wireless VoIP phones as well as future mobile data needs.

Contracts were awarded in 2014 for upgrades to the OTIC's enterprise resource planning (ERP) system and for the replacement of the OTIC's document imaging/management system. Migration to the new ERP version was successfully completed in February, 2015 and deployment of new ERP tools including enhancements to the OTIC's purchasing card process will be completed by the end of 2016. The pilot phase of the new document management system was completed in September, 2015; subsequent phases are currently undergoing design. In lieu of hosting its own email system, the OTIC determined it was more efficient and cost effective to subscribe to Microsoft Office 365 via the State of Ohio's Microsoft Enterprise Agreement. All existing email accounts were migrated in October, 2015. Immediately thereafter, new email accounts were established for OTIC employees that did not previously have an account to provide a direct method of sharing information.

An assessment of the HR/payroll system conducted in the Spring of 2016 resulted in the addition of an Employee Self-Service (ESS) module, which provides employees online access to pay stub information and leave balances as well as the ability to self-perform open enrollment and contact changes. ESS was implemented in November of 2016. A contract was also awarded for the implementation of Kronos workforce management software and terminals to

provide for an efficient system of timekeeping, leave tracking and scheduling. Implementation is scheduled to be completed by the end of 2017.

Technology projects being considered for 2018 include replacement of the data backup system, upgrades to the data security systems, upgrading of the desktop PCs to Windows 10 as a new life cycle phase begins and deployment of a barcoding data collection system.

2.8 Buildings

Inspection

A visual inspection of all buildings maintained by the OTIC is performed annually. The inspection includes, but is not limited to, interior and exterior conditions of all structures and storage facilities, potential health and safety risks due to structure conditions and the condition and performance of roofing, electrical, plumbing and HVAC systems. A database and printed copy of the field inspection notes have been provided to the OTIC by the Consulting Engineer (AECOM) to aid in the future construction planning and maintenance of the OTIC. Please see **Table 2.8.1** for a list of all buildings located on the Turnpike.

In 2017, Prime AE of Akron, Ohio was selected to develop a Facilities Strategic Plan by considering:

- 1) Methods to improve the efficiency and effectiveness of maintenance operations.
- 2) Capital improvements that incorporate methods, materials, equipment and technologies that reduce utility costs and annual maintenance costs while maintaining or improving the level of service.
- 3) Ways to share services and effectively fund, design, procure and build capital projects.

Development of the Facilities Strategic Plan will be phased as follows:

- Phase 1 – Maintenance Buildings (8 each)
- Phase 2 – Administration Buildings (2 each)
- Phase 3 – Service Plazas (14 each)
- Phase 4 – Toll Plazas (31 each)

When completed, the Facilities Strategic Plan will identify, quantify and prioritize capital and facility maintenance activities. The Facilities Strategic Plan will be programmed and

coordinated with the current Toll Collection and Customer Service Center Strategic Plan awarded in 2016 to Jacobs Engineering Group Inc.

Administration Building Complex

The Administration Building, located adjacent to the Turnpike in the City of Berea, houses the following administrative departments; Executive, Legal, CFO/Comptroller, Human Resources, Accounting, Procurement, Contract Administration, Audit, Marketing & Communications, Payroll, Office Services, Safety Services, Service Plaza Operations, Toll Operations, Customer Service Center, Maintenance and Engineering. A vehicle maintenance garage and contiguous Technology Building are located east of the Administration Building and houses technology staff, computer center, Turnpike radio communications center and Ohio State Highway Patrol Turnpike operations center. Starting in 2002, there were a series of interior Administration Building renovations to improve the restrooms, use of office space, interior finishes, computer/phone cabling, HVAC and lighting. Renovations completed in 2009 made accommodations for E-ZPass transponder processing and the Customer Service Center. In 2013 and 2014 the Administration Building and Technology Building received upgrades to their aging HVAC systems. In 2017 improvements were made to the second floor of the Technology Building. These included a reconfiguration of the office space to allow for eleven (11) work stations and the addition of a conference room and storage room. Also, the main boiler at the Administration Building was replaced with a high efficiency boiler.

The Administration Building, vehicle maintenance garage, and Technology Building have been maintained in generally good condition. However, the Administration Building does have deficiencies in the building envelope; leaking at the skylight and window systems during heavy rains and some water infiltration through the sandstone exterior system.

*Table 2.8.1 Total number of buildings on the Turnpike

Building	Qty
Administration Building	1
Technology Building / Vehicle Maintenance Garage	1
Maintenance Buildings	8
Sign Shop	1
Ohio State Highway Patrol Buildings	1
Toll Plaza/Interchanges	31
Service Plaza Buildings	14
Total	57

*The total does not include ancillary buildings, such as vehicle storage garages, salt domes, equipment storage buildings, toll booths and sewage and water treatment plant buildings.

Maintenance Buildings

The maintenance buildings consist of eight (8) steel and masonry structures housing a central main bay with adjacent offices, restrooms, break room, mechanic bays, inventory and storage areas. Additionally, every maintenance facility includes a salt dome of concrete and wood construction and other storage buildings constructed of metal, wood or a combination. The maintenance buildings were found to be in generally good condition, with some notable defects.

Typical deficiencies include minor scattered damage to the brick façade, minor surface rust to interior and exterior metal surfaces and cracking to the concrete floor throughout the main bay areas. Additionally, the roof system on nearly all maintenance buildings was found to be in a deteriorated state, allowing water infiltration in several locations. It is recommended that the OTIC begin to plan for the replacement of the roofing systems on all maintenance facilities.

The additional buildings located at the maintenance facilities were also found to be in generally good condition. Typical deficiencies noted include minor damage to exterior of structures due to impact. Several older storage garages throughout the Turnpike are reaching levels of moderate to significant deterioration and review of these facilities are recommended.

Notable updates to the maintenance facilities in 2017 include the replacement of rooftop HVAC units at the Swanton and Canfield Maintenance Buildings. This completes the replacement cycle for Section Office rooftop units that was started in 2015. Also, upgrades to the breakrooms at all eight (8) maintenance buildings were completed.

Highway Patrol Facilities

All Ohio State Highway Patrol facilities are in generally good condition and have been well maintained. The parking lot at the Milan Patrol Post 90 (MP 118.5) was resurfaced in 2016.

Toll Plaza Buildings

With limited exception, the overall appearance of the toll plazas, including toll booths, canopies and utility buildings, as well as additional buildings or storage areas where applicable were found to be in satisfactory condition.

Many toll booths are nearing a point of moderate deterioration with areas of complete section loss along the lower portions, requiring consideration for repair or replacement. Newly renovated and newly constructed toll plazas are in good condition and have been generally well maintained. Notable work in 2015 was the replacement of the building generator at TP173.

The mechanical systems that serve the Toll Booths and Utility Buildings (equipment, piping, pumps and valves) require some improvements. The technology used for the HVAC design is antiquated with constant volume AHU's, Pumps, and Glycol in the piping for the chillers and boilers. Numerous comfort and energy efficient upgrades could be made to the buildings. In 2017, upgrades were made to Toll Plaza 180 air handlers and controls, providing more comfort to the booths and improving efficiency.

In 2017, Jacobs Engineering Group made general recommendations regarding the Commission's aging toll collection system and the associated toll plaza facilities. When final recommendations are approved, changes to the toll plaza facilities will be part of the implementation.

Service Plaza Buildings

Currently there are 14 Service Plazas in operation on the Turnpike. See **Table 2.8.2** for a list of the Service Plazas.

As of 2013, all the original service plaza facilities dating to the early 1950's have been demolished and/or replaced. The new service plazas are designed to accommodate the Turnpike travelers and professional drivers with amenities including a food court arrangement with a sit-down restaurant and multiple fast food vendors, electronic travel and weather information centers, and retail outlets. Special trucker areas have been incorporated including a lounge, laundry and shower facilities.

Currently, one set of service plazas (Oak Openings and Fallen Timbers at MP 49.0) has not been reconstructed.

Table 2.8.2 Service Plazas in Operation on the Turnpike

<u>EASTBOUND SERVICE PLAZAS</u>	<u>WESTBOUND SERVICE PLAZAS</u>
Tiffin River (MP 20.8)	Glacier Hills (MP 237.3)
Wyandot (MP 76.9)	Portage (MP 197.0)
Commodore Perry (MP 100.0)	Great Lakes (MP 170.1)
Vermilion Valley (MP 139.5)	Middle Ridge (MP 139.5)
Towpath (MP 170.1)	Erie Islands (MP 100.0)
Brady's Leap (MP 197.0)	Blue Heron (MP 76.9)
Mahoning Valley (MP 237.2)	Indian Meadow (MP 20.8)

Updates to the service plazas continued in 2015, with approximately \$3,400,000 in total renovations being performed at the Great Lakes and Towpath Service Plazas (MP 170.1) and Portage and Brady's Leap Service Plazas (MP 197). Also, in 2014 a program was initiated to upgrade underground gasoline and diesel fuel lines to fiberglass, starting with the Erie Island and Commodore Perry Service Plazas. Continuing from 2016 the fuel line upgrades at Great Lakes and Towpath Service Plazas were completed. In 2017 fuel line upgrades were completed at the Portage and Brady's Leap Service Plazas. In addition, the truck parking areas at Erie Island (MP 100.0) and Vermilion Valley (MP 139.5) were repaired and resurfaced. Also, improvements to the lights, ceilings, walls, doors and floors in the vendor hallways at Towpath

(MP 170.1), Great Lakes (MP 170.1), Brady's Leap (MP 197.0) and Portage (MP 197.0) Service Plazas were completed.

The Service Plazas were found to be in generally good condition. The Service Plazas are served by multiple air handling units (AHU's) with air cooled chillers and/or condensing units. Each has hot water heating with two (2) 80% efficient Bryan boilers serving hot water radiators in the rotunda and coils in the AHU's. The cooling at the AHU's is accomplished with refrigerant split systems or chilled water coils. The air cooled chiller or condensing unit is located outside on grade. As a majority of the service plazas are relatively new, the HVAC system is in good condition.

The wastewater treatment plant at Erie Islands Service Plaza (MP 100.0) is in generally good condition, with no significant defects.

2.9 Maintenance Organization and Equipment

Eight maintenance buildings are located at approximately 30-mile intervals along the Turnpike. Each of these buildings serves as headquarters for a maintenance section and is headed by a section foreman. Maintenance equipment and supplies are stored in these buildings and in the adjacent yards. The OTIC maintenance organization is divided into two divisions, each under the direction of a division superintendent. Each division consists of four maintenance sections. The western division personnel and equipment is housed in the Elmore Maintenance building, and the eastern division is housed in the Hiram Maintenance building.

The maintenance section personnel perform work such as snow removal, mowing, pavement and minor bridge repairs and maintenance, joint sealing of roadways, right-of-way fence repair and replacement, guardrail repair and replacement, storm water and sanitary sewer repairs and replacements, policing the right-of-way and maintenance and repair of vehicles and equipment. The division personnel consist of various tradesmen and mechanics that perform such duties as mechanical and electrical work, equipment repair, operation and maintenance of utilities, and perform major (non-routine) work items, with the assistance of the maintenance section, not performed under contract. Mobile equipment such as trucks, excavators, backhoes and rollers, front-end and skid steer loaders, conveyors, and other construction/maintenance equipment continues to be well maintained by the maintenance personnel and replaced at the end of its service life cycle.

2.10 Safety and Signs

The Ohio State Highway Patrol (OSHP) developed an electronic OH-1 crash reporting system that was instituted on the Turnpike in March of 2008. To accommodate the changes, the OTIC developed a file transfer system in cooperation with the OSHP. The combination of these changes significantly reduces the amount of time between the actual crash and the OTIC's ability to process crash data. This new electronic system allows for a greater level of accuracy in the OTIC reporting system.

The OTIC safety record continues to compare favorably with other similar highways. The accident rate per one hundred million vehicle miles increased from 90.2 in 2015 to 91.7 in 2016, and the fatality rate increased from 0.4 to 0.5. **Appendix E** contains crash statistics including traffic accidents and fatalities and annual accident rates and fatality rates per one hundred million vehicle miles of travel. **Table 2.10.1** indicates the causes to which accidents have been attributed for the past ten years.

Table 2.10.1 Ohio Turnpike Causation Factors

CAUSE OF ACCIDENT	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	*2017
Tire Condition	1	---	43	55	59	59	49	48	44	27	18
Mechanical Failure	15	17	3	2	2	1	2	1	2	---	1
Exceeding Speed Limit	1	2	2	2	4	4	4	1	2	5	1
High Wind	14	7	8	6	1	4	3	54	12	---	---
Poor Visibility (Fog/Smoke, Rain, Snow)	547	748	397	604	813	735	1253	808	614	---	---
Other Reasons	219	331	65	---	1	2	2	3	2	---	---
Improper Parking/Backing/Starting	175	102	109	144	179	818	725	881	777	724	456
Fire	23	35	40	45	46	44	40	47	57	38	29
Improper Passing/ Fail. to Yield	275	221	8	5	12	9	19	10	15	7	6
Driver Asleep/Sleepy	81	73	68	68	82	60	53	54	61	56	42
Driver Ill	5	2	10	1	8	8	10	3	15	13	3
Driver Drinking/ Intoxicated	5	4	27	38	37	24	25	31	38	35	22
Driver Inattention/ Carelessness	209	201	74	94	89	84	119	182	47	36	23
Driver/Other	---	---	4	4	6	7	20	20	15	19	11
Person Fell from Vehicle	---	----	---	1	---	2	1	1	---	---	1
Object on Roadway/ Thrown	213	245	157	182	251	9	62	65	82	99	55
Object Dropped off Overpass	8	2	2	---	---	---	---	---	---	---	---
Deer on Roadway	356	409	419	402	361	324	318	319	307	292	142
Other Animal on Roadway	16	14	13	12	14	15	16	15	14	15	12
Vehicle Stopped/Slowed	4	3	2	2	---	12	17	9	11	6	7
Unsecure Load	23	36	14	18	18	25	15	19	21	15	15
Pedestrian/Passenger Action	7	4	4	4	1	4	3	1	3	1	---
Illegal Use of Crossover	3	4	11	19	27	19	9	2	6	8	4
Following Too Closely/ A.C.D.A	211	128	67	59	81	---	---	---	---	1	---
Unsafe Vehicle	134	106	62	62	51	100	56	52	51	37	20
Side-Swiped	----	----	24	39	40	---	1	---	---	---	---
Rear-Ended	----	----	74	65	78	---	95	106	109	118	83
Swerving to Avoid	----	----	39	44	36	5	4	3	11	8	2
Failure to Control	----	----	61	66	68	61	47	36	34	31	24
Other Improper Action	----	----	7	13	17	101	32	35	50	51	12
Operation Vehicle in Erratic	----	----	4	7	---	---	1	---	1	1	---
Defective Lights	----	----	---	---	---	1	1	---	1	1	---
Not at fault	----	----	310	384	435	743	637	701	685	723	479
TOTAL	2532	2689	2125	2268	2583	2598	2380	2642	2459	2367	1468

*Eight month span ending in August 2017

A visual inspection of all overhead sign structures is performed every other year. The most recent inspections were performed in 2016. With noted exceptions, the sign structures were found to be in generally good condition. Common deficiencies include minor damage to the lettering and sign panels and minor surface corrosion. A detailed inspection report was provided to the OTIC in 2016 to aid in planning for future repairs. In addition to the visual inspection of signs a visual inspection of light tower poles and foundations was performed in 2015 in accordance with OTIC and ODOT procedures for inspection. With noted exceptions, the light towers were found to be in generally good condition. A detailed inspection report was provided to OTIC to aid in future repairs.

The OTIC has a staffed Sign Shop that routinely performs the removal, fabrication and replacement of missing, obsolete, damaged and/or non-reflective traffic signs and parking area pavement markings. Additionally, the Sign Shop fabricates the necessary guide, warning and regulatory signs for the mainline roadway, ramps and plaza areas.

The Sign Shop furnishes all the permanent signs needed for the Pavement Replacement Program, mainline resurfacing contracts, toll plaza ramp resurfacing, bridge construction, as well as toll and service plaza renovation projects.

In 2016 the OTIC began an overhead sign structure repair and replacement program, which includes replacing all the overhead sign structures and signs within the two lane sections of the Turnpike over a ten year period. The first project, performed in 2016, included eleven sign structures between MP 0.0 and MP 65.0. During 2017 another 10 sign structures were replaced near milepost 3.75, 53.0, and several between MP 237.2 and MP 240.65.

The OTIC is currently on an annual cycle for updating the pavement markings located on the mainline, the interchange ramps, and service plaza acceleration and deceleration ramps. Each year, by contract, the pavement markings are painted using a high quality, waterborne acrylic paint system and glass beads. The glass beads are designed to enhance the retro-reflectivity of the markings during wet pavement and/or nighttime conditions.

Maintenance personnel routinely repair the roadside delineation and replace damaged raised pavement marker reflectors.

Traffic Incident Management (TIM) is the coordinated detection, response to and removal of traffic incidents and the restoration of traffic capacity as quickly and safely as possible. TIM is a coordinated effort both internally and externally.

TIM depends on communication among responsible personnel (e.g., in incident reporting, response dispatch, and traffic management). Experience gained from each incident provides opportunities to improve our TIM performance. Both communication and learning from experience are being enhanced by new technology and management practices, such as Google Maps Traffic, geo-located device inventory (GIS), communication procedures (e.g., standardization of terminology and adoption of shared radio frequencies), and channels for communicating with travelers (Facebook, Twitter, Instagram etc.).

The OTIC is committed to the efficient operation of the Ohio Turnpike. While various police and fire agencies have the statutory authority to close travel lanes, the Commission shall minimize the disruption to the traveling public by assisting with traffic control, developing pre-planned route diversions and advocating quick clearance of major traffic crashes.

To this end, the OTIC continues to refine their Incident Management Playbook. The Playbook can be downloaded at: <https://www.ohioturnpike.org/ohio-turnpike-and-infrastructure-commission-incident-management-playbook>

As a means of decreasing the likelihood and severity of crashes and reducing queuing and delay, OTIC Permitted Lane Closure Schedule (PLC) provides pre-approved lane closure schedules for each and every segment of Turnpike.

Some segments are deemed to be so sensitive that even a single lane can be closed only when authorized by the OTIC's upper management. For other segments, a lane or multiple lanes may not be closed except during certain times of the day and/or days of the week. Such segments require an approved waiver to extend lane closures outside the specified times. Other segments have enough surplus capacity that single lane closures are allowed at any time without special approval.

While OTIC strives to eliminate queuing in work zones, the pre-approved closure schedules are based on threshold queuing values which were chosen realizing that this is not always possible to achieve. Special Provision 104 Section H6 stipulates “Approval of any Lane Closure is conditional that the zone must be removed anytime traffic backups extend one half (1/2) mile beyond the first transitional arrow board.”

Variations from the pre-approved closure schedules are only allowed when it is shown there are no viable alternatives to performing the work or that the other alternatives are distinctly inferior. As traffic demand changes over time the PLC will be updated accordingly.

2.11 State Highway Patrol

The Ohio State Highway Patrol (OSHP) continues to patrol the Turnpike under an agreement between the OTIC and the Director of the Department of Public Safety of Ohio. The OTIC, under this agreement, reimburses the State for all costs of the Turnpike patrol. **Table 2.11.1** shows the contingent of officers designated to the Ohio Turnpike. Turnpike Posts presently have **11** trooper vacancies in this contingent designation.

Table 2.11.1 Officers designated to the Ohio Turnpike

Officer Ranking	Qty
Captain / Staff Lieutenant	1
Lieutenants	3
Sergeants	12
Communications Technicians	10
Troopers	57
Total Personnel	83

The OSHP now utilizes 65 patrol vehicles and aircraft from Columbus to accomplish their duties on the Turnpike. Along with traffic enforcement, some of the duties they perform include apprehending those persons involved in drug trafficking on the Turnpike, providing additional assistance at the Service Plazas to vehicles and drivers having difficulties along the Turnpike. In response to the events of September 11, 2001, Motor Carrier Enforcement officers continue to monitor hazardous material transport that could be used as weapons. These inspections also

ascertain if the drivers are authorized by the company to transport that particular load. All shipping papers are also checked for authenticity. In addition, all officers are diligent in looking for any unusual circumstances or suspicious persons that may be potentially involved in terrorist activities.

Table 2.11.2 Activities of the Patrol, 2006-2016

ACTIVITY	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Arrests for All Offenses	47,633	46,095	41,165	41,903	44,479	45,112	44,575	44,027	41,004	41,131	33,631
Accidents Investigated	2,346	2,534	2,668	2,133	2,276	2,584	2,535	2,356	2,611	2,648	2,444
Assistance to Vehicles Having Difficulties	55,230	50,008	40,787	41,185	31,890	31,663	28,345	26,719	23,848	20,737	19,029
Stolen Vehicles Recovered	47	57	39	40	24	16	18	22	10	24	29
Culprits of Stolen Vehicles Apprehended	32	31	31	25	18	16	16	9	9	15	20
Abandoned Cars Removed from Turnpike	143	**463	**373	**474	**410	**450	**449	**226	**466	**380	**331
Driving Under the Influence of Alcohol	346	340	283	307	290	266	389	322	361	421	278

** Due to the changes in reporting using the CAD system, this figure includes vehicles towed due to enforcement and abandonment.

2.12 Traffic, Revenues and Expenses

Total revenues for the OTIC from all sources in 2016 were \$321,375,000, which is a 2.8 percent increase compared to 2015. This revenue increase was primarily the result of an increase in vehicle miles traveled and a 2.7% toll rate increase on January 1, 2016.

Table 2.12.1 Comparison of the Records of 2015 with 2016

Vehicle-Miles of Travel	Increased	1.2%
Toll Revenues	Increased	2.8%
Total All Revenue	Increased	2.8%
Operating Expense	Increased	6.7%
Total Expenses, Including Interest Expense and ODOT Infrastructure Project Expense	Decreased	2.9%

The revenue data for the first eight months of 2017 shows that, when compared to the same period in 2016, toll revenues from passenger cars were up 1.7 percent and toll revenues from commercial vehicles were up 3.6 percent. Total toll revenues were up 2.7 percent for the first eight months of 2017 and investment income was down 9.8 percent. Total revenues for the first eight months of 2017 were up 2.7 percent compared to January-August, 2016. The total number of vehicles using the Turnpike during January-August, 2017 was 1.2 percent higher than for this same period in 2016. Based on current trends to date, total revenues from all sources for 2017 are estimated at approximately \$330,000,000.

3.0 ESTIMATE OF CURRENT EXPENSES

The OTIC fiscal year is based on a January-December time period. Summarized below is an estimate of the amount of money required to maintain and operate the Ohio Turnpike during the calendar year 2017.

Summary

Administration and Insurance	\$ 12,000,000
Maintenance and Operations Expense	\$ 111,000,000
Bond Interest and Principal.....	\$ 96,000,000

Estimate of Current Expenses

Fiscal Year 2017.....	\$219,000,000
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AECOM has reviewed historical data of the OTIC pledged revenues, expenses and debt service payments. Pursuant to Article IV, Section 4.08 (b)(ii) of the Amended and Restated Master Trust Agreement dated April 08, 2013 between the Ohio Turnpike and Infrastructure Commission and The Huntington National Bank, AECOM expresses its agreement with the Commission's past practice of maintaining the Expense Reserve Account in an amount equal to one-twelfth (1/12) of the annual operating, maintenance and administrative expenses to be paid from pledged revenues, as set forth in the Commission's annual budget for such Fiscal Year. AECOM recommends that the OTIC continue this practice for 2018.

4.0 SCHEDULE OF INSURANCE

The Schedule of Insurance currently in force is shown in **Appendix F**.

The Ohio Turnpike and Infrastructure Commission is required to maintain comprehensive property and casualty insurance coverage in accordance with Article 5, Sections 5.05, 5.06 and 5.07 of the Amended and Restated Master Trust Agreement dated April 8, 2013, as well as the Junior Lien Master Trust Agreement dated August 1, 2013 (collectively, the Trust Agreements”). These consist of policies on Bridges, Use and Occupancy, and Commercial Liability. In addition to the required policies, a number of other insurance policies are carried in accordance with prudent business practices.

As Consulting Engineer, AECOM as reviewed the current insurance policies held by OTIC and confirm that they meet and in several cases exceed the minimum insurance requirements stated in Article V, Section 5.05 of the Amended and Restated Master Trust Agreement Dated April 08, 2013.

5.0 RENEWAL, REPLACEMENT AND SYSTEM PROJECT FUNDS

Pledged revenues exceeding those required for operations, maintenance, and administration, bond interest and principal, and the required deposit to the expense reserve account, are deposited into the Renewal and Replacement and System Projects Funds. The revenues in the Renewal and Replacement Fund are used for the purchase of replacement vehicles and equipment and routine annual maintenance operations, while the System Projects Fund is used for the rehabilitation and upgrading of the Turnpike bridges, roadways, buildings, and for construction of new interchanges and other facilities.

It is estimated that total pledged revenues in 2018 will amount to approximately \$339,000,000, of which approximately \$132,000,000 will be needed for the operations, maintenance, and administration of the Turnpike and \$115,000,000 will be required for bond interest and principal expense. Of the remaining amount, approximately \$10,000,000 will likely be deposited into the Renewal and Replacement Fund, leaving a total of approximately \$82,000,000 to be deposited into the System Projects Fund.

Appendix A

Ohio Turnpike Straight Line Diagram
(Strip Map)

TOLL PLAZAS

- FULL INTERCHANGE
- PARTIAL INTERCHANGE

SERVICE PLAZAS

- SERVICE PLAZA (OPEN)
- SERVICE PLAZA (CLOSED)

MAINTENANCE ZONES

- MAINTENANCE BUILDING
- 3 LANES
- 2 LANES

SNOW AND ICE LIMITS

- SALT STORAGE
- MAINTENANCE BUILDING
- 3 LANES
- 2 LANES

COUNTY LINES

- MAJOR BRIDGE/RIVER CROSSING

DISABLED VEHICLE SERVICE ZONES

EMERGENCY MEDICAL SERVICE ZONES

- OTHER COVERAGE AREA (contact Comm. Center for more information)

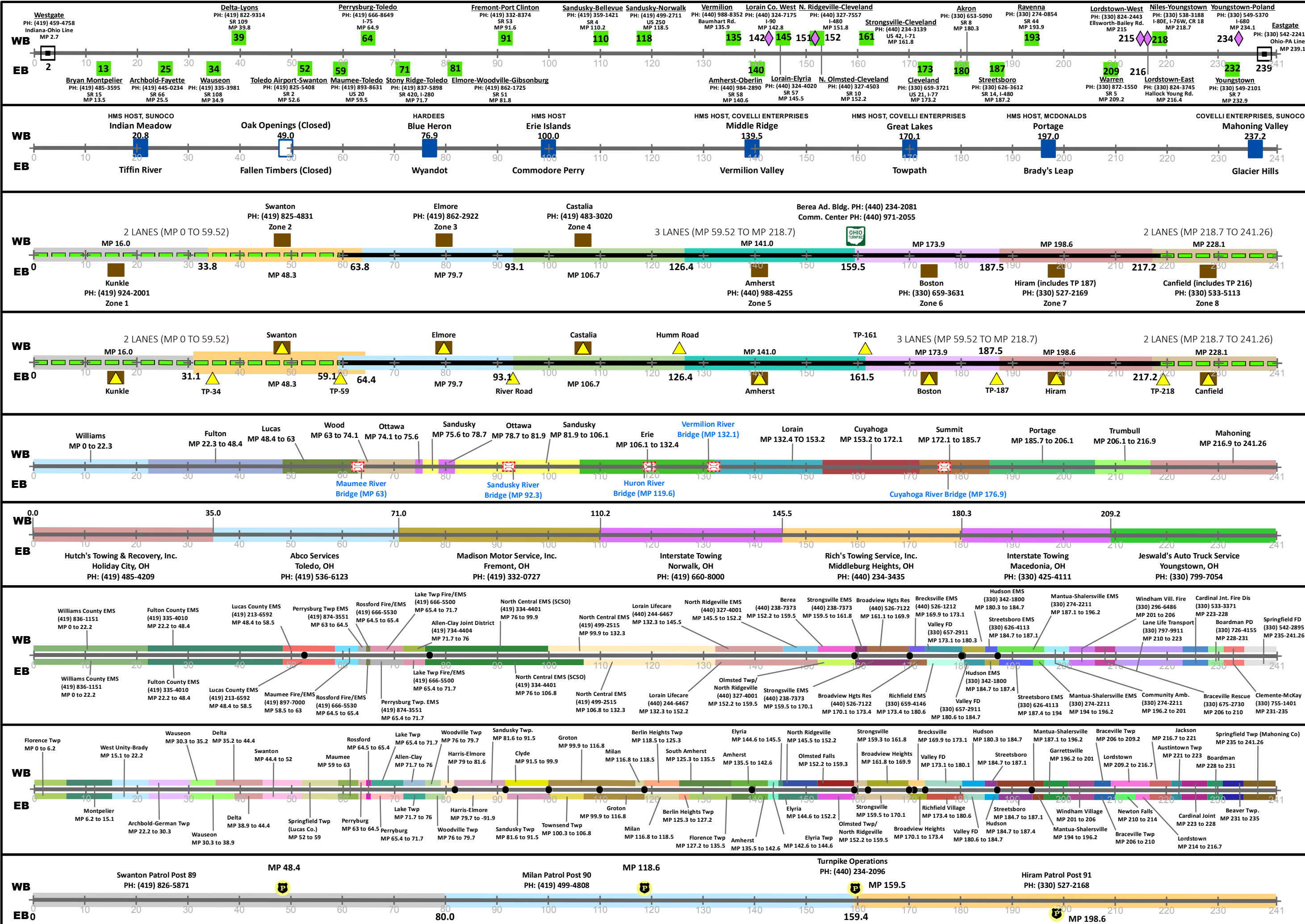
FIRE DEPARTMENT SERVICE ZONES

- OTHER COVERAGE AREA (contact Comm. Center for more information)

STATE HIGHWAY PATROL ZONES



Date: 5/4/2017



Appendix B

Pavement Resurfacing and Replacement

Table 1: Third Resurfacing

Year	Milepost Limits	Length (Miles)	Total Length for Year (Miles)
1980	144.0 to 153.5	9.5	20.1
	230.6 to 241.2	10.6	
1981	132.3 to 144.0	11.7	11.7
1983	92.4 to 101.4	9	25.7
	186.9 to 196.3	9.4	
	223.3 to 230.6	7.3	
1985	153.5 to 161.6	8.1	19.4
	161.6 to 172.9	11.3	
1986	214.2 to 223.3	9.1	9.1
1987	71.0 to 80.7	9.7	19.5
	111.7 to 118.7	7	
	177.4 to 180.2	2.8	
1988	27.5 to 38.9	11.4	18.3
	180.1 to 187.0	6.9	
1989	205.4 to 214.3	8.9	8.9
1990	39.0 to 48.6	9.6	14.0
	173.0 to 177.4	4.4	
1991	118.8 to 132.3	13.5	13.5
1992	62.5 to 71.1	8.6	18.9
	101.4 to 111.7	10.3	
1993	0.0 to 5.7	5.7	5.7
1994	5.7 to 14.8	9.1	20.7
	80.8 to 92.4	11.6	
1996	14.8 to 27.5	12.7	19.7
	55.5 to 62.5	7	
1998	48.6 to 55.5	6.9	6.9
2006	196.3 to 205.4(*)	9.1	9.1
2007	196.3 to 205.4 (**)	9.1	
Total to Date			241.2

(*) – Eastbound lanes only.

(**) – Westbound Lanes only.

Table 2: Fourth Resurfacing

Year	Milepost Limits	Length (Miles)	Total Length for Year (Miles)
1989	144.0 to 153.0	9	9
1990	230.6 to 234.9	4.3	4.3
1991	234.9 to 241.2	6.3	6.3
1992	132.0 to 144.0	12	12
1993	91.2 to 101.4	10.2	20.6
	161.6 to 172.0	10.4	
1994	214.2 to 223.3	9.1	9.1
1995	111.7 to 118.8	7.1	23.8
	186.9 to 196.3	9.4	
	223.3 to 230.6	7.3	
1996	153.5 to 160.0	6.5	6.5
1997	71.1 to 80.8	9.7	14
	160.0 to 161.6	1.6	
	177.4 to 180.1	2.7	
1998	27.5 to 38.9	11.4	11.4
1999	38.9 to 48.6	9.7	16.5
	180.1 to 186.9	6.8	
2000	101.4 to 111.7	10.3	21.3
	172.9 to 177.0	4.1	
	207.4 to 214.3	6.9	
2001	118.8 to 127.23	8.4	8.4
2002	0.0 to 5.7	5.7	5.7
2003	62.5 to 69.3	6.8	6.8
2004	55.5 to 63.8	8.3	8.3
2007	80.9 to 91.2	10.3	10.3
2008	5.7 to 14.8	9.1	9.1
2011	14.8 to 27.5	12.75	12.75
2012	69.3 to 71.1	1.8	1.8
2013	127.3 to 132.1	4.8	4.8
2014	48.6 to 55.45	6.85	6.85
Total to Date			229.60

Table 3: Fifth Resurfacing

Year	Milepost Limits	Length (Miles)	Total Length for Year (Miles)
1997	144.0 to 153.5	9.5	9.5
2001	230.6 to 241.3	10.7	10.7
2002	92.4 to 101.4	9	12.2
	161.6 to 164.8	3.2	
2003	132.1 to 144.4	12.3	12.3
2004	168.6 to 172.0	3.4	11.9
	214.8 to 223.3	8.5	
2006	111.2 to 111.7	0.5	0.5
2006	186.9 to 196.3(*)	9.4	9.4
2007	186.9 to 196.3 (**)	9.4	
2008	111.7 to 118.8	7.1	7.1
2010	223.3 to 230.6	7.3	7.3
2011	205 to 210(***)	3	10
	153 to 160(***)	7	
2012	101.2 to 109.2	8	8
2012	118.8 to 127.3	8.5	8.5
2012	209.6 to 214.4	4.8	4.8
2013	27.5 to 38.9	11.4	21.22
	127.2 to 127.3	.10	
	176.3 to 186.02	9.72	
2014	43.3 to 48.6	5.3	5.3
2015	0.0 to 5.7	5.7	12.1
	74.1 to 80.5	6.4	
2016	38.9 to 43.3	4.4	18.25
	55.45 to 69.3***	13.85	
2017	69.3 to 74.1***	4.8	4.8
Total to Date			173.87

(*) – Eastbound lanes only.

(**) – Westbound lanes only.

(***) – Lanes 1 and 2 only.

Table 4: Sixth Resurfacing

Year	Milepost Limits	Length (Miles)	Total Length for Year (Miles)
2006	144.4 to 153.5	9.1	9.1
2010	91.2 to 101.5	10.3	14.4
	132.1 to 136.2	4.1	
2011	160 to 161.6 (***)	1.6	1.6
2012	172 to 176.3	4.3	4.3
2013	136.2 to 144.4(***)	8.2	13.85
	230.35 to 236.0	5.65	
2014	217.3 to 218.3 (*)	1.0	6.26
	236.0 to 241.26	5.26	
2015	221 to 223 (**)	2.0	4.0
	214 to 216 (**)	2.0	
2016	221 to 223 (*)	2.0	2.0
Total to Date			55.51

(*) – Eastbound lanes only.

(**) – Westbound lanes only.

(***) – Lanes 1 and 2 only.

Table 5: Seventh Resurfacing

Year	Milepost Limits	Length (Miles)	Total Length for Year (Miles)
2011	152 to 153.5	1.5	1.5
2013	132.1 to 132.2	.1	.1
2017	136.0 to 144.1	8.1	8.1
Total to Date			9.7

Table 6: Third Lane - First Resurfacing

Year	Milepost Limits	Length (Miles)	Total Length for Year (Miles)
2003	193.4 to 199.0	5.6	5.6
2005	145.0 to 152.0	7	7
2006	199.0 to 205.4(*)	6.4	6.4
2007	199.05 to 205.4(**)	6.4	6.4
2015	141.1 to 145.4	4.3	7.3
2015	215.0 to 218.0	3.0	
2017	160.1 to 169.1	9.0	9.0
Total to Date			41.7

(*) – Eastbound lanes only.

(**) – Westbound lanes only.

Table 7: Full Depth Replacement

Year	Direction	Milepost Limits	Length (Miles)	Total Length for Year (Miles)
2011	WB	95.90 – 101.20	5.30	5.3
2012	EB	95.90 to 101.20	5.30	10.22
	WB	164.82 to 169.74	4.92	
2013	WB	90.00 to 95.90	5.90	10.82
	EB	164.82 to 169.74	4.92	
2014	EB	159.80 to 164.82	5.02	11.12
	EB	101.20 to 107.30	6.10	
2015	WB	159.80 to 164.82	5.02	21.42
	WB	101.20 to 107.30	6.10	
	EB	144.10 to 149.24	5.14	
	WB	216.10 to 221.26	5.16	
2016	EB	107.30 to 112.50	5.20	20.49
	WB	144.10 to 149.24	5.14	
	EB	186.35 to 191.39	5.04	
	EB	216.10 to 221.26	5.16	
2017	EB	90.00 to 95.90	5.90	16.14
	WB	107.30 to 112.50	5.20	
	WB	186.35 to 191.39	5.04	
Total to Date				95.56

Right two lanes and shoulder only included in full depth replacement limits shown in Table 7

Appendix C

Bridge Deck
Replacement and Rehabilitation
Including
Third Lane
Construction and Expansion

Mainline Bridge Deck Replacements

*Bridges replaced or rehabilitated as part of Third Lane Construction are shown in italics
(Typical for all of Appendix C)

Year	Bridge	Milepost
1983	Maumee River - EBL	63.0
1983	Cuyahoga River - WBL	176.9
1984	S.R. 109	40.3
1984	D T & I Railroad	40.5
1984	Bad Creek	41.3
1984	Maumee River - WBL	63.0
1984	S.R. 53	92.0
1984	Sandusky River	92.3
1984	N & S Railroad	98.9
1984	S.R. 510	99.1
1984	S.R. 412	99.7
1984	S.R. 99	111.2
1984	Vermilion River	132.1
1984	Quarry Road	138.0
1984	Penn Central Railroad	138.2
1984	Black River	145.9
1984	S.R. 301	147.3
1984	Chestnut Ridge Road	152.0
1984	Over Ramp at Exit 152	152.2
1984	Lorain Road	152.3
1984	Conrail Railroad	152.6
1984	S.R. 82 (Royalton Road)	165.4
1984	York Road	165.5
1984	Bennett Road	166.2
1984	Cuyahoga River - EBL	176.9
1984	Tinkers Creek	185.6
1984	S.R. 45	217.3
1984	Penn Central Railroad	217.3
1984	Meander Reservoir	221.3
1984	Evans Lake-Yellow Creek	234.4
1984	Poland-Unity Road	237.8
1984	Columbiana Road	238.1
1984	Garfield Road	240.8

Mainline Bridge Deck Replacements (continued)

Year	Bridge	Milepost
1985	S.R. 49	2.1
1985	Swan Creek	47.4
1985	S.R. 64	47.5
1985	Little Muddy Creek	90.2
1985	S.R. 19	90.3
1985	N & W Railroad	90.7
1985	Green Creek	96.2
1985	Branch of South Creek	96.7
1985	Erlin Road and South Creek	97.1
1985	Raccoon Creek	97.9
1985	S.R. 58 (Oberlin N. Road)	140.2
1985	N & W Railroad	140.6
1985	Penn Central Railroad	141.7
1985	Cuyahoga River	191.4
1985	Bryant Road	202.8
1985	Tumor Road	222.7
1985	Kirk Road	222.8
1985	Erie Lackwanna Railroad	223.0
1986	Sugar Creek	81.3
1986	Wolf Creek	82.0
1986	Wagoner Road	83.3
1986	Penn Central Railroad	83.3
1986	Berlin Road	124.0
1986	S.R. 61 & Ceylon-Norwalk Rd.	124.5
1986	Humm Road	125.3
1986	Ditch	126.6
1986	Baumhart Road	136.2
1986	Lake Avenue	144.4
1986	B & O Railroad	144.6
1986	S.R. 57	145.1
1986	Penn Central Railroad	147.9
1986	U.S. 20	148.0
1986	W. Branch of Rocky River	157.4
1986	Lindbergh Blvd.	157.5
1986	N. Royalton-Brecksville Pkwy.	168.6
1986	Western Reserve Road	230.7
1986	Sharott Road	232.0
1986	S.R. 7	232.0

Mainline Bridge Deck Replacements (continued)

Year	Bridge	Milepost
1987	Grand Trunk Western Railroad	34.2
1987	S.R. 108	34.5
1987	S.R. 295	51.4
1987	Penn Central Railroad	52.3
1987	Albion Road	56.1
1987	Penn Central Railroad	56.3
1987	Swan Creek	58.5
1987	S.R. 65	63.3
1987	B & O Railroad	63.5
1987	White Road	63.6
1987	Simmons Road	63.9
1987	East Branch Grassy Creek	64.2
1987	Nine Mile Creek	85.3
1987	Muddy Creek	87.3
1987	Fuller Creek	101.5
1987	Dirt Access Road	103.4
1987	Pickel Street	103.5
1987	Mills Creek	108.3
1987	Penn Central Railroad	109.1
1987	Portland Road	109.2
1987	Hudson Aurora Road	184.2
1987	Norfolk and Western Railroad	186.0
1987	Erie Lackawanna and Penn Central Railroads	208.1
1987	Penn Central Railroad	208.7
1987	Newton Falls - Braceville Road	208.9
1987	Newton Falls - Bailey Road	211.5
1987	B & O and Penn Central Railroads	211.7
1987	Branch of Duck Creek	212.6
1987	Carson - Salt Springs Road	213.6
1987	Tippecanoe Road	228.4
1987	Indian Run	228.6
1987	Mill Creek	230.4

Mainline Bridge Deck Replacements (continued)

Year	Bridge	Milepost
1988	Nettle Creek	10.6
1988	St. Joseph River	11.3
1988	Conrail	19.6
1988	U.S. 127	20.1
1988	U.S. 20	59.8
1988	Eastgate Road	61.1
1988	Norfolk & Western Railroad & Stengel Avenue	61.5
1988	Glenwood Road	66.0
1988	Conrail Railroad	66.2
1988	Cedar Creek	68.0
1988	Conrail Railroad & C.R. 10	68.8
1988	S.R. 163	73.0
1988	Conrail Railroad	74.0
1988	County Line Road	74.1
1988	Trapp Road	77.4
1988	Toussaint Creek	77.5
1988	Lime Road	77.6
1988	Bark Creek	94.2
1988	U.S. 6	95.4
1988	N & W Railroad - Kelley Road	117.3
1988	U.S. 250	118.1
1988	Huron River - N & W Railroad	119.6
1988	Infirmity Road	193.1
1988	Parkman Road	203.7
1988	South Fork Eagle Creek	205.2
1988	Ohio Turnpike over Interchange 16 Ramps	232.9
1989	St. Joseph Beaver Road	14.1
1989	N & W Railroad	14.2
1989	Tiffin River	24.7
1989	C & O Railroad	70.2
1989	Cummins Road	70.3
1989	S.R. 420 & I-280	71.4
1989	S.R. 43	188.2
1989	Mahoning Avenue	219.8

Mainline Bridge Deck Replacements (continued)

Year	Bridge	Milepost
1990	Portage River	80.5
1990	B & O Railroad	113.7
1990	Ransom Road	114
1990	S.R. 5	209.6
1990	Mahoning River	209.9
1990	Ravenna-Warren Road	210.1
1990	B & O Railroad	210.3
1991	Eastland Road	160.4
1991	East Branch of Rocky River	160.7
1991	Rocky River Road	160.7
2002	Turnpike over I-76	219
2006	Turnpike over Meander Reservoir	221.3
2017	Garfield Road - CR8 (WB) (EB in 2018)	240.8
	Total to Date	148 Pairs

Overhead and Ramp Deck Replacements

Year	Bridge	Milepost
1980	Gulf Road	146.4
1983	<i>Bagley Road</i>	152.9
1983	<i>Sprague Road</i>	159.0
1983	U.S. 42 (Pearl Road)	161.1
1983	S.R. 91	183.2
1984	Holland Road	59.0
1984	Ramp over Chestnut Ridge Road at Exit 152	152.0
1984	Usher Road	156.1
1984	Webster Road	162.9
1984	<i>Abbey Road</i>	164.4
1984	Ramp over S.R. 21 at Exit 173	172.9
1984	S.R. 303	207.3
1985	Ramp over Turnpike at Exit 13	13.4
1985	Ramp over Turnpike at Exit 173	173.2
1985	S.R. 21	172.9
1986	Ramp over Turnpike at Exit 34	34.9
1986	Ramp over S.R. 57 at Exit 145	145.1
1986	<i>Jennings Road over Turnpike</i>	154.0
1986	<i>W. 130th Street over Turnpike</i>	163.8
1986	Turnpike Ramp over S.R. 8	180.0
1987	Ramp over US 250 at Exit 118	118.1
1987	<i>Ramp over Turnpike at Exit 118</i>	118.6
1987	West Ridge Road	142.6
1987	<i>Ramp over Turnpike at Exit 145</i>	145.5
1987	S.R. 83	150.5
1987	S.R. 252	156.9
1987	<i>Edgerton Road</i>	169.6
1987	Highland Road	171.1
1987	Barr Road	171.6
1987	Raccoon Road	226.7
1988	Race Road	149.2
1988	Maddock Road	149.8
1988	Ramp over C.R. 12 at Exit 152	152.3
1988	Old Exit 161 Ramp over Turnpike	161.5
1988	S.R. 3	166.8
1988	Ramp over S.R. 7 at Exit 232	232.6
1988	S.R. 164	233.8

Overhead and Ramp Deck Replacements (continued)

Year	Bridge	Milepost
1989	S.R. 66	26.3
1989	Wilkins Road	50.4
1989	S.R. 2	52.9
1989	Eber Road	53.5
1989	Crissey Road	54.8
1989	Manley Road	58.6
1989	S.R. 590	85.5
1989	Fought Road	86.6
1989	Four Mile House Road	88.1
1989	Fangbonner Road	91.1
1989	Ramp over Turnpike at Exit 91	91.6
1989	Ramp over S.R. 53 at Exit 91	92.0
1989	Shannon Road	93.0
1989	Carley Road	94.7
1989	Northwest Road	106.1
1989	S.R. 269	106.8
1989	Deyo Road	107.5
1989	<i>Billings Road</i>	<i>108.7</i>
1989	<i>Patten-Tract Road</i>	<i>112.5</i>
1989	<i>Thomas Road</i>	<i>115.1</i>
1989	S.R. 13	119.3
1989	Gore-Orphanage Road	133.1
1989	<i>Vermilion Road</i>	<i>135.0</i>
1989	South Amherst Road	138.7
1989	Oberlin Road	141.3
1989	Stearns Road	154.6
1989	Big Creek Parkway	161.0
1989	<i>Black Road over EB Turnpike</i>	<i>174.1</i>
1989	<i>Black Road over WB Turnpike</i>	<i>174.1</i>
1989	Boston Mills Road	178.0
1989	S.R. 8 Northbound	180.0
1989	S.R. 8 Southbound	180.0
1989	Ramp over Turnpike at Exit 180	180.3
1989	Stow Road	184.7
1989	U.S. 224	227.6
1989	New Springfield Road	235.6
1989	Beard Road	236.7
1989	S.R. 170	240.4

Overhead and Ramp Deck Replacements (continued)

Year	Bridge	Milepost
1990	Nettle Creek Road	6.2
1990	Farmer Center Road	9.0
1990	S.R. 576	10.2
1990	Townline Road	12.1
1990	S.R. 15 over Exit 13 Ramp	13.2
1990	S.R. 15	13.2
1990	Pleasant Hill Road	15.1
1990	Holloway Road	57.3
1990	<i>Camper Road</i>	75.6
1990	Gibbs Road	97.6
1990	Karbler Road	98.1
1990	Yorktown Road	100.2
1990	Vickery Road	101.2
1990	Mugg Road	102.3
1990	<i>Albion Road</i>	162.2
1990	S.R. 94	167.3
1990	<i>S.R. 176</i>	169.5
1990	Old S.R. 8	179.5
1991	Exit 59 Ramp over US 20	59.8
1991	Portage River-South Road	80.6
1991	Murray Ridge Road	143.4
1991	West River Road	145.8
1991	Page Road	189.2
1991	Diagonal Road	191.2
1992	<i>Harrison Road</i>	130.8
1992	Prospect Road	182.1
1992	Exit 187 Ramp over Turnpike	187.2
1992	Exit 187 Ramp over S.R. 14	187.2
1992	Peck Road	195.2
1993	<i>S.R. 105</i>	79.5
1993	Joppa Road	128.5
1993	<i>S.R. 60</i>	131.6
1993	Coit Road	192.4
1993	Limeridge Road	196.7
1993	S.R. 534	207.6
1993	Exit 209 Ramp over Turnpike	209.2
1993	Exit 209 Ramp over S.R. 5	209.6

Overhead and Ramp Deck Replacements (continued)

Year	Bridge	Milepost
1994	Township Line Road	94.1
1994	S.R. 101	104.2
1994	Exit 161 over Turnpike	161.8
1994	S.R. 88	199.5
1994	S.R. 4 over Turnpike	110.7
1994	S.R. 44 over Turnpike	194.2
1995	River Road	62.8
1996	EB I-480 over Turnpike	186.8
1996	WB I-480 over Turnpike	186.8
1999	Gibson Road	223.9
1999	US 62/S.R. 46	225.2
2000	Shiets Road	96.1
2000	Jacobs Road	96.5
2000	Vickery Road	101.2
2000	Dirt Access Road	103.4
2000	S.R. 101 Bridge	104.2
2000	EB I-90 over West Ridge Road	142.6
2000	EB I-90 over Turnpike	142.8
2001	Stanley Road	201.8
2001	Lintz Road	214.5
2002	<i>Pemberville Road</i>	72.0
2002	Prospect Street	159.5
2002	Ramp over I-71	161.5
2002	Lipkey Road	220.3
2003	Slagle Road	200.2
2003	Horn Road	204.7
2004	Shiloh-Whiteville Road	44.4
2004	Scott Road	49.4
2004	Ramp over Turnpike at Exit 234	234.1
2004	Ramp over Yellow Creek at Exit 234	234.1
2005	Fulton-Lucas County Road	48.4
2005	Cass Road	60.3
2005	Ramp Over Turnpike at Exit 71	71.7
2007	Reighard-Whiteville	43.9
2007	Utah Road	45.4
2012	Gulf Road	146.4
2014	Fish Creek Road	0.9
2014	Stryker-Lockport Road	22.0
2014	Werth Road	93.5

Overhead and Ramp Deck Replacements (continued)

Year	Bridge	Milepost
2015	Old SR596 - CR 17	16.1
2015	Clay's Church Road - TR 19	18.1
2015	Liberty-Adrian Road - CR 8-1	41.1
2015	Key Street - CR 101	60.8
2015	Gibson Road - TR118	223.9
2016	Eberly-Home Road	17.1
2016	Alvordton Road	19.1
2016	Clifton-Gunn Road	21.4
2016	Rueger-Shetler Road	23.9
2016	Fulton-Williams Road	24.4
2016	Spies-Handy Corners Road	27.3
2016	Raker-Barden Road	41.9
2016	Delta-Santee Road	42.4
2016	Brigham-Fraker Road	42.9
2016	SR 83	150.5
2016	Asbury Road	197.8
2016	SR 700	198.5
2017	Arlington Road - TR 130	122.3
2017	Joppa Road - CR 140	128.5
2017	Dean Road - TR 66 (County Line)	132.4
2017	West River Road	145.8
2017	State Route 252 - Columbia Road	156.9
2017	Boston Mills Road - CR 32	178.0
2017	Olde Eight Road	179.5
2017	Nichols Road - CR 225	199.2
	Total to Date	157

Bridge Deck Overlay Projects

Year	Bridge	Type	Milepost
1982	Prospect Street (S.R. 237)	Latex	159.5
1983	Key Street	Latex	60.8
1983	Ramp over I-71 at Exit 161	Latex	161.5
1983	Ramp over Turnpike at Exit 161	Latex	161.5
1984	S.R. 101	Latex	104.2
1984	U.S. 62 - S.R. 46	Latex	225.2
1985	EB Turnpike over I-77	Latex	172.5
1985	WB Turnpike over I-77	Latex	172.5
1985	EB Turnpike over I-271	Latex	175.3
1985	<i>Ramp over Turnpike at Exit 218</i>	Latex	219.0
1985	EB Turnpike over I-76	Latex	219.0
1985	WB Turnpike over I-76	Latex	219.0
1988	<i>Root Road over Turnpike</i>	Latex	151.1
1989	Heller Lyon Road over Turnpike	Latex	39.3
1989	Liberty-Adrian Road over Turnpike	Latex	41.1
1989	Raker-Barden Road over Turnpike	Latex	41.9
1989	Delta-Santee Road over Turnpike	Latex	42.4
1989	<i>Lime City Road over Turnpike</i>	Latex	65.4
1989	<i>Oregon Road</i>	Latex	67.2
1989	Ramp under Toll Plaza, Exit 161	Latex	162.0
1990	Pettisville-Morenci Road	Latex	30.3
1990	Tedrow-Morenci Road	Latex	31.4
1990	Hartman-Inlet Road	Latex	32.5
1990	Lena-Morenci Road	Latex	33.2
1990	Exit 71 Ramp over S.R. 420	Latex	71.4
1990	Pemberville Road	Latex	72.0
1990	<i>Billman Road</i>	Latex	75.2
1991	Fish Creek Road	Latex	0.9
1991	Malcolm Church Road	Latex	3.1
1991	Ricketts Bridge Road	Latex	4.1
1991	West Eagle Church Road	Latex	5.1
1991	White Bridge Road	Latex	6.9
1991	Champion Road	Latex	7.6
1991	Cummins Road	Latex	11.6
1991	Old State Route 259	Latex	16.1
1991	Eberly Home Road	Latex	17.1
1991	Clays Church Road	Latex	18.1
1991	Alvordton Road	Latex	19.1

Bridge Deck Overlay Projects (continued)

Year	Bridge	Type	Milepost
1991	Clifton Gunn Road	Latex	21.4
1991	Zone-Southern Road	Latex	25.3
1991	Spies Handy Corners Road	Latex	27.3
1991	Lauber Hill-Ritter Road	Latex	28.3
1991	Eckley-Powers Road	Latex	29.3
1991	Reighard-Whiteville Road	Latex	43.9
1991	Shiloh-Whiteville Road	Latex	44.4
1991	Utah Road	Latex	45.4
1991	Brailey Road	Latex	46.6
1991	Fulton-Lucas Road	Latex	48.4
1991	Scott Road	Latex	49.4
1991	Exit 59 Ramp	Latex	59.5
1991	Cass Road	Latex	60.3
1991	<i>Crystal Street</i>	Latex	62.0
1991	US 24 - SR 25	Latex	62.3
1991	<i>Swartzman Road</i>	Latex	82.2
1991	Hessville Road	Latex	84.4
1991	Dean Road	Latex	132.4
1991	Gifford Road	Latex	135.4
1991	Exit 142 Eastbound Ramp over West Ridge Road	Latex	142.6
1991	Lipkey Road	Latex	220.3
1991	Herbert Road	Latex	225.0
1991	Exit 234 Eastbound Ramp over Turnpike	Latex	234.1
1991	Exit 234 SB Ramp over the Yellow Creek	Latex	234.4
1992	Asbury Road	Latex	197.8
1992	Nichols Road	Latex	199.2
1992	Jewel-North Road	Latex	206.3
1993	Stryker-Lockport Road	Latex	22.0
1993	Shilling-Ely Road	Latex	22.7
1993	Ruegar Shelter Road	Latex	23.9
1993	Fulton-Williams Road	Latex	24.4
1993	Wauseon-Ottokee Road	Latex	35.2
1993	W. Barre-Advance Road	Latex	36.3
1993	Biddle Scott Road	Latex	37.1
1993	Winnemeg-Lyons Road	Latex	38.3
1993	Brigham-Fraker Road	Latex	42.9
1993	<i>Dutch Road</i>	Latex	76.3
1993	<i>Martin- Williston Road</i>	Latex	78.7

Bridge Deck Overlay Projects (continued)

Year	Bridge		Milepost
1993	Dishinger Road	Latex	81.5
1993	River Road	Latex	120.1
1993	Wikel Road	Latex	121.9
1993	Arlington Road	Latex	122.3
1993	Chapin Road	Latex	123.1
1993	Frailey Main Road	Latex	126.3
1993	Angling Road	Latex	129.0
1993	S.R. 700	Latex	198.5
1995	Copp Road	Latex	104.3
2012	Royalton Road	Micro-Silica	165.4
2012	York Road	Micro-Silica	165.5
2012	Bennet Road	Micro-Silica	166.2
2013	Turnpike Ramp over Turnpike	Micro-Silica	161.5
2013	Turnpike Ramp over Turnpike	Micro-Silica	161.8
2013	Turnpike Ramp over Turnpike	Micro-Silica	173.2
2014	Maddock Road	Type K	149.8
2014	State Route 3	Type K	166.8
2015	Turnpike Ramp over Turnpike	Type K	34.9
2015	NS RR (Conrail) (NYC RR) (EB)	Type K	147.9
2015	Turnpike Ramp over Turnpike	Type K	218.7
2016	EB & WB Turnpike over Kelly Road	Micro-Silica	117.3
2016	EB & WB Turnpike over SR 250	Micro-Silica	118.1
2016	NS RR (Conrail) (NYC RR) (WB)	Micro-Silica	147.9
	Total to Date		99

Third Lane Construction Program Overhead Bridge Replacement or Reconstruction

Year	Bridge	Milepost
1996	Dishinger Road	81.5
1996	Billings Road	108.7
1996	Root Road	151.2
1996	S.R. 88	199.5
1997	Lime City Road	65.4
1997	Tracy Road	67.7
1997	Lemoyne Road	70.8
1997	Billman Road	75.2
1997	Dutch Road	76.3
1997	Martin-Williston Road	78.7
1997	Swartzman Road	82.2
1997	Kingsway Road	89.4
1997	Patten-Tract Road	112.5
1997	Thomas Road	115.1
1997	Gate 7 Ramp	118.6
1997	Gate 8 Ramp	145.5
1997	West 130th Street	163.8
1997	S.R. 176	169.5
1997	Black Road	174.1
1997	Metroparks Bikeway	179.2
1997	Selkirk-Bush Road	212.5
1998	Crystal Avenue	62.0
1998	Detroit Avenue	62.3
1998	Vermilion Road	135.0
1998	Albion Road	162.2
1999	Camper Road	75.6
1999	S.R. 105	79.5
1999	Angling Road	129.0
1999	S.R. 60	131.6
1999	Abbey road	164.4
1999	Edgerton Road	169.6
2000	Oregon Road	67.2
2000	Luckey Road	69.7
2000	Harrison Road	130.8
2000	Berea-Bagley Road	152.9
2000	Sprague Road	159.0
2000	Elsworth Bailey NB	215.4
2000	Elsworth Bailey SB	215.4

Third Lane Construction Program (continued)
Overhead Bridge Replacement or Reconstruction

Year	Bridge	Milepost
2000	Exit 218 Ramp Over Turnpike	219.0
2002	S.R. 795 Over Turnpike	65.1
2002	Pemberville Road	72.0
2003	Ramp over Turnpike	59.5
2003	CSX Railroad	157.2
2006	Norfolk Southern Railroad	182.0
	Total to Date	44

Appendix D

Current Bridge Repairs
and Rehabilitations

Table 1: Embankment Rehabilitation

Milepost	Intersecting Roadway	Status
N/A	N/A	NONE UNDER CONTRACT

Table 2: Various Repairs Including Fence, Parapet, Bearings, Joints etc.

Milepost	Intersecting Roadway	Status
90.2	Little Muddy Creek	Completion Scheduled 10/2017
90.3	SR 19 - Oak Harbor Rd	Completion Scheduled 10/2017
90.7	NS RR (N&W RR)	Completion Scheduled 10/2017
92.0	State Route 53 - Exit 91	Completion Scheduled 10/2017
94.2	Bark Creek	Completion Scheduled 10/2017
95.4	USR 6	Completion Scheduled 10/2017
108.3**	Mill Creek	Completion Scheduled 10/2017
109.1**	NS Railroad	Completion Scheduled 10/2017
109.2**	Portland Road	Completion Scheduled 10/2017
111.2**	SR 99	Completion Scheduled 10/2017
188.2**	SR 43	Completion Scheduled 10/2017
191.4**	Cuyahoga River	Completion Scheduled 10/2017
222.8	Kirk Road - CR 146 (EB)	Completion Scheduled 10/2017
222.8	Kirk Road - CR 146 (WB)	Completion Scheduled 10/2017
232.6	State Route 7 - Market St (EB)	Completion Scheduled 10/2017
232.6	State Route 7 - Market St (WB)	Completion Scheduled 10/2017
232.6	Turnpike Ramp over SR 7 - Market St - Exit 232	Completion Scheduled 10/2017
232.9	Turnpike over Turnpike Ramp (EB) - Exit 232	Completion Scheduled 10/2017
232.9	Turnpike over Turnpike Ramp (WB) - Exit 232	Completion Scheduled 10/2017

** EB Bridges completed in 2016, WB Bridges to be completed in 2017

Table 3: Bridge Painting

Milepost	Intersecting Roadway	Status
14.1	St. Joseph-Beaver Road (EB) - TR 15	Completion Scheduled 10/2017
14.1	St. Joseph-Beaver Road (WB) - TR 15	Completion Scheduled 10/2017
14.2	NS RR (Wabash RR) (EB)	Completion Scheduled 10/2017
14.2	NS RR (Wabash RR) (WB)	Completion Scheduled 10/2017
23.9	Rueger-Shelter Road - TR 25-2	Completion Scheduled 10/2017
24.4	Fulton-Williams Road - TR 25	Completion Scheduled 10/2017
27.3	Spies-Handy Corners Road - TR 22	Completion Scheduled 10/2017
34.9	TURNPIKE Ramp over TURNPIKE - Exit 34	Completion Scheduled 10/2017
41.1	Liberty-Adrian Road - CR 8-1	Completion Scheduled 10/2017
41.9	Raker-Barden Road - CR 7-2	Completion Scheduled 10/2017
51.4	SR 295 - Berkey-Southern Rd (EB)	Completion Scheduled 10/2017
51.4	SR 295 - Berkey-Southern Rd (WB)	Completion Scheduled 10/2017
56.1	Albon Road - CR 86 (EB)	Completion Scheduled 10/2017
56.1	Albon Road - CR 86 (WB)	Completion Scheduled 10/2017

Table 4: Emergency Repairs

Milepost	Intersecting Roadway	Status
N/A	None in 2017 through 9/25/17	N/A

Table 5: Bridge Deck Replacements

Milepost	Intersecting Roadway	Status
122.3	Arlington Road - TR 130	Completion Scheduled 10/2017
128.5	Joppa Road - CR 140	Completion Scheduled 10/2017
132.4	Dean Road - TR 66 (County Line)	Completion Scheduled 10/2017
145.8	West River Road	Completion Scheduled 10/2017
156.9	State Route 252 - Columbia Road	Completion Scheduled 9/2017
178.0	Boston Mills Road - CR 32	Completion Scheduled 10/2017
179.5	Olde Eight Road	Completion Scheduled 11/2017
199.2	Nichols Road - CR 225	Completion Scheduled 10/2017
240.8	Garfield Road - CR 8 (EB)	Completion Scheduled 7/2018
240.8	Garfield Road - CR 8 (WB)	Completion Scheduled 10/2017

Appendix E

Crash Statistics

Crash Statistics (1955 to 2017 Year to Date)

Year	Accidents	Accident Rate	No. of Fatalities	Fatality Rate
1955	233	147	4	2.5
1956	806	102.5	16	2.0
1957	775	85	28	3.1
1958	666	72.5	29	3.1
1959	763	77.7	18	1.8
1960	756	73.2	20	1.9
1961	735	72.3	23	2.3
1962	773	72.6	13	1.2
1963	778	71.6	16	1.5
1964	966	83.3	35	3.0
1965	1,039	86.3	32	2.6
1966	1,193	93.4	40	3.1
1967	1,268	98.7	27	2.1
1968	1,485	108.4	35	2.6
1969	1,502	104.1	40	2.8
1970	1,478	100.2	24	1.6
1971	1,542	101.3	34	2.2
1972	1,832	114.9	26	1.6
1973	1,902	115.4	28	1.7
1974	1,491	98.1	10	0.7
1975	1,366	88.5	24	1.6
1976	1,496	90.7	21	1.3
1977	1,770	103.4	26	1.5
1978	1,726	98.4	19	1.1
1979	1,543	95.5	38	2.4
1980	1,393	88.4	26	1.7
1981	1,583	94.6	20	1.2
1982	1,552	98.3	12	0.8
1983	1,625	98.6	13	0.8
1984	1,821	107.8	11	0.7

Crash Statistics (1955 to 2017 Year to Date)

Year	Accidents	Accident Rate	No. of Fatalities	Fatality Rate
1985	1,814	104.8	19	1.1
1986	1,698	93	8	0.4
1987	1,944	101.7	12	0.6
1988	1,874	93	18	0.9
1989	1,944	92.7	21	1.0
1990	1,847	84.6	13	0.6
1991	1,759	81.5	13	0.6
1992	1,755	78.5	21	0.9
1993	1,846	80	12	0.5
1994	1,978	81.8	19	0.8
1995	2,019	80.3	12	0.5
1996	2,248	90.5	13	0.5
1997	2,035	82.9	10	0.4
1998	1,889	73.5	8	0.3
1999	2,303	86.7	8	0.3
2000	2,443	90.4	12	0.4
2001	2092	77	14	0.5
2002	2373	84.5	10	0.4
2003	2433	85.9	11	0.4
2004	2609	89.6	17	0.6
2005	2858	95.6	14	0.5
2006	2342	77.0	8	0.3
2007	2532	85.0	11	0.5
2008	2689	95.0	5	0.2
2009	2125	81.6	8	0.3
2010	2268	80.9	7	0.2
2011	2583	92.7	6	0.2
2012	2598	92.7	7	0.2
2013	2380	83.5	8	0.3

Crash Statistics (1955 to 2017 Year to Date)

Year	Accidents	Accident Rate	No. of Fatalities	Fatality Rate
2014	2642	91.1	9	0.4
2015	2459	90.2	11	0.4
2016	2367	91.7	12	0.5
*2017	1468	71.2	6	0.3

* 8 months

Appendix F

Schedule of Insurance



**Ohio Turnpike and Infrastructure Commission
Insurance Policies effective 09-01-17 through 09-01-18**

Insurance Coverage	Insurer and Agent	Policy No.	Ins. Value	Term	Policy Date	Premium
1. General Liability Ins.	US Specialty Insurance Co. Jackson, Dieken & Associates 27893 Clemens Road, Suite #1 Westlake, OH 44145-1169 440/250-6873	PKG80110805	Bodily injury and property damage \$1,000,000 each occurrence, \$3,000,000 aggregate. Includes employer's liability and employee benefits E & O and terrorism. Self-Insured Retention (SIR) of \$100,000 each occurrence - \$250,000 aggregate, including loss adjustment expense.	1 year	09-01-17 through 09-01-18	Advance premium of \$132,322 Agency fee \$30,000
Automobile Liability Ins.	US Specialty Insurance Co. Jackson, Dieken & Associates 27893 Clemens Road, Suite #1 Westlake, OH 44145-1169 440/250-6873	PKG80110805	Bodily injury and property damage \$1,000,000 each occurrence; \$100,000 SIR - \$250,000 aggregate; any auto (includes Owned, Non-Owned autos. Includes garagekeepers legal liability. Not subject to audit.	1 year	09-01-17 through 09-01-18	Advance premium of \$48,234
Excess Liability Ins. To cover losses over the limits of policies above.	US Specialty Insurance Co. Jackson, Dieken & Associates 27893 Clemens Road, Suite #1 Westlake, OH 44145-1169 440/250-6873	PKG80110805	\$20,000,000 excess of primary – includes Public Officials coverage – Includes terrorism	1 year	09-01-17 through 09-01-18	Advance premium of \$51,461
	North River Insurance Co./Crum & Forster	TBD	\$20,000,000 excess of \$20,000,000	1 year	09-01-17 through 09-01-18	Advance premium of \$65,780
	Great American Insurance Co. of New York Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	TBD	\$25,000,000 excess of \$40,000,000 Includes terrorism	1 year	09-01-17 through 09-01-18	Advance premium of \$37,500
Public Officials Errors & Omissions Insurance	US Specialty Insurance Co. Jackson, Dieken & Associates 27893 Clemens Road, Suite #1 Westlake, OH 44145-1169 440/250-6873	PKG80110805	\$1,000,000 per occurrence, \$1,000,000 aggregate/claims made. \$100,000 SIR - \$250,000 aggregate - including defense costs. Includes employment practices with 07/01/98 retro date.	1 year	09-01-17 through 09-01-18	Advance premium of \$37,884



**Ohio Turnpike and Infrastructure Commission
Insurance Policies effective 09-01-17 through 09-01-18**

Insurance Coverage	Insurer and Agent	Policy No.	Ins. Value	Term	Policy Date	Premium
2. Bridge Insurance Cuyahoga, Huron, Sandusky, Maumee River, Vermilion and Tinkers Creek bridges; NY Central and Penn Central RR structures. Usual all risk bridge policy including vandalism and malicious and civil disorder.	Continental Casualty Company Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	6049659510	\$227,994,000 agreed value. \$100,000,000 per occurrence Deductible of \$100,000 Does not exclude terrorism.	1 year	09-01-17 through 09-01-18	Advance premium of \$142,000
Use & Occupancy Covers loss of toll and other operating revenues due to destruction or damage to any part of the turnpike or service facilities. All risk including vandalism and malicious mischief.	Continental Casualty Company Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	6049659510	\$15,000,000 per occurrence. Deductible of \$100,000/120 hours	1 year	09-01-17 through 09-01-18	Included in Bridge insurance.
3. Multi-Peril/Property	Travelers Indemnity Company Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	KTK_CMB_7J180 60-2-17	\$550,000,000 Replacement cost; blanket, real and personal property coverage as scheduled. \$10,000 deductible per occurrence. Includes: building ordinance or law, flood and earthquake coverage, automatic builders risk, business income, extra expense, mold, transit, and terrorism coverages. (Increased coverage at adjusted rate as insured locations and contents are added.) Blanket replacement cost insurance on Administration Building, including Communication Building, and Contents, Maintenance Garage and Contents, Toll Plaza Buildings and Contents, Maintenance Buildings and Contents, Highway Patrol Buildings and Contents, Salt Storage Buildings, Radio Communication Equipment and Towers. Self-insured retentions and deductibles -See policy for schedule of insurance.	1 year	09-01-17 through 09-01-18	Annual Premium of \$171,278



**Ohio Turnpike and Infrastructure Commission
Insurance Policies effective 09-01-17 through 09-01-18**

Insurance Coverage	Insurer and Agent	Policy No.	Ins. Value	Term	Policy Date	Premium
			Blanket Insurance on the fourteen (14) Restaurants, Filling Station and Tool House Buildings collectively known as "Service Plazas".			
Data Processing Insurance	Travelers Indemnity Company Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	KTK_CMB_7J180 60-2-17	Replacement cost - Variable Administration Building data processing equipment coverage and total toll plaza data processing equipment coverage; total data processing and media coverage; extra expense; total business interruption coverage, each working day; accounts receivable. 48 hours and \$10,000 deductible.	1 year	09-01-17 through 09-01-18	(Included in Multi-Peril/Property)
Maintenance/Contractors Equipment	Travelers Indemnity Company Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	KTK_CMB_7J180 60-2-17	\$12,954,000 Covers all items within "Major Equipment List" having an actual cash value in excess of \$1,000. All risk coverage on all perils, inland marine included, valuable papers and transit.	1 year	09-01-17 through 09-01-18	(Included in Multi-Peril/Property)
Boiler & Machinery	Travelers Indemnity Company Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	KTK_CMB_7J180 60-2-17	Blanket coverage Deductible \$10,000 per occurrence; includes business interruption and extra expense.	1 year	09-01-17 through 09-01-18	(Included in Multi-Peril/ Property)
4. Money & Securities/Crime	Travelers Casualty & Surety of America Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	105648514	\$15,000,000 limit; \$50,000 deductible. Public employee dishonesty; Theft, disappearance and destruction; Robbery and safe burglary; Forgery and alteration; Credit, debit or charge card forgery; Computer fraud; \$1,000,000 Faithful performance of duty; Wire transfer communication fraud. Money orders and counterfeit currency. Social engineering fraud.	1 year	09-01-17 through 09-01-18	Advance premium of \$36,300



**Ohio Turnpike and Infrastructure Commission
Insurance Policies effective 09-01-17 through 09-01-18**

Insurance Coverage	Insurer and Agent	Policy No.	Ins. Value	Term	Policy Date	Premium
5. Pollution Legal Liability	Ironshore Specialty Insurance Company Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	001443602	\$1,000,000 per occurrence \$2,000,000 aggregate Includes Terrorism \$50,000 deductible Third claims for BI/PD; First party remediation; emergency response; business interruption. Coverage excess of customers, contractors, service plaza operators, etc., if applicable. Includes transportation activities of Commission and customers.	2 year	09-01-16 through 09-01-18	Two-year advance premium of \$28,250
6. Cyber/Privacy Liability	Ironshore Specialty Insurance Company Arthur J. Gallagher Risk Mgmt Services, Inc. 3 Summit Park Dr., Suite 530 Independence, OH 44131 216/566-9799	TBD	\$2,000,000 with various sub-limits. Includes Terrorism. SIR \$50,000. 3 rd party enterprise security & privacy liability, regulatory action, breach response, computer system extortion. 1 st party forensic and legal services, public relations expense, website media liability, business interruption, data restoration.	1 year	09-01-17 through 09-01-18	Advance premium of \$28,796

Claims Service: York Claims Services, Inc.
16560 Commerce Court
Suite 100
Middleburg Heights, Ohio 44130
440-243-8409