REQUEST FOR PROPOSALS FOR

ACTUARIAL VALUATION SERVICES
FOR OTHER POSTEMPLOYMENT BENEFITS (OPEB)

ISSUING OFFICE

Pennsylvania Turnpike Commission

Contracts Administration Department

On behalf of the

Accounting and Financial Reporting Department

RFP NUMBER

19-10230-8436

DATE OF ISSUANCE

January 14, 2019

REQUEST FOR PROPOSALS FOR

ACTUARIAL VALUATION SERVICES FOR OTHER POSTEMPLOYMENT BENEFITS (OPEB)

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CALENDAR OF EVENTS

RFP# 19-10230-8436

The Commission reserves the right to make changes or alterations to this schedule as the Commission determines is in its best interest.

Activity	Date	Time
Request for Proposals Issued	January 14, 2019	N/A
Deadline for Proposers to Submit Questions via email to RFP-Q@paturnpike.com	January 28, 2019	2:00 PM
Answers to Proposers questions posted to the Commission website at https://www.paturnpike.com/Procurement/Bidlist.aspx?RTYPE=O *(Estimate Only)*	February 1, 2019	N/A
Due Date for Proposals	February 14, 2019	2:00 PM
Oral Clarifications/Presentations *(If necessary)*	TBD	TBD
Anticipated Notice to Proceed *(Estimate Only)*	June 1, 2019	N/A

PART I

GENERAL INFORMATION FOR PROPOSERS

I-1. Purpose. This request for proposals (RFP) provides interested Proposers with sufficient information to enable them to prepare and submit proposals for consideration by the Pennsylvania Turnpike Commission (Commission) to satisfy a need for actuarial valuation services of other postemployment benefits (OPEB).

I-2. Issuing Office. This RFP is issued for the Commission by the Contracts Administration Department on behalf of the Accounting and Financial Reporting Department.

I-3. Scope. This RFP contains instructions governing the proposals to be submitted and the material to be included therein; a description of the service to be provided; requirements which must be met to be eligible for consideration; general evaluation criteria; and other requirements to be met by each proposal.

I-4. Problem Statement. The Pennsylvania Turnpike Commission is seeking a qualified firm of accredited actuaries to perform full actuarial valuations of the Commission's other postemployment benefits (OPEB) as of May 31, 2019, 2021 and 2023. The full actuarial valuations are to be completed in accordance Governmental Accounting Standards Board (GASB) Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions,* and the final report(s) provided to the Commission no later than October 15, 2019, 2021 and 2023, respectively. The selected firm would also be expected to perform update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuations of the Commission's OPEB to May 31, 2020, 2022 and 2024. The update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuations are to be completed and the final report(s) provided to the Commission no later than October 15, 2020, 2022 and 2024, respectively. The Commission's fiscal year end is May 31. This agreement will be for six (6) years and will give the Commission the option to request one additional full actuarial valuation of OPEB as of May 31, 2025 to be provided to the Commission no later than October 15, 2025 and one additional year of update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuation of the Commission's OPEB to May 31, 2026 to be provided to the Commission no later than October 15, 2026. The agreement will not terminate until the Commission accepts all work as complete and tenders final payment to the selected firm. A work statement is provided in **Part IV**. A table outlining the reporting timeline is included in **Appendix A**.

In addition to the services discussed above, the selected firm may also be requested under the terms of this agreement to provide related actuarial services, calculations and guidance to the Commission. An example would be additional calculations based on various discount, benefit and contribution assumption scenarios. The Commission's aim is to select a qualified firm of accredited actuaries who demonstrate a strong record of experience in performing actuarial valuations for similar type entities.

I-5. Type of Contract. The Commission intends to award one contract as a result of this RFP. It is proposed that if a contract is entered into as a result of this RFP, it will be a fixed fee contract and will not terminate until the Commission accepts all work as complete and tenders final payment. The Commission may in its sole discretion undertake negotiations with Proposers whose proposals as to price and other factors show them to be qualified, responsible, responsive and capable of performing the work. A sample Contractual Agreement is provided in **Appendix B**.

I-6. Contractor Integrity Provisions. Contractor Integrity Provisions will apply to this contract upon award and the awarded vendor may be required to complete a Background Qualifications Questionnaire prior to entering into an Agreement with the Commission and attend annual ethics training provided by the Commission. Proposers can find the Integrity Provisions and other related documents on the Commissions website at www.paturnpike.com (Doing Business, General Information, Integrity Provisions).

Include full disclosure of any potential conflict with the State Adverse Interest Act, 71 P.S. § 776.3, for a State Advisor or State Consultant by the prime or any subconsultant. If there is no adverse interest, you shall include the following statement: "I have reviewed the State Adverse Interest Act and determined that there is no adverse interest for anyone on this Agreement team." This information should be included in your transmittal letter/cover page or executive summary.

I-7. Rejection of Proposals. The Commission reserves the right to reject any and all proposals received as a result of this request, or to negotiate separately with competing Proposers.

I-8. Subcontracting. Any use of subcontractors by a Proposer must be identified in the proposal. During the contract period use of any subcontractors by the selected Proposer, which were not previously identified in the proposal, must be approved in advance in writing by the Commission.

If a Joint Venture responds to this RFP, the Commission will not accept separate proposals from joint venture constituents. A firm will not be permitted to submit a proposal on more than one (1) joint venture for the same RFP. Also, a firm that responds to this RFP as a prime may not be included as a designated subconsultant to another firm that responds to the same RFP. Multiple responses under any of the forgoing situations will cause the rejection of all responses of the firm or firms involved. This does not preclude a firm from being set forth as a designated subconsultant to more than one prime consultant responding to the RFP.

I-9. Incurring Costs. The Commission is not liable for any costs the Proposer incurs in preparation and submission of its proposal, in participating in the RFP process or in anticipation of award of contract.

I-10. Procurement Schedule of Events. The current Schedule for Key Procurement Dates for this procurement process leading to an award of the Contract is provided in the Calendar of Events, page 1 of this RFP. The Commission reserves the right to make changes or alterations to this schedule as the Commission determines is in its best interest. All changes to these dates and/or times up to and including the due date for Proposals will be issued as an addendum to this RFP and will become part of this RFP and will be posted to the Commission's website at:
https://www.paturnpike.com/procurement/Bidlist.aspx?rtype=o.

Unless otherwise notified in writing by the Commission, the dates indicated below for submission of items or for other required actions on the part of a Proposer shall constitute absolute deadlines for those activities and failure to fully comply by the time and date stated shall cause a Proposer to be disqualified. All times stated are in Harrisburg, PA local time and are subject to change.

I-11. Questions and Answers. There will be no pre-proposal conference for this RFP. No negotiations, decisions or actions shall be initiated or executed by a Proposer as a result of any oral discussions with any Commission member, employee, consultant/contractor. Written questions may be submitted to clarify any points in the RFP which may not have been clearly understood. Written questions shall be submitted by email to RFP-Q@paturnpike.com with RFP 19-10230-8436 in the Subject Line to be received no later than the date and time provided on the Calendar of Events. If questions are received, any/all questions and written answers will be issued as an addendum to and become part of this RFP and will be posted to the Commission's website at (http://www.paturnpike.com/procurement/Bidlist.aspx?rtype=o), approximately on or before the date provided on the Calendar of Events. Proposers shall use the form provided in **Appendix C** to submit the questions.

I-12. Addenda to the RFP. If it becomes necessary to revise any part of this RFP before the proposal response date, addenda will be posted to the Commission's website under the original RFP document (http://www.paturnpike.com/procurement/Bidlist.aspx?rtype=o). It is the responsibility of the Proposer to periodically check the website for any new information or addenda to the RFP.

The Commission may revise a published advertisement. If the Commission revises published advertisement less than ten days before the RFP due date, the due date will be extended to maintain the minimum ten-day advertisement duration if the revision alters the project scope or selection criteria. Firms are responsible to monitor advertisements/addenda to ensure the submitted proposal complies with any changes in the published advertisement.

I-13. Response. To be considered, proposals must be delivered to the Pennsylvania Turnpike Commission's Contracts Administration Department, Attention: Wanda Metzger, on or before the date and time provided on the Calendar of Events. The Commission will **not** accept proposals via email or facsimile transmission.

Overnight Delivery Address:
Contracts Administration Department
Attn: Wanda Metzger
PA Turnpike Commission
700 South Eisenhower Blvd.
Middletown, PA 17057
Phone: (717) 831-7429

US Mail Delivery Address:
Contracts Administration Department
Attn: Wanda Metzger
PA Turnpike Commission
P.O. Box 67676
Harrisburg, PA 17106

Please note that use of <u>U.S. Mail, FedEx, UPS, or other delivery method</u>, does not guarantee delivery to the Contracts Administration Department by the above listed time for submission. Proposers mailing proposals should allow sufficient delivery time to ensure timely receipt of their proposals. If the Commission office location to which proposals are to be delivered is closed on the proposal response date, due to inclement weather, natural disaster, or any other cause, the deadline for submission shall be automatically extended until the next Commission business day on which the office is open. Unless the Proposers are otherwise notified by the Commission, the time for submission of proposals shall remain the same.

I-14. Proposals. To be considered, Proposers should submit a complete response to this RFP, using the format provided in **Part II**. Each proposal should be submitted in five (5) hard copies of the Technical Submittal, five (5) hard copies of the Diverse Business (DB) participation submittal, and five (5) hard copies of the Cost Submittal. In addition to the hard copies of the proposal, two **complete and exact copies** of the Technical, Cost and DB submittals, along with all requested documents on CD-ROM or Flash Drive in Microsoft Office or Microsoft Office-compatible format. The electronic copy must be a mirror image of the hard copy. Proposer should ensure that there is no costing information in the technical submittal. The CD or Flash drive should clearly identify the Proposer and include the name and version number of the virus scanning software that was used to scan the CD or Flash drive before it was submitted. The Proposer shall present the proposal to the Contracts Administration Department only. No other distribution of proposals will be made by the Proposer. Each proposal page should be numbered for ease of reference.

An official authorized to bind the Proposer to its Proposal must sign the proposal. If the official signs the Proposal Cover Sheet (**Appendix D** to this RFP) and the Proposal Cover Sheet is attached to the proposal, the requirement will be met. For this RFP, the proposal must remain valid for at least 120 calendar days. Moreover, the contents of the proposal of the selected Proposer will become contractual obligations if a contract is entered into.

Each and every Proposer submitting a proposal specifically waives any right to withdraw or modify it, except as hereinafter provided. Proposals may be withdrawn by written or fax notice (fax number (717) 986-8714) received at the Commission's address for proposal delivery prior to the exact hour and date specified for proposal receipt.

However, if the Proposer chooses to attempt to provide such written notice by fax transmission, the Commission shall not be responsible or liable for errors in fax transmission. A proposal may also be withdrawn in person by a Proposer or its authorized representative, provided his/her identity is made known and he/she signs a receipt for the proposal, but only if the withdrawal is made prior to the exact hour and date set for proposal receipt. A proposal may only be modified by the submission of a new sealed proposal or submission of a sealed modification which complies with the requirements of this solicitation.

I-15. Economy of Preparation. Proposals should be prepared simply and economically, providing a straightforward, concise description of the Proposer's ability to meet the requirements of the RFP.

I-16. Discussions for Clarification. Proposers who submit proposals may be required to make an oral or written clarification of their proposals to the Issuing Office through the Contract Administration Department to ensure thorough mutual understanding and Proposer responsiveness to the solicitation requirements. The Issuing Office through the Contract Administration Department will initiate requests for clarification.

I-17. Best and Final Offers. The Issuing Office reserves the right to conduct discussions with Proposers for the purpose of obtaining "best and final offers." To obtain best and final offers from Proposers, the Issuing Office may do one or more of the following: a) enter into pre-selection negotiations; b) schedule oral presentations; and c) request revised proposals. The Issuing Office will limit any discussions to responsible Proposers whose proposals the Issuing Office has determined to be reasonably susceptible of being selected for award.

I-18. Prime Proposer Responsibilities. The selected Proposer will be required to assume responsibility for all services offered in its proposal whether or not it produces them. Further, the Commission will consider the selected Proposer to be the sole point of contact with regard to contractual matters.

I-19. Proposal Contents. Proposals will be held in confidence and will not be revealed or discussed with competitors, unless disclosure is required to be made (i) under the provisions of any Commonwealth or United States statute or regulation; or (ii) by rule or order of any court of competent jurisdiction. All material submitted with the proposal becomes the property of the Pennsylvania Turnpike Commission and may be returned only at the Commission's option. Proposals submitted to the Commission may be reviewed and evaluated by any person other than competing Proposers at the discretion of the

Commission. The Commission has the right to use any or all ideas presented in any proposal. Selection or rejection of the proposal does not affect this right.

In accordance with the Pennsylvania Right-to-Know Law (RTKL), 65 P.S. § 67.707 (Production of Certain Records), Proposers shall identify any and all portions of their Proposal that contains confidential proprietary information or is protected by a trade secret. Proposals shall include a written statement signed by a representative of the company/firm identifying the specific portion(s) of the Proposal that contains the trade secret or confidential proprietary information.

Proposers should note that "trade secrets" and "confidential proprietary information" are exempt from access under Section 708(b)(11) of the RTKL. Section 102 defines both "trade secrets" and "confidential proprietary information" as follows:

Confidential proprietary information: Commercial or financial information received by an agency: (1) which is privileged or confidential; **and** (2) the disclosure of which would cause substantial harm to the competitive position of the person that submitted the information.

Trade secret: Information, including a formula, drawing, pattern, compilation, including a customer list, program, device, method, technique or process that: (1) derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use; **and** (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. The term includes data processing software by an agency under a licensing agreement prohibiting disclosure.

65 P.S. §67.102 (emphasis added).

The Office of Open Records has determined that a third party must establish a trade secret based upon factors established by the appellate courts, which include the following:

the extent to which the information is known outside of his business;
the extent to which the information is known by employees and others in the business;
the extent of measures taken to guard the secrecy of the information;
the value of the information to his business and to competitors;
the amount of effort or money expended in developing the information; and
the ease of difficulty with which the information could be properly acquired or duplicated by others.

See Crum v. Bridgestone/Firestone North Amer. Tire., 907 A.2d 578, 585 (Pa. Super. 2006).

The Office of Open Records also notes that with regard to "confidential proprietary information the standard is equally high and may only be established when the party asserting protection shows that the information at issue is either 'commercial' or 'financial' and is privileged or confidential, and the disclosure ***would*** cause substantial competitive harm." (emphasis in original).

For more information regarding the RTKL, visit the Office of Open Records' website at www.openrecords.state.pa.us.

I-20. Debriefing Conferences. Proposers whose proposals are not selected will be notified of the name of the selected Proposer and given the opportunity to be debriefed, at the Proposer's request. The Issuing Office will schedule the time and location of the debriefing. The Proposer will not be compared with other Proposers.

I-21. News Releases. News releases pertaining to this project will not be made without prior Commission approval, and then only in coordination with the Issuing Office.

I-22. Commission Participation. Unless specifically noted in this section, Proposers must provide all services to complete the identified work.

- A Commission representative will be available to assist in the scheduling (via Microsoft Outlook) of Commission personnel and conference rooms for meetings, if necessary.
- Where indicated below, the Commission will provide the following to the actuary on or around July 5th for the completed fiscal year ended May 31st:

	Full Valuations	**Rollforward Procedures**
Retiree Plan summary	X	
Eligibility for benefits for active employees	X	
Union wages and benefits	X	
Most recent two years of benefit costs	X	
COBRA rate history	X	
Retiree benefit plans including medical, prescription, dental and vision	X	
Plan member census data	X	
Employer contribution summary	X	X
Custodian bank statements	X	X
Investment statements, as available (some quarterly statements may not be available until September of each year)	X	X
Fiscal year plan costs (claims paid, administrative expenses, investment fees, etc.)	X	X
Internal accounting records as maintained in Excel	X	X
Policy documentation, as applicable	X	

- It is the responsibility of the selected actuarial firm to plan and staff the engagement so it can provide the Commission with the final report according to the due date listed in **Part IV –** Work Statement.

I-23. Cost Submittal. The cost submittal shall be placed in a separately sealed envelope within the sealed proposal and kept separate from the technical submittal.

I-24. Term of Contract. The term of the contract will commence on the Effective Date (as defined below) and will be for six (6) years with the option to request one additional full actuarial valuation of OPEB as of May 31, 2025 to be provided to the Commission no later than October 15, 2025 and one additional year of update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuation of the Commission's OPEB to May 31, 2026 to be provided to the Commission no later than October 15, 2026 and will not terminate until the Commission accepts all work as complete and tenders final payment to the selected firm. The Commission shall fix the Effective Date after the contract has been fully executed by the Contractor and by the Commission and all approvals required by Commission contracting procedures have been obtained.

I-25. Proposer's Representations and Authorizations. Each Proposer by submitting its proposal understands, represents, and acknowledges that:

a. All information provided by, and representations made by, the Proposer in the proposal are material and important and will be relied upon by the Issuing Office in awarding the contract(s). Any misstatement, omission or misrepresentation shall be treated as fraudulent concealment from the Issuing Office of the true facts relating to the submission of this proposal. A misrepresentation shall be punishable under 18 Pa. C.S. 4904.

b. The price(s) and amount of this proposal have been arrived at independently and without consultation, communication or agreement with any other Proposer or potential Proposer.

c. Neither the price(s) nor the amount of the proposal, and neither the approximate price(s) nor the approximate amount of this proposal, have been disclosed to any other firm or person who is a Proposer or potential Proposer, and they will not be disclosed on or before the proposal submission deadline specified in the response section of this RFP.

d. No attempt has been made or will be made to induce any firm or person to refrain from submitting a proposal on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.

e. The proposal is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.

f. To the best knowledge of the person signing the proposal for the Proposer, the Proposer, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four (4) years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as disclosed by the Proposer in its proposal.

g. To the best of the knowledge of the person signing the proposal for the Proposer and except as otherwise disclosed by the Proposer in its proposal, the Proposer has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Proposer that is owed to the Commonwealth.

h. The Proposer is not currently under suspension or debarment by the Commonwealth, or any other state, or the federal government, and if the Proposer cannot certify, then it shall submit along with the proposal a written explanation of why such certification cannot be made.

i. The Proposer has not, under separate contract with the Issuing Office, made any recommendations to the Issuing Office concerning the need for the services described in the proposal or the specifications for the services described in the proposal.

j. Each Proposer, by submitting its proposal, authorizes all Commonwealth agencies to release to the Commission information related to liabilities to the Commonwealth including, but not limited to, taxes, unemployment compensation, and workers' compensation liabilities.

I-26. Indemnification. The Proposer shall be responsible for, and shall indemnify, defend, and hold harmless the Pennsylvania Turnpike Commission Retiree Medical Trust, its Trustees, Pennsylvania Turnpike Commission, its Commissioners, officers, employees, and agents from any claim, liability, damages, losses, causes of action, and expenses, including reasonable attorneys' fees, arising from damage to life or bodily injury or real or tangible personal property caused by the negligence or other tortious acts, errors, and omissions of Proposer, its employees, or its subcontractors while engaged in performing the work of the Agreement or while present on the Commission's premises, and for breach of the Agreement regarding the use or disclosure of proprietary and confidential information where it is determined that Proposer is responsible for any use of such information not permitted by the Agreement. The indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or its subcontractors under Workers' Compensation Acts, Disability Benefits Acts, or other Employee Benefit Act.

I-27. Data/Information Security Breach Notification. "Breach" shall mean any successful unauthorized acquisition, access, use, or disclosure of Commission data that compromises the security or privacy of such data.

"Commission Data" means Commission provided information and Commission related information acquired as a result of the services provided to Commission under this Agreement.

Proposer shall report to the Commission any Breach affecting Commission Data. The notice to be provided to the Commission by Proposer shall be provided without unreasonable delay and no later than within 72 hours of Proposer's discovery of any Breach. A Breach shall be deemed to be discovered on the first day on which the Proposer knows or reasonably should have known of the Breach. The notice to be provided to the Commission by Proposer shall be made in writing to the Commission's Information Security Officer and shall include the following content: (1) the nature of the Breach; (2) the specific Commission Data affected by the Breach; (3) the steps the Proposer is taking to remediate the Breach; and (4) steps the Proposer is taking to mitigate future Breaches. Following notification of the Breach, Proposer shall cooperate with the Commission's investigation of the Breach and provide any other information regarding the Breach or the Commission Data affected which the Commission may reasonably request. Should notice to individuals whose information was part of Commission Data be required under any applicable data privacy law, including, but not limited to, individual state data breach notice laws or federal laws such as HIPAA and Graham Leach Bliley Act, Proposer shall provide the Commission with copies of any template notification letters and draft regulatory correspondence for Commission's prior approval. Proposer shall provide any notifications required under the applicable data privacy laws on behalf of the Commission at the request of Commission. The Commission reserves the right to handle any notifications required and shall notify Proposer if the Commission will be handling the required notifications. Upon request, Proposer shall provide the Commission with its cyber-security policies and procedures. Proposer agrees to reimburse the Commission for any and all reasonable costs associated with the Commission's response to Proposer's Breach, including any fees associated with the Commission's investigation of Proposer's Breach, notification costs, and any reasonable offer of credit or identity monitoring product.

I-28. Security Requirements. Proposer will comply with the Security Requirements are described in **Appendix E –** Security Requirements.

I-29. Insurance. Proposer will comply with the Insurance requirements as described in **Appendix F -** Insurance Specification.

I-30. Diverse Business (DB) Requirements. Proposer will comply with the DB Requirements as described in **Appendix G –** Diverse Business (DB) Requirements.

PART II

INFORMATION REQUIRED FROM PROPOSERS

Proposals must be submitted in the format, including heading descriptions, outlined below. To be considered, the proposal must respond to all requirements in this part of the RFP. Any other information thought to be relevant, but not applicable to the enumerated categories, should be provided as an appendix to the proposal. All cost data relating to this proposal and all Diverse Business cost data should be kept separate from and not included in the Technical Submittal. Each proposal shall consist of three separately sealed submittals:

1. Technical Submittal, which shall be a response to RFP **Part II, Sections II-1 through II-7;**

2. Diverse Business Participation Submittal, in response to RFP **Part II, Section II-8**; and

3. Cost Submittal, in response to RFP **Part II, Section II-9**.

The Commission reserves the right to request additional information which, in the Commission's opinion, is necessary to assure that the Proposer's competence, number of qualified employees, business organization, and financial resources are adequate to perform according to the RFP.

The Commission may make such investigations as deemed necessary to determine the ability of the Proposer to perform the work, and the Proposer shall furnish to the Issuing Office all such information and data for this purpose as requested by the Commission. The Commission reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Proposer fails to satisfy the Commission that such Proposer is properly qualified to carry out the obligations of the agreement and to complete the work specified.

II-1. Proposal Cover Sheet (See Appendix D)
Show the name of your firm, Federal I.D. number, address, name of contact person, contact person's email and telephone number and the subject: Actuarial Valuation Services for Other Postemployment Benefits (OPEB), RFP 19-10230-8436. **Appendix D** must be signed by an individual who is authorized to negotiate terms, render binding decisions and commit your firm's resources**.** In addition, it is required that all information requested in **Appendix D** be provided including information pertaining to location of office performing the work, contact information, listing of all Pennsylvania offices and total number of Pennsylvania employees, and location of company headquarters.

II-2. Statement of the Problem. State in succinct terms your understanding of the problem presented or the service required by this RFP.

II-3. Management Summary. Include a narrative description of the proposed effort. Include a list of items (data/schedules) that will be provided to ensure the Commission is able to comply with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans.* Also, include a list of items (data/schedules) that will be provided to ensure the Commission is able to comply with GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The items in these lists should be cross-referenced to the sample reports mentioned in **Part II-4**. See **Appendix H** for the table format required for the preparing the lists.

II-4. Prior Experience. Include experience in actuarial valuations. A sample of a full actuarial valuation report in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* must be included in the proposal. A sample report based on update procedures performed to roll forward amounts from the previous fiscal year-end full actuarial valuations must also be included in the proposal. Experience shown should be work done by individuals who will be assigned to this project as well as that of your company. Previous actuarial valuations referred to should be identified and the name of the customer shown, including the name, address, and telephone number of the responsible official of the customer, company, or agency who may be contacted. As necessary, identifiable and/or confidential information should be redacted.

If sample completed reports in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* are not available, a sample draft report including all required information as it would be presented may be provided.

II-5. Work Plan. Describe in narrative form your technical plan for accomplishing the work. Use the task descriptions in **Part IV** of this RFP as your reference point. Modifications of the task descriptions are permitted; however, reasons for changes should be fully explained. Indicate the number of person hours allocated to each task.

Proposers should include a list of items that would be requested from the Commission, in addition to the documents mentioned in **Part I-22**, in order to complete both the full actuarial valuations as well as the update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuations. If listing in **Part I-22** is complete, include a statement affirming the completeness of the listing. Proposers should also include questions that may be asked in order to complete the update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuations.

II-6. Personnel. Include the number, and names where practicable, of actuaries and other staff (e.g. executive and professional personnel, analysts, auditors, researchers, programmers, consultants, etc.), who will be engaged in the work. Show where these personnel will be physically located during the time they are engaged in the work. Include through a resume or similar document education and experience in actuarial valuations. Indicate the responsibilities each will have in this project and how long each has been with your company. Identify subcontractors you intend to use and the services they will perform.

II-7. Training. If appropriate, indicate recommended training of Commission personnel. Include the personnel to be trained, the number to be trained, duration of the program, place of training, curricula, training materials to be used, number and frequency of sessions, and number and level of instructors.

II-8. Diverse Business (DB) Requirements (Appendix G). The Commission's Diverse Business (DB) Requirements for this procurement and a resulting contract are identified in **Appendix G**. There is no minimum participation level (MPL) for DBs established for this contract. However, the utilization of DBs are encouraged and will be considered as a criterion in the evaluation of proposals and may be considered as a factor in the Commission's selection of a firm for this contract.

The proposer must include in its DB participation submittal that it meets the requirements set forth in the Commission's DB Requirements - **Appendix G**. In particular, the proposer shall address the section of the DB Requirements labeled, "Actions Required by Proposer during the procurement/consultant selection phase". In addition, the DB participation submittal shall indicate the amount of DB participation incurred in the proposal in terms of dollars committed or percentage of total contract amount. **The DB Participation Submittal shall be placed in a separate sealed envelope within the sealed proposal, and on a CD-ROM, separate from the technical submittal.**

II-9. Cost Submittal. The information requested in this section shall constitute your cost submittal. **The Cost Submittal (Appendix I) shall be placed in a separate sealed envelope within the sealed proposal, and on a CD-ROM, separate from the technical submittal.**

Proposers should **not** include any assumptions in their cost submittals. If the proposer includes assumptions in its cost submittal, the Issuing Office may reject the proposal. Proposers should direct in writing to the Issuing Office pursuant to **Part I-11** of this RFP any questions about whether a cost or other component is included or applies. All Proposers will then have the benefit of the Issuing Office's written answer so that all proposals are submitted on the same basis.

The Cost Submittal should list the proposed fixed fee for each of the full actuarial valuations. A separate fixed fee should be listed for each of the years that include update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuation. See **Appendix I** for the required table format. The annual costs you are proposing must be broken down but not limited to the following components:

a. **Direct Labor Costs.** Itemize to show the following for each category of personnel with a different rate per hour:

(1) Category: e.g., partner, actuary, project manager, analyst, research associate.

(2) Estimated hours.

(3) Rate per hour. (if "loaded" rates are used, please provide breakdowns of these rates by indicating amount of overhead, profit, or any other factor that is included in rate).

(4) Total cost for each category and for all direct labor costs.

b. **Other Costs.**

(1) **Labor Overhead.** Specify what is included and rate used. If there is no labor overhead rate in your proposal, so state.

(2) **Travel and Subsistence.** Itemize transportation, lodging and meals per diem costs separately. Travel and subsistence costs must not exceed current Conus rates and IRS approved mileage rates. If there are no travel and subsistence in your proposal, so state.

(3) **Subcontract Costs.** Itemize as in (a) above. If there are no subcontract costs in your proposal, so state.

(4) **Cost of Supplies and Materials.** Itemize. If there are no supplies and materials in your proposal, so state.

(5) **Other Direct Costs.** Itemize. If there are no other direct costs in your proposal, so state.

c. **Total Cost.** Inclusive of items a. to b. The total annual cost should include all efforts necessary to provide the requested reports each year in order to ensure that the Commission is able to comply with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.*

d. **Additional Fees.**

(1) Provide rate(s) per hour for additional related actuarial services, calculations and guidance to the Commission that would be considered outside the scope of the annual valuation services.

(2) Provide estimated hours, rate(s) per hour and total cost for additional efforts that may be required should the Commission change the actuarial valuation date. See **Part IV-2**.

Any costs not provided in the cost proposal will be assumed as no charge to the Commission.

The selected Proposer shall only perform work on this contract after the Effective Date is affixed and the fully-executed contract sent to the selected Proposer. The Commission shall issue a written Notice to Proceed to the selected Proposer authorizing the work to begin on a date which is on or after the Effective Date. The selected Proposer shall not start the performance of any work prior to the date set forth in the Notice to Proceed and the Commission shall not be liable to pay the selected Proposer for any service or work performed or expenses incurred before the date set forth in the Notice to Proceed. No Commission employee has the authority to verbally direct the commencement of any work under this Contract.

PART III

CRITERIA FOR SELECTION

III-1. Mandatory Responsiveness Requirements. To be eligible for selection, a proposal shall be (a) timely received from a Proposer; and (b) properly signed by the Proposer.

III-2. Technical Nonconforming Proposals. The two (2) Mandatory Responsiveness Requirements set forth in **Section III-1** above (a & b) are the only RFP requirements that the Commission will consider to be non-waivable. The Issuing Office reserves the right, in its sole discretion, to (1) waive any other technical or immaterial nonconformities in the proposal, (2) allow the Proposer to cure the nonconformity, or (3) consider the nonconformity in the evaluation of the proposal.

III-3. Proposal Evaluation. Proposals will be reviewed, evaluated, and rated by a Technical Evaluation Team (TET) of qualified personnel based on the evaluation criteria listed below. The TET will present the evaluations to the Professional Services Procurement Committee (PSPC). The PSPC will review the TET's evaluation and provide the Commission with the firm(s) determined to be highly recommended for this assignment.

The Commission will select the most highly qualified firm for the assignment or the firm whose proposal is determined to be most advantageous to the Commission by considering the TET's evaluation and the PSPC's determination as to each firm's rating. In making the PSPC's determination and the Commission's decision, additional selection factors may be considered taking into account the estimated value, scope, complexity and professional nature of the services to be rendered and any other relevant circumstances. Additional selection factors may include, when applicable, the following: geographic location and proximity of the firm, firm's Pennsylvania presence or utilization of Pennsylvania employees for the assignment; equitable distribution of work; diversity inclusion; and any other relevant factors as determined as appropriate by the Commission.

Award will only be made to a Proposer determined to be responsive and responsible in accordance with Commonwealth Management Directive 215.9, Contractor Responsibility Program.

III-4. Evaluation Criteria. The following criteria will be used, in order of relative importance from the highest to the lowest, in evaluating each proposal:

a. Understanding the Problem. This refers to the Proposer's understanding of the Commission needs that generated the RFP, of the Commission's objectives in asking for the services or undertaking the study, and of the nature and scope of the work involved.

b. Proposer Qualifications. This refers to the ability of the Proposer to meet the terms of the RFP, especially the time constraint and the quality, relevancy, and recent experience of projects similar to that described in the RFP completed by the Proposer. This also includes the Proposer's financial ability to undertake a project of this size.

c. Personnel Qualifications. This refers to the competence of professional personnel who would be assigned to the job by the Proposer. Qualifications of professional personnel will be measured by experience and education, with particular reference to experience on services similar to that described in the RFP. Particular emphasis is placed on the qualifications of the project manager/lead actuary.

d. Soundness of Approach. Emphasis here is on the techniques for collecting and analyzing data, sequence and relationships of major steps, and methods for managing the service/project. Of equal importance is whether the technical approach is completely responsive to all written specifications and requirements contained in the RFP and if it appears to meet Commission objectives.

e. Cost. While this area may be weighted heavily, it will not normally be the deciding factor in the selection process. The Commission reserves the right to select a proposal based upon all the factors listed above, and will not necessarily choose the firm offering the best price. The Commission will select the firm with the proposal that best meets its needs, at the sole discretion of the Commission.

f. Commitment to Diversity and Inclusion. This refers to the inclusion of DB firms, as described in **Part II-8**. Participation may be measured in terms of total dollars committed or percentage of total contract amount to certified DB firms.

PART IV

WORK STATEMENT

IV-1. Objectives.

It is the intent of the Commission to procure the services of a qualified firm of accredited actuaries to provide the available resources to effectively analyze and complete full actuarial valuations of the Commission's other postemployment benefits (OPEB) as of May 31, 2019, 2021 and 2023. The selected firm would also be expected to perform update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuations of the Commission's other postemployment benefits to May 31, 2020, 2022 and 2024. The Commission is required to comply with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. See **Appendix A** for a detailed table outlining the reporting timeline. The selected firm would be expected to complete the valuations and issue reports each year that provide all information necessary for the Commission to comply with GASB Statements 74 and 75.

IV-2. Nature and Scope of the Project.

The Commission maintains another postemployment welfare plan program (Plan) for the purpose of providing benefits to eligible retirees and their dependents. The Plan is a single employer defined benefit plan. The Pennsylvania Turnpike Commission Retiree Medical Trust (Trust) was established to provide funding for the Plan. The Plan issues stand-alone financial statements. A copy of the Pennsylvania Turnpike Commission Other Postemployment Welfare Plan Program Financial Statements and Requirement Supplementary Information for the years ended May 31, 2018 and 2017 is included in **Appendix J**.

The selected firm will complete full actuarial valuations of the Commission's other postemployment benefits (OPEB) as of May 31, 2019, 2021 and 2023. The full actuarial valuations are to be completed in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The completed reports should include summary calculations and all disclosures required by the above mentioned GASB Statements and any applicable subsequent GASB Statements that have been or may be issued.

The selected firm would also be expected to perform update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuations of the Commission's OPEB to May 31, 2020, 2022 and 2024. The selected firm would be expected to inquire about plan changes and evaluate as necessary and in accordance with Actuarial Standards of Practice to complete the update procedures and roll forward report. The update procedures to roll forward amounts from the previous fiscal year-end full actuarial valuations are to be completed in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This information is necessary for budgeting and financial statement reporting purposes by the Commission.

See **Appendix A** for a detailed table outlining the reporting timeline.

The Commission reserves the right to change the full actuarial valuation dates as necessary to meet the needs of the business. Any possible changes would be in line with the timing requirements of GASB Statements 74 and 75. If a mid-year actuarial valuation date is chosen, the selected firm would be expected to roll forward the necessary information to the May 31st measurement/financial reporting date. If the date of the full actuarial valuation is changed, the Commission would provide adequate notice to the selected firm.

IV-3. Tasks.

Provide:

1. May 31, 2019 Full Actuarial Valuation in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions,* no later than October 15, 2019.
2. May 31, 2020 Report based on update procedures performed to roll forward amounts from the previous fiscal year-end full actuarial valuation of the Commission's OPEB to May 31, 2020 no later than October 15, 2020.
3. May 31, 2021 Full Actuarial Valuation in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions,* no later than October 15, 2021.
4. May 31, 2022 Report based on update procedures performed to roll forward amounts from the previous fiscal year-end full actuarial valuation of the Commission's OPEB to May 31, 2022 no later than October 15, 2022.
5. May 31, 2023 Full Actuarial Valuation in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions,* no later than October 15, 2023.
6. May 31, 2024 Report based on update procedures performed to roll forward amounts from the previous fiscal year-end full actuarial valuation of the Commission's OPEB to May 31, 2024 no later than October 15, 2024.

In addition:

- Each year, the report provided should include the Actuarial Determined Contribution (ADC) for the fiscal year after the valuation date (or roll forward valuation date) as well as a projected ADC for the following year. See the reporting timeline table in **Appendix A**.
- The selected firm would be expected to monitor new GASB Statements issued and apply the standards as necessary to the contracted work.
- The selected firm may also be requested under the terms of this agreement to provide related actuarial services, calculations and guidance to the Commission. An example would be additional calculations based on various discount, benefit and contribution assumption scenarios.

IV-4. Reports and Project Control.

a. Draft Report. It is expected that prior to the due date, the selected firm would submit at least one draft copy of the final report to permit the Commission to satisfy itself as to the report's completeness and factual accuracy. The draft report should be submitted electronically via PDF.

b. Final Report. The final report should be submitted electronically via PDF. The final reports will be due on or before October 15st of the respective valuation year.

APPENDIX A - RFP # 19-10230-8436

Valuation / Measurement Date	Type of Valuation / Report	PTC receives Final Actuarial Report	Reporting Date - GASB 74 PA Turnpike Commission Retiree Medical Trust	Reporting Date - GASB 75 PA Turnpike Commission	Actuarially Determined Contribution for Fiscal Year Ending	Projected Actuarially Determined Contribution for Fiscal Year Ending
Original Agreement:						
5/31/2019	Full	10/15/2019	5/31/2019	5/31/2020	5/31/2020	5/31/2021
5/31/2020	Roll forward - update procedures	10/15/2020	5/31/2020	5/31/2021	5/31/2021	5/31/2022
5/31/2021	Full	10/15/2021	5/31/2021	5/31/2022	5/31/2022	5/31/2023
5/31/2022	Roll forward - update procedures	10/15/2022	5/31/2022	5/31/2023	5/31/2023	5/31/2024
5/31/2023	Full	10/15/2023	5/31/2023	5/31/2024	5/31/2024	5/31/2025
5/31/2024	Roll forward - update procedures	10/15/2024	5/31/2024	5/31/2025	5/31/2025	5/31/2026
Potential Extension:						
5/31/2025	Full	10/15/2025	5/31/2025	5/31/2026	5/31/2026	5/31/2027
5/31/2026	Roll forward - update procedures	10/15/2026	5/31/2026	5/31/2027	5/31/2027	5/31/2028

Notes:

- The PA Turnpike Commission Retiree Medical Trust implemented GASB Statement No. 74 during the fiscal year-ended 5/31/18.

- The PA Turnpike Commission will implement GASB Statement No. 75 for the fiscal year-ending 5/31/19.

AGREEMENT

This **AGREEMENT** is made this ______ day of ___________________, 2019, between the **Pennsylvania Turnpike Commission ("COMMISSION")**, an instrumentality of the Commonwealth of Pennsylvania, with principal offices at 700 South Eisenhower, Blvd., Middletown, Pennsylvania 17057 (mailing address: P. O. Box 67676, Harrisburg, PA 17106-7676);

AND

(name of contractor) **("CONTRACTOR")**, a *(state)* corporation, with its principal office at ***(address)*****.**

WITNESSETH:

WHEREAS, the **COMMISSION** desires to satisfy a need for the (*name of solicitation*);

WHEREAS, by Act No. 211 of the General Assembly of the Commonwealth of Pennsylvania, approved May 21, 1937, and its amendments, the **COMMISSION** is authorized and empowered to enter into an Agreement with the **CONTRACTOR**;

WHEREAS, the **COMMISSION** desires to retain the services of **CONTRACTOR** upon the following terms; and

NOW, THEREFORE, in consideration of these mutual covenants, and intending to be legally bound, the parties agree as follows:

<u>Contractor's Scope of Work</u>

The **CONTRACTOR** will perform the work described in (*solicitation identification, i.e. RFP number*) dated (*date of solicitation*), titled (*Title of solicitation*) and the **CONTRACTOR'S** proposal dated (*date of contractor's proposal*). These documents are made a part of this Agreement by reference.

<u>Commission's Responsibilities</u>

(*As defined in Section I of the RFP, "Commission Participation"*)

The **COMMISSION** shall furnish the **CONTRACTOR** access to key personnel, relevant documents, and adequate workspace for completing the work.

<u>Compensation</u>

For the work, services, and material as defined in this Agreement, the **CONTRACTOR** shall be paid a not-to-exceed amount of **(*agreement dollar value*).**

The **CONTRACTOR** agrees that the **COMMISSION** may set off the amount of any state tax liability or other obligation of the **CONTRACTOR** or its subsidiaries to the Commonwealth against any payments due the **CONTRACTOR** under any contract with the **COMMISSION**.

Duration of Agreement

The term of this Agreement shall be for a period of (*agreement term*) and shall commence on the Effective Date as defined below.

The Effective Date shall be fixed by the **COMMISSION** after the Agreement has been fully executed by the **CONTRACTOR** and by the **COMMISSION**, and after all approvals required by the **COMMISSION** contracting procedures have been obtained.

The term may be extended for **[number]** additional years by a writing signed by both parties.

This Agreement will not terminate until the **COMMISSION** accepts all work as complete and tenders final payment to the **CONTRACTOR**.

Termination

Either party may terminate this Agreement at any time upon thirty- (30) calendar days written notice. If this notice is given, the **CONTRACTOR** shall be paid only for the services already rendered upon the date of the notice and for the services rendered to the date of termination, subject to all provisions of this Agreement. The notice will be effective on the date of receipt. The right to cancel may be exercised as to the entire project, or as to any particular phase or phases, part or parts, and upon one or upon several occasions, but any termination may not be revoked except upon written consent of the parties through a supplemental Agreement to this Agreement.

Insurance

The **CONTRACTOR**, prior to execution of this Agreement, shall furnish to the **COMMISSION** the certificates of insurances as required in attached **Exhibit "X"** and made a part of this Agreement.

Diverse Business (DB) Requirements

The **CONTRACTOR** agrees to comply with the requirements set forth in the **COMMISSION'S** DB Requirements **- Exhibit X**, attached and made part of this Agreement. In particular, the **CONTRACTOR** agrees to comply with section (d) Consultant Requirements During Performance of Services.

Assignment and Delegation

The **CONTRACTOR** may not transfer, assign, or delegate any terms of this Agreement, in whole or in part, without prior written permission from the **COMMISSION**.

The **CONTRACTOR** shall not engage the services of any person or persons currently employed by the **COMMISSION**, except with the **COMMISSION's** approval.

The **CONTRACTOR** shall neither assign this contract, in part or in whole, nor the right to any monies due it under this Agreement. Any part of the work to be done or material furnished under the contract shall not be sublet except to those firms indicated as part of the team in the initial Proposal, without the **COMMISSION's** prior consent in the form of a letter signed by the *Department Head (update accordingly).*

Governing Law

This Agreement will be interpreted according to the laws of the Commonwealth of Pennsylvania.

Observance of Laws

The **CONTRACTOR** agrees to observe all relevant federal, state, and local laws and to obtain in its name all necessary permits and licenses.

Work for Hire

Except for hardware, third party licensed software, and software previously developed by **CONTRACTOR,** all Deliverables, including but not limited to source code, software, specifications, plans, designs and engineering, drawings, data, information or other written, recorded, photographic, or visual materials, trademarks, service marks, copyrights or other Deliverables produced by **CONTRACTOR** or any supplier in the performance of this Agreement shall be deemed "Work Product". All Work Product shall be considered services for hire. Accordingly, except as set forth earlier in this paragraph, all Work Product shall be the exclusive property of the **COMMISSION**. The **CONTRACTOR** agrees to notify the **COMMISSION** in writing before using any of **CONTRACTOR's** previously developed software for services provided under this Agreement. The **CONTRACTOR** and the **COMMISSION** will honor all applicable preexisting licenses, copyrights, trademarks, service marks, and patents. If as part of an expense item under this Agreement, the **CONTRACTOR** purchases the right to any license, the agreements for the use or ownership of such license will be placed in the name of the **COMMISSION** along with all other rights and obligations. In addition, the **CONTRACTOR** will mark all **COMMISSION** content or previously unprotected work product designated by the **COMMISSION** with a notice as follows: "Pennsylvania Turnpike Commission, (Year)".

Audit/Retention of Records

CONTRACTOR and its subcontractors shall maintain books and records related to performance of this Agreement or subcontract and necessary to support amounts charged to the **COMMISSION** in accordance with applicable law, terms and conditions of this Agreement, and generally accepted accounting practice. **CONTRACTOR** shall maintain these books and records for a minimum of three (3) years after the completion of the Agreement, final payment, or completion of any contract, audit or litigation, whichever is later. All books and records shall be available for review or audit by the **COMMISSION,** its representatives, and other governmental entities with monitoring authority upon reasonable notice and during normal business hours. **CONTRACTOR** agrees to cooperate fully with any such review or audit. If any audit indicates overpayment to **CONTRACTOR,** or subcontractor, the **COMMISSION** shall adjust future or final payments otherwise due. If no payments are due and owing to **CONTRACTOR,** or if the overpayment exceeds the amount otherwise due, **CONTRACTOR** shall immediately refund all amounts which may be due to the **COMMISSION.** Failure to maintain the books and records required by this Section shall establish a presumption in favor of the **COMMISSION** for the recovery of any funds paid by the **COMMISSION** under this Agreement for which adequate books and records are not available to support the purported disbursement.

Dispute Resolution

All questions or disputes regarding any matter involving this Agreement or its breach shall be referred to the Board of Claims of the Commonwealth of Pennsylvania pursuant to 62 Pa.C.S.A. § 1701 *et seq*. If the Board of Claims either refuses or lacks jurisdiction, these questions or disputes shall proceed as provided in 42 Pa.C.S.A. § 7301 *et seq*. (Statutory Arbitration).

The panel of arbitrators will consist of a representative of each of the parties and a third party chosen by the representatives, or if the representatives are unable to choose, by the American Arbitration Association.

Indemnification

The **CONTRACTOR** shall be responsible for, and shall indemnify, defend, and hold harmless the Pennsylvania Turnpike Commission Retiree Medical Trust, its Trustees, the **COMMISSION** and its Commissioners, officers, employees, and agents from any claim, liability, damages, losses, causes of action, and expenses, including reasonable attorneys' fees, arising from damage to life or bodily injury or real or tangible personal property caused by the negligence or other tortious acts, errors, and omissions of **CONTRACTOR**, its employees, or its subcontractors while engaged in performing the work of this Agreement or while present on the **COMMISSION**'s premises, and for breach of this Agreement regarding the use or disclosure of proprietary and confidential information where it is determined that **CONTRACTOR** is responsible for any use of such information not permitted by this Agreement. The indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or its subcontractors under Workmen's Compensation Acts, Disability Benefits Acts, or other Employee Benefit Act.

Data/Information Security Breach Notification

"Breach" shall mean any successful unauthorized acquisition, access, use, or disclosure of **COMMISSION** data that compromises the security or privacy of such data.

"Commission Data" means **COMMISSION** provided information and **COMMISSION** related information acquired as a result of the services provided to **COMMISSION** under this Agreement.

CONTRACTOR shall report to the **COMMISSION** any Breach affecting **COMMISSION** Data. The notice to be provided to the **COMMISSION** by **CONTRACTOR** shall be provided without unreasonable delay and no later than within 72 hours of **CONTRACTOR**'s discovery of any Breach. A Breach shall be deemed to be discovered on the first day on which the **CONTRACTOR** knows or reasonably should have known of the Breach. The notice to be provided to the **COMMISSION** by **CONTRACTOR** shall be made in writing to the **COMMISSION**'s Information Security Officer and shall include the following content: (1) the nature of the Breach; (2) the specific Commission Data affected by the Breach; (3) the steps the **CONTRACTOR** is taking to remediate the Breach; and (4) steps the **CONTRACTOR** is taking to mitigate future Breaches. Following notification of the Breach, **CONTRACTOR** shall cooperate with the **COMMISSION**'s investigation of the Breach and provide any other information regarding the Breach or the Commission Data affected which the **COMMISSION** may reasonably request. Should notice to individuals whose information was part of Commission Data be required under any applicable data privacy law, including, but not limited to, individual state data breach notice laws or federal laws such as HIPAA and Graham Leach Bliley Act, **CONTRACTOR** shall provide the **COMMISSION** with copies of any template notification letters and draft regulatory correspondence for **COMMISSION**'s prior approval. **CONTRACTOR** shall provide any notifications required under the applicable data privacy laws on behalf of the **COMMISSION** at the request of **COMMISSION**. The **COMMISSION** reserves the right to handle any notifications required and shall notify **CONTRACTOR** if the **COMMISSION** will be handling the required notifications. Upon request, **CONTRACTOR** shall provide the **COMMISSION** with its cyber-security policies and procedures. **CONTRACTOR** agrees to reimburse the **COMMISSION** for any and all reasonable costs associated with the **COMMISSION**'s response to **CONTRACTOR**'s Breach, including any fees associated with the **COMMISSION**'s investigation of **CONTRACTOR**'s Breach, notification costs, and any reasonable offer of credit or identity monitoring product.

Security Requirements

The Security Requirements are attached as **[Exhibit X]** and made a part of this Agreement.

Contractor Integrity Provisions

The Contractor Integrity Provisions are attached as **Exhibit X** and made a part of this Agreement.

Confidentiality Provisions

1. As a consequence of the performance of its duties with the **COMMISSION**, **CONTRACTOR** may learn, be given, or become aware of certain information, including, but not limited to, matters pertaining to internal communications, information, proprietary information, individually identifiable health information, trade practices, business operations, or other sensitive information collectively known as Confidential Information. Regardless of how transmitted or received by **CONTRACTOR**, whether by receipt, sending, or merely becoming available to

CONTRACTOR through its relationship to the **COMMISSION**, **CONTRACTOR** agrees to maintain and treat as proprietary and confidential to the **COMMISSION** all such Commission Confidential Information, and shall not discuss, reveal, or use for any purpose outside the performance of its contract with the **COMMISSION** such Commission Confidential Information. Confidential Information shall not include any information that (i) is or becomes available to the public other than as a consequence of a breach by any individual, a partnership, a corporation, an association, a limited liability company, a joint stock company, a trust, a joint venture, an unincorporated organization (each a "Person") of any fiduciary duty or obligation of confidentiality, including, without limitation, catalogues, publications, product descriptions and sales literature that the **COMMISSION** has distributed to the public generally; or (ii) information which at the time of disclosure to the **CONTRACTOR** is in the public domain; or (iii) is disclosed as required by a final, unappealable court order and no suitable protective order, or equivalent remedy, is available, or (iv) the **CONTRACTOR** was aware of prior to its disclosure to the **CONTRACTOR** by the **COMMISSION** from a source not bound by a confidential obligation and the **CONTRACTOR** provides the **COMMISSION** written notice of such fact prior to the execution of this Agreement or promptly upon the **CONTRACTOR**'s learning that the information was Confidential Information; or (v) information which the **CONTRACTOR** can demonstrate with competent written evidence was independently developed by or for the **CONTRACTOR** without use of or reliance on the Confidential Information.

2. With respect to its employees, **CONTRACTOR** agrees to:

a) require all of its employees to maintain such confidentiality;

b) take appropriate action against its employees, officers, and subcontractors for any and all violations of this Agreement.

3. With respect to any subcontractors that **CONTRACTOR** wishes to employ to perform any of its obligations under any agreement with the **COMMISSION**, **CONTRACTOR** agrees to require any such approved subcontractor to execute written confidentiality agreements that require each such **CONTRACTOR** and its employees to comply with all the requirements set forth above.

4. **CONTRACTOR** agrees that any breach of these Confidentiality Provisions may result in civil and/or criminal penalties, for **CONTRACTOR**, its officers and employees, and subcontractors.

5. Notwithstanding any other provision to the contrary, **CONTRACTOR** agrees that these provisions shall survive the termination of this and any and all agreements between the **CONTRACTOR** and the **COMMISSION**.

6. **CONTRACTOR** agrees to treat the information in the same way **CONTRACTOR** treats its own most confidential information and to inform each such person of these provisions.

7. **CONTRACTOR** agrees to immediately notify the **COMMISSION** of any information which comes to its attention which does or might indicate that there has been any loss of confidentiality or information.

8. **CONTRACTOR** shall return to the **COMMISSION** upon demand any and all Confidential Information entrusted to it by the **COMMISSION** pursuant to this Agreement (including any and all copies, abstracts, compilations or analyses thereof and memoranda related thereto or incorporating the Confidential Information) or the **CONTRACTOR** may request permission from the **COMMISSION**, which permission may be granted or denied in the **COMMISSION**'s sole discretion, to destroy all such Confidential Information and provide a certificate of destruction to the **COMMISSION** signed by the **CONTRACTOR**. The **CONTRACTOR** further agrees that neither itself nor its employees or representatives will copy, in whole or in part, any such Confidential Information without the prior written consent of the **COMMISSION**.

9. **CONTRACTOR** agrees that if they have had or will have an SSAE16 audit that they will comply with and abide by the findings of such audit to protect **COMMISSION** information.

<u>Execution in Counterparts</u>

This Agreement may be executed in counterparts, including counterparts transmitted electronically or by facsimile, each of which shall constitute an original of this Agreement.

<u>Entire Agreement</u>

This Agreement, together with any writings either attached as exhibits or incorporated by reference, constitutes the entire understanding between the parties and there are no other oral or extrinsic understandings of any kind between the parties.

<u>Modification</u>

This Agreement may be modified only by a writing signed by both parties.

[SIGNATURES ARE SET FORTH ON THE NEXT PAGE]

IN WITNESS WHEREOF, the **Pennsylvania Turnpike Commission** and **(*Contractor Name*)** have executed this Agreement by their duly authorized officers on the date written above.

ATTEST: PENNSYLVANIA TURNPIKE COMMISSION

______________________________	________	______________________________	________
Ann Louise Edmunds Assistant Secretary-Treasurer	Date	Leslie S. Richards Chair	Date

APPROVED AS TO FORM AND LEGALITY:

______________________________	________	______________________________	________
Albert C. Peters II General Litigation & Contracts Counsel	Date	Pennsylvania Attorney General	Date

ATTEST: (*Contractor Name*)

Signature______________________	________ Date	Signature________________________	_______ Date
Name_________________________		Name___________________________	
Title__________________________		Title____________________________	

Federal Tax ID No.________________________

CONTRACTOR INTEGRITY PROVISIONS

It is essential that those who seek to contract with the Pennsylvania Turnpike Commission ("Commission") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commission contracting and procurement process.

I. DEFINITIONS. For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Section:

a. **"Affiliate"** means two or more entities where (a) a parent entity owns more than fifty percent of the voting stock of each of the entities; or (b) a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the entities; or (c) the entities have a common proprietor or general partner.

b. **"Consent"** means written permission signed by a duly authorized officer or employee of the Commission, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commission shall be deemed to have consented by virtue of the execution of this contract.

c. **"Contractor"** means the individual or entity, that has entered into this contract with the Commission, and "Contractor Related Parties" means any affiliates of the Contractor and the Contractor's executive officers, Pennsylvania officers and directors, or owners of 5% or more interest in the Contractor

d. **"Financial Interest"** means either:

i. Ownership of more than a five percent interest in any business; or

ii. Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.

e. **"Gratuity"** means tendering, giving, or providing anything of monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. See Commission Policy 3.10, Code of Conduct.

f. **"Non-bid Basis"** means a contract awarded or executed by the Commission with Contractor without seeking bids or proposals from any other potential bidder or offeror.

II. In furtherance of this policy, Contractor agrees to the following:

1. Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state or federal laws or regulations or any other applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting or procurement with the Commission.

2. Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements of these provisions as they relate to Contractor activity with the Commission and Commission employees and which is made known to all Contractor employees. Posting these Contractor Integrity Provisions conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

3. Contractor, its affiliates, agents, employees and anyone in privity with Contractor shall not accept, agree to give, offer, confer, or agree to confer or promise to confer, directly or indirectly, any gratuity or pecuniary benefit to any person, or to influence or attempt to influence any person in violation of the Public Official and Employees Ethics Act, 65 Pa.C.S. §§1101 et seq.; the State Adverse Interest Act, 71 P.S. §776.1 et seq.; Commission Policy 3.10, Code of Conduct or in violation of any other federal or state law in connection with performance of work under this contract, except as provided in this contract.

4. Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material under this contract, unless the financial interest is disclosed to the Commission in writing and the Commission consents to Contractor's financial interest prior to Commission execution of the contract. Contractor shall disclose the financial interest to the Commission at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.

5. Contractor certifies to the best of its knowledge and belief that within the last five (5) years Contractor or Contractor Related Entities have not:

a. been indicted or convicted of a crime involving moral turpitude or business honesty or integrity in any jurisdiction;

b. been suspended, debarred or otherwise disqualified from entering into any contract with any governmental agency;

c. had any business license or professional license suspended or revoked;

d. had any sanction or finding of fact imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust; and

e. been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.

If Contractor cannot so certify to the above, then it must submit along with its bid, proposal or contract a written explanation of why such certification cannot be made and the Commission will determine whether a contract may be entered into with the Contractor. The Contractor's obligation pursuant to this certification is ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to immediately notify the Commission in writing if at any time during the term of the contract if becomes aware of any event which would cause the Contractor's certification or explanation to change. Contractor acknowledges that the

Commission may, in its sole discretion, terminate the contract for cause if it learns that any of the certifications made herein are currently false due to intervening factual circumstances or were false or should have been known to be false when entering into the contract.

6. Contractor shall comply with the requirements of the Lobbying Disclosure Act (65 Pa.C.S. §13A01 et seq.) regardless of the method of award. If this contract was awarded on a Non-bid Basis, Contractor must also comply with the requirements of the Section 1641 of the Pennsylvania Election Code (25 P.S. §3260a).

7. When Contractor has reason to believe that any breach of ethical standards as set forth in law, Commission Policy 3.10, Code of Conduct, or these Contractor Integrity Provisions has occurred or may occur, including but not limited to contact by a Commission officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commission contracting officer or the Chief Compliance Officer in writing.

8. Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices or requests for payment pursuant to the contract, certifies and represents that it has not violated any of these Contractor Integrity Provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract, to include any extensions thereof. Contractor shall immediately notify the Commission in writing of any actions for occurrences that would result in a violation of these Contractor Integrity Provisions. Contractor agrees to reimburse the Commission for the reasonable costs of investigation incurred by the Chief Compliance Officer for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commission that results in the suspension or debarment of the Contractor. Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

9. Contractor shall cooperate with the Chief Compliance Officer in investigating any alleged Commission agency or employee breach of ethical standards and any alleged Contractor non-compliance with these Contractor Integrity Provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of the Chief Compliance Officer, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Chief Compliance Officer to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refer to or concern this contract. Contractor shall incorporate this paragraph in any agreement, contract or subcontract it enters into in the course of the performance of this contract/agreement solely for the purpose of obtaining subcontractor compliance with this provision. The incorporation of this provision in a subcontract shall not create privity of contract between the Commission and any such subcontractor, and no third party beneficiaries shall be created thereby.

10. For violation of any of these Contractor Integrity Provisions, the Commission may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these Provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commission may have under law, statute, regulation, or otherwise.

Proposer Questions			Pennsylvania Turnpike Commission (PTC) Proposer Name:		
#	Page	Section	Section Description	Proposer Question	Commission Response
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

APPENDIX D – PROPOSAL COVER SHEET
Pennsylvania Turnpike Commission
ACTUARIAL VALUATION SERVICES FOR OTHER POSTEMPLOYMENT BENEFITS (OPEB)

RFP# 19-10230-8436

Enclosed in three separately sealed submittals is the proposal for the Proposer identified below for the above referenced RFP:

Proposer Information:	
Proposer Company Name	
Proposer Mailing Address	
Proposer Website	
Proposer Contact Person/Title	
Contact Person's Phone Number	
Contact Person's Fax Number	
Contact Person's Email Address	
Proposer Federal ID Number	
Location of Headquarters	
Location of Office(s) Performing the Work	
Listing of all Pennsylvania Offices and Total Number of Pennsylvania Employees	

Submittals Enclosed and Separately Sealed:

☐ Technical Submittal ☐ Diverse Business Participation Submittal ☐ Cost Submittal	
Signature	
Signature of an official authorized to bind the Proposer to the provisions contained in the Proposer's proposal:	______________________________
Print Name	
Title	

An official authorized to bind the Proposer to its provisions must sign the proposal. If the official signs this Proposal Cover Sheet and the Proposal Cover Sheet is attached to the proposal, the requirement will be met.

General Security Requirements

Vendor shall supply all hosting equipment (hardware and software) required for performance of the contract and ensure maintenance and replacement as necessary to maintain compliance with the Service Level Agreement(s).
The vendor shall warrant all system/software to be delivered free of malware or other malicious or destructive code.
In the event of adverse risk findings through an audit or assessment, the vendor shall cooperate with the Commission in remediating any risks to the system, including complying with requests to temporarily take the system offline or otherwise limit access to the system during remediation if warranted.
Vendors must have a plan for compliance with all applicable breach notification laws, including Pennsylvania's Breach of Personal Information Notification.
The Commission must be notified in writing within 72 hours of the earliest indication or report of a potential breach or unintended disclosure of confidential information.
Incident response actions that may affect confidential information must be conducted quickly and with ample resources. Vendor must hire a professional third-party incident response team if its inhouse resources do not have sufficient skill or availability.
The Commission shall have the right to view all incident response evidence, reports, communications, and related materials, affecting Commission systems, upon request.
If requested by the Commission, or if required by law, the vendor, at its own cost and expense, shall notify in writing all persons affected by the incident.
The vendor is responsible for hardening all devices to run only the services required to support the application. All unnecessary services must be disabled (for example, UPnP, SLP, etc.).
If Commission user service disruptions are expected, the change must be approved by the Change Review Board (CRB) before implementation.
No generic user accounts for shared resources will be permitted.
Audit logs must be implemented for all systems. All actual or attempted violations of system security must generate an audit log. Audit logs must be secured against unauthorized access or modification.

Hosted/Cloud-Based Security Requirements

The Commission's data must be located and remain within the continental United States.
Vendor shall use commercially reasonable resources and efforts to maintain adequate internet connection bandwidth, service capacity, and ensure its data center and/or other vendors performing subcontracted services have industry standard physical, technical, human, and administrative controls.
Vendor shall house all services and equipment in an operational environment that meets industry standards including climate control, fire and safety hazard detection, redundancy, electrical needs, and physical security.
If Commission employee access is required, then the latest version of ADFS (Active Directory Federated Services), using the latest version of SAML, must be used for authentication and authorization.
All cloud-based/hosted systems using HTTPS, or any other protocol using SSL/TLS, must use TLS 1.2 or later with a key size no smaller than 2048 bits.
For public-facing systems, the vendor shall utilize a third-party certificate provider who is a recognized and trusted authority in the industry.
The vendor is responsible for sending the Commission system/network vulnerability scan results upon request.
The vendor will supply firewall and IPS logs for malicious intrusion and access attempts into hosted Commission systems upon request.
Vendors must have, and upon request by the Commission, shall provide copies of its information security policies that cover the following elements: - Data classification and privacy - Security training and awareness - Systems administration, patching, and configuration - Application development and code review - Incident response - Workstation management, mobile devices, and antivirus - Backups, disaster recovery, and business continuity - Regular audits and testing - Requirements for third-party business partners and contractors - Compliance with information security or privacy laws, regulations, or standards
The vendor shall allow the Commission, or an agreed upon third party, to perform security assessments, vulnerability assessments, or audits of systems that contain Commission data.
For systems hosted off the Commission's network, an industry-accepted endpoint protection solution must be operated on all hosting servers.

On-Prem/Physically-Connected Security Requirements

The Commission's IT Security Team must be allowed to scan, for security vulnerabilities, any new equipment and/or changes to existing equipment before implementation.
The Commission's IT Security team must be given administrator-level access to all installed equipment for incident response and security assessment.
All Microsoft Windows-based systems, connected to the Commission's network, will be joined to the Commission's Active Directory domain and will be patched by the Commission's IT staff on a monthly-basis at a minimum.
The vendor is responsible for updating all non-Windows systems, not operated or administered by the Commission, to the vendors' latest recommended level.
All vendors shall use the Commission's VMWare's HorizonView infrastructure for remote access.
The vendor's system/software must co-exist with all industry accepted endpoint software with no exceptions.
The vendor must provide the necessary directory and file exclusions to allow the system/software to operate as intended.

Pennsylvania Turnpike Commission
700 South Eisenhower Blvd
Middletown, PA 17057

Before starting any work, the Proposer will maintain the following minimum levels of insurance at Proposer’s own expense. Proposer shall furnish Certificates of Insurance showing the coverages as outlined below. No work may be performed until the required evidence of Insurance is provided in accordance with the terms of the contract.

a) All insurance shall be procured from insurers permitted to do business in the State in which the project is taking place and having an A.M. Best Rating of at least “A-, Class VIII”.

b) Proposer shall not have a Self-Insured Retention (SIR) on any policy greater than $50,000, which is the responsibility of the Proposer. If Proposer’s policy(ies) has a Self-Insured Retention exceeding this amount, approval must be received from the Trust prior to starting work. In the event any policy includes a SIR or Deductible, the Proposer is responsible for payment within the SIR or Deductible of their policy(ies) and the Additional Insured requirements specified herein shall be offered within the SIR and Deductible amount(s).

c) All insurance required herein, except for Professional Liability Insurance, shall be written on an “occurrence” basis.

d) The Proposer’s insurance carrier(s) shall agree to provide at least thirty (30) days prior written notice to the Trust in the event coverage is canceled or non-renewed, unless cancellation is for non-payment of premium. In the event of cancellation or non-renewal of coverage(s) for any reason, it is the Proposer’s responsibility to replace coverage to comply with the Contract requirements so there is no lapse of coverage for any time period.

   If the insurance carriers will not issue or endorse their policy(s) to comply with the above it is the responsibility of the Proposer to report any notice of cancellation or non-renewal at least thirty (30) days prior to the effective date of this notice.

e) Proposer shall provide the Trust with Certificates of Insurance, showing the insurance coverages listed below, ten days prior to the start of work and thereafter upon renewal or replacement of each coverage. The Proposer shall not begin any work until the Trust has reviewed and approved the Certificate of Insurance.

   Failure of the Trust to demand such certificate or other evidence of full compliance with these insurance requirements or failure of the Trust to identify a deficiency from evidence that is provided shall not be construed as a waiver of Proposer's obligation to maintain such insurance.

f) Pennsylvania Turnpike Retiree Medical Trust, its Trustees, Pennsylvania Turnpike Commission, its Commissioners, officers, employees and agents shall be added as ADDITIONAL INSUREDS on all required liability policies (except Workers' Compensation and Professional Liability) for ongoing operations and completed operations on a primary noncontributory basis.

There shall be no "Insured versus Insured Exclusion" on any policies; all policies will provide for "cross liability coverage".

g) Waiver of Rights of Subrogation: Proposer shall waive all rights of recovery against the Trust and all the additional insureds for loss or damage covered by any of the required insurance (except Professional Liability).

h) The amount of insurance in the required coverages shall not be construed to be a limitation of the liability on the part of the Proposer.

i) The carrying of insurance described below shall in no way be interpreted as relieving the Proposer of any responsibility or liability under the contract.

j) Any type of insurance or any increase in limits of liability which the Proposer requires for its own protection or on account of statute shall be its own responsibility and at its own expense.

k) Proposer shall promptly notify the Trust and the appropriate insurance company(ies) in writing of any accident(s) as well as any claim, suit or process received by the insured Proposer arising in the course of operations under the contract. The Proposer shall forward such documents received to its insurance company(ies), as soon as practicable, or as required by its insurance policy(ies).

REQUIRED COVERAGES - the following may be provided through a combination of primary and excess policies in order to meet the minimum limits set forth below:

1. **Workers' Compensation and Employer's Liability:**

Provided in the State in which the work is to be performed and elsewhere as may be required and shall include:

a) Workers' Compensation Coverage: Statutory Requirements

b) Employers Liability Limits not less than:

Bodily Injury by Accident:	$500,000 Each Accident
Bodily Injury by Disease:	$500,000 Each Employee
Bodily Injury by Disease:	$500,000 Policy Limit

c) Includes sole proprietorships and officers of corporation who will be performing the work.

2. **Commercial General Liability:**
   Provided on standard ISO forms or an equivalent form including Premises - Operations, Independent Proposers, Products/Completed Operations, Broad Form Property Damage, Contractual Liability, and Personal Injury and Advertising Injury.

   a) Occurrence Form with the following limits:
      (1) General Aggregate: $2,000,000
      (2) Products/Completed Operations Aggregate: $2,000,000
      (3) Each Occurrence: $1,000,000
      (4) Personal and Advertising Injury: $1,000,000

3. **Automobile Liability:**
   a) Coverage to include All Owned, Hired and Non-Owned Vehicles (or "Any Auto"). If Proposer does not have any Owned Vehicles, Proposer is still required to maintain coverage for Hired and Non-Owned Vehicles as either a stand-alone policy or endorsed onto the Commercial General Liability policy above

   b) Per Accident Combined Single Limit $1,000,000

4. **Commercial Umbrella Liability:**
   a) Policy(ies) to apply on a Following Form Basis of the following:
      (1) Commercial General Liability,
      (2) Automobile Liability, and
      (3) Employers Liability Coverage.

   b) Minimum Limits of Liability
      Occurrence Limit: $4,000,000
      Aggregate Limit (where applicable): $4,000,000

5. **Professional Liability/Errors & Omissions Insurance:**
   a) The definition of "Covered Services" shall include the services required in the scope of this contract.

   b) Minimum Limits of Liability:
      Per Claim: $2,000,000
      Aggregate: $2,000,000

   c) If the policy is issued on a claims-made form, the following requirements will apply:

      1. The retroactive date must be on or before the start of work under this contract;
      2. In the event of policy cancellation or non-renewal, the Proposer must purchase "tail coverage/an extended reporting period" or maintain coverage for a period of three (3) years after the completion of their work/final payment.

6. **Network Security and Privacy Liability** (Can be included in Professional Liability):
   a) Proposer shall maintain the following coverage including but not limited to:
      (1) Network Security Liability for third party liability arising out of hacking, network system intrusions, unauthorized access/use to data or systems, distribution of malicious code, denial of service and cyber extortion.
      (2) Privacy Liability for third party liability arising out of breach of privacy, inclusive of confidential and proprietary business information, HIPAA violations and other breaches of personally identifiable information and /or protected health information that may arise from their work with this contract.

   b) Minimum Limits of Liability:
      Per Claim: $1,000,000
      Aggregate: $1,000,000

   c) Privacy Breach notification and Credit Monitoring: $1,000,000 Per Occurrence

7. **Crime Insurance:**
   a) Include the Employee Theft and Theft, Disappearance and Destruction coverage parts. The Employee Theft Coverage part shall include the Clients' Property Endorsement (ISO Form CR 04 01, or its equivalent).

   b) Minimum Limits of Liability: Per Occurrence: $1,000,000

APPENDIX G
RFP # 19-10230-8436

Pennsylvania Turnpike Commission
DIVERSE BUSINESS (DB) REQUIREMENTS

Diverse Business Participation. The Commission is committed to Diverse Business (DB) participation on competitive contracting opportunities. Firms or entities that have not previously performed work or provided services to the Commission are encouraged to respond to the solicitations. RFPs may include DB participation as part of the criteria for the evaluation of proposals, and the Commission may consider DB participation as a selection factor.

Minimum Participation Level (MPL). The minimum participation level (MPL) for the inclusion of DBs will be established in the RFP/advertisement as a percentage.

(a) General Requirements. Section 303 of Title 74 of the Pennsylvania Consolidated Statutes, 74 Pa.C.S. § 303, requires proposer on contracts funded pursuant to the provisions of Title 74 (Transportation) and 75 (Vehicle Code) administered and issued by the Commission to make Good Faith Efforts to solicit subonsultants that are Diverse Businesses (DBs) as defined in Section 303. The DB requirements of Section 303 apply to this contract.

Section 303 requires proposers to make Good Faith Efforts, as described below, to solicit subconsultants that are DBs during the proposal process to maximize participation of DBs in competitive contracting opportunities.

The Commission is committed to participation by DBs and will enforce the requirements of Section 303 and this section. Failure to make Good Faith Efforts and demonstrate such Good Faith Efforts in the solicitation of subconsultants may result in the proposer being declared ineligible for the contract.

Proposers shall document and submit to the Commission all Good Faith Efforts, as described in this section, to solicit subconsultants that are DBs during the solicitation process.

Proposers are encouraged to utilize and give consideration to consultants offering to utilize DBs in the selection and award of contracts.

Proposers shall not discriminate on the basis of gender, race, creed or color in the award and performance of contracts in accordance with 62 Pa.C.S. §3701.

Failure to comply with the requirements of Section 303 or this specification may result in the imposition of sanctions as appropriate under section 531 of the Procurement Code, 62 Pa.C.S.§ 531 relating to debarment and suspension.

The Commission's Director of the Office of Diversity and Inclusion, or designee, is designated the Responsible Official who shall supervise the DB program and ensure that the Commission complies with the DB program.

(b) Definitions. The following definitions apply to terms used in this specification:

1. Disadvantaged Business – A business that is owned or controlled by a majority of persons, not limited to members of minority groups, who are subject to racial, social, ethnic prejudice or cultural bias.

2. Diverse Business – A disadvantaged business, minority-owned or women-owned business or service-disabled veteran-owned or veteran-owned small business that has been certified by a third-party certifying organization.

3. Minority-owned Business – A business owned and controlled by a majority of individuals who are African Americans, Hispanic Americans, Native Americans, Asian Americans, Alaskans or Pacific Islanders.

4. Professional Services – An industry of infrequent, technical or unique functions performed by independent contractors or consultants whose occupation is the rendering of the services, including: (1) design professional services as defined in 62 Pa.C.S.§ 901 (relating to definitions); (2) legal services; (3) advertising or public relations services; (4) accounting, auditing or actuarial services; (5) security consultant services; (6) computer and information technology services; and (7) insurance underwriting services.

5. Pro Forma Effort-The act of completing a form or document identifying efforts to solicit DBs for a project in order to satisfy criteria with little or no expectation that the DBs contacted or identified will perform any of the work.

6. Service-Disabled Veteran-Owned Small Business – A business in the United States which is independently owned and controlled by a service-disabled veteran(s), not dominant in its field of operation, and employs 100 or fewer employees.

7. Subconsultant- Any individual, partnership, firm, or corporation entering into a contract with the prime consultant for work under the contract, including those providing professional and other services.

8. Third-party Certifying Organization – An organization that certifies a small business, minority-owned business, women-owned business or veteran-owned small business as a diverse business. The term includes: (1) the National Minority Supplier Development Council; (2) the Women's Business Development Enterprise National Council; (3) the Small Business Administration; (4) The Department of Veteran Affairs; (5) the Pennsylvania Unified Certification Program.

9. Veteran-owned Small Business –A small business owned and controlled by a veteran or veterans.

10. Women-Owned Business – A business owned and controlled by a majority of individuals who are women.

(c) Actions Required by Proposer during the procurement/consultant selection phase

1. Submission Requirements – Consultant Responsiveness.

a. **Minimum Participation Level (MPL) Documentation -** If the documentation submitted with the proposal demonstrates that the proposer has identified DBs sufficient to meet the MPL established for this contract, the proposer will be deemed to have satisfied the DB requirement during this phase. The proposer is required to provide the business name and business address of each DB and supporting documentation that includes proof of certification.

If the consultant's proposal demonstrates the consultant's inability to meet the MPL established for this contract, the proposer shall demonstrate Good Faith Efforts with its proposal. Failure to submit the required documentation demonstrating Good Faith Efforts as further described below with the proposal may result in a rejection of the proposal.

b. If no MPL has been established for this contract, the proposer is required to either provide a statement of intent that it will self-perform 100% of the work for the agreement, or demonstrate Good Faith Efforts to solicit subconsultants that are DBs. In either case documentation shall be provided with the proposal.

Failure to submit the required information identified above with the proposal may result in a rejection of the proposal.

2. Good Faith Effort Requirements: The documentation of Good Faith Efforts must include the business name and business address of each DB considered. Supporting documentation must also include proof of certification and any explanation of Good Faith Efforts the proposer would like the Commission to consider. Any services to be performed by a DB are required to be readily identifiable to the agreement. Good Faith efforts are demonstrated by seeking out DB participation in the project given all relevant circumstances. The Commission requires the proposer to demonstrate more than Pro Forma Efforts. Evidence of Good Faith Efforts includes, but is not limited to:

a. Consultant solicits through all reasonable and available means the interest of all certified DBs with the capacity to perform the scope of work set forth in the agreement.
b. The proposer must provide written notification at least 5 business days before proposals are due to allow the DBs to respond to the solicitation.
c. The proposer must determine with certainty if DBs are interested by taking appropriate steps to follow up initial solicitations.
d. The proposer must make efforts to select portions of the work to be performed by DBs to includes, where appropriate, breaking out contract work into economically feasible units to facilitate DB participation;
e. It is the proposer's responsibility to make a portion of the work available to DBs and, to select those portions of the work, so as to facilitate DB participation.
f. The proposer shall provide evidence of such negotiations that include the names, addresses, and telephone numbers of DBs considered; A description of the information provided regarding the required work and services for the work selected for subconsultants; and evidence as to why additional agreements could not be reached for DBs to perform the work.
g. Proposers cannot reject or withhold solicitation of DBs as being unqualified without sound reasons based on a thorough investigation of their capabilities.
h. The DB's standing within its industry, membership in specific groups, organizations or associations and political or social affiliations (for example union v. non-union employee status) are not legitimate causes for the rejection or non-solicitation of proposals in the proposer's efforts to meet the Good Faith Efforts requirement.
i. Efforts to assist interested DBs in obtaining bonding, lines of credit or insurance.

3. Actions Taken by the Commission. As part of the proposal review process, the Commission will review the submissions to determine whether the proposer has complied with Section 303 and this requirement in the selection of DB subconsultants. The Commission will determine whether the proposer has either met the MPL or provided acceptable documentation as noted above. The Commission reserves the right to contact proposers for clarification during the review and negotiation process.

If the Commission determines that the proposer has failed to either meet the MPL or provide acceptable documentation as noted above, the proposal may be rejected.

(d) Consultant Requirements During Performance of Services.

1. Replacement of a DB Subconsultant. Consultant must continue good faith efforts through completion of the contract. The obligation to make Good Faith Efforts to solicit subconsultants for any type of service extends to additional work required for any service which is identified to be performed by a DB. If at any time during the performance of the work, it becomes necessary to replace or add a subconsultant that is a DB, the consultant, as appropriate, shall immediately notify the Commission and seek approval in writing in accordance with the Agreement of the need to replace the DB, which notice shall include the reasons for the replacement. If a prime consultant who originally indicated that it would self-perform all work subsequently decides to use a subconsultant for any work under the contract, the consultant must submit documentation of all Good Faith Efforts as to the work for which a subconsultant is obtained.

2. Records. Maintain project records as are necessary to evaluate DB compliance and as necessary to perform the reporting function addressed below. Maintain all records for a period of 3 years following acceptance of final payment. Make these records available for inspection by the Commission, its designees or agents. These records should indicate:

2.a. The number of DB and non-DB subconsultants and the type of services performed on or incorporated in this project.

2.b. The progress and efforts made in seeking out DB subconsultant organizations and individual DB consultants for work on this project to increase the amount of DB participation and/or to maintain the commitments made at the time of the proposal to DBs.

2.c. Documentation of all correspondence, contacts, telephone calls, and other contacts made to obtain the service of DBs on this project.

3. Reports. Maintain monthly reports and submit reports as required by the Commission concerning those contracts and other business executed with DBs with respect to the records referred to in subsection (e)2. above in such form and manner as prescribed by the Commission. At a minimum, the Reports shall contain the following:

3.a The number of Contracts with DBs noting the type of services provided, including the execution date of each contract.

3.b The amounts paid to each DB during the month, the dates of payment, and the overall amounts paid to date. If no payments are made to a DB during the month, enter a zero ($0) payment.

3.c Upon request and upon completion of individual DB firm's work, submit paid invoices or a certification attesting to the actual amount paid. In the event the actual amount paid is less than the award amount, a complete explanation of difference is required.

4. Subconsultant Contracts

4.a. Subcontracts with DB firms will not contain provisions waiving legal rights or remedies provided by laws or regulations of the Federal Government or the Commonwealth of Pennsylvania or the Commission through contract provisions or regulations.

4.b. Prime consultant will not impose provisions on DB subconsultants that are more onerous or restrictive than the terms of the prime's contract with non-DBs.

4.c. Executed copies of subcontracts/purchase orders are to be received by the Commission before the commencement of work by the DB.

5. Payments to DB Subconsultants. Payments to DBs are to be made in accordance with the prompt payment requirements of Chapter 39, Subchapter D of the Procurement Code, 62 Pa.C.S. §3931 et seq. Performance of services by a DB subcon sultant in accordance with the terms of the contract entitles the subconsultant to payment.

(e) Actions to be Taken by Commission After Performance of Services. Following completion of the Consultant's services, the Director of the Commission's Office of Diversity and Inclusion or his/her designee will review the overall DB participation to assess the Consultant's compliance with Section 303 and this contract. Appropriate sanctions may be imposed under 62 Pa.C.S. § 531 (relating to debarment or suspension) for a Consultant's failure to comply with Section 303 and the requirements of the contract.

APPENDIX H
RFP # 19-10230-8436

Proposers are required to use the table format below to complete the requirements identified in **Section II-3**. For each schedule or item of data that will be provided, identify which page, in either the full actuarial valuation and/or the report based on update procedures performed to roll forward amounts from the previous fiscal year-end full actuarial valuation, the item is presented. If the schedule or item of data is not applicable to one of the reports, mark N/A. Use as many rows as necessary to create a complete listing.

List of Items (Data/Schedules)	Full Valuation Report Page #	Rollforward Report Page #
GASB 74		
GASB 75		
Other		

APPENDIX H
RFP # 19-10230-8436

Proposers are required to use the table formats below to complete the Cost Submittal identified in **Part II-9**.
The labor categories can be revised to indicate positions the Proposer will utilize for completing work.
Other Costs and Additional Fees should be revised to specifically identify amounts included.

	05/31/19 Full Actuarial Valuation			05/31/20 Rollforward Report		
	Hourly Rate	**Hours**	**Total**	**Hourly Rate**	**Hours**	**Total**
Direct Labor Costs						
Partner/Director						
Manager						
Supervisor						
Staff						
Total Direct Labor Costs						
Other Costs						
Total Cost						
Additional fees						

	05/31/21 Full Actuarial Valuation			05/31/22 Rollforward Report		
	Hourly Rate	**Hours**	**Total**	**Hourly Rate**	**Hours**	**Total**
Direct Labor Costs						
Partner/Director						
Manager						
Supervisor						
Staff						
Total Direct Labor Costs						
Other Costs						
Total Cost						
Additional fees						

	05/31/23 Full Actuarial Valuation			05/31/24 Rollforward Report		
	Hourly Rate	**Hours**	**Total**	**Hourly Rate**	**Hours**	**Total**
Direct Labor Costs						
Partner/Director						
Manager						
Supervisor						
Staff						
Total Direct Labor Costs						
Other Costs						
Total Cost						
Additional fees						

APPENDIX J
RFP#19-10230-8436

PENNSYLVANIA TURNPIKE COMMISSION
OTHER POSTEMPLOYMENT WELFARE PLAN PROGRAM

Financial Statements and Required Supplementary Information
Years Ended May 31, 2018 and 2017
With Independent Auditor's Report

MITCHELL TITUS
ACHIEVING EXCELLENCE TOGETHER

PENNSYLVANIA TURNPIKE COMMISSION
OTHER POSTEMPLOYMENT WELFARE PLAN PROGRAM
Years Ended May 31, 2018 and 2017

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MITCHELL TITUS

INDEPENDENT AUDITOR'S REPORT

The Commissioners
Pennsylvania Turnpike Commission

We have audited the accompanying financial statements of the Pennsylvania Turnpike Commission Other Postemployment Welfare Plan Program (the Plan), as of and for the years ended May 31, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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MITCHELL TITUS

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Plan as of May 31, 2018 and 2017, and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Adoption of New Accounting Pronouncement

As discussed in Note 2 to the financial statements, for fiscal year ended May 31, 2018, the Plan adopted Governmental Accounting Standards Board Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. Our opinion is not modified with respect to this matter.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the supplemental schedule of changes in net OPEB liability and related ratios, schedule of employer contributions, and schedule of investment returns on pages 3-4 and 25-28 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Mitchell & Titus, LLP

December 14, 2018

This section of the annual financial report of the Pennsylvania Turnpike Commission Other Postemployment Welfare Plan Program (the "Plan") presents a narrative overview and analysis of the financial performance of the Plan and is meant to be read in conjunction with the basic financial statements, which follow this section.

Overview of the Financial Statements

The Pennsylvania Turnpike Commission (the "Employer") maintains an other postemployment welfare plan program (the "Plan") for the purpose of providing non-pension other postemployment benefits ("OPEB") for employees who meet the age and service requirements outlined in the Employer's plan documents.

The statements of fiduciary net position present information on all of the Plan's assets, deferred outflows of resources, liabilities, deferred inflows of resources and fiduciary net position. Over time, increases or decreases in fiduciary net position serve as a relative indicator of the change in the financial position of the Plan.

The statements of changes in fiduciary net position present information about the Plan's additions to, deductions from, and net increase (or decrease) in fiduciary net position. Changes in fiduciary net position (increases or decreases) reflect the current fiscal period's impact upon the overall financial position of the Plan.

Notes to the basic financial statements contain information and offer explanations to the basic financial statements. The notes are intended to assist the reader in understanding the Plan's basic financial statements.

Financial Highlights

The following table summarizes the statements of fiduciary net position as of May 31:

	2018	2017	2016
		(in thousands)	
Total assets	$ 425,329	$ 380,602	$ 331,892
Total liabilities	786	557	750
Net position – restricted for other postemployment benefits	$ 424,543	$ 380,045	$ 331,142

Financial Highlights *(continued)*

The following table summarizes the statements of changes in fiduciary net position for the years ended May 31:

	2018	2017	2016
		(in thousands)	
Additions			
Employer contributions	$ 28,171	$ 28,176	$ 28,143
Net investment income	34,322	37,321	(3,956)
Total additions	62,493	65,497	24,187
Deductions			
Benefit payments	17,984	16,592	14,814
Administrative expenses	11	2	3
Total deductions	17,995	16,594	14,817
Change in fiduciary net position	44,498	48,903	9,370
Net position – restricted for other postemployment benefits			
Beginning of period	380,045	331,142	321,772
End of period	$ 424,543	$ 380,045	$ 331,142

Net position – restricted for other postemployment benefits increased by $44.5 million and $48.9 million in fiscal years 2018 and 2017, respectively. Employer contributions of $28.2 million and net investment earnings of $34.3 million, offset by benefit payments of $18.0 million, are the main components of the fiscal 2018 increase. Employer contributions of $28.2 million and net investment earnings of $37.3 million, offset by benefit payments of $16.6 million, are the main components of the fiscal 2017 increase.

Employer contributions remained steady in fiscal year 2018 and 2017. See Required Supplementary Information for the Schedule of Employer Contributions over the last 10 years.

The $34.3 million net investment income in fiscal 2018 was $3.0 million lower than the $37.3 million net investment income in fiscal 2017; the $37.3 million net investment income in fiscal 2017 was $41.3 million higher than the $4.0 million net investment loss in fiscal 2016. The decrease in net investment income in fiscal 2018 was the result of market volatility within the Emerging Markets and Fixed Income sectors. The increase in net investment income in fiscal 2017 was the result of improved market conditions consistent with improving market indices and low interest rates.

Deductions from fiduciary net position increased by $1.4 million in fiscal year 2018 compared to fiscal year 2017 and by $1.8 million in fiscal year 2017 compared to fiscal year 2016, which was primarily related to increases in benefit payments during both periods.

PENNSYLVANIA TURNPIKE COMMISSION
OTHER POSTEMPLOYMENT WELFARE PLAN PROGRAM
Statements of Fiduciary Net Position
May 31, 2018 and 2017

	2018	2017
	(in thousands)	
ASSETS		
Cash and cash equivalents	$ 10,556	$ 8,000
Interest and dividends receivable	276	251
Investments		
Equities - stocks	9,479	6,897
Equities – mutual funds	183,705	161,150
Fixed income – mutual funds	41,242	40,779
Corporate bonds	18,051	16,227
Limited partnerships		
Real estate	63,858	59,030
Commodities	16,875	14,638
Global tactical asset allocation	40,939	36,537
Total limited partnerships	121,672	110,205
Hedge fund of funds	40,348	37,093
Total investments	414,497	372,351
Total assets	425,329	380,602
LIABILITIES		
Benefits payable	669	373
Other liabilities	117	184
Total liabilities	786	557
Net position – restricted for other postemployment benefits	$ 424,543	$ 380,045

The accompanying notes are an integral part of these financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
OTHER POSTEMPLOYMENT WELFARE PLAN PROGRAM
Statements of Changes in Fiduciary Net Position
Years Ended May 31, 2018 and 2017

	2018	2017
	(in thousands)	
ADDITIONS		
Employer contributions	$ 28,171	$ 28,176
Net investment income (loss)		
Interest, dividends, and capital gains income	9,418	6,854
Change in fair value of investments	25,583	31,169
Investment fees	(679)	(702)
Total net investment income	34,322	37,321
Total additions	62,493	65,497
DEDUCTIONS		
Benefit payments	17,984	16,592
Administrative expenses	11	2
Total deductions	17,995	16,594
Change in fiduciary net position	44,498	48,903
Net position – restricted for other postemployment benefits		
Beginning of year	380,045	331,142
End of year	$ 424,543	$ 380,045

The accompanying notes are an integral part of these financial statements.

NOTE 1 PLAN DESCRIPTION AND CONTRIBUTION INFORMATION

The Pennsylvania Turnpike Commission (the "Employer") maintains an other postemployment welfare plan program (the "Plan") for the purpose of providing benefits to eligible retirees and their dependents. The Plan is a single employer defined benefit plan. The Plan's financial statements are not included in the financial statements of a public employee retirement system.

The Employer established the Pennsylvania Turnpike Commission Retiree Medical Trust (the "Trust") on May 30, 2008, as an irrevocable trust that is tax-exempt under Section 115 of the Internal Revenue Code to provide funding for the Plan. The Trust is administered by Trustees who are appointed by and serve at the pleasure of the Employer. The chairman and vice chairman of the Trust are appointed by the Trustees and serve two-year terms. PNC Bank serves as custodian of the assets of the Plan. Disbursements of Plan assets are made by the custodian at the direction of the Trustees.

Plan benefit and contributions provisions are established and may be amended by the Employer.

<u>Plan Benefit Provisions</u>

Management and Supervisory Union Employees/Retirees

The benefits provided by the Plan include certain postemployment medical, prescription drug, dental, and vision benefits to management and supervisory union employees based upon their date of hire and years of service. Eligibility categories include:

- Employees hired before March 1, 2016, who have reached 20 years of service and are under age 60; benefit eligibility changes from 20 to 10 years for retirees 60 years of age or older. The last five years of service must be with the Commission.

- Employees hired on or after March 1, 2016, who have reached 30 years of service and are under age 60; benefit eligibility changes from 30 to 25 years for retirees 60 years of age or older. The last 10 years of service must be with the Commission. (Some current and previous Commonwealth employees hired on or after this date would be grandfathered under the first eligibility category.)

NOTE 1 PLAN DESCRIPTION AND CONTRIBUTION INFORMATION *(continued)*

Plan Benefit Provisions *(continued)*

Management and Supervisory Union Employees/Retirees (continued)

The same coverage is provided to surviving spouses or domestic partners and dependents of management and supervisory union retirees who retired on or after March 1, 2001. Surviving spouses or domestic partners of retirees who retired prior to March 1, 2001, may purchase medical coverage at the group rate and dependents are offered coverage under COBRA. Medicare Part B premiums are paid by the retiree, spouse or dependent if age 65 or over, or under age 65 and disabled.

Non-Supervisory Union Employees/Retirees

The benefits also include certain postemployment medical and prescription drug benefits to non-supervisory union employees who have satisfied the age and/or Credited Service eligibility requirements in the applicable collective bargaining agreement. Credited Service is defined as one year of service earned when an employee works 1,650 hours or more in a calendar year. Eligibility categories include:

- For Local 30 professionals who were hired prior to January 1, 2011, and Local 250 and 77 employees who were hired prior to January 27, 2016, the earlier of completion of 20 years of Credited Service or the later of attainment of age 60 and completion of 10 years of Credited Service. The last five years of Credited Service must be with the Commission.

- For Local 30 professionals who were hired on or after January 1, 2011, and Local 250 and 77 employees who were hired on or after January 27, 2016, the earlier of completion of 30 years of Credited Service or the later of attainment of age 60 and completion of 25 years of Credited Service. The last 10 years of Credited Service must be with the Commission.

The same coverage is provided to spouses or domestic partners and dependents of eligible non-supervisory union retirees until the death of the retiree. Surviving spouses or domestic partners are required to contribute the full cost of coverage and dependents are offered coverage under COBRA.

All required retiree claims and related administrative fees of the Plan were paid from the Trust in fiscal years 2018 and 2017.

NOTE 1 PLAN DESCRIPTION AND CONTRIBUTION INFORMATION *(continued)*

Funding Policy

The Employer has adopted a Retiree Medical Trust Funding Policy, effective September 17, 2008, whereby the Employer anticipates approving an annual contribution to the Trust in the amount of the Annual Required Contribution ("ARC"), as determined by the Employer's actuary in accordance with GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, during the approval of its annual operating budget. With the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, the Employer will now refer to the Actuarially Determined Contribution ("ADC") instead of the ARC.

Contribution Rates and Membership

Retiree and spouse contribution rates at May 31, 2018, were as follows:

- Management and supervisory union employees who retired prior to July 1, 1998 and union employees who retired prior to October 1, 1997 – the retiree/spouse contributes the full cost of coverage less the Employer's monthly subsidy of $19.28 once the retiree reaches age 65.

- Union employees who retired on October 1, 1997, or later – the retiree/spouse contributes the full cost of coverage less the Employer's monthly subsidy of $73.50 when the retiree or spouse reaches age 65.

- Management and supervisory union employees who retire on or after March 1, 2016, and Local 250 and 77 employees who retire after February 1, 2016, as well as Local 30 professionals who retire on or after January 1, 2014, must participate in a wellness program or contribute 5% of the premium if less than age 65.

- Surviving spouses and domestic partners are paying 100% of the premiums, except for surviving spouses of management and supervisory union employees who retired after March 1, 2001.

As of May 31, 2018 (the measurement date), plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments	1,555
Inactive plan members entitled to but not yet receiving benefit payments	56
Active plan members	1,882
Total	3,493

NOTE 1 PLAN DESCRIPTION AND CONTRIBUTION INFORMATION *(continued)*

Contribution Rates and Membership *(continued)*

Refer to Note 4, Net OPEB Liability, for additional information regarding the net OPEB liability and actuarial methods and assumptions used in the actuarial valuations of the Plan.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Reporting

The Plan is accounted for as a fiduciary fund. Accordingly, the basic financial statements are prepared using the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America (GAAP) for governmental entities as prescribed or permitted by the Governmental Accounting Standards Board (GASB). The Plan follows GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* (Statement No. 74).

Contributions to the Plan are recognized when due and when the Employer has made a formal commitment to provide its contributions. Claims are recognized when due and payable in accordance with the terms of the Plan, net of contributions made by inactive participants, which are recognized in the period in which the contributions are due.

Cash and Cash Equivalents

Cash and cash equivalents include short-term investments with original maturities of 90 days or less.

Investments

The Plan implemented GASB Statement No. 72, *Fair Value Measurement and Application*, in fiscal year 2017 and beginning in that year categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. See Note 3 for further discussion.

Adoption of Accounting Pronouncements

In June 2015, the GASB issued Statement No. 74 which replaced Statements No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Adoption of Accounting Pronouncements *(continued)*

It also includes requirements for defined contribution OPEB plans that replace the requirements for those OPEB plans in GASB Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*, as amended, and GASB Statement No. 50, *Pension Disclosures*. Statement No. 74 requires defined benefit OPEB plans to issue a statement of fiduciary net position and a statement of changes in fiduciary net position. This Statement improves financial reporting of OPEB plans through enhanced note disclosures and schedules of required supplementary information about the components of the net OPEB liability and related ratios, the OPEB plan's fiduciary net position as a percentage of the total OPEB liability and significant assumptions and other inputs used to measure the total OPEB liability as well as the sensitivity of the net OPEB liability to changes in the discount rate and healthcare cost trend rate. In addition, all defined benefit OPEB plans are required to present the annual money-weighted rate of return on OPEB plan investments for each of the most recent ten (10) fiscal years in the required supplementary information. The Plan has implemented Statement No. 74 for the fiscal year ended May 31, 2018. It was not practical to determine the fiscal year 2016 beginning balance amounts for net OPEB liability. See Note 3, Note 4 and the Required Supplementary Information section for additional disclosures required by Statement No. 74.

In March 2017, the GASB issued Statement No. 85, *Omnibus 2017* (Statement No. 85). Statement No. 85 addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits [OPEB]). The Plan adopted Statement No. 85 for its fiscal year ended May 31, 2018. See the Required Supplementary Information section for disclosures required by this statement.

Reclassifications

Certain amounts presented in the prior period have been reclassified to conform to the current year period financial statement presentation.

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS

The following tables provide a summary of cash and cash equivalents and investments, held by the Plan, measured at fair value as of May 31, 2018, and May 31, 2017:

	May 31, 2018	Level 1	Level 2
		(in thousands)	
Investments by fair value level			
Equities – stocks	$ 9,479	$ 9,479	$ -
Equities – mutual funds	183,705	183,705	-
Total equities	193,184	193,184	-
Fixed income – mutual funds	41,242	41,242	-
Corporate bonds	18,051	-	18,051
Total fixed income	59,293	41,242	18,051
Total investments by fair value level	252,477	$ 234,426	$ 18,051
Investments measured at the net asset value (NAV)			
Limited partnerships			
Real estate	63,858		
Commodities	16,875		
Global tactical asset allocation	40,939		
Total limited partnerships	121,672		
Hedge fund of funds	40,348		
Total investments measured at the NAV	162,020		
Total investments	414,497		
Cash and cash equivalents (money market)	10,556		
Total cash and cash equivalents and investments	$ 425,053		

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS *(continued)*

	May 31, 2017	Level 1	Level 2
		(in thousands)	
Investments by fair value level			
Equities - stocks	$ 6,897	$ 6,897	$ -
Equities – mutual funds	161,150	161,150	-
Total equities	168,047	168,047	-
Fixed income – mutual funds	40,779	40,779	-
Corporate bonds	16,227	-	16,227
Total fixed income	57,006	40,779	16,227
Total investments by fair value level	225,053	$ 208,826	$ 16,227
Investments measured at the NAV			
Limited partnerships			
Real estate	59,030		
Commodities	14,638		
Global tactical asset allocation	36,537		
Total limited partnerships	110,205		
Hedge fund of funds	37,093		
Total investments measured at the NAV	147,298		
Total investments	372,351		
Cash and cash equivalents (money market)	8,000		
Total cash and cash equivalents and investments	$ 380,351		

Mutual funds, including money market, fixed income, and equity, as well as stocks, are valued using prices quoted in active markets for those securities and are categorized as Level 1. Corporate bonds and other fixed income assets are categorized as Level 2 as they are valued using recently executed transactions, market price quotations (where observable), bond spreads, credit default swap spreads, and at the money options and/or volatility skew obtained from independent external parties such as vendors and brokers adjusted for any basis difference between cash and derivative instruments. The spread data used are for the same maturity as the bond.

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS *(continued)*

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) are presented in the following tables.

	May 31, 2018 Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Limited partnerships:				
Real estate (1)	$ 63,858	$ 2,381	Quarterly	30-60 days
Commodities (2)	16,875	-	Annually	180 days
Global tactical asset allocation (3)	40,939	-	Monthly	10 days
Hedge fund of funds (4)	40,348	9,913	50%-100% Quarterly	65-90 days
Total investments measured at the NAV	$ 162,020	$ 12,294		

	May 31, 2017 Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Limited partnerships:				
Real estate (1)	$ 59,030	$ 4,714	Quarterly	30-60 days
Commodities (2)	14,638	-	Annually	180 days
Global tactical asset allocation (3)	36,537	-	Monthly	10 days
Hedge fund of funds (4)	37,093	1,508	50%-100% Quarterly	65-90 days
Total investments measured at the NAV	$ 147,298	$ 6,222		

(1) *Real estate.* This type includes three real estate funds that invest primarily in U.S. commercial real estate. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Trust's ownership interest in the funds. All three of the funds are open-ended, so there is no expected distribution period.

(2) *Commodities.* This type includes one fund that is a multi-manager fund. The fund pursues investment strategies in global commodity and commodity related markets. The fund seeks to diversify its exposure by allocating assets among various trading strategies. Subscriptions to this fund are made to specific tranches with the fund. Redemptions are permitted on the anniversary of each tranche with 180 days' notification. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Trust's ownership interest in the fund.

(3) *Global tactical asset allocation.* The fund primarily invests in global equities; it also owns foreign and U.S. corporate bonds. Their first priority is capital preservation. The managers tend to carry a cash balance of at least 10% of assets. The fund also owns gold bullion, typically 5%-10% of assets. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Trust's ownership interest in the fund. The portfolio has monthly liquidity with 10 days' written notice. This portfolio is an evergreen fund structure. In an evergreen fund structure, the fund has an indefinite fund life.

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS *(continued)*

(4) *Hedge fund of funds.* The funds invest in a broad range of investments, including, but not limited to, global distressed corporate securities, activist equities, value equities, reorganization equities, municipal bonds, high yield bonds, leveraged loans, unsecured debt, collateralized debt obligations, mortgage backed securities, direct lending and sovereign debt, real estate, venture capital, and private equity-type structures. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Trust's ownership interest in the funds. These are short-lived funds with expected remaining lives of 5 years or less.

The Trustees have adopted an Investment Policy Statement (the "Policy") for the purposes of documenting investment objectives and guidelines for the Plan's assets held by the Trust, establishing an appropriate investment strategy for managing assets in the Trust's custody, establishing periodic performance and compliance reporting requirements, and complying with all fiduciary, prudence, due diligence, and legal requirements for the assets in the Trust's custody.

In fiscal year 2014, revisions were made to update both asset allocations and benchmarks in the appendices to the Policy. The Trustees and the Investment Advisor to the Trust are implementing the guidelines established under the Policy. However, the process for full implementation of the guidelines takes time to complete.

The Trustees have the authority to implement the Policy in the sole and exclusive interest of the Trust to satisfy the purposes of the Plan. The Policy includes three investment objectives:

- To invest assets held by the Trust in a manner consistent with prudent person fiduciary standards;
- To provide for funding and anticipated withdrawals on a continuing basis for payment of OPEB benefits and related expenses; and
- To achieve a long-term level of return commensurate with contemporary economic conditions and equal to or exceeding the investment objectives set forth in the Policy.

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS *(continued)*

Permitted Investments

The Policy established the Trust's target asset allocations and ranges as follows:

Asset Class	Asset Weightings Range	Target
U.S. equity	25% – 33%	29%
Non-U.S. equity	15% – 25%	15%
Fixed income	14% – 18%	15%
Real estate	12% – 18%	15%
Commodities	3% – 7%	5%
Global tactical asset allocation	7% – 13%	10%
Hedge fund of funds	7% – 13%	10%
Cash reserves	0% – 3%	1%

The asset allocation targets and ranges are used as guidelines rather than strict rules. The Trust may invest its assets in any investment structure the Trustees deem appropriate, including, but not limited to, separate accounts, mutual funds, commingled funds, ETFs, index funds, limited partnerships, master limited partnerships, and other collective investment structures.

Cash Equivalents

Cash reserves shall consist of cash instruments having a quality rating of “A-1”, “P-1” or higher, as established by Moody's or Standard & Poor's. Bankers' acceptances, certificates of deposit, and savings accounts must be made of United States banks or financial institutions or United States branches of foreign banks, which are federally insured with unrestricted capital of at least $50 million. Short-term corporate obligations must be rated “A” or better by Moody's or Standard & Poor's. Institutional money market funds utilized shall have similar underlying high-quality, investment-grade securities.

Equities

For all separate accounts, investments may be made in common stocks, preferred stocks, tracking stocks, master limited partnerships, convertible securities, American Depository Receipts, ETFs, and publicly traded Real Estate Investment Trusts. All investments shall be readily marketable securities that are actively traded on a major exchange.

Not more than 6% of the total stock portfolio at market value may be invested in the common stock of any one company. Ownership of the shares of one company shall not exceed 2% of that company's outstanding shares. Not more than 25% of stock at market value may be held in any one industry category.

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS *(continued)*

Permitted Investments *(continued)*

Equities (continued)

The non-U.S. equity allocation should include a diverse global mix of at least 10 countries. Currency hedging is permitted.

Investment-Grade Fixed Income

Fixed income investments shall be high-quality, marketable securities with a preponderance of the investments in (1) U.S. Treasury, federal agencies and U.S. Government guaranteed obligations, and (2) investment grade municipal or corporate issues including convertibles. Fixed income securities of any one issuer shall not exceed 5% of the total bond portfolio, at the time of purchase. The 5% limitation does not apply to issues of the U.S. Treasury or other Federal Agencies.

The overall rating of the fixed income assets shall be at least “A”, according to one of the three rating agencies (Fitch, Moody’s or Standard & Poor’s). In cases where the yield spread adequately compensates for additional risk, securities where two of the three rating agencies have assigned ratings of “Baa3” or “BBB-” ratings, can be purchased up to a maximum of 20% of total market value of fixed income securities.

High-Yield Fixed Income

The Trust may invest in high-yield fixed income securities, which include publicly traded debt securities, municipal bonds, domestic corporations, domestic banks, other United States financial institutions or mortgage/asset backed securities, and debt securities issued by foreign entities denominated in U.S. dollars which are traded domestically.

The Trust may invest in high-yield fixed income debt investments that have a minimum credit quality rating of “B-” (Standard & Poor’s and Fitch) or “B3” (Moody’s) as established by at least two of the three bond rating agencies. If only two of the rating agencies rate a security, the lower rating applies. Unrated bonds shall conform to the minimum quality ratings of the Policy. High yield fixed income debt investments are limited such that any one entity may not cumulatively exceed 5% of an individual manager’s total portfolio measured at market value.

Global Fixed Income

The Trust may invest in global fixed income in either a separate account or by utilizing mutual funds, EETFs, index funds, or commingled investment funds.

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS *(continued)*

Permitted Investments *(continued)*

Real Estate

The Trust may invest in real estate utilizing mutual funds, REITs, ETFs, index funds, limited partnerships, master limited partnerships, commingled funds, insurance company separate accounts, insurance company annuities, open-end diversified commingled equity funds, and other commingled investment structures. No direct real estate investments or real estate separate accounts shall be permitted unless authorized in writing by the Trustees.

Commodities

The Trust may invest in commodities through mutual funds, ETFs, commingled funds, limited partnerships, or other investment structures and may also invest with investment managers that are Commodity Trading Advisors registered with the Commodities Future Trading Commission.

Hedge Fund of Funds

The Trust may invest in hedge funds of funds through investment managers using mutual funds, index funds, commingled funds, limited partnerships, or other investment structures specifically designed for tax-exempt investors.

Global Tactical Asset Allocation

The Trust may invest in global tactical asset allocation strategies through mutual funds, ETFs, commingled funds, limited partnerships, or other investment structures.

Private Equity

The Trust may invest in private equity through limited partnerships, commingled funds, or other investment structures designed for tax-exempt investors.

Infrastructure

The Trust may invest in infrastructure investments through mutual funds, ETFs, commingled funds, limited partnerships, or other investment structures. No direct real asset investments shall be permitted unless authorized in writing by the Trustees.

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS *(continued)*

Permitted Investments *(continued)*

Special Situations

The Trust may invest in one or more special situations strategies that shall be managed to seek to achieve a competitive risk-adjusted rate of return, provide diversification benefits to the Trust and/or provide material collateral benefits beyond pure investment return.

The allocation of the Plan's assets as of May 31, 2018, is as follows:

Asset Class	Range	Amount (In thousands)	Percentage of Portfolio
U.S. equity	25% – 33%	$ 129,509	30.5%
Non-U.S. equity	15% – 25%	63,675	15.0
Total equities		193,184	
Fixed income	14% – 18%	59,293	13.9
Real estate	12% – 18%	63,858	15.0
Commodities	3% – 7%	16,875	4.0
Global tactical asset allocation	7% – 13%	40,939	9.6
Hedge fund of funds	7% – 13%	40,348	9.5
Cash reserves	0% – 3%	10,556	2.5

The allocation of the Plan's assets as of May 31, 2017, is as follows:

Asset Class	Range	Amount (In thousands)	Percentage of Portfolio
U.S. equity	25% – 33%	$ 110,703	29.1%
Non-U.S. equity	15% – 25%	57,344	15.1
Total equities		168,047	
Fixed income	14% – 18%	57,006	15.0
Real estate	12% – 18%	59,030	15.5
Commodities	3% – 7%	14,638	3.8
Global tactical asset allocation	7% – 13%	36,537	9.6
Hedge fund of funds	7% – 13%	37,093	9.8
Cash reserves	0% – 3%	8,000	2.1

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS *(continued)*

Credit Risk

The Plan's exposure to credit risk at May 31, 2018, is as follows:

	Quality Rating						
Debt Investments	**AAA**	**AA**	**A**	**BBB**	**Below BBB**	**Not Rated**	**Total**
	(in thousands)						
Fixed income – mutual funds	$ 18,073	$ 2,215	$ 6,203	$ 9,379	$ 5,372	$ -	$ 41,242
Corporate bonds	518	-	-	1,249	16,284	-	18,051
Total	$ 18,591	$ 2,215	$ 6,203	$ 10,628	$ 21,656	$ -	$ 59,293

The Plan's exposure to credit risk at May 31, 2017 is as follows:

	Quality Rating						
Debt Investments	**AAA**	**AA**	**A**	**BBB**	**Below BBB**	**Not Rated**	**Total**
	(in thousands)						
Fixed income – mutual funds	$ 16,014	$ 3,418	$ 6,525	$ 8,942	$ 5,880	$ -	$ 40,779
Corporate bonds	556	-	-	636	14,657	378	16,227
Total	$ 16,570	$ 3,418	$ 6,525	$ 9,578	$ 20,537	$ 378	$ 57,006

Concentrations

As of May 31, 2018, the Plan had investments of more than 5% of its fiduciary net position with the following organizations:

Organization	**Total Fair Value**	**Percentage of Fiduciary Net Position**
First Eagle Global Value Fund LP	$ 40,939	9.64%
ASB Real Estate Investments	33,048	7.78
Skybridge Legion Strategies Ltd	24,621	5.80

NOTE 3 CASH AND CASH EQUIVALENTS AND INVESTMENTS *(continued)*

Concentrations *(continued)*

As of May 31, 2017, the Plan had investments of more than 5% of its fiduciary net position with the following organizations:

Organization	Total Fair Value	Percentage of Fiduciary Net Position
First Eagle Global Value Fund LP	$ 36,537	9.61%
ASB Real Estate Investments	32,475	8.55
Skybridge Legion Strategies Ltd	23,305	5.87

Interest Rate Risk

On May 31, 2018, the effective duration of the Plan's debt investments, by type, is as follows:

Debt Investments	Fair Value (In Thousands)	Effective Duration (In Years)
Fixed income – mutual funds	$ 41,242	1.05
Corporate bonds	18,051	2.28
Total	$ 59,293	

On May 31, 2017, the effective duration of the Plan's debt investments, by type, is as follows:

Debt Investments	Fair Value (In Thousands)	Effective Duration (In Years)
Fixed income – mutual funds	$ 40,779	1.67
Corporate bonds	16,227	2.21
Total	$ 57,006	

Rate of Return

For the years ended May 31, 2018 and 2017, the annual money-weighted rate of return on investments, net of investment expense was 8.90% and 11.06%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NOTE 4 NET OPEB LIABILITY

The components of the net OPEB liability at May 31, 2018 and 2017, were as follows:

	May 31, 2018	May 31, 2017
Total OPEB liability	$ 437,477	$ 421,775
Fiduciary net position	424,543	380,045
Net OPEB liability	$ 12,934	$ 41,730
Fiduciary net position as a percentage of the total OPEB liability	97.0%	90.1%

Actuarial Assumptions and Discount Rate

The total OPEB liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below, and was then projected forward to the measurement date. There have been no significant changes between the valuation date and the fiscal year end.

	May 31, 2018	May 31, 2017
Discount rate	6.0%	6.0%
Long-term expected rate of return, net of investment expense	6.0%	6.0%

The Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total OPEB liability is equal to the long-term expected rate of return.

The Plan has not had a formal actuarial experience study performed.

Valuation date	June 1, 2017	May 31, 2017
Measurement date	May 31, 2018	May 31, 2017
Actuarial cost method	Entry Age Normal	Entry Age Normal
Inflation	2.3%	2.3%
Salary increases for union members	3.0%	3.0%
Salary increases for management members	3.3%	3.3%
Amortization method	Level dollar amortization over a period of 10 years	
Asset valuation method	Market value plus receivable contributions made attributable to a prior fiscal year	

NOTE 4 NET OPEB LIABILITY *(continued)*

Actuarial Assumptions and Discount Rate *(continued)*

Health Cost Trend: The healthcare trend assumption is based on the Society of Actuaries-Getzen Model version 2017.2 utilizing the baseline assumptions included in the model for medical and prescription drug benefits. Adjustments are applied based on percentage of costs associated with administrative expenses, aging factors, potential excise taxes due to healthcare reform, and other healthcare reform provisions.

The health cost trend assumption for medical and prescription benefits at sample years is as follows:

Valuation Year	Pre-65 Trend	Post-65 Trend
2017	6.3%	6.3%
2018	5.7	5.8
2019	5.2	5.2
2020	4.9	4.9
2025	4.8	4.7
2030	5.5	4.8
2035	5.5	4.8
2040	5.6	4.9
2050	5.2	4.7
2060	5.0	4.9
2070	4.3	4.8

The health cost trend assumptions for dental and vision benefits and premiums are assumed to be 4.0% per year.

For purposes of applying the Entry Age Normal cost method, the healthcare trend prior to the valuation date is based on the ultimate rate, which is 4.0% for costs prior to 65 and 4.2% of costs at age 65 and later.

Mortality rates were based on the RPH-2014 Total Dataset Mortality Tables adjusted to reflect Mortality Improvement Scale MP-2017 from 2006 base year and projected forward on a generational basis (based on recommendation of Society of Actuaries’ Retirement Plans Experience Committee), with employee rates before benefit commencement and healthy annuitant rates after benefit commencement, and reflecting mortality improvements both before and after the valuation date.

NOTE 4 NET OPEB LIABILITY *(continued)*

Actuarial Assumptions and Discount Rate *(continued)*

The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. Best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
U.S. equity	4.8%
Non-U.S. equity	6.4
Fixed income	1.8
Real estate	3.8
Commodities	3.0
Global tactical asset allocation	5.0
Hedge fund of funds	2.1
Cash reserves	0.2

Sensitivity Analysis

The following table presents the net OPEB liability, calculated using the discount rate of 6.0%, as well as what the net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (5.0%) or one percentage point higher (7.0%) than the current discount rate.

	1% Decrease (5.0%)	Current Discount Rate (6.0%)	1% Increase (7.0%)
As of the 05/31/18 measurement date			
Total OPEB liability	$ 496,391	$ 437,477	$ 388,954
Fiduciary net position	424,543	424,543	424,543
Net OPEB liability (asset)	$ 71,848	$ 12,934	$ (35,589)

The following table presents the net OPEB liability, calculated using the current healthcare cost trend rates as well as what the net OPEB liability would be if it were calculated using trend rates that are one percentage point lower or one percentage point higher than the current trend rates.

	1% Decrease	Current Trend Rate	1% Increase
As of the 05/31/18 measurement date			
Total OPEB liability	$ 383,084	$ 437,477	$ 504,883
Fiduciary net position	424,543	424,543	424,543
Net OPEB (asset) liability	$ (41,459)	$ 12,934	$ 80,340

REQUIRED SUPPLEMENTARY INFORMATION

PENNSYLVANIA TURNPIKE COMMISSION
OTHER POSTEMPLOYMENT WELFARE PLAN PROGRAM
Required Supplementary Information
Schedule of Changes in Net OPEB Liability and Related Ratios (Unaudited)

Last 10 Fiscal Years*
(Dollar Amounts in Thousands)

	Fiscal Year Ended May 31, 2018
Total OPEB liability	
Service cost	$ 10,926
Interest on total OPEB liability	25,431
Effect of plan changes	-
Effect of economic/demographic gains or losses	(2,671)
Effect of assumptions changes or inputs	-
Benefit payments	(17,984)
Net change in total OPEB liability	15,702
Total OPEB liability, beginning	421,775
Total OPEB liability, ending (a)	437,477
Fiduciary net position	
Employer contributions	28,171
Net investment income	34,322
Benefit payments	(17,984)
Administrative expenses	(11)
Net change in plan fiduciary net position	44,498
Fiduciary net position, beginning	380,045
Fiduciary net position, ending (b)	424,543
Net OPEB liability, ending = (a) – (b)	$ 12,934
Fiduciary net position as a % of total OPEB liability	97.0%

*The Plan adopted GASB Statement No. 74 in fiscal year 2018; therefore, only the available years are presented in the above schedule.

PENNSYLVANIA TURNPIKE COMMISSION
OTHER POSTEMPLOYMENT WELFARE PLAN PROGRAM
Required Supplementary Information *(continued)*
Schedule of Employer Contributions (Unaudited)

Last 10 Fiscal Years
(Dollar Amounts in Thousands)

	2018	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**
Actuarially determined contribution	$ 8,384	$ 11,121	$ 11,368	$ 12,683	$ 18,353	$ 23,423	$ 28,821	$ 26,703	$ 29,144	$ 27,835
Contributions in relation to the actuarially determined contribution	28,171	28,176	28,143	46,180	44,228	54,768	54,397	28,505	28,677	29,034
Contribution deficiency (excess)	$(19,787)	$(17,055)	$(16,775)	$(33,497)	$(25,875)	$(31,345)	$(25,576)	$ (1,802)	$ 467	$ (1,199)

Notes to Schedule

Full actuarial valuations are performed every other year. The Actuarially Determined Contribution (formerly Annual Required Contribution) for the fiscal year ended May 31, 2017 was calculated based on a January 1, 2016 full valuation. The Actuarially Determined Contribution (formerly Annual Required Contribution) for the fiscal year ended May 31, 2018 was calculated based on a January 1, 2017 interim valuation that was rolled forward from the January 1, 2016 full valuation. A summary of the actuarial methods and assumptions used in that full January 1, 2016 valuation is as follows:

Actuarial cost method	Projected-unit credit
Discount rate	6.5%
Rate of return on assets	6.5%
Inflation rate	2.5%
Amortization method	Level dollar
Amortization period:	
▪ UAAL as of March 1, 2012	10 years (closed)
▪ Subsequent changes	10 years (open)
Asset valuation method	Fair value
Benefit assumption – increases/decreases	No changes
Health cost trend rates	Varying rates between 4.6% and 6.2% for medical and pharmacy benefits. 4.0% for dental and vision benefits.
Salary increases	Not considered as OPEB benefits are not based upon pay.
Mortality	RP-2000 Healthy Annuitant Mortality Table projected on a generational basis using Scale AA to allow for past and future improvements in mortality. The Employee table is used for pre-retirement. Rates vary by age and gender.

Other Significant Changes

The January 1, 2015 interim valuation used a discount rate of 6.5%. The January 1, 2014 and March 1, 2012 full valuations used a discount rate of 7.0%. The March 1, 2010 and 2008 full valuations used a discount rate of 8.0%. The discount rate and rate of return on assets were equal for all years noted.

PENNSYLVANIA TURNPIKE COMMISSION
OTHER POSTEMPLOYMENT WELFARE PLAN PROGRAM
Required Supplementary Information *(continued)*
Schedule of Investment Returns (Unaudited)

Last 10 Fiscal Years

Fiscal Year Ended May 31,	Annual Money-Weighted Rate of Return, Net of Investment Expense
2018	8.90%
2017	11.06
2016	(1.20)
2015	5.35
2014	11.27
2013	17.27
2012	(4.00)
2011	21.70
2010	10.61
2009	13.75

Addendum No. 1

RFP # 19-10230-8436

ACTUARIAL VALUATION SERVICES FOR OTHER POSTEMPLOYMENT BENEFITS (OPEB)

Prospective Respondents: You are hereby notified of the following information in regard to the referenced RFP:

ADDITION

1. Appendix K – Financial Reporting Valuation Report (Actuarial Valuation)

QUESTIONS AND ANSWERS

Following are the answers to questions submitted in response to the above referenced RFP as of January 28, 2019. All of the questions have been listed verbatim, as received by the Pennsylvania Turnpike Commission.

Proposer Questions			**Pennsylvania Turnpike Commission (PTC)** RFP#19-10230-8436		
#	Page	Section	Section Description	Proposer Question	Commission Response
1.				We are reviewing the above-noted RFP and are requesting a copy of the most recently completed actuarial valuation report.	See Addition #1 – Appendix K.

Proposer Questions			Pennsylvania Turnpike Commission (PTC) RFP#19-10230-8436		
#	Page	Section	Section Description	Proposer Question	Commission Response
2.	17	IV	Work Description	Who is the current contractor and how long has the contractor provided the OPEB actuarial services to the Commission?	The current contractor is Milliman Inc. Their OPEB services began with the March 1, 2012 actuarial valuation.
3.	14	IV	Work Description	Provide the actuarial consulting fees paid to the incumbent in 2016, 2017, and 2018, broken down between routine and non-routine services (if any).	January 1, 2016 OPEB Valuation Report - $23,784.00 January 1, 2017 Interim OPEB Valuation Report - $5,946.00 June 1, 2017 Actuarial Valuation ($25,000.00), Investment Return and Mortality Analysis ($2,500.00) – Total $27,500.00 May 31, 2018 GASB75 Actuarial Valuation ($6,500.00), ADC Calculations for May 31, 2020 fiscal year ($1,500.00) – Total $8,000.00
4.	17	IV	Work Description	Confirm the number of on-site meetings the contractor is required to attend annually.	The Commission requires a minimum of one on-site meetings per year.
5.	18	IV-3	Tasks	Did the incumbent provide any special non-routine services during 2016 to 2018 and if yes, what was the total fee amount collected each for these services?	See Question 3.
6.	18	IV-3	Tasks	Are non-routine services priced at the time of assignment?	See Section II-9.d. of the RFP.

Proposer Questions			Pennsylvania Turnpike Commission (PTC) RFP#19-10230-8436		
#	Page	Section	Section Description	Proposer Question	Commission Response
7.	12	II-8	Diverse Business (DB) Requirements	Is there any M/W/DSBE subcontractor participating in the current contract? If yes: a. What is the utilization rate of qualifying M/W/DSBE subcontractors under the current engagement? b. Provide a brief description of their services and the dollar amount of their annual fee.	There is no M/W/DSBE subcontractor participating in the current contract.
8.	2	I-4	Problem Statement	Who is the current consultant?	See Question 2.
9.				How long has the current consultant been providing services?	See Question 2.
10.				Is the current consultant eligible to participate in this RFP process?	Yes.
11.				Why are these services listed in the RFP out to bid? Are they due to the expiration of the current contract or for other reasons?	The current contract is expiring.
12.	12	II-8	Diverse Business (DB) Requirements (Appendix G)	Is there a certified Diverse Business (DB) participating in the current contract? If yes, can you provide the name, a brief description of their services, and the dollar amount of their annual fee?	See Question 7.

#	Page	Section	Section Description	Proposer Question	Commission Response
13.	13	II-9	Cost Submittal	In order to assist us in gaining a clear understanding of the scope of work, can you provide the amount of the total level of effort (hours of work) and fees paid to the current consultant for the recent 3 years?	See Question 3. The Commission does not have hours of work information.
14.	18	IV-3	Tasks	Was the work required in prior years similar to that described in the current RFP? Are there any improvements, or additional services that the Commission is seeking?	Yes, GASB Statements 74 and 75 were applicable in the most recent Financial Reporting Valuation Report (actuarial valuation) per Addition #1 above. See also Section IV-3 of this RFP.
15.				Can you provide a copy of the most recent valuation report?	See Addition #1 – Appendix K.
16.				How many meetings at the client site are required per year in the RFP? Please provide us with the address where those meetings will take place.	See Question 4 above. On-site meetings would be expected to occur at the Commission's Central Administration Building located at 700 South Eisenhower Blvd., Middletown, PA 17057.
17.				Are you able to provide a copy of the most recent OPEB actuarial valuation for the above mentioned plan?	See Addition #1 – Appendix K.
18.				Are you able to provide a copy of the most recent annual trustee statement for the Pennsylvania Turnpike Commission Retiree Medical Trust?	See Addition #1 – Appendix K for the most recent Financial Reporting Valuation Report (actuarial valuation) and Appendix J of the RFP for the most recent audited financial statements.
19.				Are you able to provide the fees billed by the prior and current service provider to have an actuarial valuation performed for the OPEB plan?	See Question 3.

Proposer Questions			Pennsylvania Turnpike Commission (PTC) RFP#19-10230-8436		
#	Page	Section	Section Description	Proposer Question	Commission Response
20.				Are you able to provide a sample of the current methodology that is being used to calculate the actuarially determined contribution for the plan?	See Addition #1 – Appendix K.
21.	12	II-8	Diverse Business (DB) Requirements (Appendix G)	RFP states that there are no Diverse Business requirements but that DB participation will be considered in evaluation. How will DB participation be considered in the evaluation of proposals?	See Appendix G – Item C – 1b and RFP Section III-4.
22.	N/A			Can you provide us with a copy of the most recent actuarial reports?	See Addition #1 – Appendix K
23.	N/A			Is the current actuary eligible to submit proposal for this work?	See Question 10.
24.	N/A			What were the fees paid to the actuarial firm for the prior valuation?	See Question 3.
25.				What are the reasons for issuing the current RFP?	See Question 11.
26.				Is the current actuary providing a response to this RFP?	We will not know this answer until the due date for proposals.
27.				Have there been any service issues with the current actuary?	No.
28.				What are the fees for actuarial services under the current contract?	The Commission has paid $121,331 in total fees under the current contract.
29.				Can you provide the most recent actuarial valuation report?	See Addition #1 – Appendix K.

#	Page	Section	Section Description	Proposer Question	Commission Response
30.				Are there any plan design or eligibility changes being considered?	Plan benefit and contributions provisions are established and may be amended by the Employer. Note, the current collective bargaining agreement ends September 30, 2019.
31.				When was the last experience study performed for the plan?	The plan has not had a formal experience study performed. See the most recent Financial Reporting Valuation Report (actuarial valuation) addition #1 – Appendix K.
32.	N/A	N/A	N/A	What is the reason for this RFP? Is it primarily periodic due diligence, or are there other factors that led to this?	See Question 11.
33.	59-61	Appendix J	Independent Auditors Report	Is a Summary of Benefits and Coverage (SBC) or other summary of healthcare benefits available, with details in addition to the information provided in the Independent Auditor's Report?	See the most recent Financial Reporting Valuation Report (actuarial valuation) addition #1 – Appendix K.
34.	61	Appendix J	Independent Auditors Report	What are the full costs of coverage for retirees and spouses as of May 31, 2018?	See the most recent Financial Reporting Valuation Report (actuarial valuation) addition #1 – Appendix K.
35.				Please provide a copy of the following: 1. Most recent OPEB valuation report 2. Most recent actuarial experience study 3. Any projections performed for the OPEB plan	See the most recent Financial Reporting Valuation report (actuarial valuation) addition #1 – Appendix K. See also Question 31.

#	Page	Section	Section Description	Proposer Question	Commission Response
36.	11	II	Information Required from Proposers	What are the fixed fees billed in the last <u>three</u> years for the scope of services covered?	See Question 3.
37.	18	IV	Work Statement	What special and/or out of scope services has been billed for in the last <u>three</u> years, in addition to the fixed fees? How many hours were billed for these services?	See Questions 5 and 13.
38.				Are there any service concerns and/or limitations with the current actuary?	See Question 27.
39.				How long has the current actuary been providing actuarial services	See Question 2.
40.	15	III	Criteria for Selection	What is the weighting of the different evaluation criteria listed in Section III of the RFP?	There is no specific weighting assigned to the evaluation criteria. The evaluation criteria is listed in order of relative importance from highest to lowest in Part III-4 of the RFP.
41.	17	IV	Work Statement	Is the Commission interested in receiving strategic consulting services related to managing the OPEB Unfunded liability? If so, how should the respondents include those services in its fee to ensure a fair comparison?	See Sections II-9.d. and IV-3. of the RFP.
42.	17	IV	Work Statement	What steps has the Commission taken to manage its OPEB liability?	A financial advisor is currently under contract to help manage the assets in the Trust.
43.	17	IV	Work Statement	How has the Commission prepared for transitioning to GASB 75 and the impact on its balance sheet?	See the most recent Financial Reporting Valuation Report (actuarial valuation) addition #1 – Appendix K.

#	Page	Section	Section Description	Proposer Question	Commission Response
44.	9	I	General	Our standard consulting agreement terms and conditions include some limitation on liability for mere negligence or from consequential damages. a. Is the Commission open to accepting mutually-agreeable contract terms, which include some limitation of liability on the work performed by the contracting actuarial firm? b. Also, are there any statutory requirements regarding limitation of liability of which we should be aware? c. Have you ever sued or threatened to sue your actuarial services vendor? If yes, please provide the dates and circumstances of such suits.	a. This will be discussed following award of this RFP. b. This will be discussed following award of this RFP. c. The Commission is not aware of any such action.
45.	2	I-4	Problem Statement	How many in-person meetings, does the PA Turnpike Commission anticipate the actuarial consultant will be required to attend each year?	See Question 4.
46.	12	II-8	Diverse Business Requirements	If an actuarial firm is a Diverse Business and plans to self-perform 100% of the work, do the requirements in Appendix G (c) 1.b to demonstrate Good Faith Efforts to solicit subcontractors that are Diverse Businesses still apply?	See Appendix G Section (c) 1.b. of the RFP.

#	Page	Section	Section Description	Proposer Question	Commission Response
47.		F	Required Coverages	Would the PA Turnpike Commission be willing to accept insurance coverages that were equivalent, but slightly different (e.g. smaller per claim limit and larger aggregate limits)?	See Question 44. a. & b.
48.	9	J	Contribution Rates and Membership	Does the PA Turnpike Commission expect the actuary to develop the “full cost of coverage” as mentioned in the first two bullets, or is this determined by another contractor?	See Section IV.-3. of the RFP. See the most recent Financial Reporting Valuation report (actuarial valuation) addition #1 – Appendix K.
49.	9	J	Contribution Rates and Membership	Does the PA Turnpike Commission expect the actuary to develop the premium rates mentioned in the third and fourth bullets, or are these rates developed by another contractor?	See Section IV.-3. of the RFP. See the most recent Financial Reporting Valuation report (actuarial valuation) addition #1 – Appendix K.
50.	2	I.4	Problem Statement	Why is the Pennsylvania Turnpike Commission seeking bids at this time?	See Question 11.
51.	18	IV.3	Tasks	May we have a copy of the most recent comprehensive OPEB valuation that was last completed?	See addition #1 – Appendix K.
52.	18	IV.3	Tasks	May we have a copy of the most recent roll-forward OPEB report that was last completed?	See the most recent Financial Reporting Valuation Report (actuarial valuation) addition #1 – Appendix K. This is the first and only report performed in accordance with GASB Statements 74 and 75.

Proposer Questions			Pennsylvania Turnpike Commission (PTC) RFP#19-10230-8436		
#	Page	Section	Section Description	Proposer Question	Commission Response
53.	Not listed	Appendix H	Cost Submittal	What were the fees paid for the previous valuation?	See Question 3.
54.	Not listed	Appendix H	Cost Submittal	What were the fees paid for the previous roll forward report?	See Question 3.

All other terms, conditions and requirements of the original RFP dated January 14, 2019 remain unchanged unless modified by this Addendum.

Milliman

PENNSYLVANIA TURNPIKE COMMISSION RETIREE MEDICAL TRUST

GASB 74 DISCLOSURE
Plan Year: June 1, 2017 to May 31, 2018

GASB 75 OPEB EXPENSE
Measurement Year: June 1, 2017 to May 31, 2018
Fiscal Year: June 1, 2018 to May 31, 2019

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November 28, 2018

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Certification

Actuarial computations presented in this report under Statements No. 74 and 75 of the Governmental Accounting Standards Board are for purposes of assisting the Commission in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year June 1, 2017 to May 31, 2018. The reporting date for determining plan assets and obligations is May 31, 2018. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of June 1, 2017 and May 31, 2018 furnished by the Commission. This information includes, but is not limited to, statutory provisions, member census data, and financial information. The membership as of June 1, 2017 includes 1,935 active participants, 1,508 retirees and surviving spouses, and 876 spouses of current retirees.

We performed a limited review of the census and financial information used directly in our analysis and have found them to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Code of Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries. A Milliman healthcare consultant has certified the per capita claims cost and healthcare trend assumptions.

This valuation report is only an estimate of the plan's financial condition as of a single date. It can neither predict the plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of plan benefits, only the timing of plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan’s funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

Certification

Milliman's work is prepared solely for the internal use and benefit of the Pennsylvania Turnpike Commission. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Fund; and (b) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

An excise tax for high cost health coverage or "Cadillac" health plans was included in the Affordable Care Act (ACA) passed into law in March 2010. The provision levies a 40% tax on the value of health plan costs that exceed certain thresholds for single coverage or family coverage. If, between 2010 and 2018, the cost of health care insurance rises more than 55%, the threshold for the excise tax will be adjusted. Legislative changes from H.R. 1 (December 2017) and H.R. 195 (January 2018) have delayed the effective date of the excise tax until 2022. Additionally, thresholds are still indexed from 2018 amounts, but the thresholds are now adjusted based on chained CPI-U rather than CPI-U.

Also included in ACA are various fees (including, but not limited to, the Patient-Centered Outcomes Research Institute fee, Transitional Reinsurance Program fee, and the Health Insurer fee) associated with the initiation of health exchanges in 2014.

We believe that the current provisions of ACA should be reflected in the projection of benefits and therefore, we do include the value of the excise tax and ACA fees which apply to the plan(s). We assume that there will be no changes to the current law and that there will be no changes in plan design to help mitigate the impact of the excise tax.

The consultants who worked on this assignment are pension and health actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Scott Porter

Scott F. Porter, FSA
Principal and Consulting Actuary

Overview of GASB 74 and GASB 75

The Governmental Accounting Standards Board (GASB) released new accounting standards for public postemployment benefit plans other than pension (OPEB) and participating employers in 2015. These standards, GASB Statements No. 74 and 75, have substantially revised the accounting requirements previously mandated under GASB Statements No. 43 and 45. The most notable change is that the Annual Required Contribution (ARC) has been eliminated and the Net OPEB Liability will be an item on the employer's financial statement rather than a footnote entry.

GASB 74 applies to financial reporting for public OPEB plans and is required to be implemented for plan fiscal years beginning after June 15, 2016. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a trust fund of a government, it is subject to GASB 74. Under GASB 74, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 75 governs the specifics of accounting for public OPEB plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2017. GASB 75 requires a liability for OPEB obligations, known as the Net OPEB Liability (Total OPEB Liability for unfunded plans), to be recognized on the balance sheets of participating employers. Changes in the Net OPEB Liability (Total OPEB Liability for unfunded plans) will be immediately recognized as OPEB Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

Executive Summary

Relationship Between Valuation Date, Measurement Date, and Reporting Date

The Valuation Date is June 1, 2017. This is the date as of which the actuarial valuation is performed. The Measurement Date is May 31, 2018. This is the date as of which the total OPEB liability is determined. The Reporting Date is May 31, 2018 for GASB 74 and May 31, 2019 for GASB 75. This is the plan's and/or employer's fiscal year ending date. Commission has adopted this measurement date for the following fiscal year.

Significant Changes

There have been no significant changes between the valuation date and fiscal year end.

Actuarially Determined Contribution

The following exhibit provides the detailed calculation of the Actuarially Determined Contribution for the fiscal years ending May 31, 2019 and May 31, 2020. It is based on the unfunded liability as of June 1, two years before the end of the fiscal year. For example, the June 1, 2017 and June 1, 2018 unfunded liability determine the ADC payable for the 2019 and 2020 fiscal years, respectively.

	May 31, 2019	May 31, 2020
Normal Cost	$10,926,285	$11,262,268
Unfunded Actuarial Accrued Liability as of June 1, YY-2		
Actuarial Accrued Liability	421,775,468	437,477,516
Assets	380,045,168	424,543,526
Receivable Contributions for prior fiscal year [1]	27,297,446	15,506,579
Unfunded Actuarial Accrued Liability	14,432,854	(2,572,589)
Amortization		
Period (years)	10	10
Amount	1,849,965	(329,748)
Administrative Expense Assumption	25,000	25,000
Interest to May 31, 2019	1,169,225	1,000,825
Actuarially Determined Contribution	$13,970,475	$11,958,345

[1] For fiscal year ending May 31, 2019, Commission intends to contribution $1.5 million per month. This amount is reduced by expected contributions made by retirees and discounted for one-half year of interest.

Statement of Fiduciary Net Position

	May 31, 2017	May 31, 2018
Assets		
Cash and cash equivalents	$7,999,644	$10,556,243
Receivables and prepaid expenses:		
Receivable contributions	0	0
Receivable investment income	251,301	276,088
Receivables from brokers for unsettled trades	0	0
Prepaid expenses	0	0
Total receivables	251,301	276,088
Total Investments:	372,351,053	414,497,234
Invested securities lending cash collateral	0	0
Capital assets net of accumulated depreciation	0	0
Total assets	380,601,998	425,329,565
Liabilities		
Accrued expenses and benefits payable	529,284	668,905
Securities lending cash collateral	0	0
Payable to brokers for unsettled trades	27,546	117,134
Total liabilities	556,830	786,039
Net position restricted for postemployment benefits other than pensions	$380,045,168	$424,543,526

Statement of Changes in Fiduciary Net Position

	May 31, 2018
Additions	
Member contributions	$0
Employer contributions	28,170,647
Total contributions	28,170,647
Investment income (loss):	35,001,249
Less investment expenses:	
Direct investment expense	678,740
Securities lending management fees	0
Securities lending borrower rebates	0
Net investment income	34,322,509
Other income	0
Total additions	62,493,156
Deductions	
Claim payments	17,983,734
Administrative expenses	11,064
Total deductions	17,994,798
Net increase (decrease)	44,498,358
Net position restricted for postemployment benefits other than pensions	
Beginning of year (May 31, 2017)	380,045,168
End of year (May 31, 2018)	$424,543,526

Money-Weighted Rate of Return

Fiscal Year Ending May 31	Net Money-Weighted Rate of Return
2009	N/A
2010	N/A
2011	N/A
2012	N/A
2013	N/A
2014	N/A
2015	N/A
2016	N/A
2017	N/A
2018	8.87%

Calculation of Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value* - June 1, 2017	$380,601,998	12.00	1.00	$414,354,691
Monthly net external cash flows:				
June	912,185	12.00	1.00	993,080
July	1,407,439	11.00	0.92	1,521,874
August	461,430	10.00	0.83	495,146
September	1,137,960	9.00	0.75	1,212,839
October	1,075,719	8.00	0.67	1,138,735
November	217,187	7.00	0.58	228,159
December	1,097,670	6.00	0.50	1,145,308
January	250,712	5.00	0.42	259,820
February	862,459	4.00	0.33	886,984
March	1,045,482	3.00	0.25	1,067,928
April	1,047,152	2.00	0.17	1,062,387
May	956,093	1.00	0.08	962,614
Ending Value* - May 31, 2018				425,329,565
Money-Weighted Rate of Return	8.87%			

* Excludes payables

Long-Term Expected Rate of Return

The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman's investment consulting practice as of December 31, 2017.

Asset Class	Index	Target Allocation*	Long-Term Expected Real Rate of Return
US Cash	BAML 3-Mon Tbill	1.50%	0.18%
US Short Bonds	Barclays 1-3 Yr Gvt/Credit	3.18%	1.34%
US Interm Bonds	Barclays IT Gvt/Credit	2.12%	1.72%
US High Yield Bonds	BAML High Yield	4.40%	4.69%
Global Bonds	Citi WGBI	7.90%	0.45%
US Large Caps	S&P 500	20.50%	4.30%
US Small Caps	Russell 2000	7.30%	5.53%
US Small Growth	Russell 2000 Growth	3.20%	6.45%
Global Equity	MSCI ACWI NR	6.50%	4.95%
Non-US Equity	MSCI ACWI xUS NR	3.60%	5.78%
Foreign Developed Equity	MSCI EAFE NR	6.90%	5.52%
Emerging Markets Equity	MSCI EM NR	5.60%	7.82%
Private Real Estate Property	NCREIF Property	14.30%	3.83%
Commodities	Dow Jones UBS	3.70%	3.04%
Hedge FOF Diversified	HFRI FOF Diversified	8.30%	1.97%
Hedge Funds - Event-Driven	HFRI Event-Driven	1.00%	3.54%

Assumed Inflation - Mean	2.30%
Assumed Inflation - Standard Deviation	1.85%
Portfolio Nominal Mean Return	6.34%
Portfolio Standard Deviation	10.74%
Long-Term Expected Rate of Return selected by Commission	**6.00%**

* As outlined in the Plan's investment consultant's report as of January 31, 2018

Net OPEB Liability

Net OPEB Liability	May 31, 2017	May 31, 2018
Total OPEB liability	$421,775,468	$437,477,516
Fiduciary net position	380,045,168	424,543,526
Net OPEB liability	41,730,300	12,933,990
Fiduciary net position as a % of total OPEB liability	90.11%	97.04%
Covered payroll	N/A	108,072,334
Net OPEB liability as a % of covered payroll	N/A	11.97%

The total OPEB liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below, and was then projected forward to the measurement date. There have been no significant changes between the valuation date and the fiscal year end. Any significant changes during this period must be reflected as prescribed by GASB 74 and 75.

Discount Rate

Discount rate	6.00%	6.00%
Long-term expected rate of return, net of investment expense	6.00%	6.00%
Municipal bond rate	N/A	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total OPEB liability is equal to the long-term expected rate of return.

Other Key Actuarial Assumptions

The plan has not had a formal actuarial experience study performed.

Valuation date	May 31, 2017	June 1, 2017
Measurement date	May 31, 2017	May 31, 2018
Actuarial cost method	Entry Age Normal	Entry Age Normal

Detailed Assumptions can be found in Appendix B

Changes in Net OPEB Liability

Changes in Net OPEB Liability	Increase (Decrease) Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances as of May 31, 2017	$421,775,468	$380,045,168	$41,730,300
Changes for the year:			
Service cost	10,926,285		10,926,285
Interest on total OPEB liability	25,430,453		25,430,453
Effect of plan changes	0		0
Effect of economic/demographic gains or losses	(2,670,956)		(2,670,956)
Effect of assumptions changes or inputs	0		0
Benefit payments	(17,983,734)	(17,983,734)	0
Employer contributions		28,170,647	(28,170,647)
Member contributions		0	0
Net investment income		34,322,509	(34,322,509)
Administrative expenses		(11,064)	11,064
Balances as of May 31, 2018	437,477,516	424,543,526	12,933,990

Sensitivity Analysis

The following presents the net OPEB liability of the Commission, calculated using the discount rate of 6.00%, as well as what the Commission's net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.00%) or 1 percentage point higher (7.00%) than the current rate.

	1% Decrease 5.00%	Current Discount Rate 6.00%	1% Increase 7.00%
Total OPEB liability	$496,390,939	$437,477,516	$388,954,171
Fiduciary net position	424,543,526	424,543,526	424,543,526
Net OPEB liability	71,847,413	12,933,990	(35,589,355)

The following presents the net OPEB liability of the Commission, calculated using the current healthcare cost trend rates as well as what the Commission's net OPEB liability would be if it were calculated using trend rates that are 1 percentage point lower or 1 percentage point higher than the current trend rates.

	1% Decrease	Current Trend Rate	1% Increase
Total OPEB liability	$383,083,696	$437,477,516	$504,882,691
Fiduciary net position	424,543,526	424,543,526	424,543,526
Net OPEB liability	(41,459,830)	12,933,990	80,339,165

Schedule of Changes in Net OPEB Liability and Related Ratios
(in 1,000s)

	Fiscal Year Ending May 31									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total OPEB Liability										
Service cost	$10,926	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Interest on total OPEB liability	25,430	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Changes of benefit terms	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Effect of economic/demographic (gains) or losses	(2,671)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Effect of assumption changes or inputs	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benefit payments	(17,984)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net change in total OPEB liability	15,702	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total OPEB liability, beginning	421,775	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total OPEB liability, ending (a)	437,478	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fiduciary Net Position										
Employer contributions	$28,171	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net Investment income	34,323	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benefit payments	(17,984)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Administrative expenses	(11)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net change in plan fiduciary net position	44,498	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fiduciary net position, beginning	380,045	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fiduciary net position, ending (b)	424,544	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net OPEB liability, ending = (a) - (b)	$12,934	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fiduciary net position as a % of total OPEB liability	97.04%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Covered payroll	$108,072	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net OPEB liability as a % of covered payroll	11.97%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

Schedule of Employer Contributions

Fiscal Year Ending May 31	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2009	N/A	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A
2012	28,821,000	54,397,380	(25,576,380)	N/A	N/A
2013	23,422,846	54,767,831	(31,344,985)	N/A	N/A
2014	18,353,007	44,228,605	(25,875,598)	N/A	N/A
2015	12,683,430	46,179,436	(33,496,006)	N/A	N/A
2016	11,368,403	28,143,542	(16,775,139)	N/A	N/A
2017	11,121,401	28,176,005	(17,054,604)	N/A	N/A
2018	8,383,640	28,170,647	(19,787,007)	108,072,334	26.07%

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

OPEB Expense

OPEB Expense	June 1, 2017 to May 31, 2018
Service cost	$10,926,285
Interest on total OPEB liability	25,430,453
Effect of plan changes	0
Administrative expenses	11,064
Member contributions	0
Expected investment return net of investment expenses	(23,103,539)
Recognition of Deferred Inflows/Outflows of Resources	
Recognition of economic/demographic gains or losses	(430,799)
Recognition of assumption changes or inputs	0
Recognition of investment gains or losses	(2,243,794)
OPEB Expense	10,589,670

As of May 31, 2018, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	($2,240,157)	$0
Changes of assumptions	0	0
Net difference between projected and actual earnings	(8,975,176)	0
Contributions made subsequent to measurement date	0	0
Total	(11,215,333)	0

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to other postemployment benefits will be recognized in OPEB expense as follows:

Year ended May 31:	
2019	($2,674,593)
2020	(2,674,593)
2021	(2,674,593)
2022	(2,674,593)
2023	(430,799)
Thereafter*	(86,162)

* Note that additional future deferred inflows and outflows of resources may impact these numbers.

Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Recognition Period*	Amount Recognized in 05/31/2018 Expense	Balance of Deferred Inflows 05/31/2018	Balance of Deferred Outflows 05/31/2018
Investment (gains) or losses	($11,218,970)	5/31/2018	5.0	(2,243,794)	(8,975,176)	0
		Total		(2,243,794)	(8,975,176)	0
Economic/demographic (gains) or losses	(2,670,956)	5/31/2018	6.2	(430,799)	(2,240,157)	0
		Total		(430,799)	(2,240,157)	0
Assumption changes or inputs	0	5/31/2018	0.0	0	0	0
		Total		0	0	0

* Investment (gains)/losses are recognized in OPEB expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability	Deferred Inflows	Deferred Outflows	Net Deferrals	Net OPEB Liability plus Net Deferrals	Annual Expense
Balances as of May 31, 2017	($421,775,468)	$380,045,168	($41,730,300)	$0	$0	$0	($41,730,300)	
Service cost	(10,926,285)		(10,926,285)					10,926,285
Interest on total OPEB liability	(25,430,453)		(25,430,453)					25,430,453
Effect of plan changes	0		0					0
Effect of liability gains or losses	2,670,956		2,670,956	(2,670,956)		(2,670,956)		
Effect of assumption changes or inputs	0		0			0		
Benefit payments	17,983,734	(17,983,734)	0					
Administrative expenses		(11,064)	(11,064)					11,064
Member contributions		0	0					0
Expected investment income (net of inv expenses)		23,103,539	23,103,539					(23,103,539)
Investment gains or losses		11,218,970	11,218,970	(11,218,970)		(11,218,970)		
Employer contributions		28,170,647	28,170,647				28,170,647	
Recognition of liability gains or losses				430,799		430,799		(430,799)
Recognition of assumption changes or inputs						0		0
Recognition of investment gains or losses				2,243,794		2,243,794		(2,243,794)
Annual expense							(10,589,670)	10,589,670
Balances as of May 31, 2018	(437,477,516)	424,543,526	(12,933,990)	(11,215,333)	0	(11,215,333)	(24,149,323)	

Net OPEB Obligation

The following exhibit includes the information needed to comply with GASB Statement No. 45, “Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions”, for the fiscal year ending May 31, 2018, along with the prior-period adjustment necessary to transition to GASB 75.

Net OPEB obligation/(asset) on May 31, 2017	($122,542,061)
Annual Required Contribution	8,383,640
Interest on net OPEB obligation/(asset)	(7,965,234)
Adjustment to Annual Required Contribution	(17,046,175)
Annual OPEB cost	17,464,581
Contributions made	28,170,647
Increase in net OPEB obligation/(asset)	(10,706,066)
Net OPEB obligation/(asset) on May 31, 2018	(133,248,127)
Prior-period adjustment	174,978,427
Net OPEB liability on June 1, 2017	41,730,300

Actuarial Methods and Assumptions Used for Funding Policy

The employer pre-funds benefits through contributions to the trust. It is based on the unfunded liability as of June 1, two years before the end of the fiscal year. For example, the June 1, 2017 and June 1, 2018 unfunded liability determine the ADC payable for the 2019 and 2020 fiscal years, respectively. The following actuarial methods and assumptions were used to calculate the Actuarially Determined Contribution.

Valuation Timing	Full actuarial valuations are performed every other year. Beginning with the June 1, 2017 valuation, the valuation date is June 1. Roll-forward Interim valuations are performed in even years. Actuarial valuations determine actuarially determined contribution for the fiscal year ending 2 years after the valuation date. For example, the June 1, 2017 actuarial valuation determines the ADC payable for the fiscal year ending May 31, 2019.
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level dollar amortization over a period of 10 years
Asset Valuation Method	Market Value plus discounted receivable contributions made attributable to a prior fiscal year
Inflation	2.30%
Salary Increases for union members	3.00%
Salary Increases for management members	3.30%
Investment Return Assumption	6.00%
Other Assumptions	See Appendices to this report

Depletion Date Projection

GASB 74 and 75 generally require that a blended discount rate be used to measure the Total OPEB Liability (the Actuarial Accrued Liability calculated using the Individual Entry Age Normal Cost Method). The long-term expected return on plan investments may be used to discount liabilities to the extent that the plan's Fiduciary Net Position (fair market value of assets) is projected to cover benefit payments and administrative expenses. A 20-year tax-exempt municipal bond yield or index rate must be used for periods where the Fiduciary Net Position is not projected to cover benefit payments and administrative expenses. Determining the discount rate under GASB 74 and 75 will often require that the actuary perform complex projections of future benefit payments and asset values. GASB 74 and 75 (paragraph 29) do allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. GASB does not contemplate a specific method for making an alternative evaluation of sufficiency; it is left to professional judgment.

The following circumstances justify an alternative evaluation of sufficiency for the Pennsylvania Turnpike Commission:

- The Pennsylvania Turnpike Commission has at least a 5-year history of paying an amount in excess of the Actuarially Determined Contribution (previously termed the Annual Required Contribution).

- The OPEB Plan has been and/or is nearly fully funded. The Actuarially Determined Contribution is based on a sufficiently short amortization period of any unfunded liability, which means that payment of the Actuarially Determined Contribution each year will bring the plan to a 100% funded position at the end of the period.

- GASB 74 and 75 specify that the projections regarding future solvency assume that plan assets earn the assumed rate of return and there are no future changes in the plan provisions or actuarial methods and assumptions, which means that the projections would not reflect any adverse future experience which might impact the plan's funded position

Based on these circumstances, it is our professional opinion that the detailed depletion date projections outlined in GASB 74 and 75 will show that the Fiduciary Net Position is always projected to be sufficient to cover benefit payments and administrative expenses.

Glossary

Actuarially Determined Contribution	A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.
Deferred Inflows/Outflows of Resources	Portion of changes in net OPEB liability that is not immediately recognized in OPEB Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
Discount Rate	Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of: 1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return. 2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.
Fiduciary Net Position	Equal to market value of assets.
Long-Term Expected Rate of Return	Long-term expected rate of return on plan investments expected to be used to finance the payment of benefits, net of investment expenses.
Money-Weighted Rate of Return	The internal rate of return on plan investments, net of investment expenses.
Municipal Bond Rate	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
Net OPEB Liability	Total OPEB Liability minus the Plan's Fiduciary Net Position.
Projected Benefit Payments	All benefits estimated to be payable through the OPEB plan to current active and inactive employees as a result of their past service and expected future service.
Service Cost	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total OPEB Liability	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 74 and 75.

Appendix A - Summary of Census Data as of June 1, 2017

	Management [1]	Union	Total
Active Employees			
Number	487	1,448	1,935
Average age (in years)	50.0	49.7	49.8
Average Commission service (in years)	14.8	12.9	13.4
Average SERS service (in years)	16.3	12.0	13.1
Retirees			
Retired prior to July 1, 1998 / October 1, 1997	19	79	98
Retired after July 1, 1998 / October 1, 1997	345	898	1,243
Total number	364	977	1,341
Average age (in years)	67.5	69.6	69.0
Number with medical benefits	357	935	1,292
Number with Rx benefits	338	896	1,234
Number with dental/vision benefits	345	0	345
Number with spousal coverage for medical, Rx, and/or dental/vision benefits	268	608	876
Surviving Spouses			
Number	41	126	167
Average age (in years)	76.3	79.8	78.9
Number with medical benefits	40	125	165
Number with Rx benefits	23	30	53
Number with dental/vision benefits	27	0	27
Current Medical Plan Election for Retirees and Surviving Spouses			
Highmark or Aetna PPO for non-Medicare	137	260	397
Highmark Carveout (for disabled members)	13	38	51
Highmark Signature 65	192	447	639
Freedom Blue Medicare Advantage (with Rx)	10	53	63
Freedom Blue Medicare Advantage (without Rx)	32	173	205
Aetna Medicare Advantage PPO (with Rx)	1	19	20
Aetna Medicare Advantage PPO (without Rx)	12	70	82
None elected	8	43	51
Total	405	1,103	1,508

[1] Includes union supervisors

Appendix B - Summary of Principal Plan Provisions

The Summary of Principal Plan Provisions is based on our understanding of the benefits as described by the Commission. It is intended only to describe the essential features of the Plan for valuation purposes. Eligibility for benefits and benefit amounts are determined by the Plan Administrator and are based on the full and complete plan provisions, not on this summary.

1) Type of Plans Covered: Medical, pharmacy, dental and vision benefits are covered by this valuation, although not all retirees are eligible for each of these benefits. Cost sharing varies by employee group and date employee retired. No life insurance benefits are provided to members after termination of employment.

2) Eligibility for Membership: Employment that provides for accrual of service under the Pennsylvania State Employees Retirement System (SERS). Supplemental employees are not eligible for postretirement health benefits, but service accrued as a supplemental employee is included for eligibility purposes if the employee subsequently becomes a regular employee.

3) Credited Service: Credited Service equals pension credit service under SERS.

4) Medical Benefits: For non-Medicare eligible retirees, the Commission provides PPO plans through Highmark BlueShield and Aetna. For Medicare-eligible retirees, the Commission offers three options: 1) Signature 65 through Highmark BlueShield, 2) Freedom Blue Medicare Advantage Plan through Highmark BlueShield and 3) Aetna Medicare Advantage PPO. Freedom Blue and Aetna offer plans with and without prescription drug coverage. The Freedom Blue and Aetna plans are fully-insured and the other plans are self-insured. If a plan with prescription drug coverage is elected, the retiree is not eligible for the stand alone prescription drug plan.

5) Prescription Drug (Rx) Benefits: For management employees who retire on or after July 1, 1998 and union employees who retire on or after October 1, 1997, a self-insured prescription drug plan through Aetna is provided. This separate plan is not available to management employees who retired prior to July 1, 1998 and union employees who retired prior to October 1, 1997; however, these Medicare-eligible retirees may elect the Freedom Blue or Aetna plans with medical and prescription drug coverage.

6) Dental Benefits: For management employees who retire on or after July 1, 1998, a self-insured Concordia Flex plan is provided. No dental benefits are provided to management employees who retired prior to July 1, 1998 or union employees.

7) Vision Benefits: For management employees who retire on or after July 1, 1998, a self-insured Highmark Vision plan is provided. No vision benefits are provided to management employees who retired prior to July 1, 1998 or union employees.

Appendix B - Summary of Principal Plan Provisions

8) Monthly premiums: The monthly premiums for the various plans as of January 1, 2017 are summarized below. For the self-insured plans, these monthly premiums represent COBRA premium equivalence and are used to determine any required contributions.

Under age 65 medical plans			
Coverage Level	Highmark PPO	Aetna PPO	Highmark Signature 65 for Disabled Retirees (with RX)
Single	$619.11	$533.60	$178.37
Member/Spouse	1,393.00	1,200.61	356.77
Family	1,795.45	1,547.45	356.77

Age 65 or over medical plans			
Coverage Level	Highmark Signature 65	Freedom Blue Medicare Advantage	Aetna Medicare Advantage PPO
Individual Rate with RX	n/a	$299.00	$253.45
Individual Rate without RX	$161.72	192.00	165.50

Other plans a)				
Coverage Level	Aetna RX for under age 65	Aetna RX for Age 65 & over	Dental	Vision
Single	$169.00	$206.31	$39.87	$8.80
Member/Spouse	354.90	433.24	84.96	17.60
Family	473.21	577.66	127.44	26.40

Appendix B - Summary of Principal Plan Provisions

9) Benefits for Union Employees:

   a) Covered Groups: Non-supervisory union employees and their dependents are covered.

   b) Eligibility: Satisfaction of either of the following eligibility requirements:

      (1) Retirement: For Local 30 Professionals who were hired prior to January 1, 2011 and Local 250 and 77 employees who were hired prior to February 1, 2016, the earlier of completion of 20 years of Credited Service or the later of attainment of age 60 and completion of 10 years of Credited Service. The last 5 years of Credited Service must be with the Commission.

      (2) Retirement: For Local 30 Professionals who were hired on or after January 1, 2011 and Local 250 and 77 employees who were hired on or after February 1, 2016, the earlier of completion of 30 years of Credited Service or the later of attainment of age 60 and completion of 25 years of Credited Service. The last 10 years of Credited Service must be with the Commission.

      (3) Termination due to Disability: No benefits are provided upon termination of employment due to disability if retirement conditions have not been met.

      (4) Vested Termination: No benefits are provided upon termination of employment if retirement conditions have not been met.

      (5) Active Death: No benefits are provided to surviving dependents upon death if employee has not retired.

   c) Health Benefit Duration: Retiree coverage is provided for lifetime. Spouse coverage is provided for the spouse's lifetime. Coverage for non-disabled children ceases at age 26. Coverage for disabled children ceases upon the retiree's death. If a retiree or spouse cease coverage, they may elect to be re-covered at a later date.

   d) Retiree Cost Sharing: Medicare-eligible retirees and Medicare-eligible spouses and dependents contribute the difference between the monthly premium and $73.50 per covered individual if the member retired on or after October 1, 1997 or $19.28 per covered individual if the member retired before October 1, 1997. In addition, non-Medicare eligible spouses and dependents of Medicare-eligible retirees who retired before October 1, 1997 contribute the difference between the monthly premium and $19.28 per covered individual. There is no cost sharing for prescription drug benefits if eligible.

Appendix B - Summary of Principal Plan Provisions

For Local 30 Professionals who retire on or after January 1, 2014 and Local 250 and 77 employees who retire on or after February 1, 2016, must participate in a wellness program or contribute 5% of the premium if less than age 65. This mandate also applies to spouses under age 65 and other adult dependents age 19 to 26.

e) Surviving Spouse Cost Sharing: All surviving spouses contribute the full premium cost for medical and prescription drug benefits, if eligible.

10) Benefits for Management Employees:

a) Covered Groups: Management and supervisory union employees and their dependents are covered.

b) Eligibility: Satisfaction of either of the following eligibility requirements:

(1) Retirement: For management and supervisory union employees who were hired prior to March 1, 2016, the earlier of completion of 20 years of Credited Service or the later of attainment of age 60 and completion of 10 years of Credited Service. The last 5 years of Credited Service must be with the Commission.

(2) Retirement: For management and supervisory union employees who were hired on or afer March 1, 2016, the earlier of completion of 30 years of Credited Service or the later of attainment of age 60 and completion of 25 years of Credited Service. The last 10 years of Credited Service must be with the Commission.

(3) Termination due to Disability: No benefits are provided upon termination of employment due to disability if retirement conditions have not been met.

(4) Vested Termination: No benefits are provided upon termination of employment if retirement conditions have not been met.

(5) Active Death: Benefits are provided to surviving spouse and dependents if the employee met the retirement conditions at the time of death.

c) Health Benefit Duration: Retiree coverage is provided for lifetime. Spouse coverage is provided for the spouse's lifetime. Coverage for non-disabled children ceases at age 26. Coverage for disabled children is provided for the child's lifetime. If a retiree or spouse cease coverage, they may elect to be re-covered at a later date.

Appendix B - Summary of Principal Plan Provisions

d) Retiree Cost Sharing: For members who retired before July 1, 1998, Medicare-eligible retirees and Medicare-eligible spouses and dependents contribute the difference between the monthly premium and $19.28 per covered individual. In addition, non-Medicare eligible spouses and dependents of Medicare-eligible retirees who retired before July 1, 1998 contribute the difference between the monthly premium and $19.28 per covered individual. There is no cost sharing for retirees who retire on or after July 1, 1998.

For members who retire on or after February 1, 2016, must participate in a wellness program or contribute 5% of the premium if less than age 65. This mandate also applies to spouses under age 65 and other adult dependents age 19 to 26.

e) Surviving Spouse Cost Sharing: Surviving spouses of employees who retired prior to March 1, 2001 contribute the full premium cost for medical, prescription drug, vision and dental benefits, if eligible. No contributions are required for surviving spouses of employees who retire on or after March 1, 2001, except for those required to participate in the wellness program.

11) Changes since Prior Actuarial Valuation

None.

Appendix C - Summary of Actuarial Assumptions

A. Actuarial Assumptions

Discount Rate: 6.0% per annum, compounded annually.

Salary Increases: 3.0% for union members and 3.3% for management members, per annum, compounded annually.

Administrative Expenses: $25,000 per year for purposes of determining Actuarially Determined Contribution.

Health Cost Trend: The healthcare trend assumption is based on the Society of Actuaries-Getzen Model version 2017.2 utilizing the baseline assumptions included in the model for medical and prescription drug benefits. Adjustments are applied based on percentage of costs associated with administrative expenses, aging factors, potential excise taxes due to healthcare reform, and other healthcare reform provisions. The health cost trend assumption for medical and prescription benefits at sample years is as follows:

Valuation Year	Pre-65 Trend	Post-65 Trend
2017	6.30%	6.30%
2018	5.70	5.80
2019	5.20	5.20
2020	4.90	4.90
2025	4.80	4.70
2030	5.50	4.80
2035	5.50	4.80
2040	5.60	4.90
2050	5.20	4.70
2060	5.00	4.90
2070	4.30	4.80

The health cost trend assumption for dental and vision benefits and premiums is assumed to be 4.0% per year.

For purposes of applying the Entry Age Normal cost method, the healthcare trend prior to the valuation date is based on the ultimate rate, which is 4.0% for costs prior to 65 and 4.2% of costs at age 65 and later.

Appendix C - Summary of Actuarial Assumptions

Monthly Per Capita Claims Cost: Expected claim costs vary by age, gender and employee versus spouse. The claim costs shown below represent medical and pharmacy benefits and also include a provision for reinsurance premiums and administrative expenses of health plans. Please refer to the development of per capita claims cost at the end of this Section.

Appendix C - Summary of Actuarial Assumptions

Highmark PPO, Classic Blue, Carveout, and Signature 65

Age Group	Male Retirees	Female Retirees	Male Spouses	Female Spouses
45-49	$850	$1,105	$559	$680
50-54	858	952	672	753
55-59	963	973	769	830
60-64	1,199	1,125	978	932
65-69	150	151	150	151
70-74	183	175	183	175
75-79	215	203	215	203
80-84	248	233	248	233
85 & Over	291	272	291	272

Freedom Blue

	with Prescription Coverage		without Prescription Coverage	
Age Group	Males	Females	Males	Females
65-69	$306	$300	$168	$185
70-74	319	295	196	190
75-79	330	289	212	194
80-84	329	294	219	209
85 & Over	325	270	228	204

Aetna RX

Age Group	Male Retirees	Female Retirees	Male Spouses	Female Spouses
45-49	$306	$353	$199	$216
50-54	281	314	219	247
55-59	313	342	249	291
60-64	359	376	293	311
65-69	303	278	303	278
70-74	323	294	323	294
75-79	326	296	326	296
80-84	318	289	318	289
85 & Over	295	265	295	265

Appendix C - Summary of Actuarial Assumptions

Claim costs for retirees electing the Aetna Medicare Advantage PPO plans with or without prescription coverage are 84.8% and 86.2% of the Freedom Blue Medicare Advantage plans with or without prescription coverage, respectively.

Premiums are used as the claim costs for the Concordia Flex (dental) plan and the Highmark Vision plan.

Coverage Election Rates: All eligible future retirees are assumed to elect all available coverage (Highmark PPO for under 65 medical, Aetna Rx and additionally for management employees, Concordia Flex for dental and Highmark Vision). Upon attainment of Medicare eligibility, 60% of retirees are assumed to elect Signature 65 and 40% of retirees are assumed to elect Freedom Blue (without Rx). Actual elections are used for current retirees. Retirees or spouses who ceased coverage are not assumed to re-elect coverage in the future. All members are assumed to participate in the mandatory wellness program in lieu of a 5% premium contribution.

Dependent Coverage: 80% of eligible male members and 40% of eligible female members are assumed to cover a spouse. Actual spousal elections for current retirees are used. Husbands are assumed to be the same age as wives. Actual spouse age is used for current retirees. No dependent children are assumed.

Termination: Crocker Sarason T-3 table. Sample rates are as follows. No members are assumed to terminate employment once eligible for postretirement health benefits.

Age	Rate	Age	Rate
20	6.6%	40	3.8%
25	5.3	45	3.2
30	4.8	50	1.5
35	4.5	55	0.3

Appendix C - Summary of Actuarial Assumptions

Retirement: The following annual rates of retirement are assumed once the employee is eligible for postretirement health benefits. Rates vary by age and eligibility for unreduced pension benefits in Pennsylvania SERS. If the member was hired before January 1, 2011 (Class A or AA), unreduced pension benefits are available at age 60 with three years of credited state service or 35 years of credited service, regardless of age. If the member was hired after December 31, 2010 (Class A-3 or A-4), unreduced pension benefits are available at age 65 with three years of credited state service or total attained age and years of credited service of 92 (the "Rule of 92") with credited service being at least 35 years.

	If hired before January 1, 2011		If hired after December 31, 2010	
Age	Less Than 35 Years of Service	35 or More Years of Service	Less than Rule of 92 and Less than 35 Years of Service	Rule of 92 and 35 or More Years of Service
Under 50	0.0%	25.0%	0.0%	25.0%
50	1.0	25.0	1.0	25.0
51-52	1.0	25.0	1.0	25.0
53	1.0	25.0	1.0	25.0
54	2.0	25.0	2.0	25.0
55-56	2.0	25.0	2.0	25.0
57-58	3.0	25.0	3.0	25.0
59	5.0	25.0	5.0	25.0
60	25.0	25.0	12.5	25.0
61	15.0	25.0	10.0	25.0
62	37.5	37.5	20.0	37.5
63	20.0	25.0	15.0	25.0
64	20.0	25.0	15.0	25.0
65	40.0	40.0	30.0	30.0
66	30.0	30.0	30.0	30.0
67	25.0	25.0	30.0	30.0
68	25.0	25.0	25.0	25.0
69	40.0	40.0	40.0	40.0
70 & Over	100.0	100.0	100.0	100.0

Mortality: RPH-2014 Total Dataset Mortality Tables adjusted to reflect Mortality Improvement Scale MP-2017 from 2006 base year and projected forward on a generational basis (based on recommendation of Society of Actuaries' Retirement Plans Experience Committee), with employee rates before benefit commencement and healthy annuitant rates after benefit commencement, and reflecting mortality improvements both before and after the valuation date.

Appendix C - Summary of Actuarial Assumptions

Benefits Not Valued: As retirement conditions must be met upon disability, disability benefits are not separately valued.

Special Data Adjustments: Credited Service under SERS was determined based as the elapsed time from the provided vacation accrual date to the valuation date. If no vacation accrual date was provided, the provided date of hire was used.

B. Development of Per Capita Claims Cost

We received information regarding the Commission's benefit programs as of June 1, 2017, actual claim payments during January 2015 to December 2016 for claims incurred in the current and prior periods and enrollment counts during this period. The information was provided separately for actives and retirees by benefit type and health plan. Milliman used the Health Cost Guidelines® (HCGs) to develop relativity factors that varied by benefit type, age, and gender. We also received information on premium rates and actual premiums paid by the Commission for actives and retirees and on stop-loss payments. Based on this information and the current demographics of the covered population, claim costs by age for males and females were developed. Separate costs were developed for spouses. No costs were included for dependent children.

C. Actuarial Cost Method

In accordance with GASB 74/75, the Entry Age Normal cost method was used for determining service costs and the actuarial accrued liability. Costs are determined as a level percent of pay.

For determining the actuarial accrued liability, the employee's service as of the valuation date is the elapsed time from the latest date of hire with the Commission to the valuation date. The latest date of hire was determined as the rehire date if provided and the date of hire otherwise.

D. Changes since Prior Actuarial Valuation

The changes listed below reflect differences from the January 1, 2016 actuarial valuation in accordance with GASB Statements 43 and 45 to the June 1, 2017 actuarial valuation in accordance with GASB Statements 74 and 75. There are no changes in assumptions between June 1, 2017 and May 31, 2018 reflected in GASB Statements 74 and 75.

- The discount rate was reduced from 6.5% per year to 6.0% per year.

Appendix C - Summary of Actuarial Assumptions

- The mortality base table was updated from RP-2000 healthy tables to RPH-2014 total dataset tables and the mortality improvement assumption was updated from Scale AA applied from a 2000 base year to MP-2017 applied from the 2006 base year.

- The retirement rates were updated to reflect recent experience.

- Per capita claims costs were updated based on recent experience of Commission retirees and the healthcare trend was updated.

- Claim costs for the Freedom Blue Medicare Advantage plans and the Aetna Medicare Advantage PPO plans were age adjusted to reflect changes in actuarial standards of practice.

- In accordance with GASB 74/75, the actuarial cost method was updated from Projected Unit Credit Method to the Entry Age Normal cost method for determining service costs and the actuarial accrued liability. Costs are determined as a level percent of pay.

- Active liabilities and normal costs for medical and Rx benefits are no longer loaded 2% to account for the possible transfer of supplemental employees to regular employees in subsequent years. Supplemental employees will be incorporated in the valuation upon transfer to a regular employee position.

- The administrative expense assumption was decreased from $150,000 per year to $25,000 per year to account for the re-classification of certain expenses as investment-related.