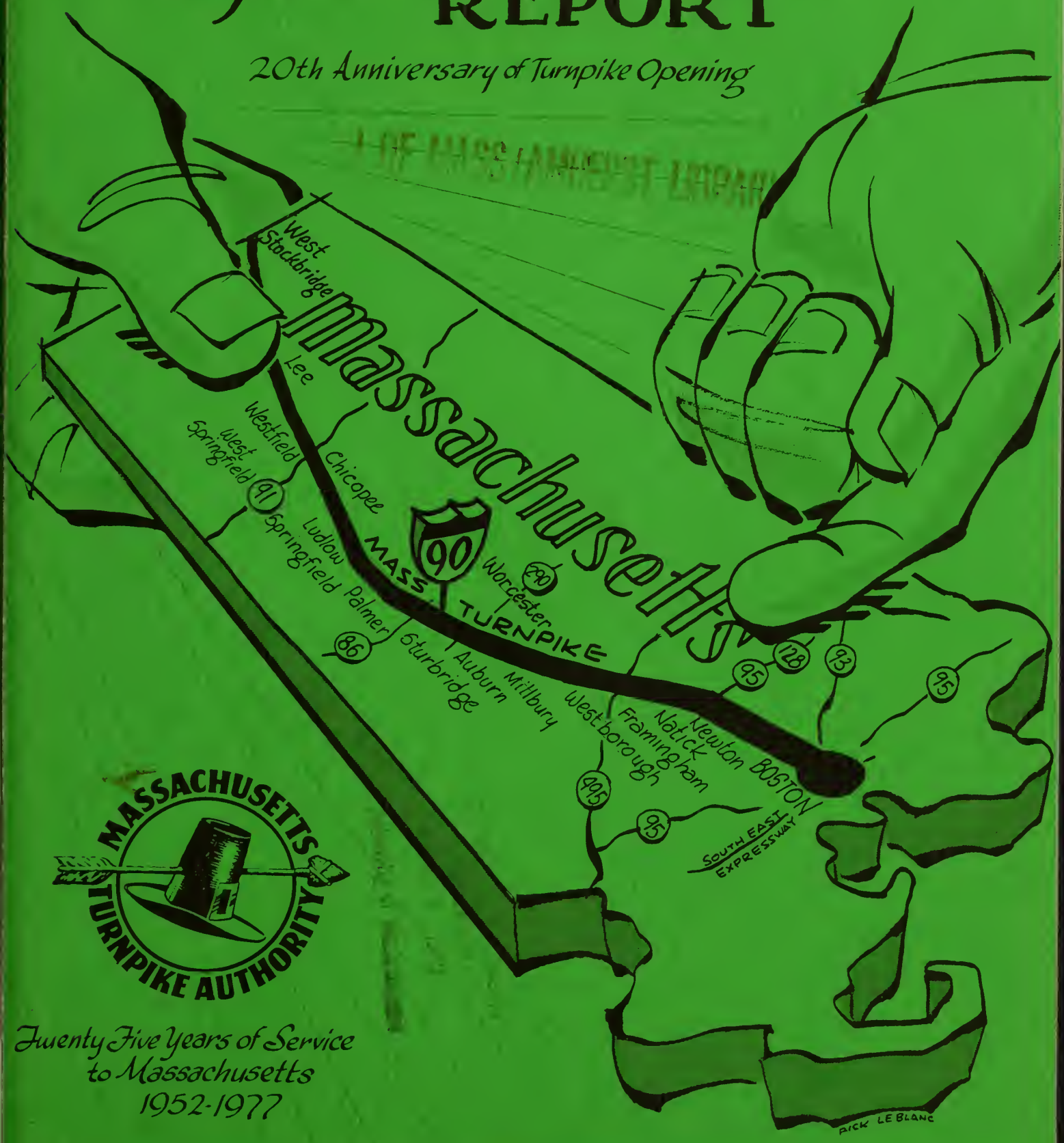
Massachusetts Turnpike Authority

1977 ANNUAL REPORT

20th Anniversary of Turnpike Opening



MASSACHUSETTS TURNPIKE AUTHORITY

Twenty Five Years of Service to Massachusetts 1952-1977

The Massachusetts Turnpike Authority was created by Chapter 354 of the Acts of 1952 as an autonomous instrumentality of the Commonwealth to discharge the public functions which have, from time to time, been delegated to it by the Legislature. The Authority acts through a board of three members, one of whom is designated as Chairman, who are appointed by the Governor for terms of eight years.

The Authority operates three separate and financially distinct facilities, i.e., The Massachusetts Turnpike, The Callahan-Sumner Tunnels and The Boston Extension of the Massachusetts Turnpike. These facilities were financed by means of three revenue bond issues totalling over five hundred million dollars. Neither the faith and credit nor the taxing power of the Commonwealth of Massachusetts or of any political subdivision thereof is pledged to the payment of the principal of or interest on the Bonds. The funds providing for the maintenance, operation and policing of these facilities, as well as principal and interest payments on the bond issues, are derived solely from tolls and other revenues generated by users.

CONTENTS

MASSACHUSETTS TURNPIKE AUTHORITY STAFF

Finance and Administration Office	**S. J. Britton**, Secretary-Treasurer
Administrative Services Division	**J. W. Francis**, Assistant Secretary Assistant Treasurer
Computer Services Division	**J. J. Hanlon**, Manager of Computer Services
Financial Services Division	**K. Lewis**, Controller
Retirement System	**G. F. Coughlin**, Secretary to Retirement Board
Affirmative Action and Equal Opportunity Office	**A. T. McCann**, Equal Employment Opportunity Officer
Legal Office	**L. E. Ryan**, Resident Counsel
Personnel Office	**R. W. Gallagher**, Director of Personnel
Community Relations Office	**M. J. Capizzi**, Director of Community Relations
Engineering and Maintenance Department	**M. C. Crain**, Chief Engineer
Facilities Division	**J. N. Grim**, Assistant Chief Engineer
Maintenance Division	**J. T. Dias**, Maintenance Engineer
Toll Collection Department	**H. Finn**, Superintendent of Toll Collection
Tunnels Department	**W. P. Driscoll**, Superintendent of Tunnels
Troop "E", Massachusetts State Police	**J. J. Cronin, Jr.**, Commander

IN DEDICATION

The 25th Annual Report of the Massachusetts Turnpike Authority is dedicated to the following past members and their contributions to the success of the organization:

William F. Callahan (1891 - 1964)
Chairman, 1952 - 1964

Benjamin H. Grout (1888 - 1963)
Vice Chairman, 1952 - 1961

John R. Kewer (1902-1977)
Member, 1952 - 1960

Anthony N. DiNatale, Member, 1960 - 1967
Joseph H. Elcock, Vice Chairman, 1960 - 1966

Francis V. Matera, Member, 1964 - 1966
Philip A. Graham, Vice Chairman, 1966 - 1973

MASSACHUSETTS TURNPIKE AUTHORITY
SUITE 3000, PRUDENTIAL CENTER
BOSTON, MASSACHUSETTS 02199

JOHN T. DRISCOLL, CHAIRMAN
ALBERT P. MANZI, VICE-CHAIRMAN
DAVID R. NAGLE, MEMBER

536-1400

February 28, 1978

His Excellency Michael S. Dukakis
Governor of the Commonwealth of Massachusetts
and
Members of the Senate and House of Representatives
Boston, Massachusetts

His Excellency and Honorable Members:

In accordance with this Authority's enabling legislation, section 15, Chapter 354, Acts of 1952, as amended, we are pleased to submit herewith the Twenty-fourth Annual Report of the Massachusetts Turnpike Authority covering the 1977 operation of the initial section of the Massachusetts Turnpike, the Boston Extension thereto, and the Callahan-Sumner Tunnels.

Further, in accordance with the provisions of Chapter 32, section 20, subsection 5, paragraph (i) of the General Laws, we are also submitting herewith the report of the financial condition of the Massachusetts Turnpike Authority Employees' Retirement System as of December 31, 1977.

John T. Driscoll
JOHN T. DRISCOLL
Chairman

Albert P. Manzi
ALBERT P. MANZI
Vice Chairman

David R. Nagle
DAVID R. NAGLE
Member

COMMENTS BY THE CHAIRMAN:

Nineteen seventy-seven marked the 25th anniversary of the Massachusetts Turnpike Authority which was created by Chapter 354 of the Acts of 1952, and the 20th anniversary of the opening of the Initial Turnpike to the public on May 15, 1957. It is gratifying to report that 1977 was also the best financial year in the history of the Initial Turnpike and the Boston Extension. Callahan-Sumner Tunnel traffic and revenues were curtailed by major reconstruction of the East Boston viaduct connecting the Tunnels with Logan International Airport. I would be remiss if I failed at this time to commend the Massachusetts Department of Public Works and the M. DeMatteo Construction Co. for a complicated construction project well-planned, carefully scheduled and efficiently executed. Tunnel losses would have been much more severe if this project had not been prosecuted in the manner that it was.

The achievements of the past year give reason to pause and reflect briefly on the beginnings of the Massachusetts Turnpike. I was a freshman legislator in 1955 and I well remember the considerable discussions at the State House about the $239,000,000 bond issue recently placed by the Authority and the prophetic language of the Supreme Judicial Court concerning the projected Massachusetts Turnpike:

"It is evident that this is to be no ordinary highway of the kind with which our history has made us familiar. It is an entirely new type of highway which has made its appearance only in comparatively recent years as a result of many changes in the lives and customs of the people brought about by the introduction and general use of the automobile.

"It will run practically the entire length of the main part of the state. It will doubtless consist of a number of paved lanes properly separated and graded to permit safe operation at high speeds comparable perhaps to the speeds of passenger trains or railroads. It is to be expected that there will be few, if any, grade crossings. There are to be ingress and egress only at designated points in some instances...miles apart. There will be signs, signals, and perhaps safety devices of one kind or another.

"There must be space along the sides of the main portion of the way to afford opportunity for slowing down or stopping for disabled vehicles without interference with the general flow of traffic. In fact in some respects such a way more nearly resembles a new railroad system crossing the state than it resembles the traditional road leading from one town to another. It differs still more from the ordinary city street. Such a road cannot merely be constructed and opened to the public. It must be operated."

The opening of the Initial Turnpike in 1957 is vividly recalled in "Traffic Quarterly", January, 1958:

"On May 15, 1957, an official opening was followed by an inspection tour by the public. The regular opening came the following day. From the fourteen interchanges, traffic flowed east and west and after the preview was over, the public was as proud as we were of the new Massachusetts Turnpike.

"Rivers and ponds and lakes that were our formidable construction foes became our strongest assets of beauty and attractiveness. High hills of ledge became beautiful walls of native granite, through which the drivers sped, a mile-a-minute. These lofty hills opened a vista of wonderful New England scenery.

"Bay Staters, who love to go for a ride spend days exploring the newly opened countryside. Cape Cod reported its biggest dollar volume in history and the Berkshire Hills toppled records for new business. Lexington and Concord never saw such crowds before and they gave credit to the Massachusetts Turnpike.

"The Eastern States Fair in West Springfield advertised around the turnpike and had 50,000 more people than ever before and its first 505,000 attendance. A little fair in Great Barrington put $3,125,000 through its pari-mutual windows in seven days, turning many eager eyes toward the country fairs.

"New businesses have been created and plant sites are found near the turnpike. There is a 1,500-acre industrial park in Sturbridge, in Central Massachusetts, and another in Chicopee and a third in the recently industrialized Natick-Framingham area."

No one at that time could appreciate just how important the Turnpike and Boston Extension

were to become to the economy of Massachusetts and to the lifestyles of its citizens. I am proud to have been part of that success story since 1964 when I took over for the deceased Chairman William F. Callahan. But now, more about 1977.

FINANCIAL HIGHLIGHTS

Total gross revenue of the Authority in 1977, amounting to $55,452,689, was 4.7%, or $2,506,709, greater than in 1976. Gross revenue of the Initial Turnpike, consisting of tolls, concession, investment and miscellaneous income increased by $1,762,150, or 5.7%, i.e., from $31,116,320 in 1976 to $32,878,470 in 1977. Gross revenue at the Boston Extension increased by $765,670, or 5.1%, i.e., from $15,041,885 in 1976 to $15,807,555 in 1977. Gross revenue of the Callahan-Sumner Tunnels, as indicated previously, decreased by $21,111, or 0.3%, i.e., from $6,787,775 in 1976 to $6,766,664 in 1977. Additionally, the Resident Counsel's Office collected $176,661 in claims against motorists for damage to Authority-owned property. This compares with $199,616 collected from the same source the year before.

Despite the continuation of our cost reduction program, the Authority's operating expenses increased by $1,464,309, or 8.8%, over the 1976 total. As a result, total net revenue of the Authority, amounting to $37,295,974, was $1,042,400, or only 2.9%, greater than in 1976 and was $1,389,824, or 3.6%, less than the record year of 1973.

In December, $585,091 of Boston Extension revenue was transferred to the Initial Turnpike redemption account for retirement of Initial Turnpike bonds as provided in the 1962 Supplemental Trust Agreement. This is the third year such transfers have been made.

A total of $11,375,000 principal amount Initial Turnpike revenue bonds and $2,033,000 principal amount Callahan-Sumner Tunnels revenue bonds were purchased on the open market and retired in 1977. Of the $254,000,000 revenue bonds issued to finance construction and widening of the Initial Turnpike, $126,883,000, or 49.95%, have been retired as of December 31, 1977. Outstanding Callahan-Sumner Tunnel revenue bonds have been reduced from $54,400,000 to $33,215,000, or by 38.9%, as of December 31, 1977.

AIR RIGHTS DEVELOPMENT

The Massachusetts Turnpike Authority is authorized to make leases on behalf of itself and the Commonwealth, for terms not to exceed 99 years, of air rights over land owned or held by the Authority. Long-term air rights leases have been entered into for three projects, viz, the Star Market in Newton, the Gateway Center in Newton and the John Hancock Garage in the City of Boston. In addition to lease rental payments accruing to the Authority, the cities of Boston and Newton have benefited by significant payments of taxes from the developers of these projects.

Last year I reported that the Authority was engaged in negotiations for a substantial air rights development in the Copley Square section of the City of Boston. On April 15, 1977, the Authority entered into a Memorandum of Understanding granting to a developer of national reputation, the exclusive right to undertake a marketing and engineering analysis of the feasibility of developing land and air rights in the area. As part of this study, the Copley Square Citizen's Review Committee was established, supported by the Authority, to insure participation in the preliminary planning process by public agencies and community groups. In December, 1977, the Authority granted to developer, Urban Investment and Development Co., Inc., an additional 12-month period to discuss with the Authority the terms and conditions of a long-term lease. The developer, as of the time of the extension, was proposing a $150,000,000 project. This is an extremely complex and costly development and negotiations will be difficult. It is my hope, however, that discussions will be fruitful not only for the benefit to the Authority from lease rental payments, but

also for the significant benefit to the economy of Massachusetts, the City of Boston and the local labor force if this project goes forward.

REPLACEMENT RESERVE PROJECTS

Fulfilling the Authority's obligation to keep its facilities in good repair and working order, major maintenance projects were performed under the Replacement Reserve program in 1977, having a total contract value of over $5,000,000.

Safety was the primary consideration for two of the most noteworthy projects undertaken during the year. On the Initial Turnpike, 3.8 miles of deteriorated steel highway median guard rail between Interchanges 12 and 13 was replaced with a safety contoured concrete barrier wall. The 20,000 linear feet of barrier was constructed in 20 working days by use of the slipforming method, used for the first time in Massachusetts. Experience has shown that the contour design of this concrete barrier wall will lead to a reduction in accidents since most vehicles are able to drive off after striking this barrier, with little or no damage to the vehicle and occupants. The shape of the wall guides the impacting vehicle on a recovery path parallel to the barrier, thereby minimizing the danger of collision with other vehicles travelling in the same direction.

Safety improvements on the Boston Extension included construction of five additional emergency breakdown parking areas and an emergency access ramp. Advance signing for the emergency parking areas and caution signing against possible disabled vehicles were erected by Turnpike forces. In addition, a contract was awarded for highway guard improvements, additions and modifications to protect motorists from roadside hazards.

Other significant work accomplished during 1977 included an extensive program of bridge rehabilitation on both the Initial Turnpike and Boston Extension, improvements to Interchange 10 in Auburn and Interchange 12 in Framingham, and resurfacing of Service Areas in Lee and Blandford.

In our planned efforts to abate noise caused by the operation of equipment located in the Callahan and Sumner Tunnels ventilation buildings, the Authority, in 1977, installed prototype noise abatement measures within the ventilation buildings. The effectiveness of these installations have been evaluated by our consultants on acoustics and vibrations, Bolt, Beranek and Newman, to determine whether the measures taken will serve as a basis for additional noise abatement treatment of the entire buildings.

SAFETY RECORD

Although we did not quite match the record fatality rate established in 1975 of 1.16 fatalities per 100 million miles traveled, our 1977 fatality rate of 1.2 is a commendable record and compares favorably with other turnpikes throughout the country. The improvement in highway safety statistics since 1974 is due in large measure to the adoption and enforcement of the 55-mile speed limit. Because we are convinced, and statistics have proven, that there is a direct correlation between speed and fatality rates, the Authority has followed a policy of strict enforcement of the 55-mile per hour speed limit. Accordingly, in 1977, a total of 44,129 moving violation citations were issued by Troop E. This figure compares to a total of 37,306 moving violations issued in 1976 and represents the highest total ever issued in a twelve-month period on the Massachusetts Turnpike.

TAX REVENUE GENERATED

During 1977, the Commonwealth collected approximately $7,750,000 in taxes on motor fuel consumed in mileage driven on the Massachusetts Turnpike. Although the amount rebated by the Commonwealth to Turnpike users in 1977 is not yet available, based on prior years experience the amount rebated should not have exceeded 5%-6.5%, or $500,000.

EMPLOYEE RELATIONS

On September 6, 1977, Captain Edward Mulligan, Commanding Officer of Troop E of the Massachusetts State Police, retired after 14-1/2 years of distinguished and dedicated

service to Troop E and the Authority. Captain John J. Cronin, Jr., a veteran of 18 years service with the Massachusetts State Police, took over the duties of Commander of Troop E upon Captain Mulligan's retirement. Before coming to Troop E, Captain Cronin had served in Troops A, C and F and in the Attorney General's office, progressing in rank to Captain on September 7, 1977.

During 1977, the following employees retired from the service of the Massachusetts Turnpike Authority and we wish them all good health and enjoyment in the years ahead: **Administration** – Edward R. Brady, assistant attorney, and Michael S. McCrann, secretary to the retirement board; **Toll Collection Division** - Henry H. McManus, plaza supervisor, and toll collectors Leo N. Brousseau, Christo C. Christi, Manuel Costa, Albert Couture, John E. Duffin, Charles Fiandaca, George E. Gorvett, Emil Hadro, John J. Killilea, J. Earle Moore, Martin L. Reardon, George B. Roddy, Edward F. Thompson and Irving S. Wood; **Engineering and Maintenance Division** - Durwood Tetreault, supervisor of maintenance, (deferred retirement), Frank H. Allen, Jr., foreman, Leon Palmer, 1st class mechanic, Henry S. Cohan, Joseph J. DiGiorno and Edwin M. Dyer, maintenance men, Walter F. Stachowicz, construction inspector, and Theodore J. Cournoyer, janitor; **Tunnel Division** - Andrew L. Campbell, heavy equipment operator, and Leo Leone, maintenance man; **Civilian Personnel Assigned to State Police Headquarters**: Robert A. Kepp, radio teletype operator.

In accordance with the Authority's Length-of-Service Award Procedure, the following employees were awarded service emblems in 1977: **Twenty years of service**: Frank H. Allen, Jr., Richard J. Brennan, Leo N. Brousseau, Henry R. Cauley, Joseph J. Chmura, Peter Cianfrocca, William M. Coffill, Vincent A. Dell'Olio, Joseph A. DeSimone, Roland W. Dow, Edmond J. Dymek, David J. Fahey, James R. Farrell, Richard F. Filiault, Harold Finn, Edward G. Fitzgerald, Robert F. Flatley, Patrick L. Foley, Charles D. Forster, Ralph C. Julian, Francis Kennedy, Michael J. Maher, John P. McCarthy, Norman J. McCormick, Edward F. McGrady, John A. McGrath, John Melkonian, Joseph C. Miron, Jr., John J. Nelligan, Gildo O. Neri, Stephen A. Palmieri, Edward J. Socha, Walter F. Stachowicz, James E. Sullivan, James J. Thompson, Joseph Ughetti and Joseph L. Walkowiak. **Fifteen years of service**: Robert F. Besaw, Herman Blier, Edna Chisholm, Leonard H. Cote, James J. Farrell, Richard F. Goodno, Jr., John C. Haggar, Richard M. Holmes, John J. Reilly, John J. Riordan and Lucien Thinel.

The basic objectives of the Massachusetts Turnpike Authority Athletic and Recreation Association which was established in 1975, are to promote and organize recreational, social and athletic activities among Authority employees and retirees. In 1977, the Association conducted a total of 15 events. The summer softball league, in particular, has become a popular activity for Authority employees. Other activities during the year included group attendance at Boston Bruins hockey and Red Sox baseball games, golf and tennis tournaments, annual outing, a fishing trip and a chartered bus trip to West Point to attend the Army-Holy Cross football game.

The Turnpike Credit Union, established in February, 1974, continues to grow and to provide a worthwhile savings and credit institution for Authority employees. As of December 31, 1977, 670 employees of the Authority were shareholders with total deposits amounting to $462,516. Assets increased from $459,684 in 1976 to $547,593 in 1977. A total of $1,319,910 principal amount of loans has been extended by the Turnpike Credit Union since its inception. The member Board of Directors authorized a total of $23,175 in dividend payments to shareholders in 1977.

IN MEMORIAM

Name	Classification	Date of Death
Frank E. Meisner	Toll Collector	1/8/77
Ann M. Cook	Senior Toll Audit Clerk	2/28/77
Everell F. Harding	Reproduction Equipment Operator	3/1/77
Peter Festa	Senior Toll Collector	3/31/77
John V. Ephlin	Senior Toll Collector	5/3/77
David J. Fahey	Toll Collector	5/13/77
John J. Riordan	Maintenance Man	6/2/77
Frank Scardetta	Security Officer	8/30/77
Walter C. Popko	Light Equipment Operator	9/11/77

The year 1977 was one of significant accomplishment in meeting the objectives of our Affirmative Action Plan. With respect to equal employment opportunities, our records indicate that over 1000 applications were filed for employment with the Authority of which 215 were minority applicants (including 62 females), and 795 were non-minority applicants (including 162 females). A total of 25 minority males, 11 minority females and 32 non-minority females were employed to fill vacancies created by terminations and retirements. As of December 31, 1977, the Authority employed 51 male minorities, 15 female minorities and 77 non-minority females. Our minority employment goal for 1977 was thus attained. Additionally, since the inception of our Affirmative Action Plan a total of four minority employees have been promoted to supervisory or professional positions and four female employees have been reclassified to administrative positions.

A thorough review of all Authority classification descriptions was commenced in 1977 to assure that these documents do not contain any element of discrimination against minority and female employees because of terminology, work standards or qualifications. This review is expected to be completed in early 1978, after which all classification descriptions will be corrected, as necessary, and redistributed.

In December, 1977, the Authority amended "Policy and Procedure Bulletin - Procurement Function" to provide for the establishment of a specific Minority Business Purchasing Program and, in commitment thereto, set aside a maximum of five percent of its annual purchases for award to minority businesses. Although the Authority's previous policy encouraged minority participation, and we have been purchasing from six minority businesses, we are confident that the set-aside provision will result in a much larger number of minority firms doing business with the Authority in the future.

We are making progress also in encouraging minority businesses to participate in and bid our construction programs. Weekly manpower reports by Authority construction contractors are being monitored for compliance with the requirements of the Commonwealth of Massachusetts Supplemental Equal Employment Anti-Discrimination/Affirmative Action Agreement. Additionally, the Authority has contact with and submits reports weekly to the Coston Liaison Committee and the minority liaison committee members in Worcester and Springfield. In conclusion, the goals established in our Affirmative Action Plan are being attained, as expeditiously as possible. I want to thank our supervisory and executive personnel for their cooperation and assistance to me and our Equal Employment Opportunity Officer in making these goals attainable.

For the first time in the history of the Authority, a Community Relations Department was established to explain, clarify and increase understanding of Turnpike facilities and services and to clarify policies affecting the public safety of those communities through which the road traverses.

Benefiting from the expertise of a director whose planning and transportation background spanned more than ten years with the City of Boston, the Department initiated working relationships with state-wide regional planning commissions, segments of the motor and trucking industry, and local representatives from thirty-five Massachusetts communities. At the same time, the Department worked in unison with all other state transportation agencies to realize the important economic development goals and expedite service, particularly during severe winter storm conditions.

Coordinated efforts with the Office of State Planning led to substantial progress on the proposed Copley Square Project and a continuous series of open meetings with members of the Citizen's Review Committee (C.R.C.), which was created at the time of the project's beginning. An important community effort in fiscal 1977 was the planned development of more than two acres of land for parks and recreation in East Boston and the City's North End neighborhoods. The project was cited by the Governor as a major commitment to urban revitalization and service to the communities adjacent to Authority facilities.

The Director of Community Relations represented the Authority in many proceedings throughout the year, including environmental impact hearings on the Central Artery Project, meetings with the West Stockbridge Traffic Commission, and regular informational sessions with the Berkshire Regional Planning Commission, the Lower Pioneer Valley Regional Planning Commission, the Central Massachusetts Planning Commission and the Metropolitan Area Planning Council. To expedite traffic movement and to reduce energy consumption, the director, working with city departments brought about parking and traffic improvements at the entrances and exits of the Callahan-Sumner Tunnels.

Increasing public recognition of the Authority's role in community development and transportation related projects led to the establishment of a newsclip circulation system to increase internal communications and expand relations with the public media.

MASSACHUSETTS TURNPIKE AUTHORITY EMPLOYEES' RETIREMENT SYSTEM

During 1977, twenty-seven employees were retired by the Massachusetts Turnpike Authority Employees' Retirement Board. A total of 293 employees have been retired since the inception of the retirement system in July, 1968. Allowances totalling $894,353.02 were paid in 1977 of which $53,778.61 consisted of annuity payments, $656,040.18 of pension payments to retirees, and $184,534.23 of pension payments to survivors and beneficiaries of deceased employees and retirees. The recipients of retirement benefits as of December 31, 1977 numbered 237 retirees and 75 survivors and beneficiaries. The Chairman of the Retirement Board reports that the system's investment income continues to exceed the amount which, by statute, must be credited as interest to each member's annuity account. Investment income earned in 1977 totalled $346,537.68. Of this amount, $150,730.14 was allocated to individual members' accounts and $180,483.44 was transferred to the Pension Fund. The latter transfer has the effect of reducing the Authority's future pension appropriation to the retirement system.

On December 31, 1977, M. Stephen McCrann retired from the service of the Massachusetts Turnpike Authority as Secretary to the Retirement Board. Mr. McCrann began his employment with the Authority on June 10, 1957 and has been prominently involved in the planning, implementation and administration of the Massachusetts Turnpike Authority Employees' Retirement System since its inception on July 1, 1968. Prior to that time, he was Assistant Director of Personnel in the Personnel Office. Mr. McCrann leaves behind him a legion of friends and he will be sorely missed. Gerald F. Coughlin, accountant, was appointed to replace Mr. McCrann as Secretary to the Retirement Board, effective January 1, 1978. Mr. Coughlin has been employed by the Authority since October, 1971 and has served the Retirement Board since August, 1973.

In December, 1975, the Authority adopted a resolution authorizing the establishment of the Massachusetts Turnpike Authority Employees' Past Service Liability Plan and Trust Fund as depository for funding of the Massachusetts Turnpike Authority Employees' Retirement System. Such funds will be held in trust by The First National Bank of Boston, as Trustee, under a separate trust agreement. As of December 31, 1976, a total of $793,000 has been transferred to the fund. During 1977, the Authority transferred an additional $667,000 to the fund, resulting in total of $1,460,000 transferred to the fund as of December 31, 1977. Although it is not intended that the Authority will fully fund its pension costs at the outset, establishment of this funding vehicle, with annual deposits to be made as our financial resources permit, is a significant step toward meeting our long-range objectives of a fully funded system at the time of the dissolution of the Authority. Further financial data regarding this matter is contained in the financial statements and footnotes of this report.

BUSINESS OUTLOOK

My remarks in last year's Annual Report were concluded on a somber note with an expression of concern about the extremely cold weather and heavy snows in January with a resulting slowdown in commercial activity. I nevertheless expressed the hope and expectation that solid gains in the economy achieved in 1976 would continue in 1977 and that a growth in traffic would be reflected in the improved economy. This guarded optimism was warranted for 1977 was indeed a very good year for the Massachusetts Turnpike Authority... the best year ever!

If the economic news was bleak last year at this time, it is even worse this year. As this report is being prepared for press, the eastern section of Massachusetts is struggling to recover from the devastation of the February 6-7 blizzard accompanied by gales of hurricane intensity. Governor Michael S. Dukakis declared a State of Emergency on February 7th which continued through February 13, 1978. Under this emergency declaration, all but emergency and essential vehicles were excluded from the highways of eastern Massachusetts On February 10th, the President declared several eastern counties of the Commonwealth "Federal Disaster Areas".

With justifiable pride I can report that the Massachusetts Turnpike and Tunnels were maintained in travel condition throughout the storm, and the Authority's snow-fighting force was called upon and provided substantial emergency plowing operations on State, Metropolitan District Commission and local highways throughout eastern Massachusetts; but it was necessary in the State of Emergency to dispense with collection of tolls during the storm for several days thereafter. This blizzard, and the record snow storm of January 20, 1978, put a serious strain on first quarter operating costs. In spite of such a beginning, I can hope for a stable economy in 1978 with modest growth in traffic using the Authority's facilities.

Whatever 1978 has in store, I assure you of continuing dedication to our basic goal of providing safe and economic transportation facilities and of managing the Authority in a professional, business-like and responsive manner.

Let me conclude with a tribute to management and employees alike for the accomplishments of 1977. I want to express also my thanks to the Executive and Legislative branches of our State Government, our Trustee, Principal Underwriters and bondholders for continued support and confidence in the administration of the Massachusetts Turnpike Authority.

JOHN T. DRISCOLL
Chairman
February 28, 1978

CHARLES E. DI PESA & CO.
CERTIFIED PUBLIC ACCOUNTANTS
10 HIGH STREET
BOSTON, MASS. 02110

CHARLES E. DI PESA, C. P. A.
WILLIAM F. DI PESA, C. P. A.

MEMBERS
A. I. C. P. A.
MASS. C. P. A.
N. A. A.

617-423-3555

February
23
1978

Members of the Board
Massachusetts Turnpike Authority
Boston, Massachusetts 02199

Gentlemen:

We have examined the Combined Statement of Condition of the Massachusetts Turnpike Authority as of December 31, 1977 and the related Combined Statement of Revenues and Expenses for the year then ended pursuant to the Trust Agreements. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

As more fully described in the footnotes, the Authority's policy is to prepare its financial statements on the basis of accounting practices prescribed by the Trust Agreements. These practices vary in some respects from generally accepted accounting principles but are in accordance with practices followed by similar entities.

In our opinion, the aforementioned financial statements present fairly the financial position of the Massachusetts Turnpike Authority as of December 31, 1977, and the revenues and expenses for the year then ended in conformity with the provisions of the Trust Agreements and is consistent with that of the preceding year. The current year's supplementary data have been subjected to the same auditing tests and procedures and, in our opinion, are stated fairly in all material respects when considered in conjunction with the financial statements taken as a whole.

Respectfully submitted,

CHARLES E. DI PESA & CO.

William F. Di Pesa

Certified Public Accountant

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Combined Statement of Condition

Massachusetts Turnpike Authority

December 31, 1977 (With Comparative Figures for 1976)

Assets	1976	1977
Cash	$ 8,770,578	$ 9,518,650
Investments	35,581,956	37,296,392
Accrued Interest on Investments	-370,282	331,374
Accounts Receivable	1,198,054	1,260,410
Inventories	302,799	363,397
Deposits, Prepaid and Deferred Items	618,468	797,392
Cost of Initial Turnpike, Boston Extension and Callahan-Sumner Tunnels to Date	526,400,000	526,400,000
Total Assets	$573,242,137	$575,967,615
Liabilities and Fund Balances		
Accounts Payable	$ 257,336	$ 711,931
Accrued Expenses and Payroll	1,024,887	902,408
Withholding from Employees	30,679	33,123
Deposits and Deferred Income	162,290	245,050
Bond Interest - Unpaid Coupons	---	31,831
Retainage	233,205	351,749
Revenue Bonds Outstanding (Schedule 1)	391,740,000	378,332,000
Bond Indebtedness Retired from Revenues (Schedule 1)	134,660,000	148,068,000
Fund Balances	45,133,740	47,291,523
Total Liabilities and Fund Balances	$573,242,137	$575,967,615

The Accompanying Footnotes are an Integral Part of these Combined Statements

Combined Statement of Revenues and Expenses

Massachusetts Turnpike Authority

January 1, 1977 thru December 31, 1977 (With Comparative Figures for 1976)

Revenue	1976	1977
Toll Revenue (Net)	$47,528,498	$49,948,372
Restaurant Revenue	766,879	807,345
Service Station Revenue	1,697,256	1,664,957
Rental Income	232,330	280,080
Miscellaneous	172,482	216,351
Income from Investments:		
Revenue Fund	56,436	56,883
Replacement Reserve Fund	379,745	488,085
Bond Interest Account	335,875	290,570
Reserve Account	1,776,479	1,700,046
Total Revenue	$52,945,980	$55,452,689
Operating Expenses		
Administrative	$ 2,334,830	$ 2,505,223
Retirement	1,104,899	1,469,443
Toll Collection	4,600,156	4,993,741
Police Patrol	1,548,405	1,525,765
Maintenance of Highway, Buildings, Tunnels and Equipment	7,104,116	7,662,543
Total Operating Expenses	$16,692,406	$18,156,715
Excess of Revenue Over Operating Expenses	$36,253,574	$37,295,974
Interest Requirements	$16,305,945	$15,813,688

The Accompanying Footnotes are an Integral Part of these Combined Statements

Footnote A - General

The Authority operates three separate and financially distinct facilities, i.e., The Initial Turnpike, The Callahan-Sumner Tunnels and The Boston Extension of the Massachusetts Turnpike. These facilities were financed by means of three revenue bond issues totaling $526,400,000. Neither the faith and credit nor the taxing power of the Commonwealth of Massachusetts or of any political subdivision thereof is pledged to the payment of the principal of or interest on the Bonds. The funds providing for the maintenance, operation and policing of these facilities, as well as principal and interest payments on the bond issues, are derived solely from tolls and other revenues generated by users.

Footnote B - The Enabling Act

By Chapter 354 of the Acts of 1952 of the Commonwealth of Massachusetts, the Massachusetts Turnpike Authority was duly created a body politic and corporate and a public instrumentality of the Commonwealth of Massachusetts and was authorized and empowered to construct maintain, repair and operate a toll express highway, known as the "Massachusetts Turnpike". Chapter 598 of the Acts of 1958 authorized and empowered the Massachusetts Turnpike Authority to acquire from the City of Boston the Sumner Tunnel and to construct and operate an additional vehicular tunnel between Boston proper and East Boston (known as the Callahan Tunnel).

Footnote C - Summary of Significant Accounting Policies

1. General Accounting Practices - All accounts and records of the Authority are maintained in accordance with accounting practices consistent with the provisions of the following trust agreements: – Trust Agreement dated as of May 1, 1954, relating to the Initial Turnpike; Trust Agreement dated as of April 1, 1959, relating to Tunnel Revenue Bonds; and the Supplemental Trust Agreement dated as of January 1, 1962, relating to the Boston Extension. As a result of the terms of the bond resolution and the related interpretation thereof, the Authority's accounting practices differ in certain respects from those generally accepted accounting principles applied in the presentation of the Statement of Condition and Comparative Statement of Revenues and Expenses but in accordance with accounting practices followed by similar entities.

2. Combined Financial Statements – In addition to the financial statements which are required to be presented annually for each of the three financially distinct facilities and bond issues secured by the foregoing trust agreements, the Authority, as a matter of policy and public information, also presents in its Annual Report financial statements reflecting the combined financial condition of the Initial Turnpike, Callahan-Sumner Tunnels and Boston Extension.

3. Fiscal Year – The Authority's fiscal year is the calendar year.

4. Method of Accounting - The funds and accounts of the Authority are maintained on the accrual basis except for payments of bond interest which are paid out of the Sinking Fund Bond Interest Account on the cash basis.

5. Inventories – Inventories consist primarily of sodium chloride, calcium chloride, sand, bulk gasoline, and minor miscellaneous parts, supplies and tools. Inventory is valued at cost utilizing the FIFO method. (first in – first out)

6. Cost of Projects – The cost of Authority projects includes all costs for acquisition and construction, legal expenses and fees, financing charges, preparation and issuance of bonds, and all other items of expense defined and authorized in the trust agreements.

7. Revenues – All monies received by the Authority are deposited with the First National Bank of Boston, Trustee, or other bank depository, and are held in trust and applied only in accordance with the provisions of the trust agreements. All monies deposited with the Trustee, or any other depository, are continuously secured for the benefit of the Authority and bondholders by marketable securities eligible as security for the deposit of trust funds and are approved and held by The First National Bank of Boston, Trustee. On or before the fifteenth day of each month, all monies held for the credit of the revenue funds on the last day of the preceding month, less an amount held for reserve for current expenses, are transferred to the Trustee and credited to the following accounts or funds:

   a. To the sinking fund bond interest account, such amounts, if any, as may be required to make the balances therein equal to the amount of interest which will become payable within the next ensuing six months on all bonds then outstanding;

   b. To the replacement reserve funds, such amounts, if any, as may be required to make the amount deposited in each fiscal year equal to the amounts recommended by the Consulting Engineers;

   c. To the sinking fund reserve accounts, such amounts, if any, as may be required to make the amount equal to the interest reserve requirements specified in the trust agreements;

   d. In the case of the Initial Turnpike and the Callahan-Sumner Tunnels, to the redemption accounts, the balance, if any, remaining after making deposits under clauses a, b and c above; and, in the case of the Boston Extension, to the Redemption Account in the Initial Turnpike Sinking Fund, the balance, if any, remaining after making the deposits under a, b, and c above until such time as all bonds issued under the 1954 trust agreement have been retired.

8. Operating Expenses – The term current expenses (operating expenses) as defined in the Trust Agreements excludes any extraordinary maintenance, repairs, or any allowance for depreciation. The Agreements provide that the Authority will on or before the first day of each fiscal year adopt annual budgets. The annual budgets of Operating Expenses for 1977 for the three facilities totaled $18,688,100 as compared to actual expenses of $18,156,715.

   a. Retirement System – By the enactment of Chapter 597 of the Acts of 1967, and acceptance thereof by The Authority, the Commonwealth of Massachusetts created the Massachusetts Turnpike Authority Employees' Retirement System. Accordingly, effective July 1, 1968, employees of the Authority are entitled to retirement benefits in accordance with the provisions of the Massachusetts Contributory Retirement Law (Chapter 32 of the General Laws, Section 1-28). Pursuant to Section 22 (7) (e) of Chapter 32, the Authority is required to pay annually to the Massachusetts Turnpike Authority Employees' Retirement System, amounts certified by the State Actuary as necessary for payment of pension benefits to retired employees of the Authority and their beneficiaries and for the expenses of

said System. A total of $907,600 was paid to the System for pension payments and expenses for the year ended December 31, 1977.

The Authority's actuarial consultant, Martin E. Segal Company, Incorporated, has estimated that the Authority's total past service liability for pension benefits was $18,561,800 as of December 31, 1974. Since the Massachusetts Contributory Retirement law is based on a "pay-as-you-go" formula, only, and does not permit advance funding, the Authority voted on December 31, 1975 to establish the Massachusetts Turnpike Authority Employees' Past Service Liability Retirement Plan and Trust Fund for funding purposes. The Authority has again engaged its actuarial consultant to update as of December 31, 1977, the previous study regarding liability for pension benefits.

At the Authority meeting held on September 16, 1976, the Authority and The First National Bank of Boston, as Trustee, joined in the execution of a trust agreement dated as of December 31, 1975 establishing the foregoing Fund. Pursuant to a funding program adopted by the Authority on September 16, 1976, a total of $667,000 was transferred during 1977. As of December 31, 1977, the total assets of the Massachusetts Turnpike Authority Employees' Past Service Liability Retirement Plan and Trust Fund are $1,499,761, including net investment earnings to date of $39,761. The Trust Agreement provides, among other things, that the assets secured therein are available for the protection of holders of outstanding bonds issued by the Authority as and to the extent therein provided. Under the Enabling Act, the fund cannot survive the Authority. In order for the Fund to ultimately fulfill its intended purpose, the enactment of legislation will be required to authorize its retention and application after the Authority's dissolution.

9. Replacement Reserve Funds – These funds are held for the purpose of paying for the cost of resurfacing, replacement or reconstruction, usual or extraordinary maintenance or repairs, renewals and replacements, the cost of replacing equipment, engineering expenses and premiums on insurance carried under the provisions of the trust agreements. As provided in the trust agreements, the Consulting Engineers are required annually to inspect the Authority's facilities and report to the Authority their findings and recommendations as to: a) estimate of the amount necessary for proper maintenance, repair and operation during the ensuing fiscal year, b) insurance to be carried under the provisions of the trust agreements, and c) amounts to be deposited during the ensuing fiscal year to the credit of the replacement reserve funds. For fiscal year 1977, the Consulting Engineers recommended that the following amounts be deposited to the three replacement reserve funds, and such amounts were so deposited: Initial Turnpike, $6,000,000; Callahan-Sumner Tunnels, $300,000; and the Boston Extension, $1,500,000.

The estimated value of contracts outstanding as of December 31, 1977 for major repairs, improvements and replacement programs is $2,135,963.

Footnote D – Sinking Fund and Net Revenue Requirements

The Trust Agreements require that the Authority take certain actions in the event the amounts deposited to the sinking funds, or net revenues in the case of the Boston Extension, are less than those referred to in Section 501 of the Trust Agree-

ments. In 1977, the amount deposited to credit of the Initial Turnpike Sinking Fund and the net revenues of the Boston Extension, were less than those referred to in the respective Trust Agreements. Under these circumstances, the Authority is required to request its Traffic Engineers to submit their recommendations with respect to a revision in the schedule of tolls, and the Trustee is required to notify the principal underwriters and bondholders of record of such deficiencies. The Authority and the Trustee have fulfilled their respective obligations under the terms of the Trust Agreements and the Traffic Engineers have been so notified to submit their recommendations.

Footnote E - Lease Commitments

The Authority has entered into the following lease agreements which are in full force and effect as of December 31, 1977:

1. Rental of Administrative Offices in the City of Boston effective March 9, 1976 for the ensuing five years.
2. Lease purchase for data processing equipment effective August 1, 1971. In November 1976, the Authority executed an amendment to the original lease agreement providing for certain enhancements and additions to the existing data processing equipment. Title to the equipment will pass to the Authority after seven years following the dates of the Lease Agreement and Amendment thereto.
3. Lease Agreement providing for the rental of automatic toll collection equipment located at the Callahan-Sumner Tunnels and Boston Extension. The original lease agreements have been extended for a period terminating March 1, 1980.

Footnote F - Boston Extension Air Rights

On April 15, 1977, the Authority entered into an agreement with Urban Investment and Development Co., Inc. and Great Bay Company, Inc., a "joint venture", by which the Authority granted to the developer the exclusive rights to enter upon land of the Authority located in the Copley Square section of the City of Boston for the purpose of examining the feasibility of leasing and developing such land and air rights. On December 15, 1977, the Authority and Urban Investment and Development Co., Inc. entered into an amendment to the agreement providing for an additional 12-month period for the conduct of negotiations regarding the terms and conditions of a lease agreement.

Statement of Condition

Initial Turnpike

Massachusetts Turnpike Authority

December 31, 1977 (With Comparative Figures for 1976)

Assets	1976	1977
Cash	$ 2,086,531	$ 2,575,133
Investments	18,563,809	19,313,280
Accrued Interest on Investments	138,967	99,521
Accounts Receivable	1,125,389	1,185,154
Inventories	247,775	327,832
Deposits, Prepaid and Deferred Items	170,927	341,593
Due from Other Funds	153,294	77,142
Cost of Turnpike to Date	254,000,000	254,000,000
Total Assets	$276,486,692	$277,919,655

Liabilities and Fund Balances		
Accounts Payable	$ 157,378	$ 617,562
Accrued Expenses and Payroll	644,800	611,173
Withholding from Employees	30,679	33,123
Deposits and Deferred Income	59,176	72,813
Bond Interest - Unpaid Coupons	---	19,652
Due to Other Funds	129,719	76,020
Retainage	198,816	297,177
Turnpike Revenue Bonds:		
1954 Series – 3 3/7 – 239M		
Dated May 1, 1954		
Due May 1, 1994		
Bonds Outstanding	128,062,000	117,367,000
Bonds Purchased and Retired	110,938,000	121,633,000
1968 Series – 5¼% – 15M		
Dated November 1, 1968		
Due May 1, 2008		
Bonds Outstanding	10,430,000	9,750,000
Bonds Purchased and Retired	4,570,000	5,250,000
Fund Balances	21,266,124	22,192,135
Total Liabilities and Fund Balances	$276,486,692	$277,919,655

Statement of Revenues and Expenses

Initial Turnpike

Massachusetts Turnpike Authority

January 1, 1977 thru December 31, 1977 (With Comparative Figures for 1976)

Revenues	1976	1977
Toll Revenue (Net)	$27,269,305	$29,029,755
Restaurant Revenue	766,879	807,345
Service Station Revenue	1,697,256	1,664,957
Miscellaneous	168,050	181,730
Income from Investments:		
Revenue Fund	50,685	52,200
Replacement Reserve Fund	291,805	419,724
Bond Interest Account	137,447	97,286
Reserve Account	734,893	625,473
Total Revenue	$31,116,320	$32,878,470
Operating Expenses		
Administrative	$ 1,484,169	$ 1,573,159
Retirement	761,364	986,452
Toll Collection	2,694,768	2,977,161
Police Patrol	1,227,632	1,184,223
Engineering and Maintenance	4,972,487	5,397,110
Total Operating Expenses	$11,140,420	$12,118,105
Excess of Revenue Over Operating Expenses	$19,975,900	$20,760,365
Interest Requirements	$ 5,057,314	$ 4,664,477
Percentage of Interest Earned	394.99	445.07

Statement of Condition

Boston Extension

Massachusetts Turnpike Authority

January 1, 1977 thru December 31, 1977 (With Comparative Figures for 1976)

Assets	1976	1977
Cash	$ 6,078,554	$ 6,268,952
Investments	12,154,537	12,968,704
Accrued Interest on Investments	172,372	173,722
Accounts Receivable	29,736	29,225
Inventories	34,135	35,506
Deposits, Prepaid and Deferred Items	47,689	173,039
Due from Other Funds	30,876	22,230
Cost of Boston Extension to Date	218,000,000	218,000,000
Total Assets	$236,547,899	$237,671,378
Liabilities and Fund Balances		
Accounts Payable	$ 89,542	$ 89,783
Accrued Expenses and Payroll	181,924	165,599
Deposits and Deferred Income	30,178	96,550
Bond Interest - Unpaid Coupons	---	9,424
Due to Other Funds	54,663	25,144
Retainage	33,615	54,572
Boston Extension Revenue Bonds		
1962 Series – 218M		
Dated January 1, 1962		
Due January 1, 2002		
Bonds Outstanding:		
Series A – 4¾%	100,000,000	100,000,000
Series A – 4.15%	38,000,000	38,000,000
Series B – 4-5%	80,000,000	80,000,000
Fund Balances	18,157,977	19,230,306
Total Liabilities and Fund Balances	$236,547,899	$237,671,378

Statement of Revenues and Expenses

Boston Extension

Massachusetts Turnpike Authority

January 1, 1977 thru December 31, 1977 (With Comparative Figures for 1976)

Revenue	1976	1977
Toll Revenue (Net)	$13,861,437	$14,575,281
Rental Income	188,014	182,592
Miscellaneous	4,432	34,521
Income from Investments:		
Revenue Fund	3,124	1,951
Replacement Reserve Fund	55,343	50,836
Bond Interest Account	155,863	156,680
Reserve Account	773,672	805,694
Total Revenue	$15,041,885	$15,807,555
Operating Expenses		
Administrative	$ 492,279	$ 555,357
Retirement	212,778	266,360
Toll Collection	1,015,099	1,066,004
Police Patrol	249,010	276,311
Maintenance of Highway, Building and Equipment	980,871	1,074,595
Total Operating Expenses	$ 2,950,037	$ 3,238,627
Excess of Revenues Over Operating Expenses	$12,091,848	$12,568,928
Interest Requirements	$ 9,527,000	$ 9,527,000
Percentage of Interest Earned	126.92	131.93

Statement of Condition

Callahan-Sumner Tunnels

Massachusetts Turnpike Authority

December 31, 1977 (With Comparative Figures for 1976)

Assets	1976	1977
Cash	$ 605,493	$ 674,565
Investments	4,863,610	5,014,408
Accrued Interest on Investments	58,943	58,131
Accounts Receivable	42,929	46,031
Inventories	20,889	59
Deposits, Prepaid and Deferred Items	399,852	282,760
Due from Other Funds	12,270	4,946
Cost of Tunnel to Date	54,400,000	54,400,000
Total Assets	$60,403,986	$60,480,900
Liabilities and Fund Balances		
Accounts Payable	$ 10,416	$ 4,586
Accrued Expenses and Payroll	198,163	125,636
Deposits and Deferred Income	72,936	75,687
Bond Interest - Unpaid Coupons	---	2,755
Due to Other Funds	12,058	3,154
Retainage	774	---
Tunnel Revenue Bonds:		
1959 Series – 54.4M		
Dated April 1, 1959		
Due April 1, 1999		
Bonds Outstanding:		
4¾%	33,648,000	31,615,000
4¼%	1,600,000	1,600,000
Bonds Purchased and Retired – 4¾%	19,152,000	21,185,000
Fund Balances	5,709,639	5,869,082
Total Liabilities and Fund Balances	$60,403,986	$60,480,900

Statement of Revenues and Expenses

Callahan-Sumner Tunnels

Massachusetts Turnpike Authority

January 1, 1977 thru December 31, 1977 (With Comparative Figures for 1976)

Revenue	1976	1977
Toll Revenue (Net)	$6,397,756	$6,343,336
Rental Income	44,316	97,488
Miscellaneous	---	100
Income from Investments:		
Revenue Fund	2,627	2,732
Replacement Reserve Fund	32,597	17,525
Bond Interest Account	42,565	36,604
Reserve Account	267,914	268,879
Total Revenue	$6,787,775	$6,766,664
Operating Expenses		
Administrative	$ 358,382	$ 376,707
Retirement	130,757	216,631
Toll Collection	890,289	950,576
Police Patrol	71,763	65,231
Maintenance and Operation of Tunnels	1,150,758	1,190,838
Total Operating Expenses	$2,601,949	$2,799,983
Excess of Revenue Over Operating Expenses	$4,185,826	$3,966,681
Interest Requirements	$1,721,630	$1,622,211
Percentage of Interest Earned	243.13	244.52

Combined Revenues, Operating Expenses and Bond Interest Requirements

Revenues, Operating Expenses, and Net Revenues	Gross Revenues		Operating Expenses		Net Revenues	
	1976	1977	1976	1977	1976	1977
Initial Turnpike	$31,116,320	$32,878,470	$11,140,420	$12,118,105	$19,975,900	$20,760,365
Callahan-Sumner Tunnels	6,787,775	6,766,664	2,601,949	2,799,983	4,185,826	3,966,681
Boston Extension	15,041,885	15,807,555	2,950,037	3,238,627	12,091,848	12,568,928
Totals	$52,945,980	$55,452,689	$16,692,406	$18,156,715	$36,253,574	$37,295,974

Percentage of Interest Earned	Net Revenue		Interest Requirements		Percentage of Interest Earned	
	1976	1977	1976	1977	1976	1977
Initial Turnpike	$19,975,900	$20,760,365	$ 5,057,314	$ 4,664,477	394.99	445.07
Callahan-Sumner Tunnels	4,185,826	3,966,681	1,721,631	1,622,211	243.13	244.52
Boston Extension	12,091,848	12,568,928	9,527,000	9,527,000	126.92	131.93
Totals	$36,253,574	$37,295,974	$16,305,945	$15,813,688	222.34	235.85

Massachusetts Turnpike Authority

Combined Bond Indebtedness — December 31, 1977
Bonds Outstanding and Retired from Revenue

(With Comparative Figures for 1976)

	Original Amount Authorized and Issued	Acquired and Cancelled in Prior Years	Amount Outstanding 12/31/76	Acquired by Sinking Fund and Cancelled During 1977	Amount Outstanding 12/31/77
Initial Turnpike Revenue Bond					
Series 1954 – 3.30%					
Dated May 1, 1954					
Due May 1, 1994	$239,000,000	$110,938,000	$128,062,000	$10,695,000	$117,367,000
Series 1968 – 5¼%					
Dated November 1, 1968					
Due May 1, 2008	15,000,000	4,570,000	10,430,000	680,000	9,750,000
	$254,000,000	$115,508,000	$138,492,000	$11,375,000	$127,117,000
Boston Extension Revenue Bond					
Series 1962					
Dated January 1, 1962					
Due January 1, 2002					
Series A – 4¾%	$100,000,000	---	$100,000,000	---	$100,000,000
Series A – 4.15%	38,000,000	---	38,000,000	---	38,000,000
Series B – 4-5%	80,000,000	---	80,000,000	---	80,000,000
	$218,000,000	---	$218,000,000	---	$218,000,000
Callahan-Sumner Tunnels Revenue Bond					
Series 1959					
Dated April 1, 1959					
Due April 1, 1999					
4¾%	$ 52,800,000	$ 19,152,000	$ 33,648,000	$ 2,033,000	$ 31,615,000
4¼%	1,600,000	---	1,600,000	---	1,600,000
	$ 54,400,000	$ 19,152,000	$ 35,248,000	$ 2,033,000	$ 33,215,000
Total Bonds	$526,400,000	$134,660,000	$391,740,000	$13,408,000	$378,332,000

MASSACHUSETTS TURNPIKE AUTHORITY
EMPLOYEES' RETIREMENT SYSTEM
SUITE 3000, PRUDENTIAL CENTER
BOSTON, MASSACHUSETTS 02199

536-1400

February 28, 1978

In accordance with the provisions of section 20, subsection 5, paragraph (i) of Chapter 32 of the General Laws, we are pleased to submit herewith, for publication in the Massachusetts Turnpike Authority Annual Report to the Governor and General Court, a copy of the report of the financial condition of the Massachusetts Turnpike Authority Employees' Retirement System as of December 31, 1977.

S. J. BRITTON
Ex-officio - Chairman

FRANCIS M. HOEY
Elected Member

J. JOSEPH MALONEY
Appointed Member

FINANCIAL CONDITION AS OF DECEMBER 31, 1977

BALANCE SHEET

Massachusetts Turnpike Authority Employees' Retirement System

Assets		
Investments		
Government Bonds	$ 104,299.56	
Railroad Bonds	47,538.78	
Telephone Bonds	1,072,043.60	
Public Utility Bonds	1,182,745.03	
Industrial Bonds	691,421.94	
Bank & Trust Companies Stock	1,115,937.50	
Insurance Companies Stock	34,000.00	
Savings Bank Certificates	140,000.00	
Savings Account	18,000.00	
Cash	976.33	
Accrued Interest on Investments	73,749.59	
Total Assets		$4,480,712.33
Liabilities and Fund Balances		
Annuity Savings Fund	$3,018,824.19	
Annuity Reserve Fund	570,167.79	
Pension Fund	824,455.11	
Expense Fund	67,265.24	
Total Funds		$4,480,712.33

Statement of Receipts and Disbursements

Massachusetts Turnpike Authority Employees' Retirement System

Receipts		
Sale of Investments	$ 395,574.81	
Investment Income	335,858.71	
Members' Payroll Deductions	513,141.52	
Members' Make-up Payments	4,264.24	
Massachusetts Turnpike Authority Appropriation to Pension Fund	840,000.00	
Massachusetts Turnpike Authority Appropriation to Expense Fund	67,600.00	
Pensions Reimbursement from Other Systems	26,938.93	
Transfers from Other Systems	428.39	
Profit/Loss on Sale of Investments	13,262.55	
Refund of Adjusted Pension (Sec. 91a)	4,869.96	
Total Receipts		$2,201,939.11
Disbursements		
Securities Purchased	$1,151,429.98	
Accrued Interest on Securities Purchased	9,807.28	
Expenses Paid	64,038.41	
Annuities Paid	44,635.71	
Pensions Paid	840,574.41	
Refunds of Members' Deductions	87,710.15	
Interest Paid on Members' Refunds and Transfers	2,028.78	
Transfer of Members' Accounts to Other Systems	1,339.80	
Annuity Reserve Option B Payments	9,142.90	
Pensions Reimbursement to Other Systems	2,926.24	
Total Disbursements		$2,213,633.66
Excess Disbursements over Receipts		$ 11,694.55

MASSACHUSETTS TURNPIKE AUTHORITY
CLASS COMPARISON – INITIAL TURNPIKE

January-December 1976 vs. January-December 1977

Class	Description	Transactions 1976	Transactions 1977	Increase or (Decrease)	%	Revenue 1976	Revenue 1977	Increase or (Decrease)	%
1.	Passenger Vehicle or Light Truck (Taxis, Suburbans, Ambulances, Motorcycles, Hearses)	33,010,229	35,381,448	2,371,219	7.2	$19,628,243	$20,675,192	$1,046,949	5.3
2.	Passenger Vehicle or Light Truck with One or Two Axle Trailers	275,961	276,749	788	.3	298,911	301,248	2,337	.8
3.	Trucks - Five or More Axles	1,498,623	1,682,400	183,777	12.3	3,716,408	4,189,367	472,959	12.7
5.	Medium Trucks-Dual Tires with Two Axles	812,390	885,712	73,322	9.0	854,805	923,491	68,686	8.0
6.	Trucks - Three Axles	211,899	219,495	7,596	3.6	290,632	298,397	7,765	2.7
7.	Trucks - Four Axles	898,111	974,618	76,507	8.5	1,815,993	1,950,617	134,624	7.4
8.	Buses	207,934	208,727	793	.4	360,277	354,441	(5,836)	(1.6)
9.	Tandem Trailer-Units	59,414	63,977	4,563	7.7	614,311	662,473	48,162	7.8
10.	Non-Revenue Vehicles	240,049	261,185	21,136	8.8				.0
	Totals	37,214,610	39,954,311	2,739,701	7.4	$27,579,580	$29,355,226	$1,775,646	6.4

MASSACHUSETTS TURNPIKE AUTHORITY
COMPARISON OF INTERCHANGE TRANSACTIONS – INITIAL TURNPIKE

January-December 1976 vs. January-December 1977

Interchange	No.	Entry 1976	Entry 1977	Increase or (Decrease)	%	Exit 1976	Exit 1977	Increase or (Decrease)	%
W. Stockbridge	1.	1,628,365	1,717,103	88,738	5.4	1,603,645	1,682,602	78,957	4.9
Lee	2.	850,714	880,927	30,213	3.6	878,945	911,079	32,134	3.7
Westfield	3.	1,245,191	1,303,266	58,075	4.7	1,266,621	1,327,380	60,759	4.8
W. Springfield	4.	2,089,628	2,192,332	102,704	4.9	2,088,823	2,206,566	117,743	5.6
Chicopee	5.	1,146,390	1,212,289	65,899	5.7	1,048,643	1,131,386	82,743	7.9
Springfield	6.	1,744,923	1,835,629	90,706	5.2	1,763,407	1,877,766	114,359	6.5
Ludlow	7.	868,128	940,035	71,907	8.3	810,097	891,145	81,048	10.0
Palmer	8.	1,091,693	1,172,149	80,456	7.4	1,070,757	1,153,469	82,712	7.7
Sturbridge	9.	4,280,666	4,458,504	177,838	4.2	4,353,558	4,538,044	184,486	4.2
Auburn	10.	3,157,304	3,363,544	206,240	6.5	3,082,653	3,280,331	197,678	6.4
Millbury	11.	724,583	804,936	80,353	11.1	811,569	890,237	78.668	9.7
Westborough	11.A	2,456,493	2,708,056	251,563	10.2	2,428,220	2,660,584	232,364	9.6
Framingham	12.	2,330,665	2,554,621	223,956	9.6	2,445,533	2,696,543	251,010	10.3
Natick	13.	3,704,772	4,089,945	385,173	10.4	3,718,276	4,103,642	385,366	10.4
Weston	14.	4,756,433	5,274,829	518,396	10.9	4,548,439	5,021,670	473,231	10.4
Newton	15.	5,138,662	5,446,146	307,484	6.0	5,295,424	5,581,867	286,443	5.4
Totals		37,214,610	39,954,311	2,739,701	7.4	37,214,610	39,954,311	2,739,701	7.4

MASSACHUSETTS TURNPIKE AUTHORITY

COMPARISON OF INTERCHANGE REVENUE – INITIAL TURNPIKE

January-December 1976 vs. January-December 1977

Interchange	No.	Entry 1976	Entry 1977	Increase or (Decrease)	%	Exit 1976	Exit 1977	Increase or (Decrease)	%
W. Stockbridge	1.	$ 3,498,187	$ 3,736,495	$ 238,308	6.8	$ 3,481,254	$ 3,710,833	$ 229,579	6.6
Lee	2.	1,001,831	1,024,265	22,434	2.2	1,018,033	1,046,541	28,508	2.8
Westfield	3.	632,703	660,205	27,502	4.3	628,758	666,774	38,016	6.0
W. Springfield	4.	1,609,623	1,700,978	91,355	5.7	1,524,789	1,639,389	114,600	7.5
Chicopee	5.	469,331	510,451	41,120	8.8	433,289	500,239	66,950	15.5
Springfield	6.	1,614,645	1,692,811	78,166	4.8	1,573,163	1,680,189	107,026	6.8
Ludlow	7.	466,711	495,119	28,408	6.1	438,740	485,305	46,565	10.6
Palmer	8.	604,836	641,251	36,415	6.0	595,515	639,854	44,339	7.4
Sturbridge	9.	3,701,558	3,859,552	157,994	4.3	3,695,568	3,851,251	155,683	4.2
Auburn	10.	2,565,417	2,755,538	190,121	7.4	2,539,847	2,727,507	187,660	7.4
Millbury	11.	596,269	666,407	70,138	11.8	665,643	735,126	69,483	10.4
Westborough	11.A	1,748,359	1,882,386	134,027	7.7	1,806,072	1,932,391	126,319	7.0
Framingham	12.	894,957	969,250	74,293	8.3	956,883	1,027,898	71,015	7.4
Natick	13.	1,014,004	1,106,612	92,608	9.1	1,007,314	1,100,168	92,854	9.2
Weston	14.	3,893,480	4,232,341	338,861	8.7	3,735,855	4,021,196	285,341	7.6
Newton	15.	3,267,669	3,421,565	153,896	4.7	3,478,857	3,590,565	111,708	3.2
Totals		$27,579,580	$29,355,226	$1,775,646	6.4	$27,579,580	$29,355,226	$1,775,646	6.4

MASSACHUSETTS TURNPIKE AUTHORITY

CLASS COMPARISON – BOSTON EXTENSION

January-December 1976 vs. January-December 1977

Class	Description	Transactions 1976	Transactions 1977	Increase or (Decrease)	%	Revenue 1976	Revenue 1977	Increase or (Decrease)	%
1.	Passenger Vehicle or Light Truck (Taxis, Suburbans, Ambulances, Motorcycles, Hearses)	47,725,748	50,412,561	2,686,813	5.6	$12,207,588	$12,889,100	$681,512	5.6
2.	Passenger Vehicle or Light Truck with One or Two Axle Trailer	54,042	54,207	165	.3	28,246	28,164	(82)	(.3)
3.	Trucks - Five or More Axles	602,024	624,608	22,584	3.8	418,604	435,313	16,709	4.0
5.	Medium Trucks-Dual Tires with Two Axles	1,092,548	1,151,937	59,389	5.4	386,108	406,002	19,894	5.2
6.	Trucks - Three Axles	189,583	185,840	(3,743)	(2.0)	84,467	82,727	(1,740)	(2.1)
7.	Trucks - Four Axles	584,770	594,300	9,530	1.6	315,014	318,929	3,915	1.2
8.	Bus	541,372	535,064	(6,308)	(1.2)	409,253	402,657	(6,596)	(1.6)
9.	Tandem Trailer-Units	12,546	12,929	383	3.1	12,546	12,929	383	3.1
10.	Non-Revenue Vehicles	251,011	246,891	(4,120)	(1.6)				.0
	Totals	51,053,644	53,818,337	2,764,693	5.4	$13,861,826	$14,575,821	$713,995	5.2

MASSACHUSETTS TURNPIKE AUTHORITY

STATISTICAL COMPARISON – BOSTON EXTENSION

January-December 1976 vs. January-December 1977

Interchange	No.	Transactions 1976	Transactions 1977	Increase or (Decrease)	%	Revenue 1976	Revenue 1977	Increase or (Decrease)	%
Newton-Turnpike	15	10,389,081	10,982,287	593,206	5.7	$ 2,779,854	$ 2,930,608	$150,754	5.4
Newton - 128	15	8,931,234	9,600,653	669,419	7.5	2,306,292	2,474,944	168,652	7.3
West Newton	16	2,247,586	2,316,033	68,447	3.0	337,169	347,282	10,113	3.0
Allston									
Off East - On West	18	6,297,326	6,719,643	422,317	6.7	1,324,153	1,409,319	85,166	6.4
Thru Traffic	19	17,055,227	17,784,236	729,009	4.3	5,513,792	5,733,149	219,357	4.0
Off West - On East	20	6,133,190	6,415,485	282,295	4.6	1,600,566	1,680,519	79,953	5.0
Totals		51,053,644	53,818,337	2,764,693	5.4	$13,861,826	$14,575,821	$713,995	5.2

MASSACHUSETTS TURNPIKE AUTHORITY

CLASS COMPARISON – TUNNEL

January-December 1976 vs. January-December 1977

Class	Description	Transactions 1976	Transactions 1977	Increase or (Decrease)	%	Revenue 1976	Revenue 1977	Increase or (Decrease)	%
1.	Passenger Car, Taxi Light Truck, Ambulance Motorcycle, Hearse	23,542,802	23,388,774	(154,028)	(.7)	$5,885,699	$5,847,194	$(38,505)	(.7)
2.	Passenger Car with Single Axle Trailer, Two-Axle Single Tire Truck with Single-Axle Trailer	9,737	9,475	(262)	(2.7)	2,921	2,842	(79)	(2.7)
3.	Passenger Vehicle with Two-Axle Trailer, Two-Axle Single Tire Truck with Two-Axle Trailer	3,724	3,358	(366)	(9.8)	1,490	1,343	(147)	(9.9)
4.	Trucks-Five or more Axles	11,727	12,424	697	5.9	5,275	5,591	316	6.0
5.	Two-Axle Dual-Tire Truck	417,598	419,119	1,521	.4	125,280	125,736	456	.4
6.	Three-Axle Truck, Two Axle Dual-Tire Truck with Single Axle Trailer	30,471	34,567	4,096	13.4	10,666	12,098	1,432	13.4
7.	Four-Axle Truck with or without Trailer	52,607	53,239	632	1.2	21,043	21,296	253	1.2
8.	Bus	155,111	152,876	(2,235)	(1.4)	54,288	53,507	(781)	(1.4)
9.	Commuter	1,451,344	1,360,352	(90,992)	(6.3)	290,270	272,070	(18,200)	(6.3)
10.	Non-Revenue	144,136	134,728	(9,408)	(6.5)				.0
	Totals	25,819,257	25,568,912	(250,345)	(1.0)	$6,396,932	$6,341,677	$(55,255)	(.9)