

SUMMARY OF TRAFFIC AND PARKING CONTROL MEASURES
IMPLEMENTED BY THE CITY OF CAMBRIDGE
SINCE THE PASSAGE OF THE CLEAN AIR ACT

Introduction

The use of a parking freeze to advance or achieve the fundamental goal of the Clean Air Act, namely, to improve the nation's air quality, has not been adopted in the United States, except in a handful of cities, two of which are Boston and Cambridge. The efficacy of a parking freeze in advancing the goals of the Clean Air Act has been publicly questioned by John McGlennon, who was the Regional Administrator of the United States Environmental Protection Agency in 1975 when the parking freeze in Boston was implemented. A newspaper article that reports Mr. McGlennon's views is attached as Exhibit A. There is little research at any level of government that demonstrates that a parking freeze has been effective in improving air quality.

Over the past twenty years since the Clean Air Act was enacted, many measures and strategies other than parking freezes have been adopted and implemented at every level of government to advance the goals of the Clean Air Act. It is important in analyzing the performance of any city under the Clean Air Act to review all of its programs and efforts and their inter-relationship in order to assess accurately the success and level of commitment of a particular city in improving air quality.

The City of Cambridge has implemented an extensive and varied program of traffic and parking control measures since the passage of the Clean Air Act. In a number of instances,

the particular programs of the City have, in fact, been pioneering efforts.

Set forth below is a summary of the traffic and parking control measures implemented by the City of Cambridge in addition to the parking freeze, all of which further the goal of improving air quality. Any analysis or criticism of the City of Cambridge regarding its implementation of the parking freeze cannot be fairly made without (i) acknowledging the questionable effectiveness of a parking freeze in advancing the purposes of the Clean Air Act and (ii) recognizing the extensive efforts made by the City of Cambridge as outlined below.

I. Reductions in the Supply of Parking Spaces

A. Downzoning Throughout the City

Since December of 1973, the City of Cambridge has extensively downzoned significant portions of the City. This has been accomplished by systematically reducing the Floor Area Ratio ("FAR") that is permitted by the Cambridge Zoning Ordinance in many areas of the City. In fact, most of the non-residential areas of the City have been downzoned in this manner since that time. A list of the amendments to the Zoning Ordinance that have been enacted by the City since December of 1973, almost all of which resulted in reductions in permissible FAR and other density requirements, is attached as Exhibit B. A copy of the amendments to the Zoning Ordinance referenced in the chart is attached as Exhibit C. A map that shows the major areas of the City that have been downzoned since 1960, which graphically illustrates those portions of the City in which density reductions have been achieved by amending the Zoning Ordinance, is attached as Exhibit D. This map also shows those areas of the City in which rezoning studies are currently underway. In all of these cases, the City has been seeking to

limit development potential in general and traffic generation in particular.

The Cambridge Community Development Department has prepared a table that shows the effect on development in selected significant areas of the City due to the downzonings that have been enacted. The chart is attached as Exhibit E. The chart shows that the total possible build-out in these areas before the relevant downzonings were enacted was approximately 30,659,000 square feet of gross floor area. After the relevant downzonings were enacted, the total possible build-out in these areas was reduced to 15,793,000 square feet of gross floor area, which is a reduction of almost fifty percent. In addition, in the Alewife Triangle Area, the new downzoned permitted maximum build-out is 3,582,000 square feet of gross floor area, but the actual amount that will be built pursuant to Special Permits that have been issued is 2,236,000 square feet of gross floor area. A map that shows the areas referenced in the attached chart is attached as Exhibit F.

B. Proposed Traffic Mitigation Zoning Ordinance Amendment

The City is presently considering an amendment to the text of the Cambridge Zoning Ordinance that would add a new section entitled "Traffic Mitigation and Parking Supply Restrictions". This section of the Zoning Ordinance would result in an exceptional process pursuant to which the City would require traffic analysis and mitigation measures that the City believes will reduce traffic and air quality impacts caused by new development within its boundaries. The City is not aware of a similar zoning ordinance that has been enacted anywhere else in New England.

The proposed ordinance would apply with certain exceptions to all new buildings, additions to existing buildings, or changes in the use of an existing building encompassing 15,000

square feet or more of gross floor area that is used for any combination of non-residential/non-institutional uses, hotels and motels. Under the proposed ordinance, a Special Permit from the Cambridge Planning Board will be required if such a project will provide other than the minimum parking required by the Cambridge Zoning Ordinance. Applicants for all projects subject to the proposed ordinance will be required to prepare and submit a Traffic Analysis and Mitigation Report that conforms to the Guidelines for Submission that have been most recently approved by the Cambridge Planning Board.

The proposed ordinance requires Traffic Analysis and Mitigation Reports that are prepared pursuant to the proposed ordinance to demonstrate that the number of A.M. and P.M. peak hour vehicle trips generated by the proposed project will be limited to specific rates set forth in the ordinance. The ordinance provides that an applicant must develop and implement a program for vehicle trip generation mitigation to insure that the total peak hour vehicle trips generated by the project do not exceed the amount allowed pursuant to the ordinance.

The ordinance also requires that large projects and small projects with unique impacts as determined by the Cambridge Planning Board must evaluate the effects of the project's vehicle traffic on the City's roadway network and specify mitigation that will reduce traffic congestion and protect residential neighborhoods and other sensitive areas.

The proposed ordinance also sets forth specific, maximum allowed numbers of parking spaces that are more stringent than the provisions of the Cambridge Zoning Ordinance that would otherwise apply.

During the past year, the Cambridge Planning Board has been requiring a traffic mitigation and analysis package from applicants for Special Permits that is similar to that which

would be required pursuant to the proposed ordinance. An example of such a Planning Board decision, which is set forth in a Minor Amendment to the Special Permit issued by the Planning Board for the project, is attached as Exhibit G. The proposed ordinance will increase the number of projects that will be subject to these requirements. Recent studies have shown that the implementation of this ordinance will reduce future vehicle trip generation by over 25%.

A copy of the most recently proposed text of this amendment to the Cambridge Zoning Ordinance is attached as Exhibit H. A copy of the current draft of the Guidelines for Submission - Traffic Analysis and Mitigation Report referred to in the proposed ordinance is attached as Exhibit I.

C. Resident Parking Sticker Program

Cambridge was the first city in the country to initiate a resident parking sticker program to eliminate curbside parking for commuters coming into the City who would park in residential areas of the City and then transfer to the MBTA system for travel into downtown Boston. The Cambridge program was introduced in 1972 and was the first such program in the country designed to reduce commuter travel and improve air quality, and it was the first program of its kind that successfully withstood a court challenge. A copy of the decision of the Massachusetts Supreme Judicial Court that upheld the program is attached as Exhibit J. In fact, the Cambridge regulations became the standard for other cities that had previously but unsuccessfully tried to regulate such parking for the purpose of dedicating curbside spaces for residents.

It is estimated that this program alone regulated more than 18,000 parking spaces in Cambridge, many of which had previously been used by commuters who had driven into the City on a regular basis. The program also had secondary benefits,

particularly in those areas where commuters had previously quickly filled parking spaces that would then be unavailable for the use of neighborhood residents.

II. Reductions in the Demand for Parking Spaces

A. Mass Transit System Improvements

1. Rapid Transit Line Extension

Perhaps the most significant transit project in the City's history occurred during the early 1980's with the construction of the Red Line extension from Harvard Square through Porter Square to the Alewife Station in North Cambridge. This project went through a lengthy and extensive permitting and review process, including the preparation of an EIR/EIS report. The City actively participated in the approval process by strongly supporting the extension. Furthermore, the City's Traffic and Parking Department and Department of Community Development supported the project with significant staff inputs.

The Red Line extension also provided a major new station in Harvard Square, including extensive pedestrian access points to serve the surrounding area. In addition, the project included the construction of the Porter Square station, which involved considerable community dislocation during the construction process. It is noteworthy that the Harvard and Porter Square stations were built without the construction of supporting parking to serve commuters or local businesses.

As part of the construction of the Porter Square station, an interchange between the principal commuter line to the northwest, the Fitchburg Line, and the MBTA was provided at Porter Square. This interchange allows commuters to travel by

train into Cambridge and then to transfer very conveniently at a station that provides service to the Red Line transit system, as well as to several surface bus and trolley lines.

Particularly noteworthy in connection with the reduction of parking availability in Cambridge was the portion of the Harvard Square station project that resulted in the elimination of a major municipal parking facility in Harvard Square containing approximately 350 spaces. This lot was used originally by the MBTA for employee parking but, as part of its negotiations with the MBTA, the City acquired the right to use the land for a municipal parking lot to compensate in part for the loss of spaces during the construction period. However, at the completion of the Red Line project, the parking lot was eliminated altogether and the publicly accessible spaces were incorporated into a garage servicing the new Charles Hotel and related office buildings. As part of this process, charges for the use of these spaces were raised substantially to discourage the use of the spaces by commuters.

The Alewife Station in North Cambridge in the northwest corner of the City was built with elaborate pedestrian access points and was designed to become a major focal point for feeder bus service. A 2,000 car commuter parking garage was constructed as part of the station and plans are now in process for the addition of 1,000 more spaces, which were provided for in the original design of the garage.

In sum, the Red Line extension was a major step in providing new and improved mass transit access in Cambridge to allow continued development in the City without increased reliance on automobiles. Coupled with a reduction in the total number of parking spaces in the area surrounding the two interior stations, Porter and Harvard, the result of the project was to make the City much more reliant on public transportation.

2. Trackless Trolleys

As part of the reconfiguration of its transit system in connection with the Red Line extension, the City opted to retain intact its trackless trolley services. As part of the Red Line extension, studies that were made showed that standard diesel buses would have provided cheaper and more efficient service and routes than the trolleys. However, in an effort to minimize the noise and fumes associated with these diesel buses, the City persuaded the MBTA to retain the trackless trolleys.

B. Trip-Generation-Capped Development

Due to efforts on the part of the City, the Forest City/University Place project, a large multi-use project in Central Square, is subject to a specific limitation on trip generation. A written agreement has been entered into by the project developer and the City (the "Agreement") that sets forth the details of this limitation, as well as a list of mitigation measures that must be implemented by the project developer. A copy of the Agreement is attached as Exhibit K.

The project is the first in Massachusetts with a specific trip generation cap. The cap acts as a control that requires the developer to take measures to reduce the amount of traffic generated by the development. The terms of these measures are set forth in the Agreement. Under the terms of the Agreement, at an interim point of development, traffic studies will be made to determine the trip generation of the project. If the trip generation figures fall within guidelines established by the City, the developer will be allowed to build additional square footage as a reward for providing effective programs for trip reduction. This is a landmark approach to limiting the trip generation of large developments. It is the first time it has been attempted in Massachusetts, and may be the first such effort in New England and the East.

In addition, as part of the negotiations for the Forest City/University Park project, several narrow streets that were previously used by commuters and were to be used for access to the site were reoriented, thus reducing travel through neighborhoods and making traffic flow in the area more efficient. The project was also designed to capitalize on its location near the Central Square Red Line transit station. As a result, the most intensely developed parts of the project are located closest to the station. Further, the design of the project took into account existing and future bus routes serving the area.

C. Commuter Mobility Coordinator

The City has hired a Commuter Mobility Coordinator from CARAVAN for Commuters, Inc. to be responsible for the development and promotion of traffic mitigation strategies throughout the City. The Coordinator works full-time, reports to the Transportation Coordinator for the City of Cambridge, and is associated with the City's Department of Community Development. Cambridge is the second city in Massachusetts (Boston was the first) to employ such a full-time person on its own staff.

The programs developed by the Coordinator have been and are implemented by both private and public employers with the goal of facilitating the commute of their employees, while at the same time reducing traffic congestion. The Commuter Mobility Coordinator, as part of the development of these programs, has researched transportation demand management strategies already in effect as case studies, identified priority businesses based on their locations, and negotiated and created specific programs that are site and employer specific.

The Coordinator's focus is presently aimed at the Alewife area, East Cambridge, Cambridgeport, Harvard Square, and the Kendall Square area. The Coordinator has secured many major developers and existing employers as clients for these programs. Since the initiation of these programs by the Coordinator approximately nine months ago, almost 45,000 people have been contacted and made aware of the programs and almost 20,000 people in the City now participate in these programs.

Some of the techniques that employers have used, in part as a result of suggestions from and meetings with the Coordinator, include the following:

- (a) surveying tenants and employees to discover the most appropriate programs to adopt;
- (b) hiring an on-site transportation coordinator for the project or employer;
- (c) using electronic bulletin boards to promote and advertise commuter services;
- (d) operating a "T" pass sales program or further subsidizing an already existing one;
- (e) exploring the potential of shuttle service and assisting in implementing such service;
- (f) holding meetings for tenants of office buildings to introduce, clarify and promote commuter services programs;
- (g) encouraging preferential parking in large developments for carpools and vanpools;

- (h) installing RideSource, a computer database ride-matching program, and providing training for its use;
- (i) distributing information concerning transit, shuttle options and routes; and
- (j) in the future, organizing and maintaining Transportation Management Organizations, which are collaborations of large private corporations whose goal is to provide transportation services for a large constituency through private means.

The Coordinator has also developed a Commuter Mobility Program for City employees and has assisted in the planning process associated with downzoning certain areas of the City by determining the impacts on commuter mobility of various proposed zoning alternatives.

Copies of the quarterly reports that have been prepared by the Commuter Mobility Coordinator setting forth the actions undertaken by the Coordinator are attached as Exhibit L.

D. Shuttle Bus Service for New and Existing Developments

As part of its PUD Special Permit zoning process, the City has actively encouraged the development of shuttle bus services where they are most apt. The City, through its Commuter Mobility Coordinator, is also encouraging the development of shuttle bus services for existing projects. A list of those shuttles, which has been prepared by the City's Commuter Mobility Coordinator as of February 12, 1990, is attached as Exhibit M.

As an example, in connection with new development in East Cambridge, the City required the CambridgeSide Galleria project

to provide a plan for shuttle bus service between the project and the MBTA rapid transit system. A copy of the PUD Special Permit that sets forth this requirement is attached as Exhibit N. As part of the PUD process, the City also encouraged the developer of the Galleria and the developer of the adjacent Lotus project to coordinate their shuttle bus activities. As a result, the City is involved in the process of designing a shuttle bus system to serve as many users in the area of these projects as possible. These shuttle buses will be provided free of charge to users. Routes have been designed to serve the maximum possible service area. This system would combine existing shuttle bus service provided by Lotus with projected shuttle bus services to be provided by the Galleria and Lotus.

E. Transit Plans

In addition, as part of its PUD Special Permit Zoning process, the City has required developers of significant projects in Cambridge to submit to the City for approval, and to subsequently implement, Transit Plans. The City has required that these Plans include plans for the implementation of computer-based ride sharing information banks, plans for participation in the MBTA commuter pass program, details concerning programs to survey project users to determine travel modes, times of arrival and departure, home locations, and preferences for ride sharing, which information is updated annually and forwarded to the City, as well as requirements for shuttle bus services as described above. Copies of two Special Permit decisions issued by the Cambridge Planning Board that set forth examples of these requirements are attached as Exhibit O. The Special Permit for the Galleria, which is attached as Exhibit N, also includes these requirements.

F. Truck Restrictions

The City has been active for several years in reducing or eliminating truck movements in and through the City. In particular, heavy trucks that had regularly been using City streets to travel between the Massachusetts Turnpike and industrial areas in Somerville have been rerouted along major arterial roadways, resulting in a significant improvement in traffic flows. A schedule of those streets on which the City has prohibited the travel of heavy commercial vehicles is attached as Exhibit P.

G. Staffing for Parking Control Officers and Enforcement

The City has provided for a staff of twenty-six Parking Control Officers for parking control and the enforcement of parking regulations, especially in the various residential areas of the City. A commitment to hire Parking Control Officers was made in the early 1970s based on the Parking Supervisor Feasibility Study that was prepared at that time. A copy of that study is attached as Exhibit Q.

H. Parking Ticket Enforcement

In 1975, the Traffic Department of the City of Cambridge initiated a study of the issuance of parking tickets and the procedures pursuant to which these tickets were processed through the court system. The study found that if a ticket were not paid, a summons to appear in court had to be issued. These summonses were issued manually, which, when combined with the fact that the courts were experiencing a two to three year backlog concerning these matters, resulted in most parking ticket recipients ignoring applicable parking regulations and not paying their parking tickets.

At a meeting among the City, the Clerks of the District Court, and the Chief Justice of the District Court, solutions to this problem were discussed. As an interim measure, the City agreed to finance the cost of computerizing the processing of parking tickets at the court level and to supply clerks to work at the court to assist in the collection of parking fines.

As a result of the City's effort, a permanent solution was also achieved through state legislation, which resulted in cities and towns across Massachusetts becoming responsible for the collection of parking fines and being permitted to process their own parking tickets. In addition, at about the same time, the City petitioned for and obtained three Special Acts of the Massachusetts General Court, pursuant to which Cambridge was permitted to immobilize or tow any motor vehicle for which five or more tickets were outstanding in a period of one year until such time as all of the relevant parking tickets were paid. A copy of these Special Acts is attached as Exhibit R.

The City also helped initiate the Registry "hold" program, pursuant to which anyone who does not pay his or her parking tickets within a reasonable period of time can not renew his or her driver's license or automobile registration until all of the relevant tickets have been paid.

The City currently issues approximately 500,000 citations each year in connection with its parking ticket program. This figure is almost double the number of citations issued by the City between July, 1974 and June, 1975. The procedures described above have significantly increased compliance with parking regulations in the City of Cambridge. This has resulted in fewer vehicles blocking travel lanes, loading zones, and bus stops, improved compliance with the Resident Parking Program discussed above, and less congestion and better traffic flow on City streets.

III. Roadway Improvements and Results

The City has made numerous roadway and traffic signalization improvements in order to facilitate the flow of traffic within the City and to improve air quality. Several of the specific improvements that have been made are described below.

A. Roadway Improvements

1. Harvard Square: Mass. Ave. - Brattle Street Movement

The redesign and relocation of the intersection of Massachusetts Avenue and Brattle Street, which was made in connection with a major redesign of Harvard and Brattle Square to (a) reduce through traffic, (b) enhance pedestrian flows, and (c) provide a major new entrance to the Red Line Station, totally eliminated the second highest volume movement through the Square, namely, the Mass. Ave. westbound to Brattle Street flow. This was a major commuter movement, which restricted pedestrian street crossings and created congestion in the Square. Some of this traffic may have diverted to other parallel routes, but the net effect of the relocation was to reduce substantially traffic through Harvard Square.

2. Closing of Memorial Drive

Memorial Drive is closed from 11:00 a.m. until 7:00 p.m. on Sundays from the last Sunday in April until the second Sunday in November. This allows this road to be used as a pedestrian way, and allows the public easy access to the banks of the Charles River in this area. This MDC action was supported by the City and otherwise could not have been put into effect.

3. Eliot Street Conversion from One-Way to Two-Way Traffic

The conversion of Eliot Street to two-way traffic allowed vehicles to gain access from the Charles River corridor highways to the southwest section of Harvard Square without traveling through Harvard Square itself. This improvement resulted in traffic following a more efficient route to the remaining parking areas west of the Square. In addition, signals were installed at both ends of Eliot Street, at JFK Street and at Bennett Street to facilitate the flow of traffic and, in particular, MBTA vehicles serving the Harvard Square terminal.

4. Roadway Improvements in the Kendall Square Area

The Kendall Square area has been completely redesigned to enhance pedestrian circulation and to provide a major focal point for access to the recently refurbished Red Line station in that area. Roadways were widened and signals installed to facilitate the rerouted traffic. The remaining section of Main Street, formerly a four-lane arterial roadway, has become almost totally pedestrian oriented, which is focused on the MBTA entrance and exit kiosks for the Kendall Square station.

The area roadway system has also been revised to create a favorable pattern for buses serving the station so as to provide curb space for the various shuttle buses now serving the East Cambridge area. The dangerous and congested rotary connecting Memorial Drive and Main Street to Third Street was also eliminated to improve traffic flow and safety in the Kendall Square area.

As a result, the roadway system in the area has been modified to provide additional capacity along major arterial roadways, which are properly controlled and help to reduce overall delays of commuter traffic. A plan that shows the

roadway improvements that have been made in the Kendall Square Urban Renewal Area is attached as Exhibit S.

(It should be noted that a considerable amount of the commuter traffic in Kendall Square consists of commuters as a direct result of congestion encountered along Storrow Drive in Boston. This has been well documented by the Central Transportation Planning Staff.)

5. Roadway Improvements in the East Cambridge Area

An arterial roadway system involving Commercial Avenue and Binney Street, which was designed to provide an improved route for commuter and truck traffic, has either been built or will be completed shortly. The intent has been to focus such traffic onto arterial roadways and to eliminate the need for travel on local streets.

On-street parking was eliminated on Commercial Avenue, and Commercial Avenue was widened from four to six lanes to facilitate the flow of traffic in this area. On-street parking was also eliminated on First Street, which was widened from two to four lanes, as part of the development of this arterial roadway system.

In addition, Cambridge Parkway, which was formerly used as a commuter route, has been redesigned and made into a one-way, one lane roadway to discourage its use by commuters and to enhance its use both for local service to the Charles River and surrounding recreational opportunities, as well as for business.

As part of this reconstruction, two pedestrian underpasses have been built to provide a direct connection between the Museum of Science complex and the East Cambridge Triangle area, which includes a number of residences and offices and a retail

center now under construction. A plan showing the above-described roadway improvements is attached as Exhibit T.

6. Roadway Improvements in the Alewife Area

The Dewey/Almy rotary was eliminated and replaced with a high-capacity signalized intersection. As part of this work, an elaborate system of roadways, including an underpass, has been built to facilitate the flow of traffic through the area, as well as to provide access for new development concentrated at the MBTA station. It should be noted that the North Cambridge area has undergone downzoning twice over the past ten years to reduce the potential intensity of development in this area. At the present time, the zoning in the area focuses on developments that can utilize public transportation service that is provided by the Red Line and the feeder bus network focusing on the Alewife Station.

The City is working closely with the MDC and the Massachusetts DPW to develop roadway betterments in the area that will further improve the flow of traffic through this area, reduce delays and vehicle emissions, and facilitate access to the MBTA station in the area. As part of this work, ramps have already been built directly from Route 2 to the Alewife garage so that commuters from the west can enter the garage while avoiding the Dewey/Almy intersection. This is believed to be a significant inducement for use of the Red Line. Its success is evidenced by the MBTA's current plans for adding 1,000 parking spaces at this location.

7. Central Square Enhancement Project

The Central Square Enhancement Project has continued the improvements that were commenced as part of the MBTA station reconstruction at Central Square. This project has enhanced the efficiency, appearance and safety of, as well as access to,

Central Square. The changes that were implemented as part of the project involved installing permanent travel lane markings, new clearly marked crosswalks and stop lines, wider sidewalks, and safer pedestrian crossings.

The portion of the Central Square roadway system south of Green Street was redesigned to recapture space for pedestrians by adjusting street alignment at that location. This was done so as to allow safe passage of traffic while discouraging the tendency of motorists to speed up as they entered the Square in order to make green lights. Safety was further improved through better lane alignment at the intersections.

Plans that show Central Square before and after the Central Square project are attached as Exhibit U.

8. Roadway Improvements Due to Curb and Parking Reductions

At a number of locations within the City, curb parking has been removed to provide additional intersection and roadway capacity and thereby reduce delays to traffic travelling in the City. While the list below is not complete, it provides an indication of the locations where parking has been permanently eliminated to improve traffic flow:

a. Eliminated parking at the following intersections to provide an additional lane to improve capacity:

- (i) Aberdeen Ave. at Huron Ave.,
- (ii) Albany Street at Mass. Ave.,
- (iii) Broadway at Prospect St.,
- (iv) Cambridge St. at First St. (both directions),
- (v) Cambridge St. at Quincy St.,
- (vi) Chauncy St. at Mass. Ave.,
- (vii) Huron Ave. at Fresh Pond Parkway (peak hours),

- (viii) Mt. Auburn St. at Memorial Drive,
 - (ix) Mt. Auburn St. at University Road,
 - (x) Putnam Ave. at Mass. Ave., and
 - (xi) Somerville Ave. at White St.
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- b. Eliminated parking along Mass. Ave. from Beech Street to Walden Street to provide a left-turn storage lane.
 - c. Created a peak hour restriction along Mt. Auburn Street from Fresh Pond Parkway to Hawthorn Street to provide two inbound lanes during the morning peak.
 - d. Removed parking from the median island between Mass. Ave. and Peabody Street at McArthur Square to improve traffic flow.
 - e. Removed parking from the median island in the middle of Main Street east of Kendall Square to improve traffic flow.
 - f. Reconstructed and widened the Mass. Ave. railroad bridge at Porter Square to include right-turn lanes.
 - g. Coordinated with the MDC in making several improvements along Fresh Pond Parkway, including restriping of traffic lanes, changes in signal timing, and traffic signs.
 - h. Closed Elmwood Avenue to entering traffic on an experimental basis. This closing was aimed at reducing the number of accidents at the intersection of Mt. Auburn and Elmwood and to improve the flow of traffic in the area.
 - i. Removed parking on JFK Street between Memorial Drive and South Street to provide a left-turn lane onto Eliot Street. This was done as part of the overall improvements in Harvard Square.

- j. Redesigned and reconstructed Mt. Auburn Street from Fresh Pond Parkway to the Watertown line to channel and control traffic with traffic islands, signals, signing and pavement markings. Parking along this section of roadway had already been removed as part of previous traffic improvement programs. The design was intended to reduce the delays that had been prevalent for a long time in this section of the City.
- k. Redesigned and reconstructed in cooperation with the MDC the intersection of Mass. Ave. and Alewife Brook Parkway to provide additional turning lanes and a left turn phase. An exclusive left turn phase was provided for both directions on Alewife Brook Parkway, with a separate signal phase for that movement. Mass. Ave. was widened to allow for the construction of a median and three approach lanes for each direction. An advance left turn arrow for outbound traffic was also provided to accommodate this heavy movement.
- l. Reduced congestion and improved safety at the intersection of Hampshire Street and Broadway by channelizing and redesigning this intersection. Hampshire Street had intersected Broadway at about a twenty degree angle. Hampshire Street was channelized and redesigned so that the traffic now intersects Broadway at about an eighty degree angle. This change clearly defined the travel lanes, provided better visibility, and decreased the speed at which vehicles enter Hampshire Street from Broadway. Pedestrian safety was also improved, since the roadway to be crossed by pedestrians is now narrower.

B. Traffic Signal Improvements

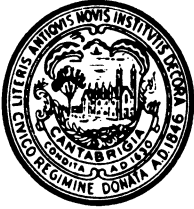
The City is now upgrading and computerizing its entire traffic signal system. This work has been completed for all signals along Mass. Ave. from Cambridge to Churchill Avenue, on Broadway, in Kendall Square, and along Prospect Street and Inman Street. This means that the cycle length, split time, and the speed of the vehicles using these streets is controlled from the Master Computer at the office of the Cambridge Traffic Department. This change has decreased waiting time and backups, which the City believes has in turn cut down on gasoline consumption and air pollution. There has also been a reduction in the number of reported accidents in these areas. A copy of the City's current Capital Improvements Program for Traffic Signals is attached as Exhibit V.

Dated: April 17, 1990.

LIST OF EXHIBITS

- Exhibit A: Article from the Boston Globe dated December 5, 1988 entitled "No gain felt since EPA cut parking spots."
- Exhibit B: List of Amendments to the Zoning Ordinance of the City of Cambridge since December, 1973.
- Exhibit C: Copies of the Amendments to the Zoning Ordinance of the City of Cambridge referenced in Exhibit B.
- Exhibit D: Map showing major areas of the City that have been downzoned since 1960.
- Exhibit E: Table prepared by the Cambridge Community Development Department that shows the effect on development in selected significant areas of the City due to the downzonings that have been enacted.
- Exhibit F: Map that shows the areas referenced in Exhibit E.
- Exhibit G: Minor Amendment to PUD Special Permit for 15 Monsignor O'Brien Highway.
- Exhibit H: Proposed Traffic Mitigation Zoning Ordinance Amendment.
- Exhibit I: Proposed Guidelines for Submission - Traffic Analysis and Mitigation Report.
- Exhibit J: Commonwealth v. Petralia, 372 Mass. 452 (1977).

- Exhibit K: Forest City/University Place Trip Generation Cap Agreement.
- Exhibit L: Quarterly Reports prepared by the Cambridge Community Mobility Coordinator.
- Exhibit M: List of shuttle bus services in Cambridge.
- Exhibit N: PUD Special Permit for the CambridgeSide Galleria.
- Exhibit O: PUD Special Permit decisions issued by the Cambridge Planning Board including Transit Plan requirements.
- Exhibit P: Schedule of streets on which the City of Cambridge has prohibited the travel of heavy commercial vehicles.
- Exhibit Q: Parking Supervisor Feasibility Study.
- Exhibit R: Chapter 239 of the Acts of 1977; Chapter 424 of the Acts of 1981; and Chapter 585 of the Acts of 1981.
- Exhibit S: Plan that shows roadway improvements made in the Kendall Square Urban Renewal area.
- Exhibit T: Plan that shows roadway improvements in the East Cambridge Triangle area.
- Exhibit U: Plans that show Central Square before and after the Central Square Enhancement Project.
- Exhibit V: Cambridge Capital Improvements Program for Traffic Signals.



CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139
TEL. 498-9011

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

April 20, 1990

To The Honorable City Council
City Hall
Cambridge, MA 02139

Re: Parking Freeze

Dear Members of the Council:

I am submitting this communication to the Council in connection with the public hearing regarding the parking freeze.

I am enclosing a report which sets forth many transportation-related measures which the City of Cambridge has taken in the last twenty years and which we feel have made a positive contribution in the fight against air pollution.

Since the hearing is specifically about the parking freeze, we must understand its history. As amended in 1970, the federal Clean Air Act forced a partnership between the federal and state governments to reduce air pollution. The federal government is responsible for setting nation-wide air quality standards, and the states have the primary responsibility for implementing the mix of control strategies to achieve these air quality standards. The 1970 Act charged each state with developing a state implementation plan (SIP) adequate to achieve the standards.

The Clean Air Act also authorizes the SIPs in areas with acute auto-related pollution problems to contain transportation control plans (TCPs) to limit the use of motor vehicles.

In 1973, a federal court ordered certain states to submit TCPs by April 15, 1973, and directed the Environmental Protection Agency (EPA) to promulgate a federal plan for any state which missed the deadline or submitted an inadequate plan. Massachusetts (as well as most other states) did not submit a TCP to EPA for inclusion in its SIP. As a result, in November, 1973, the EPA promulgated a TCP applicable to Boston and Cambridge, which included, among other measures, a parking freeze.

A group of developers and others promptly challenged the TCP in federal court. In 1974, in the South Terminal Case, the Court generally upheld the TCP, including the freeze and the other parking management regulations. The Court, however, made it clear that "residential parking spaces, free customer spaces and employee parking spaces" were to be exempted from the freeze.

On June 12, 1975, the EPA promulgated amendments to the TCP, retaining a parking freeze with some modifications. The federal regulation is found at 40 Code of Federal Regulations (CFR), s. 52.1135. At this point, I must address differences between the language of the federal regulation as it appears in s. 52.1135 and the parking freeze as it has been enforced in Cambridge over the last 15 years.

Although the Court in 1974 had specified that "residential parking spaces, free customer spaces and employee parking spaces"

should be exempted from the freeze, this language was not included in s. 52.1135 in 1975. It was, however, incorporated into the definition of "Commercial parking facility" contained in the Boston "Procedures for Criteria for Issuance of Parking Freeze Permits," which were adopted in 1978 by the Boston Air Pollution Control Commission and approved by DEQE. This definition states, inter alia, that "Parking spaces which are owned or operated by a commercial entity whose primary business is other than the operation of parking facilities, for the exclusive use of its or its lessees' employees, patrons, customers, clients, patients, or guests, and not available for use by the general public at any time are not subject to the requirements of the parking freeze."

We believe that when Cambridge adopted its own procedures and criteria in 1984, it used the Boston document as a model. Therefore, the Cambridge definition of "Commercial parking facility" is essentially the same as the Boston definition, and contains language similar to that quoted above. The City sent its procedures and criteria to EPA in early 1985, but did not hear any criticism of its definition until 1988.

Another issue concerns the so-called "10% cap." The federal regulation, as written in 1975, provides that the City must maintain the same number of commercial parking spaces as existed on October 15, 1973. It also provides, however, that if

effective measures have been implemented ... to prevent (on-street parking spaces used by commuters) from being used by such commuters, then (the City) may issue permits for construction of additional new commercial parking spaces equal to one-half of the number

of spaces removed from regular use by such commuters and the total quantity of commercial parking spaces allowable in Cambridge under this section shall be raised accordingly.

Another section, however, limits the number of additional spaces which may be added to 10% of the total commercial parking spaces available for use on October 15, 1973.

The City maintains, and has always maintained, that, as it converted on-street commuter parking to resident sticker parking, it would be allowed to count one-half of the eliminated on-street spaces as part of its bank of spaces available for future development of off-street commercial parking. Furthermore, the City has always maintained that the 10% limitation did not apply to this "1 for 2" swap.

After the 1974 decision in the South Terminal Case, the EPA held further public hearings on the proposed "parking freeze" in Boston and Cambridge. City officials who attended those hearings represented to EPA that the parking problem in Cambridge was very different from that of Boston. Boston had a significant number of off-street commercial parking facilities, while Cambridge had relatively few off-street parking spaces. The result was heavy use by commuters of unregulated on-street parking, estimated at about fifty percent (50%) of available on-street spaces. Cambridge voluntarily offered to include the entire City in the freeze with the understanding that it could swap two eliminated on-street spaces for one commercial off-street space. The on-street commuter spaces were eliminated through the implementation of the Cambridge

Resident Parking Sticker Program, which had been started in 1972.

The goal of the parking freeze was to prohibit expansion of parking available to commuters beyond levels that existed on October 15, 1973. City officials of Cambridge understood that the heavy on-street commuter parking was to be counted as part of the commercial parking available to Cambridge on that date.

The 1975 federal regulation, as written, did not accurately reflect the understanding of Cambridge City officials. EPA had not discussed the ten percent (10%) provision with Cambridge officials, and they did not agree to it. Furthermore, the apparent requirement that the City prove that eliminated spaces had been used by "commuters" did not accurately reflect the understanding of Cambridge officials during the hearings.

Support for the Cambridge position can be found in the 1978 Transportation Element of the SIP, which describes the Cambridge parking freeze as follows:

Parking Freeze - Cambridge

The City of Cambridge has agreed to limit off-street non-residential parking to October 1973 levels. Any newly-constructed public off-street spaces would be matched to a corresponding reduction in other such parking spaces. Federal regulations allow a "2 for 1" program, where one off-street parking space is permitted for every two on-street spaces eliminated through posting for resident parking. This has meant that some 9,000 - 10,000 off-street spaces in parking lots, garages and commercial garages may take the place of 20,000 on-street spaces once available to commuters. The "2 for 1" program complies with the requirement to maintain the October 1973 level for total quantity of off-street parking spaces available.

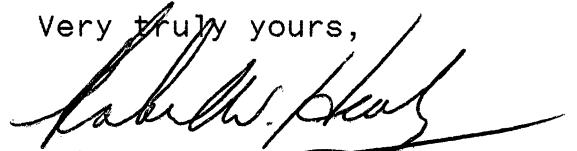
This provision accurately reflects the understanding of Cambridge City officials as to the calculation of the October 15, 1973 inventory.

In conclusion, I believe that my brief recital of the history indicates that the present dispute over the parking freeze is the result of a misunderstanding. The federal regulation, as it was written in 1975, simply did not reflect the understanding of the Cambridge officials who were working on the problem at that time.

At the present time, the City is working with state officials to design a new freeze - one which will benefit the City environmentally, but will not halt all economic growth. We are seeking to arrive at an agreement with state officials in order to respond to the EPA audit letter. While disagreeing with EPA's understanding of the terms of the current freeze, we are committed to working toward sticter provisions during an interim period and ultimately toward formal revision to the State Implimentation Plan.

I hope that the Council and all citizens of Cambridge will help us toward the achievement of this goal.

Very truly yours,



Robert W. Healy

RWH/jm1

CF#13

Agenda # 20

S-401

Information from the City Manager
regarding the Commercial Parking
Freeze.

In City Council,

April 23, 1990

*Referred to hearing
4/23/90 at 7:30 p.m.*