

CITY OF CAMBRIDGE, MASSACHUSETTS

# PLANNING BOARD

CITY HALL ANNEX, 57 INMAN STREET, CAMBRIDGE 02139

## NOTICE OF DECISION

Case No: PB#147

Address: Fifteen Cambridge Center

Zoning: MXD District

Owners/Applicants: Biogen Realty Limited Partnership, Fourteen  
Cambridge Center, Cambridge, MA 02140 (617 679 2000)

Cambridge Redevelopment Authority, Four Cambridge Center,  
Cambridge, MA 02140 (617 492 6800)

Application Date: March 15, 1999

Public Hearing: May 18, 1999

Planning Board Decision: June 1, 1999

Date of Filing Decision: July 1, 1999

Application: Interim Planning Overlay Permit (Section 11.500) for  
210,000 square feet of Research and Development Office use.

Decision: GRANTED with conditions.

Appeals, if any, shall be made pursuant to Section 17 of Massachusetts General Laws, Chapter 40A, and shall be filed within twenty (20) days after the filing of the above referenced decision with the City Clerk. Copies of the complete decision and final plans, if applicable, are on file with the Office of the Community Development Department and the City Clerk.

Authorized Representative  
to the Planning Board

For further information concerning this decision, please call Liza Paden at 349-4647, TTY: 349-4621, email [lpaden@ci.cambridge.ma.us](mailto:lpaden@ci.cambridge.ma.us).

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OFFICE OF THE CITY CLERK  
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210,000 square feet of Research and Development Office use.

Application

1. Special Permit application, with ownership certificate, dimensional form, zoning review, and supporting statement dated complete 3/15/99
2. Plans, Landscape, scale 1"=100'; existing conditions, 1"=20'; site plan, scale 1"=20'; basement floor plan, first floor plan, typical floor plan, roof plan, building sections, building elevations, scale 1/16"=1'; building elevations, perspective images, dated March 15, 1999 (submitted January 14, 1999 revised March 1, 1999)
3. Project Photographs
4. Traffic Impact Assessment/IPOP, dated March 3, 1999, prepared by Vanasse & Associates, Inc.
5. Traffic Impact Assessment/IPOP, Technical Appendix, dated March 3, 1999, prepared by Vanasse & Associates, Inc.

6. Certificate of Compliance from Susan Clippinger, Traffic, Parking and Transportation Department, dated 3/12/99.
7. Memo to Susan Clippinger from Vanasse and Associates dated April 21, 1999.

#### Other Documents Submitted

1. Letter to the Planning Board from Susan Clippinger, dated 4/27/99, reviewing the IPOP traffic study.
2. Letter to the Planning Board from Steve Bikofsky, President of the East Cambridge Planning Team, dated 4/29/99.
3. Letter to the Planning Board from James J. Rafferty, dated 5/3/99 re: the rescheduling of the public hearing to May 18, 1999.
4. Letter to the Planning Board from Ranjit Singanayagam, Assistant Commissioner/Zoning Specialist, dated 5/5/99.
5. Letter to the Planning Board from Barbara Broussard, Secretary of the East Cambridge Planning Team, dated 5/14/99.
6. Letter to the Planning Board from Susan Clippinger, dated 5/18/99; Proposed Additional Transportation Demand Management Measures
7. Copy of the Planning Board recommendation re: Biogen 121A Application and related changes to Article 14.000 and the Kendall Square Urban Renewal Plan, dated 9/7/93.

#### Findings

After review of the application documents, testimony presented at the public hearing and subsequent information provided by the applicant, staff of the City of Cambridge and the general public, the Planning Board makes the following findings.

#### **1. Conformance to the requirements of the Planning Overlay Special Permit, Section 11.500 of the Zoning ordinance.**

##### ***a. Submittal of Required Documents***

All requirements of Section 11.511 have been met with the submittal of a complete application, including a certified traffic study and confirmation that additional special permits or variances will not be required.

***b. Finding of no substantial adverse impact on city traffic.***

The Planning Board identified five criteria that would assist in determining whether a project should be found to cause substantial adverse traffic impact: (1) project vehicle trip generation, (2) traffic generated on residential streets, (3) effect on level of service at identified intersections, (4) length of traffic queues at identified intersections, and (5) nearby locations with a high incidence of accidents. For criteria (1) - (4), which are indicators of potentially adverse traffic impacts directly related to the project, the project is within acceptable limits specified by the Board. With respect to criterion (5), which is an indicator of existing conditions unrelated to the project, several locations have been identified as having unfavorable accident histories. Mitigation measures, however, will be taken to improve the safety of these accident locations. As a result the Planning Board finds that the project will not have a substantial adverse impacts on city traffic.

***c. Conformance with Enumerated Growth Policies***

The Planning Board further finds that the project is consistent with the growth policies enumerated in Section 11.500.

**(1) Policy 13: Pace of development, maintenance of the tax base, adjustment to changing economic conditions, consistent with urban design plans, disruption of neighborhoods, overburden infrastructure.**

This proposal is in fulfillment of commitments made to the City of Cambridge through its 121A tax agreement to bring Biogen facilities on line in an orderly and phased manner to meet both the programmatic needs of the company and the tax revenue expectations of the city. It also serves the city's long term employment objectives in that research and development and production facilities for the company are retained in the city as the company's activities expand and diversify.

The development proposal is consistent with the urban renewal plan as it has been modified from time to time. Nevertheless, the Board is urging consideration of additional changes to elements of the specific building and site design, as set forth in Conditions 2a and 2b of its decision,

proposed both to advance the Section 11.500 objective of facilitating pedestrian circulation from the MBTA Red Line to this site and to make the building a better neighbor to the general public, particularly as it faces Galilei Way.

**(2) Policy 27: Affordable housing and neighborhood character.**

The site is within the Kendall Square Redevelopment Area and is not programmed for housing; Biogen is obligated to make use of this and adjacent sites for office and research and development uses under the terms of its 121A agreement. Adjacent sites within the urban renewal area are heavily committed to office and R&D uses; this location is not particularly congenial to residential development. Additionally, the site is well removed from any residential neighborhood context that could support and sustain residential development at this site.

**(3) Policy 39: Minimize impacts on abutting neighborhoods.**

Section 11.500 is specifically designed to address the principal impact development at this site would have on residential neighborhoods: significant adverse traffic impacts. One adopted criterion for measuring such adverse impact is the amount of traffic directed to nearby residentially developed streets. As indicated above, the project falls below the threshold identified by the Board for this criterion. Actual residential occupancy is separated from this site by similar commercial construction north of Binney Street toward the East Cambridge residential neighborhood, and by One Kendall Square that separates this development from Neighborhood Four. As the building is well removed from existing housing, its physical features (e.g. height and bulk) and operational characteristics (e.g. parking and delivery access and noise) are not likely to significantly negatively impact enjoyment of the residential qualities of life in those neighborhoods. However, building design and pedestrian circulation considerations identified by the Planning Board and addressed in the conditions set forth below do affect residents of the city more generally as they traverse through this precinct of the city and do specifically impact residents of East Cambridge or Area 4

who can be expected to make use of the services and facilities present in the MXD district more frequently than any other residents of the city.

**(4) Policy 66: Open space facilities.**

The development will produce a large at-grade plaza that will receive further definition as future construction proceeds to the north. The public will be free to traverse the site and make use of its passive amenities. The Planning Board is urging further study of pedestrian circulation throughout the Kendall Square/Technology Square/One Kendall Square district to make this open space and others, both existing and proposed, better integrated and more useful to the general public. Such an effort is particularly relevant as the convenience and appeal of pedestrian access from this proposed development and others in the vicinity to the MBTA service at the Red Line station in Kendall Square will determine in part whether alternate modes of access to the jobs in Kendall Square can effectively compete with access via motor vehicles.

**2. Conformance to the general criteria for the issuance of special permits contained in Section 10.40 of the Zoning Ordinance:.**

*A special permit will normally be granted unless the specifics of the proposal would cause the granting of the special permit to be a detriment to the public interest because of the particulars of the location or use, not generally true of the district or of the uses permitted in it.*

***a. The requirements of the Ordinance cannot be met.***

With the issuance of this special permit the requirements of the Ordinance are met.

***b. Traffic generated or patterns of access and egress will cause congestion, hazard, or substantial change in established neighborhood character.***

Section 11.500 of the Ordinance establishes a higher standard for traffic impact than is required here. As proposed and with the mitigation measures set forth as conditions of this permit no substantial change in neighborhood character will result nor will it result in congestion or hazard.

***c. The continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance will be adversely affected by the nature of the proposed use.***

The proposal is similar to other activities in the vicinity and like them consistent with the urban renewal plan.

***d. Nuisance or hazard would be created to the detriment of the health, safety and/or welfare of the occupant of the proposed use or the citizens of the City.***

No nuisance or hazard will be created.

***e. For other reasons, the proposed use would impair the integrity of the district or the adjoining district, or otherwise derogate from the intent and purpose of this Ordinance.***

The proposed development will not impair the integrity of the MXD district or adjoining, industrial, districts or other derogate from the intent and purpose of the Zoning Ordinance.

#### Decision

Based on a review of the application documents, comments made at the public hearing and other comments received by the Board, and based on the above findings the Planning Board **GRANTS** the requested special permit subject to the following conditions and limitations.

1. Plans submitted to the Inspectional Services Department for a building permit shall be consistent with those contained in the application documents as modified in the memo to the Planning Board from Biogen, Inc. dated June 1, 1999, and further modified by any changes made as a result of the review required in Condition #2 below. The Community Development Department shall so certify such consistency to the Superintendent of Buildings and shall also certify that all other conditions of this permit, as applicable, have been met before issuance of a building permit,.

2. The project shall continue to undergo design review with the staff of the Community Development Department. In particular inquiry and exploration by the permittee and the Community Development Department shall be undertaken with the intent of making modifications that are practical and feasible in the following areas:

a. Lowering, shrinking or moving the mechanical equipment floor at the top of the building as it faces Galilei Way in order to reduce the visual impact of the building's height at that critical location, without unduly exacerbating adverse noise impacts; and

b. Developing with others, including the Cambridge Redevelopment Authority, the City of Cambridge, and applicants now seeking Section 11.500 special permits in the vicinity of this special permit, a coordinated network of efficient and inviting pathways through an environment appealing for the pedestrian. The intention of this coordinated system shall be to encourage walking as an effective alternate mode of transportation serving all development in the Kendall Square area.

3. In order to ensure that this development over the long term continues to comply with the standards for the issuance of this Section 11.500 special permit, the following mitigation measures shall be required:

a. While the project is not subject to the Parking and Traffic Demand Management (PTDM) ordinance, the permittee shall nevertheless seek to achieve a goal of fifty (50) percent Single Occupancy Vehicle (SOV) trips through a variety of Transportation Demand Management (TDM) measures as described in the Vanasse and Associates memo dated April 21, 1999, pp. 4-5, referenced above and to honor the commitment to implement other mitigation measures and improvements as outlined in Appendix II.

The permittee shall, within ninety days of 90% occupancy of the project, conduct a survey of its employees, in a manner acceptable to the Community Development Department (CDD) in consultation with the Traffic, Parking and Transportation Department (TPTD), to determine demand for shuttle service to the MBTA Green Line station at Lechmere and report the findings of such survey to the Community Development Department and the Charles River Transportation Management Association (CRTMA). The permittee shall cooperate with the CRTMA and other businesses in the East Cambridge area in any similar survey undertaken by them for the same purpose.

The survey analyses shall be updated in two, twelve month intervals after the issuance of the first report, taking into account any additional development occupied within that interim period.



Should sufficient demand be identified for such shuttle service, the permittee shall be obligated to participate financially in the operation of such a service proportionately to the number of its employees in the total of all employees of companies participating in the shuttle service. The determination as to whether sufficient demand exists for such a service shall be made by the Community Development Department and the Traffic, Parking and Transportation Department in consultation with the permittee.

b. The permittee shall, in a form and manner approved by the Community Development Department in consultation with the Traffic, Parking and Transportation Department, annually monitor the modes of travel to work undertaken by employees, to determine consistency with trip generation assumptions presented in the permit application. The survey instrument shall also be designed to solicit employee attitudes with regard to their travel modes and programs that might encourage use of other than SOV trips. The permittee shall report all findings to the CDD in a timely manner.

The permittee shall, at two year intervals, undertake parking utilization counts for its designated parking spaces and report all findings to the CDD in a timely manner.

c. The permittee shall bear a portion of the cost of installing changes to traffic signals at Third and Binney Streets to accommodate an exclusive left turn phase as determined by the Traffic, Parking and Transportation Department based upon the number of development proposals that receive a similar special permit under Section 11.500 of the Ordinance and that impact this intersection.

d. The permittee shall install improvements to the Sixth Street pedestrian crossing at Binney Street as recommended in the Vanasse and Associates memo dated April 21, 1999 at a time and manner approved by the Traffic, Parking and Transportation Department.

e. The permittee shall pay \$10,000 to the City of Cambridge for installation of bicycle facilities on roadways in the project area before the issuance of a Certificate of Occupancy for the building.

f. In order to encourage ridesharing, the applicant shall encourage the owner of the North Parking Garage at Broadway and Binney

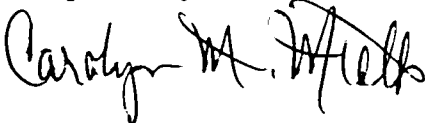
Street to set aside preferential parking for carpoolers and vanpoolers.

g. The permittee shall provide a 100% subsidy, or up to the maximum allowed under the federal tax code, for MBTA transit passes for any employee requesting one, and shall require such subsidy for the employees of any subsequent leasee of space in the building.

4. Unless otherwise indicated in this decision, any plan or survey instrument required to be approved by the Community Development Department or the Traffic, Parking and Transportation Department by any condition of this permit shall receive such approval before issuance of any Certificate of Occupancy from the Superintendent of Buildings, unless the department informs the Superintendent in writing that approval is to be granted at a subsequent date.

Voting in the affirmative to grant the Special Permit were H. Russell, A. Cohn, S. Lewis, C. Mieth and K. Benjamin constituting more than the two thirds of the members of the Board necessary to grant a special permit.

Respectfully Submitted,

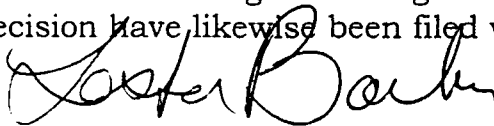
A handwritten signature in black ink, appearing to read "Carolyn M. Mieth". The signature is written in a cursive, flowing style.

Carolyn Mieth, Chair

PB#147 - Biogen Special Permit

A copy of this decision shall be filed with the Office of the City Clerk. Appeals, if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws, and shall be filed within twenty (20) days after the date of such filing in the Office of the City Clerk.

ATTEST: A true and correct copy of the above decision filed with the Office of the City Clerk on July 1, 1999, by Elizabeth M. Paden, authorized representative of the Cambridge Planning Board. All plans referred to in the decision have likewise been filed with the City Clerk on such date.



Twenty (20) days have elapsed since the filing of this decision.

No appeal has been filed.

DATE:

City Clerk  
City of Cambridge

APPENDIX Dimensional Form - Special Permit #147 - Biogen 15 Cambridge Center

	<b>Allowed/Required</b>	<b>Existing</b>	<b>Proposed</b>	<b>Granted</b>
<b>FAR</b>	8.0		2.81	2.81
<b>Floor Area</b>	596,184		210,232	210,232
<b>Max Height</b>	250 feet		90 ft 6 in	90 ft, 6 in
<b>Max Angle above cornice line</b>	NA		NA	NA
<b>Min Lot Size</b>	NA		74,784 sf	74,784 S.F.
<b>Min Lot area/du</b>	NA		NA	NA
<b>Max # du</b>	NA		NA	NA
<b>Min Lot Width</b>	NA		NA	NA
<b>Min Yard Setbacks</b>				
<b>Front</b>	0		10 feet	10 feet
<b>Side Left</b>	0		30 feet	30 feet
<b>Side Right</b>	0		30 feet	30 feet
<b>Rear</b>	0		15 feet	15 feet
<b>Ratio Usuable O.S.</b>	8% (16,380)		19% (39,652)	19% (39,652)
<b>Off Street Parking</b>				
<b>Min #</b>	106		no change	no change
<b>Max #</b>	NA			
<b>Handicapped</b>	0		no change	no change
<b>Bicycle spaces</b>	0		no change	no change
<b>Loading Bays</b>	3		4	4

Appendix II



Overall, we feel that the inner core percentage was high but the numbers in general appear reasonable. Based upon this data and travel of the perspective routes, the following assignments were made:

Destination	Travel Route
I-93 South	Binney Street to Land Boulevard
I-93 North	Binney Street to Land Boulevard, or Third Street via McGrath Highway
City of Boston	Broadway and Main Street
Mass Pike	Vassar Street, Portland Street, Main Street
Local Traffic	Hampshire Street, Broadway

The only modification from the Technology Square trip assignments was additional traffic to Third Street and Binney Street.

**Comment:** "There are two plans where the assumptions you used for your intersection analysis is wrong. The Mid Block Connector southbound at Main Street is currently being rebuilt. This road is two lanes not three. The Third Street traffic calming project that has been awarded and will be built this summer included curb extensions on Third Street. Third Street southbound at this intersection will be one lane not two. You need to reanalyze intersections with these changes."

**Response:** The intersection of Main Street at Ames Street and Midblock Connector and the intersection of Binney Street at Third Street have been reanalyzed with the proposed intersection geometrics. The following summarizes the intersection analysis under 2003 Build conditions.

Intersection/Peak Hour	2003 Build with Suggested Improvements		
	V/C <sup>a</sup>	Delay <sup>b</sup>	LOS <sup>c</sup>
<i>Main Street at Ames Street, and Midblock Connector</i>			
Weekday Morning	0.52	10.7	B
Weekday Evening	0.60	11.5	B
<i>Binney Street at Third Street:</i>			
Weekday Morning	0.93	25.3	D
Weekday Evening	0.84	31.9	D

<sup>a</sup>Volume-to-capacity ratio.  
<sup>b</sup>Delay in seconds per vehicle.  
<sup>c</sup>Level of service.

With the proposed geometry, the intersection of Binney Street at Third Street will require a Third Street southbound lead phase, in addition to providing concurrent pedestrian phases. Concurrent pedestrian phases are also suggested at the Main Street, Ames Street, and Midblock Connector intersection.

**Comment:** "For mitigation, we will be interested in... changes to the four high accident locations to reduce accidents."

**Response:** There were a total of nine intersections within the study and four of the locations exceed the IPOP accident criteria. However, at only one of the locations was the accident rate above the statewide averages, which is further discussed below. It should be noted that intersections that meet criteria for 5 accidents per year should be further reviewed for mitigation but may not warrant improvements or no significant trends may be identified which could be mitigated.



**Binney Street at Third Street**

At the intersection of Binney Street at Third Street, a significant amount of accidents (28 of 37) were angle-type collisions and are a result of Binney Street left-turn and Binney Street through-movement conflicts as depicted in the collision diagram provided by the City of Cambridge. In addition, the calculated accident rate at this intersection is 1.25 accidents per million entering vehicles (mev), which is above the statewide average of 1.02 accidents per mev for signalized intersections. In order to mitigate these collisions, it has been recommended that the signal heads and timing be modified to allow for exclusive left-turn phases for Binney Street and these improvements would be funded by Technology Square, LLC. This should improve this existing deficiency. BIOGEN, Inc. is willing to share in the cost of these improvements with Technology Square, LLC.



### Broadway at Third Street

At the intersection of Broadway and Third Street, 10 of 25 accidents were rear-end-type collisions. Rear-end-type collisions are typical at signalized intersections and no specific mitigation is recommended at this intersection. It should be noted that the calculated accident rate at this intersection is 0.70 accidents per mev, which is less than the statewide average of 1.02 for signalized intersections.

### Hampshire Street at Portland Street and Cardinal Medeiros Avenue

At the intersection of Hampshire Street at Portland Street and Cardinal Medeiros Avenue, 29 percent of the accidents were angle-type collisions and 47 percent were other/unknown collisions. As part of the proposed Technology Square Redevelopment project, mitigation at this intersection will consist of restriping the Portland Street northbound approach to accommodate an exclusive left-turn lane and a shared through/right-turn lane, along with a Hampshire Street eastbound lead phase. The accident rate at this location is 0.87 accidents per mev, which is less than the statewide average. These improvements should improve this existing deficiency.

### Main Street at Galileo Galilei Way, Vassar Street, and MIT Driveway

At the intersection of Main Street at Galileo Galilei Way, Vassar Street, and MIT driveway, 10 of 20 accidents were angle-type collisions. It is our understanding, that MIT plans to eliminate the MIT driveway leg to the intersection as part of construction for the Stata Research Center. The accident rate at this location is 0.85 accidents per mev, which is less than the statewide average. The elimination of the MIT driveway leg should improve this existing deficiency.

**Comment:** "For mitigation, we will be interested in.... your voluntary PTDM efforts."

**Response:** Working in cooperation with Cambridge Redevelopment Authority (CRA) and Boston Properties, Inc., who have existing traffic mitigation measures in place for other Cambridge buildings, BIOGEN is committed to a mitigation program designed to minimize the amount of single occupancy vehicles (SOV) entering the site and promotion of alternative modes of transportation. Currently, BIOGEN, with their existing workforce, has implemented a number of strategies to reduce the amount of traffic in the area. These existing strategies include:

- Transit subsidies to qualified employees (\$65 per month)
- Health club membership subsidy at the Cambridge Racket and Fitness Club which reduces peak-hour traffic
- On-site shower facilities exist
- Secured bicycle storage

The following additional measures should help to enhance the existing management program and are committed to by BIOGEN.

- Ridesharing program
  - Join the local Charles River Transportation Management Association who provide numerous services including:
    - \* Computerized carpool/vanpool matching programs
    - \* Guaranteed ride home program
  - Joint programs with area tenants
  - Dissemination of promotional materials to employees
  - Newsletters about the program
  - Coordination with CARAVAN which leases commuter vans and provides administrative and organizational assistance
  - Preferential parking for carpoolers
- Alternative Work Schedules
  - BIOGEN will assess a flex-time policy to reduce peak-hour demand

In addition, BIOGEN is committed to a goal of a 10 percent reduction in SOV trips as desired by the PTDM ordinance.

**Comment:** “For mitigation, we will be interested in... pedestrian improvements and the highest pedestrian locations – Galileo and Broadway, Broadway and Mid Block Connector.”

**Response:** As part of the proposed Technology Square Redevelopment project, it was recommended that the curbing in the northwest corner of the intersection of Broadway and Galileo Galilei Way be reset from 60-foot radius to a 40-foot radius. The change in curb radius will reduce the crosswalk length for pedestrians.

The intersection of Broadway at Midblock Connector is lacking a crosswalk across the Midblock Connector. This will be completed as part of ongoing work in the area. No other improvements are warranted at this time.

**Comment:** “For mitigation, we will be interested in... improve(ing) the pedestrian crossing at Sixth and Binney.”

**Response:** At the intersection of Binney Street at Sixth Street, there are crosswalks across the Binney Street east leg and across the Sixth Street north leg of the intersection. Pedestrian counts were conducted at this intersection between 7:00 and 9:00 AM and between 4:00 and 6:30 PM in April 1999. During the morning peak hour (between 7:45 and 8:45 AM), it was observed that 157 pedestrians crossed the Binney Street east leg, 28 pedestrians crossed the Binney Street west leg, 21 pedestrians crossed the Sixth Street north leg, and 43 pedestrians crossed the Sixth Street (pedestrian walkway) south leg. During the evening peak hour (between 4:15 and 5:15 PM), it was observed that 151 pedestrians crossed the Binney Street east leg, 53 pedestrians crossed the Binney Street west leg, 30 pedestrians crossed the Sixth Street north leg, and 23 pedestrians crossed the Sixth Street (pedes-

trian walkway) south leg. It should be noted that there are adequate sight lines at the crossing.

Based upon our review of the area, the following improvements could enhance safety at the crossing:

- Install advance crossing signs (W11 series) in advance of the crossing locations as determined by the *Manual on Uniform Traffic Control Devices* (MUTCD).<sup>1</sup>
- Relocate the southerly portion of the crosswalk to the pedestrian walkway where pedestrians actually cross the street. This will also require modifications to the median area.
- Review handicap ramps for ADA compliance.

BIOGEN will work with the City towards implementing these enhancements, if desired.

Finally, based upon our review, it is not our recommendation to install a pedestrian signal at this time. However, should the City demonstrate that a pedestrian signal is justified in the future to improve safety conditions, BIOGEN will contribute towards a portion of the total cost.

**Comment:** "For mitigation, we will be interested in... bicycle lanes."

**Response:** The Cambridge Redevelopment Authority (CRA) reviewed the matter of bicycle lanes, racks, and secured storage with the Cambridge Bicycle Committee and assigned Community Development staff on April 14, 1999. A plan which illustrated the existing and proposed right-of-way widths was prepared and reviewed with the Committee. It was the consensus of the meeting that the CRA will prepare a plan illustrating existing and proposed bicycle lanes (4 feet or wider) and bicycle reservations (less than 4 feet). After further review with the Committee, proposed street markings will be suggested to the Department of Traffic, Parking, and Transportation. Proposed roadway improvements under construction and street markings on Broadway and the Midblock Connector (Ames Street) were reviewed at a prior meeting and found to be acceptable. For the rest of the project area, BIOGEN will make available up to \$10,000 for these improvements in the event that funds in the existing or future City budgets are not available. Respecting bicycle racks, after review with the Committee, BIOGEN will provide the funds for the installation of bicycle racks and other street furniture, the design and the location of which will be consistent with the CRA's public sector improvements program and applicable City standards and installed at the direction of the CRA. It was noted that secured areas for bicycles currently is provided in both garages in the area.

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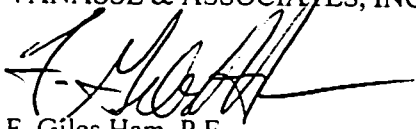
<sup>1</sup>*Manual on Uniform Traffic Control Devices*; Federal Highway Administration; Washington, DC; 1988.

Ms. Susan E. Clippinger  
April 21, 1999  
Page 7

In summary, we trust that the above responses address your comments and with the mitigation implemented, the project will not result in a significant impact to the area.

Sincerely,

VANASSE & ASSOCIATES, INC.



F. Giles Ham, P.E.  
Vice President

FGH/atl

cc: S. Rasumussen, L. Preston – City of Cambridge  
B. Pell, E. Gardner – Rizzo & Associates  
D. Priester – BIOGEN  
J. Tulumieri – CRA  
M. Cantalupa – Boston Properties  
RDV, JSD, JRP, File

## **PROJECT MITIGATION AND SUGGESTED IMPROVEMENTS**

Based upon the IPOP analysis, the project's impact on traffic is not significant. However, a number of recommendations have been made to reduce the overall project impact.

### **Project Mitigation**

Working in cooperation with CRA and Boston Properties, Inc., who have existing traffic mitigation measures in place for other Cambridge Center buildings, BIOGEN is committed to a mitigation program designed to minimize the amount of single occupancy vehicles entering the site and promotion of alternative modes of transportation. Currently, BIOGEN with their existing workforce has implemented a number of strategies to reduce the amount of vehicular traffic in the area. These existing strategies include:

- Transit subsidies to qualified employees (\$65 per month)
- Health club membership subsidy at the Cambridge Racket and Fitness Club which reduces peak-hour traffic
- On-site shower facilities exist
- Secured bicycle storage

The following additional measures should help to enhance the existing management program and are committed to by BIOGEN.

### **Ridesharing Programs**

Ridesharing refers to encouraging commuters to ride in vehicles with other commuters rather than drive alone to work. Given the number of employees in the area, and at BIOGEN, a coordinated rideshare program could be very successful. The most common forms of ridesharing are carpools and vanpools. The benefits of such programs include less congestion, reduced fuel consumption, and better air quality. Key to the success of such programs in the area include:

- Join the local Charles River Transportation Management Association who provide numerous services including:
  - Computerized carpool/vanpool matching programs
  - Guaranteed ride home program
- Joint programs with area tenants.
- Dissemination of promotional materials to employees.
- Newsletters about the program.
- Coordination with CARAVAN which leases commuter vans and provides administrative and organizational assistant.
- Preferential parking for carpoolers.

#### **Alternative Work Schedules**

Flexible work hours allow employees to vary work schedules and reduces peak-hour demand. BIOGEN will assess a flextime policy to reduce peak-hour demand.

#### **Parking**

Parking on-site is provided at the Cambridge Center north garage. Currently, a total of 1,170 spaces exist at the garage with sufficient parking made available to accommodate the project. No new spaces will be constructed for the proposed facility.

#### **Suggested Long-Term Improvements**

Based upon the five-year planning analysis and observations of traffic conditions in the area, a number of suggested improvements are outlined below. These improvements include signal modifications, signal phasing changes, and geometric and pedestrian modifications intended to optimize intersection operations and reduce vehicle emissions. The suggested improvements are listed below.

#### **Binney Street and Third Street**

- Modify signal timing
- Modify signal equipment, as necessary
- Operate concurrent pedestrian phases

#### **Broadway and Third Street**

- Modify signal timing
- Modify signal equipment, as necessary

#### **Broadway and Galileo Galilei Way**

- Modify signal phasing and timing
- Modify signal equipment, as necessary
- Construct Broadway eastbound left-turn lane
- Operate concurrent pedestrian phases

## **Main Street, Galileo Galilei Way, Vassar Street, and MIT Driveway**

- Modify signal timing and phasing
- Operate concurrent pedestrian phases

With these suggested improvements implemented, satisfactory operating conditions will be maintained in the 2003 planning Design year.

### **Summary**

In summary, the project has satisfied 41 of the 45 indicators reviewed as part of the IPOP criteria. BIOGEN currently implements Transportation Demand Management (TDM) strategies to reduce the dependency on single occupancy vehicles and will continue to implement them in addition to the recommendations presented in this study. Overall, the study area intersections have sufficient capacity to accommodate the project and safe and efficient access to the site can be provided as planned.