

CITY OF CAMBRIDGE
CAMBRIDGE, MASSACHUSETTS 02139

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EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

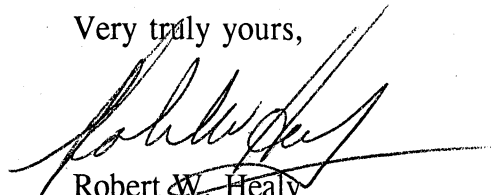
RICHARD C. ROSSI
Deputy City Manager

November 7, 1994

To The Honorable, The City Council:

Please find attached a response to Awaiting Report Item No. 21, regarding recommendations of the Vanasse Hangen Brustlin Association Traffic and Parking Study relative to the Hospital, received from John G. O'Brien, Hospital Administrator.

Very truly yours,



Robert W. Healy
City Manager

RWH/mev
attachment



The Cambridge Hospital



1493 Cambridge Street, Cambridge, Massachusetts 02139 (617) 498-1000

November 3, 1994

Mr. Robert W. Healy
City Manager
City Hall
City of Cambridge
Cambridge, MA 02139

Dear Mr. Healy,

I am writing in regards to City Council Claendar Item #1 dated 6-20-94, regarding recommendations of the Vanasse Hangen Brustlin Associates Traffic and Parking Study relative to the Hospital.

Vanasse Hangen Brustlin (VHB) was hired in fall of 1993 to undertake a study of the traffic and parking impacts of the Hospital building project. VHB was selected by a group which included hospital administrators, traffic and parking staff from the cities of Cambridge and Somerville, and neighborhood residents from Cambridge and Somerville. This group also defined the scope of the project, including the geographic study area and specific intersections of concern.

The work was completed in three phases: existing traffic and parking conditions, projected future conditions with and without the proposed building project, and recommendations to mitigate project impacts. The work was presented to neighborhood groups at the end of each phase, and again at the completion of the draft final report (August 1994). The final report was issued in October 1994.

Specific highlights from the analysis of existing and future conditions include the following:

- the parking supply within the study area includes hospital-controlled spaces (283 on main campus, 155 off-site) and on-street spaces (139 metered and 963 resident permit);
- vehicles parked in the hospital controlled spaces peaked at 1:00 PM, with 99 percent of supply; on-street metered spaces were 84% occupied their peak; and residential permit spaces peaked at 7:00 AM with 84% occupied;
- approximately 24% of vehicles parked in residential permit parking spaces were parked illegally;
- the hospital's overall peak demand is 701 spaces when there is an overlap of first and second shift employees;
- of three signalized intersections studied, Beacon & Washington and Inman

Square were found to operate at deficient levels of service;

- of nine unsignalized intersections studied, all operated at acceptable levels except for the intersection of Cambridge and Fayette.
- a study of Line Street speeds showed that 42% exceeded the posted limit.
- the building project includes increase in parking supply of 91 spaces, which helps absorb some of the growth in patient visits under the build scenario. The 2000 no-build condition results in the largest projected deficit, with increased hospital growth but no change in hospital controlled parking supply,
- The year 2000 build condition increases hospital related traffic between one and two percent. For the 12 intersections studied, half have more than 10 percent peak hour traffic which is attributable to the hospital.

Following the review of existing and future conditions, a variety of potential traffic and parking improvements were considered. A series of recommendations has been developed to increase the off-site parking supply, encourage ride sharing and transit use, reduce parking demand, reduce hospital related traffic, and provide more efficient operation of the existing roadway system.

A summary of the recommendations is attached. Of note is the recommendation that the proposed 200 space garage, in conjunction with the Line and Cahill lots, is adequate to meet the projected demand. If, however, a more restrictive residential parking permit program is not implemented, the hospital should consider developing 40 additional parking spaces to prevent additional impacts on neighborhood parking. The City Manager has convened a Hospital Parking Management District Advisory Committee to monitor and manage parking in a geographic district near the hospital to maximize parking convenience and to accommodate the sometimes competing interests of residents and people with business in the District.

Sincerely,


John G. O'Brien
Administrator

cc: Melvin H. Chalfen, M.D.

Post-It™ Fax Note 7671		Date 11/3	# of pages 5
To Julie Cannella		From Linda Chin	
Co./Dept. Admin/Gen Serr.		Co. PTH	
Phone # 1012		Phone # 1547	
Fax # 1003		Fax # 1814	

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RECOMMENDATIONS

A wide variety of potential traffic and parking improvements were considered. The recommended improvements are designed to increase the off-site parking supply, encourage ridesharing and transit use, reduce parking demand, reduce hospital related traffic, and provide more efficient operation of the existing roadway system. The selection of specific recommendations to be implemented and the actual implementation of these recommendations will require the close cooperation of the cities of Cambridge and Somerville, The Cambridge Hospital, and the community surrounding the hospital.

Parking Supply/Management

Hospital Controlled Supply

- The proposed 200-space garage, in conjunction with the Line Street and Cahill lots, is adequate to meet both the projected peak hour and typical hour parking demand for patients, visitors, physicians, special needs employees, second shift employees, senior administrators, and 75 nursing spaces.
- Approximately 300 additional spaces should be provided in off-site facilities to meet the demands of employees. These off-site facilities should be served by frequent shuttle bus service and should be provided in a variety of locations to conveniently serve parkers from various geographical areas surrounding the hospital.
- Move most employee parking to remote facilities.
- Reduce patient/visitor parking fees.
- Prohibit employee parking in patient/visitor spaces.
- Provide free on-site parking for carpools of three or more passengers.

Resident Permit Spaces

- Increase Enforcement of the Existing Residential Parking Permit Program
- Establish a More Restrictive Residential Parking Permit Program
- Establish a Hospital Parking District

Supply Plan Without A More Restrictive Residential Parking Permit Program

In order to prevent additional impacts on neighborhood parking, an additional 40 parking spaces should be provided on-site if a more restrictive residential parking permit program is not implemented.

Travel Demand Management Strategies**Promote Ridesharing**

- Institute a computerized rideshare program such as RideSource which can be provided to the hospital by CARAVAN for Commuters, Inc.
- Provide a guaranteed ride home.
- Provide preferential parking locations for vanpools and carpools.
- Reduce or eliminate parking fees for vanpools and carpools.
- Allow flexible hours where possible to help employees better coordinate ridesharing.
- Provide promotional information on ridesharing in a newsletter or via bulletin boards.

Encourage Use of Public Transportation

- Continue to subsidize MBTA passes for employees with increased promotion and advertisement of the subsidy.
- Provide shuttle service between the Central Square and Lechmere MBTA stations and the hospital.
- Sell MBTA passes and tokens on site, with a payroll deduction option for employees.
- Advertise bus and subway schedules.
- Encourage the MBTA to increase bus service on the two routes that serve the hospital (Routes 69 and 83)

Investigate Paratransit Options**Other Travel Demand Management Strategies**

- Provide secure bicycle storage facilities in the garage.
- Provide showers and lockers for bicyclists.

- Consider making bicycles available for employee use both for commuting to work and during the work day to access remote sites.
- Provide better access to campus from Line Street for pedestrians and transit riders who use the MBTA bus Route 83.

Transportation Management Association

Consider instituting a Transportation management association with Youville Hospital and the Harvard Community Health Plan clinic, to share resources in implementing travel demand management strategies.

Transportation Systems Management Strategies

Inman Square

- Restrict Springfield Street to one-way flow away from square. An in-depth study of the traffic impacts of this potential circulation change is recommended before implementation.
- Rephase and retime signal to eliminate the Springfield Street phase, reallocate time to the Cambridge Street approach, shorten the cycle length to 100 seconds.
- Remove parking spaces from the corner on the northbound departure lane of Beacon Street.
- Clarify the meaning of the "No Left Turn" sign on the eastbound Cambridge Street approach.
- Provide clear pavement markings to direct the flow of traffic through the intersection.
- Provide exclusive pedestrian phase.

The intersection is projected to improve to LOS D in both the morning and evening peak hours with the proposed mitigation measures. The estimated construction cost of these improvements is \$20,000.

Beacon Street and Washington Street

- Formalize two lanes on eastbound approach.
- Retime signal to increase the cycle length from 80 to 90 seconds and allocate the additional time to Beacon Street.
- Remove parking spaces along the southbound departure lane on Beacon Street.

The intersection is projected to improve to LOS D in both the morning and evening peak hours with the proposed mitigation measures. The estimated construction cost of these improvements is \$7,500.

Cambridge Street and Fayette Street

- Prohibit parking on Fayette Street at the intersection to provide two approach lanes.
- Install 'Do Not Block Intersection' sign on eastbound approach of Cambridge Street.

The intersection is projected to improve to LOS D in the morning peak hour and LOS E in the evening peak hours with the proposed mitigation measures. The estimated construction cost of these improvements is \$5,000.

Cambridge Street and Camelia Avenue

- Install signal to operate with the existing Highland Avenue signal as one signalized four-way intersection.
- Provide pedestrian crosswalks across Camelia Avenue, Highland Avenue, and Cambridge Street.

The intersection is projected to operate at LOS B in both the morning and evening peak hours with the proposed mitigation measures. The estimated construction cost of these improvements is \$90,000.

Line Street

- Modify the geometry at Cambridge Street intersection to require slower turning speeds and shorten the distance required for pedestrians to cross Line Street.
- Provide more aggressive speed enforcement.
- Install 'Do Not Block Intersection' sign on eastbound approach of Kirkland Street to Line Street.
- Enforce no parking at intersection of Line Street with Kirkland Street and Washington Street to provide two approach lanes on Line Street.

The estimated construction cost of these improvements is \$15,500.

Construction Management

- Implement Travel Demand Management (TDM) plan recommended above prior to the start of construction.
- Implement a more restrictive residential parking program prior to the start of construction.
- Increase off-site parking supply by 800 spaces as recommended in the parking supply plan prior to the start of construction.

- Provide 160 additional temporary off-site spaces during construction (for a total of 460 additional off-sites spaces during the construction period).
- Require off-site worker parking for construction workers.
- Encourage carpooling and public transportation use by construction workers.
- Provide valet parking for patients and visitors as needed.
- Require that all construction access be provided from Cambridge Street and Camelia Avenue.
- Provide covered walkways along Line Street behind the staging area.

AIR QUALITY ANALYSIS

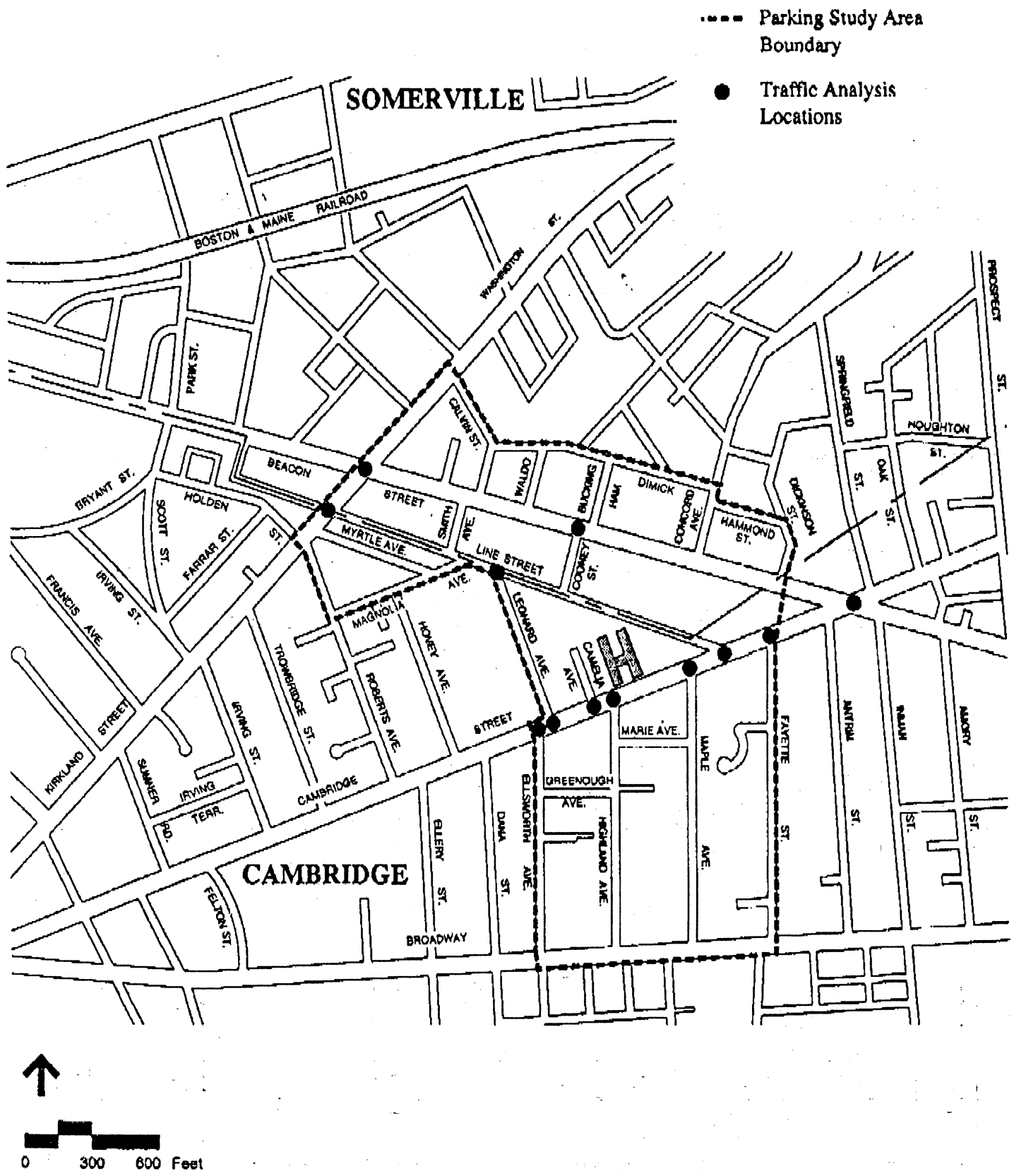
To evaluate the air quality impacts associated with traffic generated by the proposed Master Plan Project at The Cambridge Hospital, the existing and future year carbon monoxide (CO) levels at key intersections in the vicinity of the hospital were modeled and compared to the National Ambient Air Quality Standards (NAAQS). This evaluation was prepared in response to community concerns regarding air quality impacts associated with the Master Plan Project at The Cambridge Hospital.

In high concentrations, carbon monoxide emissions are a significant health concern. Over ninety-five percent of CO emissions come from mobile sources. The following intersections represent congested locations and were modeled for CO emissions:

- Cambridge Street at Fayette Street,
- Beacon Street at Washington Street,
- Inman Square, and
- Cambridge Street at Line Street/ Site Vicinity.

Predicted maximum CO levels for the 1993 1-hour analysis ranged from 7.4 to 11.5 ppm. These values are well below the 1-hour NAAQS of 35 ppm. Similarly, maximum CO levels for the corresponding 8-hour analysis were also well below the NAAQS of 9.0 ppm, with predicted maximum CO levels that ranged from 4.2 to 6.6 ppm.

The results of the 2000 No-Build and Build analyses indicate that all of the 1-hour and 8-hour values are also well below the NAAQS. The results of the 2000 Build 1-hour analysis ranged from 6.8 to 10.7 ppm. The results of the 2000 Build 8-hour analysis ranged from 3.9 to 6.1 ppm. These future year results are below the modeled existing CO levels, which can be attributed to lower vehicle emissions due to implementation of newer (i.e. cleaner and more efficient) motor vehicle emissions control technologies and vehicle fleet turnover. These results also demonstrate that the proposed Master Plan Project will not create violations of the NAAQS for CO at the four intersections analyzed.



Vanasse Hangen Brustlin, Inc.

Parking Study Area and
Traffic Analysis Locations

Figure 1

Consent Agenda #27

SF 477

Response to an Awaiting Report Item
No. Twenty-one, regarding recommendations
of the Vanasse Hangen Brustlin Assoc.
Traffic and Parking Study relating to the
Hospital.

11/14/94 Report accepted
and placed on
file

referred to the
Health & Hospital
Committee

11/22/94 Copy sent to
Health & Hospital
Committee (H).

Charter Right
exercised by
Councillor Gorney

In City Council,

November 7, 1994