

PB#128

Report

City of Cambridge,
Massachusetts

Cambridge Water Treatment Plant
Special Permit Application

April, 1997

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Attachment B Quantitative Data (Dimensional Form)

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Cambridge Special Permit Application

Introduction

This Special Permit Application addresses the construction of a new 24-million gallon per day (mgd) water treatment plant (expandable to 30 mgd) to replace the existing 24-mgd plant at 250 Fresh Pond Parkway in Cambridge. A Special Permit is needed because the plant is a Municipal Service Facility within an Open Space District (Sections 4.25 and 4.33) and because a portion of the 82,000 square foot building will be within the Parkway Overlay District, which limits building construction to 80,000 square feet of gross floor area (Section 11.63.5). The City of Cambridge also requests relief from Sections 11.66.1, 11.66.2, 11.66.3, and 6.43.3 of the Zoning Ordinance, which address curb cut and parking requirements, as described in the following text.

The remainder of the text follows the Special Permit Application instructions.

Application Submission Information

1. Existing conditions map - See enclosed plans
2. Current land use: The current land use of the development parcel is the City of Cambridge 24-million gallon per day water treatment plant and appurtenant water supply structures, as well as the Fresh Pond Reservation consisting of passive recreation (walking, biking, and jogging paths), a soccer field, 9-hole public golf course, Kingsley and Glacken Parks, parking areas, and the Neville Manor nursing home. Other than the nursing home, there are no dwelling units on the development parcel. Across Fresh Pond Parkway, Concord Avenue, Huron Avenue, Grove Street and Blanchard Street, which bound the lot, there are residential and commercial land uses.
3. Photographs - See Attachment A
4. Site plan - See enclosed plans
5. Building details - See enclosed plans
6. Quantitative data - See Attachment B
7. Zoning violations - A special permit is being sought from the Planning Board for a Municipal Service Facility within an Open Space District, which would otherwise be issued by the BZA. All other waiver requests pertaining to this project are reviewed by the Planning Board.
8. Certificate of ownership form - See Attachment C
9. Filing fee - The City of Cambridge requests a waiver of the \$4100 filing fee since this is a City project.

Additional Material for Flood Plain Overlay District Developments

Not Applicable.

Format for Plans and Maps

The enclosed plans follow the format requirements presented in the instructions.

Narrative Description

In order to meet its goal of providing a safe, potable water supply, the City of Cambridge proposes construction of a new water treatment plant (WTP) with a design capacity of 24 million gallons per day (gpd), expandable to 30 mgd, to replace the existing 24 mgd WTP at Fresh Pond Reservoir. In addition, the City proposes maintenance of the Fresh Pond Reservation including shoreline maintenance, riprap improvements, fence relocation, pathway upgrade, and upgrading of the Fresh Pond Weir Structure and Outlet to Fresh Pond Reservoir. These maintenance activities are assumed to be in compliance with the standards and criteria of Open Space Districts and Parkway Overlay Districts. However, the proposed WTP will require special permit(s) from the Planning Board, as outlined below. Project conformance with the requirements of the Zoning Ordinance is also provided with reference to the appropriate ordinance section(s), as well as the special or unique circumstances that prevail which justify the relief sought, as appropriate.

4.25 and 4.33. Non Open Space Uses in Open Space Districts. The proposed WTP is a municipal service facility in an Open Space District, which requires a special permit. However, the WTP will replace an existing WTP of equivalent capacity in the same general location. Therefore, the use is pre-existing. Development of a new WTP will not impact the recreational use of the Fresh Pond Reservation.

5.35 and 11.64 Dimensional Requirements in Open Space Districts. The WTP project meets all the dimensional requirements of development in an Open Space District as specified in Table 5-5 of the zoning ordinance and the relevant dimensional standards of the Parkway Overlay District listed in Section 11.64 of the Zoning Ordinance. Project dimensions are shown in the attached Dimensional Form (see Attachment B).

The WTP project will not infringe upon the existing open space uses of Fresh Pond Reservation. In fact, improvements to the overall recreational value of the Reservation are proposed, including pathway upgrade and fencing.

11.63.5 Gross Floor Area. Construction of a portion of the 82,000 sf building will occur within the Parkway Overlay District. Construction of a new building or building addition within this District containing 80,000 sf or more gross floor area requires a special permit from the Planning Board. However, divergence from this standard is necessary in order to provide adequate space for all treatment components. The proposed building layout and site design have been developed to protect and enhance the use and enjoyment of the surrounding Fresh Pond Reservation. In particular, the proposed site layout allows for the physical separation of the WTP facility from the

reservation pathway and for a wider green space and defined pathway along the edge of the reservoir.

11.66.1 and 6.43.3 Curb Cuts. Currently there are two curb cuts on Fresh Pond Parkway. One of these (at the meter shop) will be eliminated to improve safety. A second 40-foot curb cut will be replaced with a 60-foot curb cut which will provide split access and egress from the site onto/off of Fresh Pond Parkway. The split driveway entrance/egress is an improvement over the existing condition which does not provide adequate turning radius for trucks. Its configuration is a requirement of the Railroad to allow vehicles to stop before crossing the tracks without partially blocking a portion of Fresh Pond Parkway.

11.66.2 Siting of Parking Areas. The main parking area containing space for 61 vehicles has been located and designed to minimize its visual impact from the adjacent Fresh Pond Parkway which is separated from the site by the railroad tracks. The parking area cannot be placed behind the WTP building because of the building's location adjacent to Fresh Pond. Site mounding and planting will be used to screen the parking from Fresh Pond Parkway.

11.66.3 General Landscaping of Ongrade Open Parking. The parking area will be screened from the adjacent Fresh Pond Parkway with a landscaped buffer planting area containing trees and shrubs in accordance with the ordinance and as approved by the public planting committee. Significant tree planting and mounding will be provided in the parking area to minimize pavement expense and provide proper environmental conditions for tree growth and development. The Kingsley Park parking area has a bay of parking of 22 spaces; however, this lot is broken up by the pedestrian access area, has a curved configuration and is extensively landscaped with trees on all sides.

11.66.4 Open Parking Areas. The parking lot tree planting will exceed the City requirements for one (3" Caliper) tree for every ten spaces. Tree selection has been in accordance with the 1978 Fresh Pond Reservation Horticultural Review and suggestions by the Public Planting Committee. Trees will be planted in open lawn areas within or adjacent to parking areas to provide for maximum protection and all pavement areas will be curbed for traffic control.

11.67 Mechanical Equipment and Refuse Storage Area. All service and loading areas will be within the depressed yard area and well screened from the access drive, Kingsley Park and Fresh Pond Parkway. The building design will screen all mechanical equipment on the rooftop from view.

Article 6 Off Street Parking and Loading Requirements. The parking provided at the WTP site (total of 109 spaces) will be less than that currently permitted by the City's transportation control plan/parking ordinance (139 spaces). The parking has been designed to be multi-purpose. In addition to the 37 public parking spaces being provided at the new Kingsley Park parking area, the 72 spaces at the WTP (61 in the main parking area and 11 behind the building) will serve WTP staff and visitor purposes during WTP operating times and increased public access to Fresh Pond at night and on weekends. All parking and access has been designed in accordance with State and Federal access requirements. Additional parking (30 spaces) could be provided at Neville Manor for park users.

Bicycle parking areas are being provided at the WTP site and Kingsley Park as directed by the City's Transportation Department.

Parking requirements have been determined based on current conditions and WTP staffing and visitor requirements. Due to the fact that all WTP process areas are contained within the building parking/sf is not appropriate. Parking space size is in accordance with City requirements for full size and compact spaces, as well as handicapped parking.

6.45 Drainage, Surfacing and Maintenance. All parking and access areas will be lighted, paved and curbed with a subsurface drainage system.

6.60 Loading Requirements. All loading areas will be consolidated in the depressed vehicle storage and yard area southwest of the main plant. This area will be depressed by 6 to 12 inches and screened from Kingsley Park and the pond pathway system with significant plantings.

Demolition Review

The existing WTP is over 70 years old. However, it is not considered to be a significant historic structure, per discussions with the Cambridge Historical Commission and the MA Historical Commission.

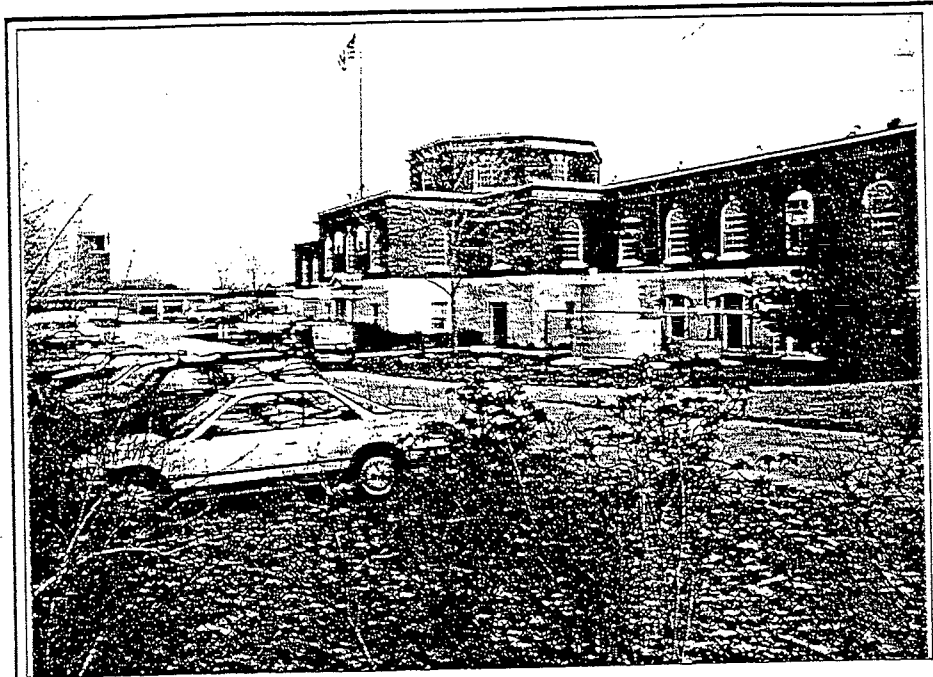
Special Permit Application Plans

<u>Sheet #</u>	<u>Sheet Title</u>
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Sheet A-3	Water Treatment Plant First Floor Plan
Sheet A-4	Water Treatment Plant Second Floor Plan
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Sheet A-51	Water Treatment Plant First and Second Floor Lobby Plans
Sheet A-63	Vehicle Storage Building Plans
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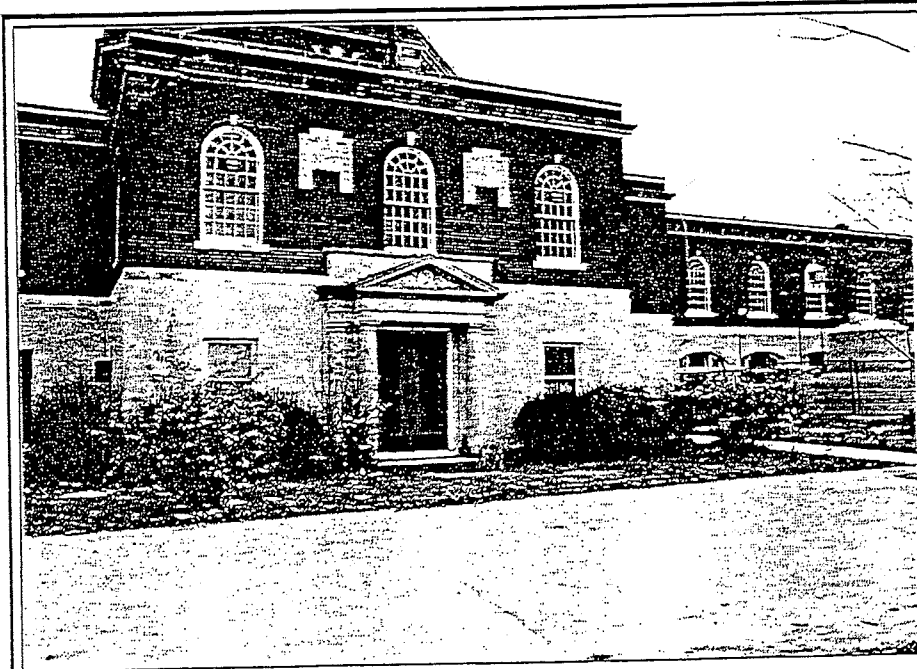
Special Permit Application Plans (cont.)

<u>Sheet #</u>	<u>Sheet Title</u>
Sheet A-65	Vehicle Storage Building Building Sections and Roof Plan
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Sheet A-81	Gravel Storage Building Plans, Elevations and Sections
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Sheet G-12	Existing Conditions Plant Water Treatment Plant
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Sheet G-14	Existing Conditions Plan Lusitania Field
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Sheet G-20	Layout Plan
Sheet G-?	Site Plan Concord Ave. Area
Sheet G-21	Site Plan - Lusitania Field
Sheet G-24	Grading Plan
Sheet G-25	Planting Plan
Sheet G-27	Site Details 2
Sheet G-28	Site Details 3
Sheet ?	Fencing

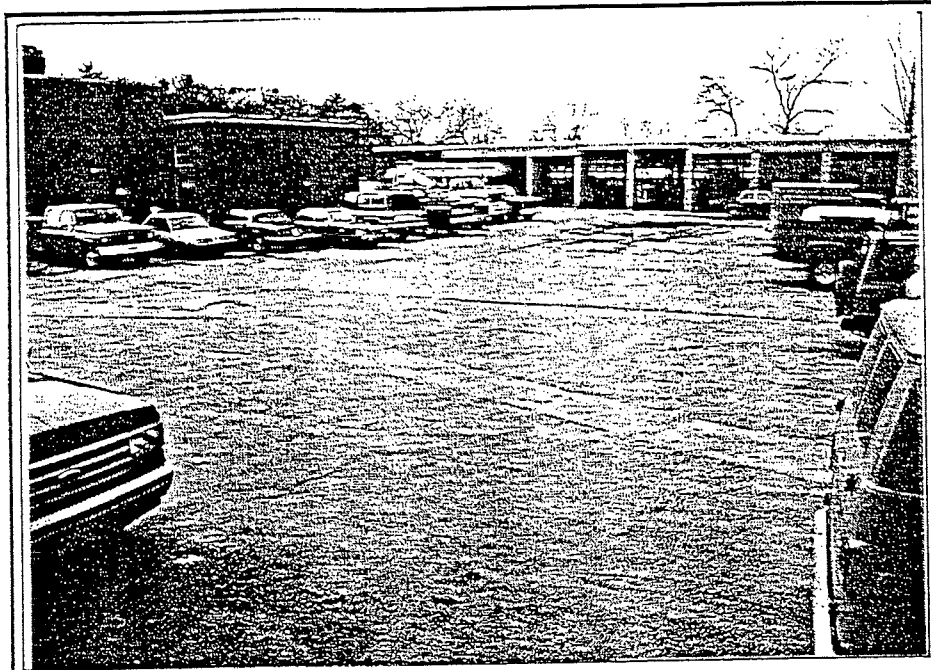
Attachment A



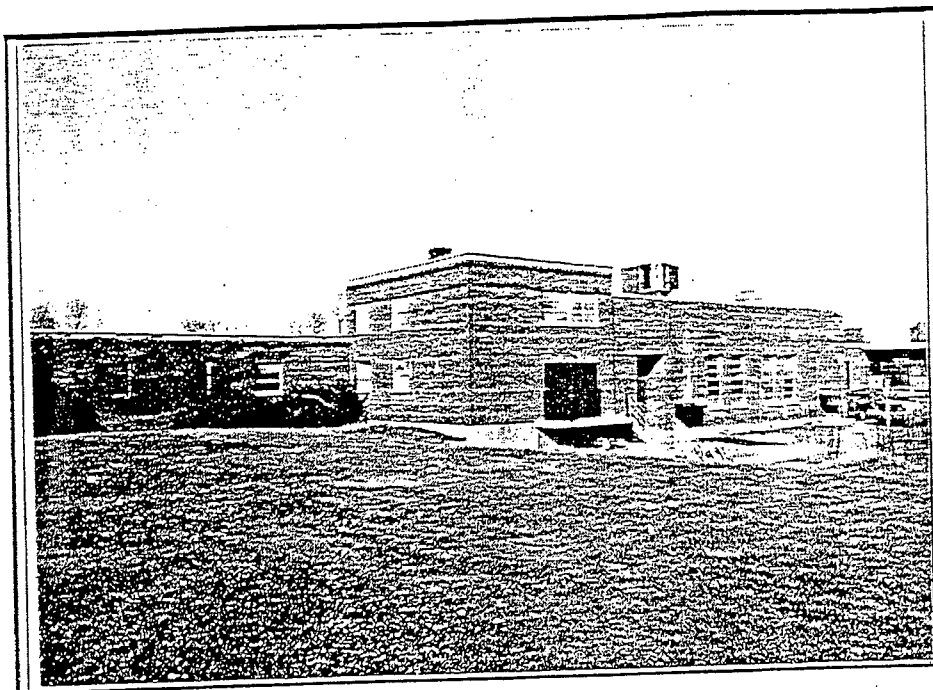
Looking East



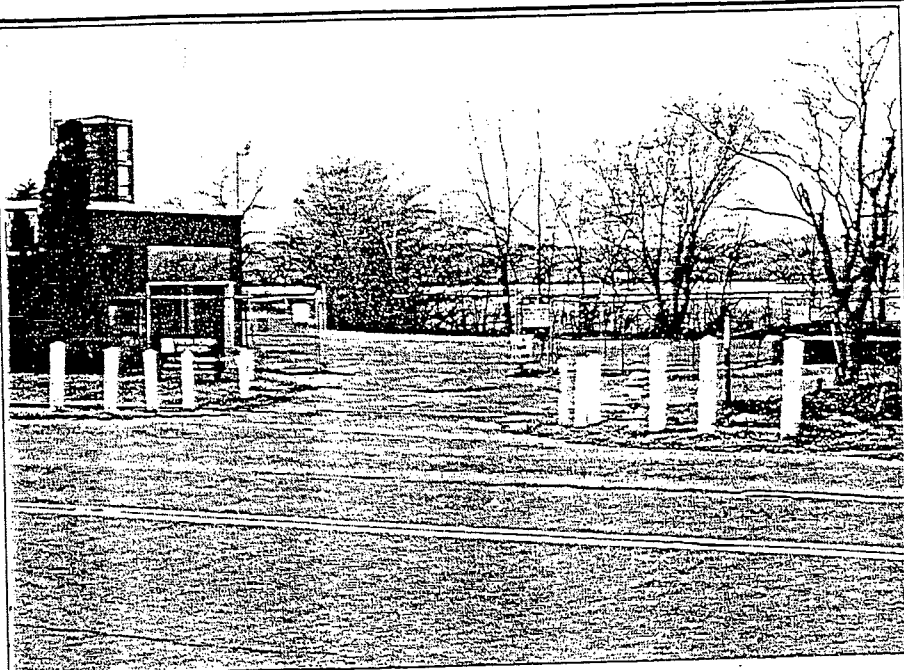
Looking South



Looking Northwest



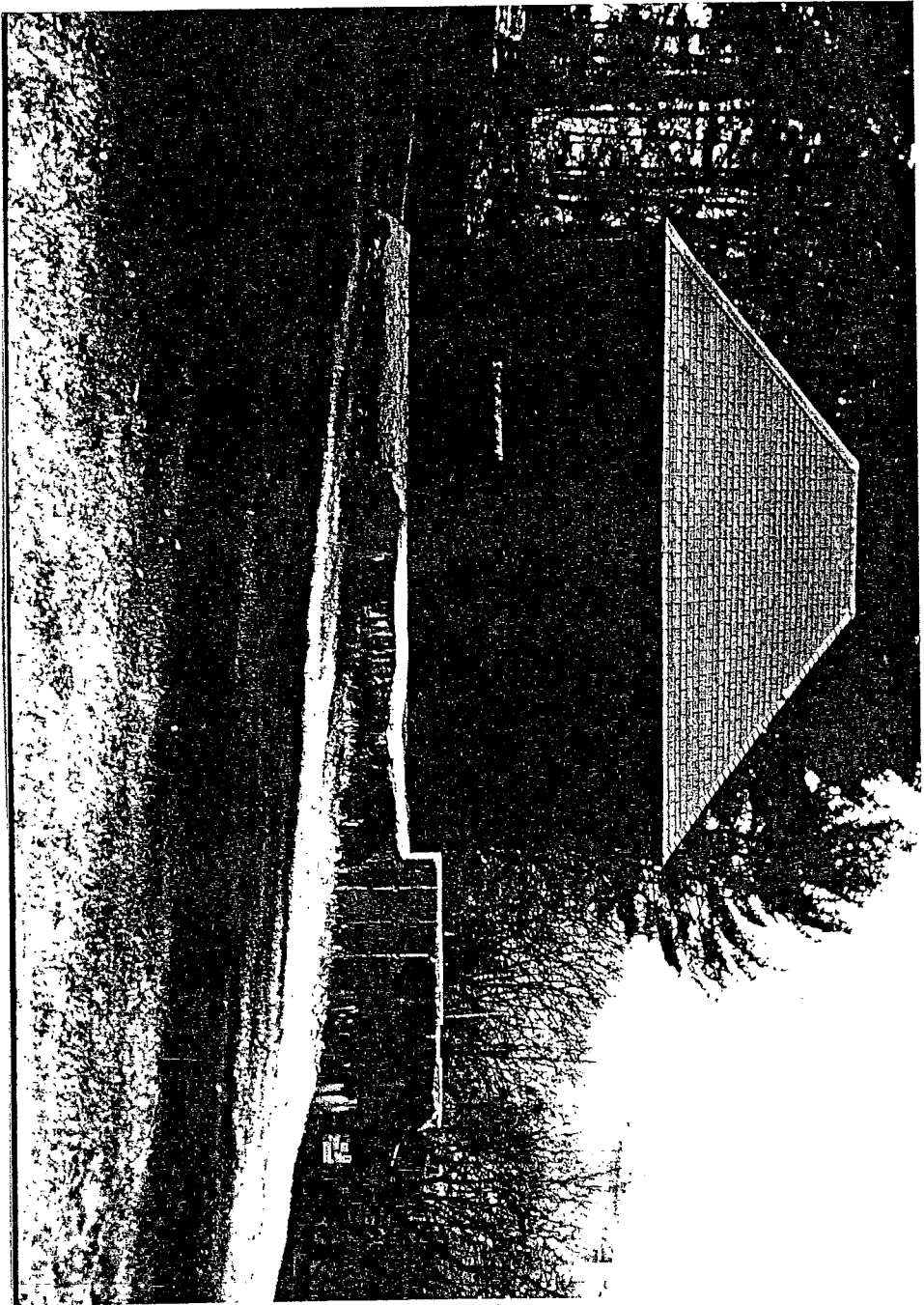
High Lift P.S. and Chemical Storage Bldg. S.E. Elev.



Looking North



Looking Northeast at Main Entrance



Weir Structure - Facing West