



CITY OF CAMBRIDGE

MASSACHUSETTS

WATER DEPARTMENT
250 FRESH POND PARKWAY
CAMBRIDGE, MASS. 02138

RECEIVED
91 OCT 11 AM 9:17
OFFICE OF THE CITY MANAGER

Nancy E. Barnes
Managing Director

617-349-4770

DATE: October 7, 1991

TO: Robert W. Healy
City Manager

FROM: Nancy E. Barnes
Managing Director - Water Department

RE: Council Order #21, dated 9/16/91, RE: The 1989 Leak
Detection Survey

Since the leak detection survey was completed in 1989, the Water Department has made significant progress in repairing and eliminating leakage. Per the attached summary, leaks accounting for 353,000 gallons per day, or 74.2% of the leaks identified, have been eliminated. As time and workload permit, the Water Department will eliminate the remaining 25.8% of the leaks.

360 CMR 12.05 requires that " The leak detection and repair program set forth in these regulations shall be surveyed no less than once every two (2) years." The regulations went into effect on July 1, 1991. The Water Department will comply with these regulations. We plan to perform a leak detection survey next spring.

In addition, the Water Department has undertaken a Distribution System Study to identify and prioritize the capital improvements needed in the water distribution and transmission systems. This study will provide valuable information in terms of identifying those portions of the system that are most vulnerable. We can then identify resources required and develop a workable plan for system rehabilitation.

We expect that this study will identify a number of water mains, valves, hydrants and services, for instance, that are far in excess of their useful lives. Replacement of such facilities will eliminate leakage and provide better water service in the process.

TABLE 3-1

LEAKAGE BY LOCATION
CAMBRIDGE MASSACHUSETTS

<u>LEAK NUMBER</u>	<u>LEAK TYPE</u>	<u>ADDRESS/LOCATION</u>	<u>ESTIMATED LEAKAGE(GPD)</u>
1	Hydrant	Int. Churchill & Matignon	2,000
2	Hydrant	17 Rindgefield St.	3,000
3	Hydrant	104 Normandy St.	3,000 ✓
4	Hydrant	33 Walker St.	3,000
5	Hydrant	240 Garden St.	10,000
6	Hydrant	55 Grozier Rd.	8,000 ✓
7	Hydrant	53 Francis St.	5,000
8	Hydrant	67 Francis St.	1,000
9	Hydrant	162 Holworthy St.	4,000
10	Hydrant	116 Amory St.	6,000 ✓
11	Hydrant	16 Fayette St.	8,000
12	Hydrant	218 Otis St.	2,000
13	Hydrant	119 First St.	7,000
14	Hydrant	17 Hews St.	6,000 ✓
15	Hydrant	275 Third St.	2,000
16	Hydrant	245 Commercial Ave.	6,000
17	Hydrant	Int. Green & Bay St.	5,000
18	Service	11 Winslow	20,000 ✓
19	Service	87 Raymond St.	5,000
20	Service	78 Prentiss St.	6,000
21	Service	238 Walden St.	4,000 ✓
22	Service	Appian Way @ Harvard	15,000 ✓
23	Service	245 Fresh Pond Parkway	2,000
24	Abandoned Serv.	15 Maple St.	25,000 ✓
25	Service	33 Kinnard St.	5,000 ✓
26	Abandoned Serv.	188 Second St.	26,000 ✓
27	Service	500 Franklin St.	8,000 ✓
28	Service	209 Eric St.	5,000
29	Service	18 Ellery St.	12,000
30	Service	492 Broadway	15,000 ✓
31	Abandoned Serv.	33 Church St.	5,000 ✓
32	Abandoned Serv.	109 River St.	10,000 ✓
33	Service	125 Hampshire St.	20,000
34	Main	Int. Broadway & Cambridge	12,000
35	Main	151 Appleton	50,000 ✓
36	Main	Int. Garden & Ivy	20,000 ✓
37	Main Valve	725 Concord Ave.	15,000 ✓
38	Main Valve	Int. Cambridge Terr.&Herbert	3,000
39	Main	4 Mercer Circle	25,000 ✓
40	Main Valve	Int Cooperwaithe/Dewolfe	15,000 ✓
41	Main Valve	Int Bay/Franklin	15,000 ✓
42	Main	Int Raymond/Bates	20,000 ✓
43	Main	Int Nuttings/Mt Auburn	12,000 ✓
44	Main	288 Washington St.	10,000 ✓
45	Main	38 Memorial Drive	15,000 ✓
	Total		476,000

✓ : LEAK FIXED



City of Cambridge

Owner

21.

IN CITY COUNCIL

September 16, 1991

COUNCILLOR DUEHAY

- WHEREAS: The 1989 Leak Detection survey completed by Donohue and Associates identified 45 leaks in the Cambridge water distribution system, totaling approximately 474,000 gallons per day; and
- WHEREAS: The largest number of leaks were located on hydrants and accounted for approximately 87,000 gallons per day, or 18 percent of the total leakage from 17 leaks; and
- WHEREAS: 12 of the 45 leaks were located on mains and valves and accounted for an estimated 235,000 gallons per day, or approximately 49 percent of the total leakage; and
- WHEREAS: 16 service leaks contributed an estimated 152,000 gallons per day, or 33 percent of the total identified leakage; and
- WHEREAS: Annual savings of approximately \$196,200 will be realized following repair of the leakage; now therefore be it
- RESOLVED: That the City Manager be and hereby is requested to direct the Water Department to report forthwith concerning the correction of all leaks identified in the 1989 survey, corrective measures and programs to reduce and identify leaks, and whether or not annual surveys of leaks are required.

In City Council September 16, 1991.

Adopted by the affirmative vote of nine members.

Attest:- Joseph E. Connarton, City Clerk.

A true copy;

ATTEST:-

Joseph E. Connarton

Joseph E. Connarton
City Clerk



CITY OF CAMBRIDGE
CAMBRIDGE, MASSACHUSETTS 02139

TEL. 349-4300
FAX. 349-4307

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

October 21, 1991

To The Honorable, The City Council:

Please find attached a response to Awaiting Report Item No. 36, regarding the 1989 Leak Detection Survey, received from Nancy E. Barnes, Managing Director of the Cambridge Water Department, relative to this issue.

Very truly yours,

Robert W. Healy
City Manager

RWH/mev
attachments

CONSENT AGENDA

S-1131

2.

Transmitting communication from Robert W. Healy, City Manager, relative to Awaiting Report Item No. 36, regarding the 1989 Leak Detection Survey.

In City Council,

October 21, 1991

Placed on file