



# TRANSMISSION AND DISTRIBUTION



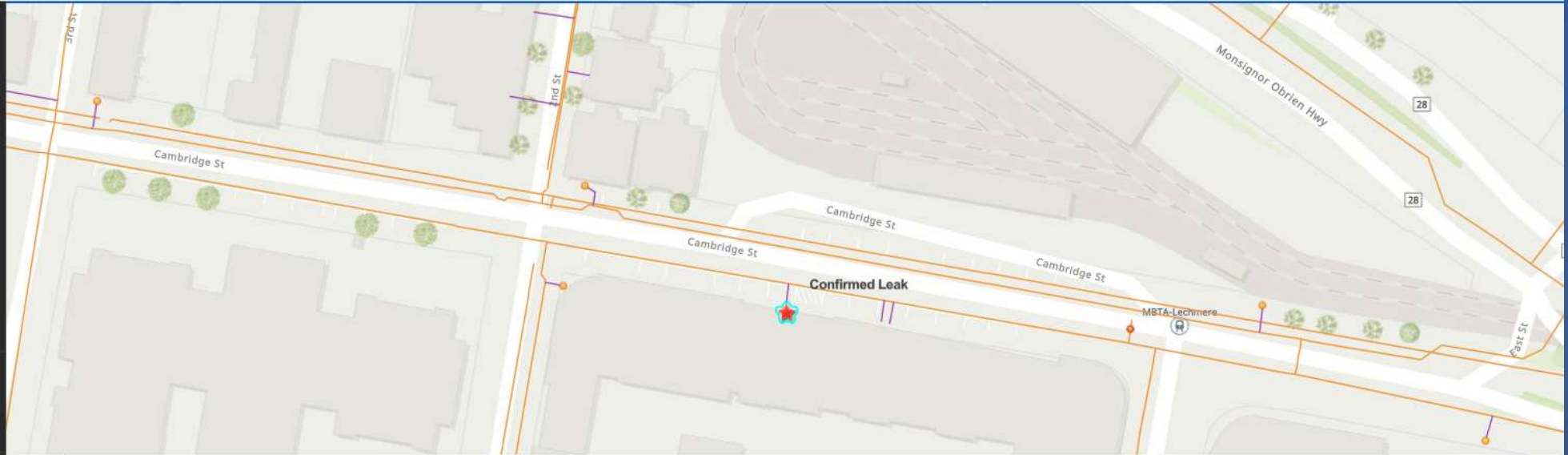


### ▲ C. OPERATIONS - Transmission and Distribution

- Continue working with and supporting DPW regarding sewer separation, Chapter 90 and Common Manhole Removal Contracts.
- Scheduling lead water service replacements within DPW Contracts 23 and 24.
- Working with DPW and contractors on several water main projects that include:
- **Belmont St.** Working with DPW Contractor Newport Construction on the replacement of 1200' of old 6" Cast Iron Pipe with new 8" Ductile Iron to include all services valves and hydrants.
- **Harvard St.** Working with DPW Port Area Sewer Separation Project Contractor D'Allesandro Construction on the replacement of 2750' of old 10" Cast Iron Pipe with new 12" Ductile Iron to include all services valves and hydrants.
- **Suffolk St.** Working with DPW Port Area Sewer Separation Project Contractor Mattuchio Construction on the replacement of 600' of old 6" Cast Iron Pipe with new 8" Ductile Iron to include all services valves and hydrants.
- **River St.** Working with DPW Project Contractor P. Gioiosio Construction on the replacement of 8000' of old 6-12" Cast Iron Pipe with new 8-12" Ductile Iron to include all services valves and hydrants.
- **Inman St (POSTPONED)** CWD in house crews mobilizing to begin replacing 1400' of old 6" Cast Iron pipe with new 8" Ductile Iron to include all services valves and hydrants.
- **Huron Ave. (Phase 2)** Working with CWD on-call contractor JNJ Sacca to replace 1000' of old 8" Cast Iron main with 12" Ductile Iron pipe to include all services valves and hydrants.

#### February 2023

5	Leaks Repaired
0	Services Reconnected
2	Lead Services Renewed
2	Hydrants Repaired/Replaced
1	Valves Replaced/Repaired
5	Miscellaneous jobs <u>completed</u>
12	Work orders <u>completed</u>
168	Valves <u>exercised</u>
55	Inspections <u>performed</u>
502	Utility mark outs



2022 Phase2 Cambridge - Leak Report  
42 records, 1 selected

	...	Estimated GPM	...	Asset ID	...	Pipe Diameter	...	Visual Water	...	Address	...	Asset Water Level	...	Attachments
	<input type="checkbox"/>	2		?		6		No		327 River Street, Cambrid...		Full		1
	<input type="checkbox"/>	1		5087		6		No		166 Hampshire St, Cambri...				1
	<input checked="" type="checkbox"/>	2		3022.1		6		No		110 Cambridge Street, Ca...				1





## CONSULTING ENGINEERING, INC.

Date	Leak Status	Asset Type	Asset ID	eGPM	Address	Comments	Asset Water Level	Visual Water	Figure
6/14/2022	Confirmed	Hydrant	1048	2	10 Ash Street Place, Cambridge, Massachusetts	Seat leak		No	41, 41a
6/14/2022	Confirmed	Hydrant	?	2	8 Chapman Place, Cambridge, Massachusetts	Seat leak		No	42, 42a
6/15/2022	Confirmed	Hydrant	?	2	5 Prescott St	Seat leak	Water/ Operator Visible	No	43, 43a
6/15/2022	Confirmed	Distribution Main	?	15	21 Kenwood Street			No	44, 44a
6/15/2022	Confirmed	Service Line	?	8	56 Pearl Street	Unable to confirm customer side/city side	Dry	No	45, 45a
6/15/2022	Confirmed	Hydrant	?	1	369 Harvard Street	Seat leak	Water/ Operator Visible	No	46, 46a
6/15/2022	Confirmed	Distribution Main	?	5	3 Mercer Circle			No	47, 47a

## THE CAMBRIDGE WATER AND FIRE DEPARTMENTS WILL BE CONDUCTING ANNUAL FIRE HYDRANT MAINTENANCE AND FLOW TESTS BETWEEN MAY 2 AND JUNE 25, 2022

Maintenance and testing will be conducted between the hours of 9:00 AM and 2:00 PM, Monday through Friday, excluding holidays. Hydrant testing is performed to ensure operability and to identify and repair those hydrants requiring maintenance. In addition to hydrant testing, crews will be performing water main flushing. Approximately 25 hydrants will be tested in each area, each day.

Hydrant testing may disturb the sediment that naturally occurs in the water piping system. Water from your faucets and toilet may appear rust colored from this disturbance. Rust discoloration may last for several hours after the tests have been completed. Discolored water does not usually present a health hazard, however; the Water Department recommends that anyone who has doubts about the rust colored water should not drink it. You may wish to store tap water or two-gallon containers in your refrigerator for the day of the test.

We also suggest that the residents check their water before doing laundry because the **discolored water may stain your clothes**. If your laundry is stained, the Water Department will provide you with a wash additive to remove the stains.

If you would like to know when the hydrants are being tested in your neighborhood, please review the schedule shown on this announcement. You can also follow us on Twitter (@CambWaterDept), like us on Facebook, check your local cable television stations for updates on test areas, or call the Cambridge Fire Department at 617-349-4921 between 8:00 AM to 8:45 AM for daily test locations. If you have any questions on water quality, please call Ms. Krystyna McInally, Laboratory Manager, Cambridge Water Department, (617) 349-4780.

### ENGINE 1 THROUGH ENGINE 9 ARE AS SHOWN ON THE ATTACHED MAP

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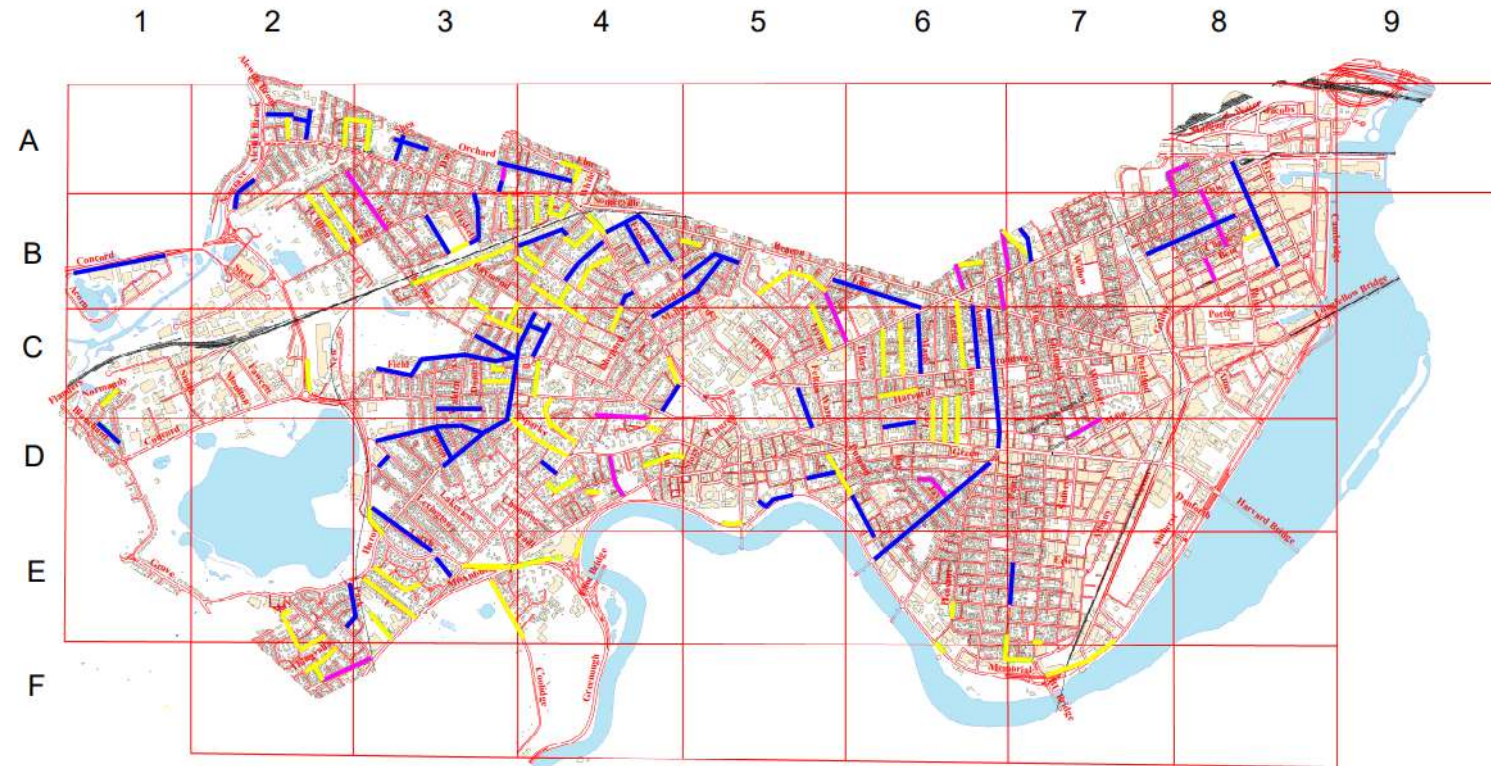
EAST CAMBRIDGE AREA	Engine 3	May 2 through May 14
CONCORD AVENUE AREA	Engine 8	
NORTH CAMBRIDGE AREA	Engine 4	May 16 through May 28
RIVERSIDE AREA	Engine 6	
HARVARD SQUARE AREA	Engine 1	May 31 through June 11
CENTRAL SQUARE AREA	Engine 2	

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HYDRANT ID		Location	Make	HYDRANT GPM
4040		CLARENDON AVE nr MASS AVE	AVK	100
5085		116 AMORY ST.	MUELLER	190
1163		EMMONS PL		200
5114		432 COLUMBIA ST.	DARLING	200
6154		64 MAGEE ST @ PUTNAM GARDENS	AVK	200
1074		2 BERKELEY PL	MUELLER	300
1191		16 TROWBRIDGE ST	DRESSER	300
1193		TROWBRIDGE ST & TROWBRIDGE TER	MUELLER	300
1194		8 TROWBRIDGE PL	MUELLER	300
4059		195 CONCORD TPK ( RTE 2)	AVK	300
4081		34 BROOKFORD ST	DRESSER	300
4089		25 HARRINGTON RD @ DEAD END	KENNEDY	300
5027		27 FAINWOOD CIRCLE	MUELLER	300
6032		41 SPERIDAKIS TERRACE	KENNEDY	300
6053		13 WHITNEY AVE	0	300
8016		33 WALKER ST.	U.S.PIPE	300
8110		27 R.C. KELLEY ST.	DARLING	300
8196		18 HUBBARD PK. RD.	KENNEDY	300
1105		39 GARFIELD ST.	M&H 929	350
4041		40 CLARENDON AVE	MUELLER	350

### 1992 Distribution Study - Small Diameter Priority Water Main Replacement Status - All Phases



- PROPOSED CWD PRIORITY
- DPW PROJECTS WITH PRIORITY MAINS
- CWD COMPLETED STREETS





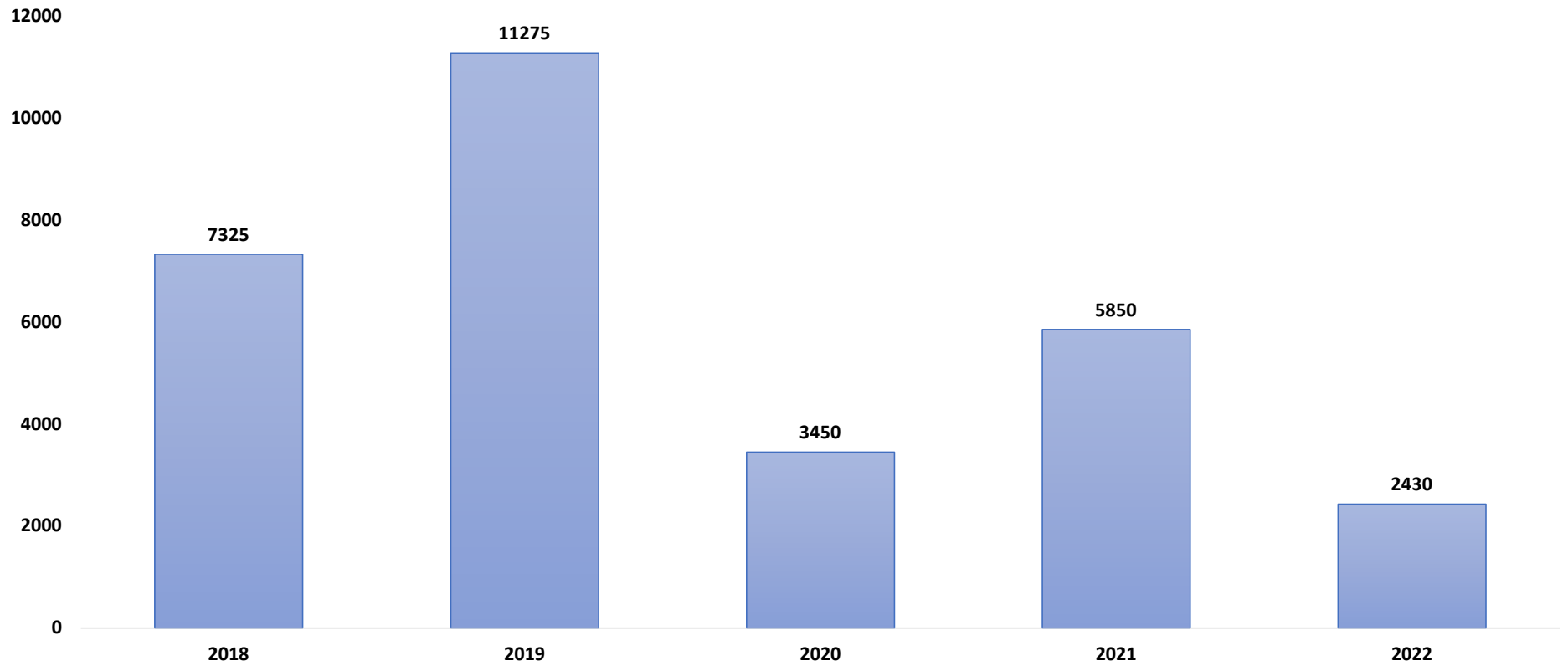






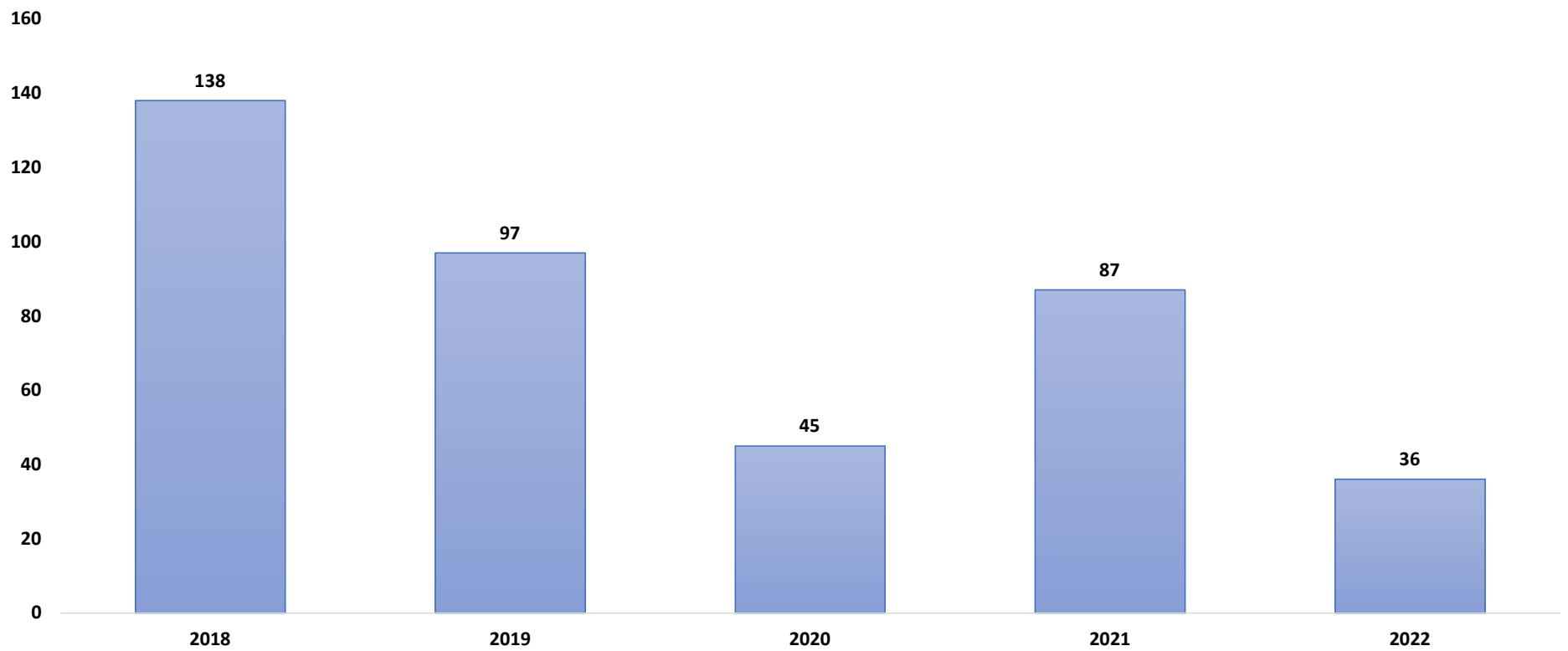
<b>STREET</b>	<b>FROM</b>	<b>TO</b>	<b>SIZE</b>	<b>FT OF MAIN</b>
<b>2019</b>				
<b>GRAY GARDENS EAST</b>	<b>GARDEN</b>	<b>RAYMOND</b>	<b>8</b>	<b>900</b>
<b>ELIOT</b>	<b>WINTHROP</b>	<b>JFK</b>	<b>8</b>	<b>500</b>
<b>HURON</b>	<b>GARDEN</b>	<b>RAYMOND</b>	<b>12</b>	<b>1000</b>
<b>DOUGLAS</b>	<b>MASS AVE</b>	<b>BISHOP ALLEN</b>	<b>8</b>	<b>200</b>
<b>DEACON</b>	<b>CARELTON</b>	<b>DOCK</b>	<b>8</b>	<b>275</b>
<b>MONSIGNOR OBRIEN HWY</b>	<b>THIRD/GORE</b>	<b>SECOND/GORE</b>	<b>8</b>	<b>1000</b>
<b>DODGE/CALLENDAR</b>	<b>MAGEE</b>	<b>WESTERN</b>	<b>8</b>	<b>450</b>
<b>INMAN</b>	<b>BISHOP ALLEN</b>	<b>HARVARD</b>	<b>8</b>	<b>1000</b>
<b>ST. MARYS</b>	<b>INMAN</b>	<b>PROSPECT</b>	<b>8</b>	<b>600</b>
<b>PARK AVE</b>	<b>HOLWORTHY</b>	<b>HURON</b>	<b>8</b>	<b>1000</b>
<b>COTTAGE</b>	<b>RIVER</b>	<b>PEARL</b>	<b>8</b>	<b>1000</b>
<b>NORTH POINT PHASE 2</b>	<b>UNNAMED</b>	<b>UNNAMED</b>	<b>8</b>	<b>2600</b>
<b>COLUMBIA</b>	<b>CAMBRIDGE</b>	<b>SOMERVILLE LINE</b>	<b>8</b>	<b>500</b>
<b>CARDINAL MEDEIROS</b>	<b>BINNEY</b>	<b>BRISTOL</b>	<b>12&amp;20</b>	<b>250</b>
			<b>2019 TOTAL FT</b>	<b>11275</b>

## FEET OF WATERMAIN REPLACED 2018-2022 TOTAL MILES = 5.75



# LEAD SERVICES REPLACED 2018-2022

TOTAL = 403







**Water System**

- ◆ Hydrant
- Water Manhole
- Sampling Station
- Meter
- Control Valve
- System Valves
- Storage Tanks
- Water Main
- Hydrant Lateral
- Service Lateral
- 40" Transmission Main

**Sewer Stormwater System**

- Force Main
- Gravity Main
- 40" Transmission Main

**Basemap**

- Town Boundaries

**Twin 40" Steel Transmission Mains  
from Huron Avenue Gate House to  
Payson Park Reservoir**

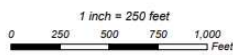


Figure 1-1  
Twin 40-inch Steel Transmission Mains



















Pipe close-up, 270 mil gouge



Pipe close-up of rivet seam






CITY OF CAMBRIDGE PARKS & IRRIGATION BACKFLOW DEVICE STATUS									
KEY	PARK ISSUES	DEVICES IN MANHOLE	Community Garden			MISSING		UPDATED 11/18/19	
	PARK	ADDRESS	Line Size	Meter #	BF #	BF Model	METER READING	Comments	MTU?
1	Kennedy School ( Ahern Field)	Fulkerson @ Spring & Charles St	2"	60095555	RPZ09224	WATTS007m1		Fed from building	
2	Alberico Park	341 Allston St @ Pleasant St.	1 1/2"	12710682	RPZ84886	WATTS909QT		JNJ Sacca installed (2013)	N
3	Alden Park	Oxford St. @ 33 Sacramento St.	2"	Missing				No devices	
4	Anderson Ct	Yerxa Rd @ 121 Pemberton St. (on bridge side)	2"	9522677	PVB658034	FEBCO 765-1			Y
5	Bergin	Haskell St. @ Pemberton St.	1 1/2"	16317061	RPZ042931	WATTSLF009M2QT		JNJ Sacca installed (2017)	N
6	Cambridge Common	Garden St. @ Mason St	2"	14254513	PVB3735367	WILKINS975XL2		Devices installed Newport 2017	N
7	Centanni Way	Cambridge St @ Third St	SHUT OFF/NOT IN USE					State owned, not in use	
8	Charles Park	Cambridgeside Pl @ Land Blvd	2"	10709129	PVB667369	WATTS800M4QT		New 2" BV 2019 (EC)	N
9	Gondolfe Park	Clarendon Ave. @ Mass. Ave.	2"					New line(CWD) and devices(Sacca) 2020	N
10	Clement G. Morgan Park	Columbia St. @ Washington St.	1"	10709137	PVB693010	WATTS800M4QT		Fed from Columbia St	N
11	Comeau Field	Rindge Ave	BUBBLER					Fed from Building	
12	Cooper	Hancock St. @ Center St.	1 1/2"	12710608	RPZ3748800	WATTS975XL2		Devices installed 9-24-13 (Carney)	Y
13	Corporal Burns	Banks St @ Flagg St @ Memorial Dr.	2"	10709136	PVB65305	WATTS800M4QT		Devices installed 6-10-13 (Carney)	Y
14	Zcommunity garden Costa Lopez	Lopez Ave & Charles. (community garden)	1 1/2"	10708694	RPZ617990	WATTS909QT		Community Garden	Y
14	Costa Lopez	Charles St. @ Lopez Ave.	BUBBLER					Bubbler only	
15	Dana Park	Magazine St. between Corp. McTernan St. & Lawrence	2"	8515603	PVB670550	WATTS800M4QT			Y
16	Danahey Park D-1	Sherman St @ St Peters Field	2"	811220	RPZ3737038	WATTS975XL2		New RPZ installed 4-20-16 (DS)	N
16	Danahey Park D-3	Sherman St @ Soccer/ tot lot	2"	18198344	RPZ190241	WATTS909QT			N
17	David Brien Nunes, Old Morse Park	Allston St. @ Brookline St.	1 1/2"	17971941	RPZ448616	WATTS909QT		New 1" meter installed 4/26 (DS)	Y
18	Donnelly Field	Berkshire St. @ York St. @ Willow	4"	1778141	RPZ280404	FEBCO 825Y			Y
19	Elm/Hampshire	Elm St. @ Hampshire St.	1"	15557514	RPZ050122	WATTS009M201			N
20	Father Callanan Pk (rear of Tobin)	Concord Ave @ (Tobin School)	2"	10709131	RPZ3706378	WATTS975XL2		Repair (1.5" X 1" 90°) 4/22/19 EC	
21	Flagstaff Park	Cambridge St @ Mass Ave	Missing					Not Used	
22	Et Washington	Waverly/Dorset/Talbot St	2"	10709605	RPZ3748745	WATTS975XL2		New RPZ installed 6-4-13 (Carney)	Y



## Community Maintenance and Development

### PROJECT PW22811 PUBLIC WORKS: PARKS - PARK WATER CONSERVATION PROGRAM

FY22 PROJECT DESCRIPTION	CITY COUNCIL GOALS
<p>The City manages 97 irrigated sites (ranging from small planting beds to large fields), 22 water plays, and 52 water fountains. Irrigation provides important community benefits, including beautification and plant health, while water plays and fountains provide much needed relief during hot weather.</p> <p>Public Works began to implement a central control system for park and public area irrigation sites, water plays, and water fountains starting in FY17. This system enables remote monitoring and control, including automatic shut off for leaking equipment. The system helps conserve water, and puts Cambridge at the forefront of municipal water conservation among New England municipalities.</p>	

#### IMPACT ON OPERATING BUDGET

This project is expected to result in more efficient maintenance and repair processes, better levels of service (in terms of quality of plantings and reduced downtime) and better water conservation.

#### 5-YEAR APPROPRIATION PLAN

FUNDING SOURCE	FY22	FY23	FY24	FY25	FY26	TOTAL
Water Service Charges	\$0	\$100,000	\$100,000	\$100,000	\$0	\$300,000
<b>TOTAL</b>	<b>\$0</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$0</b>	<b>\$300,000</b>

#### FY23 - FY26 FUNDING

Public Works estimates that full program implementation, which includes all Public Works-maintained facilities and Danehy Park, will cost \$800,000 in total between FY17 and FY25.

PROJECT VISUAL	STATUS OF PRIOR YEAR PROJECTS
	<p>In the beginning of this program it was discovered that the existing irrigation boxes needed to be replaced as they were either too small for the new control equipment or were in a deteriorated condition. With prior allocations, 36 irrigation boxes were replaced or repaired. New central irrigation control equipment was installed at 38 sites through the end of FY21.</p>



**Inclusive Park Water Play**