



City of Cambridge Winter Operations

Agenda

- ▶ Historic data
- ▶ Weather Outlook
- ▶ Storm Coordination
- ▶ Safety/Accessibility
 - Parking bans
 - Public Safety/School Accessibility
 - Public Transportation
 - Pedestrian Operations
 - Bike Lanes
 - Snow Hauling
- ▶ Challenges
- ▶ Outreach
- ▶ Questions



2022-23 Season Event Summary

- ▶ 13.6" of snow
 - ▶ 13 salting events
 - ▶ 2 plow events
 - ▶ 0 hauling events
- 3147 tons of salt

Historical Data

Year	Snowfall (inches)	Salt Tons	Number of Parking Bans
2000	25		
2001	46		
2002	15		
2003	68	6027	
2004	35	4744	
*2005	87	8004	
2006	40	5180	
2007	17	3162	
2008	51	8623	
2009	66	10,000	6
2010	36	5,140	2
*2011	81	7,889	3
2012	9	1,774	0
*2013	63	5,197	1
2014	59	9,075	4
*2015	110	9,081	4
2016	27	4,756	2
2017	45	7,241	3
*2018	67	6,500	2
2019	41	5,500	2
2020	22	6,500	0
*2021	55	5,596	1
2022	13	3,147	0
AVERAGE	47	6,157	



* Indicates a year where we have had at least one blizzard



Preparing for Winter - Weather Outlook

Precipitation Outlook

- ▶ Still too early to tell
- ▶ Summer of 2023 has been the 2nd rainiest season on record with over 40"
- ▶ Scientists say the pattern of heavy rainfall experienced in the Northeast this summer has the fingerprints of climate change all over it.
- ▶ It's been a summer of [climate extremes](#). Heatwaves, wildfires, record-breaking ocean temperatures — and here in the Northeast, a whole lot of rain.



Storm Coordination

- ▶ Public Works
- ▶ City Managers Office
- ▶ Traffic Parking & Transportation
- ▶ Police
- ▶ School Department
- ▶ Human Services
- ▶ Water
- ▶ Fire/Emergency Management
- ▶ Electrical
- ▶ Inspectional Services
- ▶ Emergency Communications

Parking Ban

- Notification
- Tow Truck Supervision/Coordination
- Follow up
- Lifting the Ban



Snow Emergency Parking Locations



Access to Public Transportation

Pedestrian Operations

- ▶ 23 miles of City-Cleared Sidewalks/ Curb Ramps
- ▶ Abutting schools, public buildings, public open space
- ▶ City-owned parking lots and garages
- ▶ Residential exemption program

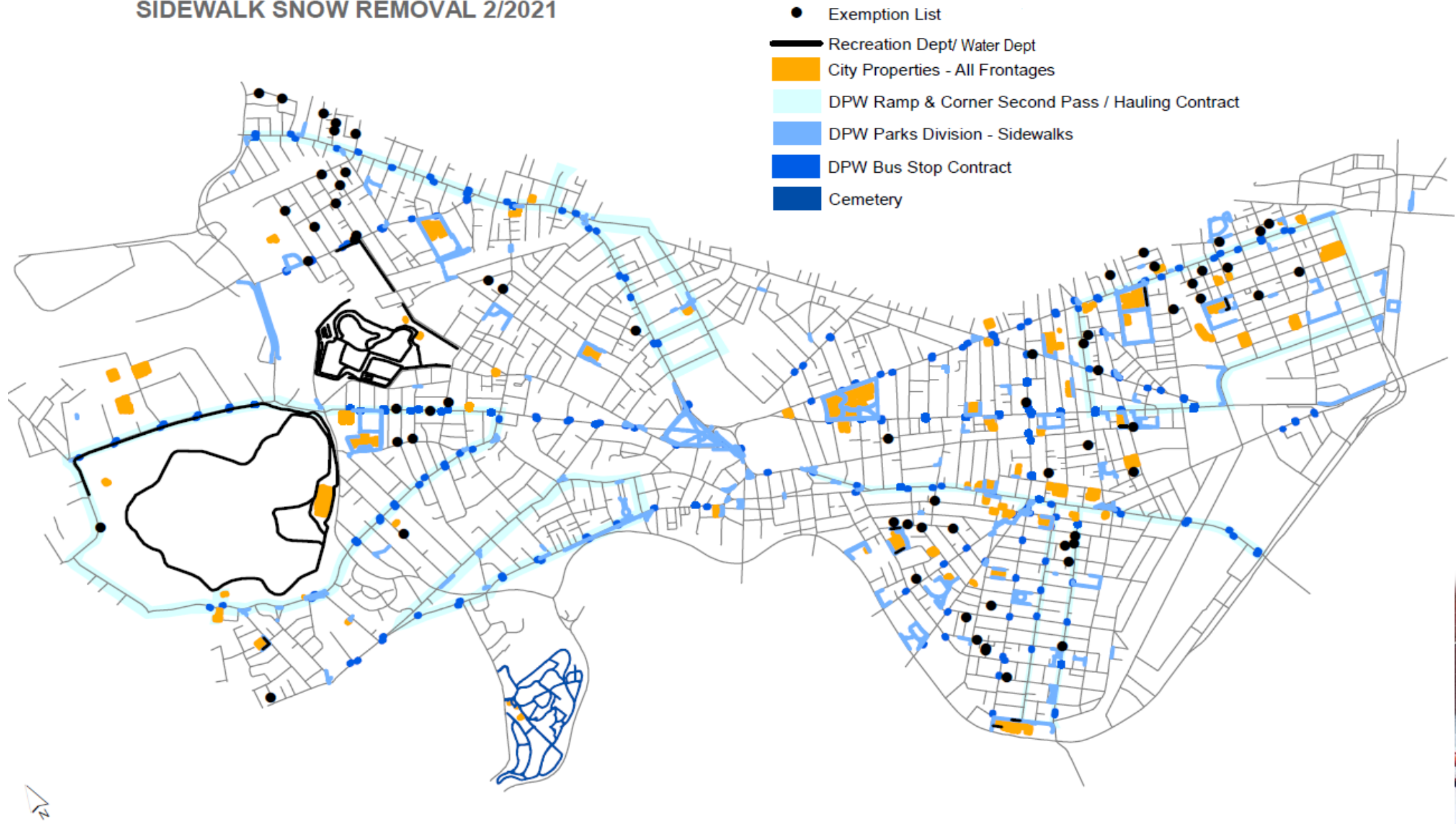


Bus Stops/Ramps

- ▶ Cambridge Street
- ▶ Massachusetts Avenue
- ▶ Concord Avenue
- ▶ Mount Auburn Street
- ▶ Western Avenue
- ▶ River Street
- ▶ Huron Avenue
- ▶ Rindge Avenue
- ▶ Broadway
- ▶ Prospect Street
- ▶ Pearl Street
- ▶ Brookline Street
- ▶ Green Street
- ▶ Granite Street
- ▶ Aberdeen Ave
- ▶ Magazine Street
- ▶ Putnam Ave - Western to Brookline
- ▶ Bigelow Street
- ▶ Inman Street
- ▶ Webster Street
- ▶ Windsor Street
- ▶ Garden Street
- ▶ Main Street
- ▶ Kirkland Street
- ▶ Quincy Street
- ▶ Columbia Street
- ▶ Hampshire Street



SIDEWALK SNOW REMOVAL 2/2021



School/Public Safety Access



Protected and Raised Bike Lanes

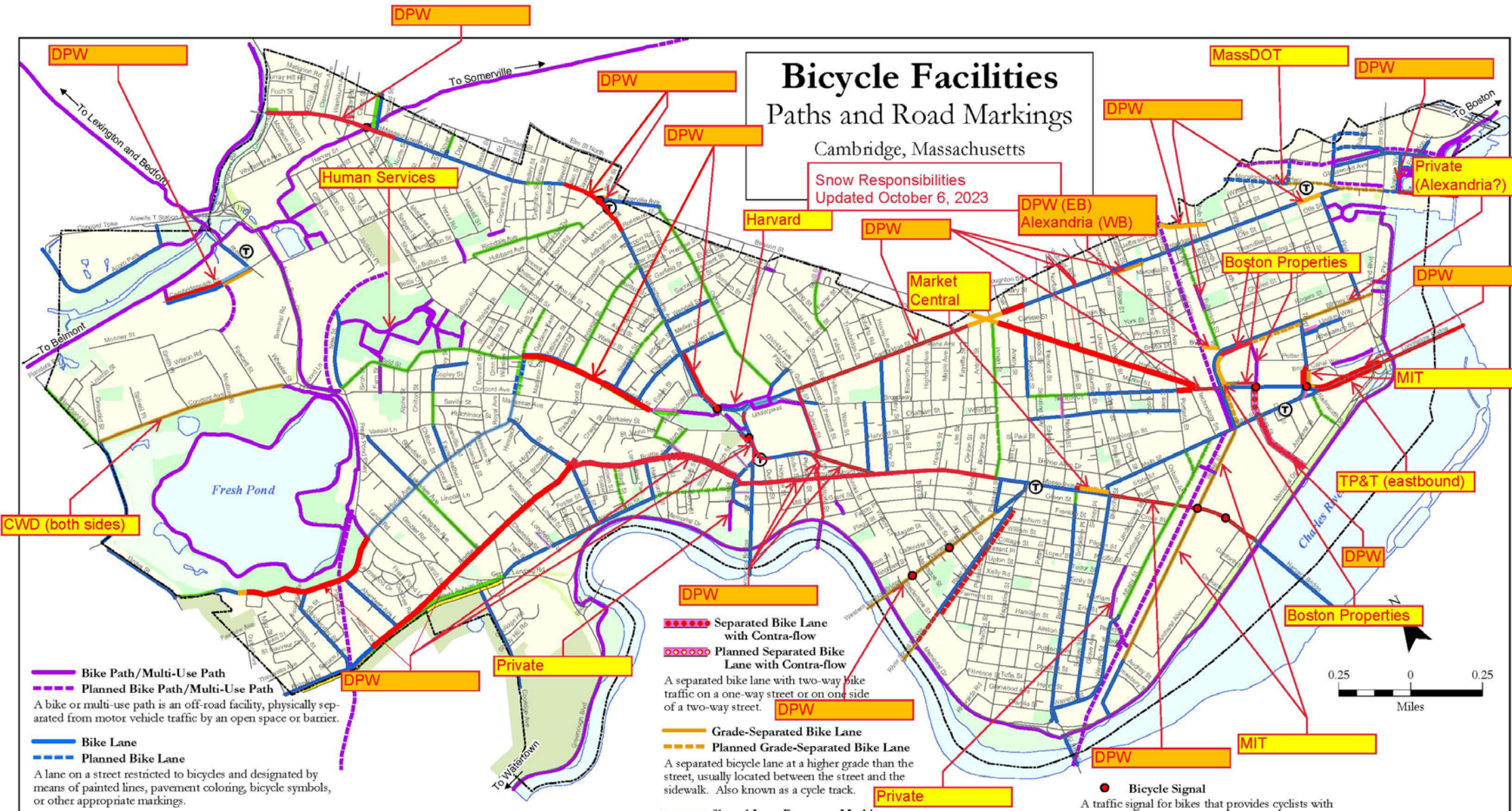
- ▶ Challenges
- ▶ Timing
- ▶ Messaging
- ▶ Responsibility



Bicycle Facilities Paths and Road Markings

Cambridge, Massachusetts

Snow Responsibilities
Updated October 6, 2023



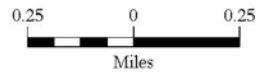
— Bike Path/Multi-Use Path
- - - Planned Bike Path/Multi-Use Path
 A bike or multi-use path is an off-road facility, physically separated from motor vehicle traffic by an open space or barrier.

— Bike Lane
- - - Planned Bike Lane
 A lane on a street restricted to bicycles and designated by means of painted lines, pavement coloring, bicycle symbols, or other appropriate markings.

●●●● Separated Bike Lane with Contra-flow
○●○● Planned Separated Bike Lane with Contra-flow
 A separated bike lane with two-way bike traffic on a one-way street or on one side of a two-way street.

— Grade-Separated Bike Lane
- - - Planned Grade-Separated Bike Lane
 A separated bicycle lane at a higher grade than the street, usually located between the street and the sidewalk. Also known as a cycle track.

● Bicycle Signal
 A traffic signal for bikes that provides cyclists with



Bike Facilities and Snow Removal

- ▶ The number of bike facilities are increasing every year
- ▶ Each has different needs in terms of snow removal
- ▶ In some cases, these facilities are part of “quick build” projects and present challenges in terms of maintenance during snow season
- ▶ Snow removal in bike facilities is a shared responsibility between
 - ▶ DPW
 - ▶ DHSP
 - ▶ TP&T
 - ▶ Private Developments
 - ▶ Universities

Snow Hauling



BEFORE

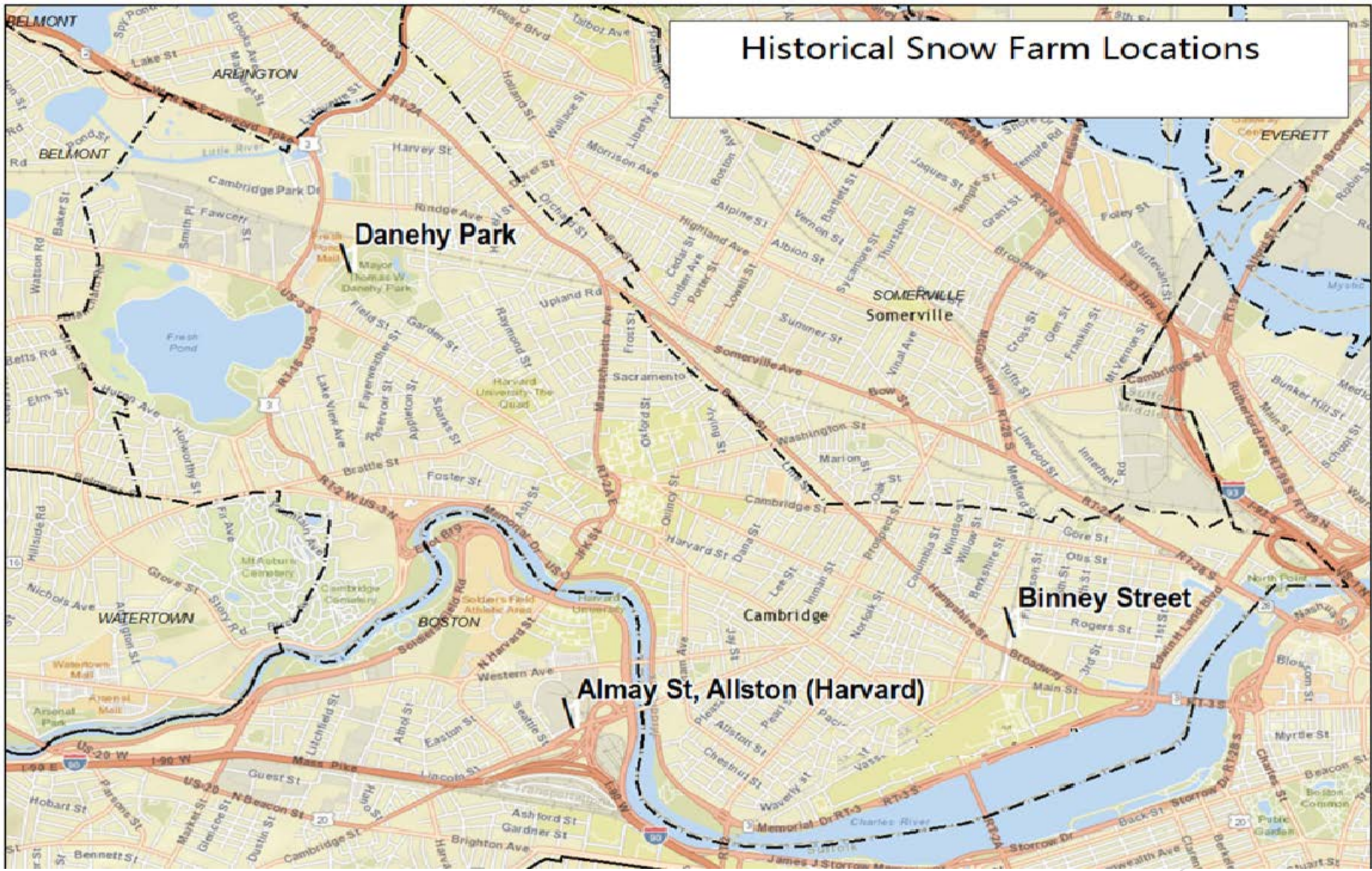


AFTER



TOW ZONE
NO PARKING
UNTIL FURTHER
NOTICE
NARROW
ROADWAY
WWW.CAMBRIDGE.MA.GOV/TRAFFIC

Historical Snow Farm Locations



Specialty Equipment -Sidewalk/Bikelanes

- Holder sidewalk tractor
- Wacker Neuson sidewalk tractor
- Multihog tractor
- Bobcat skid steer



Ticketing/Fines

Snow Season	# of Complaints Received	Snow Season	# of Citations Issued
2016-2017	1068	2016-2017	546
2017-2018	933	2017-2018	166
2018-2019	591	2018-2019	210
2019-2020	695	2019-2020	326
2020-2021	758	2020-2021	223
2021-2022	970	2021-2022	274
2022-2023	223	2022-2023	83
Total:	5238	Total:	1828

Payments made on tickets within 6 months of issuance is approximately 50%

Challenges

- Continuity of Services
- Dead Ends
- One-way Streets
- Handicap Parking
- Space savers





What's New

Brine Farm



Truck application



The brine solution is applied in liquid form to the roadway before anticipated snow or ice and prevents snow and ice from bonding with the street surfaces. Unlike granular salts which can bounce off roadways or get stuck on top of snow and ice, brine begins working immediately once it comes into contact with precipitation.

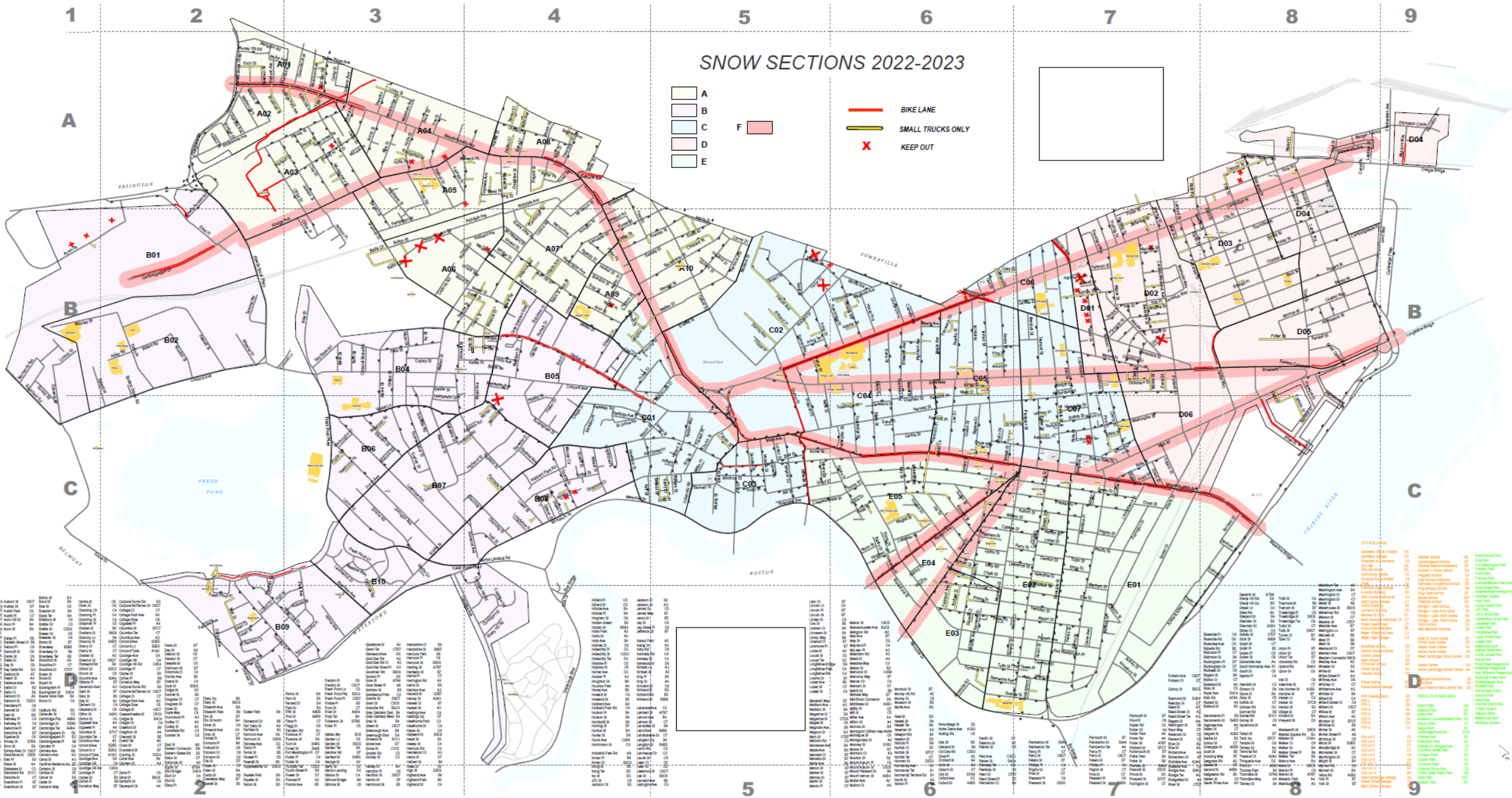
SNOW SECTIONS 2022-2023

Legend:

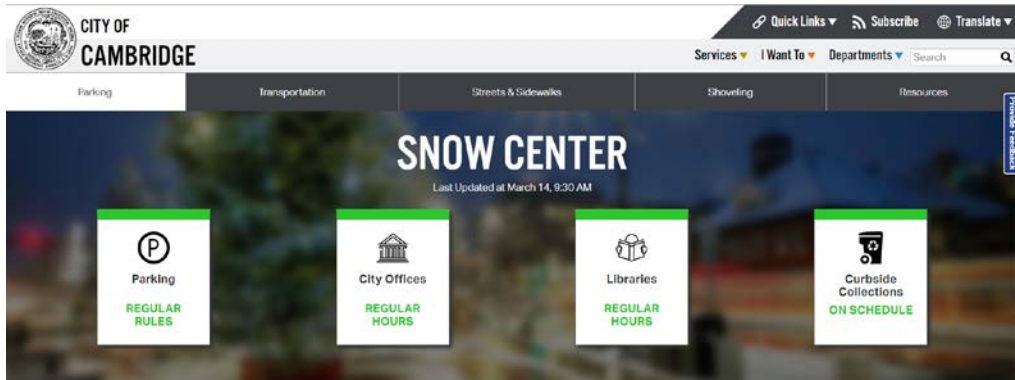
- A (Light Green)
- B (Light Blue)
- C (Light Yellow)
- D (Light Purple)
- E (Light Orange)
- F (Light Pink)

Special Features:

- BIKE LANE (Red line)
- SMALL TRUCKS ONLY (Yellow line)
- KEEP OUT (Red X)



Aborn Ave	C03	Adams St	C07	Adams St	D01	Adams St	D02	Adams St	D03	Adams St	D04	Adams St	D05	Adams St	D06	Adams St	D07	Adams St	D08	Adams St	D09	Adams St	D10	Adams St	D11	Adams St	D12	Adams St	D13	Adams St	D14	Adams St	D15	Adams St	D16	Adams St	D17	Adams St	D18	Adams St	D19	Adams St	D20	Adams St	D21	Adams St	D22	Adams St	D23	Adams St	D24	Adams St	D25	Adams St	D26	Adams St	D27	Adams St	D28	Adams St	D29	Adams St	D30	Adams St	D31	Adams St	D32	Adams St	D33	Adams St	D34	Adams St	D35	Adams St	D36	Adams St	D37	Adams St	D38	Adams St	D39	Adams St	D40	Adams St	D41	Adams St	D42	Adams St	D43	Adams St	D44	Adams St	D45	Adams St	D46	Adams St	D47	Adams St	D48	Adams St	D49	Adams St	D50	Adams St	D51	Adams St	D52	Adams St	D53	Adams St	D54	Adams St	D55	Adams St	D56	Adams St	D57	Adams St	D58	Adams St	D59	Adams St	D60	Adams St	D61	Adams St	D62	Adams St	D63	Adams St	D64	Adams St	D65	Adams St	D66	Adams St	D67	Adams St	D68	Adams St	D69	Adams St	D70	Adams St	D71	Adams St	D72	Adams St	D73	Adams St	D74	Adams St	D75	Adams St	D76	Adams St	D77	Adams St	D78	Adams St	D79	Adams St	D80	Adams St	D81	Adams St	D82	Adams St	D83	Adams St	D84	Adams St	D85	Adams St	D86	Adams St	D87	Adams St	D88	Adams St	D89	Adams St	D90	Adams St	D91	Adams St	D92	Adams St	D93	Adams St	D94	Adams St	D95	Adams St	D96	Adams St	D97	Adams St	D98	Adams St	D99	Adams St	D100	Adams St
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Questions?