Update on Gold Star Mothers Park

Community Meeting

October 16, 2025

City of Cambridge

AGENDA

- INTRODUCTIONS
- PARK OVERVIEW
- ENVIRONMENTAL TESTING
  - Environmental Testing Timeline
  - Environmental Testing Details
  - Exposure Pathways
  - Sampling Results
- PARK HISTORICAL SUMMARY
- REMEDIATION STRATEGIES AND TIMELINE
- AVAILABLE SUPPORT
- DISCUSSION

INTRODUCTIONS

CITY OF CAMBRIDGE

John Nardone	Commissioner, Public Works
Kristen Kelleher	Community Relations Manager
Sam Lipson	Senior Director of Environmental Health
Kevin Beuttell	Supervising Landscape Architect, Public Works

WESTON & SAMPSON

Ryan Niles, LSP	Team Leader Environmental
Lee Koska, PE	Senior Project Manager Environmental
Marie Rudiman	Risk Assessor / Toxicologist
Cheri Ruane, FASLA	Chief Development Officer

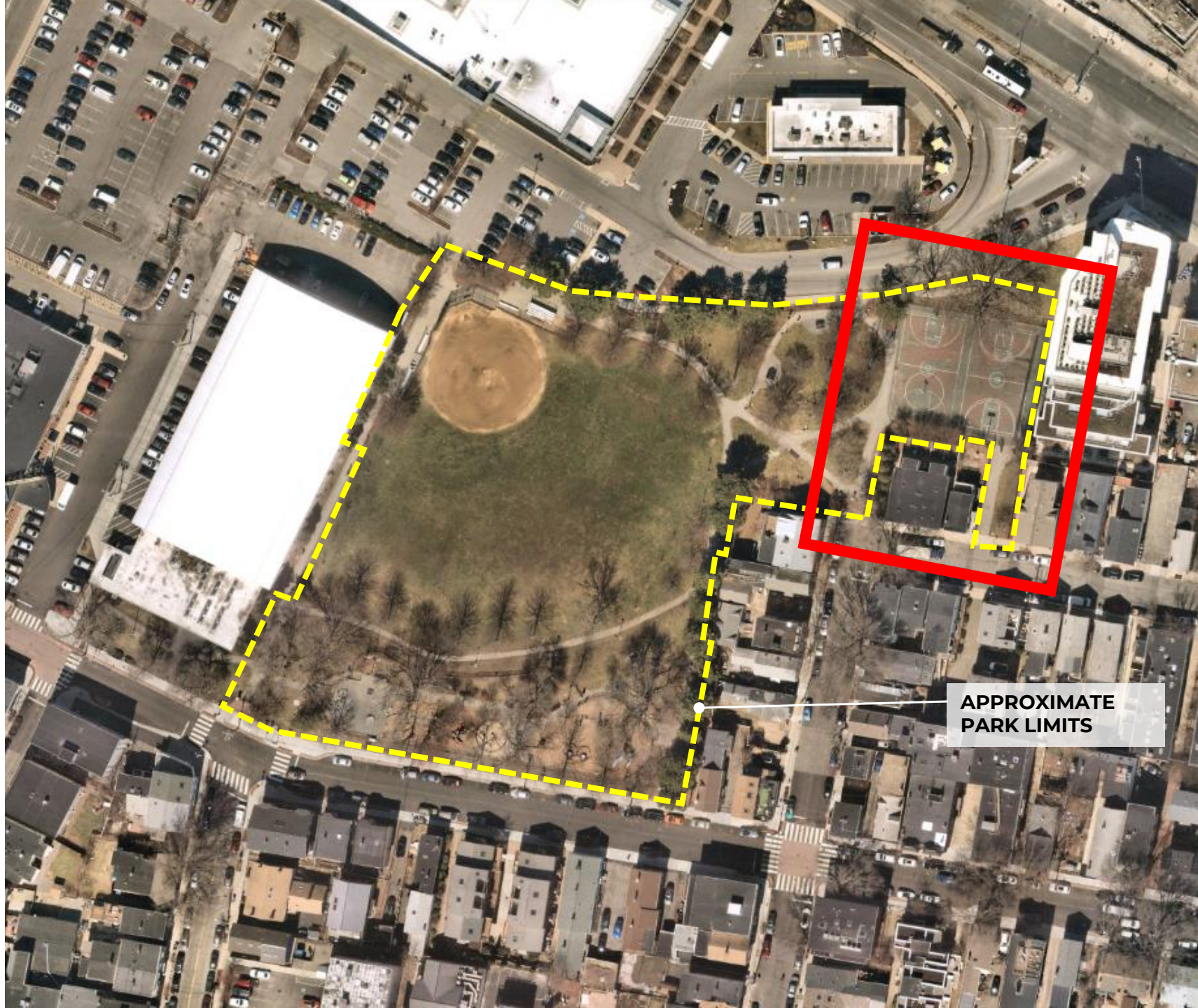
Park Overview

Gold Star Mothers Park

- Athletic/passive use field
- Playground
- Morning shared use off leash dog hours
- Seating (standalone benches and tables)
- Basketball court (also used as flexible paved area)

Environmental Testing Timeline

- Construction of the basketball court project kicks off December 2024
- Courts demolished in February 2025
- Routine environmental testing in March 2025 for soil disposal
- W&S began gridded testing in May 2025
- Park shut down in September 2025
- Remainder of park grid testing in September 2025



Environmental Testing Details

Sampling Activity Summary

- Following receipt of initial data from Basketball Court Renovation, extensive investigation activities performed:
    - 30’ x 30’ grid over entire Site (Basketball Court and overall Park)
    - Soil borings / test pits to determine physical condition of soil
    - Laboratory analysis for Contaminants of Concern (COCs)
        - Metals (including lead, arsenic, chromium, etc.)
        - Polycyclic Aromatic Hydrocarbons (PAHs - associated with ash)
        - Polychlorinated Biphenyls (PCBs)
    - Park fenced and closed as a conservative, protective measure pending receipt of data

Testing Results to Date

- Approximately 340 samples analyzed
- Focused on surficial soil to evaluate risk to park users, with additional deeper samples
- COCs identified in excess of regulatory standards:
    - Metals: Antimony, arsenic, barium, cadmium, chromium, lead, zinc
    - Polychlorinated Biphenyls
    - Various PAHs
- Site Reported to MassDEP – tracked under:
    - RTN 3-52413 (Overall Park)
    - RTN 3-52198 (Basketball Court)
- Elevated concentrations over portions of Park require fencing / restricted access until remediation occurs

Exposure Pathway Overview

Risk Characterization

- Process to evaluate short-term and long-term risk based on scientific evidence and conservative assumptions
- Primary driver of exposure is through ingestion.
- Skin contact was also evaluated.
- Although elevated concentrations present in top foot of soil – there is existing grass, imported topsoil, sand, asphalt, etc. restricting immediate access
- Intended to represent worst-case scenario as a protective measure – may not indicate accurate levels of exposure for a typical child

Exposure Pathway Assumptions - Soil

Short-Term Noncancer Risk:

- Assumes for a 1 – 2 year old child:
  - Contact with soil 3 days per week, 30 weeks per year
  - 100 milligrams of soil ingested on each day
  - Contact of face, forearms, hands, lower legs, feet each day
  - Assumes body parts are covered with wet soil (muddy)

Long-Term Noncancer Risk:

- Same as above, but for 7-year cumulative period

Lifetime Cancer Risk:

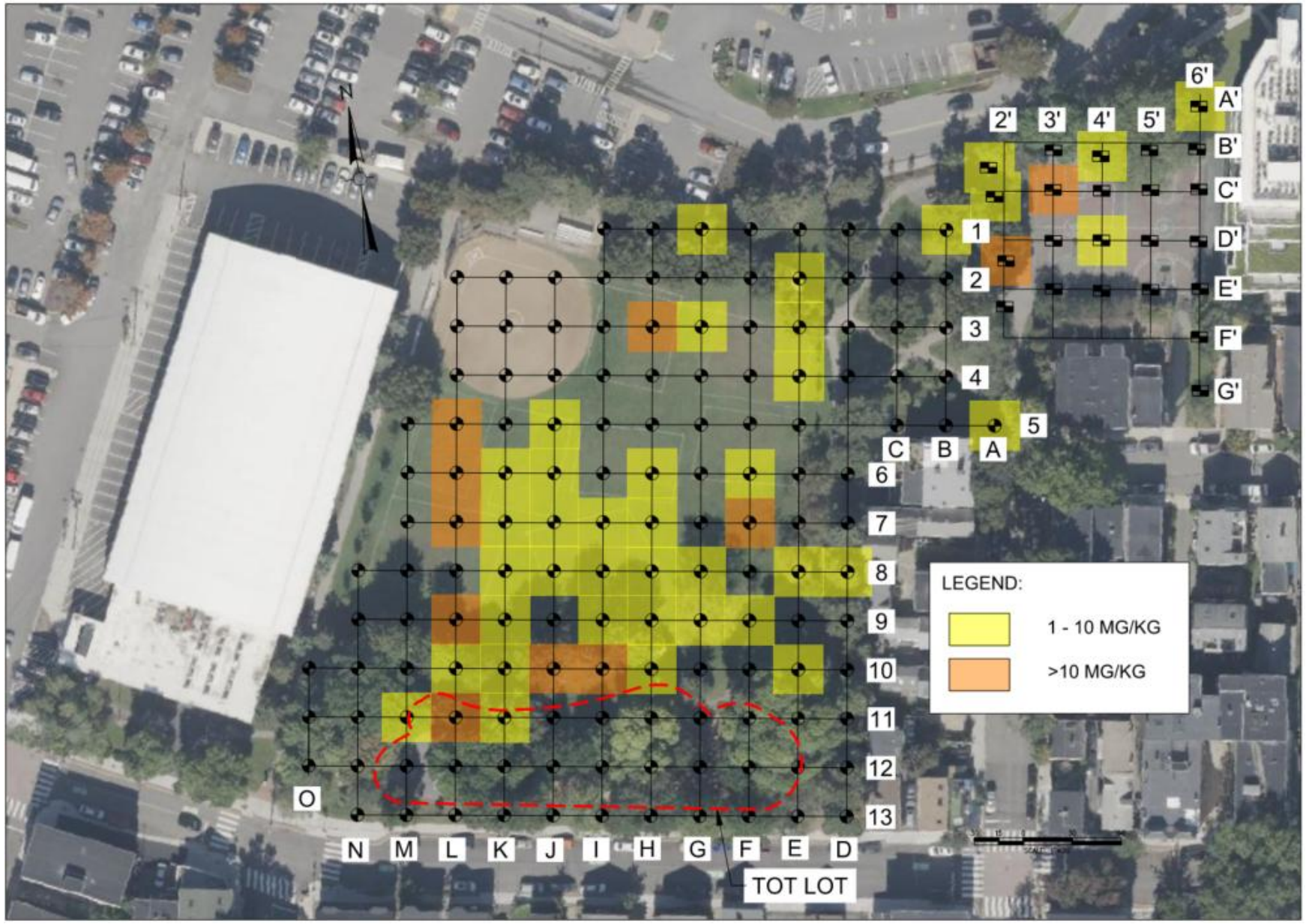
- Cumulative 30 year period
  - Same assumptions as above for first 7 years.
  - Assumes 50 milligrams of soil ingested each day from age 8 to age 31, same level of contact with muddy soil.

Exposure Pathway - Groundwater

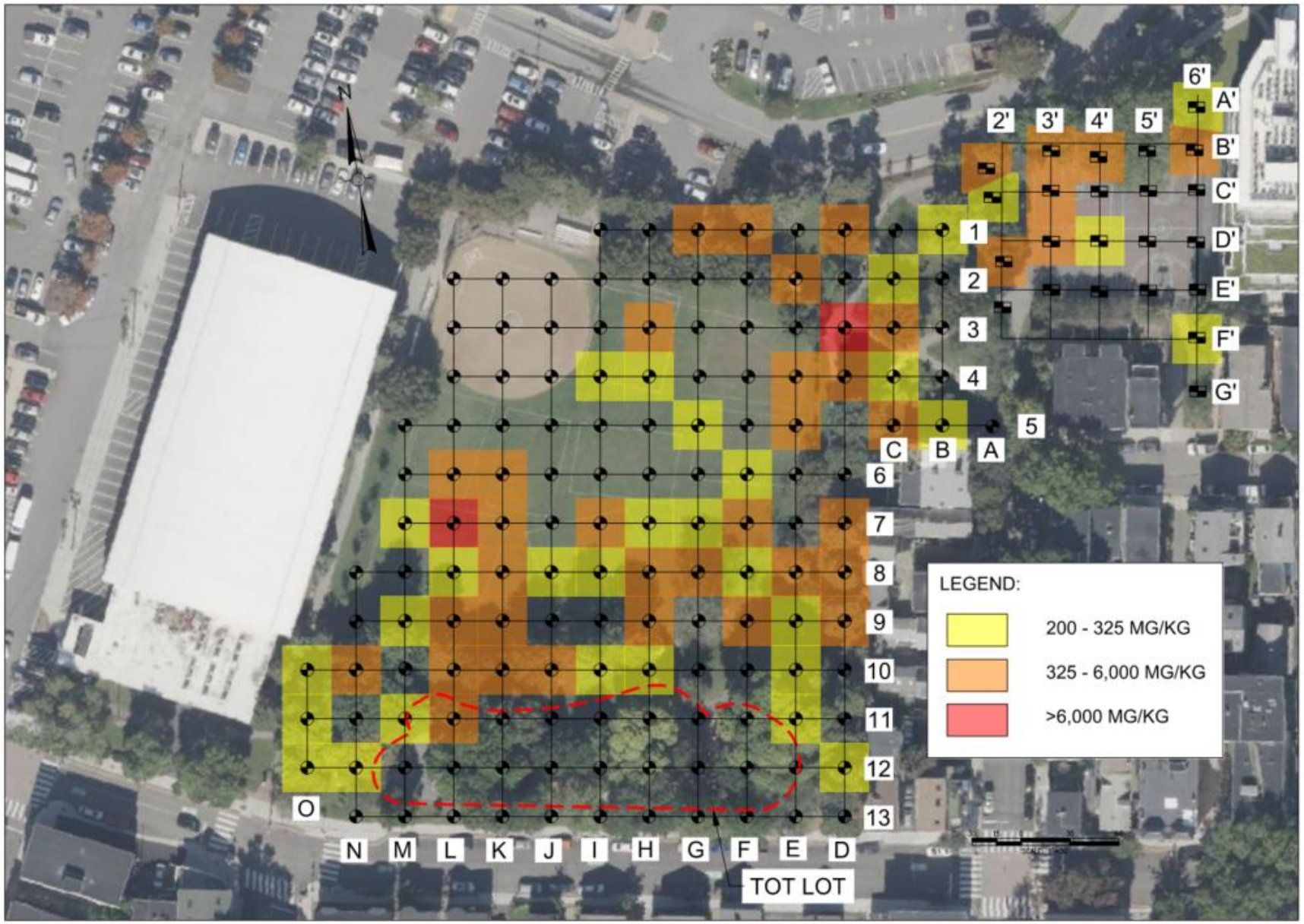
- Five groundwater monitoring wells were installed during the investigation program
- These wells will be sampled as part of next steps for contaminants of concern
  - Sampling to occur in coming weeks
- Groundwater not used for drinking water
- Contaminants of concern not volatile (i.e. not likely to “off-gas”)
- Not considered the primary exposure pathway at the Site

Sampling Program Overview

Sampling Results – Surficial PCBs (0 – 1 feet)



Sampling Results – Surficial Lead (0 – 1 feet)



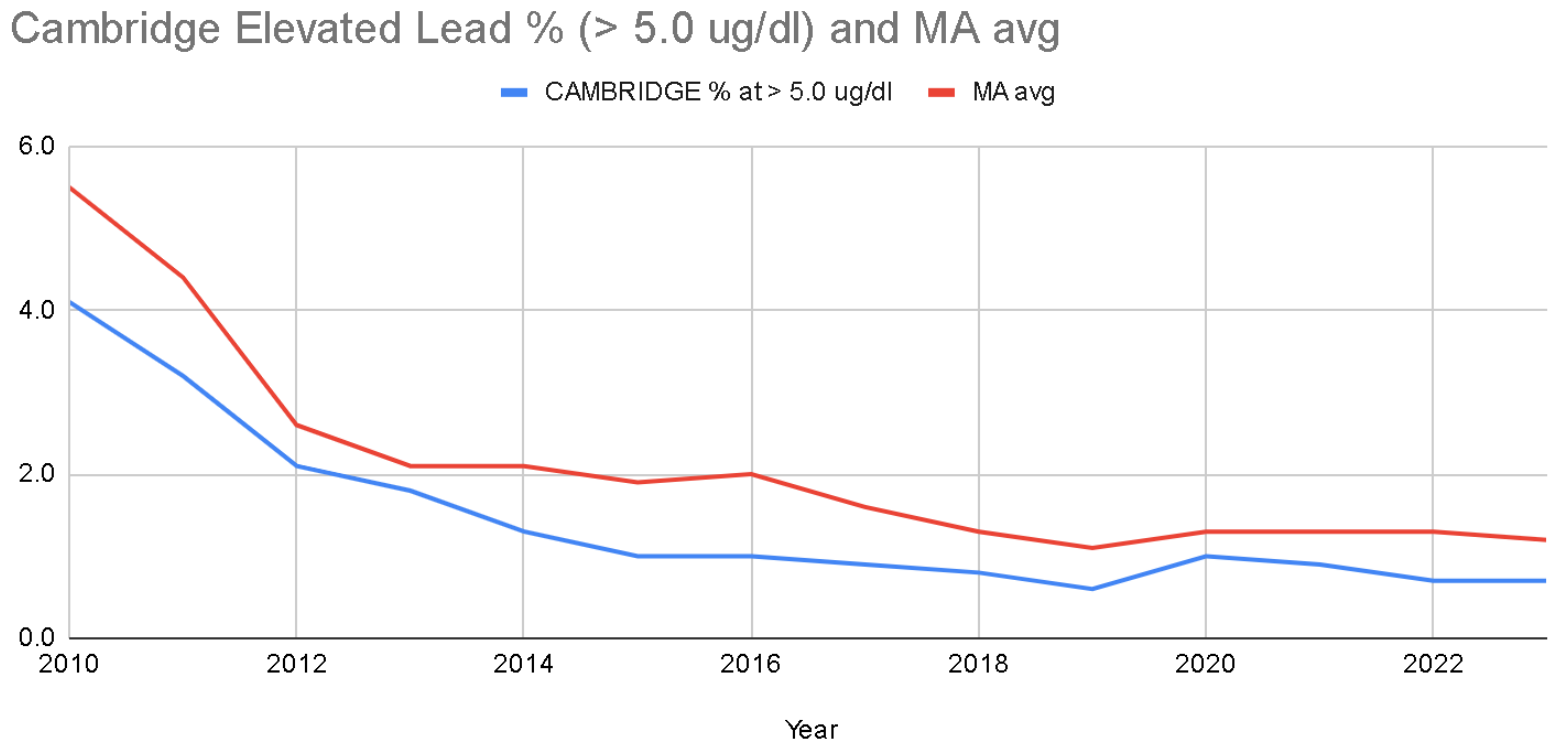
Tracking Lead Exposure in Kids in MA

- Law requires all children to be screened for lead poisoning multiple times through 3 years of age (9-12 months, 2 yrs, 3 yrs)
- In High Risk Communities, law requires another test at 4 yrs.
- Cambridge is consistently below MA average (not High Risk)
- Elevated Lead level is 10 ug/dL (micrograms/deciliter) or greater in blood
- Level of Concern is 5-9 ug/dL
- CDC “Reference Level” is 3.5 ug/dL (higher than average level)
- 3.5+ ug/dL prompts more frequent testing schedule
- The most recent average Blood Lead Level (BLL) for Cambridge kids is appx 0.7 ug/dL

Tracking Lead Exposure in Kids in MA

Cambridge consistently has lower than average (MA) rate of elevated childhood blood lead

- Among major MA cities Cambridge consistently has among the lowest incidence of elevated lead in young kids (0.7%)
- Among highest screening rates of Non-High Risk MA cities (71%)



Common Lead Exposure Sources (not Paint)

Handmade pots, dishes, crafts and sports:
Glazed pottery, beanpots • Samovars • Fishing sinkers • Bullets • Stained-glass

Workplaces:
Construction work • Auto repair • Plumbing • Batteries • Welding/Soldering

Products from other countries:
Candy, candy/wrappers from Mexico • Make-up • Toy jewelry • Imported cans of food • Home remedies, especially red, yellow, orange or white powders used for stomach aches (such as Azarcon or Payloooah)

Lead is in soil and water:
Dirt • Plumbing pipes (solder)

Site History Timeline

1870s
Miller's River is filled, creating property

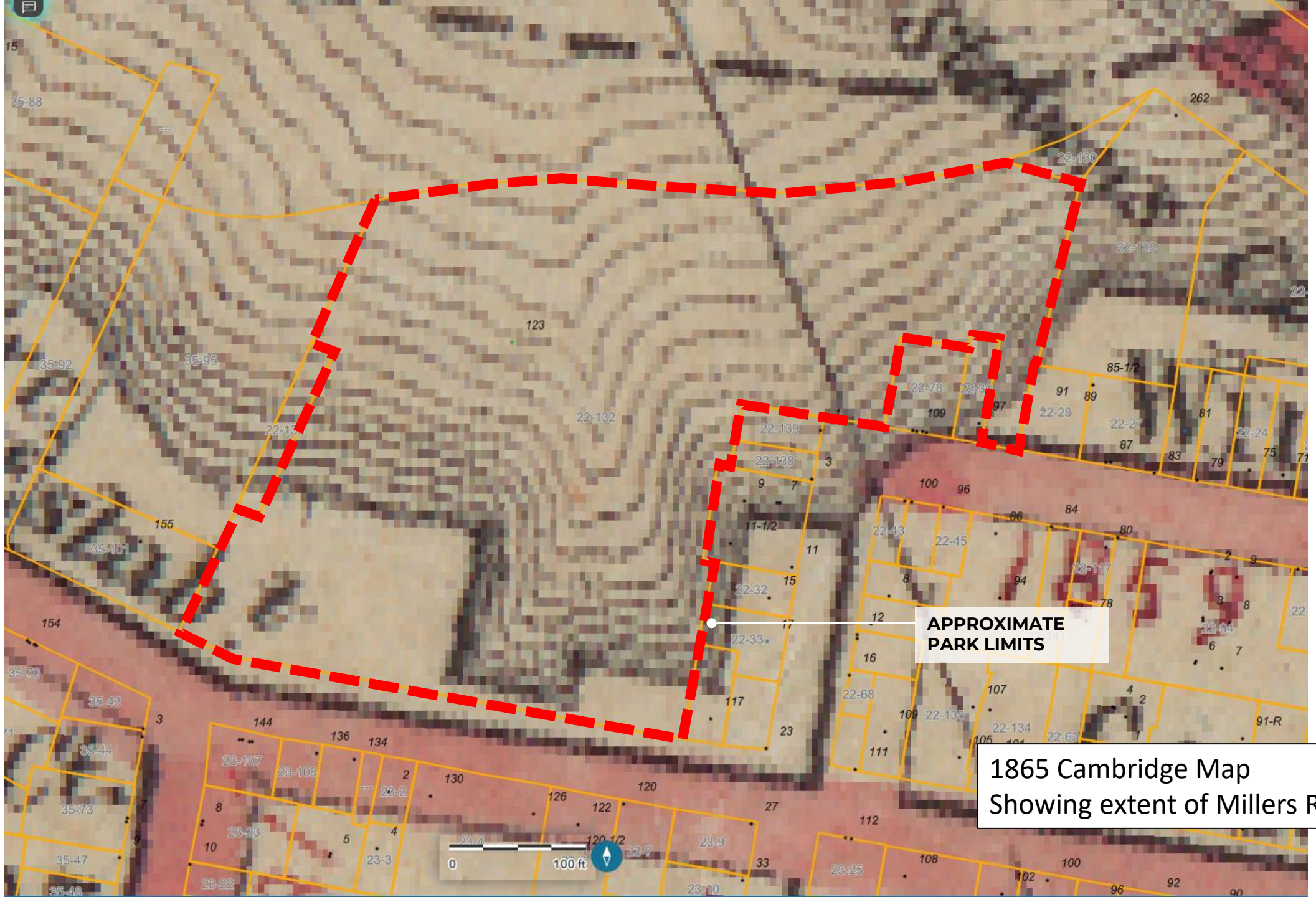
1880s
Residential neighborhoods and ***John P. Squire Meat Processing Plant*** *developed*

1900s
Various supporting businesses for Squire Meat Plant occupy Site (meat extract, barrel manufacturing, storage)

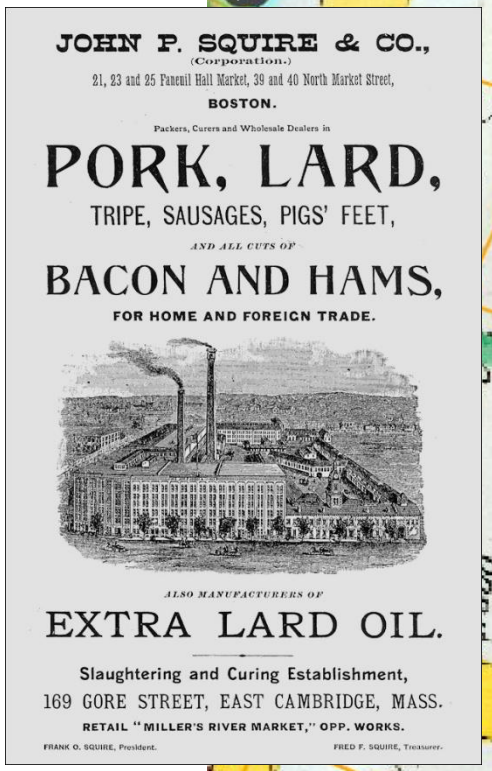
April 14, 1963
John P. Squire Meat Plant and various surrounding businesses burn in ***"Great Cambridge Fire of 1963"***

1968
Gold Star Mothers Park established

1980s & 2000s
Park renovated to current layout, then current improvements (playground) installed



1865 Cambridge Map
Showing extent of Millers River



APPROXIMATE PARK LIMITS

1916 Bromley Map
showing historic building locations

1947 Aerial Photo
showing Squire site conditions

1963 Fire


BAKING CORP
GARAGE
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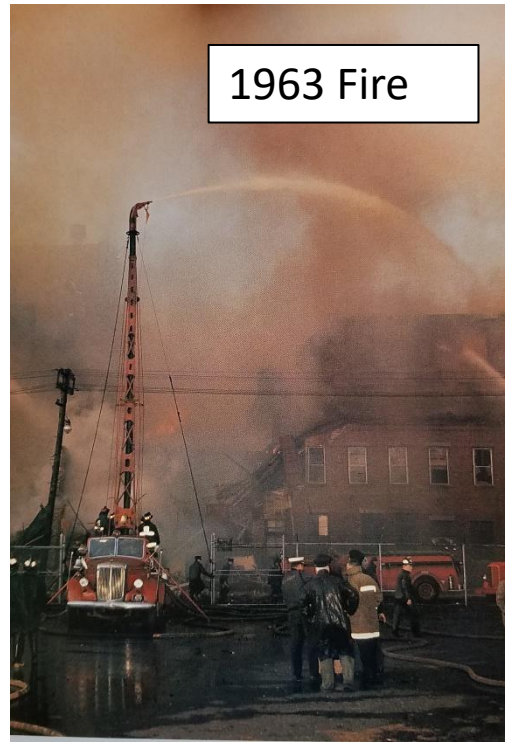
1963 Fire


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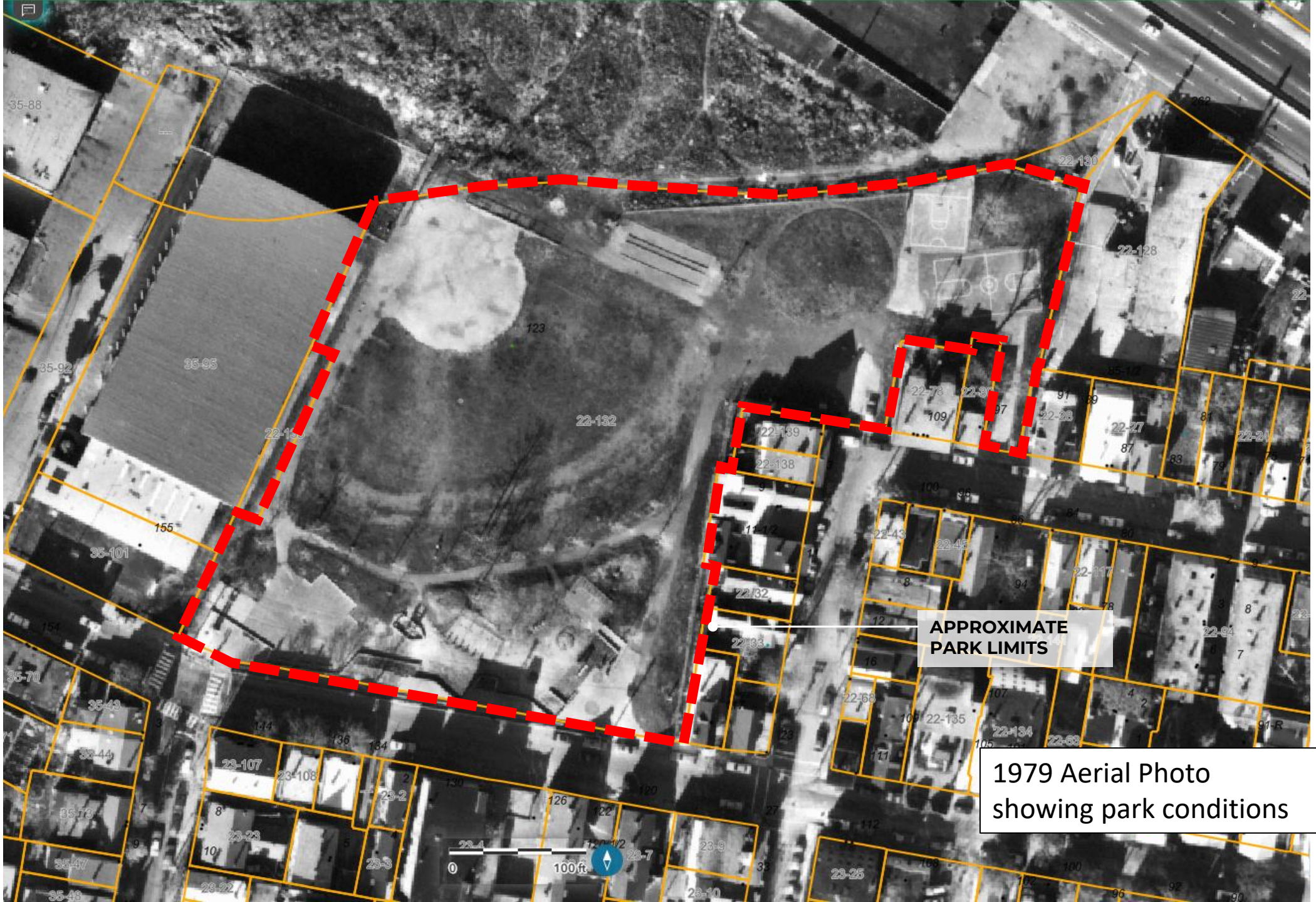
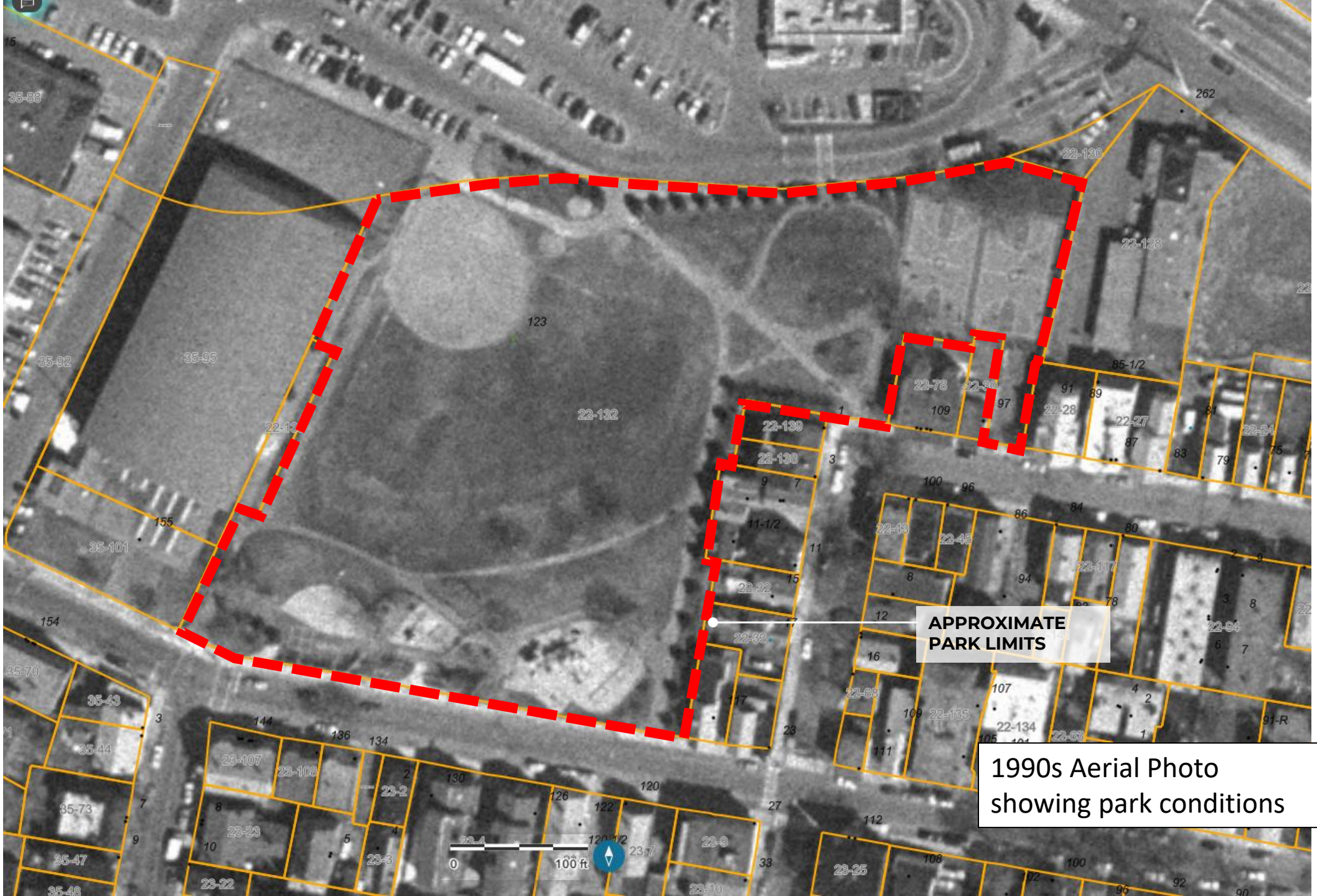
1969 Aerial Photo
showing site conditions after fire



1979 Aerial Photo
showing park conditions



1990s Aerial Photo
showing park conditions

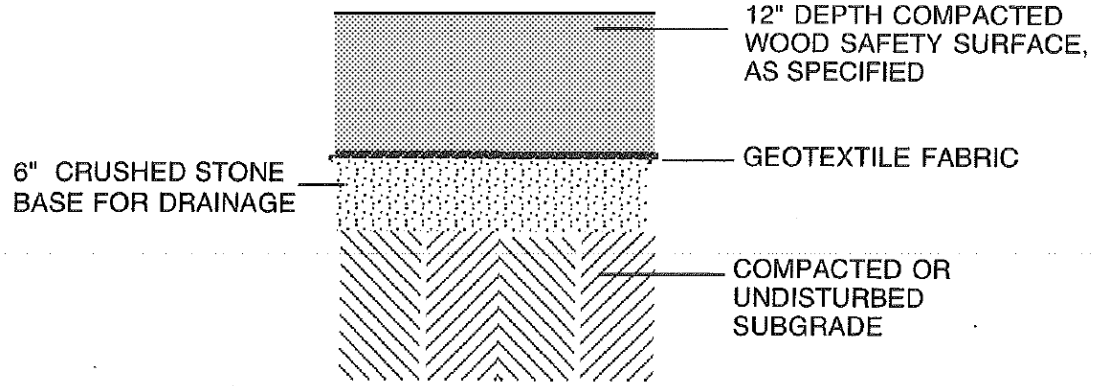
Current Park Conditions

- 1980s and 2000s park improvements included:
  - Construction & resurfacing of ball fields
  - Construction of tot-lot, pathways

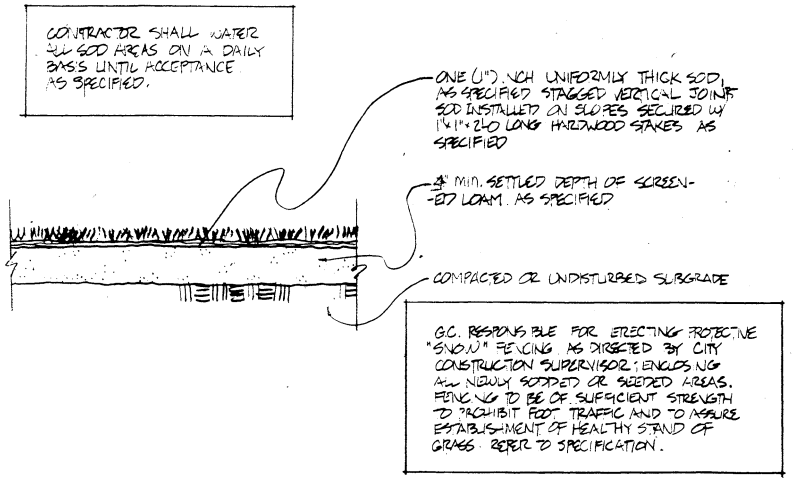
- Imported soil placed above the historic fill materials

- Mulch / rubber play surfaces, or sand with fabric placed in tot-lot

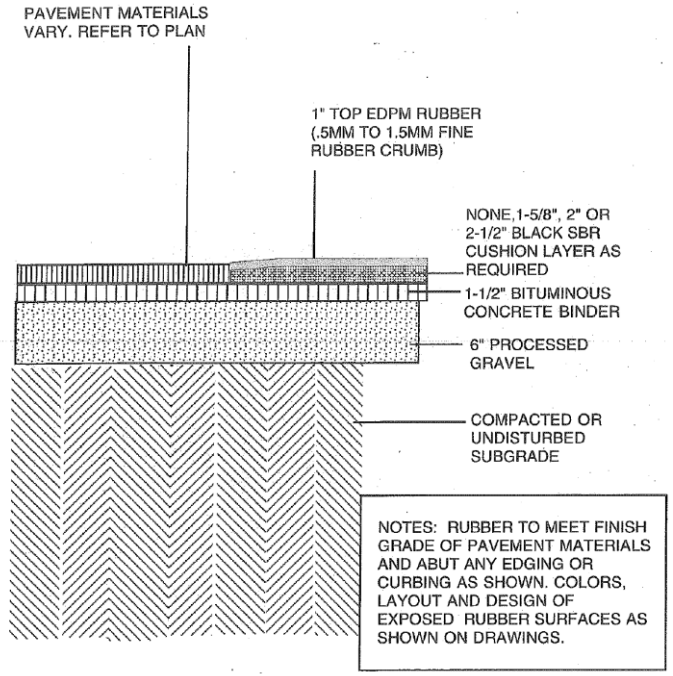
- Presence of grass, soil materials, or other surfacing provides some restriction to underlying impacted fill materials



Current Mulch Surfacing in Tot Lot



Current Sod Detail in Fields



Current Poured-in-Place Rubber Surfacing in Tot Lot

Typical Remediation Strategies

Engineering Approach

- Goal is to prevent exposure to contaminated soil
- Excavate and dispose of surficial soil (two feet)
- Place geotextile barrier to prevent access to deeper soil, cover with clean fill
- Utilize flexible pavement around trees
- Overall approach routinely utilized at park sites across the state
- Assumes no significant groundwater impacts identified

Example Geotextile Barrier

Example Flexipave Tree Protection

Anticipated Project Timeline

Community Engagement will be ongoing throughout this process

Thank you!

Questions?
Comments?

For more information:

Kristen Kelleher, Community Relations Manager

kkelleher@cambridgema.gov

617-349-4825

Discussion Guide Rules

Limited Time - We want to hear from as many of you as possible during our Q&A.

How to Ask a Question

- You'll find **notecards** on your seat and at the back of the room.
- Write down your question and **pass it to the end of your row**.
- Staff will **collect, group, and read similar questions together** to make the most of our time.

Live Questions

- If you'd like to speak, **raise your hand** and our moderator will bring you the microphone.
- **One speaker at a time.**
- Please **keep questions or comments under 2 minutes** so all voices can be heard.

Evolving Process

- Some questions may not have answers yet as testing and planning are still ongoing. We still want to hear from you!
- Any unanswered questions will go into our **"Parking Lot"** so we can **follow up later** or at our next meeting.

NEXT STEPS

- Groundwater Sampling
  - Results will be posted to project website
- Additional meetings anticipated
- Sign up for the distribution list
- For additional questions, reach out to:
  - Kristen Kelleher for park construction (kkelleher@cambridgema.gov)
  - Dawn Baxter, Cambridge Public Health (dbaxter@cambridgepublichealth.org)