Cambridge Planning Board Hearing
Feb. 9, 2021

Cambridge Mothers Out Front
PETITION for GREEN ROOFS in Cambridge
Urgent Need to ACT

Mothers Out Front

Powered by Moms to protect all children from the climate crisis that impacts their health and a livable climate for them tomorrow.
In one week – during the pandemic – more than **450 Cambridge residents** signed their names on the paper Mother Out Front’s Green Roofs petition.
BioSolar Roofs
Panels + Plants

- Renewable energy
- Efficiency of panels increases up to 16%
- Plants reduce overheating of panels leading to greater productivity
- Shading protects vegetation
Vegetative Roofs
Meadows + Gardens + Farms

• Absorb carbon dioxide
• Clean pollutants from the air
• Cool urban heat islands
• Reduce flooding by holding rainwater
• Provide habitats for pollinators
Why?

Because we’ve waited too long.

Already.
LOST OPPORTUNITY

2012 - Cambridge launches Green Roof Ordinance

No Mandate = 0 Green Roofs Created

1,799,033.88 square feet of roof space NOW could have been GREEN ROOF space on total of 68 buildings.
Estimated 550,000 square feet of GREEN ROOF space in East Cambridge

Estimated 200,000 square feet of GREEN ROOF in The Port.

Estimated 550,000 square feet of GREEN ROOF space in North Cambridge
Where Cambridge residents are most at risk due to climate change.
A 10-year return frequency storm in 2070 will overwhelm existing drainage infrastructure.

2030: Extreme heat in the heart of Cambridge.
1-in-8 MA residents face food insecurity, 1-in-5 children, with a 59 percent increase in food insecurity since March (Nov. 2020)
Cost-Benefits Analysis of Green Roofs

GSA study

Over a 50-year period:
- The installation, replacement and maintenance of a green roof has the greatest negative impact on net present value at a cost of approximately $18 per square foot of roof.
- Stormwater and energy savings make up for this cost by providing a benefit of approximately $19 per square foot of roof.
- Benefits to the community have the greatest positive impact on net present value at a savings of almost $38 per square foot of roof.

Community Benefits: Biodiversity, Air Quality, Heat Island, etc.
WHAT we want in Cambridge

GREEN ROOFS like these cities have

Chicago  New York
Washington, D.C.  Denver
Seattle  Portland, Oregon
+ Many other U.S. Cities
+ Many international cities
WHAT can our GREEN ROOFS VISION look like in Cambridge?
We don’t need to travel far to find out.
BioSolar: Plants and Panels
HOW TO MAKE A GREEN ROOF

Watch the making of this green roof at MIT ...
HOW do we make more GREEN ROOFS happen in Cambridge?

• Cambridge City Council passes revised Green Roof ordinance

• Planning Board sends positive recommendation for Green Roof revised ordinance to the City Council
How?
By listening to residents of Cambridge.

Each time they vote on how to spend Cambridge’s money, GREEN wins!

2019: Close the Canopy (100 trees)
2018: Trees, Please (100 trees); Rain Gardens for Resiliency
2017: 100 Trees for a Cleaner, Greener Cambridge; Jade Chain: Living Moss Walls to Combat Pollution
2016: Solar Power Shines (solar panels on main library roof)
2014: 100 Healthy Trees for a Healthy Cambridge
Pete Ellis, Recover Green Roofs

Elizabeth Hart Morris, President of GRiT (Green Roof info Think Tank), professional roofer