

## Municipal Vulnerability Preparedness Program Action Grant Case Study

**Municipality:** Melrose, Malden, and Medford

**Project Title:** Melrose, Malden, and Medford Building Resilience, Efficiency, and Affordability Project

**Award Year (FY):** FY22/FY23

**Grant Award:** \$101,108

**Match:** \$37,344.00

**Match Source:** Municipal and MAPC staff time (in-kind)

**One or Two Year Project:** Two-year project

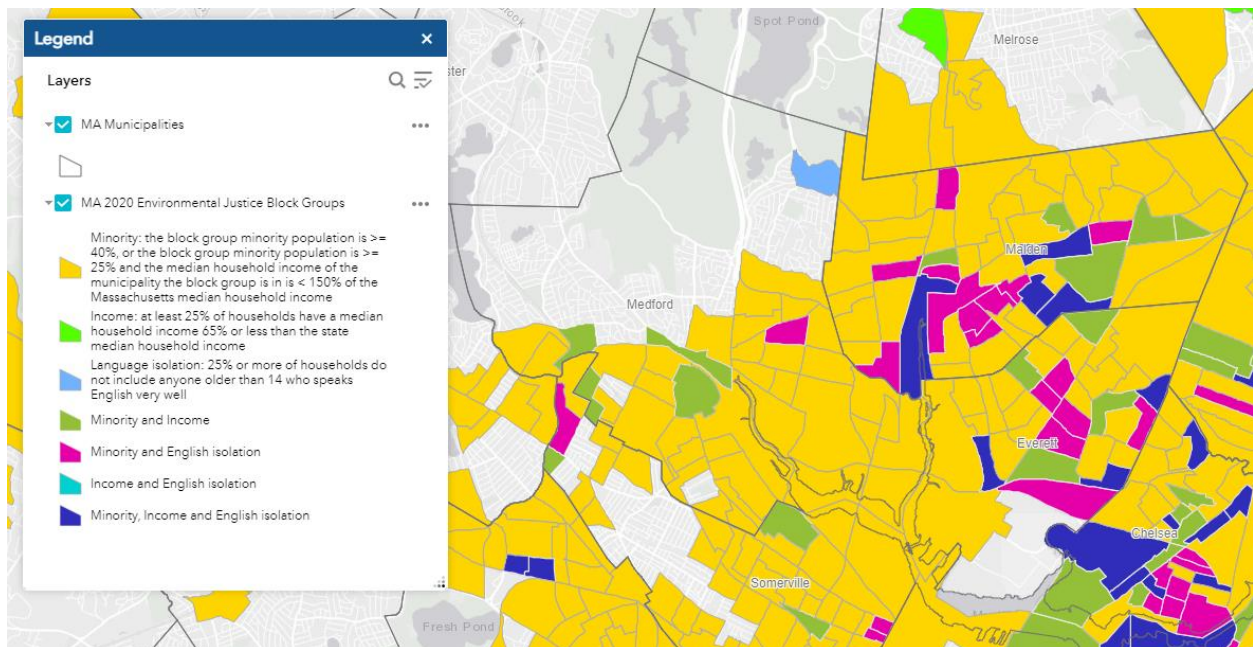
**Municipal Department Leading Project:** Melrose Office of Planning and Development

**Project Website URL:** <https://www.mapc.org/net-zero/playbook/>

### Community Overview:

- What is the population size of your community and where is it located?
  - Melrose: 29,155
  - Malden: 64,712
  - Medford: 65,399
  - Total: 159,266
- Do you have any [Environmental Justice](#) or other Climate Vulnerable communities? (Think about both those who live and work in your town.)

There are numerous environmental justice communities in Melrose, Malden, Medford as demonstrated in the map below excerpted from the [Massachusetts Environmental Justice Populations Map](#).



- Other unique traits of your municipality like who the top employers are, geography, history, etc.

The neighboring communities of Melrose, Malden, and Medford identified the importance of advancing energy efficient, affordable, and resilient buildings in their MVP planning grant reports. Located just a few miles north of Boston and considered part of the urban core of Metro region, these municipalities face common climate impacts around increased extreme heat, urban flooding, and riverine flooding. They also face common challenges around housing production and affordability, as well as experiencing increasing transit-oriented development. Participants in the MVP workshops hosted in these adjacent cities highlighted the urgency of adapting to and mitigating climate change by evolving the makeup of their building stocks to include more low-carbon buildings that can withstand extreme weather and reduce the impact of climate-related disruptions on residents.

### **Project Description and Goals:**

- Where was the project located?

The project was conducted with the neighboring communities of Melrose, Malden, and Medford.

- What climate change impacts did the project address?

The project supported increased resilience to extreme heat, flooding, and other climate-change-driven extreme weather events by driving the development of energy efficiency and climate-resilient multifamily residential and mixed-use buildings.

- What were the specific goals and tasks of the project as stated in your application?

The **Melrose, Malden, and Medford Building Resilience, Efficiency, and Affordability Project** sought to develop complimentary sustainable and resilient building design guidelines for residential and mixed-use developments and retrofits that were co-created in consultation with community members, particularly those from environmental justice communities and other populations with high exposure to climate-driven extreme weather.

The project had four primary goals:

1. Create a regional vision for resilient, sustainable, affordable, and efficient housing with a diverse set of stakeholders;
2. Develop a framework for housing typologies of existing and new residential buildings commonly found across the 3 communities;
3. Draft Sustainable and Resilient Residential Building Design Guidelines that can be implemented across the 3 communities;

4. Develop resources to help other communities throughout the region develop similar guidelines and share best practices.
- Did your project meet the goals set forth in your application in terms of:
    - Employing nature-based solutions
      - Yes, the guidelines developed through the project include a section about resilience measures for building including nature-based solutions such as urban forest and trees, rain gardens, and bioswales.
    - Improving equitable outcomes for and fostering strong partnerships with EJ and other Climate Vulnerable Populations
      - Partially. The project did succeed in engaging community members and building some partnerships with EJ and other vulnerable populations, but we did struggle to find ways to engage community members in a meaningful way given the technical nature of the content (e.g., climate resilience and housing).
    - Providing regional benefits
      - Yes, this project was fundamentally a regional one, producing resources for the three neighboring communities participating as well as useful resources that other communities in Greater Boston and beyond can use such as the template guidelines incorporated into MAPC's Net Zero Playbook.
    - Implementing the public involvement and community engagement plan set forth in your application
      - Yes, the project involved numerous stakeholder interviews, two public input workshops, and a focus group to gather input and encourage community engagement as we developed the guidelines.
    - Finishing the project on time
      - No, the project team requested an extension to the end of FY23 due to various delays related to staffing issues, the pandemic, and other factors.

#### **Results and Deliverables:**

- Describe, and quantify (where possible) project results (e.g., square footage of habitat restored or created, increase in tree canopy coverage, etc.). Report out on the metrics outlined in your application.
  - The main result of the project is that **each community developed a set of actionable guidelines for each that will promote the development of housing and mixed-use buildings that are more efficient and more climate-resilient while still prioritizing affordability**. These guidelines were developed through an

inclusive and collaborative process that included numerous community engagement activities including 1-on-1 interviews, focus groups, public workshops.

- The project also included engagement with community members, stakeholders, community-based organizations, and municipal leaders including:
  - Interviews with **four community-based organizations**
  - Interviews with **seven municipal/local stakeholders**
  - Interviews with **five housing developers**
  - **Two focus groups** with diverse groups of community members
  - **Two public workshops** with a total of 67 attendees
- The project also produced a template/case study that communities around the region can use to create their own sustainable design guidelines for local use.
- Provide a brief summary of project deliverables with web links, if available.
  - Task 0 Deliverables – Kick-Off Meeting Participant List and Notes
  - Task 1 Deliverables – Research Summary and Policy Matrix: A summary slide deck reviewing local policies, plans, and goals, relevant research, and demographics along with a matrix evaluating different building certification programs
  - Task 2 Deliverables – Housing Typology Index – A summary of local housing data and development trends in each participating community
  - Task 3 Deliverables – Two public workshops (slides and notes), two focus groups (slides and notes), nine interviews (notes), and stakeholder engagement summary outlining stakeholder engagement activities and takeaways
  - Task 4 Deliverables – Draft guidelines for Melrose, Medford, and Malden
  - Task 5 Deliverables – Final guidelines for Melrose, Medford, and Malden
  - Task 6 Deliverables – [Web content for the MAPC website](#), a [webinar presenting the guidelines and featuring lessons learned](#), a [case study/template for MAPC's Net Zero playbook](#), and a press release announcing the publication of the guidelines
  - Task 7 Deliverables – Monthly progress reports and this case study!

### **Lessons Learned:**

- What lessons were learned as a result of the project? Focus on both the technical matter of the project and process-oriented lessons learned.

**Tackling housing and climate issues together is important (and hard).** Melrose, Malden, and Medford are each working to address local and regional housing shortages, reduce greenhouse gas emissions, and prepare for the impacts of climate change. This project worked to align local housing and climate efforts to ensure that each community can build badly needed new residential and mixed-use buildings that align with carbon reduction goals and improve climate

resilience. While the project succeeded in creating guidelines that will help drive sustainable development, our team found it somewhat difficult to engage with stakeholders in discussions about both housing and climate: issues that, to date, have largely been seen as distinct challenges. MAPC is working to connect the dots on housing and climate, but there is still plenty of work to be done at the local and regional level to align policies and planning efforts.

**Engaging community members equitably in technical topics takes time, patience, and a willingness to be flexible.** The project team originally set out to prioritize equitable community engagement as a core component of the project. We planned to set up an advisory group of community members from environmental justice neighborhoods and communities of color and we included funding for stipends to compensate advisors for their time and expertise. We hoped to build on similar successful efforts that Malden and Medford had led to inform other local projects, but we struggled to find people who were willing to serve. Perhaps this was because of the highly technical, cross-sectoral nature of the project (i.e., some felt comfortable discussing housing issues or climate issues but not both). Perhaps it was due to “planning fatigue” or burnout from the COVID-19 pandemic (our project launched in late 2021 and was just getting started when the Omicron wave hit). Perhaps it was because we struggled to meet community members where they were. Whatever the reasons, we still managed to have meaningful (if imperfect) community conversations and to collect useful input from stakeholders that strengthened the outputs of the project, especially the final versions of the guidelines produced for each community. Ultimately, we pivoted to focus on stakeholder interviews and focus groups to ensure that we were still involving the community in the creation of the guidelines without requiring a long-term commitment.

- What is the best way for other communities to learn from your project/process?

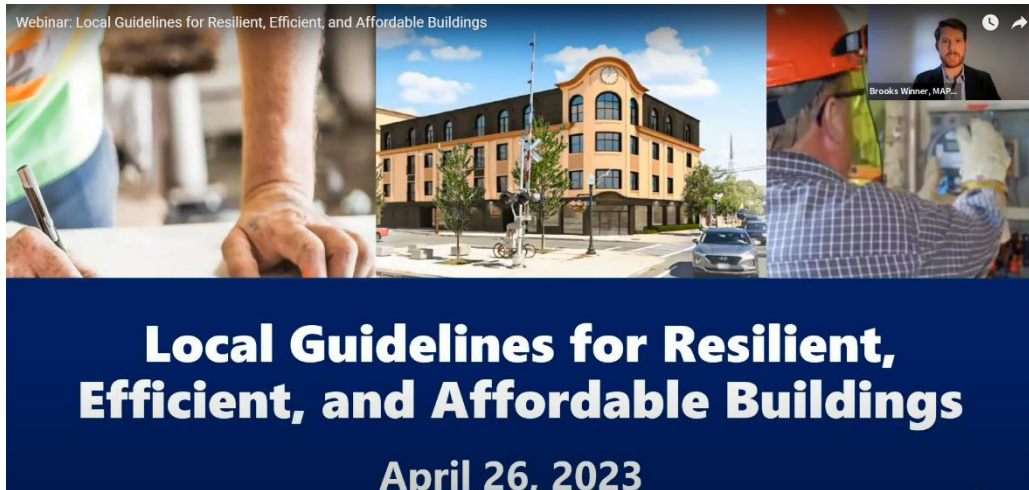
The webinar that we hosted in April 2023 provides a good summary of the project, the process, and the lessons learned. View the recording at <https://youtu.be/yiu3MvQE7XE>.

#### **Partners and Other Support:**

- Include a list of all project partners and describe their role in supporting/assisting in the project.
  - Metropolitan Area Planning Council – Project lead, facilitator, convener, and lead drafter of project deliverables.
  - City of Melrose – Municipal lead, project management support, convening and stakeholder engagement, review and editing of guidelines, featured webinar panelist, project reporting and invoicing
  - City of Malden - Convening and stakeholder engagement, review and editing of guidelines, featured webinar panelist
  - City of Medford - Convening and stakeholder engagement, review and editing of guidelines, featured webinar panelist

## Project Photos:

- In your electronic submission of this report, please attach (as .jpg or .png) a few high-resolution (at least 300 pixels per inch) representative photos of the project. Photos should not show persons who can be easily identified, and avoid inclusion of any copyrighted, trademarked, or branded logos in the images. MVP may use these images on its website or other promotional purposes, so please also let us know if there is someone who should receive credit for taking the photo.



### **Sustainable. Resilient. Affordable.**

*Residential and Mixed-use Sustainable Building Design Guidelines*  
Published April 2023



#### **What are these guidelines?**

These design guidelines are intended for residential and mixed-use new development or retrofit projects. The guidelines serve as part of a toolkit for advancing the stock of energy-efficient, affordable, and resilient living spaces. Housing developers should use these guidelines, in tandem with local ordinances and state building codes, in coordination with local building and sustainability departments. These guidelines were developed by the [Metropolitan Area Planning Council \(MAPC\)](#) in collaboration with the cities of Melrose, Malden, and Medford with support from a Municipal Vulnerability Preparedness Action Grant from the Massachusetts Executive Office of Energy and Environmental Affairs.

#### **Why are they important?**

Greater Boston is experiencing a housing crisis. Simultaneously, our built environment is increasingly exposed to extreme heat, urban flooding, and extreme weather and must be built to withstand and recover quickly. It is critical that our housing contributes to the long-term health and wellbeing of our community.

These guidelines were developed with input from community members through a series of interviews, focus groups, and workshops. Residents told us that they value living spaces with outdoor access that are close to community resources like transit, groceries, and health centers. They also told us that there is an interest in seeing more green space in their communities. This includes more gardens as well as green roofs and decks. Green spaces not only beautify the community but can reduce the effects of pollution and urban heat islands.

They also told us that affordability is a key concern, as they have seen the price of housing increase rapidly in recent years, pricing out many friends, neighbors, and family members. Utility costs are a growing concern. They want to make sure affordable housing is climate resilient,