



**Comments submitted by Dennis Baker to Green Recovery Task Force  
American Council of Engineering Companies of Massachusetts  
10/14/20**

Vice Chair Dykema and members of the Task Force,: Thank you for giving me the opportunity to talk with you today on behalf of the American Council of Engineering Companies of Massachusetts (ACEC/MA) about the important work you're doing as the Green Recovery Task Force.

The American Council of Engineering Companies of Massachusetts (ACEC/MA) is the business association of engineering and land surveying firms in Massachusetts. Our firms design the public and private infrastructure that contributes to the economic vitality, safety, and quality of life here in the Commonwealth. We have 120 member firms employing over 7,000 people in the Commonwealth, including engineers of all disciplines, surveyors, planners and other design professionals focused on public and private infrastructure.

As you grapple with some of the complex challenges facing this commonwealth at this difficult time, I'd like to talk with you today about how we need to design and build resilient infrastructure as part of our Green Recovery.

As I'm sure you know, infrastructure investment can be a great mechanism for jump-starting the economy. And while tax revenues are down due to the pandemic, I'm optimistic that after the November election our federal government will focus on investments aimed at economic recovery. But it is a visionary partnership with state and municipal government as well as the private sector that will bring us to an effective recovery that will also prepare us for our future climate needs.

Each billion dollars of investment in infrastructure creates more than 22,000 jobs that can provide long-lasting careers for those who have been most impacted by our nation's concurrent crises. To maximize the benefits to families and communities, we support a system that incentivizes an equitable, locally driven, and federally supported investment. By empowering local governments, which are most attuned to local needs and priorities, and often bring local funding to the table, infrastructure investments can be developed alongside national policy objectives.

I'm sure it won't surprise you to hear that funding for community and infrastructure projects would be welcomed by municipalities as well as the engineering firms and community of design professionals we represent, not only because of the short-term economic stimulus, but also because of the long-term resiliency benefits to the Commonwealth and its citizens.

Incentives for the private sector to incorporate resilience measures that advance the long-term goals outlined in the 2050 Roadmap for decarbonization goals that align with the Global Warming Solutions Act and the State Hazard Mitigation and Climate Adaptation Plan would also yield short- and long-term economic and resilience benefits. Numerous assessments and studies point to the value of investing in resilience, including the National Institute of Building Science's 2019 report on the benefits of natural hazard mitigation. I've included a link to that report in our written comments, along with a letter outlining more on this from Dr. Diane Mas, the Vice President | Chief Resilience Officer of Fuss & O'Neill. Dr. Mas is based in Belchertown and is seeing the impacts of climate change on western Mass directly.

As a result of the highly successful Massachusetts Municipal Vulnerability Preparedness (MVP) Program, most Massachusetts municipalities are aware of their vulnerability to current and future climate hazards.

From the work our firms are doing with municipalities, we are well-aware that the lack of funding leaves many unable to implement projects identified as high priorities. These are projects that would reduce risk from climate-related hazards, and benefit some of our most vulnerable residents. Often these projects also include co-benefits ranging from habitat restoration to educational opportunities. The municipalities' request for nearly five times the available funding during the last MVP Action Grant round is evidence of the need and desire to address resilience.

Our firms know first-hand that the MVP Action Grant has allowed communities to design and construct projects that either wouldn't have happened or wouldn't have included the benefit of incorporating resilience measures.

Massachusetts is a leader in incorporating climate resilience into state capital projects with the recently drafted guidelines released by the Resilient Massachusetts Action Team. Those guidelines provide an example for municipalities, and ultimately provide longer-term economic benefits in terms of

losses avoided. Most of our infrastructure is designed with a lifespan of at least 30 years, and the climate science indicates that sea level, storm surge, extreme precipitation and temperature are changing over time, and will require us to continually adapt our engineering approaches to accommodate future conditions.

Consequently, we urge the Green Recovery Task Force to support a recovery that focuses on requiring climate resilience as part of any project receiving state funds, and takes into account the needs of our most vulnerable populations in our urban centers and rural communities, and looks to the long-term benefits of building a more resilient Massachusetts.

Here are some of our recommendations:

- The Commonwealth needs a mechanism to provide pre-development funds and technical assistance so municipalities can produce “shovel-worthy” projects. This will enable municipalities to progress and execute essential projects.
- Support for public transit, including the MBTA and the regional transit authorities. This is important for climate resiliency, Environmental Justice, and economic recovery. Investments are needed to make public transit safe and resilient post-COVID.
- Support **Green and Complete Streets** that allocate road space for safe walking and cycling. This is important for reducing Green House Gas emissions, and as we’ve seen, it’s an effective solution to allow for social distancing as we continue to face the challenges of COVID.
- In general, we should prioritize and incentivize **nature-based solutions** that can provide co-benefits to reduce risks from extreme heat, drought, and flooding, while also improving live-ability. Any Infrastructure stimulus should **require** resilience to protect the value of the investment.
- Investigate impact of **Extreme/Chronic Heat** on **Renters** statewide. The Massachusetts State Sanitary Code sets forth the Minimum Standards of Fitness for Habitation. All landlords are required to meet these standards. While heat, hot water and electricity are deemed necessary, **air conditioning is not**. This exclusion may lead to disproportionate impacts on lower income tenants during extreme heat events, which are growing in frequency and duration.

- We need to fix the gap in funding for **maintenance** of green infrastructure: by targeting a statewide funding stream.
  - Some current state grant programs prioritize implementation of Green Infrastructure, which is great. However, municipalities often choose grey solutions anyway because they don't have the funds to maintain green infrastructure.
  - A Recent MAPC-led event "A Vision for Green Infrastructure in the Region" for the Metro Boston area developed the idea for 1% State/municipal funding stream to be dedicated to green infrastructure Operation and Maintenance.
- In the next few years, we need more conversation around planning for **managed retreat** for coastal communities in response sea-level rise, as well as about **flood risk disclosure laws**. Data from the Massachusetts Coastal Flood Risk Model, produced by Woods Hole Group for MassDOT, could be made publicly available, and should be part of mandatory disclosure for prospective property owners in coastal municipalities.
  - Note that several recent studies have shown that some of the flooding we're seeing today because of climate change occurs outside of FEMA's mapped high-risk flood zones, due to pluvial, infrastructure-related flooding. **This is also an equity issue, as much of the flooding that FEMA maps miss is concentrated in environmental justice neighborhoods** <https://finance-commerce.com/2020/09/flooding-outside-flood-zones-more-common-in-minority-neighborhoods/>
- We also need to incentivize future development or building renovations that include **Green Rooftops**. There are a wide variety of types of green roofs, these may include solar panels, or green/blue roofs, which store runoff, or white roofs, which are cooling roofs, along with live plants in a lightweight engineered soil medium.
- Reassess procurement procedures for Statewide grant programs for resiliency (i.e., CZM and EEA MVP programs) **to allow more flexibility** in year-to-year use of funds.
  - The pandemic has highlighted the problem of non-flexible year-to-year transfer of funding via grant programs. Since these programs

work off annual funding allocated by the State, there is not much flexibility for extending funds into a subsequent Fiscal Year.

- Similarly, the timing of fiscal year calendar grant award allocation and subsequent contracting creates hurdles for communities with high seasonal tourism, as timing of engagement activities matters greatly. Many residents/property owners are not around during the window in which outreach activities for grant funding need to occur.
- One option would be to create a small-project grant fund that can be used flexibly for projects that do not align well with the Fiscal Year.
- Another option is for two grant funding windows that are offset at different parts of year.

The recommendations I've just read are some of the topics we believe should be discussed as we move forward into a recovery phase. Please note, I did not address renewable energy sources or energy storage. These are critical needs, but I understand that you have already heard from other organizations on those important issues.

On behalf of ACEC/MA, I thank you for the opportunity to share our thoughts with you today. We welcome the opportunity to continue the discussion with you as you consider specific recommendations to the legislature.

Thank you for your time.

For more information, contact: Abbie Goodman, Executive Director, American Council of Engineering Companies of Massachusetts (ACEC/MA), TECET, One Walnut St, Boston, MA 02108-3616, T: 617-305-4112; [agoodman@engineers.org](mailto:agoodman@engineers.org), [www.acecma.org](http://www.acecma.org)

End notes:

Dr. Diane Mas (Fuss & O'Neill) letter:

<https://files.engineers.org/file/GreenRecovery-Dmas.pdf>

Recent report from the National Institute of Building Sciences on the long-term savings associated with natural hazard mitigation in building construction/renovation, etc.

[https://cdn.ymaws.com/www.nibs.org/resource/resmgr/reports/mitigation\\_saves\\_2019/mitigationsaves2019report.pdf](https://cdn.ymaws.com/www.nibs.org/resource/resmgr/reports/mitigation_saves_2019/mitigationsaves2019report.pdf)

Water Infrastructure Alliance letter: <https://files.engineers.org/file/WIA-Letter-COVID19-WaterInfrastructure-Oct2020-On-Letterhead-002.pdf>

ACEC/MA and AIA/MA letter to conference committee Re: H. 4933 - An Act creating a 2050 roadmap to a clean and thriving commonwealth /S. 2500 - An Act setting next-generation climate policy:  
<https://files.engineers.org/file/ACECMA-AIAMA-Climate-Change-Conference-Committee-Letter-082620-9386.pdf>