

“Strategies for Flood-risk Mitigation: Who Pays – and How?”

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In this part of class, starting with this four-minute presentation, let’s continue envisioning ourselves working in the new role of Chief Resilience Officer as the mayor’s top advisor on coordinating all programs and policies to reduce flood risk.

Burlington, NJ
Bordentown, NJ
Saturday, March 23, 2019

Preliminary Thoughts and Questions

- 1 Here’s how I did my first walk-through of Burlington, N.J., with a quick view of Bordentown north on the Delaware River through the window of the light-rail train.
I start “reading” Burlington, making mental notes that I’ll use as the basis for detailed research back at my office. Please join me!

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- 2 Stepping off the RiverLINE, I vector over to High Street. “Historic Burlington”: brand identity! Look at the sailing ship at top of the sign! Will I see any rivercraft down by the waterfront? Not a lot of people on this sunny, windy Saturday afternoon.

High Street



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- 3 At water’s edge, the Delaware River doesn’t look threatening today. I’ll need to check the northern and southern ends of the bulkhead to see how securely it ties into the upland’s natural flood-resisting topography.
Come to think of it, walking down High Street, I didn’t see any flood gauges (like the one in Bridgeport, CT) or buildings marked with lines denoting the highest level of the “Flood of 19??”

Delaware River



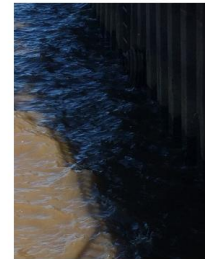
Resilience Works, LLC – Climate-change Consulting to Give the Future a Future

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- Well, what's happening here? New fencing, but no signs explaining what's going on. As CRO, my job is to keep the public informed – to stay ahead of questions and any negative media.
- 4 I spot an outfall from what I assume is the city's storm sewer. During storms, does it convey water back into the city? I'd better check.

Delaware River



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- Yes, Historic Burlington! Impressive Federalist brick home and its neighbor, the Victorian-Gothic eponymous Stone Cottage.
- 5 Both have for-sale signs? Hmm. Are the owners afraid of flooding? Are they selling ahead of the next flood? Or are these dual sales just coincidental?



Riverfront homes



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- One block in from the river, I'm drawn to this historic neighborhood. I'd be interested in knowing about the typical household income, rent/own ratio, and measures of stability. I wonder how this neighborhood shows up on the FEMA flood map. This looks like a community – is it a resilient community in multiple ways? Very important: I'd like to know how residents see themselves and their future.
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Inland homes



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- This wood frame house – “built in 1852” by the lumberman could use a modern-day carpenter for some repairs. Does the City provide low-cost loans to help owners of properties pay for repairs that maintain the value of the neighborhood as a whole?
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Inland homes



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As a chief resilience officer, I pay lots of attention to infrastructure, like storm sewers.

- 8** Also, to the storm sewer outfall protruding from the bulkhead along the river: unless the outfall is equipped with a backflow preventer, during high-water levels in the river, storm sewer might send water in the reverse direction into.....

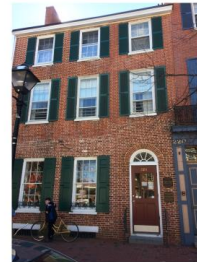
Storm sewer



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...the window wells that admit light into the basements of these historic High Street homes.

9 These historic architectural features would very efficiently convey water into the basements and cellars of these dwellings.



Exposed basement windows



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- 10** Utilities occupy a lot of my attention as CRO. Here's highly exposed electrical equipment just behind the house that Philadelphia architect Frank Furness designed down on the waterfront.

Exposed electrical equipment



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- 11** The firehouse was built in 1967, close to the waterfront. I see no external flood mitigation measures. I assume Burlington has a volunteer firefighting force. If the streets around the firehouse flood, will firefighters be able to get to their headquarters here? As a vital civic asset, this firehouse could be an attractive candidate for external funding. I'll review those opportunities.



Firehouse

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12 New construction – right by the waterfront park!
Is it going to be constructed above the design floor elevation – to reduce the risk of flooding?
Will it be built with extra protections – flood gates, for example? And with emergency generators placed above a worst-case flood level?

And perhaps not so incidentally, this is going to block the view from the Riverview Restaurant, which seems to be a popular gathering place. That's an economic impact.

Riverfront construction



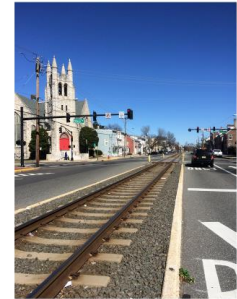
13 And speaking of economic wellbeing, retail is hard in most communities. Malls, and now online shopping, have made their mark. Here on High Street, literally side by side, three storefronts illustrate the challenge: one business has closed, the other is open, and the third promises to open.

Businesses past, present and future



14 Attentive to the importance of social resilience – the social infrastructure that Eric Klinenberg details in *Palaces for the People*, I, as CRO want to explore the role that faith communities, community organizations and other civic groups play in creating a resilient Burlington.

Community assets;
Social infrastructure



15 Does NJ Transit's RiverLINE offer the potential for transit-oriented development along this historic thoroughfare? Historic preservation tax credits? Work-live opportunities? I wonder if that's an earlier firehouse – away from the water! Maybe this underperforming upland commercial corridor warrants new investment.

Transit Oriented Development, Economic Development



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The RiverLINE takes just 24 minutes to arrive at NJ Transit's Trenton Transit Center, with bus connections to the state capitol and other government buildings. Are there opportunities for Burlington to become a bedroom community for state workers? Are there benefits from Burlington's proximity to Trenton that Burlington can use to its advantage?

Transit opportunities



Although Burlington's historic brand includes a sailing vessel, I saw no modern-day continuation of that part of the city's waterfront history: an easy, active connection to the Delaware.

By contrast, several miles up the river, I saw from the RiverLINE that the Bordentown Yacht Club was alive with members preparing boats and floats for summertime recreation on the river.

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Are there similar possibilities in Burlington? Can the river – now a flood risk -- become Burlington's friend: a magnet for external investment and impetus for community-building?

As Chief Resilience Officer, I'm eager to assemble a team to propose opportunities, run benefit-cost analyses and engage the community in planning a new future for Burlington.

Here in class today, I'm eager to hear what you've discovered as you've studied Burlington.

Bordentown Yacht Club

