

REBUILD BY DESIGN

For immediate release July 6, 2022

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TURNING THE CONCRETE JUNGLE INTO A SPONGE

Rebuild by Design and One Architecture and Urbanism release "Towards a Rainproof New York City," calls for a "green first" approach for the City's stormwater investments.

Today, [Rebuild by Design](#) and [One Architecture & Urbanism](#) released the report "[Toward a Rainproof NYC](#)" which calls for NYC to "go green first" by investing in multi-benefit green infrastructure before we expand our sewer system to address climate change. This report takes a hard look at the current impediments to using green infrastructure on a system's scale, learns from other cities including Amsterdam Rainproof and Cloudburst Copenhagen, and provides numerous recommendations across the categories of Leadership, Planning, Governance, and Budget.

When Hurricane Ida made landfall in New York City, everyone – residents, city agencies, and politicians alike – were caught off guard by the storm. Moreover, it became painfully apparent that New York City was simply not equipped to handle the intensity and duration of this type of rainfall, which surpassed three inches of rain in a single hour.

"By implementing many of the same approaches that DEP already uses at a systems scale, we believe we can reach a citywide goal of managing the majority – if not all – of predicted extreme rainfall with green or multi-benefit measures," **said Amy Chester, Managing Director of Rebuild by Design**, "Green infrastructure strategies, when implemented as a system, are faster, less expensive, and provide multiple benefits, such as reducing the urban heat island effect, cleaning our air, offsetting carbon emissions, benefitting our mental health, and providing space to improve our physical health."

Throughout our research process we consulted with global cities, City contractors, multiple City agencies, and nonprofit organizations and found that:

- NYC has the most comprehensive climate projections of any US city, yet, its policies, budgets, and incentives do not yet meet the city's increasing vulnerability to climate challenges, meaning much of the infrastructure under construction now will not last to its intended lifespan.
- There is no single comprehensive plan or entity responsible for addressing stormwater flooding in NYC. Instead, a mix of City agencies plan and budget in silos, working on a diversity of issues related to rainfall planning without true coordination. This prevents both accountability and innovation.
- Agencies rely on the DEP's budget for green infrastructure capital and maintenance, missing opportunities every day to take steps towards addressing this challenge.

"For many years, I worked at the City of Amsterdam where I helped create a Rainproof strategy. We learned that everyone needs to take responsibility for managing increasing heavy rainfall," **said Lot Locher, International Director of Climate at One Architecture & Urbanism and was formerly co-initiator and strategist of Amsterdam Rainproof.** "Every action counts, every step counts, every drop adds up."

To explore opportunities for scaling up nature-based solutions in the City, the team developed images that look like NYC–NYCHA developments, walk ups, single family homes, large buildings, parks, and hospitals—which illustrate targeted measures across all NYC spaces that can help tackle the challenge of flood management. To achieve this vision for NYC, the City must:

- Start with the most socially and physically vulnerable communities, and plan through meaningful community collaboration.
- Make rainproof the new standard. Every single agency must do their part by ensuring every piece of capital investment is targeted toward retaining and detaining rainwater to its capacity.
- Choose green infrastructure over gray infrastructure every time.

The NYC Department of Environmental Protection (DEP) has already made great strides. The key difference is that these measures need to be scaled to every single neighborhood, every single plot of land, and embedded in every investment decision.

"We already have the tools to address climate change and connect to its underlying natural systems. By making every investment include green and blue measures, we can begin to address the problem," **said Justine Shapiro-Kline, Planning Associate at One Architecture & Urbanism.** "Step by step, we see our parks, roadways, schools, and buildings can lead the way toward equitable adaptation."

To read the report, [follow this link](#). To download report images, [follow this link](#). To see more of Rebuild by Design's work on heavy rainfall in New York City, [follow this link for "An Anthology of Ideas for Ida"](#) which was released in September 2021 featuring 20 expert essays on the steps that NYC can take immediately to address heavy rainfall.