



## 2013 Remaking Cities Congress

Urban Systems, Infrastructure, and the Post-Industrial City

Thought Leader Summary

# Revisoning Infrastructure Investments for Remaking Post-Industrial Cities

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All of us in the urban revitalization community will need to become crusaders in the revisioning of infrastructures if we intend to be successful. This includes a pledge to “no new land” to ensure that sprawl does not overwhelm the infrastructure resources available for electricity, gas, water, storm and sewer, waste, and of course transportation. Sprawl siphons cash from existing infrastructures at a unstoppable rate, through subsidies from existing neighborhoods to fund new ones (for example, utility extensions are five times greater in cost, yet a flat rate). For regions with declines in population, solutions may lie in densifying the stronger neighborhoods and depopulating the almost vacant ones -- a controversial strategy that may be fraught with race and class issues. For regions with stable and growing populations, urban growth boundaries should be the mantra of every sustainable infrastructure discussion.

Indeed, every mile of new road, and its associated infrastructures, has huge individual and societal costs. Moreover, the car centric communities these roads generate make driving mandatory to reach the most basic of services and activities. Why has there been no class action suit on behalf of those too poor, too young or too old to drive? We will need to fight all single-use zoning practices that limit active life styles and mandate endless road investments. In its place we will need to revision a transportation “portfolio” that supports walking, biking, rowing, buses, light rail, high speed rail, and the automobile for those trips best served by cars. Automobile-only development must be seen as a form of transportation poverty, which siphons economic subsidies from all of us.

Well beyond land use and transportation, however, we need to embrace our role in water infrastructures. We need to unpave our communities. We need to reassign the mandatory storm-sewer investments into watershed planning where every drop of fresh water is used three times, and all water infrastructures become visual & recreational amenities. In addition to designing the water shed, we need to design the “waste shed” turning reduce, reuse, recycle into a job generating, neighborhood enhancing opportunity.

Local food as an emerging infrastructure will go hand in hand with designing watersheds and waste sheds, while enhancing community and growing the local economy - literally. Areas of vacant and abandoned land in many post-industrial cities are an opportunity to add to the natural system with ecological and bio-diversity corridors threaded through the city. These “development magnets” must be planned as an integral part of managing and capturing storm water, supporting urban agriculture and local food production, as well as reforestation to enable cities to be considered opportunities for carbon sequestration and air quality filters.

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Finally, urban revitalization leaders must take over data, power and voice distribution – redeploying the huge “connectivity” dollars for rebuilding our sidewalks and neighborhood centers. “Resiliency” is the buzzword of the decade, with power reliability and recovery a focus of major industries and government. Imagine if these resources were used to revitalize rather than expand. While we are focusing on our power infrastructure in innovative “sidewalk vaults”, it is also time to embed district heating in our communities, combining heat and power to eliminate the 70% energy waste that leaves our power plants today.

The capital that will be invested in these infrastructures – roads, transportation, water, waste, data, power, voice and heat – can revitalize the post industrial city (or go to a few in exurban newness). Armed with expertise and technological innovation, reversioning infrastructures can ensure the investments we need for remaking post industrial cities.