

Notes From the Suggestion Box

From-the-trenches ideas for fixing government and fixing the economy



One-Stop Shopping: Reorganizing the Oversight of Construction Codes

Picture this: As a last step to getting your certificate of occupancy, you and your general contractor are performing the final walkthrough with the local fire inspector. The inspector happens to look up and notes that a carbon monoxide detector needs to be installed on the ceiling above you and that a fire extinguisher is required at the end of the hall. You nod in agreement but mentally recall that your code review found no requirement for either a CO detector or a fire extinguisher in those locations. Furthermore, you know the inspector personally signed off on your design months ago before your general contractor pulled the building permit. You silently recognize that the ensuing occupancy delay will not be easy to explain to your client, nor worth the aggravation. When you return to your office, you call your general contractor and direct him to install the additional items.

If you are an architect, you can probably relate to this scenario. You may even have thought, Wouldn't it be great to have some predictability in code enforcement or, barring that, an understandable, uniform appeals process? For that matter, wouldn't it be great to have a coordinated set of construction codes that have a predetermined schedule for updates and revisions? Why is it so hard for the state to do this?

Under the current Massachusetts regulatory system, nine separate boards and two state agencies promulgate construction codes related to: buildings; elevators; fire prevention; fuel gas and plumbing; electrical work; accessibility; boilers; public health ("sanitary"); drinking water; sheet metal; and pipefitting, refrigeration, and sprinkler fitting. With the exception of sanitary and drinking water, which are each regulated directly by one of two state agencies that report to two separate secretariats (executive offices serving directly under the governor), the remaining nine boards report to one of two separate departments that in turn report to two different

secretariats. If this sounds confusing, it is. In all, four different secretariats have jurisdiction over Massachusetts state construction codes.

Recognizing the problem, Governor Jane Swift established the Building Code Coordinating Council (BCCC) in 2002. The BCCC, comprising all the construction code promulgating boards, was charged with resolving the problems of inconsistency, redundancy, and conflict within the various competing codes. This was the first time all the boards and state agencies actually sat in a room together to discuss code development. Although their charge was clear, the members of the BCCC chose not to retroactively address issues predating its existence and therefore left a variety of problems in place. As a result, architects have often been caught in this code conflict "crossfire."

In 2007, state senator Richard Moore proposed legislation that would consolidate some of these boards and agencies under a single department overseen by a single secretariat. Unfortunately, the legislation died in committee because of an incorrect perception that it would affect previously negotiated union employee benefits packages.

With the 8th edition of the building code going into full effect in February and a 9th edition in the works for 2013, a new accessibility code due by the summer of 2011, and continuing jurisdictional battles between building officials and fire officials, the time may be right for a new version of Senator Moore's legislation. By moving the 11 separate boards and state agencies under the charge of a single secretariat that can provide clear decision-making authority, the entire construction industry has the potential to finally move toward some predictability in enforcement, the establishment of a uniform appeals process, retrospective coordination of the codes, and a set, predetermined schedule for code updates and revisions.

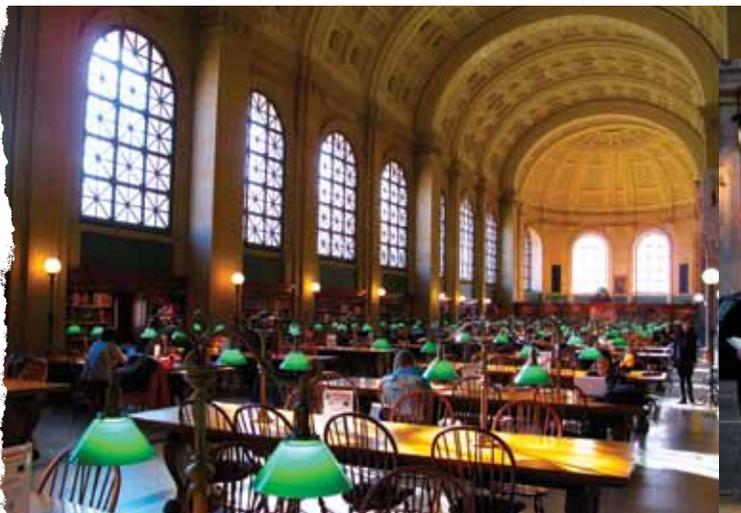
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OPPOSITE

Photo: Tim Davis, courtesy of the artist and Greenberg Van Doren Gallery

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Although government might be an abstract idea, its presence can be seen everywhere. Photos (left to right): Terry Miller, Jeffrey Engel



We Can Do Better: Rethinking Chapter 40B

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Photos (left to right):
Rachel Haller, Jeffrey
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Architects will probably agree that affordable housing is an important part of the community puzzle; a good mix of affordable housing options for people of different income brackets has been the El Dorado of housing advocates, architects, and community planners since the 1950s—with sometimes spectacularly disastrous results. The question to be asked, however, is if we in Massachusetts are really achieving that goal by our policies. The Comprehensive Permit Law (Chapter 40B) was enacted in 1969 to help address the shortage of affordable housing, concurrent with the discrediting of the conceptual thinking behind many large urban housing projects, such as the Columbia Point project in Dorchester.

As of 2009, only 51 of the 351 communities in the Commonwealth had reached the 10 percent threshold of affordable housing required by Chapter 40B; that is less than 15 percent of our cities and towns, even after 40 years—a pretty dismal statistic by any accounting. This number is actually worse than it might seem, as three-quarters of the units in a typical 40B project count as “affordable” even though they are actually “market rate”; only one-quarter are actually deed-restricted as affordable units. Since most of the state’s efforts to create affordable housing are through 40B legislation, it’s easy to see why Massachusetts is losing ground proportionately to other states in creating true affordable housing: we are building expensive units at a 3-to-1 ratio in every 40B project. Moreover, starting in 2010, the deed restrictions on about 53 percent of the “affordable” units began to run out, so these units are reverting to market rate, moving many communities even further away from meeting the 10 percent goal without massive new building projects.

Because the incentive through the Department of Housing and Community Development promotes new building projects rather than the renovation of existing housing stock or programs that “pioneer” blighted urban

areas, 40B projects have been eating up open space in the semirural areas and suburbs at an alarming rate. The program has thus become in reality the antithesis of good planning, sustainability, and Smart Growth; the American Planning Association has gone so far as to single out 40B as the “most regressive planning legislation in the country.” With 40B’s ability to sidestep planning boards, site-plan reviews, and other planning safeguards, communities often swallow the poison pill of unwanted or unneeded growth in an attempt to retain minimal control over their own zoning laws and infrastructure costs. Municipalities often underwrite the cost of 40B developments with infrastructure projects and services without receiving a corresponding increase in revenue.

As a means of advancing affordable housing in the communities, 40B is a failure; as a tactic to promote sustainable and “smart” building practices, it is a failure; and as a strategy to create high-quality, livable, and equitable communities, it is a failure.

If the Commonwealth shifted its focus away from new construction to more sustainable redevelopment strategies, we would be able to mitigate the substantial inefficiencies of our older housing stock, better utilize and even expand the existing public transportation systems, reinvigorate the traditional urban centers, promote flexible uses such as accessory dwelling units for our seniors, and preserve the minuscule open space and habitat that remain—all at what appears to be a fraction of the cost of what we are spending per unit of actual affordable housing. Our desire to achieve affordable multitiered and high-quality communities is not advanced by the aggressive attitude that 40B engenders, and it should not be the business of the Commonwealth to give over the rights of a public community for the benefit of private developers. We can do better, both for our communities and for our citizens.



The Homeowner's Ace in the Hole: Accessory Dwelling Units

Homeowners walloped by the one-two punch of a listless economy and mortgage malaise are finding windfalls in the most unexpected places: in garages, attics, basements, backyards, and anywhere else there's room to create accessory dwelling units (ADUs), commonly known as "in-law suites" or just "in-laws."

The surge of interest in ADUs is spurred by the many virtues of these cozy digs, most of them well under 1,000 square feet—the maximum allowed in many Massachusetts towns. There's a lot to like, especially for boomers who now have elderly parents needing care, an underfunded retirement to put back on track, or adult children who have boomeranged back home. Homeowners with a little extra space can create a secondary dwelling to meet these needs or to generate income as a rental property.

This housing option meets so many needs, in fact, that scores of cities and a handful of state governments have revised statutes to encourage the creation of ADUs. In California, residents can create second units "by right." Portland, Oregon; Vancouver, British Columbia; and Santa Cruz, California, go even further, offering residents a choice of preapproved ADU plans to save money and streamline the process. Even red-state governments are getting in on the act: Miami and El Paso, Texas, have recently adopted form-based codes, which smile on second units.

ADU statutes offer one area of governance where the liberal can lie down with the libertarian. That is, private homeowners who create ADUs also increase the pool of affordable housing. What's not to like?

But as desirable as ADUs are, they frequently run into the brick wall of zoning—a patchwork of NIMBYism more fueled by fear than informed by fact. Too often, zoning codes adopted in the 1920s and modified in the 1950s serve the needs of a world of cheap oil, open land, and nuclear families—a world that is fast fading into memory. These outdated codes would be quaint, but for the harm they do to today's diverse households, which need flexible housing choices such as ADUs to weather economic storms and provide for their families. Even when ADUs are

allowed, as in many Massachusetts towns, tenancy is too often limited to actual family members, and the units must revert when they are vacated. Ultimately, this lack of choice hurts all of us: The AARP estimates that, "on average, Medicaid dollars can support nearly three older people and adults with physical disabilities in home- and community-based settings for every person in a nursing facility."

So what should be done by local and state governments?

Face the facts. We're poorly served by exclusionary, single-family-homes-only residential zoning. To cite just one example, the US now has the highest percentage of single-parent households among industrialized nations, and too many of them live in underused spaces that could be put to productive use.

Educate the public. ADUs are a commonsense housing option. Discuss ADUs in public meetings and have architects on hand to answer questions. Concerns about noisy tenants and property values are often mollified when ADU zoning provisions require owners to live on the premises.

Take it step by step. Lexington, Massachusetts, had no provisions for ADUs till 1984, when they were first envisioned as renovations benefiting elderly people in big houses who needed care or companionship. In 2005, when the town rewrote its bylaws, ADUs were allowed in new construction as well, and lot size requirements were reduced.

Offer amnesty programs for existing units. To ensure that ADUs meet local building codes, towns have periodically waived fees and penalties on un-permitted units if they are inspected and brought into compliance.

There are many good reasons to modify zoning and regulations to allow and encourage ADUs. But in the end, one stands out: Government should help people help themselves.

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Mapping, Measuring, Metering, Managing: An Environmental Monitor

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Photos (left to right):
Anton Spaans, Paul Keleher

You can live free or die in some parallel universe. But here on Spaceship Earth we have to get real—in a hurry. We have to care enough about the reality of energy, emissions, ecosystems, and biodiversity to be monitoring these flows, processes, and interfaces constantly, meticulously, fanatically.

Economists do it. They watch every penny, every trend, every hiccup in the marketplace. Why do we care so little about our natural and man-made environment that we throw away energy, air quality, ecosystems, and biodiversity like so much refuse, unworthy of our regard? Imagine the effect of daily news reports of a Worldwide Environmental Health Index, understood at a gut level, much like the Dow Jones Industrial Average, as a predictor of our well-being.

Computers and the Internet have arrived just in time. Technology now allows us to generate, digest, collate, and share data collected from all sources.

Imagine: Every application for a building permit will be online, and the data on economic activity, building use, construction materials, lifecycle costs, ecological footprint, and code compliance will be incorporated into an ongoing electronic numerical assessment of our environmental trajectory. BIM files submitted for permits will be incorporated into an increasingly accurate and comprehensive model of the built environment. The model will track actual energy use and other building-operations data (such as solar heat gain, moisture content, and air quality) using sensors and meters installed in accordance with applicable code requirements. (This model will also facilitate evacuation and emergency response in the event of a fire, an earthquake, or other disaster).

Imagine: Transportation, public and private, will report similar metrics. Grocery-store scanners will contribute shipping and consumption data; and required manufacturer's reporting will provide lifecycle information. Planning decision makers and investors will have instant access not only to economic investment trends and infrastructure status but also to ecosystem health, soil

acidity, and water temperature and salinity. Google Maps and similar programs will include overlays of zoning, conservation, and planning regulations, with links from street addresses to data on construction-permitting activity. Policymakers will have real-time information about investment in the built environment and environmental health, and will be able to identify trends and trajectories that will inform future planning decisions.

With the exception of a database of permitting information and links to codes and regulations, these ideas depend on the private sector—the realm of supply and demand—to provide the technology to produce and gather accurately measured and reported data. The worst-case scenario is insular governmental data collected at its own pace and for its own purposes. But a structure of regional data collection that acknowledges weather and watersheds as well as homebuilding and habitat, that is tracked beyond jurisdictional borders, requires a public/private partnership of unprecedented proportions. The business model is murky. Where will the investment capital come from? How can government regulations requiring private parties to collect data for public use, monitor building energy use, and track environmental consequences, become profit centers?

In fact, many of the pieces are in place, requiring only a kick-start from a government pilot program or adequate incentive to start the ball rolling. Building energy monitoring will become a universal mandate under either state or federal programs within this decade. (San Francisco has already done so.) Centralization of building-permit data (following universal electronic application processes) is an inevitable market-based development with enormous beneficial implications for both the private sector and the public good. IBM's "Smart Planet" initiative has the scope, if not the particulars, of these ideas in its sights. Architects, planners, and environmentalists can fill in the blanks from the demand side, as we continue our trajectory toward utopia or oblivion.



Ripple Effect: A Green Gateway City/Creative-Economy Tax Credit

Of life's two great inevitabilities, only one is an instrument of public policy. Taxation, the primary means to our government's ends, defines the nature of the relationship between the public authority and private enterprise.

Real estate development has a profound and lasting effect on the quality of the public realm, but it is not a fundamentally altruistic activity. When government wishes to influence real estate development, it must rely on either regulation or incentive to extract a benefit (such as universal accessibility) that it sees as having a public good equal to the private benefits being created.

One of the modern tax instruments that are most effective in promoting private development is the tax credit. A tax credit is just that: permission granted by the government to subtract a sum of money from taxes owed. It is more valuable than a tax deduction in that it directly reduces taxes on a dollar-for-dollar basis.

As a stimulus, tax credits work very well: programs targeting historic preservation, affordable housing, and "new market" development in distressed areas are all considered successful. When projects become feasible through tax credits, the benefits extend not only to the public realm but also to a huge chain of people in a variety of industries such as architects, construction workers, vendors, and material suppliers.

In Massachusetts, tax credits have been used primarily to retain and support industries, such as life sciences, that improve our economic competitiveness. The recent film-industry tax credit has seemingly transformed Boston overnight into a Hollywood set—although the net public benefit of a subsidy that amounts to 25 percent of a film's entire production cost is debatable. As a videogame-industry tax credit receives serious consideration, we should imagine incentives that would have a greater impact on the health of our communities.

Massachusetts has an opportunity for just such an incentive—an even more innovative application of the tax-credit tool that would support three sectors that have been

the recent subjects of public-policy concern: sustainability, the Creative Economy, and the Gateway Cities.

Sustainability is a matter of economic competitiveness as well as a greater public good. Recent initiatives have addressed both green building and Smart Growth—how and where we build.

The Creative Economy has recently been recognized as one of the state's most significant industry sectors: With 3,100 design firms employing 44,500 industrial, graphic, fashion, exhibit, and landscape designers as well as architects and engineers, Massachusetts is home to one of the largest design communities in the nation. But most Creative Economy firms don't *need* to be here; their work is often exported to clients around the world, and they are famously nomadic in their search for inexpensive real estate, preferably in urban areas.

The Gateway Cities are 11 former mill towns identified by MassINC and the Brookings Institution. (See *ArchitectureBoston*, Summer 2009.) Largely left out of the state's economic growth in recent decades, they are now considered key to a new statewide Smart Growth strategy.

Individual tax credits could promote each of these sectors. But by combining them, Massachusetts has the opportunity to promote sustainable Smart Growth with economic development. With a Green Gateway City/Creative Economy Tax Credit, Creative Economy Districts could be designated within the Gateway Cities; bonus tax credits could be allocated for projects meeting thresholds for green redevelopment of existing buildings.

Design businesses thrive when in close proximity with similar firms; when located in districts, they also promote investment and stabilize our urban centers. A Green Gateway City/Creative Economy Tax Credit would be the key to a truly enlightened Smart Growth strategy for Massachusetts, tipping the balance for economic investment where it is needed most, and providing an economic ripple effect for citizens across the state. ■

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