Summary

Issue:
Landscape and site design have an impact on important urban environmental issues, such as the urban heat island effect, stormwater capture and run-off, species diversity, maintenance, toxicity, and materials flows. However, New York City does not have a code or ordinance to address these issues comprehensively.

Recommendation:
Add a chapter on landscape and site to the city’s Building Code.

Proposed Legislation, Rule or Study

New York City Building Code or New Landscape Local Law

Add new chapter to the New York City Building Code or enact a new landscape local law containing at minimum the following sections covering the key issues listed within each section:

CHAPTER 34
SITE AND LANDSCAPING

SECTION BC 3401
GENERAL

23.01 Scope. The provisions of this chapter shall govern the materials, design, construction and quality of the site and landscaping.

SECTION BC 3402
DEFINITIONS

SECTION BC 3403
ADMINISTRATION

• Documentation and Filing

SECTION BC 3404
CONSTRUCTION PRACTICES

• Protection of Soils
• Retention and Protection of Trees

SECTION BC 3405
GRADING

SECTION BC 3406
DRAINAGE AND STORMWATER MANAGEMENT

• Irrigation
• Adaptation to Climate Change and Flood Zone Issues

SECTION BC 3407
SUBGRADE
Issues – Expanded
In recent years, it has become increasingly clear that landscaping and construction sites have a major impact on the environment. Sustainable landscaping and responsible construction site management can provide well-designed open spaces, improve air and water quality, plan for climate change, and reduce energy consumption – all goals of PlaNYC. However, there is no comprehensive code or ordinance in New York City that addresses the issues of site and landscaping to establish pre- or post construction standards or requirements related to environmental sustainability. The few related ordinances are scattered in the Zoning Code, fragmented according to building type.

This proposal would create a new chapter of the Building Code that establishes standards for the materials, design, construction and quality of the site and landscape. Having one comprehensive code will make these standards easier to understand, increasing compliance and simplifying enforcement. It will also facilitate code development by enabling policy makers to identify where the city may be over- or under-regulating site and landscaping. Many proposals from the Task Force report touch on these topics and might ultimately find a home in this new chapter.
Environmental & Health Benefits
The environmental and health benefits of this proposal are wide and far reaching. Examples of the effects of this proposal include reduction of the heat island effect, storm water capture and run-off, increased species diversity, and reduction in the use of hazardous chemicals.

This proposal was found to have a positive, indirect environmental impact.
This proposal was found to have no significant positive health impact.

Cost & Savings
This proposal is for a new code section, which will have no direct impact on construction costs.

Precedents
Several cities have implemented landscape regulations, each addressing different areas of this proposal.

The City of Oklahoma City has zoning and planning codes that aim to “enhance, protect and promote the economic, ecological and aesthetic environment.”

Chicago’s landscape ordinances require parking lots to integrate landscape islands and trees, and new developments to include landscaping. These ordinances help to reduce air and noise pollution, protects the soil, cools the air and increases the aesthetic attractiveness of the surroundings. The Department of Zoning co-administers the Landscape Ordinance with the Department of Streets and Sanitation’s Bureau of Forestry.

Sacramento, CA also established landscape requirements for single-family and two-family residential units. A maximum of 40% of the required front yard setback area may be paved for off-street parking and driveways. The remaining unpaved portion of the setback areas must be landscaped, and only living vegetation may be used as the primary ground cover.

Irvine, CA is an example of a sustainable landscape code that supplements their community landscaping and urban forest ordinance. Its intent is to provide policy, guidelines, standards and procedures to obtain sustainable landscapes within the city. The city has also developed a Sustainable Landscaping Guideline manual, a plan review procedure and permitting policy to help guide this initiative.

Collier County, FL enacted uniform standards for the installation and maintenance of landscaping. In addition, it recognizes the importance of water conservation through the use of native and drought-tolerant vegetation. The ordinance is applicable to all developments including single family dwellings. Plans must be prepared by a licensed landscape architect (single-family homes are exempt from this requirement). Plant material standards are divided into quality, native vs. exotic, type, prohibited species, and receive credit for plant preservation. The ordinance includes detailed specifications for trees, shrubs, hedges and ground covers, in addition to maximum percentages of particular plants in order to promote specie diversity.

Seattle, WA has several landscape ordinances that include a community landscape code, a tree ordinance, and sustainability design requirements for neighborhood business districts. The sustainability code requires that landscape plans be developed for new development or redevelopment in commercial areas; these plans are prepared and reviewed based on a rating system of a range of sustainable practices. This ordinance, adopted in January 2007, requires landscape plans to address ecological function and aesthetic principles using point-based criteria to measure sustainable factors such as canopy coverage, permeability and visual access. Points are given if the landscape plan preserves trees, installs green roofs, green walls and irrigation systems that reduce the use of potable water. Extra bonus points are awarded for the use of drought-tolerant plants.

LEED
There are no LEED credits directly affiliated with this proposal. However, this amendment corresponds with the intent of LEED Sustainable Sites sections in all rating systems with the exception of LEED for Neighborhood Development. LEED ND (pilot program) will address landscaping issues in a section designated Green Construction and Technology, though this rating system is concerned with overall land and community issues and the proposed code revisions could have broad reaching effects on this system as a whole.

Implementation and Market Availability
There are no known implementation issues for this proposal. Materials that might be used under this proposal are widely available. Plant nurseries have greatly expanded their inventories of native and naturalized species; multiple competitive manufacturers exist for paving, furnishings, fencing and lighting that incorporate recycled content, are dark-sky compliant and have high albedo.

Notes
In addition to the table of contents, there will need to be sections on “Compliance” and “Administration” to discuss the...
requirements associated with submittal and review of site plans, supporting documentation and the manner in which this code is administered and enforced. The precedents offered above have a number of different strategies that could be considered as a starting point for NYC.

ENDNOTES:


