A NEW AMERICAN CITY: NOISETTE COMMUNITY MASTER PLAN

When the Charleston Naval Base and Shipyard closed, it was the area's largest employer. It had been a major part of the life and character of North Charleston for nearly a century. The outlook might have been bleak. Instead, a master plan developed by the partnering of North Charleston, the Noisette Company, and the Sustainability team led by Burt Hill and BNIM Architects, could prove to be a model for communities around the world. In short, the program conceived a desired future and mapped out a practical means for getting there.

As a prototype for a sustainable community, the Noisette project represents the largest, most comprehensive urban redevelopment in the U.S. today. And it provides a succinct perspective: to be sustainable, cities and towns must embrace the "triple bottom line," a balance among community (people), ecosystem (planet), and marketplace (prosperity).

STARTING POINT: What Came First

To arrive at this vision of a "new American city" we had to understand what made the setting unique. We studied its pre-settlement ecosystems, followed by patterns of agricultural, industrial, and commercial development right up to the present. The master plan thus emerged from the area's natural and social footprint. It was relevant, not superimposed. The principles for restoring the natural environment and integrating new and future development had the ring of truth, making it more likely that they would be implemented and upheld.

DESIGN METRIC: Sustainability

The project's guiding principles emphasize ecological restoration, watershed management, parks, and landscaping; zoning and density; transportation and parking; and integrated, resource-efficient public utilities. And they do it at both macro- (community wide) and micro- (individuals) levels.

Restoring the balance between man-made and natural environments is paramount in Sustainability. The construction and operation of the Naval Base had a tremendous impact on the "low country" ecology of North Charleston. Its dredging of the Cooper River, for example, had eliminated much of the function of the Noisette creek wetlands, raising the lowlands, increasing the incidence of flooding, and reducing ecological diversity. Restoring a healthy watershed meant designing the built environment to work with the natural on a daily basis.

At a broad level, systems for collecting and reusing storm water, reducing runoff, and improving the quality of water entering the natural tributaries were put in place. Redesigned wavebrakes protect shorelines from intense commercial traffic and create a new aquatic microsystem. Public landscaping, parking, playgrounds, and recreational areas, such as the 11-acre Riverfront Park, reinstate native plant life, reducing water requirements. Pervious pavement in walkways and parking areas reduces runoff. At a personal level, residents are being educated in the development and benefits of backyard rain gardens, rainwater collection systems, and native plant landscaping buffers.

The master plan's zoning and density depart from established patterns of urban land use that are predominant in the Charleston region. A higher density of mixed uses is emphasized, providing stronger flexibility for market forces and enabling growth. This has the potential for scaling back vehicle usage, since walking and biking to everyday activities is not only feasible but also likely. Further, by mitigating sprawl, infrastructure requirements for power and water supplies shrink, not only cutting distribution costs but also minimizing resource losses common to the distribution process.

Public resource requirements will be held in check in other ways. The master plan requires that private development will make widespread use of energy efficient features,

stormwater management strategies such as green roofs, and be constructed to achieve LEED Certification. The public infrastructure design is held to similar performance standards. Even the largest urban park will feature a tidal pond designed to slow stormwater runoff to the Cooper River and filter out contaminants to improve water quality.

This is the balanced setting into which North Charleston is attracting businesses and residential neighborhoods. It is planned to be environmentally healthy, characterized by a resourceful and efficient public infrastructure that will ensure future economic resiliency and accessibility.

LOOKING AHEAD: A Framework

The Noisette Company initiated the redevelopment of North Charleston to undo what disinvestment and competing growth pressures had done. The intent of the master plan was never in question: envision a sustainable future to the degree possible at a given point in time and put the mechanisms in place to guarantee that outcome in perpetuity.

A framework for Sustainability is now in place. It balances sensitive ecosystems with economic growth. The sheer size of the project and its guidelines for environmental performance hold out the promise of one of the most sustainable – and achievable – cities in the country. As it is implemented over the next 20 years, a new American city will rise up from an old model. And that's precisely where advances on behalf of society and the environment will have to spring from if they are to sustain the global community.