Springwoods Village
Merit Award
Design Workshop, Denver

2011 ASLA Design Awards

Planning & Urban Design
Project Name – Springwoods Village

Project Location – Harris County, Texas (Northern Houston Metropolitan Area)

Project Summary – Occupying 1,800 acres of undeveloped forested land, Springwoods Village will be a sustainable “in-fill” community that promotes mixed uses, density, transit, forest preservation, wetland enhancement, renewal energy harvesting, ecological restoration, green building, social equity and economic prosperity.

Purpose of Project - One of the world’s largest companies, Exxon Mobil, was looking for a site in Houston where it could consolidate its corporate operation in a new world-class, 21st century campus for 8,000 employees. Exxon Mobil decided that the vision for a 21st century sustainable community at Springwoods Village aligned with its corporate aspirations and work force needs. Accordingly, Exxon bought land and is in the process of building its sustainable corporate campus which will open by 2014. This economic catalyst has driven the need to plan, design and implement the first phase of Springwoods Village, and build out of the community is expected to be complete by 2030.

Development Impact - $10 billion (Estimated)

Role of Landscape Architect - The landscape architect was the land planner/ urban designer and landscape architect for this community, preparing the community master plan, sustainability program and transit study used for planning approvals, land sales and sustainability design guidelines. In addition, the landscape architect did the conceptual design for sustainable residential neighborhoods; a town center; community signage; and all public streets, parks and open spaces in the community.

Special Factors – The landscape architect was the lead consultant in developing the sustainability program for Springwoods Village. The program started with a sustainability charrette with key stakeholders which ultimately resulted in a set of sustainability design and performance guidelines, equivalent to a LEED® gold standard that every developer of land must comply with. As an example, development sites will be required to provide on-site storm water storage and purifying through a variety of best management practices like rain gardens, green roofs, porous paving, etc. in order to reduce the amount of storm water by 10-20 percent that would otherwise have been required to be stored in open spaces. Moreover, all streets and public landscapes are being designed using new low-impact design standards including the use of reclaimed water from the waste water treatment plant in the future. Springwoods Village Parkway, a major arterial corridor where LID is being used has proved that a 30 percent reduction of storm water pipes is possible. Also, a County-sponsored pilot project for storm-water monitoring will be implemented to prove cleaner water quality standards are being met for discharge water into Spring Creek.

Significance - Springwoods Village will be significantly denser than its neighbor, the celebrated The Woodlands Community, as it will accommodate 82 percent more people per square mile, all while either enhancing precious wildlife habitats and wetlands or preserving the existing forests. Despite its proposed urbanism, Springwoods Village will preserve 8 percent more land area of its mixed deciduous and loblolly pine forest along its streets, parks and open spaces than other urbanized areas in Houston. Finally, Springwoods Village will re-connect the existing low-valued wetlands, many of which are isolated from their original watersheds due to the construction of gas pipelines, over-head transmission corridors and a railroad line that occurred in the past on this property.

Responding to the Surrounding Context - Bordering the site is Spring Creek which is a major drainage and recreational corridor that conveys water to Lake Houston, one of the metropolitan area’s primary drinking supplies.
Spring Creek has been, and will continue to be, greatly affected by periodic flooding and frequent microbial pollution as urban run-off changes the purity and turbidity of the waters that flow against the site. Fortunately, the counties on both sides of Spring Creek realized its environmental, recreational and economic significance and so planning is underway for the development of the Spring Creek Greenway which will ultimately connect 33 miles of trails and recreation destinations together. Springwoods Village sustainability program will contribute to the enhancement and conservation of nearly a mile of creek frontage through its tree preservation requirements, noxious species removal, wetland enhancement, habitat creation, trail construction and a 150-acre nature preserve that will be given to the Spring Creek Greenway Foundation for their use as a wetland demonstration area and educational center.

Being adjacent to Interstate 45 and Houston’s third outer toll road, the Grand Parkway, the site will play an important role in regional transportation. First, it will provide a new northern arterial that will connect with the Woodlands community helping to alleviate traffic on I-45. Second, a transit study was completed which identified opportunity for regional, community and local bus service within the community. Additionally, the community plan has accommodated a commuter line corridor that metro counties have contemplated for this area. Lastly, the transit study identified other forms of transportation including a comprehensive bikeway network and other green energy personal vehicles that have been accommodated in the master plan.

**Sustainability, Special Features and Design Elements - Design with the End User in Mind**

Fundamental to achieving a sustainable community is preserving and/or enhancing important ecological systems while “right sizing” the development uses and capacities. The landscape architect/planner designed a mixed-use development that balances the demand for jobs and housing to help reduce automobile dependency and to help enhance the natural environment. The development anticipates uses such as corporate employment, health care/ regional hospital, regional and community shopping, two hotels, multi-family housing, urban townhomes, single-family lots and estates, an elementary school, a community recreation center and a civic facility in the town center. At build out, the environment has the capacity for 9,000,000 square feet of development capacity or approximately 50,000 residents or workers on the land.

Springwoods Village will be built to the highest environment standards. To that end, the orientation of streets and building mass and public spaces were guided by climatic analysis including human comfort. While shading is one step to reducing the heat-island effect and human comfort, wind is another. The community is oriented to take advantage of the prevailing breezes that blow from the south/southeast. Accordingly, streets and development parcels are arranged to allow for maximum wind ventilation while the “shorter” side of urban block and buildings are oriented to the west thus reducing heat gain and energy demands. Moreover, Springwoods Village integrates forest buffers zones within the urbanized areas to further reduce solar gain by providing shade to the streets, streetscapes and buildings that front them. These tree buffers will also provide additional habitat, soil protection, air scrubbing and scenic beauty. Additional, the impact of historic timbering and public utility construction on the land has destroyed the natural systems and reconnecting the isolated wetlands and drainage corridors with Spring Creek is very important. The armature of the community plan is the greenways/open space corridors that have widths ranging from 200’ to 900’ wide. In all cases, these corridors have been designed to preserve forested land, accommodate storm water storage in native savannah landscapes, existing forested or herbaceous wetlands or wet ponds with wetland edges. A bio-blast survey of the land by the biologist enabled the planner to design these areas with habitats and wildlife species in mind. Finally, Springwoods Village’s parks and open spaces will be programmed for passive activities so the users of these spaces don’t adversely affect the environment and animal kingdom. These parks are also planned to have wind turbines and solar panels to provide energy for their lighting systems.