

DOMESTIC SCAN TOUR II REPORT

The Integration of Land Use and Transportation Planning:
Lessons Learned from the Second Domestic Scan Tour

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THE INTEGRATION OF LAND USE AND TRANSPORTATION PLANNING: LESSONS LEARNED FROM THE SECOND DOMESTIC SCAN TOUR

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Second Domestic Scan Tour Team in front of the Walnut Street Bridge, Chattanooga, Tennessee. Pictured (from left to right) are Linda Osten, Bob Simpson, Robin Smith, Felicia Young, John Thomas, Esther Lee.

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ABBREVIATIONS AND ACRONYMS

CDC	Community Development Corporation
CRA	Community Redevelopment Agency
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
FDOT	Florida Department of Transportation
FTA	Federal Transit Administration
FHWA	Federal Highway Administration
HUD	U.S. Department of Housing and Urban Development
KAB	Keep America Beautiful
MPO	Metropolitan Planning Organization
NCDOT	North Carolina Department of Transportation
STP	Surface Transportation Program
TCRPC	Treasure Coast Regional Planning Council
TCSP	Transportation and Community and System Preservation
TDOT	Tennessee Department of Transportation

BACKGROUND

Transportation infrastructure and land use guidelines create the framework within which communities evolve. Transportation and land use policies affect economic prosperity, environmental quality, and social equity—all vital components of urban and rural development. Although transportation initiatives and land use policies affect one another, many regions consider the two processes separately. This disassociation can lead to inefficient use of resources and adverse environmental and community effects, in addition to overlooked opportunities to capture synergies from integrating land use and transportation planning.

To more closely examine local efforts to integrate transportation and land use policies, the Federal Highway Administration (FHWA) sponsored a series of domestic scan tours. Modeled after the international scan tour, these domestic scan tours were designed to obtain, highlight, and share successful processes, methodologies, and practices concerning the integration of local and regional transportation and land use planning within the United States.

The domestic scan tour teams have included FHWA staff members from Headquarters and Division field offices, planning professionals from local, regional, and state levels, representatives from Metropolitan Planning Organizations (MPOs), and staff members from the Volpe National Transportation Systems Center (Volpe Center). While visiting projects within the communities, the domestic scan tour teams have interviewed local staff and elected officials, regional, and state-level planners, MPO representatives, and transportation consultants. The results of these tours have been compiled and presented as useful tools for planning practitioners around the United States working to design livable communities.

The first domestic scan tour took place in October 2002, and focused on projects in high-growth areas of the western United States. The projects were aimed at reducing inefficient development patterns, preserving existing infrastructure, and enhancing environmental and community assets. The first domestic scan tour team visited projects associated with FHWA's Transportation and Community and System Preservation Pilot (TCSP) Program in Denver, Colorado, Salt Lake City, Utah, and Teton County, Wyoming.

The second domestic scan tour took place in November 2003, and focused on communities in the southeastern states of Florida, North Carolina, and Tennessee. The projects emphasized the redesign, redevelopment, and retrofitting of roadway corridors through the use of innovative planning techniques. The second domestic scan tour team reviewed visioning processes that considered the interrelationships among transportation, land use decision-making, quality-of-life, and economic vitality issues. The second domestic scan tour also focused on projects that had moved from the planning stage into implementation stage of design and construction.

COMMUNITIES VISITED

This report will highlight the transportation and land use integration efforts of the following communities in the southeastern United States:

- Downtown revitalization projects in Lake Worth, Delray Beach, and Fort Pierce, Florida;
- The South End and First Ward redevelopment projects, and the comprehensive, city-wide planning process in Charlotte, North Carolina; and
- The downtown waterfront redevelopment project in Chattanooga, Tennessee.

LAKE WORTH, DELRAY BEACH, AND FORT PIERCE, FLORIDA

The downtown retrofitting projects in Lake Worth, Delray Beach, and Fort Pierce demonstrate how traditional traffic engineering problems create opportunities to promote community vision and local economic revitalization. The cities of Lake Worth, Delray Beach, and Fort Pierce have partnered with the Treasure Coast Regional Planning Council (TCRPC)¹ to design and implement their innovative local revitalization initiatives. Additionally, the Florida Department of Transportation (FDOT) has contributed vital partnership and financial support in each of the endeavors.

Lake Worth What initially began as a safety project due to a high crash rate in the city of Lake Worth gradually expanded to become a major downtown revitalization effort. FDOT proposed corridor safety enhancements to the main streets of downtown Lake Worth. Lake Worth planning staff, city officials, and community members responded with a broader vision of redevelopment for their downtown area through a citizens' design charrette² conducted by TCRPC in 1992. Lake Worth enhanced pedestrian safety and bicycle access on the two major downtown thoroughfares of Lake and Lucerne Avenues (a one-way pair) by reducing each three-lane speedway to a two-lane roadway. The former lanes provided space for the addition of on-street parking on both sides of the road, a wider sidewalk for outdoor café spaces on Lake Avenue, and a bicycle lane on Lucerne Avenue. Additionally, Lake Worth reduced the Lake and Lucerne Avenue lane widths from 12 and 14 feet, respectively, to 10 feet, built concrete pavers and large corner bulbouts to shorten crosswalk distances, and added trash receptacles, street lamps, benches, trees, and planters to beautify the area. As a result, the formerly declining downtown experienced a reduction in retail vacancies, an increase in assessed property values, and improved pedestrian and vehicular safety.

Delray Beach The city of Delray Beach has demonstrated its commitment to revitalization by simultaneously slowing traffic in key corridors and restoring aging and abandoned buildings within the heart of its downtown. The city's revitalization efforts began and have been sustained by critical visioning processes that date back to 1988. Delray Beach worked with FDOT to find an alternative to FDOT's proposal of widening Atlantic Avenue, a main street through the downtown lined by small restaurants and retail shops. The city agreed to create a downtown bypass system by using

two local streets that run parallel to Atlantic Avenue. The city also agreed to assume all maintenance responsibilities for FDOT's Atlantic Avenue, and spent over a million dollars in local funds for its beautification. FDOT then converted the parallel local streets into a downtown bypass system. Atlantic Avenue has since been transformed into a pedestrian-friendly corridor lined with outdoor cafés, shops, and other smaller-scale businesses. The transformation was accomplished through the widening of sidewalks and the installation of paver brick walkways, artistic lighting, and landscaping.

Fort Pierce The city of Fort Pierce is on the northern border of St. Lucie County. The city has focused on enhancing existing assets in its downtown revitalization efforts. The downtown revitalization plan resulted from a public design charrette conducted by TCRPC in 1995. The plan concentrates on constructing and redesigning key public buildings and refurbishing old buildings to preserve the old town atmosphere of the city, as well as to promote commercial vitality. The redevelopment is complemented by design changes made to roadways, including the conversion of one-way streets to two-way streets, the widening of sidewalks, and landscaping enhancements. State roads that were formerly a haven for speeders have been transformed into public spaces suitable for pedestrian traffic. For example, Fort Pierce partnered with FDOT to create an attractive roundabout along Avenue A, a state-maintained roadway. The roundabout functions as both a traffic-calming device and a gateway to the downtown commercial corridor.

Two Transportation and Community and System Preservation (TCSP) Pilot Program grants have been used to develop alternative transportation and land use plans to address non-motorized travel, traffic congestion, and land use in St. Lucie County (where the city of Fort Pierce is located) and the wider Treasure Coast Region. One grant to the county involved teenagers in the planning process. The other grant, awarded to the TCRPC, funded a Regional Land Use Study that resulted in a regional master plan and community center demonstration project for the city of Port St. Lucie.

CHARLOTTE, NORTH CAROLINA

The city of Charlotte has established a city-wide development strategy. In 1994, the city adopted the Centers and Corridors framework to provide a comprehensive guide for future development and redevelopment along five major transportation corridors. The framework focuses, in part, on increasing densities in the five major transportation corridors and major activity centers, including Charlotte's central city and the emerging transit station areas. The in-fill and redevelopment efforts are intended to create more compact, mixed-use, and pedestrian-friendly areas.

Charlotte is revising its city street design guidelines to support new development and redevelopment goals for the city, rather than taking a piecemeal, ad hoc approach to street design and redesign. For instance, transportation planners in Charlotte have expanded their idea of "roads," which primarily serve cars, to "streets," which serve the broader community of cars, pedestrians, bicyclists, neighborhoods, and businesses alike. The goal is to create a well-connected, multi-modal street network that reinforces Charlotte's land

¹ TCRPC is a not-for-profit organization, created by Florida Statute and agreements between local governments to provide planning and technical assistance services to Indian River, St. Lucie, Martin, and Palm Beach Counties.

² A charrette is an intensive, open-forum planning session where citizens, designers, and other stakeholders collaborate to develop a vision or design for development.

use goals. Charlotte is also adopting specific land use guidelines for parcels near the expected highway interchanges to direct future development patterns resulting from the completed construction of the I-485 Outer Loop highway that encircles the city.

The city of Charlotte has institutionalized processes to integrate the planning of transportation systems and land use patterns and to facilitate the multimodal, smart growth vision for the region. The city espouses a corporate decision-making strategy, vision and commitment to internal communication, whether vertically within an agency, or horizontally across different agencies. City agencies have also built strong relationships with the development community by following through with stated plans. This commitment has fostered trust and investment ideas from the business community. The South End and First Ward projects are two completed projects that illustrate Charlotte's innovative planning practices.

South End The South End district, located just south of Charlotte's city center, includes a state highway corridor that has been redeveloped incrementally over the years. A variety of streetscape improvements occurred in the 1980s as part of business corridor revitalization efforts. Roadway resurfacing, landscaping, sidewalk-widening, and the addition of medians, trees, and decorative lighting were improvements intended to encourage business development as well as to enhance the appearance of the gateway. Most recently, a vintage trolley line was restored to improve access to the center of Charlotte's downtown. By late 2006, Charlotte's first light rail line will open for service through the South End, sharing tracks with the vintage trolley line. Redevelopment efforts have also spurred new residential and mixed-use developments.

First Ward First Ward is one of Charlotte's four downtown wards. A decayed public housing project in the area qualified First Ward for the U.S. Department of Housing and Urban Development (HUD) Hope VI³ funding to create a new, mixed-income residential neighborhood. A variety of housing options were created, including apartments, townhomes, condominiums, single-family homes, and mixed residential complexes. The area also boasts a newly constructed private school and proximity to transit options. The city redesigned intersections and converted a four-lane road into a two-lane boulevard. Charlotte also widened sidewalks and added medians, and landscaping to strategic sections of First Ward. As redevelopment occurred, private developers worked with the city to redesign the street network to improve vehicle mobility, enhance connectivity for pedestrians, and create a distinctive sense of place.

CHATTANOOGA, TENNESSEE

After more than two decades of downtown decline and disinvestments, Chattanooga made a firm commitment to reconnect its downtown to the Tennessee River as the keystone of its revitalization efforts in the mid 1980s. The resulting Tennessee Riverpark Master Plan was developed to guide public and private investment along the waterfront. New development projects resulted in, among other things, the expansion of the Tennessee Aquarium and Hunter Museum, the reconstruction of the Riverfront Parkway, and an expansion of Coolidge Park. Chattanooga further improved connectivity between disparate portions of the downtown by eliminating concrete barriers and improving walkways and roadways. For example, the traditionally isolated Hunter Museum was reconnected to the downtown through innovative transportation efforts like the First Street "incline" project. Increased accessibility now allows both the casual stroller and the driver to arrive at the heart of the downtown easily.

A crucial element of revitalization has been Chattanooga's reclamation of the Riverfront Parkway from the state of Tennessee. Formerly, this route along the river was a freeway that allowed limited access into the downtown. Now owned by the city, Riverfront Parkway is currently being reduced from four lanes to two lanes in order to slow traffic, and increase access to the waterfront. Chattanooga is also adding four new intersections to create more "options" for motorists to access the downtown. The city is improving the image of Riverfront Parkway from merely a thoroughfare for high-speed vehicles to a more pedestrian-friendly atmosphere along the river.

OBSERVATIONS

- **A holistic plan for the redevelopment of a corridor or an entire city requires a bold vision.** The vision for redevelopment provides a context for how separate project elements fit into a larger picture of community development, including the larger impact of streetscape initiatives on the image of an area. Retrofitting a roadway corridor can address multiple purposes of enhancing mobility, calming traffic, and encouraging economic development. Many of the communities visited by the domestic scan tour team expressed a need to expand traditional transportation concepts, and to not only consider automobile-oriented perspectives, but also those of pedestrians, bicyclists, and businesses. Most of the communities also used an extensive and lengthy visioning process to involve a diverse pool of citizens in articulating a new image for the city. The technical expertise and visualization tools (e.g., artistic renderings and photographs) used within the public meetings were a crucial component of the public outreach efforts.
- **Strong, committed leaders are essential to translating visionary plans into implemented projects.** The visited communities exhibited strong city leadership. Often, city mayors and other key officials demonstrated political commitment to a redevelopment project that integrated transportation and land use. These city officials not only supported the projects, they also became the political champions for them.

³ HUD created the Hope VI program to assist in the transformation of severely distressed public housing units. Hope VI funding is offered to eligible Public Housing Authorities through Revitalization and Demolition Grants.

- **A unified effort across multiple levels of government, the private sector, and the public sector, is vital to actualizing a community-wide vision.** Consensus should be reached across agencies at key stages of the development process. Subsequently, private developers often are willing to support an engaging, creative, and common vision developed through a broad consensus-building effort. Partnership and follow-through builds trust and credibility, improving stability and predictability of the economic climate for private developers. Community participation dramatically increases support from the citizenry and political leadership, and ultimately leads to the success of the project. Each stage of the visioning, planning, and implementation process should be as transparent as possible to the public.
- **Change requires persistence, flexibility, and a long-term commitment to action.** Each of the visited cities pooled the necessary talent and resources to achieve their vision. Once the goal was defined, these communities focused on being solution-oriented in the face of challenges, making pragmatic choices and explicit trade-offs throughout the process. It is important to take action first, and adjust as needed to sustain momentum. Learning from the experience of others and encouraging changes to policies that may be outdated are crucial steps to consider as part of the redevelopment process.
- **Creating an environment for coordinated effort and collaborative planning is essential.** Transportation planning, land use planning, and housing and economic development can be facilitated to induce cross-fertilization of ideas and perspectives within and among agencies at the city, regional, and state levels. The city of Charlotte institutionalized its coordination processes to help foster more collaboration between otherwise separate and independent city departments. While a challenge commonly expressed by the visited communities was the difficulty in gaining cooperation from the state DOT, the Florida projects demonstrate how FDOT partnership was key to the creation and implementation of innovative strategies for state corridors.

INTRODUCTION

BACKGROUND

Transportation infrastructure and land use guidelines create the framework within which communities evolve. Transportation and land use policies affect economic prosperity, environmental quality, and social equity—all vital components of urban and rural development. Although transportation initiatives and land use policies impact one another, many regions consider the two processes separately. This disassociation can lead to inefficient use of resources and adverse environmental and community effects, in addition to overlooked synergies that result from integrating land use and transportation planning.

While mobility and safety are primary goals for transportation professionals, there is increasing recognition of the interrelationships between transportation and land use decisions. Cities across the United States are turning to a safer, more environmentally-friendly, and aesthetically pleasing vision of place, where a sense of community is coupled with a hope of invigorating stagnant local economies or managing robust ones. Whether reference is made to context sensitive solutions, sustainable communities, smart growth, livability, neotraditional design, or new urbanism, the emphasis is clear: planning processes and physical designs should contribute to the vibrancy of a balanced community.

The movement toward the comprehensive integration of land use and transportation policies has increased emphasis on the social, economic, and environmental benefits generated by transportation infrastructure investments. The momentum for a stronger, healthier community requires that transportation planners consider land use impacts along with other mobility and safety effects of transportation projects.

OBJECTIVES

To more closely examine local efforts to integrate transportation and land use policies, the Federal Highway Administration (FHWA) sponsored a series of domestic scan tours. Modeled after the international scan tour, these domestic scan tours were designed to obtain, highlight, and share successful processes, methodologies, and practices concerning the integration of local and regional transportation and land use planning within the United States. The results of these domestic scan tours have been compiled and presented as useful tools for planning practitioners working to design livable communities.

CONTEXT

The domestic scan tour site visits were conducted by FHWA staff members from Headquarters and Division field offices, planning professionals from local, regional, and state levels, representatives from Metropolitan Planning Organizations (MPOs), and staff members from the Volpe National Transportation Systems Center (Volpe Center). While visiting the communities, the domestic scan tour teams interviewed local staff and



lected officials, regional, and state-level planners, MPO representatives, and transportation consultants and contractors. A questionnaire was developed before each domestic scan tour visit, and was used to facilitate discussion. The questionnaire for the domestic scan tour described in this report is provided in Appendix A.

The first domestic scan tour in October 2002 focused on projects in high-growth areas of the western United States. The projects were aimed at reducing inefficient development patterns, preserving existing infrastructure, and enhancing environmental and community assets. The first domestic scan tour team visited projects associated with FHWA's Transportation and Community and System Preservation Pilot (TCSP) Program in Denver, Colorado, Salt Lake City, Utah, and Teton County, Wyoming.

The second domestic scan tour took place in November 2003, and focused on communities in the southeastern states of Florida, North Carolina, and Tennessee. The visited projects emphasized the redesign, redevelopment, and retrofitting of roadway corridors through the use of innovative planning techniques. The second domestic scan tour team reviewed visioning processes that considered the interrelationships among transportation, land use decision-making, quality-of-life, and economic vitality issues. The second domestic scan tour also focused on projects that had moved from the planning stage into the implementation stage of design and construction.

COMMUNITIES VISITED

LAKE WORTH, DELRAY BEACH, AND FORT PIERCE, FLORIDA

Lake Worth, Delray Beach, and Fort Pierce are three communities that lie just off U.S. Route 1 on the eastern coast of Florida. These three downtown roadway retrofitting projects demonstrate how traditional traffic engineering problems can create opportunities to promote local economic revitalization and enhance a community's image. The cities of Lake Worth, Delray Beach, and Fort Pierce partnered with the Treasure Coast Regional Planning Council (TCRPC)¹ to design and implement innovative local revitalization initiatives. Additionally, the Florida Department of Transportation (FDOT) contributed vital partnership and financial support in each of the endeavors.

Lake Worth

What initially began as a safety project to address a high crash rate in the city of Lake Worth gradually expanded into a major downtown revitalization effort. The one-way pair of Lake and Lucerne Avenues are main streets connecting downtown Lake Worth to the beach, which is located less than a mile away. In the early 1990s, FDOT conducted a safety study that identified several hazards on the main streets. Anecdotal evidence revealed that drag racing off the Lucerne Avenue bridge was a normal occurrence. According to one source, the average speed on Lake and Lucerne Avenues was an unsafe 42 mph. FDOT proposed a series of corridor safety modifications to improve the conditions.

Lake Worth planning staff, city officials, and community members responded to the safety proposal with a broader vision of redevelopment for the downtown area. Downtown Lake Worth had been in rapid economic decline for the past two decades. In the 1990s, the traffic dangers of Lake and Lucerne Avenues, coupled with an economically distressed main street area, made Lake Worth's traditional commercial center an undesirable destination for the casual tourist or pedestrian.

With citizen input from a charrette,² professional and residential members of the Lake Worth community partnered with TCRPC to create a master plan for the downtown. The master plan addressed the economic needs of Lake Worth. The plan also sought to take advantage of the city's strategic location on the eastern coast of Florida and its proximity to the West Palm Beach International Airport, a CSX rail line, and a potential CSX rail line extension. In addition, the plan envisioned a higher density, mixed-use city center with a perimeter of new housing units to buffer the existing single-family homes.

FDOT began construction on Lake and Lucerne Avenues in 1997. Eliminating one lane each in the three-lane speedways of Lake and Lucerne Avenues enhanced pedestrian and vehicular safety and bicycle access. The lane widths of Lake and Lucerne Avenues were reduced from 12 and 14 feet, respectively, to 10 feet. Reducing the lanes created space for on-street parking—and in the case of Lucerne Avenue, an additional bicycle lane. The reclaimed space on Lake Avenue was converted into wider sidewalks reserved for commercial activities, such as sidewalk cafés. Streetscape improvements included the use of smooth paver blocks and large corner bulbouts to shorten crosswalk distances. The addition of trash receptacles, street lamps, benches, trees, and planters contributed to the street beautification efforts.

In addition to the physical redesign of the street, key buildings within Lake Worth were redeveloped. Renovations were made to the historic Gulf Stream Hotel on Lake Avenue to improve the tourist appeal of the main downtown street. Additionally, an aging downtown school that the local school board considered closing and rebuilding in another part of the community was restored. As a result of the main street renovations and other public investments, the formerly declining downtown Lake Worth experienced a reduction in retail vacancies, an increase in assessed property values from approximately \$5-\$6/square foot to \$15-\$30/square foot, and improved pedestrian safety and traffic.

Delray Beach

The city of Delray Beach demonstrated its commitment to revitalization by simultaneously slowing traffic in key corridors and restoring aging and abandoned buildings within the heart of the downtown. In the early 1980s, FDOT proposed the creation of a hurricane evacuation route on Atlantic Avenue, which would have resulted in a major highway running through the downtown. In response, the mayor of Delray Beach formed a task force to study the issue. The task force developed a series of recommendations, which included the creation of a Community Redevelopment Agency (CRA) in 1985.



Widened sidewalks foster commercial activity on Lake Avenue in Lake Worth.

¹ TCRPC is a not-for-profit organization, created by Florida Statute and agreements between local governments to provide planning and technical assistance services to Indian River, St. Lucie, Martin, and Palm Beach Counties.

² A charrette is an intensive, open-forum planning session where citizens, designers, and other stakeholders collaborate to develop a vision or design for development.



Street reconstruction in Delray Beach before and after.

Through the 1980s, Delray Beach experienced a difficult economic situation with increased urban blight. At its low point, downtown Delray Beach had a 40 percent vacancy rate and \$4-\$10/square foot rental rate for commercial space. In the past, the city limited building heights in order to maintain a manageable and small community. In exchange for maintaining a community with a small town atmosphere, however, the city of

Delray Beach suffered from a low tax base and a declining downtown.

Delray Beach planning staff worked with FDOT to find an alternative to FDOT's proposal to widen Atlantic Avenue. The city agreed to create a downtown bypass system by using two local streets that run parallel to Atlantic Avenue. The city also agreed to assume all maintenance responsibilities for Atlantic Avenue, and spent over a million dollars in local funds for its beautification.

Under the control of the city, the six-block stretch of Atlantic Avenue was transformed into a pedestrian-friendly corridor lined with vibrant outdoor cafés, shops, and other smaller-scale businesses. A combination of private and public funds was used to convert an abandoned public school complex at the center of town into a museum, theater, and meeting hall, which now serve as the town's "anchor." The physical transformation, which served as the impetus for the business revitalization, included the widening of sidewalks, the installation of paver brick walkways, and the addition of artistic lighting and landscaping.

In order to build on the momentum generated by the Atlantic Avenue development, the city and the CRA teamed up with the TCRPC to develop a Downtown Master Plan. Public input was solicited through a 2-day citizen weekend workshop where approximately 200 citizens representing diverse segments of the community gathered to develop a greater vision for downtown Delray Beach's long-term sustainability. The plan, which was adopted in 2001, called for a number of changes to the downtown's roadway system in order to enhance pedestrian safety and improve traffic circulation, including: conversion of the one-way pair bypass system into two-way traffic; the narrowing of the downtown highway pairs from three to two lanes; the slowing of traffic; widening of sidewalks; and the creation of a "gateway feature" for vehicles that enter the downtown area from I-95. The city and CRA are working together with the community-based Downtown Plan Implementation Committee on the funding, design, and construction to implement these improvements.

Fort Pierce

On the northern border of St. Lucie County, the city of Fort Pierce focused its downtown revitalization efforts on the enhancement of existing assets. The downtown revitalization plan, resulting from a 1995 charrette, concentrates on constructing and redesigning key public buildings and refurbishing

older buildings to preserve the "old town" atmosphere of the city, and promote commercial vitality. The redevelopment efforts are complemented by design changes made to roadways, such as the conversion of one-way streets to two-way streets, widening of sidewalks, and the addition of landscaping. State roads that were formerly a bastion for speeders were transformed into walkable public spaces.

Fort Pierce partnered with FDOT to create an attractive roundabout along Avenue A, a state-maintained roadway. The Avenue A roundabout functions as both a traffic-calming device and a gateway into the downtown commercial corridor and the adjacent newly-developed City Marina. In addition, a landscaped median was added to the portion of U.S. Route 1 that runs through Fort Pierce in order to improve pedestrian safety and enhance the aesthetics of the corridor. Another crucial aspect of Fort Pierce's success was its partnership with programs such as the Fort Pierce Main Street³ and the TCRPC.

While in Fort Pierce, the domestic scan tour team also learned of the two TCSP grant projects which developed alternative transportation and land use plans to address non-motorized travel, traffic congestion, and land use in St. Lucie County and the wider Treasure Coast Region. One grant to the county focused on the involvement of teenagers in the visioning process. The teenagers presented alternative scenarios for the transportation plan to the local MPO, and created various pamphlets and videos to educate the public about the transportation planning process. The other grant, awarded to Martin County, funded a Regional Land Use Study which concluded that a focus on development in the community centers would best address regional problems. As a result, TCRPC developed and disseminated a toolkit of options for local governments interested in implementing a community master plan. A demonstration project was conducted in Port St. Lucie, where a master plan was developed with the expressed purpose of serving as a model for other cities. The project continues to develop and evolve as a vision for the integration of land use and transportation grows within the region.



The roundabout on Avenue A serves as a gateway to downtown Fort Pierce.

CHARLOTTE, NORTH CAROLINA

The city of Charlotte has established a city-wide approach to redevelopment to address its current and future planning challenges. The city of Charlotte is located approximately 10 miles from South Carolina, and therefore functions as a bistate metropolitan area. In 2001, Charlotte included 258 square miles and a population of approximately 574,000 people. Growth projections have Charlotte expanding to cover 380 square miles with a population of over 1 million people by 2050. While much of Charlotte enjoys economic vitality, several of Charlotte's 73 neighborhoods suffer from common challenges confronted by other large cities, such as building deterioration, loss of jobs and residents, and problems associated with crime. The city of Charlotte is also designated as a non-attainment area for air quality, thereby increasing pressure to consider the environmental impacts of its projects.⁴

³ The local Main Street program is part of a national movement that encourages economic development while retaining the historic heritage of a traditional commercial corridor. Main Street cities hire a full-time downtown manager, establish a Main Street Advisory Board with representatives from the public and private sectors, and develop a local program to foster revitalization.

⁴ Areas where air pollution levels exceed the National Ambient Air Quality Standards may be designated "nonattainment." For more information, see <http://www.epa.gov/oar/oaqps/greenbk/>.

Charlotte has been integrating land use and transportation for the last 15 years. By 1992, the city developed a series of technical resources and documents for the Charlotte region that described land use and neighborhood revitalization strategies. These efforts evolved into the Centers and Corridors framework that serves as a comprehensive guide for future development and redevelopment along five major transportation corridors. The Centers and Corridors framework supports increasing in-fill development along existing corridors and the city center for compact, mixed-use, and pedestrian-friendly land use near transit stations. The concept also integrates streets, transit, pedestrians, and bicycles to provide a multi-modal focus of development. Charlotte applies these policies simultaneously to redevelop the downtown, the older, inner ring portions of the city, and the “greenfields” of the outer edge city.

Charlotte's overarching vision is to design with an emphasis on livability to ensure the growth of healthy neighborhoods. The city has developed general development policies and area plans, updated pedestrian-oriented zoning districts, and created other programs and plans dedicated to support pedestrians, foster connectivity, transit-oriented development, infrastructure/station area development, and business corridor enhancements. Charlotte is increasing both vehicle route and multimodal options by redeveloping the existing street network through context sensitive designs that consider the street in relation to the land uses, the surrounding street network, and the character of the community.

As part of its city-wide redevelopment approach, Charlotte is transforming a piecemeal, ad hoc approach to street designs by revising street design guidelines to support new development and redevelopment goals for the city. Charlotte transportation planners have changed their vernacular, expanding the idea of “roads,” which primarily have connotations of serving motorized vehicles, to “streets,” which serve the broader community needs. Charlotte is also adopting specific land use guidelines for parcels near the expected high-way interchanges of the I-485 Outer Loop. These guidelines will manage anticipated future development resulting from the construction of the beltway and help to avoid inappropriate land use patterns. In addition, the Outer Loop interchange analysis calls for improved design of the highway interchanges to maintain the intended level of traffic capacity and facilitate the intended land uses for areas around the interchanges.

The completed South End and First Ward projects specifically illustrate Charlotte's innovative planning practices and multimodal approach to redevelopment.

South End

The South End district, located just south of Charlotte's city center, is being redeveloped into a retail, entertainment, and residential neighborhood. Known as the “Historic South End,” the city's first industrial corridor is a mile and a half long and ranges from three to six blocks wide. The South End also includes a state highway corridor that has been redeveloped incrementally over the years. As part of the business revitalization efforts along the corridor, a variety of streetscape improvements have been made. Road resurfacing, landscaping, widening of sidewalks, and the addition of medians, trees, and decorative lighting have encouraged business development and improved the appearance of the community. Currently, the city's South Boulevard Business Corridor initiative is continuing the improvements.



The vintage trolley line in the South End of Charlotte.

A vintage trolley line has been restored in recent years to improve access to the center of Charlotte's downtown. By late 2006, Charlotte's first light rail line will open for service through the South End, sharing tracks with the vintage trolley line but extending its service coverage over 10 miles from uptown Charlotte. In light of the revamped focus on transit in the South End, the city of Charlotte is focusing its land use and transportation integration efforts on transit-oriented development around the transit station areas. A separate program, the South Corridor Infrastructure Program, has been devoted entirely toward developing plans, soliciting community feedback, and updating infrastructure designed to enhance the pedestrian environment and promote quality economic development.

Redevelopment efforts have also spurred new residential and mixed-use developments. For example, Olmsted Park, a new 10 acre development which was constructed on an abandoned ballpark, contains 138 apartments and 54 homes. It is located adjacent to South Boulevard and is within walking distance of a future transit station.

First Ward

First Ward is one of Charlotte's four downtown wards. In the 1960s, the area was designated as an urban renewal district, with a public housing development of more than 400 units built later in the decade. Residents within First Ward were concentrated within these public housing units; the rest of the area remained vacant. Over time, the area suffered from decay and disinvestment. In 1990, the planning commissioners of Charlotte identified First Ward as a priority area for redevelopment. An aging public housing project in the area qualified First Ward for Hope VI funding from the U.S. Department of Housing and Urban Development (HUD)⁵ to create a new, mixed-income residential neighborhood in 1994.

The city of Charlotte, Charlotte Housing Authority, Bank of America Community Development Corporation (CDC), and Charlotte Center City Partners created a coalition of partners, who then hired architects to develop a master plan for First Ward. The First Ward master plan envisioned a “racially and economically diverse, walkable, well-designed, safe, and convenient neighborhood” that included market-rate and subsidized housing. First Ward is rapidly becoming an arts-themed urban village, complete with public green space, schools, a children and family service center, day care center, children's library, theatre, sports arena, and proximity to transit options. The construction of a museum and a community arts center are also in future plans.

While First Ward is primarily residential, transportation components are vital to completing the neighborhood. The housing stock includes single family homes, townhouses, condominiums, rental apartments, and a senior citizens' public housing building with an emphasis on a mixture of incomes, distinct architectural styles, and varying densities. The First Ward developers worked with the city to redesign the street network to improve connectivity and to enhance pedestrian mobility for the new residents. Transportation improvements consisted of refurbishing existing streets and creating new streets to develop a more coherent street grid throughout the neighborhood. Streets were designed to improve



First Ward is one of the latest up-and-coming urban neighborhoods in Charlotte.

⁵ HUD created the Hope VI program to assist in the transformation of severely distressed public housing units. Hope VI funding is offered to eligible Public Housing Authorities through Revitalization and Demolition Grants.

both vehicular and pedestrian circulation through the addition of street medians, roundabouts, alleys, and other road reconstruction. Streets that had formerly been blocked off from one another were reconnected. Large city blocks were broken up into more walkable lengths. The city also redesigned intersections and reconstructed a four-lane road into a narrower, two-lane boulevard. In addition, sidewalks were widened, and medians and landscaping were added to strategic sections of First Ward.

CHATTANOOGA, TENNESSEE

After more than two decades of downtown decline and disinvestments, Chattanooga made a firm commitment to reconnect its downtown to the Tennessee River as the keystone of its revitalization efforts in the mid 1980s. With significant public input, the Tennessee Riverpark Master Plan was developed to guide years of public and private investment along the waterfront. Among other things, this resulted in the opening of the Tennessee Aquarium and Ross's Landing Plaza in 1992, the renovation of Walnut Street Bridge as a pedestrian bridge, and subsequent investment in movie theatres, restaurants, hotels, and Coolidge Park on the north side of the river. Created in 2002, the 21st Century Waterfront Plan takes Chattanooga's waterfront to a whole new level of investment and activity that will complete the city's return to the riverfront.

A crucial element of the 21st Century Waterfront Plan has been the reclamation of the Riverfront Parkway from the state of Tennessee. Now owned by the city, the 7.2 mile, four lane, limited-access Riverfront Parkway is being reconfigured. Riverfront Parkway is currently being reduced from four lanes to two lanes

to slow traffic, making it more pedestrian-friendly, and increasing accessibility to the waterfront. Chattanooga is also adding five new intersections along the road to increase direct access to the downtown. In the past, Chattanooga's traffic into and out of the downtown was funneled onto a few principal arteries. Now, traffic is dispersed throughout the entire downtown Chattanooga street network. Freight carriers and other through-traffic can avoid Riverfront Parkway by traveling on Holtzclaw, a state route that bypasses downtown Chattanooga and connects to I-70. The city is improving the image of Riverfront Parkway from merely a thoroughfare for high-speed vehicles, to a more pedestrian-oriented environment along the Tennessee River while simultaneously recapturing land to convert pavement into housing sites. This plan makes much better use of land adjacent to the river, thereby enhancing the entire corridor for more dense, mixed-use urban development.

As part of its comprehensive downtown revitalization plan, Chattanooga is also reconnecting the downtown to the Bluff View Arts District and the Hunter Museum by demolishing concrete barriers, replacing a portion of First Street which was closed years ago, installing the First Street funicular/incline, leveling a hill, and adding a pedestrian bridge over Riverfront Parkway. The increased accessibility will allow both casual strollers and drivers to arrive at the heart of the downtown from the Arts District, and vice versa, with relative ease.



The Riverfront Parkway is being reduced from an expressway to a livable street in Chattanooga.

SUMMARY

While each of the projects visited were located in distinctive geographic locations, they all share the priority of embracing, enhancing, and building upon existing infrastructure to rejuvenate their communities. The Lake Worth, Delray Beach, and Fort Pierce projects demonstrate how addressing the challenges of downtown decline and one-dimensional focus on roads can be used as a catalyst for comprehensive redevelopment that results in a more vibrant community. The Charlotte projects reveal how a comprehensive city-wide vision for integrated transportation and land use development can be successfully implemented by planning for the entire transportation network and institutionalizing cooperation among city agencies, private developers, and the public. The Chattanooga project exemplifies how enhancing interconnectivity of the transportation system results in greater cohesion within a previously disjointed community.

OBSERVATIONS

The projects visited during the domestic scan tour demonstrate how the implementation of smart growth principles is a technical, organizational, and cultural challenge. The observations made by the domestic scan tour team during the visits can be grouped into three major categories: holistic vision, leaders and partners, and implementation strategies. Each of the community projects exhibited a comprehensive vision, strong leadership through individual skills and extensive partnerships, and decisive actions at crucial points. Below, each of the broad themes is supported with specific examples observed from the communities.

HOLISTIC VISION

A successful plan for the redevelopment of a corridor or an entire city requires a bold, holistic vision. A comprehensive vision for the community establishes a context that can unify separate development strategies and project elements. In the context of such a community vision, streetscape initiatives have an impact beyond physical redesign; such actions are also understood to be a vital component of reshaping an area's image. For example, retrofitting a roadway corridor can facilitate economic development and strengthen community character as much as it can improve vehicular mobility and throughput. The following describes features of the visions established by each community visited on the domestic scan tour:

- **The transportation system is not an end in and of itself.** Pavement that was formerly reserved for cars is rapidly being redeveloped to serve purposes that add to the overall vitality of the city. For example, the city of Chattanooga is converting parking spaces into higher density, mixed-use properties. The decreased parking capacity is being redirected into a new parking garage. The parking garage, however, is a multi-use parking structure, complete with retail and housing along the façade. The garage will provide 370 parking spaces with 18,000 square feet dedicated to retail uses and 40,000 square feet dedicated to residential uses. Also, in virtually all of the communities the domestic scan tour team visited, roadway pavement had been converted into pedestrian facilities, sidewalk cafés, or even housing.
- **Public investment precedes private investment.** All of the communities demonstrated ways in which economic development followed from infrastructure improvements and how the transportation network is merely one component of the larger vision for a livable community. The public commitment to infrastructure reinvestments lead to the proliferation of cafés and retail stores in both the Lake Worth and Delray communities. In Fort Pierce, the addition of a landscaped median along the portion of U.S. Route 1 running through the downtown helped encourage the purchase and redevelopment of the Arcade, a historic building located across from the median. The rehabilitated Arcade is now a major commercial center for small retail shops and offices, with attractive storefronts that reinforce the architectural features of the building. Other developers within the community have been more inclined to undertake riskier redevelopment projects within downtown Fort Pierce because of the city's demonstrated commitment to create an attractive space for both the drivers and the pedestrians of Fort Pierce. Similarly, Charlotte city agencies have followed through with stated transportation and land use plans, which has fostered private investment.



Economic development and growth continues in Fort Pierce.

For example, the same developer who was involved in establishing one of the private schools in First Ward is building a mixed-use residential complex across from the New Bern rail station in the South End. The new development is due, in part, to the commitment displayed by the city.

- Public investment into public spaces strengthens community character.** Neighborhoods are developing pride in the historic character and cultural distinctiveness of their properties. In Fort Pierce, old buildings were once seen as a sign of a rapidly declining city. Fort Pierce prioritized the rehabilitation of historic public buildings, like the public library and the Seven Gables House visitor center. Now, many residents have a renewed appreciation for historic buildings as unique image makers for the city. Fort Pierce also capitalized on its waterfront location by concentrating reinvestment in strategic locations where people could gather, such as the City Marina and public library. Similarly, Chattanooga emphasized the redevelopment of public space—especially in the downtown—as a cornerstone to strengthening the image of the community. The Chattanooga 21st Century Waterfront Plan includes a large lawn and other smaller public spaces for gatherings, a 600-foot pier, and floating docks for recreational boaters to access the downtown. As part of its public space emphasis, Chattanooga has highlighted artwork and places of historical importance. A special interpretive area is being constructed at the waterfront to honor the history of the area's Native Americans.
- Public investment enhances the transportation network.** Traffic flow was redirected to better utilize the existing street grid system, and multimodal options were emphasized by many of the communities. Charlotte's many initiatives to integrate land use and transportation include designing for modes other than the automobile. For example, the Charlotte South Corridor light rail project highlights the city's vision to increase connectivity throughout the city. In Chattanooga, transportation improvements meant enhancing connectivity within the city and increasing vehicle and pedestrian access to the downtown. By adding five intersections and providing multiple options for exiting Riverfront Parkway, overall traffic along the river will be reduced and distributed to other streets. Chattanooga is also optimizing street grid system performance by converting one-way streets to two-way streets.
- Public investment saves schools.** Most of the communities recognized the critical need to renovate aging schools or to build new ones to strengthen city neighborhoods and improve a family-friendly image. Chattanooga opened two new downtown elementary schools to help revitalize downtown residential neighborhoods, attract new residents, and provide downtown workers with convenient school options for their children. Lake Worth also rehabilitated several older neighborhood schools that serve the needs of the urban communities.
- Traditional standards, guidelines, and roles are redefined.** Traditional transportation concepts were expanded from a focus on automobile-oriented perspectives to the inclusion of pedestrian, bicyclist, and business needs. The city of Charlotte has recast old definitions and standards. In Charlotte, the term "transportation adequacy" is not focused solely on traffic performance and

level of service of streets and highways, but on a systemic view of how the transportation system functions for all modes. Charlotte assembles an interdepartmental team of designers, planners, and engineers to consider criteria that range from connectivity to transit access, walkability, bicycle friendliness, and complementary land uses when developing or reviewing project plans. The interdepartmental team is developing new street design guidelines to reflect prioritized trade-offs between all users of the street. The street design guidelines customize transportation solutions to the unique needs of a particular area. The classification of street characteristics is determined by street function, surrounding land uses, preferred design elements, and modal emphasis. The following steps guide Charlotte city staff when they redefine their street design guidelines: (1) define the land use and urban design context; (2) define the transportation context; (3) identify deficiencies; (4) describe future objectives; (5) recommend the street type; and (6) describe and document the trade-offs made when determining the street type and ultimate design.



The public fountain serves as an artistic feature of the Fort Pierce downtown redevelopment.

LEADERS AND PARTNERS

Strong, committed leaders are essential to translating visionary plans into implemented projects. Leaders displayed an effective ability to steer their respective cities into a new direction for development. City mayors and other key officials became political champions for redevelopment projects that markedly strengthened the image of their communities. Partnerships between multiple levels of government, the private sector, and/or the public proved to be essential for a community-wide vision. In all the communities visited by the domestic scan tour team, meaningful public involvement was crucial to the success of the projects. The following themes reveal how communities exhibited leadership and partnership in vital ways:

- Collaborative planning begins with organization.** When separate city, regional, and state planning processes are coordinated, the resulting synergy can far exceed the benefits resulting from a lone agency. The city of Charlotte has institutionalized the integration of land use and transportation planning by creating a corporate strategy and organizational structure that necessitates collaboration both vertically within an agency, and horizontally across different city departments. Representatives of both the planning department and the transportation department participate in every planning and transportation project. Land use planners are assigned to transportation projects, and transportation planners are assigned to planning and land use projects. Charlotte city staff make a concerted effort to be interactive and well-versed in one another's perspectives on major development policies and implementation strategies. In Chattanooga, the collaboration between diverse agencies translates into an emphasis on regular inclusion, information-sharing, and communication. The RiverCity Company project manager, who is the technical lead for the Chattanooga 21st Century Waterfront Plan, held weekly coordination meetings during the 5 months in which schematics for the master plan were being developed. After entering the contracting and bid stage of the project, the weekly meetings were replaced by daily meetings on site or biweekly meetings with the designers.

- **Project allies catalyze progress.** While many redevelopment efforts are stalled by competing community interests, many of the communities displayed ways in which partnerships fostered the implementation of community revitalization schemes. In Chattanooga, the county and the city have partnered on the riverfront revitalization effort by coordinating their leadership and support roles. While the city of Chattanooga leads the Riverfront Parkway redevelopment initiative, the county leads the Riverwalk extension project, which extends several miles from the Riverfront Parkway to the Chickamauga Dam. Both the city and county lend support to the initiatives where the other is leading the effort. In Florida, FDOT and TCRPC actively partnered with the cities of Lake Worth, Delray Beach, and Fort Pierce to create and implement innovative strategies for state-owned roadway corridors. TCRPC provided important consensus building and technical design assistance with visioning and planning, while FDOT provided crucial funding and political support. In Fort Pierce, FDOT made an exception to standard practice and accepted the city's initiative to design the Avenue A roundabout and U.S. Route 1 median, instead of unilaterally mandating a certain type of roadway redesign standard for the state roads. According to the city planner in Fort Pierce, "FDOT has been our best partner."



The final construction of the landscaped median on U.S. Route 1 would have been nearly impossible without the cooperation between FDOT and the city of Fort Pierce.

- **Early coordination enhances the speed and quality of the project.** The approval and design of a project is remarkably enhanced when project leaders consult early and often with the agencies that permit or operate the completed project. The city of Chattanooga partnered with the U.S. Army Corps of Engineers early in the riverfront project development process, thereby speeding the permitting process to completion within 6 months. Similarly, the project designers consulted with the Chattanooga Parks Department and Public Works Department on key design elements that would reduce long-term maintenance and operational costs.
- **A variety of methods can engage the public.** Most of the communities used an extensive and lengthy visioning process to involve a diverse pool of citizens in articulating a new vision for the city. In Lake Worth, the master plan was created in part, by the feedback of a 7-day charrette targeted toward citizens and business owners. The tools used for visualization included before and after drawings and photographs of how Lake Worth could be transformed. Chattanooga has also used public planning processes to address the riverfront redevelopment through the Tennessee Riverpark Master Plan and the 21st Century Waterfront Plan. Chattanooga used a variety of methods to achieve substantive public input, such as goal setting meetings, charrettes, task forces, and multiple committee meetings. Both print and electronic media were helpful in these processes.
- **Responsiveness to public involvement demonstrated.** Projects where communities solicited public feedback and demonstrated results tended to receive wide acceptance. In Chattanooga, the key themes from the public involvement process were understood and acted upon. One result of the Chattanooga public meetings was the redesign of Riverfront Parkway to better meet the goals for the downtown and adjacent areas, including improved pedestrian safety and access. In response to citizen involvement in the creation of a new Public Art Plan, Chattanooga designated \$1.2 million of the 21st Century Waterfront Plan funds to install public art throughout the public space at the waterfront.

- **Funding is leveraged by multiple partners and dynamic political leaders.** In Lake Worth, the Federal Surface Transportation Program (STP) funds for Lake and Lucerne Avenues were augmented by grant funds from the local Keep America Beautiful (KAB) Chapter, which is a national nonprofit organization dedicated to improving local community environments. In Delray Beach, the Downtown Development Authority, CRA, Chamber of Commerce, and the city created the Downtown Joint Venture. The Downtown Joint Venture pools the resources of the member organizations to sponsor joint events intended to market the newly revitalized downtown. In Charlotte, the First Ward project had a public/private financing ratio of 48 percent public funds to 52 percent private funds for the \$437 million cost of the project. The Bank of America CDC secured tax credits to subsidize moderate-income units, while the city of Charlotte invested \$6 million in new streets and a linear park for First Ward.
- **Strong leaders generate and maintain the momentum.** City mayors were crucial leaders within each of the visited communities. City mayors helped to sustain the vision for community revitalization by prioritizing the timely implementation of projects and creating strong partnerships. In Chattanooga, the mayor was a champion for building partnerships with Tennessee DOT (TDOT) and the business community. The \$120 million needed for the major downtown renovation projects, including the Creative Discovery Museum, the expanded park areas, Hunter Museum expansion, and Aquarium expansion could not be financed through the existing city operating funds. While \$56 million from a hotel/motel tax and \$2.6 million in Transportation Enhancement funds from TDOT contributed to cover the total cost, the mayor at the time launched a successful effort to secure these funds from both private and public sources.
- **Continuity of leadership enhances the implementation of a city-wide vision.** Continuity helps to create a stable and predictable investment climate, which private developers are often willing to support. In Charlotte, the mayor has served five consecutive terms in office, allowing Charlotte to enjoy consistency in political leadership over the last decade. The mayor has been a strong proponent of the city-wide development vision, and has been eager to implement planning projects. While the political consistency may not be the lone factor for fostering private investment in Charlotte, it has nevertheless complemented the unified vision and follow-through on promises delivered by the city planning agencies. In Delray Beach, continuity in leadership did not result from the long tenure of one mayor, but from the shared experiences of those who have occupied the political office. Many of the elected officials have had some experience with the CRA and are familiar with the issues and changes of transforming the downtown. Despite changes in city leadership, the shared experience has helped to ensure consistency in the city's vision for redevelopment.



Charlotte's commitment to the South End has bred trust from the private sector. As seen above, new developments have already sprung up next to the vintage trolley line.

CONCLUSIONS AND RECOMMENDATIONS

IMPLEMENTATION STRATEGIES

Change requires persistence, flexibility, and a long-term commitment to action. Once the goal was defined, the communities became solution-oriented in the face of challenges, making pragmatic choices and explicit trade-offs throughout the process. Each of the visited cities pooled the necessary talent and resources to achieve their vision, as described in the following:

- **Policies were changed and incentives implemented to guide redevelopment.**

In Delray Beach, the city successfully increased its density limit for certain downtown locations, which enabled more mixed-use and higher-density development within the downtown. Additional density allotments have been allowed for new developments that meet city criteria, such as providing pedestrian enhancements and public parking. In Lake Worth, the city eased the permitting process for private redevelopment projects that supported the city's vision for owner-occupied, higher-density housing such as townhouses.

- **Pragmatic persistence resulted in creative solutions to obstacles.** In Chattanooga, TDOT guidelines did not allow for TDOT funds to be used for the creation of a pedestrian-friendly urban boulevard with landscaped medians and less than standard highway lane widths on a state road. City staff examined other options and were able to swap some TDOT funds to another proposed project which was slated to be funded with private dollars and use the private dollars to rebuild the state road to the city's desired standards. In another instance, Chattanooga city staff persisted in their efforts to increase appropriate signage even though state regulations prohibited the addition of a way-finding sign system on state roads. Eventually, the state issued a waiver to Chattanooga to allow the city to develop a pilot program for way-finding signs.

- **Timing matters.** Lake Worth submitted its proposal to redesign the high-speed couplet of Lake and Lucerne Avenues at the same time that FDOT began to examine how to implement context sensitive solutions to highway projects. This "coincidence" in timing facilitated better collaboration between the city and FDOT, and led to expediting the reconfiguration of the one-way couplet. In Chattanooga, the timing of project completion greatly affected the fundraising efforts. When the mayor committed to complete certain projects within a few years, potential donors were more easily persuaded to donate funds. The mayor successfully raised the needed funds in record time.



Chattanooga's floating dock will include artistic lighting in response to public input.

The following conclusions and recommendations are based upon the observation, review, and assessment that the domestic scan tour team conducted during and after the visits to Florida, North Carolina, and Tennessee. The following lessons learned reflect the challenges, successes, and knowledge gained by the project staff and stakeholders as conveyed through site visits or extrapolated from observations. The findings of the report are intended to assist communities of all types and sizes and other levels of government or industry that are moving towards increased land use and transportation integration.

- **Seize the opportunity to redefine transportation issues within the vision of community development.** Many of the communities used urban decay and other economic downturns as an impetus for dramatic change within their downtown areas and neighborhoods. "Big picture" thinking can improve the understanding that streets are not just modes to move vehicles. They can also be image makers. The transportation system is one component within the larger urban system. Retrofitting a roadway corridor cannot only enhance mobility and calm traffic, it can also encourage economic development and create a healthier community image. As seen in the Florida, North Carolina, and Tennessee examples, the reconfigured and reconnected streets added new value for those communities.

- **Reclaim space to recreate community image.** Revitalization efforts become an opportunity to bolster a community's character when residents and occupants embrace rather than deny the heritage, culture, and history of the community. Many communities spearheaded their public investment strategies by focusing on enhancing existing assets. Chattanooga embraced its riverfront location and the historical significance of its public areas, while Fort Pierce prioritized the rehabilitation of historic buildings and places where the public could gather.

- **Lead downtown renaissance through public investment.** Public commitment to comprehensive city-wide change creates the greatest incentive for developers to join the city revitalization effort. Innovative solutions to traditional problems establish the tone for redevelopment. The traditional traffic and safety engineering challenges experienced in Florida, and the congestion problems faced in Charlotte were met with creative solutions that addressed the need to recreate the transportation system and land use to meet economic needs. Converting a traditional public works project into a public investment affects the investment climate and signals to the private sector the city's commitment to meeting broader community goals.



What Atlantic Avenue could have been—a high-speed thoroughfare (left). What Atlantic Avenue is today—a bustling, pedestrian-friendly, downtown main street (right).

- **Establish a very clear, visually-oriented master redevelopment plan.** Adopting a specific and easily understood road map or master plan for redevelopment will solidify and unify citizen support for a community vision. A master plan will provide a framework by which development proposals can be judged, encouraging the approval and construction of appropriate buildings and exposing the inappropriateness of others. As a tool for attracting both public and

private investment, a master plan can build a sense of certainty among existing residents and new investors, thereby marketing the city as a desirable place to live and work.

- **Anticipate and guide development.** As the plan and vision are being established, identify actions and policies that need to be changed or established in order to address the multifaceted needs of a comprehensive master plan. It is important to carefully review zoning and building codes for prohibitions of physical design elements that may actually contribute to the city's vision. Establishing design guidelines at the outset can foster the kind of growth desired by the city, as seen by Charlotte's street design guidelines initiative. Additionally, purchasing land within the town or establishing another method to retain some affordable housing within the downtown is an important consideration to make early in the process. The city of Delray Beach was surprised when its downtown housing was quickly sold out, and the market value of housing increased dramatically. The city's CRA has embarked on an ambitious land acquisition program to ensure that opportunities remain available for the creation of affordable housing. Retaining control over strategic pieces of land allows the city agency to influence development so that it fits into the vision of community.
- **Consider regional factors on a city project.** Many of the partnerships behind the successful implementation of projects are a result of city planning staff looking beyond the immediate city borders to include the expertise and assistance of regional organizations. Tapping into the resources of regional agencies such as the local MPO by obtaining federal funding for a local transportation project is one advantage of a wider regional perspective. In Florida, TCRPC was a vital partner in producing technical designs for the master plans of the downtown.
- **Collaborate as a rule, not as an exception.** A development decision that truly integrates land use and transportation impacts can only result from the integration of the two processes. The planning process for transportation efforts, and the planning process for land uses should be coordinated—whether through an integration of planning and design processes, as seen in Charlotte, or through regular contact and communication, as seen in Chattanooga. The timing of coordination is also key. For development projects, it is important to coordinate early with the public agencies that will affect the development process or the maintenance of the completed project, as in the case of Chattanooga's coordination with the permitting departments.

- **Recruit and maintain active participation from the community and political leadership.** A bold vision can only be as transformative as the support and buy-in from key stakeholders allows. Each stage of the visioning, planning, and implementation process should be as transparent as possible to the public, in addition to being comprehensive and involving a diverse pool of citizens.
- **Agree on a common vision, then negotiate outcomes.** Projects can often progress when agreement on project goals is prioritized. Negotiating the details of implementation will be most successful when the overall vision is agreed upon. Often, when traffic engineers may desire an immediate fix to traffic problems, and planners want to address broader community issues over the long term, a contentious environment can result. The communities visited demonstrated the ability to manage initial, opposing viewpoints and to negotiate decisions that reflected the consideration of all major issues. The Charlotte example demonstrates that the documentation of trade-offs and compromises is crucial. Whenever a significant design decision is made, Charlotte staff members are expected to document the specific trade-offs in order to keep a public record of the decision-making process and rationale for the final outcome.
- **Act first, then adjust to sustain momentum.** Once the vision and conceptualization of the plan has been established, persist when confronted with implementation challenges. Tackle long-term policies that impede local development moving in the direction of the new vision for the community. If rules and regulations for a community are obsolete and no longer support the new vision, those rules and policies should be changed. In the meantime, advance the vision however possible and adjust later. Each action cannot always be stalled for the conditions to perfectly meet the specific needs of a project. Often, demonstrating early successes within a long-term project are crucial to the future success of the project as a whole. The city staff of Lake Worth recognized that certain actions needed to be taken to begin their redevelopment project, regardless of what appeared feasible at the time.
- **Unite behind a common vision but maintain flexibility.** One of the challenges to integrating land use and transportation is the tension between conveying prescriptive guidelines to developers to exercise tight design control, and allowing innovation which may achieve the community's vision more effectively and efficiently. It is preferable to foster good development choices through a system of incentives, without relying purely on regulation.
- **Revisit and reexamine.** The process of integrating land use with transportation requires tracking efforts to determine if the desired outcome has been achieved or if adjustments should be made. City staff in many of the visited communities readily state that they are continuously learning and evaluating their progress. They take the time to revisit the finished product to assess it for its effectiveness. By periodically reexamining the appropriateness of project processes, decisions, and outcomes, unintentional consequences that become apparent over time may be better mitigated, or even avoided. Thoughtful reflection after the completion of a project is essential to maintaining dynamism in a community's growth.



Downtown Fort Pierce continues to experience private investment following the city's public investments.

AMPLIFYING QUESTIONS

A set of amplifying questions was provided to each community to review before the domestic scan tour team visit. The domestic scan tour team developed questions that would address project details, processes and outcomes, stakeholder and public involvement issues, and potential opportunities for technical assistance from members of the team. During the site visits, communities were encouraged to expound upon project details or concepts that would effectively illustrate their practices, successes, and lessons learned.

A. Project Description (“Project” includes planning and design activities, adoption of new/revised planning/design codes, etc., as well as physical changes to the community)

1. Context: community demographics, economy (e.g., high-growth area, built-out, etc.)
2. Type of project
3. Origins
4. Project sponsors and stakeholders
5. Goals and objectives of the project
6. Funding and budget
7. Current status
8. How is the activity/project to be evaluated? How might the project be adjusted or revised based on that evaluation?

B. Experiences

1. What do you consider the major successes of the project?
2. What were the most crucial elements that helped make the project work?
3. What unexpected issues, events, and/or results have come out of the project?
4. What were the major challenges/obstacles in undertaking this project?
5. Are there missing elements that make the project less than it can be?
6. What lessons have you learned that you would like to share with others facing similar situations?

C. Public Involvement/Community Support

1. Who was involved in the project?
 - a. MPO for the region?
 - b. State DOT?
 - c. Transit Operators?
 - d. Other transportation agencies?
 - e. Local government?
 - f. Private sector?
 - g. Members of the public, neighborhood associations, local business groups, other organizations?

2. How were they involved?
3. How were groups and individuals identified and drawn into the process?
4. What public involvement tools were most effective?
5. What was discovered through the public involvement process?
6. How did public input affect the process of developing the project and the implementation of the project?
7. Were all of the appropriate groups engaged or at least given the opportunity to participate? If not, what groups/individuals were missing or chose not to participate?
8. How were local officials involved? Who were the advocates of the project? Was there any focused and significant opposition? If so, how was that addressed?
9. If you had to redesign the public involvement process now, what would you do differently?

D. Outcomes

1. What has been accomplished? How were the initial goals of the project accomplished? Were new goals identified and adopted as the project advanced?
2. Is the project considered a success? By whom? If so, why? If not, why not? What would make it a success?
3. What are the next steps? What else may be changed or may be needed to advance this project and fully take advantage of what it has produced?
4. What other projects or activities have been generated by or through this project? Has it created a synergistic effect with other projects or activities in the community? Have any laws, regulations, organizational structures or major policies changed or been created as a result of this project?
5. To what extent has this project contributed to the increased integration of transportation and land use planning?
6. If unintended outcomes have resulted from this project, how have they been addressed, resolved, or made use of?
7. What, if any, system of monitoring and/or evaluation is in place?
8. What has the project evaluation revealed?
9. If you had to do the project again, what would you do differently?

E. Technical Assistance/Policy Guidance

1. Can the domestic scan tour team provide any technical assistance to you or your community during the visit? If so, please describe the type of assistance needed.
2. Can the domestic scan tour team provide any policy guidance to you or your community during the visit? If so, please describe the type of policy guidance needed.
3. What training do you recommend that FHWA develop and/or provide to communities to assist in better integrating transportation and land use planning?

PRINTED AND WEB-BASED MATERIALS

The following is a list of printed materials, presentation materials, and Web sites collected during the domestic scan tour and used as reference for this report.

Lake Worth, Delray Beach, Fort Pierce, Florida

- “Delray Beach: Downtown Revitalization by Community Collaboration.” *Newsletter of the Florida Chapter, American Planning Association*. July 2003.
- *Fort Pierce, Florida: Tradition and Innovation*. Available at: www.cityoffortpierce.com.
- *Martin and St. Lucie County Regional Land Use Study*, Issue 3. June 2003.
- Nowak, Gene and Ray Smith. “*The Lake Worth Story*.” *Transportation Policy Forum*, Volume 31, Number 8. August 1998.
- Schulman, Ellen. “Diversity in Delray Beach: Redeveloping a Community Through Cooperation.” *Delray Beach Magazine*. March/April 2003. Available at: www.gulfstreammediagroup.com.
- Trias, Ramon. *Fort Pierce: A Glimpse at the Future*.

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Charlotte, NC

- “Charlotte’s Path to Growing Smarter: Integrated Land Use and Transportation Planning Processes.” Presentation by Norm Steinman, Charlotte Department of Transportation Planning Division, November 5, 2003.
- Cramton, Martin R., Jr. *Sustainable Development: Integrating Land Use and Transportation Decisions*. Charlotte-Mecklenburg Planning Commission. August 2003.
- Cramton, Martin R., Jr. *A Sustainable Development Choice: Charlotte Region*. Charlotte-Mecklenburg Planning Commission. August 2003.
- “First Ward Street Design.” Presentation by Laura Harmon, Charlotte-Mecklenburg Planning Commission. November 5, 2003.

- *I-485 Interchange Analysis: Detail Report of Existing Conditions and Recommendations.* Developed by staff from the Charlotte-Mecklenburg Planning Commission; Charlotte Department of Transportation; Towns of Huntersville, Matthews, Mint Hill, and Pineville; Cabarrus County; Union County; Mecklenburg County; and the Mecklenburg-Union Metropolitan Planning Organization. October 1999.
- “The Road Not Taken: A New Direction for Charlotte’s First Ward,” First Ward tour materials, Charlotte-Mecklenburg Planning Commission, 2003.
- Waterfill, Dorothy and Karen Doyle. *Historic South End. Charlotte’s South End: The Early Years.*
- Other South End information available at www.historicsouthend.com.

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Chattanooga, TN

- Transportation and Urban Design Plan for: Chattanooga Riverfront Parkway. May 2001.
- 21st Century Waterfront Plan. May 2002. Available at www.rivercitycompany.com.

For copies of these documents, contact:

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Phil Lynn, City Engineer, Public Works
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Linda Osten is a Principal Planner with the Capitol Region Council of Governments (CRCOG), which serves as a regional planning organization (RPO) and metropolitan planning organization (MPO) for the Hartford, CT region. Ms. Osten has been with CRCOG for 5 years working in the Community Development Department. She is currently the Project Manager for the New Britain/Hartford Bus Rapid Transit Station Area Planning project. Prior to this, she spent 2 years as the manager of a FHWA Transportation, Community, and System Preservation (TCSP) project that examined the public definition of livable communities. In addition, Ms. Osten is President of the Board of the Mutual Housing Association of Greater Hartford, a non-profit developer and provider of affordable housing, and Vice President of the Coalition To Strengthen The Sheldon/Charter Oak Neighborhood, the neighborhood revitalization organization for her neighborhood in Hartford. Ms. Osten received a Master of Community Planning (M.C.P.) from the University of Rhode Island and a Bachelor of Arts (B.A.) in Economics from Smith College.

Robin Smith is a Transportation Planner with FHWA, Office of Planning, and works out of the FHWA office in Lakewood, Colorado. Currently, Ms. Smith's responsibilities include assisting FHWA field offices with transportation planning certification reviews for large metropolitan planning organizations, providing technical and policy guidance on federal transportation planning requirements and practices, managing projects and studies concerning Smart Growth/Sustainable Development and the integration of land use and transportation activities, acting as a liaison between FHWA headquarters and planners in FHWA field offices in several western states, and coordinating with FTA staff on joint transportation planning activities and concerns. Ms. Smith has 20 years of planning experience with FHWA, ranging from serving as a Metropolitan Transportation Planner for the Colorado Division, to working as an Air Quality Specialist for Region 8. Ms. Smith received a Master of Regional Planning (M.R.P.) from the University of Michigan and a Bachelor of Science (B.S.) in Resource Development from Michigan State University.

Robert Simpson is Community Development Director for Englewood, Colorado, a first-tier Denver suburb. His work in Englewood includes redevelopment of the obsolete Cinderella City shopping mall into a mixed-use commercial transit-village, redevelopment of the defunct industrial General Iron Works steel mill into a mixed-use residential transit-village, South Broadway commercial corridor revitalization and other redevelopment, housing, and economic development projects. With 20 years of real estate, economic development, and planning experience, Mr. Simpson has been recognized for his contributions with awards from the American Institute of Architects, American Planning Association (APA), US Department of Commerce and the U.S. EPA National. Mr. Simpson also serves as an adjunct professor in planning and land use at Metropolitan State University, and contributes research to the Urban Land Institute (ULI) and the Congress for the New Urbanism. Mr. Simpson received a Master of Public Administration (M.P.A.) from the University of Colorado at Denver, a Bachelor of Environmental Design (B.E.D.) and a Bachelor of Science (B.S.) in Business from the University of Colorado at Boulder.

John Thomas is a transportation planner for the Utah Department of Transportation (UDOT). Mr. Thomas works on a variety of transportation planning issues, including corridor studies, small area plans, the statewide Long Range Plan and coordination with Metropolitan Planning Organizations (MPOs). Mr. Thomas has focused primarily on public involvement, needs-based project selection, and multi-modal strategies that have included planning for intelligent transportation systems (ITS), rest areas, freight, travel demand management (TDM) strategies, and bicycle/pedestrian issues. Prior to joining UDOT, Mr. Thomas worked on the Transportation Master Plan for the communities of Nogales, AZ and Jackson, WY. Mr. Thomas completed coursework for a Master of Civil Engineering (M.C.E.) from the University of Arizona and received a Bachelor of Science (B.S.) in Civil Engineering from the University of Wyoming. Mr. Thomas is a member of the Institute of Transportation Engineers (ITE).

Felicia B. Young has 22 years of experience in transportation and community development at the national, federal, and local level. Ms. Young currently manages the Transportation and Community and System Preservation Program (TCSP) in FHWA's Office of Planning, Environment and Realty based in Washington, DC. The TCSP is currently a \$457 million program that provides grants to states, MPOs, and local governments to plan and implement multi-modal projects that enhance the livability of communities. Ms. Young is responsible for developing and implementing the joint FHWA/FTA Transportation Planning Excellence Awards Program. Ms. Young also coordinates her office's transportation and land use planning initiatives. During her tenure with FHWA, she has also managed strategic planning, congestion pricing, and transportation research initiatives. Prior to joining FHWA, Ms. Young served as the Assistant Director for Policy and Implementation for the Surface Transportation Policy Project and was a Senior Transportation Planner at the District of Columbia Department of Public Works. Ms. Young received a Master of City and Regional Planning (M.C.R.P.) from Howard University and a Bachelor of Science (B.S.) in Community Development from Pennsylvania State University.

